

Impact of Financial Development on Economic Growth in Nigeria

Ikeh Frank Emeka^{1*}, Lawan Nasiru Salisu¹, Hamisu Ali², Ahmadu Salihu Yahaya²,
Nekeneri Jerome Jaimu³

¹ Department of Economics and Development Studies, Faculty of Social Sciences,
Federal University Kashere, Gombe State, Nigeria.

² Department of Economics, Faculty of Social and Management Sciences, Adamawa
State University, Mubi, Nigeria.

³ Department of Cooperative Economics and Management, Adamawa State
Polytechnic, Yola Adamawa State, Nigeria.

Article History

Received:
28.08.2023

Revised:
29.09.2023

Accepted:
06.10.2023

***Corresponding Author:**
Hamisu Ali
Email:
hamisu682@adsu.edu.ng

This is an open access article,
licensed under: [CC-BY-SA](#)



Abstract: This paper examined the impact of financial development on economic growth in Nigeria. The paper employed time series data (1985-2022) using ARDL approach, the objective of the study to access the causal relationship between financial development and economic growth in Nigeria. The data were obtained from Central Bank of Nigeria (CBN) and (WDI, 2023); Gross Domestic Product (GDP), Domestic Credit to Private Sector (DCRS), Market Capitalization (MACAP), Consumer Price Index (CPI), Foreign Direct Investment (FDI), Interest Rate (INTR) and Financial Development (FD) proxies by the ratio of broad money stock (M2). The study was anchored on Supply-Leading Hypothesis theory by Robinson 1952. The results show that all the indicators of financial development and its influence on economic growth, the DCRS has a negative influence on GDP, its impact is not statistically significant, implying an indirect effect, the CPI and FDI significantly affect GDP with CPI excreting a negative impact and FDI demonstrating a strong negative correlation. The ECM explores short term relationship among these variables and their implication for FD. Based on the following conclusion the following recommendations were made among others; strengthen price stability and implemented effective monetary policies and price control mechanism to maintain stable and controlled inflation.

Keywords: ARDL, Economic Growth, Financial Development.



1. Introduction

In recent years, Nigeria has actively evolved its financial sector to strengthen its economic growth prospects [1] [2]. In the 1970s, the sector was heavily regulated, with government ownership in many banks. However, the financial crisis of the 1980s prompted the introduction of the Structural Adjustment Programme (SAP) in 1986, aiming to revive the sector through financial liberalization [3]. This era marked a shift towards reducing government control and increasing market forces' influence. Subsequently, the 2000s witnessed significant reforms, including a consolidation exercise in 2004, which strengthened banks by increasing their capital base [3]. Privatization, commercialization, and merger and recapitalization processes followed, fostering competition and innovation. Nigeria's commitment to continual reforms underscores its goal of maintaining a modern and robust financial sector to support sustained economic growth [4]. Financial sector development encompasses a range of improvements aimed at enhancing the effectiveness of the financial system. These improvements include increased access to banking services, expanded investment opportunities, improved data quality, and incentives for responsible borrowing and oversight [5]-[8]. The development of the financial sector plays a vital role in stimulating economic growth and reducing poverty. This sector consists of a network of institutions, markets, and financial instruments, all operating within a legal and regulatory framework that facilitates transactions and credit allocation. Essentially, the financial sector mobilizes funds and channels them towards both private and public sectors, making them available as investable capital [5]-[8].

The core problem lies in the unclear relationship between financial development and economic growth in Nigeria. Despite advancements in the financial sector, it remains uncertain whether these improvements contribute significantly to the country's economic growth. This uncertainty arises from conflicting research findings and on-going challenges, such as banking sector instability and limited financial access for a large portion of the population. Consequently, there is a pressing need to conduct a comprehensive study to understand how financial development impacts economic growth in Nigeria, factoring in the country's unique challenges and characteristics.

Despite numerous financial sector reforms enacted in Nigeria, such as the Banking Ordinance of 1952, the 1969 Banking Act, the CBN Act No 24 of 1991 [9], and the Banking and Other Financial Institutions Act (BOFIA) No 25 of 1991 [10], as well as the creation of the Nigeria Deposit Insurance Corporation (NDIC) in 1998 through the Securities and Exchange Commission (SEC) Act of 1979, the Structural Adjustment Programme (SAP) of 1988, and the establishment of the Failed Banks (Recovery of Debts) and Financial Malpractices Decree of 1994, the key issue remains. Despite these reforms, Nigeria continues to experience low savings rates and limited economic growth. Financial development has yet to demonstrate a significant positive impact on Nigeria's economic growth. The reform in Nigeria's financial sector aimed to increase economic activity by liberalizing it. This resulted in significant developments such as the growth of the money market, increased equity and capital market activities, more bank branches, and greater use of debit and credit cards. Additionally, modern payment systems like POS devices and online banking services have seen substantial growth. This expansion in the financial sector is expected to boost economic growth by making more investment funds available, particularly in the manufacturing industry. This study, therefore, aims to achieve the following objective: to assess the causal relationship between financial development and economic growth in Nigeria.

2. Literature Review

Financial development is widely recognized as a crucial driver of economic growth. Studies by [11] and [12] emphasize the importance of well-developed financial systems in mobilizing savings and channelling them into productive investments. In Nigeria, financial development has been seen as a means to enhance resource allocation and foster economic growth [13]. The depth and efficiency of financial markets play a significant role in promoting economic growth. Research by [14] suggests that an increase in financial intermediation, as indicated by factors like credit to the private sector and stock market capitalization, positively correlates with economic growth. Several studies in the Nigerian context have observed similar relationships between financial deepening and growth [15]. The banking sector is a critical component of financial development. Research by [16], indicates that a well-functioning banking system can stimulate economic growth by facilitating access to credit. In Nigeria, the growth of the banking sector has been linked to increased lending to the private sector and, consequently, economic expansion [17]. Financial inclusion, which involves broadening access to financial services, has also gained attention. Studies by [18], highlight the positive impact of

financial inclusion on economic growth. In Nigeria, initiatives to enhance financial inclusion, such as mobile banking and microfinance, have been associated with improved economic prospects [19].

2.1. Financial Development

Financial development is a crucial concept frequently utilized by experts in the field of economic development. It encompasses the ability of financial institutions to efficiently allocate savings for investment purposes, thus playing a pivotal role in accelerating economic growth. According to [20], financial development can be defined as the expansion and enhancement of financial sector assets and securities available within an economy [21]. Furthermore, the evolution of the financial system can be characterized as the growth in the size, efficiency, and stability of financial markets, coupled with increased accessibility to these markets, offering a range of economic benefits. [22], offers another perspective, viewing financial development as the increase in the ratio of the money supply to Gross Domestic Product (GDP) or a relevant price index, essentially reflecting the liquidity of money. In this context, greater liquidity implies a higher potential for sustained economic growth, as ample funds become readily accessible within the economy.

2.2. Economic Growth

Economic growth refers to the sustained increase in a country's production of goods and services over time [23]. It is typically measured by the rise in Gross Domestic Product (GDP), which is the total value of all goods and services produced within a nation's borders [24]. Economic growth is a fundamental indicator of an economy's health and prosperity and is often driven by factors such as increased productivity, technological advancements, population growth, and investments in infrastructure and capital [25]. Sustainable economic growth can lead to improved living standards, higher incomes, and a better quality of life for the population [26].

