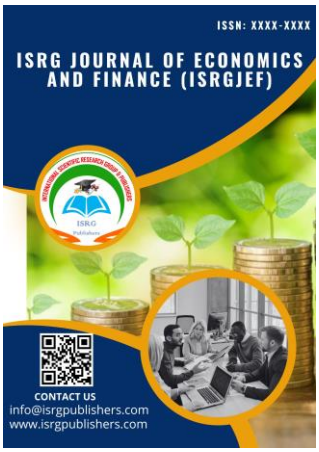
ISRG JOURNAL OF ECONOMICS AND FINANCE (ISRGJEF)

ISRG PUBLISHERS
Abbreviated Key Title: ISRG J Econ Fin.
ISSN: 3048-6998 (Online)
Journal homepage: https://isrgpublishers.com/isrgjef-2/
Volume – 1 Issue - 4 (November-December) 2024
Frequency: Bimonthly



Impact of Financial Securities on Economic Growth in Nigeria

El-Yaqub, Ahmad B.[1*], Yahaya Ismail[2], Bappayo, Masu Gombe[3]

[1, 2, 3] Department of Economics University of Abuja

| **Received:** 26.11.2024 | **Accepted:** 30.11.2024 | **Published:** 09.12.2024

***Corresponding author:** El-Yaqub, Ahmad B.
Department of Economics University of Abuja

Abstract

This study examines the impact of financial securities on economic growth in Nigeria from 1990-2022. The study employed endogenous growth model theory using the autoregressive distributed lag model estimator to establish the long run and shortrun dynamic impact of monetary policies on economic growth in Nigeria. The variables employed in this study are GDP growth, government stocks, corporate bonds and equities. The findings reveal that a non-significant long-run negative relationship existed between government securities (GSEC) and economic growth in Nigeria in the longrun. In the short run, while the immediate effect of changes in GSEC is negative but insignificant, a significant negative impact emerges from the second lag of GSEC. The analysis reveals that corporate bonds (CBOND) has a positive impact on economic growth in the longrun. While in the shortrun, the first lag showed a negative significant impact on economic growth but changed to positive significant impact in the second lag. Equities (EQT) demonstrate a significant positive impact on Nigeria's economic growth in the longrun, the current period and lagged effects of equity investment contribute to growth in the shortrun. Based on the ARDL long-run regression analysis, it is recommended that Nigeria optimize the use of financial securities government stocks, corporate bonds, and equities to bolster economic growth. Enhancing debt management practices, diversifying funding sources, and setting favorable interest rates can help manage government stocks effectively. Additionally, incentivizing corporate bond issuance, boosting market confidence, developing a secondary market, and promoting long-term equity investment, along with risk mitigation strategies, can strengthen the financial securities market and potentially support economic growth.

Key Words: Financial Securities and Economic Growth

1.1. Introduction

Financial securities, including government and corporate bonds as well as equities, are instrumental in promoting economic growth by enhancing capital allocation, risk management, and liquidity in financial markets globally (El-Yaqub, 2021). Historically, these markets have been key drivers of economic expansion by allowing businesses to raise capital for growth and investment initiatives. Levine (2005) argues that efficient capital markets enhance economic performance through improved resource distribution, better corporate governance, and encouragement of technological innovation. Various empirical studies confirm that deep and liquid financial markets play a significant role in fostering productivity and driving investments, both of which are crucial for accelerating economic growth (Beck, Demirgüç-Kunt, & Levine, 2010).

The increasing globalization and integration of financial markets in the late 20th century expanded the availability of financial securities, giving companies greater access to international capital (El-Yaqub, Usman, Musa & Ismail, 2024). This access has enhanced market liquidity, reduced transaction costs, and improved risk-sharing mechanisms, all of which have contributed to economic growth in many countries (Obstfeld & Rogoff, 2009). However, the global financial crisis of 2008-2009 highlighted the risks associated with these markets, particularly when financial systems are poorly regulated. Although financial securities are crucial for growth, inadequate oversight can lead to instability, which negatively impacts economic performance (Stiglitz, 2010).

Equity markets, in particular, are vital in supporting economic growth by providing firms with long-term capital to finance projects, expand operations, and innovate. Rajan and Zingales (1998) observe that countries with more developed equity markets tend to experience faster economic growth, as these markets enable efficient allocation of resources. Furthermore, equity markets support entrepreneurial ventures by giving investors opportunities to invest in high-growth companies and startups, fostering innovation and economic development (La Porta et al., 1997). However, the volatility of these markets can hinder economic progress, as significant fluctuations in market value can lead to investor uncertainty and wealth losses.

Another critical aspect of financial securities markets is liquidity, particularly in equity markets, where liquidity enables the trading of assets without causing substantial price changes (*El-Yaqub, Musa, &* Magaji, 2024). High liquidity lowers the cost of capital and reduces uncertainties surrounding future cash flows, which bolsters investor confidence and stimulates economic growth (Levine & Zervos, 1998). However, the volatility inherent in equity markets can also lead to sudden market downturns, diminishing investor confidence and harming economic stability. Ensuring a stable regulatory environment is essential to minimizing these risks and maximizing the positive contributions of equity markets to economic development (Mishkin, 2007).

Government and corporate bonds play a crucial role in providing funding for both public and private sector projects that drive long-term economic growth (El-Yaqub, Ismail & Eke, 2024). Government bonds finance essential public investments, while corporate bonds allow firms to fund long-term initiatives without diluting ownership (Fischer, 1993; De Fiore & Uhlig, 2011). Well-developed bond markets enhance economic resilience, particularly during financial crises (Eichengreen & Luengnaruemitchai, 2004). However, excessive government borrowing and underdeveloped corporate bond markets, especially in Nigeria, limit the potential of these financial securities to foster economic growth (Okoye, Erin, & Akenbor, 2016).

This study aims to investigate the effects of financial securities on economic growth in Nigeria, focusing on three key financial instruments: government stocks, corporate bonds, and equities. The specific objectives of the research are to examine the impact of each of these financial securities on Nigeria's GDP growth over the period from 1990 to 2022. The significance of this study lies in its ability to address both theoretical and practical gaps in existing literature. While earlier research, such as Levine (2005), highlighted the broader role of financial market development in capital allocation and economic growth, and Akinlo & Akinlo (2007) discussed the role of financial market growth in the Nigerian context, these studies did not provide a focused analysis of individual financial instruments. By disaggregating the effects of government securities, corporate bonds, and equities, this study will provide more specific insights into how each financial security type contributes to Nigeria's economic performance, thereby adding to the existing body of knowledge and offering clearer policy guidance.

The Nigerian financial market has grown significantly since the early 1990s, offering various financial instruments for public and private sector financing (El-Yaqub, Usman, Musa & Ismail, 2024). Studies like Nwaogwugwu & Ogege (2016) observed that government securities have typically been used to finance public deficits, while equities and corporate bonds have served as alternative capital-raising tools. However, existing literature, such as Ujunwa & Salami (2010), tends to focus on stock market development without distinguishing the individual roles of government securities and corporate bonds in economic growth (*El-Yaqub, Musa*, Magaji, & Ashemi, 2023). This research aims to fill this gap by analyzing the distinct impacts of these financial instruments on Nigeria's GDP. Using the Autoregressive Distributed Lag (ARDL) model, the study will capture both short- and long-term effects, offering a more robust analysis of the evolving role of financial securities from 1990 to 2022. By exploring this time frame, which includes periods of financial reforms and crises, the study provides a comprehensive understanding of the role of financial securities in shaping Nigeria's economic landscape.

2.0. Literature Review and Theoretical Framework

2.1. Conceptual Review

2.1.1. Financial Securities

Financial securities refer to marketable instruments used for raising capital, either through ownership or debt obligations, playing a key role in channeling savings into productive investments in an economy. In Nigeria, the major financial securities include government bonds, corporate bonds, and equities. These instruments serve as vital tools in driving economic growth by enhancing liquidity, improving the allocation of resources, and reducing transaction costs. As emphasized by Levine (2005), the development of diversified financial markets boosts capital efficiency and supports long-term investments in crucial sectors such as infrastructure and technology. By facilitating the issuance of securities, financial markets empower both the private and public sectors to access capital for investments, thereby contributing to sustainable economic growth.

Government securities, such as Treasury bills and bonds, provide a low-risk investment opportunity for investors while helping the

government finance development projects. These securities are essential not only for budgetary purposes but also for establishing a risk-free benchmark in the financial market, which aids in effective monetary policy management (Onoh, 2017). On the corporate side, bonds allow companies to raise funds for capital-intensive projects without relinquishing ownership control, offering a valuable alternative to equity financing. Despite challenges in market development, a functional corporate bond market has the potential to lower capital costs for firms and spur private-sector growth, as noted by Ezeoha, Ogamba, and Ayodele (2009). Similarly, equities provide companies with debt-free financing while giving investors opportunities to benefit from dividends and capital gains, promoting innovation and improving corporate governance (Demirgüç-Kunt & Levine, 1996).

