



Aliyu Abubakar Zumo,
Postgraduate Student,
Department of Economics,
Adamawa State University, Mubi
Adamawa State, Nigeria
aliyuazumo@gmail.com

Prof. Aliyu Alhaji Jibrilla,
Faculty of Social Sciences,
Department of Economics,
Adamawa State University, Mubi
Adamawa State, Nigeria
aliyumaiha@gmail.com

Ibrahim Mohammed Babbuli,
Department of Banking & Finance,
Adamawa State University, Mubi
Adamawa State, Nigeria
ibrahimbabuuli@gmail.com

AN ANALYSIS OF THE IMPACT OF FINANCIAL DEVELOPMENT ON ECONOMIC GROWTH IN NIGERIA

ABSTRACT

This study delves into the intricate relationship between financial development, structural breaks, and economic growth within the context of Nigeria. Over the course of the analysis, spanning from 1980 to 2022, the study encompasses several economic cycles and crucial historical junctures that have shaped Nigeria's financial landscape. Key variables explored include financial development indices, economic growth indicators, trade openness, inflation, and domestic investment. To explore this multifaceted relationship, the study employs an array of econometric techniques, including graphical analysis, descriptive statistics, correlation analysis, Augmented Dickey-Fuller (ADF) unit root tests, the Gregory-Hansen cointegration test with structural breaks, and the Autoregressive Distributed Lag (ARDL) regression approach. The research findings yield valuable insights. In the long run, the study uncovers a positive and statistically significant link between financial development, as measured by the Financial Institution, Financial Market Development, and economic growth in Nigeria. However, the presence of structural breaks exerts a detrimental effect on economic growth. Notably, when financial development interacts with these structural breaks, it showcases a positive influence, hinting at the potential of a well-developed financial sector to counterbalance economic instability. Short-run dynamics paint a similar picture, with financial development, exerting a positive impact on economic growth. In terms of contributions, this study addresses an existing gap in the literature by focusing on the impact of structural breaks on the relationship between financial development and economic growth. It offers an insights into both long-run and short-run dynamics, enhancing our understanding of the complex interplay among these variables. In conclusion, the study underscores the necessity of acknowledging the role of structural breaks in economic dynamics, particularly when exploring the influence of financial development on economic growth. Consequently, the study recommends that Nigerian policymakers prioritize the strengthening of the financial sector, focusing on the development of financial institutions, enhancement of financial market activities, and the implementation of policies conducive to fostering economic growth. It also advocates for the recognition of structural breaks in policy design, enabling effective responses to economic challenges. Finally, measures aimed at fostering trade openness should be considered as part of a broader strategy to promote long-term economic growth in Nigeria.

Keywords: Financial Development, Economic Growth, Financial Crises, Economic Diversification

*Corresponding author:

Aliyu Abubakar Zumo,
Adamawa State University, Mubi,
Adamawa State, Nigeria
aliyuazumo@gmail.com

INTRODUCTION

Financial development and its impact on economic growth have been subjects of extensive scholarly inquiry and policy debate in the context of developing countries. Developing nations like Nigeria have made concerted efforts to bolster their financial sectors, recognizing their potential to act as catalysts for economic growth. The role of the financial sector is deeply rooted in the foundational works of Bagehot (1873) and Schumpeter (1934), who laid the qualitative groundwork for understanding the financial sector's influence on economic development. Subsequent quantitative analyses conducted by Goldsmith (1969), McKinnon (1973), and Shaw (1973) delved into the relationship between financial development and economic growth, emphasizing the importance of financial intermediaries and markets. These foundational studies provided a basis for the exploration of financial development's multifaceted role in fostering economic growth.

Empirical studies in the realm of financial development and economic growth have reinforced the significance of this relationship. Becsi and Wang (1997), for example, have demonstrated that well-developed financial sectors contribute to increasing savings and investment rates, thus promoting economic growth. Nkoro and Uko (2013) have identified a positive correlation between financial sector development and economic growth in Nigeria. Additionally, Balago (2014) utilized rigorous quantitative methodologies, such as Ordinary Least Square Regression and Vector Error Correction Models, to underscore the positive relationship between financial sector development and economic growth in Nigeria, highlighting the pivotal role of banking sector credits, market capitalization, and foreign direct investment.