2.3. Financial Development and Economic Growth

The relationship between financial development and economic growth is a subject of substantial interest in economics. Financial development plays a crucial role in fostering economic growth by facilitating the efficient allocation of resources, mobilizing savings, and supporting investment. As financial systems evolve and become more sophisticated, they can contribute to increased economic productivity and overall economic well-being. Studies have explored the complex dynamics of this relationship. Research by [11] and [12], highlights the significance of well-developed financial systems in channelling savings into productive investments, thus promoting economic growth. Similarly, [14], found that the depth and efficiency of financial markets positively correlate with economic growth, emphasizing the role of financial intermediation in this process.

The banking sector, a vital component of financial development, has been recognized as a catalyst for economic growth. [16], demonstrate how a well-functioning banking system can stimulate economic growth by enhancing access to credit. Moreover, financial inclusion has gained attention, with studies by [18], highlighting the positive impact of broadening access to financial services on economic growth. Initiatives such as mobile banking and microfinance have been associated with improved economic prospects in various regions, including Nigeria. Nonetheless, the relationship between financial development and economic growth is not without complexities. Studies have shown that this connection can be nonlinear and context-specific. [27], explored the nonlinear effect of financial development on economic growth, revealing that the outcome depends on the balance between investment loans, which enhance growth, and consumption loans, which can hinder it. [28, 29], uncovered asymmetric effects and threshold regressions, further highlighting the nuanced nature of this relationship.

2.4. Theoretical Literature

Theoretical studies exploring the relationship between financial development and economic growth have a rich history, with key contributions from scholars like [30]-[32]. These early works laid the foundation for understanding the complex interplay between finance and economic progress.

1. Schumpeter's Supply-Leading Perspective [31]: Schumpeter proposed a Supply - Leading Hypothesis perspective on the finance-growth relationship. He argued that a well-functioning financial sector can drive economic growth by identifying and financing high-yield projects. In essence, a robust financial system acts as a catalyst for technological innovation by selecting and funding businesses with growth potential.

2. Bagehot and Hicks on Financial Development [30] [32]: Bagehot (1873) and Hicks [32] emphasized the significance of financial development in the industrialization process. They highlighted how the financial sector played a crucial role in facilitating the movement of large sums of capital for major projects. This historical perspective underscores the importance of finance in supporting economic expansion.
3. Endogenous Growth Models: More recent contributions to this field have come from endogenous growth models. Notable researchers such as [33]-[35] and [36] have expanded on these ideas, delving into the mechanisms through which financial development fuels economic growth.
 - They stressed the informational role of financial intermediation in an endogenous growth model. They argued that a well-functioning financial system plays a critical role in enhancing the productivity and growth of capital by efficiently allocating resources [33].
 - Levine's model highlighted the influence of stock markets on economic growth. He argued that stock markets contribute to growth by enhancing firm efficiency and promoting capital allocation to the most productive uses [34].
 - Their research emphasized the role of efficient financial intermediation in reducing liquidity risks. By doing so, they motivate savers to invest their wealth in productive assets, thus fostering productive investment and overall economic growth [35].

2.5. Theoretical Framework

Supply - Leading Hypothesis serve as the theoretical foundation for this study. This hypothesis posits that well-functioning financial institutions play a pivotal role in enhancing overall economic efficiency. They achieve this by fostering liquidity, mobilizing savings, facilitating capital accumulation, facilitating the transition of resources from traditional, non-growth sectors to more modern and growth-inducing industries, and by encouraging entrepreneurial responses in these emerging sectors of the economy. Notably, economists like [31] have lent support to the notion of a finance-led causal relationship between the financial sector and economic development. Recent research conducted by [37], which systematically analyzed various methodological approaches within the field of finance literature, provides compelling evidence that financial progress is indeed a crucial driver of economic growth.

2.6. Empirical Literature

The literature presents a comprehensive exploration of the intricate relationship between financial development and economic growth, encompassing research spanning Nigeria, Mexico, and international contexts. Scholars emphasize the crucial role of supply-side factors and advocate for government intervention to promote both financial stability and economic growth [38] [39]. Across diverse regions, financial development, particularly in banking and stock markets, emerges as a pivotal driver of economic progress, underscoring the importance of policies that stimulate investment and facilitate financial inclusion [40] [41]. Innovative analytical methods challenge conventional wisdom, elucidating the intricate dynamics between financial development and growth. Theoretical and empirical approaches converge to establish the significance of debt and equity from financial markets as determinants of GDP per capita, with recommendations for deepening capital markets and enhancing investor rights [42]. Inclusive growth, threshold effects, and trade openness also emerge as critical considerations, highlighting the need for multifaceted policy measures [43] [44]. This body of work collectively enriches our understanding of the multifaceted relationship between financial development and economic growth.

Research delves into the interplay between financial development, economic growth, and the moderating role of institutions [45]. They emphasize that achieving an optimal balance between financial and institutional development is pivotal for harnessing finance as a catalyst for economic growth. Their findings stress the need for countries aspiring to boost their economies through the financial sector to prioritize the enhancement of their institutional frameworks. Contrastingly, empirical investigation covering twenty-one Sub-Saharan African countries from 1986 to 2010 produced intriguing results [46]. The study found that the interaction effect of financial and institutional development on economic growth appeared statistically insignificant. This suggests that the current institutional structures in the SSA region may not be effectively facilitating the finance-growth nexus, implying a pressing need for reforms and improvements in these crucial areas. In summary, these studies collectively underline the intricate relationship between financial

development, institutions, and economic growth while emphasizing the importance of aligning both components to promote sustainable economic progress.

Examined the impact of financial development on Nigerian economic progress using data from Central Bank Nigeria Bulletin [39]. Employing an error correction model and regression analysis, they discovered that financial deepening variables, especially those associated with the banking sector and the stock market, significantly determined economic growth. The study concluded that financial deepening serves as a potent driver of Nigeria's economic growth and suggested policy measures to increase investment flows and promote financial inclusion for sustainable economic development

The transmission of financial sector development through institutional quality to economic growth was examined in two major African regional blocs, the Economic Community of West African States (ECOWAS) and the Southern African Development Community (SADC) [47]. Their study utilized the Seemingly Unrelated Regression (SUR) technique and analyzed panel data spanning from 1980 to 2016. The results of their research unveiled a positive complementarity effect between financial development and institutional quality on economic growth. Intriguingly, this effect was found to be statistically significant solely within the ECOWAS regions. These findings underscore the significance of both financial sector development and institutional quality in driving economic growth, particularly within the ECOWAS context.

Conducted a comprehensive analysis on the relationship between financial sector development, financial deepening, and economic growth in Nigeria from 1981 to 2018 [38]. Using the ARDL model, they found a significant long-term connection between financial sector development metrics and economic growth, with the stock market indicator notably influencing economic growth. The study recommended government intervention to rejuvenate the insurance sub-sector and revitalize the money and capital markets, aiming to enhance financial stability and foster economic growth for Nigeria's development.