2.1.2. Economic Growth

2.2. Theoretical Review

2.2.1. Endogenous Growth Theory

Endogenous growth theory or new growth theory was developed in the 1980s by Rebelo, (1991, quoted in Iwedi et al., 2015), among other economists as a response to criticism of the neo-classical growth model. The endogenous growth theory holds that policy measures can have an impact on the long-run growth rate of an economy. The growth model is one in which the long-run growth rate is determined by variables within the model, not an exogenous rate of technological progress as in a neoclassical growth model. Jhingan (2006), explained that the endogenous growth model emphasizes technical progress resulting from the rate of investment, the size of the capital stock and the stock of human capital. In an endogenous growth model, Nnanna, Eglama & Odoko (2004) observed that financial development can affect growth in three ways, which are: raising the efficiency of financial intermediation, increasing the social marginal productivity of capital and influencing the private savings rate. This means that a financial institution can affect economic growth by efficiently carrying out its functions, among which is the provision of credit.

2.2.2. Supply-Lending and Demand-Following Hypothesis

The influence of financial securities on Nigeria's economic growth has garnered considerable attention from scholars, with two primary theories: the supply-leading and demand-following hypotheses. The supply-leading hypothesis suggests that the development of financial institutions fosters economic growth by improving economic efficiency, mobilizing savings, and enhancing capital accumulation (Schumpeter, 1911). This theory is further supported by studies such as Karimo and Ogbonna (2017), which identified a positive link between financial development and growth. Conversely, the demand-following hypothesis argues that financial sector growth is a response to economic activities, as financial institutions expand to meet the needs of the economy (Robinson, 1952). This view is affirmed by Patrick et al. (2015), who noted that increased economic demand propels financial market expansion. In Nigeria, the introduction of financial securities like stocks and bonds has been pivotal in driving growth by offering alternative investments and boosting capital accumulation (Alile and Anao, 1999; Adegbaju and Olokoyo, 2003). However, issues such as weak financial infrastructure and limited financial inclusion continue to hamper the sector's potential (Nigeria Economic Summit Group, 2019). To overcome these challenges, further reforms are needed, as highlighted by the African Development Bank (2022), which emphasizes enhancing financial literacy and improving SME access to finance.

2.3. Empirical Review

El-Yaqub, Musa and Ismail (2024) investigates the effects of monetary policy on economic growth in Nigeria from 1986-2021 using autoregressive distributed lag (ARDL) as methodology. Findings from the study indicate thatthe monetary policy's short- and long-term effects on Nigeria's economic growth were estimated using Autoregressive Distributed Lag (ARDL) bound co-integration, which revealed a long-term association. Additional estimation results indicated that Nigeria's economic growth was impacted by monetary policy. The Vector Error Correction Model (VECM) result indicates that LM2 and LEXC have a little greater effect on GDP growth in a shorter amount of time than LBCP and INT. Similarly, over a longer period, LM2 and LEXC have a much greater impact on GDP growth than INT and LBCP. The examination of the results indicated that the monetary policy measures implemented by the Central Bank of Nigeria had a noteworthy effect on the economic growth of the country. Thus, it is advised that the Central Bank of Nigeria lift the limitations on lending to the private sector, which can support an economy. By promoting the creation of interest rate and currency rate regimes that are based on the market, monetary policies should be used to promote investment from both domestic and international sources.

Omankhanlen et al. (2022) explored the relationship between financial development and economic growth in Nigeria, focusing on the period from 1990 to 2019. Their research examined the effects of market capitalization, money supply, and private sector credit on Nigeria's economic growth using data sourced from the Central Bank of Nigeria (CBN) and analyzed with the Autoregressive Distributed Lag (ARDL) model. They found that while market capitalization and money supply had a strong positive impact on economic growth, private sector credit was inversely related to growth, though the relationship was statistically insignificant. Their recommendation emphasized the importance of maintaining macroeconomic stability, reducing non-performing loans, enhancing corporate governance, and improving risk management in the financial sector (Omankhanlen et al., 2022).

In a study by Yusau & Umoru (2022), the authors examined how the capital market influences economic growth in Nigeria from 1985 to 2019. Using the ARDL model and analyzing data on variables such as equity, government stocks, and foreign direct investment, the researchers discovered a significant long-term positive relationship between economic growth and capital market indicators like equity and government stocks. However, foreign direct investment, bonds, and preference shares showed a negative but insignificant relationship with growth. The study recommended that Nigeria should encourage private companies to access the equity market and tackle insecurity to boost investor confidence (Yusau & Umoru, 2022).

Temile et al. (2022) conducted a comparative analysis of the Nigerian and South African stock exchanges, focusing on their influence on economic growth from 1995 to 2016. The study utilized statistical techniques such as Least Squares Regression and the Johansen Co-integration test, finding that stock market indicators like turnover and openness positively impacted economic growth in both countries. The co-integration test revealed a long-term relationship between stock market performance and growth. Based on these findings, the authors recommended that governments in both countries strengthen regulatory frameworks to enhance investor confidence and promote sustainable growth (Temile et al., 2022).

Bello et al. (2022) reviewed the relationship between capital market performance and economic growth in developing countries between 2012 and 2022. By using a qualitative approach, the study highlighted inconsistencies in empirical findings, with approximately 30% of studies producing results that did not align with theoretical expectations. The authors suggested that these inconsistencies could stem from varying methodologies used in different studies. They recommended that efforts should focus on encouraging domestic capital formation and harmonizing research approaches to achieve consistency in the literature on capital markets (Bello et al., 2022).

Akindipe (2022) investigated the moderating role of financial development on the relationship between foreign direct investment (FDI) and economic growth in Nigeria from 1981 to 2021. Using the Dynamic Ordinary Least Squares (DOLS) method, the study found that while FDI alone negatively affected economic growth, its interaction with financial development yielded positive growth effects across various sectors. The findings led to the recommendation that the Nigerian government should focus on enhancing financial development to maximize the benefits of FDI (Akindipe, 2022).

3.0. Methodology

3.1. Research Design

This research study empirically examined the impact of financial securities on gross domestic product in Nigeria. Research design according to (Onwumere, 2005) is a of blue print that guides the researcher in the investigation; a format which the researcher employs in order to systematically apply the scientific method in the investigation of the problem. Also, (Asika, 2006), describes research design as the structuring of investigation aimed at identifying variables and their relationship to one another.

This research employed analytical research design because they are advantageous for assessing large and small populations especially where a small population is to be derived from a large one (Onwumere, 2005). It relied on past data which have a common feature of an ex post-factor research. It aims at determining and measuring the relationship between one variable and another or the impact of one variable on another, in which the variables involved are not manipulated by the research.

The research design entails time series data analysis through model specification. The researcher specified a multiple regression model estimated using the Auto Regressive Distributed Lag ARDL Model technique. The estimation covered the period from 1990 to 2020, the secondary data used were obtained from the CBN statistical bulletin for various years and the World Bank data bank. The data series were analysed using Econometric view (E-view) version 10.0 to establish the relationship between the dependent variable (gross domestic product) and the explanatory variables (government securities, corporate bonds and securities). Thus, the research design is consistent with the objective of the study.

3.2. Model Specification

This study is based on the theoretical framework of endogenous growth theory. This research study adopted the model specified from the work of Akintola, et al. (2022) on financial sector development and economic growth in Nigeria's, specified below as:

$RGDPG_t = f(FD_t, MPR\_IBCR_t, ASI_t, LMC_t, USD\_BDC_t, \mu_t)$ (1)

Where: RGDPG: Economic growth, FD: Financial Deepening, MPR_IBCR: Short-Interest rate spread, ASI: All Share Index, MC: Market Capitalisation, and USD_BDC: Exchange rate spread. This study introduced government securities, corporate bonds and securities to replace Financial Deepening, short term Interest rate spread, All Share Index, Market Capitalisation and Exchange rate spread.

Thus, the new specified model for this study is expressed as follows:

$$GDGRP_t = f(GSEC_t, CBOND_t, EQT_t, \mu_t) \quad (2)$$

The econometric form is specified as follow:

$$GDPGR_t = \alpha + \beta GSEC_t + \delta CBOND_t + \gamma EQT_t + \mu_t \quad (3)$$

Where: GDPGR: Gross domestic product growth rate (proxy for GDPGR); GSEC: Government Securities; CBOND: Corporate Bonds; EQT: Equities; μ: is the disturbance term which captures other factors having impact on the explained variable not captured in the specified model; α: intercept parameter; β, $\boldsymbol{\delta}$, $\boldsymbol{\gamma}$: are slope parameters which measure the impacts of the explanatory variables on the explained variable.

The research instruments adopted in this study are the Philip Perron (PP) unit root test, ARDL cointegration Test, Error Correction Model and Normality test for normality proposed by Brown, Durbin & Evans (1975) to estimate the equation. This study employed ARDL bounds testing technique introduced by Pesaran, Yongcheol & Smith, (2001) to determine the long-run relationships between exchange rate volatility and GDPGR in Nigeria. An ARDL bound testing procedure has several advantages over other cointegration approaches. The ARDL bounds testing framework is expressed as follows:

$$\Delta GDPGR_t = \alpha + \sum_{i=1}^{n} \theta_i \Delta GDPGR_{t-1} + \sum_{i=0}^{n} \beta_i \Delta GSEC_{t-i} + \sum_{i=0}^{n} \delta_i \Delta CBOND_{t-i} + \sum_{i=1}^{n} \gamma_i \Delta SEC_{t-1} + \lambda_1 GDPGR_{t-1} + \lambda_2 GSEC_{t-1} + \lambda_3 CBOND + \lambda_4 SEC_{t-1} + \mu_t \quad (4)$$

Where Δ is the first difference operator, n is the lag length (n=1), $\boldsymbol{\mu_t}$ is the white noise error term. The parameters θ, β, $\boldsymbol{\delta}$ and $\boldsymbol{\gamma}$ are the short run dynamic coefficients, while the parameters $\boldsymbol{\lambda}_1$, $\boldsymbol{\lambda}_2$, $\boldsymbol{\lambda}_3$ and $\boldsymbol{\lambda}_4$ are the corresponding long-run multipliers of the ARDL model.