However, this apparent association between financial development and economic growth is not universally consistent. A growing body of research suggests that this relationship is contingent on various factors and is subject to nuanced interpretations. Ewah et al. (2009) highlighted the potential of the Nigerian capital market to foster economic growth but noted its limited impact due to factors like low market capitalization. Similarly, Taofeek and Olumuyiwa (2016) emphasized that the influence of financial development on inclusive growth in Nigeria depends on threshold levels and external factors such as trade openness and capital investment.

Furthermore, some empirical studies have introduced complexity by examining the role of structural breaks in this relationship. The relationship between financial development and economic growth can be affected by structural breaks, which are significant and sudden changes in the trend of the data. For example, major policy changes, economic crises, or technological innovations can cause a structural break, leading to a shift in the relationship between financial development and economic growth.

A study by Ilter, O. et al. (2021) found that structural breaks in financial development can explain the nonlinear relationship between financial development and economic growth. They showed that the relationship is positive and significant in the pre-break period, but negative in the post-break period. According to Mahmood et al. (2022), structural breaks can also affect the type of financial development that is associated with economic growth. They found that in the pre-break period, equity market

development and banking sector development are positively associated with economic growth, while in the post-break period; only equity market development is positively associated with growth.

Some studies suggest that the effects of structural breaks vary across countries, depending on the stage of development and the nature of the break. Nigeria's economic history is replete with episodes of structural breaks, such as financial crises and significant policy shifts, which have posed unique challenges to understanding the consistent interplay between financial development and economic growth. Notably, Gregory and Hansen (1996) introduced the concept of cointegration with structural breaks, recognizing that economic data often exhibit shifts in their statistical properties due to such structural breaks. This approach acknowledges that financial development's impact on economic growth may change over time, necessitating the examination of these relationships in the presence of structural breaks.

Against this backdrop, this study aims to contribute to the ongoing discourse by exploring the dynamic interplay between financial development, structural breaks, and economic growth in Nigeria. It builds upon the rich literature and empirical studies that have examined these relationships and extends the analysis to consider the intricate influence of structural breaks, seeking to provide nuanced insights into this multifaceted relationship. By doing so, this study aspires to offer valuable guidance for policymakers in Nigeria as they navigate the complexities of fostering economic growth within a dynamic and ever-evolving financial landscape.

In summary, the existing literature and empirical evidence demonstrate the multifaceted nature of the relationship between financial development and economic growth in developing countries like Nigeria. These complexities arise from various factors, including structural breaks, threshold effects, and external economic conditions.

Statement of Problem

Nigeria, which grapples with sustaining economic growth amid evolving structural and external dynamics, has witnessed substantial research on the relationship between financial development and economic growth. However, Nigeria, like many other countries, experiences structural breaks due to various events or factors. Some possible causes of structural breaks in Nigeria might include:

Political Instability: Nigeria has experienced periods of political instability, such as military coups or disputed elections, which can disrupt economic activity and cause structural breaks in the relationship between financial development and economic growth.

Oil Price Shocks: Nigeria's economy is highly dependent on oil exports, and fluctuations in oil prices can have significant impacts on the country's economy.

Fiscal Policy Changes: Fiscal policy changes, such as tax reforms or changes in government spending, can impact economic activity and lead to structural breaks.

Financial Crises: Financial crises, such as the global financial crisis of 2008 or the COVID-19 pandemic can cause structural breaks in the relationship between financial development and economic growth, as they disrupt financial markets and affect economic activity.

Economic Diversification: Efforts to diversify the Nigerian economy away from its reliance on oil could cause structural breaks, particularly if the transition is abrupt or not well managed.

Structural Reforms: Structural reforms, such as deregulation or liberalization of markets, can cause significant changes in economic activity and cause structural breaks.

Climate Change: As a climate-vulnerable country, Nigeria faces increasing risks of extreme weather events, which can cause disruptions in economic activity and lead to structural breaks.

The unique factor of structural breaks poses an intriguing and less explored dimension in this context. These structural breaks have the potential to profoundly disrupt established growth patterns. Within the Nigerian context, such structural breaks, including policy adjustments, fluctuations in oil prices, and political instability, create a complex hurdle to understanding the consistent interplay between financial development and economic growth.