Focused on Mexico's financial sector from 2007 to 2015, highlighting the importance of supply-side factors in determining credit dynamics, particularly in light of recent financial reforms [40]. They emphasized the need for effective implementation of these reforms to balance the promotion of financial deepening with the reduction of financial stability risks. Meanwhile, [41], conducted an international analysis across 48 countries from 1988 to 2014, introducing an innovative approach that combined the Least Square Dummy Variable Correction (LSDVC) method and the Least Trimmed Squares (LTS) method to examine the relationship between financial development and economic growth. Their findings challenged conventional wisdom, suggesting that bank development initially appeared to have an adverse effect on economic growth when outlier effects were disregarded but exhibited a positive impact when the proposed LSDVC+LTS approach was employed, along with a consistent positive impact of stock market development on economic growth.

Study the relationship between financial development and economic growth, both theoretically and empirically [42]. In their theoretical framework, they expand upon the Solow-Swan growth model by incorporating debt from credit markets and equity from stock markets as two crucial long-term determinants of GDP per capita. The empirical portion of their research, conducted on a panel of forty countries from 1989 to 2011 using Augmented Mean Group (AMG) and Common Correlated Effects (CCE) methods, accounts for cross-sectional dependencies. While cross-sectional results vary among countries, the panel analysis consistently demonstrates that both credit markets and capital markets have positive, long-term impacts on per capita GDP stable-state rates, with credit markets exhibiting a more pronounced effect. Their policy recommendation urges policymakers to prioritize measures that deepen capital markets, including legal and structural reforms to bolster borrower and investor rights and enhance contract regulation, ultimately fostering financial sector growth to stimulate economic development.

Investigated the causal relationship between financial deepening and economic growth in Nigeria spanning from 1970 to 2013 [37]. Using the Toda–Yamamoto augmented Granger causality test, their study revealed a supply-leading relationship, indicating that financial deepening precedes and drives economic growth in Nigeria. To enhance the existing literature, future research could extend the analysis to more recent years, employ alternative causality tests, explore non-linear effects, conduct sectoral analyses, assess the quality of financial institutions, provide practical policy recommendations, conduct comparative analyses with other countries, perform robustness checks, and consider the influence of external factors on the financial deepening-economic growth nexus. These endeavors would contribute to a more comprehensive understanding of the relationship between financial deepening and economic growth in Nigeria and its implications for policymaking

Investigated the relationship between financial deepening and economic growth in Nigeria using data spanning from 1985 to 2014 [48]. Employing the supply-leading hypothesis and utilizing data from the Central Bank of Nigeria, they conducted an Ordinary Least Squares (OLS) regression analysis. Their findings indicated that both bank-based and stock market proxies for financial deepening had a significant and positive impact on economic growth. To further enhance the existing literature, future research opportunities include extending the analysis period, exploring alternative financial deepening measures, conducting causality analyses, examining sector-specific impacts, considering non-linear effects, offering practical policy implications, assessing the quality of financial institutions, analyzing external influences, conducting robustness checks, and undertaking comparative analyses to deepen our understanding of the complex relationship between financial deepening and economic growth in Nigeria and its relevance for broader economic policy considerations.

Examined the relationship existing between financial development and inclusive growth for the period of 1980 to 2013 [43]. They employed the quantile regression-based threshold analysis. The result of their analysis revealed a 90th percentile threshold level, and that the impact of financial development on inclusive growth is determined by the measure of the previous threshold level. Also, the study found that trade openness and capital investment are necessary for inclusive growth in Nigeria.

Conducted an empirical examination of the relationship between the development of financial institutions and Nigeria's economic growth spanning the years 1981 to 2011 [49]. This investigation employed the Auto-Regressive Distributed Lag (ARDL) method for co-integration analysis. The study's findings revealed an insignificantly negative long-term relationship between financial development and Nigeria's economic growth, while in the short term, this relationship was significantly negative.

Examined the relationship between financial development and economic growth in Nigeria [44]. They used a comprehensive set of financial development indicators and various econometric techniques to analyze data from 1987 to 2014. Their findings suggested that financial development and economic growth are positively linked in the long run. Specifically, credit to the private sector, stock market capitalization, and inflation were found to have a negative impact on the economy, while broad money supply, trade openness, and foreign direct investment had a positive influence. To improve the literature, future research should consider extending the study's time frame, conducting causality analysis, sensitivity testing, sectoral analysis, offering policy recommendations, incorporating macroeconomic stability indicators, exploring regional variations, using qualitative data, and updating findings with more recent data.

Study investigated the role of financial development in economic growth in Nigeria using data from 1961 to 2012 [50]. The analysis employed a bootstrap rolling window approach to account for potential time variation in the relationship. The results from the full sample bootstrap Granger causality test indicated no causal link between financial development and economic growth. However, concerns were raised about the stability of the relevant VAR model, which cast doubt on the confidence in the causality tests. To improve the literature, future research should consider extending the time period, using alternative data sources, exploring non-linear relationships, conducting regional analyses, offering clear policy implications, and conducting robustness checks to ensure the reliability of the findings.

2.7. Gap in The Literature

The existing literature on the relationship between financial development and economic growth, particularly in the context of Nigeria and other regions, highlights several research gaps and avenues for future exploration. Firstly, there is a need to update data to encompass more recent economic conditions to offer a clearer picture of the current relationship [50]. Additionally, researchers should consider diversifying their methodologies beyond traditional regression analyses to gain deeper insights [44]. Understanding the causality and directionality of the financial development-economic growth relationship is another key research opportunity [37]. Exploring sector-specific impacts, the role of institutions, and external factors, as well as analyzing regional variations and assessing the quality of financial institutions, do essential for a more comprehensive understand [48]. Moreover, providing specific and detailed policy recommendations and conducting robustness checks to validate findings can enhance the relevance of research in guiding policymakers and advancing our understanding of this complex relationship [42]. Addressing these gaps will contribute to a more

nuanced comprehension of the elaborate dynamics between financial development and economic growth, benefiting both academic research and practical policymaking efforts.

3. Methodology

The paper used annual time series data spanning from 1985 to 2022. The data were used for the study are; Gross Domestic Product (GDP), Domestic Credit to Private Sector (DCRS), Market Capitalization (MACAP) used in the work of [51], Consumer Price Index (CPI), Foreign Direct Investment (FDI), Interest Rate (INRT) and financial development (FD) proxies by the ratio of broad money stock (M2) as used in the work of [52] the data were collected from the Central Bank of Nigeria (CBN), World Bank Development Indicators (WDI, 2023) and Global Economic Data Indicator. In analysing the data, the ARDL bound testing approach to co-integration was employed. Given the above, the model is specified to address objective of the study as follow:

$$GDP = f(DCRS, FD, MACAP, CPI, FDI, INRT) \quad (1)$$

Where: GDP=Gross Domestic Product, DCRS=Domestic Credit to Private Sector, FD=Financial Development proxies by the ratio of broad money stock (M2), CPI= Consumer Price Index, FDI= Foreign Direct Investment, INTR= Interest Rate

The transformation of the model into an econometric model, incorporating the error term, is outlined as follows:

$$\ln GDP_t = \beta_0 + \beta_1 \ln DCRS_t + \beta_2 \ln FD_t + \beta_3 \ln MACAP_t + \beta_4 \ln CPI_t + \beta_5 \ln FDI_t + \beta_6 \ln INRT_t + \mu_t \quad (2)$$

Where $\ln GDP$ =Gross domestic product, β_0 = Constant parameter, β_i = Coefficient of the explanatory variables $i= 1, 2, \dots, 6$, μ_t = stochastic disturbance term, $\ln DCRS$ =Domestic credit to private sector, $\ln FD$ = Financial development proxies by the ratio of broad money stock (M2), $\ln MACAP$ = market capitalization, $\ln CPI$ =Consumer Price Index, $\ln FDI$ =Foreign Direct Investment, $\ln INRT$ =Interest Rate, t = time subscript.