The estimation of a dynamic equation in the levels of the variables is problematic and differencing is not an alternative, because information about the long run is lost. A more suitable approach is to convert the dynamic model into an error correction model (ECM). The ECM provides information concerning the long run and short run properties of the model and the disequilibrium as a process of adjustment to the long-run model (Harris & Sollis, 2003). Thus, the ECM of the ARDL is presented below:

$$\Delta GDPGR_t = \alpha + \sum_{i=1}^{n} \theta_i \Delta GDPGR_{t-1} + \sum_{i=0}^{n} \beta_i \Delta GSEC_{t-i} + \sum_{i=0}^{n} \delta_i \Delta CBOND_{t-i} + \sum_{i=1}^{n} \gamma_i \Delta SEC_{t-1} + + \psi ECM_{t-1} \quad (3.8)$$

Where $\boldsymbol{\psi}$ is the parameter of the error correction term, which measures the speed of adjustment of the error correction term.

3.3. Variable Measurement and Discussion

Gross domestic product (GDPGR): is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. it is measured in billions of naira. From reviewed and existing literatures, it is expected to have a negative impact on unemployment rate (Ozei,

Sezgin & Topkaya, 2013). This variable is expressed in terms of the annual growth rate.

Government stocks, also known as government bonds, are debt securities issued by a government to finance its operations and raise capital for various purposes. The issuance of government stocks can have both positive and negative impacts on economic growth, as it can provide a source of funding for infrastructure projects and stimulate economic activity, but also increase the national debt and lead to inflation (World Bank, 2022). Effective management of government stocks is crucial to minimize their negative impacts and maximize their contributions to economic growth (International Monetary Fund, 2020). A balanced approach to government stock issuance and management can help promote sustainable economic growth and development (Organization for Economic Cooperation and Development, 2019). It is expected to have a positive impact on gross domestic product.

A corporate bond is a debt security issued by a company to raise capital, with the promise of regular interest payments and return of principal investment. Corporate bonds play a crucial role in economic growth by providing companies with access to capital for expansion and innovation, leading to job creation and increased productivity (World Bank, 2020). A well-developed corporate bond market can also reduce reliance on bank financing, improving financial stability and resilience (IMF, 2019). By channeling savings into productive investments, corporate bonds can contribute to sustainable economic growth and development (OECD, 2019). CBOND is expected to have positive impact on gross domestic product.

Equities, also known as stocks or shares, represent ownership interests in a company and entitle shareholders to a portion of the company's profits and assets. They are a crucial financial security used to measure the health and performance of a company's stock market presence and can significantly influence economic growth by mobilizing capital for business expansion, thereby stimulating economic activity (Miller & Modigliani, 1961). In Nigeria, equities are measured by market capitalization, which reflects the total value of outstanding shares, and by stock market indices that track the performance of a selected group of stocks (Ogunleye, 2019).

3.4. Nature and Sources of Data

To empirically investigate the impact of impact of financial securities on gross domestic product in Nigeria, the study used secondary data, sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, 2022. Government securities, corporate bonds and securities were sourced from the CBN. Secondary data were used for this study because it is considered to be the most appropriate method for the needed information ranging from 1990-2022. However, this has been chosen among other instruments of data collection as the basic method of collecting data for this time series study. Again, secondary data has some added advantages over other methods, it saves time and it is cost effective.

3.5. Estimation and Evaluation Techniques and Procedure

The research instruments adopted in this study are the Philip Perron (PP) unit root test, ARDL cointegration Test, Error Correction Model and Normality test for normality proposed by Brown, Durbin & Evans (1975) to estimate the equation.

3.6. Unit root test

In modelling a time series data, it is imperative that the nature of the individual series be examined to avoid spurious regression in the estimation of the data series since the properties of individual series have to be considered in modelling the data generation process of a system potentially related variables of the dynamic econometric model (Lutkepoh & Kratzig, 2004).

Also, unit root testing was used to ensure that none of the variables is integrated of order two or higher since ARDL bounds testing framework is only applicable in case of variables or combinations of the two. Thus, the Philip Perron test (1989) was applied due to its obvious advantage over the Augmented Dickey Fuller (ADF) test.

3.7. Cointegration Test

This study employed ARDL bounds testing technique introduced by Pesaran, Yongcheol & Smith, (2001) to determine the long-run relationships between exchange rate volatility and GDPGR in Nigeria. An ARDL bound testing procedure has several advantages over other cointegration approaches.

Firstly, this procedure can be applied regardless of whether the underlying regressors are integrated of order one (I[1]), order zero (I[0]) or mutually cointegrated. Secondly, the approach produces robust results even in cases of small sample sizes. It also has finite-sample critical values compared to other cointegration techniques for which the distribution of the test statistics may be unknown in finite samples. In addition, this technique generally provides unbiased estimates of the long-run model and valid statistics even in the presence of endogenous regressors (Pesaran, Yongcheol & Smith, 2001).

The existence of a long-run relationship between the variables within the ARDL bounds testing framework is assessed by testing for the joint significance of the estimated coefficients of the lagged levels of the variables in equations 3.3 using the F-test (or Wald test). The F-statistics value derived from this test is compared with two sets of critical values (lower and upper bound values) for a given level of significance reported in Pesaran, Yongcheol & Smith, (2001). The ARDL bounds testing framework is expressed as follows:

$$\Delta GDPGR_t = \alpha + \sum_{i=1}^{n} \theta_i \Delta GDPGR_{t-1} + \sum_{i=0}^{n} \beta_i \Delta GSEC_{t-i} + \sum_{i=0}^{n} \delta_i \Delta CBOND_{t-i} + \sum_{i=1}^{n} \gamma_i \Delta SEC_{t-1} + \lambda_1 GDPGR_{t-1} + \lambda_2 GSEC_{t-1} + \lambda_3 CBOND + \lambda_4 SEC_{t-1} + \mu_t \quad (3.7)$$

Where Δ is the first difference operator, n is the lag length (n=1), μ_t is the white noise error term. The parameters θ, β, δ and γ are the short run dynamic coefficients, while the parameters λ_1, λ_2, λ_3 and λ_4 are the corresponding long-run multipliers of the ARDL model.

According to this test, if the computed F-value is less than the lower bound, the null hypothesis of no cointegration cannot be rejected. Conversely, the null hypothesis of no cointegration is rejected if the computed F-statistics exceeds the upper bound. The test becomes inconclusive in cases where the computed F-statistics falls between the two bounds. The order of lag distribution is selected using Schwartz Bayesian Criteria with a maximum lag order of two.

3.8. Error Correction Models (ECM)

The estimation of a dynamic equation in the levels of the variables is problematic and differencing is not an alternative, because information about the long run is lost. A more suitable approach is to convert the dynamic model into an error correction model (ECM). The ECM provides information concerning the long run and short run properties of the model and the disequilibrium as a

process of adjustment to the long-run model (Harris & Sollis, 2003).

According to Faras & Ghali (2009) having ECM among a number of cointegrated variables implies that variations in the endogenous variable is a function of both the exogenous variables and the level of disequilibrium in the cointegration relationship, that is, any variation from the long-run equilibrium will feed back on the changes in the dependent variable in order to force the movement towards the long-run equilibrium. Thus, the ECM of the ARDL is presented below:

$$\Delta GDPGR_t = \alpha + \sum_{i=1}^{n} \theta_i \Delta GDPGR_{t-1} + \sum_{i=0}^{n} \beta_i \Delta GSEC_{t-i} + \sum_{i=0}^{n} \delta_i \Delta CBOND_{t-i} + \sum_{i=1}^{n} \gamma_i \Delta SEC_{t-1} + + \psi ECM_{t-1} \quad (3.8)$$

Where ψ is the parameter of the error correction term, which measures the speed of adjustment of the error correction term. The other parameters are as expressed above. The secondary data used for the study was processed using E-views version 10.0.

4.0. Data Presentation, Analysis and Interpretation

4.1. Data Presentation

The empirical analysis of the impact of financial securities on gross domestic product (GDP) commences with the presentation of data (descriptive statistic and trend analysis), analysis of the unit root test followed by lag length selection criteria, bound test for cointegration, long run estimate, short run dynamics and post estimation test (serial correlation, heteroscedasticity test and stability test).