At its core, this study aims to unravel the intricate and evolving interaction between financial development, structural breaks, and economic growth in Nigeria. The study focuses on an extensive time frame of 42 years, spanning from 1988 to 2022. Choosing this specific timeframe (1980-2022) can be beneficial in addressing the knowledge gap by capturing possible structural breaks in the relationship between financial development and economic growth in Nigeria for several reasons:

Capturing Major Events: This timeframe covers major events in Nigeria's recent history, such as the Structural Adjustment Program of the 1980s, the return to democracy in 1999, and the global financial crisis of 2008, which could have caused structural breaks.

Longitudinal Data: A longer time series, such as the one covered in this study, provides a larger sample size and enables researchers to analyze trends over time, detect possible structural breaks, and examine their effects on the relationship between financial development and economic growth.

Evolution of Financial Development: Financial development in Nigeria has undergone significant changes over the past decades, from the nationalization of banks in the 1970s to the liberalization of the financial sector in the 1990s. Analyzing data over a longer period can help capture these changes and their impact on economic growth.

Comparison to Other Countries: By using a longer timeframe, the study can compare the relationship between financial development and economic growth in Nigeria to other countries in the region or globally, providing a broader perspective on the issue and identifying any common patterns or differences.

Robustness Checks: Using a longer timeframe allows for more robustness checks, such as sensitivity analysis, to assess the stability of the findings and to confirm the existence and impact of structural breaks. This can improve the overall reliability and validity of the study's conclusions.

Furthermore, the research places significant emphasis on comprehending the dynamics of this relationship both in the long run and the short run. Examining how financial development impacts economic growth over an extended timeframe and in the immediate context is critical to unraveling the complexities of this relationship. The ultimate goal is to furnish policymakers with informed insights that carry profound policy implications. By dissecting the multifaceted connection between financial development, structural breaks, and economic growth, the study aims to offer guidance for policymakers, enabling them to make decisions that bolster economic stability and foster growth in Nigeria.

Research Questions

- i. To what extent have historical structural breaks, such as financial crises and significant policy changes, affected the relationship between financial development and economic growth in Nigeria?
- ii. What is the impact of financial development on economic growth in Nigeria?
- iii. What is the dynamic relationship between financial development indicators, including financial institution development and financial market development, and economic growth in Nigeria?

Objectives of the Study

The main objective of this study is to comprehensively investigate the dynamic impact of financial development on economic growth in Nigeria by accounting for structural break. The specific objectives are:

- i. To assess the presence and impact of structural breaks on the relationship between financial development and economic growth in Nigeria, taking into consideration historical episodes of financial crises and significant policy shifts.
- ii. To examine the impact of financial development on economic growth in Nigeria.
- iii. To explore the dynamics relationship between financial development and economic growth, particularly concerning how changes in financial development indices influence economic growth in Nigeria.

REVIEW OF RELATED LITERAURE

The relationship between financial development and economic growth can be traced back to the late 19th century and has evolved through various theoretical lenses. Bagehot (1873) was among the first to qualitatively examine the role of the financial sector in economic development. His work emphasized the importance of financial institutions in providing essential services to support economic growth, highlighting the need for a robust financial system.

Schumpeter (1934) introduced a significant theoretical perspective by linking entrepreneurship to economic development. He argued that financial institutions play a pivotal role in nurturing entrepreneurial activities, ultimately driving economic growth. Schumpeter's theory underlines the notion that an active and innovative financial sector fosters dynamic economic development.

As the field of development economics advanced, scholars like Goldsmith (1969), McKinnon (1973), and Shaw (1973) conducted more quantitative analyses, aiming to unravel the intricacies of the financial development-economic growth nexus. Goldsmith's work delved into comprehensive cross-country data to explore how the size and activities of financial intermediaries were associated with economic development (Goldsmith, 1969). This foundational research offered an empirical foundation for the theory, showing that well-developed financial sectors were often linked to more substantial economic growth.

McKinnon and Shaw further developed this field. McKinnon (1973) put forth a framework that emphasized the importance of financial repression and highlighted the role of financial institutions in raising savings and investments. He argued for the liberalization of interest rates to incentivize savings, a measure believed to stimulate economic growth. In contrast, Shaw (1973) highlighted the significance of financial intermediaries in mobilizing savings and directing them towards productive investments. The intermediation function of banks was seen as crucial in promoting growth through capital allocation.