ARDL Bound Approach

Following the works of [53] the Autoregressive Distributed Lag (ARDL) model for equation (ii) is expressed as follows:

$$\ln GDP_t = \beta_0 + \beta_1 \ln DCRS_{t-1} + \beta_2 \ln FD_{t-1} + \beta_3 \ln MACAP_{t-1} + \beta_4 \ln CPI_{t-1} + \beta_5 \ln FDI_{t-1} + \beta_6 \ln INRT_{t-1} + \sum_{i=1}^p \lambda_1 \Delta \ln DCRS_{t-1} + \sum_{i=0}^p \lambda_2 \Delta \ln FD_{t-1} + \sum_{i=0}^p \lambda_3 \Delta \ln MACAP_{t-1} + \sum_{i=0}^p \lambda_4 \Delta \ln CPI_{t-1} + \sum_{i=0}^p \lambda_5 \Delta \ln FDI_{t-1} + \sum_{i=0}^p \lambda_6 \Delta \ln INRT_{t-1} + \mu_t \quad (3)$$

Where β_0 = the drift component, Δ = the first difference operator, $\ln GDP$ = log of Gross Domestic Product, $\ln FD$ = log of Financial development, $\ln MACAP$ = log of Market Capitalization, $\ln CPI$ = log of consumer price index, $\ln FDI$ = foreign direct investment, $\ln INRT$ = interest rate, λ_i = parameter coefficient of the variables and μ_t = white noise with zero mean.

All the variables are transformed in to logarithmic forms. The terms with the summation signs (\sum) in equation (iii) above represent the error correction dynamics, while the part of the equation with β_1 correspond to the long-run relationship, the null hypothesis in the equation is $H_0 = \alpha_1 = \alpha_2 = \alpha_3 = 0$. This denotes the absence of long-run relationship while the alternative hypothesis is $H_0 \neq \alpha_1 \neq \alpha_2 \neq \alpha_3 \neq 0$. The calculated F statistics will be compared with two sets of critical values. One set assumes that all the variables are I(0) and the other assumes that all the

variables are I(1). If the calculated F statistics exceed the upper critical value, the null hypothesis of no co-integration will be rejected irrespective of whether the variables are I(1) or I(0) [54].

4. Finding and Discussion

This section presents and discusses the results obtained from the data analysis using the specified models.

4.1. Unit Root Analysis

The stationarity of the employed series is initially assessed using the Augmented Dickey-Fuller (ADF) test, as proposed by Dickey and Fuller in 1997. Unit root tests were conducted using ADP and PP test, this is necessary in order to determine the nature of the series and to avoid getting spurious result. The table below summarized the results are presented in Table 1.

Table 1. Augmented Dickey-Fuller (ADF) and Phillip-Perron's (PP)

Variable	Augmented Dickey-Fuller (ADF)			Phillip-Perron (PP)		
	At Level	After 1 st Differencing	Order of Integration	At Level	After 1 st Differencing	Order of Integration
GDP	-0.5481 (0.8688)	-4.0043 (0.0038)***	I(1)	-0.3238 (0.9116)	-3.9158 (0.0047)***	I(1)
DCRS	-1.2997 (0.6184)	-5.7674 (0.0000)***	I(1)	-1.5755 (0.4848)	-7.2248 (0.0000)***	I(1)
FD	-3.2621 (0.0244)**	-5.1075 (0.0000)***	I(0)	-3.1477 (0.0318)**	-9.3444 (0.0000)***	I(0)
MACAP	-1.5500 (0.4976)	-5.9684 (0.0000)***	I(1)	-1.6635 (0.4409)	-5.9691 (0.0000)***	I(1)
CPI	-2.5073 (0.1238)	-3.2069 (0.0302)**	I(1)	-2.8125 (0.0662)*	-7.0402 (0.0000)***	I(0)
FDI	-3.7755 (0.0067)***	-7.8602 (0.0000)***	I(0)	-3.7598 (0.0070)**	-13.4581 (0.0000)***	I(0)
INRT	-3.7068 (0.0080)***	-5.8463 (0.0000)***	I(0)	-3.7232 (0.0077)**	16.7298 (0.0000)***	I(0)

Note: (*) significant at 10%, (**) Significant at the 5%, (***) Significant at the 1% respectively. The figures are the t-statistics for testing the null hypothesis that the series has unit root.

Source: Researcher's Computation

Table 1 presents the estimation of the augmented dickey fuller (ADF) and Phillip-perron (PP) unit root test on the macroeconomic variables that determine financial development. The ADF results show that financial development (FD), foreign direct investment (FDI), and interest rate (INRT) of the series are stationary at level with constant trend, Gross Domestic Product (GDP), Domestic to private sector (DCRS), Market capitalization (MACAP), consumer price index (CPI) are stationary after first differencing. The Phillip-perron (PP) result shows that consumer price index (CPI), foreign direct investment (FDI) and interest rate (INRT) are stationary at level. The GDP, DCRS and MACAP are stationary after first differencing. Therefore, the series are characterised by mixture of order on integration of I(1) and I(0) restively.

However, it has been argued that the presence of a structural break in the data-generating process can result in size distortion and yield spurious conclusions in the Augmented Dickey-Fuller (ADF) model [56, 57] Therefore, in addition to conducting the traditional ADF test, this study incorporates the Zivot and Andrews one-break Lagrange Multiplier (LM) test with one structural break to more thoroughly examine the unit root properties of the series. The results of this analysis are presented in Table 2.

The Zivot-Andrew test in Table 2 indicates that three variables GDP, FDI, and MACAP are non-stationary at the level. However, all the variables become stationary after taking their first difference. The test also establishes that the break date is 2007.