4.1.1. Descriptive Statistics of Data

Table 4.1: Descriptive Statistics of Variables of Interest

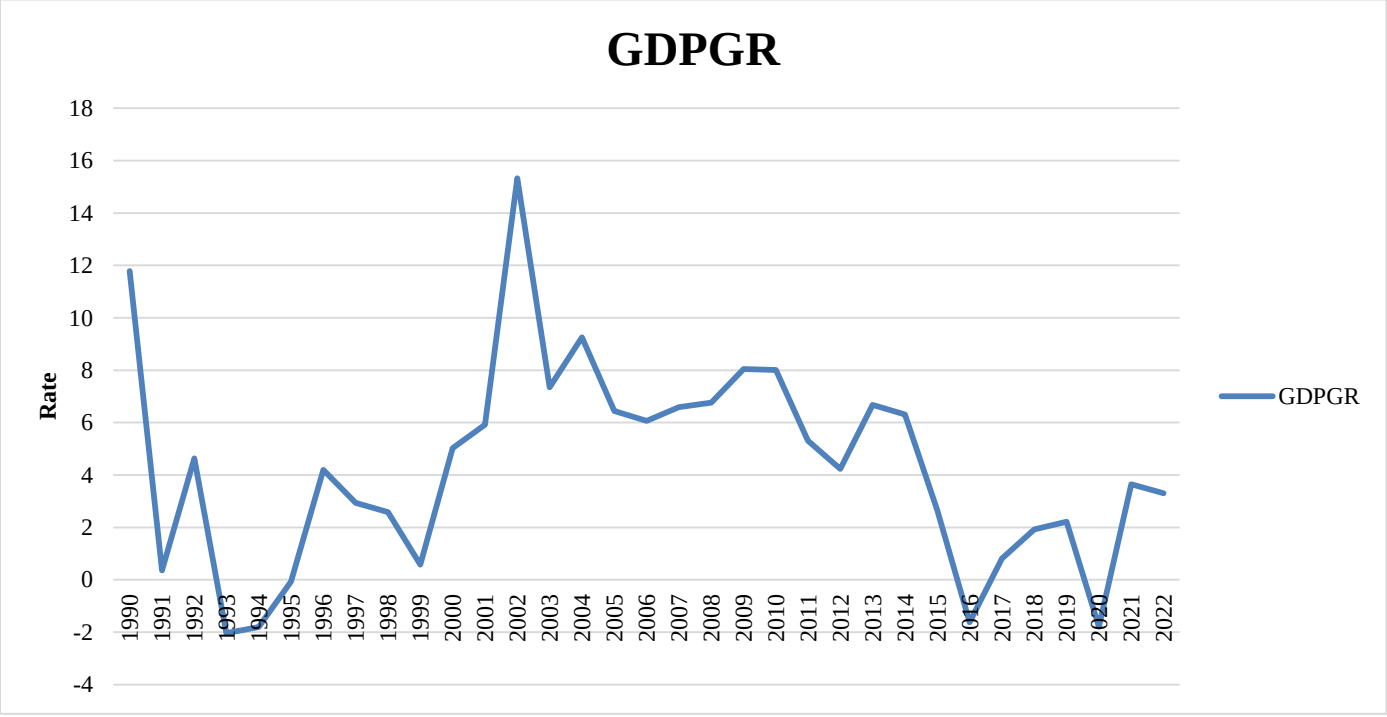
	GDPGR	GSEC	CBOND	EQT
Mean	4.289202	3911.676	245.6700	6432.762
Median	4.230061	890.2800	9.830000	4227.130
Maximum	15.32916	22156.22	1400.430	27965.74
Minimum	-2.035119	2.100000	0.800000	12.10000
Std. Dev.	3.957915	5955.467	433.8063	7355.565
Skewness	0.464094	1.763371	1.844831	1.204465
Kurtosis	3.390130	5.204904	5.020673	3.887223
Jarque-Bera	1.393884	23.78682	24.33301	9.061406
Probability	0.498106	0.000007	0.000005	0.010773
Sum	141.5437	129085.3	8107.110	212281.2
Sum Sq. Dev.	501.2828	1.13E+09	6022013.	1.73E+09
Observations	33	33	33	33

Source: Author's computation, extracted from E-view 10.0, 2024

The descriptive statistics from table 4.1 provides an overview of four variables: GDP growth rate (GDPGR), government securities (GSEC), corporate bonds (CBOND), and equity (EQT) over 33 observations. GDPGR has a mean of 4.29% with values ranging from -2.04% to 15.33%, indicating fluctuations in economic growth. GSEC shows high variability, with a mean of 3911.68 and a wide range from 2.10 to 22,156.22, as indicated by its high standard deviation of 5955.47. CBOND and EQT also display significant variability, with means of 245.67 and 6432.76, respectively. The skewness values of GSEC (1.76) and CBOND (1.84) suggest a positive skew, indicating that most values are concentrated on the lower end, while EQT's skewness (1.20) also points to a right-tailed distribution. The kurtosis values above 3 for GSEC, CBOND, and EQT indicate distributions that are more peaked than a normal distribution. The Jarque-Bera test shows that GSEC, CBOND, and EQT do not follow a normal distribution (with p-values less than 0.05), while GDPGR appears closer to normality. After examine the descriptive statistic of the data series, we proceed with the trend analysis of the variables.

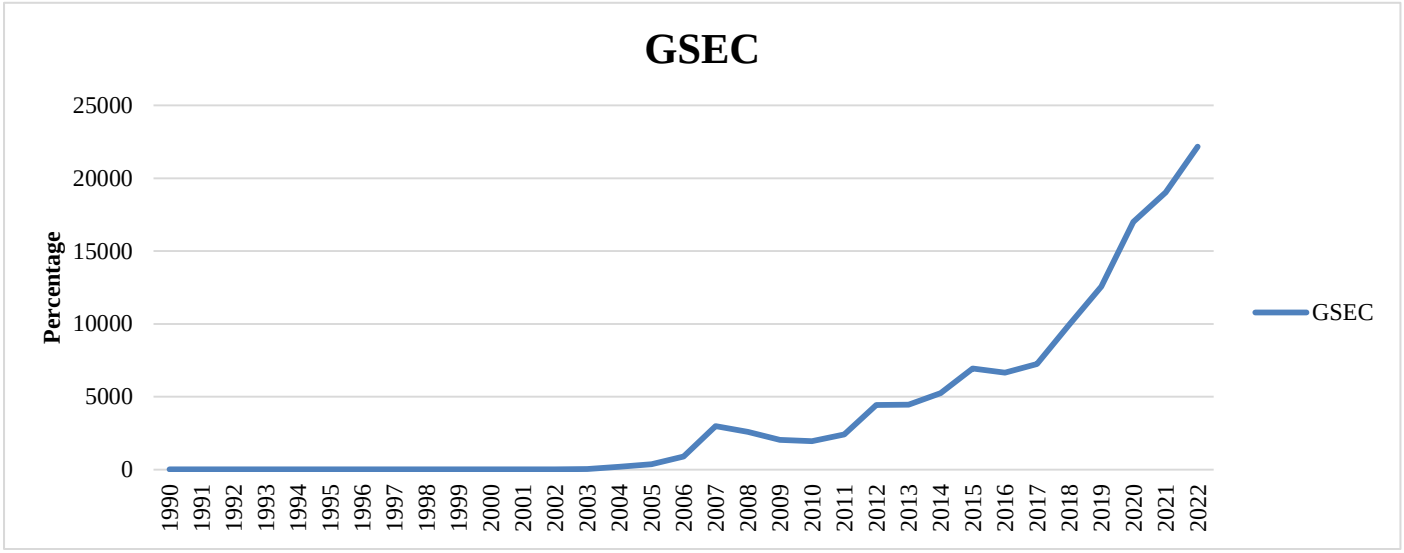
4.1.2. Trend Analysis

Figure 4.1: Trend Analysis of GDP Growth (GDPGR)



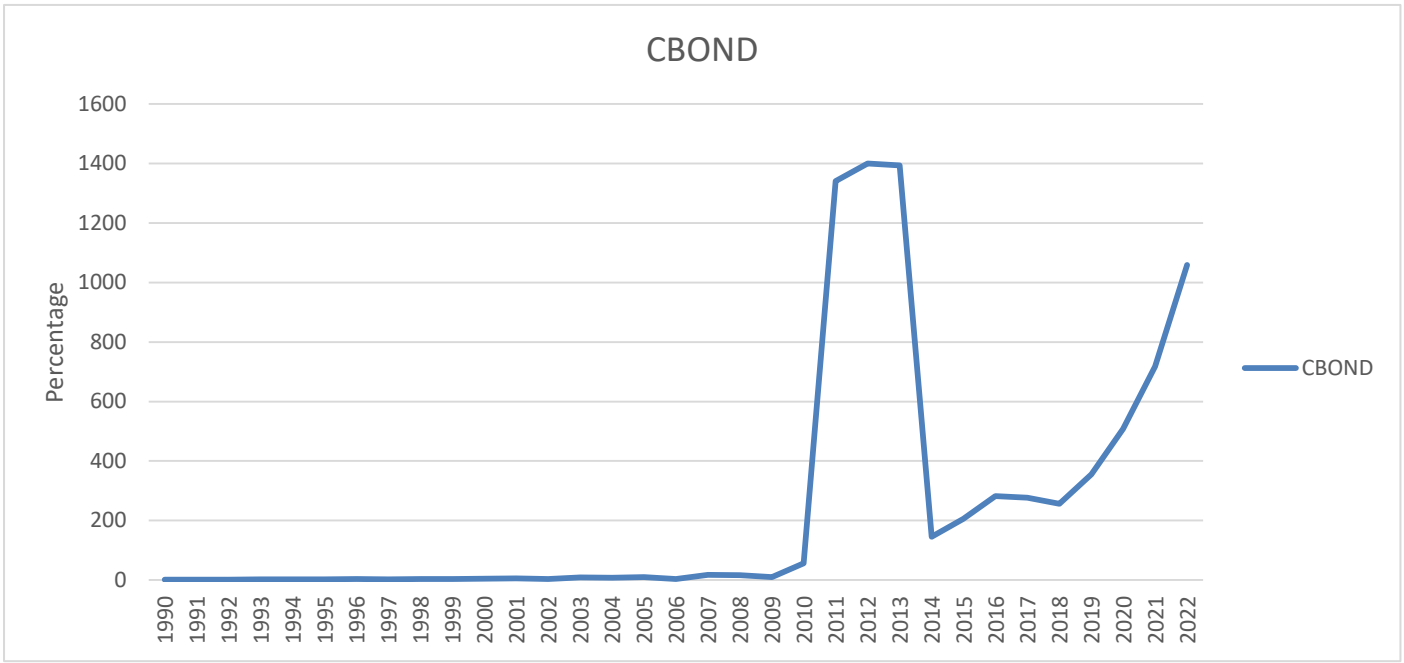
The GDP growth rate (GDPGR) data from 1990 to 2022 reveals a fluctuating trend characterized by periods of significant growth and contraction. In 1990, Nigeria experienced a robust GDP growth rate of 11.78%, which marked the highest level in the analyzed period. However, this was followed by a sharp decline in subsequent years, with a negative growth of -2.04% in 1993 and further contraction of -1.81% in 1994. The mid-1990s showed minor recovery, with GDPGR bouncing back to 4.20% in 1996. A notable increase to 15.33% occurred in 2002, indicating strong economic recovery and expansion, likely attributed to favorable oil prices and economic policies. However, the growth rate again declined to 4.23% in 2012. The trend appears to stabilize in the subsequent years with fluctuating but generally lower growth rates, reflecting ongoing challenges in the economy, with GDPGR around 3.30% by 2022. This pattern indicates vulnerability to external shocks, policy changes, and economic conditions, which have influenced Nigeria's economic performance over the decades.