Over time, various theoretical lenses have emerged to interpret the complex dynamics between financial development and economic growth. King and Levine (1993) extended the scope of this discussion by proposing an endogenous growth model. They contended that financial institutions serve as gatekeepers, selecting and supporting the most productive economic activities while diversifying risks. This, in turn, leads to higher economic growth.

Robinson (1952) offered an alternative perspective, suggesting that economic growth often precedes the development of the financial sector. According to this demand-following hypothesis, the expansion of economic activities necessitates the presence of financial institutions to provide essential services, with growth leading and finance following.

The theories introduced by Patrick (1966) and Greenwood and Jovanovic (1990) integrated these perspectives, proposing a mutual relationship between finance and growth. Patrick's stages of development hypothesis argued that financial development initially propels growth (supply-leading), while later stages see growth supporting finance (demand-following). This notion of a reciprocal relationship is supported by Greenwood and Jovanovic, who contended that finance and growth are intrinsically linked.

Lucas (1988) challenged the view that finance significantly impacts economic growth, arguing that the effect of finance on growth is rather limited. This theory raised questions about the extent to which financial development is a prime driver of economic growth.

The historical and theoretical foundations of the connection of financial development with economic growth showcase the evolution of thought in the field of development economics. From qualitative assessments by early scholars to quantitative studies by later economists, these works have contributed to a multifaceted understanding of how financial development impacts economic growth. Various theoretical perspectives, including those emphasizing a supply-leading relationship, a demand-following connection, or a mutual relationship between finance and growth, have provided a rich framework for analyzing this complex relationship.

Conceptual Framework

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Measures of Financial Development

1. **Real Gross Domestic Product (RGDP):** Real Gross Domestic Product is the total value of all goods and services produced within a country's borders, adjusted for inflation. It is a key indicator of a nation's economic performance and serves as a proxy for economic growth.

2. **Inflation (INF):** Inflation is the rate at which the general level of prices for goods and services rises, eroding purchasing power. It is a critical macroeconomic indicator that affects economic stability and growth.

To attain sustainable economic growth coupled with price stability continues to be the central objective of macroeconomic policies for most countries in the world today. Among others the emphasis given to price stability in conduct of monetary policy is with a view to promoting sustainable economic growth as well as strengthening the purchasing power of the domestic currency (Umaru and Zubairu, 2012).

3. **Trade Openness (TOP):** Trade openness measures a country's degree of involvement in international trade, including exports and imports. It is often used to assess the economic openness and globalization of an economy.

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Many studies have shown that trade openness has a positive impact on growth (Tahir, Mazhar and Afridi, 2019). The positive impact is attributed to the diffusion of technological inventions, capital flow, economies of scale, and rise in productivity (Anderson and Babua, 2009).

3. **Domestic Investment (INV):** Domestic investment represents the total value of investments made within a country, including spending on physical assets such as infrastructure, machinery, and equipment. It is a crucial factor in economic development. Domestic investment is one of the most important economic processes that countries attach great importance to as one of the most important components of the economic growth of the country and the main engine of the economic cycle. Also, domestic investment has a relationship with various economic variables, which made countries seek to guide the investment decision and create the appropriate climate for economic development and maximizing wealth, thus making researchers in the economy pay great attention to study investment in terms of economic, financial and accounting.
4. **Structural Breaks (BD):** A structural break, in the context of this study, refers to significant shifts or discontinuities in economic time series data. They can be triggered by various factors, including economic crises or policy changes.
5. **Financial Institution Index (FII):** The Financial Institution Index is a composite measure that evaluates the strength, stability, and efficiency of a country's financial institutions, such as banks and other intermediaries.

The relationship between finance and economic growth has been discussed for decades. Early theoretical work by Schumpeter (1911) highlights the importance of financial institute in spurring economic growth, alongside empirical studies by Goldsmith (1969), and subsequently King and Levine (1993), supported the view that financial institute is a good predictor of economic growth.