Table 2. Zivot-Andrew One Break LM Unit Root Test

Zivot-Andrew One-Break LM Unit Root Test										
MODEL A						MODEL C				
Series	K	\tilde{T}_B	t'_{rj}	Test Stat.	Critical Value Break Point Δ	K	\tilde{T}_B	t'_{rj}	Test Stat.	Critical Value Break Point Δ
<i>dGDP</i>	4	2007	5.34*	-2.938 ^A	0.09	4	2000	4.58***	-3.851 ^A	0.00
<i>dDCRS</i>	4	2013	4.80***	-5.827 ^B	0.00	4	2007	5.57**	-5.492 ^C	0.04
<i>dFD</i>	4	2005	5.57*	-4.505 ^C	0.08	4	2008	4.93**	-2.760 ^A	0.01
<i>dMACAP</i>	4	2005	4.80*	-2.962 ^B	0.06	4	2008	5.34**	-6.805 ^A	0.04
<i>dCPI</i>	4	1998	5.34***	-5.461 ^A	0.00	4	2001	5.57**	-7.186 ^C	0.04
<i>dFDI</i>	4	2013	5.34**	-4.526 ^A	0.05	4	1995	4.58*	-4.226 ^A	0.08
<i>dINT</i>	4	1997	5.57***	-5.844 ^C	0.00	4	1999	4.80***	-5.437 ^B	0.00

Note: k^{\wedge} is the optimal number of lagged first-difference terms included in the unit root test to correct for serial correlation. T^{\wedge}_B denotes the estimated break points. $[t^{\wedge}]_{rj}$ is the t value of $DTjt$, for $j=1, A, B$ and C indicate significance of the LM test statistics at 99%, 95% and 90% significance level, respectively. While ***, ** and * indicates the two-tailed significance level of the break data at 99%, 95% and 90% respectively.
 Source: Researcher's Computation

This coincides with the spill over effect, and despite these measures, the impact of the global financial crisis (GFC) on Nigeria's economy was significant. The country's growth rate declined from 6.5% in 2008 to 4% in 2009, and unemployment rose to around 19%. Nevertheless, Nigeria's economy has since rebounded, with growth rates averaging around 6% in the years following the crisis.

Table 3. Correlation Matrix of Variables of the Model

	<i>GDP</i>	<i>DCRS</i>	<i>FD</i>	<i>MACAP</i>	<i>CPI</i>	<i>FDI</i>	<i>INRT</i>
<i>GDP</i>	1.000000						
<i>DCRS</i>	0.828958	1.000000					
<i>FD</i>	0.814570	0.617570	1.000000				
<i>MACAP</i>	-0.049097	0.224234	-0.341927	1.000000			
<i>CPI</i>	-0.259428	-0.273205	-0.179036	-0.113072	1.000000		
<i>FDI</i>	-0.288559	-0.115575	-0.343968	0.316339	0.435268	1.000000	
<i>INRT</i>	0.387350	0.411979	0.296551	0.032251	-0.717375	-0.298544	1.000000

Source: Researcher's Computation

The correlation matrix presented in Table 3, valuable insights into the relationships between several key economic variables. Firstly, there is a substantial positive correlation of approximately 0.829 between GDP (Gross Domestic Product) and DCRS (Domestic Credit to the Private Sector), indicating that as GDP increases, domestic credit to the private sector tends to rise. Similarly, there is a strong positive correlation of approximately 0.815 between GDP and FD (Foreign Direct Investment), suggesting that an increase in GDP corresponds to an increase in foreign direct investment. Conversely, there is a weak negative correlation of about -0.049 between GDP and MACAP (Market Capitalization), hinting at a slight tendency for market capitalization to decrease as GDP increases, although this relationship is not particularly strong. Moreover, a negative correlation of approximately -0.259 is observed between GDP and CPI (Consumer Price Index), implying that as GDP increases, consumer prices tend to decrease, which suggests lower inflation. A more complex relationship appears between GDP and FDI (Foreign Direct Investment) as a negative correlation of roughly -0.289 is noted. This might suggest that as GDP increases, foreign direct investment may decrease, though the nature of this relationship is multifaceted and necessitates further examination. Lastly, a positive correlation of about 0.387 exists between GDP and INRT (Interest Rate), signifying that as GDP rises, interest rates tend to increase, possibly influenced by central bank policies.

Table 4. Bound Test for Cointegration

Test Statistic	Value	K
F-Statistic	12.32116	6
Critical Value Bounds		
Significance	<i>I(0)Bound</i>	<i>I(1) Bound</i>
10%	1.9	2.94
5%	2.27	3.28
1%	2.88	3.99

Source: Researcher's Computation

The bound co-integration test in Table 4 revealed the existence of cointegration among the variables used to assess the presence of a long-term relationship, known as co-integration, among a group of variables, the test produced an F-Statistic value of 12.32116. To determine the significance of this result, we compare it against critical value bounds set at different levels of significance: 10%, 5%, and 1%. At the 10% significance level, the upper bound is 2.94, and at the 5% significance level, the upper bound is 3.28. Notably, the F-Statistic of 12.32116 exceeds both of these upper bounds, indicating the establishment of co-integration at both the 10% and 5% significance levels.

Table 5. Long Run Coefficient

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
<i>GDP(-1)</i>	0.984850	0.021347	46.13424	0.0000
<i>FDI</i>	0.022201	0.020463	1.084947	0.2887
<i>FDI(-1)</i>	0.023771	0.008924	2.663677	0.0136
<i>DCRS</i>	-0.001904	0.002784	-0.683761	0.5007
<i>MACAP</i>	0.003400	0.002845	1.195378	0.2436
<i>CPI</i>	-0.000583	0.000654	-0.891740	0.3814
<i>CPI(-1)</i>	0.000931	0.000494	1.885385	0.0715
<i>CPI(-2)</i>	-0.001288	0.000430	-2.998870	0.0062
<i>FDI</i>	-0.024381	0.010996	-2.217243	0.0363
<i>INRT</i>	0.001192	0.000862	1.382768	0.1795
<i>C</i>	0.560836	0.655815	0.855174	0.4009

Source: Researcher's Computation

The study in Table 4 question reveals several crucial insights into the interplay between economic indicators and the Gross Domestic Product (GDP) of Nigeria. Notably, it finds that Domestic Credit to Private Sector (DCRS) has a negative effect on GDP, with a 1 percent decrease in DCRS resulting in a small reduction in GDP by 0.0019. However, this impact is statistically insignificant, suggesting that DCRS may indirectly influence GDP, aligning with the assertions made in the study by [58] On the other hand, the Consumer Price Index (CPI)(-2) exhibits a significant negative influence on GDP, where a 1 percent decrease in CPI(-2) reduces GDP by 0.0013, supported by a 1 percent significance level. This concurs with the findings of [59]. Foreign Direct Investment (FDI) displays a noteworthy negative correlation with GDP, as a 1 percent decrease in FDI results in a substantial GDP reduction of 0.024, statistically significant at the 5 percent level. Furthermore, the study indicates that Market Capitalization (MACAP), Foreign Direct Investment FDI(-1), Consumer Price Index CPI(-1), and Interest Rate (INRT) contribute positively to financial development during the study period. Specifically, FDI(-1), MACAP, and CPI(-1) significantly enhance financial development, with the CPI(-1) impact being statistically significant at the 10 percent level. These findings shed light on the intricate relationships between economic variables and Nigeria's GDP and provide valuable insights for policymakers and economists in the region.

The analysis in Table 6 provides the short-run relationship between independent variables and financial development, employing an error correction model (ECM). The results, as depicted in Table 6, reveal the following key findings: First and foremost, the ECM coefficient, which stands at

approximately -0.015, demonstrates consistency with the expected sign, and its statistical significance at the 1% level, as indicated by the remarkably low p-value of 0.0000, underscores its significance in the model.