Figure 4.2: Trend Analysis of Government Securities (GSEC)



The data for government securities (GSEC) showcases a remarkable upward trend from 3.40 in 1990 to an astonishing 22156.22 in 2022. Initially, the GSEC values were relatively low, demonstrating limited market activity. However, there is a significant jump starting in 2003, when GSEC rose sharply to 25.20, and this upward momentum continued throughout the following years. A particularly notable peak was observed in 2007, where GSEC reached an unprecedented 2984.42. The surge in GSEC can be attributed to increased government borrowing and the establishment of more robust financial markets aimed at stabilizing the economy. This trend reflects a growing reliance on government securities as a means for financing government operations and projects, signaling a shift in investment patterns in Nigeria. By 2022, GSEC values have skyrocketed, indicating a deepening of the financial market, though this also raises concerns about sustainability and potential risks associated with high levels of government debt.

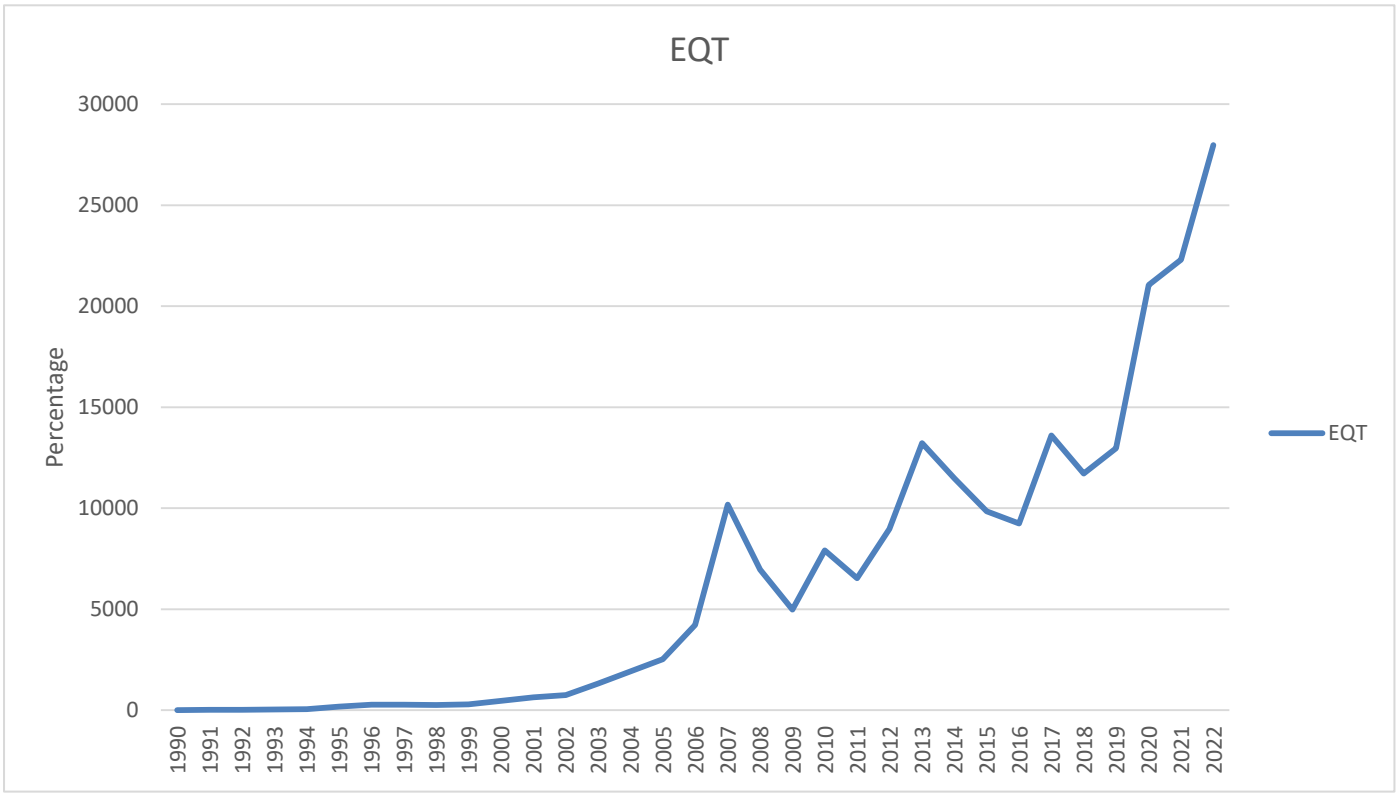
Figure 4.3: Trend Analysis of Corporate Bonds (CBOND)



Corporate bond (CBOND) values in Nigeria show a fluctuating trend from 0.80 in 1990 to 1058.50 in 2022. The early years, particularly the 1990s, witnessed relatively low CBOND values, with 1.40 recorded in 1991 and only reaching 2.10 in 1993 and 1994. However, there was an

upward trajectory starting from the mid-1990s, with significant increases noted in the early 2000s, such as reaching 5.80 in 2001. A remarkable surge occurred in 2010, with a drastic jump to 56.37, reflecting increased corporate borrowing and investment opportunities in the market. After experiencing some fluctuations, CBOND values stabilized around the 1000 mark in the late 2010s, reaching 718.30 in 2021. By 2022, CBOND values further increased to 1058.50, indicating a growing corporate bond market that could reflect improved investor confidence and corporate governance. Overall, the trend suggests that the corporate bond market is gaining traction, providing an alternative financing mechanism for companies, although it also raises concerns regarding the underlying economic fundamentals and corporate health.

Figure 4.4: Trend Analysis of Equities (EQT)



The equities (EQT) market in Nigeria exhibits a generally upward trajectory, starting from 12.10 in 1990 and experiencing substantial growth to 27965.74 in 2022. The initial years show modest increases, but a significant acceleration in equity values began in the late 1990s, notably reaching 175.10 in 1995. The trend continues to ascend rapidly in the early 2000s, reflecting a bullish market sentiment with EQT peaking at 1325.70 in 2003 and further increasing to 1926.50 in 2004. The peak period appears to be between 2006 and 2008, where equity values skyrocketed, reaching 10180.29 in 2007 and slightly dropping in 2008, indicating volatility influenced by external market factors. Despite fluctuations, the EQT market shows resilience, with values rising consistently to 22302.75 in 2021 and finally hitting 27965.74 in 2022. This upward trend suggests that the equities market is expanding, potentially attracting both domestic and foreign investors, which could positively impact capital formation and economic growth in Nigeria. However, the volatility observed also underscores the need for regulatory frameworks to ensure market stability and investor protection.

4.1.3. Unit Root Test

Table 4.2: Philip Perron Unit Root Test

VARIABLES	TAU STAT AT LEVEL	CRITICAL VALUE AT 5%	TAU STAT AT 1^{ST} DIFF	CRITICAL VALUE AT 5%	ORDER OF INTEGRATION
GDPGR	-3.81	-2.96	-	-	I(0)
GSEC	7.11	-3.56	-3.92	-3.56	I(1)
CBOND	-1.88	-3.56	-8.49	-3.56	I(1)
EQT	-0.45	-3.56	-6.16	-3.56	I(1)

Source: Authors computation E-view 10 (2023). Critical value at 10%

The result of the Philip Perron Unit Root test (with intercept and trend) from table 4.2 depicted that GDPGR is stationary all level, by implication they are integrated of order zero, I(0). While GSEC, CBOND and EQT were stationary after the first difference, that is integrated of order one, I(1). After establishing that the variables of interest are integrated of order zero and one, a precondition for Peseran, et al. (2001) Bound test for cointegration, we proceed to determine the lag length for the dynamic model using the lag length selection criteria.