Financial systems consist of intermediaries and markets with functions that promote channels to economic growth through capital accumulation and technological progress (Levine 1997). These functions include acquiring information, exerting corporate governance, managing risk, facilitating exchange and mobilizing savings. Thus, financial system is suggested to nurture economic growth through the various functions that financial systems provide. However, financial systems consist of intermediaries and markets which raises the question of which performs the functions more effectively. This led to the debate on the bank-based versus market-based financial system.

6. **Financial Market Index (FMI):** The Financial Market Index gauges the depth and liquidity of a country's financial markets, including stock and bond markets. It reflects the accessibility and efficiency of financial markets. The impact of financial markets on the economy can be traced back at least to Schumpeter (1911) who emphasized the positive role of financial markets development on economic growth. The relationship between financial markets and economic growth has been a subject of great interest and debate among economists for so many years that even up to date researches are still conducting research on this subject. The debate has traditionally revolved around two issues. The first relates to whether development in the financial markets results in a faster economic growth, and the second relates to how financial markets affect economic growth.

Theoretical Framework

The theoretical framework for this study is primarily rooted in the endogenous growth theory, which provides a foundational framework for understanding the relationship between financial development, structural breaks, and economic growth. Endogenous growth theory, initially introduced by Paul Romer (1986) and Robert Lucas (1988), asserts that economic growth is influenced by a broad range of factors, and it primarily focuses on the role of human capital, knowledge, and technological progress. In this context, financial development becomes an essential driver of endogenous economic growth.

The study is based on the endogenous growth theory. It posits that a well-developed financial sector, characterized by strong institutions and active markets, plays a pivotal role in fostering economic growth.

Review of Empirical Literature

Numerous empirical studies have undertaken a thorough examination of the influence of financial development on economic growth, offering valuable insights over the years. These studies can be categorized and scrutinized from a global, regional, and local perspective, each providing distinct perspectives on the relationship between financial advancement and economic prosperity.

The global empirical review collectively offers valuable insights into the relationship between financial development and economic growth. Covering different regions and time periods, these studies contribute to a broader understanding of the dynamics at play in financial systems and their consequences for economic growth. They explore how financial sector reforms, the role of finance in low- and middle-income nations, banking sector contributions, and financial inclusion affect economic growth.

Hassan, et al. (2011) investigates the role of finance in the economic growth of low- and middle-income nations. Their findings highlight the importance of a well-functioning financial structure, aligning with the Financial Deepening Theory, which suggests that an expanded financial system leads to economic growth by increasing the availability of credit and investment opportunities. However, the study also highlights that financial development is necessary but not solely sufficient for sustainable growth, indicating that other factors, such as good governance and macroeconomic stability, must complement financial reform efforts. The policy implication is that a holistic approach is required to ensure that financial development translates into sustainable economic progress.

Similarly, Murari (2017) focuses on South Asian middle-income economies and emphasizes the significance of the banking sector in impacting economic growth. This study resonates with the Banking Sector Development Theory, which suggests that a robust banking system enhances economic growth by efficiently allocating resources and providing credit to productive sectors. The results affirm the importance of domestic debt provided by the banking sector, indicating that policies promoting a sound and stable banking system are crucial for economic growth.

In the same vein, Abbas et al. (2022) conduct a comprehensive analysis of financial development's impact on economic growth and economic inequality in 44 countries. Their findings, supporting the Financial Inclusion Theory, suggest that financial development contributes to economic growth in the long run. The study stresses the prominence of inclusive financial systems that reach a broader population, as the impact is more pronounced in upper-middle-income countries further highlighting the importance of creating inclusive financial systems that cater to the needs of diverse income groups, thus promoting both economic growth and reduced inequality. The study also aligns with those findings of Levine et al (2000) who examine the association between banking sector progress and economic growth. Their results support with the Financial Intermediation Theory, emphasizing the positive and statistically substantial effect of intermediary financial growth on economic growth. This study underscores the role of banks as key financial intermediaries in fostering economic development.

METHODOLOGY

The study follows a quantitative research design, combining time-series and econometric analysis to explore the long-run and short-run relationship between financial development and economic growth. It involves the use of secondary data covering the period from 1980 to 2022. Quantitative research design is chosen for this study because it is suitable for collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations. Time-series and econometric analysis are followed by the researcher because time series analysis is used for non-stationary data—things that are constantly fluctuating over time or are affected by time, Finance and economics frequently use time series analysis because currency and economy are always changing. Stock market analysis is an excellent example of time series analysis in action, especially with automated trading algorithms. Likewise, time series analysis is ideal for forecasting economic growth, helping economist predict everything from tomorrow's economic situation, report to future years of economic change.