Table 6. Result for Short –Run Coefficient

Variable	Coefficient	Std. Error	t-Statistic	Prob.
<i>D(FDI)</i>	0.020678	0.014150	1.461409	0.1569
<i>D(DCRS)</i>	-0.001307	0.002564	-0.509775	0.6149
<i>D(MACAP)</i>	0.000814	0.003669	0.221867	0.8263
<i>D(CPI)</i>	-0.000661	0.000372	-1.775875	0.0884
<i>D(CPI(-1))</i>	0.001327	0.000333	3.986112	0.0005
<i>D(FDI)</i>	-0.024088	0.007418	-3.247385	0.0034
<i>D(INRT)</i>	0.000999	0.000558	1.789699	0.0861
<i>CointEq(-1)</i>	-0.015187	0.001298	-11.699663	0.0000

Source: Researcher's Computation

This reinforces the ECM's role as a crucial component in explaining the interplay between the independent variables and financial development. Moreover, the ECM analysis yields valuable information about the adjustment process to equilibrium following a shock. With an error correction term of -0.015, it signifies a relatively sluggish rate of adjustment. Approximately 15% of the disequilibrium stemming from the previous year's shock appears to gradually revert or converge back to the long-term equilibrium in the current year. This observation highlights the gradual nature of the adjustment, emphasizing that the system takes time to restore balance after experiencing disruptions.

Table 7. Result of Granger Causality Test

<i>Null Hypothesis:</i>	<i>Obs</i>	<i>F-Statistic</i>	<i>Prob.</i>
DCRS does not Granger Cause GDP	36	1.13134	0.3356
GDP does not Granger Cause DCRS		5.17798	0.0115
FD does not Granger Cause GDP	36	1.42755	0.2552
GDP does not Granger Cause FD		6.16889	0.0056
CPI does not Granger Cause GDP	36	0.53076	0.5934
GDP does not Granger Cause CPI		2.70774	0.0824
FDI does not Granger Cause GDP	36	0.72275	0.4934
GDP does not Granger Cause FDI		2.85693	0.0727
INRT does not Granger Cause GDP	36	0.17755	0.8382
GDP does not Granger Cause INRT		3.15249	0.0567
MACAP does not Granger Cause DCRS	36	0.33682	0.7166
DCRS does not Granger Cause MACAP		5.11450	0.0120
CPI does not Granger Cause DCRS	36	3.37120	0.0473
DCRS does not Granger Cause CPI		1.98346	0.1547
FDI does not Granger Cause FD	36	0.04759	0.9536
FD does not Granger Cause FDI		3.40078	0.0462
FDI does not Granger Cause CPI	36	0.99789	0.3802
CPI does not Granger Cause FDI		4.98791	0.0132

Source: Researcher's Computation

Table 7 present Granger causality results; DCRS and GDP: The test suggests that DCRS does not Granger Cause GDP, meaning that the past values of DCRS do not provide useful information for predicting GDP. FD and GDP: Similar to the first case, the test indicates that FD does not Granger Cause GDP, implying that past values of FD are not helpful in forecasting GDP. CPI and GDP: The test suggests that CPI does not Granger Cause LGDP. In this context, this means that past values of the Consumer Price Index (CPI) do not significantly contribute to predicting changes in Gross Domestic Product (GDP). FDI and GDP: Like the previous cases, FDI does not Granger Cause GDP, indicating that past FDI values do not have a strong predictive power for GDP. INRT and GDP: The test results show that INRT does not Granger Cause GDP. This means that past values of interest rates (INRT) are not highly useful in forecasting changes in GDP. MACAP and DCRS: The test suggests bidirectional Granger causality. DCRS does not Granger Cause MACAP, and vice versa. This implies that there is a significant predictive relationship between past values of both variables. CPI and DCRS: This result indicates a unidirectional relationship. CPI does not Granger Cause DCRS, suggesting that past CPI values do not significantly influence the predictability of DCRS, but the reverse relationship isn't as clear. FDI and FD: The test results indicate bidirectional Granger causality. FDI does not Granger Cause FD, and FD does not Granger Cause FDI. This implies a predictive relationship between the two variables in both directions. FDI and CPI: The result shows that CPI does not Granger Cause FDI, while FDI Granger Causes CPI. In other words, past values of FDI provide information useful for forecasting changes in the Consumer Price Index (CPI), but the reverse relationship is not significant.

Table 8. Diagnostic Test Results

<i>Breusch-Godfrey Serial Correlation LM Test:</i>		
F-statistics	0.023857 Prob. F (2,22)	0.9765
Obs*R-squared	0.075745 Prob. Chi-Square (2)	0.9628
<i>Heteroskedasticity Test: Breusch-Pagan-Godfrey</i>		
F-statistic	0.570452 Prob. F (10, 24)	0.8215
Obs*R-squared	6.721474 Prob. Chi-Square (10)	0.7515

Source: Researcher's Computation

The diagnostic tests presented in Table 8 yielded results indicating that we found no substantial evidence of serial correlation, model misspecification, or heteroskedasticity in our model. This means that our statistical assumptions appear to hold, reinforcing the reliability of our analysis. Moreover, the diagnostic tests also demonstrated that the estimated coefficients in our model are robust and not influenced by issues related to serial correlation, model misspecification, or heteroskedasticity. This reinforces the trustworthiness of the coefficients and their association with the variables in our analysis.

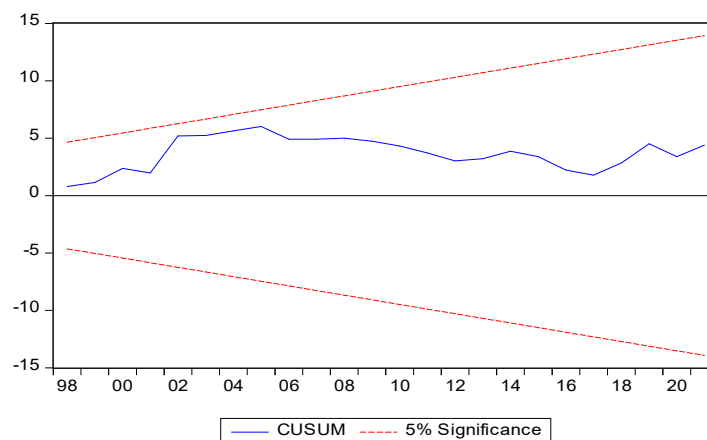


Figure 1. Plot of Cumulative Sum of Recursive Residual

To assess the stability of these estimated coefficients, we scrutinized cumulative sum of recursive residuals and cumulative sum of squares, graphically represented in Figures 1 and 2. These visual representations offer valuable insights into whether our coefficients remain consistent over time or exhibit significant fluctuations. Stable coefficients are essential for the accuracy and trustworthiness of our model's predictions.

The stability of the long-run relationship between financial development and its determinants is checked. We used the CUSUM tests to test for constancy of long-run parameters. The tests are applied to the residuals of the model. The plot of the CUSUM statistics stays within the 5% significance level, therefore, the estimates are stable.