4.2.1. Lag Length Selection

Table 4.3: Lag Length Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-224.81	NA	49.53148	15.25402	15.44084	15.31379
1	-123.35	169.1042	0.168228	9.556518	10.49065	9.855354
2	-113.33	14.02690	0.267105	9.955237	11.63667	10.49314
3	-82.54	34.88892	0.118054	8.969614	11.39836	9.746589

Source: Author's computation, 2024. indicates lag order selected by the criterion. LR: sequential modified LR test statistic (each test at 5% level).

As a first step of the ARDL procedure, the appropriate lag length for the model is determined using Schwarz Bayesian Information Criterion approach of restricted VAR estimate. The result of table 4.3 revealed that a maximum lag three is the lag order selected by the criteria at 5 percent level. Thus, we proceed to estimate the bound test, long run from and short run dynamics of the model using a lag length of order one.

4.2.2. Bound Test

Table 4.4: Bound Test for Cointegration

TEST STATISTIC	VALUE	LAG LENGTH	SIGNIFICANCE LEVEL	CRITICAL VALUE OF BOUNDS	
F-Statistic	3.37	3	10	2.37	3.2
			5	2.79	3.67
			1	3.15	4.08

Source: Author's computation, 2023

Table 4.4 bound test for cointegration depicted that the F-bounds test reveals that the F-statistic is 4.833, which is above the upper bound critical values at the 10%, 5%, and 2.5% significance levels. This suggests the presence of a long-run relationship between the variables, confirming that GSEC, CBOND, and EQT are related to economic growth in the long term. Thus, the null hypothesis of no cointegration is not accepted, therefore we conclude that longrun relationship exist between the regressand and regressors. This implies that the variables move together in the longrun, that the linear combination of all variables of interest is stationary, I(0). Cointegration makes regressions involving I(1) variable to be meaningful and not spurious. Thus, we proceed with establishing the long run impact of the regressors (government stocks, corporate bonds and equities) on the regressand (GDP growth).

4.2.3. ARDL Longrun Regression

Table 4.5: Longrun Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GSEC	-0.08	0.07	-1.20	0.24
CBOND	0.89	0.42	2.13	0.04
EQT	3.40	1.65	2.06	0.05
C	-12.45	20.32	-0.61	0.55

Source: Author's computation, 2024

The results of the ARDL long-run regression analysis in Table 4.5 provide insights into the impact of government securities (GSEC), corporate bonds (CBOND), and equities (EQT) on economic growth in Nigeria, using Gross Domestic Product (GDP) as the dependent variable.

The coefficient for GSEC (government securities) is -0.08, indicating a negative relationship between government securities and economic growth in the long run. Although this suggests that an increase in government securities leads to a slight reduction in economic growth, the associated p-value of 0.24 shows that this result is statistically insignificant at conventional levels (typically 0.05 or below). The t-statistic of -1.20 further emphasizes that government securities do not have a meaningful or robust influence on economic growth. This result could be attributed to inefficiencies in the utilization of funds raised through government securities or the fact that government borrowing through securities might crowd out private investment, thereby impeding growth (Friedman, 1978). However, given its statistical insignificance, this conclusion should be drawn cautiously.

In contrast, the coefficient for CBOND (corporate bonds) is 0.89, which indicates a positive and statistically significant impact on economic growth, as evidenced by a p-value of 0.04 and a t-statistic of 2.13. This implies that a 1% increase in corporate bond issuance is associated with a 0.89% increase in GDP. The positive effect of corporate bonds can be explained by the role these bonds play in providing capital to firms for expansion and investment, which in turn drives economic growth (Modigliani & Miller, 1958). The significance of this relationship highlights

the importance of a well-developed corporate bond market in promoting economic activities by facilitating access to finance for private sector enterprises.

The coefficient for EQT (equities) is 3.40, which reflects a strong positive influence on economic growth. The associated p-value of 0.05 and a t-statistic of 2.06 suggest that the relationship is statistically significant. This result indicates that a 1% increase in equity financing leads to a substantial 3.40% increase in GDP. The positive relationship between equities and economic growth can be explained by the fact that equity markets serve as a crucial platform for firms to raise long-term capital, enhancing their capacity to invest in innovation, infrastructure, and expansion (Levine & Zervos, 1998). Equities also provide an avenue for risk-sharing and diversification, which supports more sustainable economic growth.

Finally, the intercept (C) has a coefficient of -12.45, but with a high p-value of 0.55, it is statistically insignificant. This suggests that other factors not included in this model may be driving the baseline level of economic growth, but the interpretation of the constant term in an economic context is generally limited.

4.2.4. Error Correction Model (Short Run Dynamics)

Table 4.6: Error Correction Model Estimate

Variable	Coefficient	Std. Error	t-statistic	Prob.
D(GDPGR(-1))	-0.083903	0.128900	-0.650916	0.5249
D(GDPGR(-2))	0.197464	0.118336	1.668663	0.1159
D(GSEC)	-1.431093	0.936558	-1.528035	0.1473
D(GSEC(-1))	0.477172	0.920511	0.518377	0.6118
D(GSEC(-2))	-4.006152	0.893526	-4.483531	0.0004
D(CBOND)	-2.260206	0.516217	-4.378406	0.0005
D(CBOND(-1))	0.718879	0.485313	1.481267	0.1592
D(CBOND(-2))	1.664036	0.477092	3.487875	0.0033
D(EQT)	4.071012	1.448595	2.810318	0.0132
D(EQT(-1))	2.690517	1.190480	2.260027	0.0391
CointEq(-1)	-0.383386	0.069296	-5.532606	0.0001
R-squared		0.776940		
Adjusted R-squared		0.659541		
Durbin-Watson stat		2.061906		

SOURCE: Author's computation, 2024

The ARDL error correction regression results in table 4.6 offer a detailed insight into the impact of government securities (GSEC), corporate bonds (CBOND), and equities (EQT) on economic growth in Nigeria, as represented by the dependent variable, GDP growth (GDPGR). The model includes lagged differences for each variable, showing both short-term and long-term dynamics. The following is a comprehensive interpretation of the key results, emphasizing their statistical significance and implications for economic growth:

Government Securities (GSEC): The results indicate a mixed and generally negative short-run impact of government securities on economic growth in Nigeria. The coefficient for the current period's change in GSEC is negative (-1.4311) but statistically insignificant (p = 0.1473), suggesting that in the short term, changes in GSEC do not significantly influence economic growth. However, the second lag of GSEC (D(GSEC(-2))) has a strongly negative and highly significant impact on growth, with a coefficient of -4.0062 and a p-value of 0.0004. This suggests that a delayed effect of GSEC exists, and past increases in government securities issuance are associated with a substantial decline in GDP growth after two periods. This could imply that excessive reliance on government securities may crowd out private investment, thereby negatively affecting growth, aligning with the crowding-out theory (Blanchard & Johnson, 2013).

Corporate Bonds (CBOND): Corporate bonds also show a significant impact on economic growth. The current period's change in CBOND (D(CBOND)) has a large negative coefficient (-2.2602) with a p-value of 0.0005, indicating that in the short run, increases in corporate bond issuance are associated with a reduction in economic growth. However, there are positive and significant effects in the second lag (D(CBOND(-2))), where the coefficient is 1.6640 with a p-value of 0.0033. This finding suggests that while corporate bond issuance may have an initial constraining effect on growth, potentially due to the short-term burden of debt servicing, it positively contributes to growth after two periods, possibly by facilitating productive investments in the long run (Gertler & Gilchrist, 1994).

Equities (EQT): Equities have a notable and positive short-term effect on economic growth. The coefficient for the current period's change in EQT is 4.0710, with a p-value of 0.0132, suggesting that increases in equity investment lead to significant improvements in GDP growth. This

indicates that the stock market serves as an important driver of economic growth in Nigeria by enabling capital formation and enhancing liquidity (Levine, 1997). Additionally, the first lag (D(EQT(-1))) also shows a positive and statistically significant effect (coefficient: 2.6905, p-value: 0.0391), further supporting the argument that equities play a crucial role in fostering economic development.

The error correction term, CointEq(-1), is highly significant with a coefficient of -0.3834 and a p-value of 0.0001. This negative and significant coefficient indicates that any deviation from the long-run equilibrium in GDP growth is corrected by about 38% in the next period, suggesting a relatively fast adjustment speed back to equilibrium following short-run shocks (Engle & Granger, 1987). This confirms that a long-term relationship exists between GDP growth and the financial variables (GSEC, CBOND, and EQT), and short-term fluctuations are gradually corrected to maintain economic stability.

The model has an R-squared value of 0.777, indicating that about 77.7% of the variation in GDP growth is explained by the independent variables in the model. The adjusted R-squared, which accounts for the number of predictors, is 0.660, reflecting a good fit. Additionally, the Durbin-Watson statistic of 2.062 suggests the absence of serial correlation in the residuals, indicating that the model's estimates are reliable (Gujarati, 2003).