The primary sources of data include official publications such as the World Bank, International Monetary Fund (IMF), and the Central Bank of Nigeria (CBN). The dataset encompasses variables related to financial development, economic growth, and relevant control variables.

The Autoregressive Distributed Lag (ARDL) model is used to capture both the long-run and short-run dynamics of the relationship. This model is suitable for this study as it can accommodate mixed-order integration of variables and structural breaks.

The model is therefore explicitly specified as: $RGDP = (FI, FM, INF, TOP, INV, BD) \dots \dots \dots (1)$

Where:

RGDP = real gross domestic product, FI = financial institute, FM = financial market,

INF = inflation rate, TOP = trade openness, INV = domestic investment, and BD = structural break.

Therefore, the model is specifically expressed in an explicitly econometric model as:

$$LRGDP_t = \beta_0 + \beta_1 FI_t + \beta_2 FM_t + \beta_3 INF_t + \beta_4 TOP_t + \beta_5 INV_t + \beta_6 BD_t + \beta_7 BD * FI_t + \beta_8 BD * FM_t + \beta_9 BD * INF_t + \beta_{10} BD * TOP_t + \beta_{11} BD * INV_t + u_t \dots \dots \dots (2)$$

$LRGDP_t$ represents the dependent variable, which is the economic growth rate defined as log of real gross domestic product in US dollar. FI_t represents financial institute

FM_t represents financial market, INF_t represents the inflation rate. TOP_t represents trade openness. INV_t represents the growth of domestic investment. BD represents structural breaks.

β_0 is the intercept, representing the value of LRGDP when all independent variables are zero.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the coefficients for the respective independent variables. Specifically:

The interaction terms, such as $BD*FI_t$, $BD*FM_t$, $BD*INF_t$, $BD*TOP_t$, and $BD*INV_t$, account for how structural breaks modify the impact of financial development, inflation, trade openness, and investment growth on economic growth.

u_t represents the error term, which captures the unexplained variation in economic growth not accounted for by the independent variables.

DATA ANALYSIS AND DISCUSSION OF RESULTS

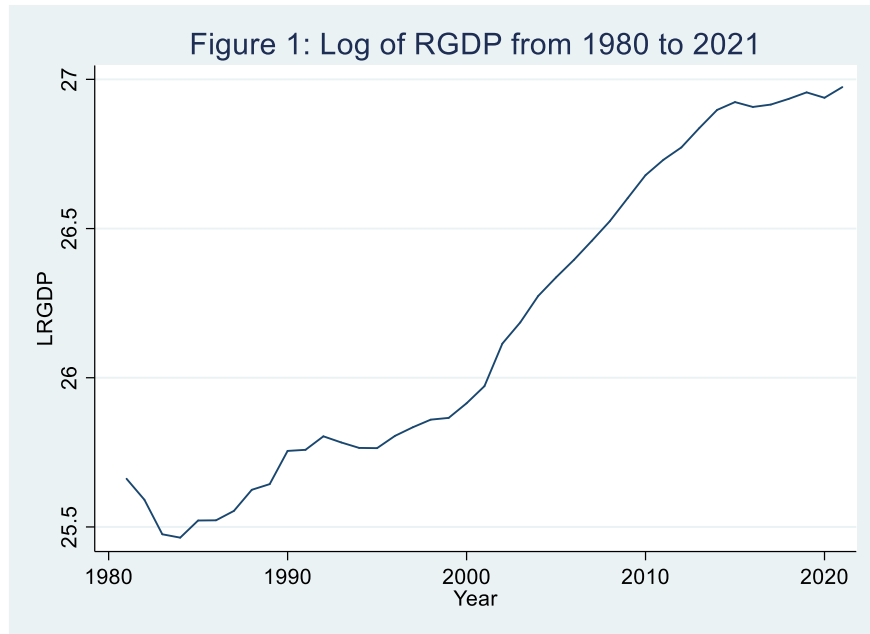


Figure 1 presents a comprehensive depiction of Nigeria's Real Gross Domestic Product (RGDP) growth over the past few decades, revealing distinct economic phases. It offers insights into Nigeria's economic history, marked by periods of both prosperity and adversity.