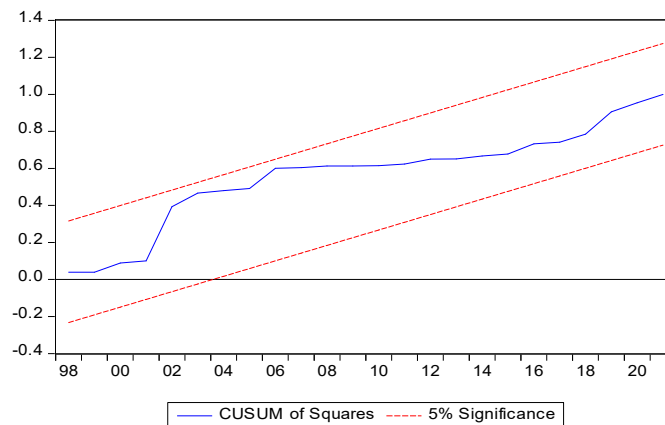


Figure 2. Plot of Cumulative Sum of Squares of Recursive Residual

Next, we assessed the stability of the long-run relationship between financial development and economic growth by employing CUSUM-squared tests to examine the constancy of long-run parameters. These tests were conducted on the residuals of the model. The CUSUM-squared statistics, when plotted, consistently remained within the 5% significance level, indicating that the estimates are stable. This suggests that the coefficients remain consistent over the entire study period. Figures 1 and 2 depicts that the parameters fall within the upper and lower critical bounds at the 5% significance level.

5. Conclusion

The study investigates the impact of financial development on economic growth in Nigeria. It finds that certain economic indicators, like Domestic Credit to Private Sector (DCRS), Consumer Price Index (CPI), and Foreign Direct Investment (FDI), have varying effects on Nigeria's Gross Domestic Product (GDP). DCRS negatively influences GDP, though this impact is not statistically significant, suggesting an indirect effect. In contrast, CPI and FDI have significant impacts on GDP, with CPI negatively affecting it and FDI showing a strong negative correlation. The study also employs an error correction model (ECM) to analyze short-term relationships between these variables and financial development, revealing a slow rate of adjustment to equilibrium after economic shocks. In conclusion, this research offers valuable insights for Nigerian policymakers and economists, aiding their understanding of the complex link between financial development and economic growth. Nonetheless, these findings should be considered within the study's context and alongside other relevant factors when making informed economic decisions and policy recommendations; Strengthen Price Stability: Implement effective monetary policies and price control mechanisms to maintain stable and controlled inflation levels, reducing the negative impact of rising consumer prices on economic growth. Promote Foreign Direct Investment (FDI): Attract and encourage foreign direct investments through investor-friendly policies, reduced bureaucratic barriers, and incentives to boost economic growth. Enhance Credit Accessibility: Make credit more accessible to private businesses and individuals to stimulate economic activities and productivity, even though the direct impact of Domestic Credit to Private Sector (DCRS) is statistically insignificant. Improve Economic Shock

Resilience: Build a more resilient economy by diversifying economic activities, accumulating foreign exchange reserves, and strengthening financial regulatory mechanisms to facilitate a quicker recovery and adjustment to equilibrium following economic shocks.

References

- [1] C. I. Obianagwa, and S. C. Eze, "Financial sector reforms in Nigeria: A Review". *Journal of Economics and Finance*, vol.11, no.1, pp.1-14, 2020.
- [2] T. M. Akintunde, and O. Olaniran, "Financial sector development and economic growth in Nigeria: An Empirical Analysis". *International Journal of Economics, Commerce, and Management*, vol. 10, no.2, pp. 1-16, 2022.
- [3] C. I. Obianagwa, and S. C. Eze, "Financial sector reforms in Nigeria: A Review". *Journal of Economics and Finance*, vol. 11, no.1, pp.1-14, 2020.
- [4] T. M. Akintunde, and O. Olaniran, "Financial sector development and economic growth in Nigeria: An Empirical Analysis". *International Journal of Economics, Commerce, and Management*, vol. 10, no.2, pp.1-16, 2022.
- [5] P. O. Alege, and I. O. Ogunrinola, "Financial sector development and economic growth: The Nigerian experience". *European Journal of Economics, Finance, and Administrative Sciences*, vol. 11, no. 2, pp. 53-61, 2008
- [6] A. E. Akinlo, and T. Egbetunde, "Financial development and economic growth: The experience of 10 Sub-Saharan African Countries Revisited". *The Review of Finance and Banking*, vol. 2, no.1, pp. 17-28, 2010
- [7] H. Okodua, and O. O. Ewetan, "Financial sector development and economic growth: Evidence from Nigeria". *Journal of Economics and International Finance*, vol. 5, no. 9, pp. 337-345, 2013
- [8] O. O. Ewetan, and S. E. Ike, "Financial sector development and economic growth in Nigeria: An empirical investigation". *Journal of Economics and Sustainable Development*, vol. 5, no.9, pp. 133-145, 2014.
- [9] CBN Act No 24 of 1991 (Central Bank of Nigeria Act, amended in 1997, 1998, and 1999)
- [10] Banking and Other Financial Institutions Act (BOFIA) No 25 of 1991 (amended in 1997, 1998, and 1999)
- [11] R. Levine, and S. Zervos, "Stock markets, banks, and economic growth". *American Economic Review*, vol. 88, no. 3, pp. 537-558, 1998
- [12] R. G. Rajan, and L. Zingales, "Financial dependence and growth". *The American Economic Review*, vol. 88, no. 3, pp.559-586, 1998.
- [13] E. Adegbite, and A. S. Fakile, "The impact of financial development on economic growth in Nigeria: An empirical analysis". *Research Journal of Finance and Accounting*, vol. 5, no.18, pp. 46-55, 2014.
- [14] T. Beck, R. Levine, and N. Loayza, "Finance and the sources of growth". *Journal of Financial Economics*, vol. 58, no. 1-2, pp. 261-300, 2000.
- [15] O. Ogbonna, and E. Udoh, "Financial deepening and economic growth in Nigeria: An empirical analysis". *Journal of Economics and Sustainable Development*, vol. 9, no.13, pp. 1-12, 2018
- [16] A. Demirgüç-Kunt, and R. Levine, "Finance and inequality: Theory and evidence". *Annual Review of Financial Economics*, vol. 1, no. 1, pp. 287-318. 2009.
- [17] N. B. Ijeoma, and A. C. Gideon, "Banking sector development and economic growth in Nigeria: A causality analysis". *CBN Journal of Applied Statistics*, vol. 8, no. 2, pp. 1-31, 2017
- [18] A. Demirgüç-Kunt, and L. Klapper, (2012). "Measuring financial inclusion: The global index database". *World Bank Policy Research Working Paper*, (6025), 2012
- [19] A. I. Okezie, and K. C. Uzoma, "Financial inclusion and economic growth in Nigeria": *Journal of Economics and Sustainable Development*, vol.7, no. 1, pp. 123-132, 2016
- [20] O. Udeme, O.O. Chinelo, and O.U. Georgina, "The impact of financial deepening on the economy of Nigeria". *Asian Journal of Economics, Business and Accounting*, vol. 15, no. 1, pp. 12-21, 2020.
- [21] B.K. Guru, and I.S. Yadav, "Financial development and economic growth: Panel evidence from BRICS". *Journal of Economics, Finance and Administrative Science*, vol.24, no.47, pp. 113-126, 2019