4.2.5. Post Estimation Diagnostic Test

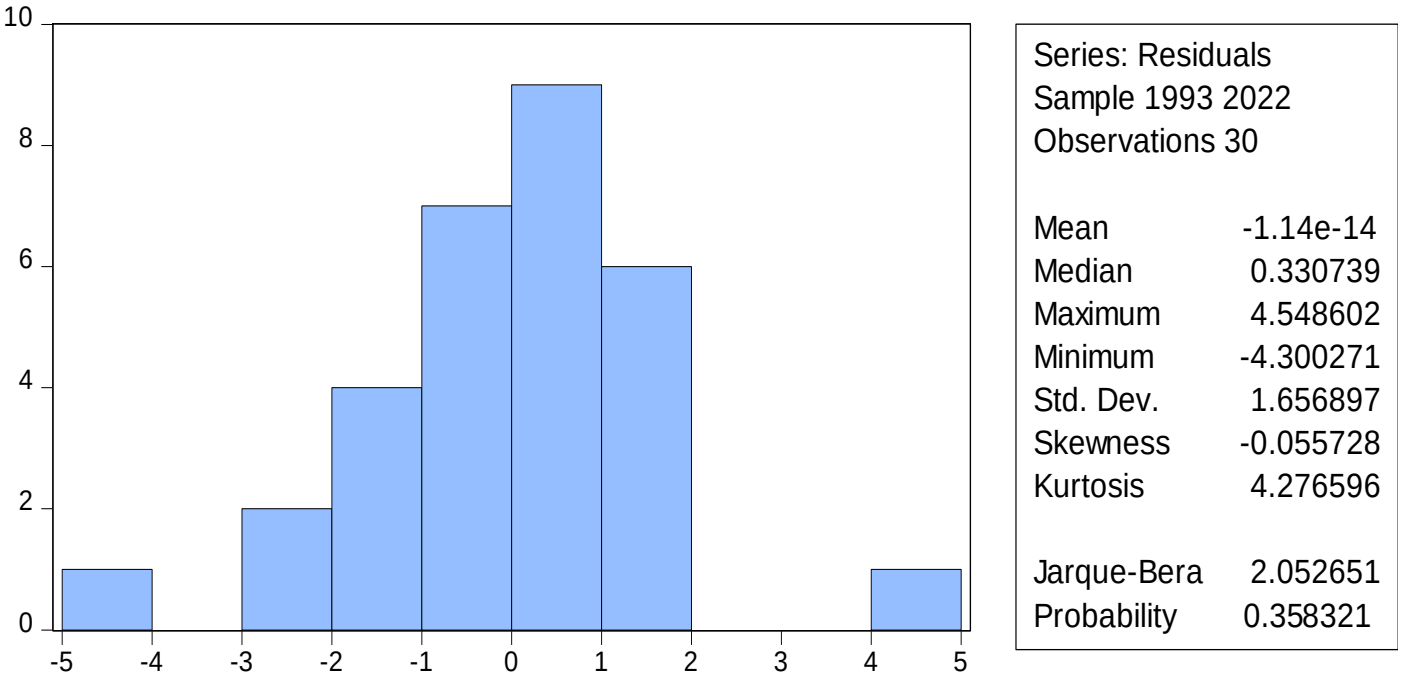
Table 4.7: Diagnostic Test

Test Statistic	**LM Version**	
Serial Correlation	Obs. R-squared = 0.17	Prob. Chi-sq = 0.92
Heteroscedasticity	Obs. R-squared = 12.81	Chi-sq Prob. = 0.54

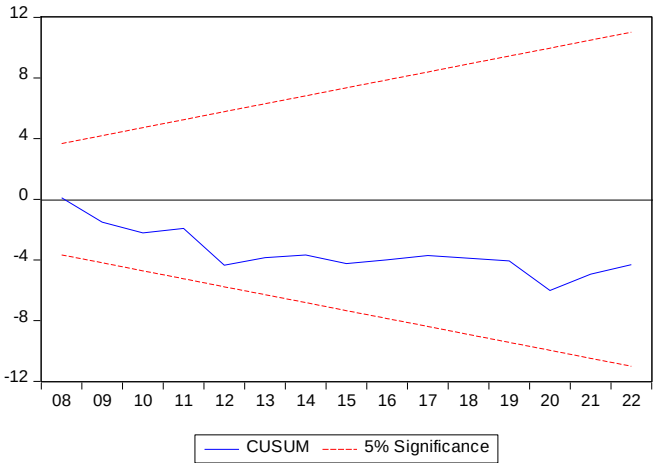
SOURCE: Author Computation from E-view 10, 2024.

Table 4.7 gives the post estimation diagnostic test. The ARDL diagnostic test showed that, the residual estimate of the error correction model (ECM) is free from serial correlation problem as the Probability of obsR^2 value is greater than 5 percent significant level (i.e., 0.92). Thus, the null hypothesis of no serial correlation is accepted. The test further revealed that the ECM model's estimated residual estimate is free from heteroscedasticity, the probability of ObsR^2 value is greater than 10 (i.e., 0.54). Thus, the null hypothesis of no heteroscedasticity is accepted. Jarque-Bera (2.052651): This test measures whether the residuals follow a normal distribution. The value of 2.05 is low. Probability (0.358321): A p-value of 0.358 suggests that the residuals are not significantly different from a normal distribution at conventional significance levels (e.g., 0.05). This implies the residuals are approximately normally distributed. The CUSUM and the CUSUM of Square stability test are significant at 5 percent significant level; since the CUSUM lines lie within the boundary marks, this indicates that the estimated model is stable in the long run a necessary condition for ARDL model estimate.

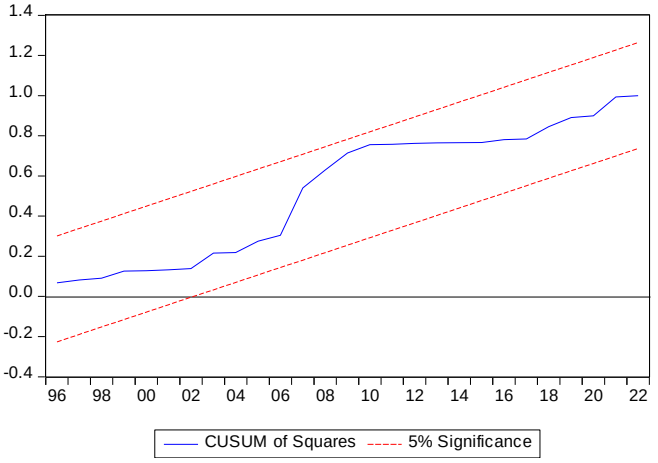
Normality Test



CUSUM Test



CUSUM Square Test



4.3. Policy Implication of Findings

This study seeks to examine the impact of financial securities on economic growth in Nigeria: 1990-2022. The findings of the ARDL long-run regression analysis offer key insights into the relationship between financial securities and economic growth in Nigeria, with important policy implications. The findings reveal that government securities (GSEC) exhibit a negative relationship with economic growth in Nigeria, both in the short and long run, though with varying significance. The statistically significant delayed negative effect of GSEC on GDP growth (coefficient = -4.0062, p = 0.0004) suggests that excessive reliance on government borrowing through securities can crowd out private investment, thereby hampering economic growth, consistent with the crowding-out theory (Blanchard & Johnson, 2013). Policymakers should thus prioritize more efficient utilization of government securities to avoid stifling private sector investment. Additionally, alternative funding mechanisms that do not undermine private sector growth should be considered to stimulate long-term economic development (Friedman, 1978).

The findings highlight the crucial role of corporate bonds (CBOND) in Nigeria's economic growth, suggesting significant policy implications. Policymakers should prioritize the development of the corporate bond market to enhance long-term growth by improving access to finance for private enterprises. Although there is a short-term negative impact on economic growth due to the debt burden, the positive effects in the longer term suggest that policies should focus on mitigating initial financing constraints while fostering an environment that encourages productive investments. Regulatory frameworks should therefore support bond market liquidity, transparency, and investor confidence to optimize the long-run benefits of corporate bond issuance (Modigliani & Miller, 1958; Gertler & Gilchrist, 1994).

Equities (EQT) show a positive relationship with economic growth, although the insignificance of this relationship suggests that the equity market's contribution to growth is currently not robust. This presents an opportunity for policymakers to create an environment that encourages more active participation in the equity market. Measures such as improving market regulations, enhancing investor confidence, and providing financial education to the public can stimulate growth in the equity market, potentially translating into a stronger contribution to economic development. The CBN, SEC, and NSE could work together to implement reforms aimed at deepening the equity market and making it more accessible and appealing to a broader range of investors. Over time, these measures may help to solidify the positive role equities can play in driving Nigeria's economic growth.

The findings underscore the importance of strengthening Nigeria's equity markets as a critical driver of economic growth. With a statistically significant coefficient of 3.40, the results indicate that a 1% increase in equity financing can boost GDP by 3.40%, affirming that equity markets facilitate long-term capital formation for firms, enabling them to invest in key growth areas such as innovation and infrastructure (Levine & Zervos, 1998). Policymakers should prioritize initiatives that enhance stock market efficiency, improve investor confidence, and expand access to equity financing for businesses. Moreover, the significant positive impact of both current and lagged equity investment on GDP growth, with coefficients of 4.0710 and 2.6905 respectively, highlights the need for policies that promote sustained equity market development to ensure long-term economic stability and liquidity (Levine, 1997).