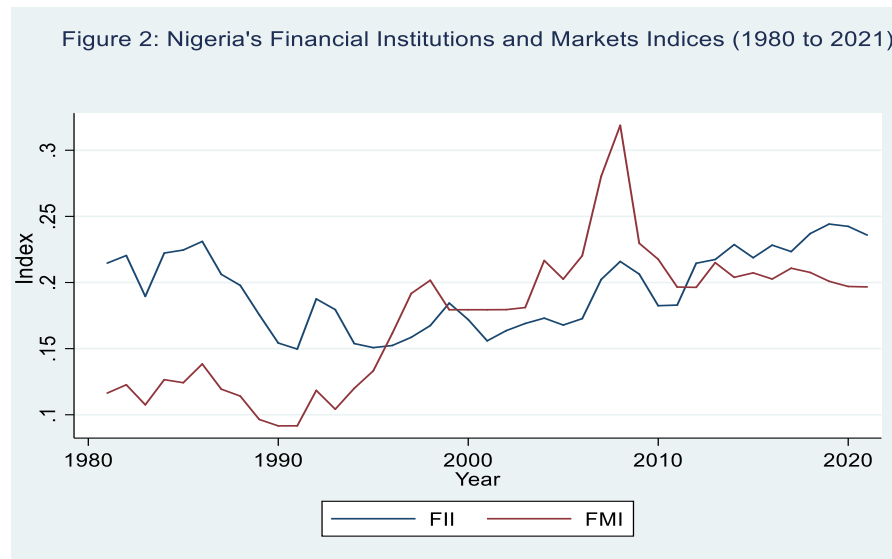


Figure 2 presents a longitudinal perspective on the indexes of access to financial institutions and financial markets in Nigeria. These indexes, as measured by the International Monetary Fund, encapsulate multifarious indicators of financial development, offering insights into the evolving financial landscape of Nigeria over the four decades spanning from 1980 to 2022.

Table 4.1 offers a comprehensive snapshot of key economic variables in Nigeria considered in this study. It provides vital statistics on GDP growth, financial institutions, financial markets, domestic investment, inflation rates, and trade openness.

Table 4.1: Descriptive Statistics of the Study Variables for the Impact of Financial Development on Economic Growth in Nigeria

Variable	Obs	Mean	Std. Dev.	Min	Max
RGDP Growth	41	26.178	0.533	25.464	26.974
Financial Institution Index	41	0.195	0.030	0.150	0.244
Financial Market Index	41	0.173	0.052	0.092	0.319
Growth of domestic investment	41	24.803	0.214	24.405	25.430
Inflation Rate	41	18.949	16.659	5.388	72.836
Trade Openness	41	0.405	0.182	0.162	1.068

Source: Author's Computation (Stata 14)

The average RGDP growth rate of approximately 26.18% over the study period reflects a relatively robust economic performance in Nigeria. This aligns with economic theory, which emphasizes the significance of sustained economic growth as a sign of a healthy economy. The modest standard deviation of 0.53% suggests that these growth rates have been relatively stable over the years, which indicates prudent

economic policies that aim to minimize excessive fluctuations. In terms of policy implications, sustaining and possibly increasing this growth rate should remain a key objective, as it signifies economic prosperity and an improved standard of living for the population.

Correlation between Financial Development and Economic Growth in Nigeria

Table 4.2 presents a correlation matrix showcasing the relationships between financial development variables and key economic indicators in Nigeria.

Table 4.2: Matrix of correlations Between Financial Development and Economic Growth

Variables	RGDP	FI	FM	GDI	INF	TOP
RGDP	1.000					
FI	0.470	1.000				
FM	0.740	0.265	1.000			
GDI	0.480	0.393	0.284	1.000		
INF	-0.348	-0.342	-0.477	-0.300	1.000	
TOP	-0.435	-0.107	-0.083	0.335	-0.152	1.000

Source: Author's Computation (Stata 14)

The correlation matrix in Table 4.2 offers valuable insights into the relationships between financial development, economic growth, and other economic variables. These insights underscore the importance of financial market development, strong financial institutions, stable inflation, and trade openness in driving economic growth. From a policy perspective, measures to strengthen financial markets, ensure the stability of financial institutions, maintain price stability, stimulate investment, and promote trade openness can be pivotal in fostering sustained economic growth and prosperity in Nigeria.