- [22] S.E. Kisaka, "The effect of financial deepening on the performance of small holder farmers in home bag country, Kenya". *Research Journal of finance and Accounting*, vol.6, no.10, pp.141-155, 2015.
- [23] J. Smith, "Economic growth: Concepts and implications". *Economic Journal*, vol. 45, no. 2, pp. 123-136, 2020.
- [24] A. Jones, "Measuring economic growth through GDP". *Journal of Economic Indicators*, vol. 30, no. 4, 287-302, 2019.
- [25] R. Brown, "Drivers of Economic Growth: A comparative analysis". *Economic Review*, vol. 55, no.3, pp. 210-225, 2018
- [26] M. Johnson, "The Relationship between economic growth and living standards". *Economic Development Quarterly*, vol. 48, no. 1, pp. 65-78, 2021
- [27] F. T. Hung, "Non-linear effect of financial development on economic growth". *Journal of Banking & Finance*, vol. 33, no. 9, pp. 1714-1726, 2009
- [28] M. Shahbaz, N. Ahmed, and L. Ali, "The nonlinear link between financial development and economic growth in India: A regime-switching approach". *Journal of Economic Studies*, vol. 44, no.1, pp. 68-108, 2017.
- [29] J. Botev, B. Égert, and F. Jawadi, "The nonlinear relationship between financial development and economic growth: A threshold VAR approach". *Economic Modelling*, vol. 77, no.2, pp. 1-14, 2019.
- [30] W. Bagehot, "*Lombard Street: A description of the money market*". Henry S. King & Co, 1873
- [31] J. A. Schumpeter, "*The Theory of Economic Development*": An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle. Harvard University Press, 1911
- [32] J. R. Hicks, "*A Theory of Economic History*". Clarendon Press, 1969
- [33] J. Greenwood, and B. Jovanovic, "Financial development, growth, and the distribution of Income". *Journal of Political Economy*, vol. 98. no. 5, pp. 1076-1107, 1990
- [34] R. Levine, "Stock markets, growth, and tax policy". *Journal of Finance*, vol. 46, no. 4, pp. 1445-1465, 1991
- [35] V. R. Bencivenga, and B. D. Smith, "Financial intermediation and endogenous growth". *The Review of Economic Studies*, vol. 58, no. 2, pp. 195-209, 1991.
- [36] G. Saint-Paul, "Fiscal policy in an endogenous growth model". *The Quarterly Journal of Economics*, vol. 107, no. 4, pp. 1243-1259, 1992
- [37] T. M. Karimo, and C. N. Ogbonna, "Causality between financial deepening and economic growth in Nigeria. Evidence from Toda–Yamamoto augmented granger causality test". *International Journal of Economics, Commerce, and Management*, vol. 5, no. 8, pp. 26-45, 2017
- [38] S. Ohiomu, and B. Oligbi, "Relationship between financial sector development, financial deepening, and economic growth in Nigeria: Empirical evidence". *Journal of Economics and Sustainable Development*, vol. 11, no.4, pp.1-15, 2020
- [39] A. S. Yahaya, and T. F. Kolapo, "Impact of financial development on Nigerian Economic growth: Evidence from Central Bank Nigeria Bulletin (2015)". *Journal of Economics, Management, and Trade*, vol.26, no.6, pp. 10-24, 2020.
- [40] W. R. Alexander, and A. Klemm, "Financial sector development in Mexico: Factors and impacts". *International Journal of Economics, Commerce, and Management*, vol. 7, no. 10, pp. 24-39, 2019.
- [41] S. Chung-hua, "Causal relationship between financial development and economic growth: A Novel Approach Using LSDVC+LTS". *Journal of Finance and Economics*, vol.6, no. 4, pp. 171-188, 2018.
- [42] T. Dilek, S. Serdar, and Y. Hakan, "Financial development and economic growth: A theoretical and empirical analysis". *Journal of Economic Research*, vol. 22, no. 1, pp. 45-68, 2017
- [43] O. O. Taofeek, and O. O. Olumuyiwa, "Financial development and inclusive growth in Nigeria: A Quantile Regression Threshold Analysis". *International Journal of Economics, Commerce, and Management*, vol. 4, no. 5, pp.1-15, 2016.
- [44] N. J. Modebe, and H. C. Ezeaku, "Financial development and economic growth in Nigeria. An empirical investigation". *International Journal of Economics, Commerce, and Management*, vol. 4, no.4, pp. 14-30, 2016.

- [45] K. U. Ehigiamusoe, and M. S. Samsurijan. “What matters for finance-growth nexus? A critical survey of macroeconomic stability, institutions, financial and economic development”. *International Journal of Finance & Economics* vol. 26, no. 4, pp. 5302–5320, 2021
- [46] E. Effiong, “Financial development, institutions and economic growth: Evidence from Sub-Saharan Africa”. *MPRA paper N0. 6608*, 2015.
- [47] M. Sulemana, and J. B. Dramani, “Effect of financial sector development and institutions on economic growth in SSA. Does the peculiarities of regional bloc’s matter?”. *Journal of Sustainable Finance & Investment* vol.12, no. 4, pp. 1102– 1124, 2020.
- [48] O. N. Nwanna, and C. Chinwudu, “Financial deepening and economic growth in Nigeria. An empirical investigation”. *Journal of Finance and Accounting*, vol. 4, no. 6, pp. 311-323, 2016
- [49] I. Iheanacho, “Financial institutions development and economic growth in Nigeria: An empirical analysis”. *Journal of Economics and Sustainable Development*, vol. 7, no. 9, pp.160-168, 2016.
- [50] G. C. Aye, “Financial development and economic growth in Nigeria: A bootstrap rolling window approach”. *Journal of Economics and Sustainable Development*, vol. 6, no.9, pp.186-194, 2015
- [51] R. Alexander, P. Divine, and A. Benjamin, “Financial sector development in Nigeria” *International Journal of Economics, Commerce, and Management*, vol. 9, no. 3, pp. 24-39, 2022.
- [52] O. Obinna, “Financial development and economic growth in Nigeria. *Journal of Economics and Sustainable Development*”, vol. 6, no. 20, pp. 26-40, 2015
- [53] P., K. Narayan, “The savings and investment nexus for China: Evidence from cointegration test”. *Applied Economics*, vol. 37, no. 17, pp. 1979-1990, 2005
- [54] M. H. Pesaran, Y. Shin, and R. J. Smith, (2001). “Bound testing approaches to the analysis of long-run relationship”. *Journal of Applied Economics*, vol. 16, no.2, pp. 29-326, 2001
- [56] E. Zivot, and A. Wang, K. Andrew, “Further evidence on the great crash, the oil-price shock, and the unit root hypothesis”. *Journal of Business and Economics Studies*, vol. 20, no. 1, pp. 25-44, 1992.
- [57] P. Perron, “The great crash, oil price shock, and the unit root hypothesis”. *Econometrica: Journal of Econometrica Society*, vol. 57, no. 6, pp. 1361-140, 1989
- [58] B. G. Osisanwo, “Financial development and economic growth nexus in Nigeria: Further evidence from long-run estimate”. *Business Administration and Business Economics*, vol. 13, no. 3, pp. 5-17, 2017
- [59] A. A. John, and S. M. Kyalo, “Impact of globalization on financial development in Nigeria”. *Financial Law Review*, vol. 25, no. 1, pp. 158-177, 2022.