5.0. Conclusion and Recommendations

The study aimed to explore how financial securities contribute to economic growth in Nigeria using data from 1990 to 2022. It applied the autoregressive distributed lag (ARDL) model to assess both short-run and long-run dynamics of financial securities, including government stocks (GSEC), corporate bonds (CBOND), and equities (EQT), on GDP growth. Additionally, the Philip Perron Unit Root test was used to determine the stationarity of the variables. The results of the ARDL Bound test revealed a significant long-term relationship between financial securities and economic growth, emphasizing that these securities collectively influence GDP. However, the individual impact of each type of security varied. For instance, the long-run effect of government stocks was found to be negatively correlated with economic growth, although this relationship was statistically insignificant, while in the short run, the negative impact became more evident after the second lag.

The analysis further indicated that corporate bonds had a positive long-term effect on economic growth, while in the short run, the first lag exhibited a negative significant effect, shifting to a positive impact by the second lag. Equities were shown to have a consistently positive and significant contribution to Nigeria's economic growth, both in the immediate period and in subsequent lags, promoting long-term capital formation and liquidity. Post-estimation diagnostic tests, such as the CUSUM and CUSUM of Squares, confirmed the stability and reliability of the model, which was also free from serial correlation and heteroscedasticity. While

DOI: 10.5281/zenodo.14329117

the individual securities may not have a strong direct impact on economic growth in the short run, the overall presence of a long-term relationship underscores the critical role of financial markets in the economic performance of Nigeria (Pesaran et al., 2001).

Based on the ARDL long-run regression analysis, it is recommended that Nigeria optimize the use of financial securities government stocks, corporate bonds, and equities to bolster economic growth. Enhancing debt management practices, diversifying funding sources, and setting favorable interest rates can help manage government stocks effectively. Additionally, incentivizing corporate bond issuance, boosting market confidence, developing a secondary market, and promoting long-term equity investment, along with risk mitigation strategies, can strengthen the financial securities market and potentially support economic growth.

References

1. Adegbaju, A., & Olokoyo, F. (2003). The role of financial institutions in Nigeria's economic development.
2. Adelegan, J. (2016). The role of corporate bonds in Nigeria's economic development. Nigerian Economic Review, 24(1), 67-88.
3. African Development Bank. (2022). Financial inclusion in Africa: Promoting SME access to finance.
4. Agu, C., & Okoye, N. (2019). Public debt and crowding out of private investment in Nigeria: An empirical analysis. African Journal of Economic Studies, 13(2), 144-162.
5. Ajayi, O. (2001). The effect of government debt on economic growth: Evidence from Nigeria. Journal of Economic Perspectives.
6. Akindipe, A. (2022). Financial development and its moderating role on FDI and economic growth: Evidence from Nigeria.
7. Akinlo, A. E., & Akinlo, O. O. (2007). Financial development, economic growth and investment in Nigeria. Journal of Economic and Financial Issues, 2(2), 45-54.
8. Akintola, O., et al. (2020). Financial sector development and economic growth in Nigeria: An empirical analysis.
9. Akintola, O., et al. (2020). Financial sector development and economic growth in Nigeria: An empirical analysis.
10. Alile, H. I., & Anao, A. R. (1999). Capital market development in Nigeria.
11. Beck, T., Demirgüç-Kunt, A., & Levine, R. (2010). Financial institutions and markets across countries and over time: The updated financial development and structure database. World Bank Economic Review, 24(1), 77-92.
12. Bello, R., et al. (2022). Capital market performance and economic growth in developing nations: Empirical review from 2012 to 2022.
13. De Fiore, F., & Uhlig, H. (2011). Corporate debt structure and the financial crisis. Journal of Money, Credit and Banking, 43(8), 1571-1598.
14. Demirgüç-Kunt, A., & Levine, R. (1996). Stock markets, corporate finance, and economic growth: An overview. The World Bank Economic Review.
15. Egbetunde, T. (2010). The impact of debt servicing on economic growth in Nigeria. Journal of Development Policy, 18(4), 112-127.
16. Eichengreen, B., & Luengnaruemitchai, P. (2004). Why doesn't Asia have bigger bond markets? Asian Economic Papers, 3(1), 1-45.
17. *El-Yaqub A.B., Musa, I. &* Magaji, S. (2024) Impact of Commercial Bank's Credit on Manufacturing Sector Output in Nigeria. *Journal of Applied Economics in Developing Countries*, *9*(1), 1-9.
18. *El-Yaqub A.B., Musa, I.*, Magaji, S. & Ashemi, B.A. (2023) Impact of Currency Redesign on Nigeria's Small and Medium-Sized Enterprises. *Journal of Arid Zone Economy*, 2(1), 74-84.
19. El-Yaqub, A. B. (2021). Assessment of Public Financial Management and Fiscal Outcomes in Nigeria: 1990–2019: An Empirical Investigation. *Lapai International Journal of Management and Social Sciences*, *13*(1), 121-144.
20. El-Yaqub, A. B., Musa, I., & Ismail, Y. (2024) Assessment of the Impact of Monetary Policy on Economic Growth in Nigeria (1986–2021): Evidence from Autoregressive Distributed Lag. *Quest Journals Journal of Research in Business and Management*, 12(4), 288-303.
21. El-Yaqub, A. B., Usman, G., Musa. I., & Ismail, Y. (2024) Impact of Capital Market on Nigerian Economic Growth from: 1990-2022. *Scholars Journal of Economics, Business and Management*. 11(5): 170-179. DOI: 10.36347/sjebm.2024.v11i05.003.
22. El-Yaqub, A.B., Ismail, Y., & Eke C. I. (2024) Impact of Commercial Bank Credit on Small and Medium Scale Enterprises in Nigeria: 1992 – 2022. *Global Scientific and Academic Research Journal of Economics, Business and Management.* 3(10), 25-36. *DOI:10.5281/zenodo.13933163.*
23. Ezeoha, A. E., Ogamba, E., & Ayodele, K. A. (2009). Corporate bond market development and its implications for economic growth in Nigeria.
24. Fischer, S. (1993). The role of macroeconomic factors in growth. Journal of Monetary Economics, 32(3), 485-512.
25. Ihekweazu, E. (2001). Corporate bonds and economic growth: Lessons from Nigeria. Nigerian Financial Journal, 8(3), 55-77.
26. Ishola, J., et al. (2021). Impact of money market instruments on Nigeria's economic growth.
27. Karimo, T. M., & Ogbonna, O. E. (2017). Financial development and economic growth in Nigeria: A causality test.
28. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal determinants of external finance. Journal of Finance, 52(3), 1131-1150.
29. Levine, R. (2005). Finance and growth: Theory and evidence. In Handbook of Economic Growth (Vol. 1, pp. 865-934). Elsevier.
30. Levine, R., & Zervos, S. (1998). Stock markets, banks, and economic growth. American Economic Review, 88(3), 537-558.
31. Mishkin, F. S. (2007). Is financial globalization beneficial? Journal of Money, Credit and Banking, 39(2-3), 259-294.
32. Nigeria Economic Summit Group. (2019). Nigeria's financial sector challenges and opportunities.
33. Nwachukwu, N., & Egwaikhide, J. (2022). Government debt and economic growth: Evidence from Nigeria,

1999-2020. Journal of Economic Research, 30(3), 89-101.
34. Nwaogwugwu, I., & Ogege, S. (2016). An assessment of the impact of government securities on economic growth. Journal of Financial Studies, 5(3), 75-91.
35. Obstfeld, M., & Rogoff, K. (2009). Global imbalances and the financial crisis: Products of common causes. In Asia Economic Policy Conference.
36. Ogunleye, T., Osoba, O., & Salawu, A. (2021). Stock market volatility and economic growth in Nigeria. Nigerian Journal of Financial Markets, 15(2), 78-91.
37. Okoye, L. U., Erin, O., & Akenbor, C. O. (2016). The Nigerian bond market: Issues and challenges. International Journal of Economics and Financial Issues, 6(2), 1-7.
38. Oladeji, M. (2022). Corporate bonds and Nigeria's economic performance: An empirical analysis, 2010-2020. Journal of Financial Studies, 29(2), 45-68.
39. Omankhanlen, A., et al. (2022). The role of financial development in Nigeria's economic growth: A study covering 1990-2019.
40. Osinubi, T. (2004). Public debt and its effects on economic growth in Nigeria. Journal of Public Economics, 12(3), 24-33.
41. Patrick, P., Oladapo, O., Olufemi, O., & Stephen, A. (2015). Financial market growth and economic development in Nigeria.
42. Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. Journal of Applied Econometrics, 16(3), 289-326.
43. Rajan, R. G., & Zingales, L. (1998). Financial dependence and growth. American Economic Review, 88(3), 559-586.
44. Robinson, J. (1952). The generalization of the general theory.
45. Ross, S., Westerfield, R., & Jordan, B. (2016). Fundamentals of corporate finance (11th ed.). McGraw-Hill Education.
46. Stiglitz, J. E. (2010). Risk and global economic architecture: Why full financial integration may be undesirable. American Economic Review, 100(2), 388-392.
47. Temile, B., et al. (2022). Stock exchange activities and their impact on economic growth: A comparison of Nigeria and South Africa.
48. Ujunwa, A., & Salami, A. (2010). Stock market development and economic growth in Nigeria. African Economic Review, 3(1), 67-81.
49. Yusau, O., & Umoru, S. (2022). The capital market and its contribution to Nigeria's economic growth: An empirical study.