Unit Root Test

Table 4.3 presents the results of the Augmented Dickey-Fuller (ADF) unit root tests for various variables.

Table 4.3: ADF Unit Root Test Result

Variable	ADF Test Statistic	5% Critical Value	P-Value
LRGDP	-3.306	-3.540	0.065
$\Delta(\text{LRGDP})$	-3.888	-3.544	0.013
FII	-2.033	-3.540	0.584
$\Delta(\text{FII})$	-6.139	-3.544	0.000
FMI	-2.029	-3.540	0.586
$\Delta(\text{FMI})$	-5.846	-3.544	0.000
Inflation	-3.176	-3.540	0.0894
$\Delta(\text{Inflation})$	-5.752	-3.544	0.000
Investment	-5.008	-3.540	0.000
Openness	-3.898	-3.540	0.012

Source: Author's Computation (Stata 14)

The ADF (Augmented Dickey-Fuller) test, while valuable for assessing stationarity in time series data, has limitations when structural breaks are present. Structural breaks indicate abrupt changes in the data-generating process, and the ADF test assumes stationarity without accounting for such breaks. In the presence of structural breaks, the ADF test may yield incorrect conclusions regarding stationarity. To address this limitation and confirm the true stationarity of variables, further tests such as the Gregory Hansen test for cointegration, which accounts for structural breaks, become crucial. These tests offer a more comprehensive analysis, ensuring that the results accurately reflect the underlying properties of the data, especially when dealing with economic variables susceptible to structural shifts over time.

Gregory Hansen Co-integration Test with Structural Breaks

The subsequent analyses focus on the testing for cointegration between the financial development and economic growth having established the order of integration of the variables using the ADF unit root test.

Table 4.4: Gregory-Hansen Cointegration Test with Regime Shifts (Change in Level)

	Test Statistic	Breakpoint	Date	1% Critical value	5% Critical value	10% Critical value
ADF	-5.64	21	2001	-6.05	-5.56	-5.31
Zt	-5.71	21	2001	-6.05	-5.56	-5.31
Za	-36.60	21	2001	-70.18	-59.40	-54.38

Source: Author's Computation (Stata 14)

The Gregory-Hansen cointegration test results confirm the presence of a long-term relationship between financial development and economic growth in Nigeria. The identified structural shift in 2001 aligns with events in Figure 1 and 2, particularly the significant financial reforms in the early 2000s. This structural shift highlights the dynamic nature of the relationship between financial development and economic growth and demonstrates how changes in the financial sector can impact this crucial connection.

Table 4.5 Gregory-Hansen Test for Cointegration with Regime Shifts (Change in Level and Trend)

	Test Statistic	Breakpoint	Date	1% Critical value	5% Critical value	10% Critical value
ADF	-4.02	22	2002	-6.36	-5.83	-5.59
Zt	-4.37	22	2002	-6.36	-5.83	-5.59
Za	-24.69	22	2002	-76.95	-65.44	-60.12

Source: Author's Computation (Stata 14)

Table 4.5 presents the outcomes of the Gregory-Hansen cointegration test, accounting for structural shifts that involve both changes in level and trend. Specifically focusing on the relationship between financial development and economic growth, the test results reveal that all test statistics—ADF, Zt, and Za—are consistently below the critical values at the 1%, 5%, and 10% significance levels. This provides a clear indication that there is no strong evidence of cointegration between the two variables under consideration when changes in both level and trend are taken into account. These results are in contrast to those in Table 4.4, which demonstrated strong evidence of cointegration when considering only a change in level

Table 4.6: Gregory-Hansen Test for Cointegration with Regime Shifts (Change in Regime)

	Test Statistic	Breakpoint	Date	1% Critical value	5% Critical value	10% Critical value
ADF	-5.54	21	2001	-6.92	-6.41	-6.17
Zt	-5.61	21	2001	-6.92	-6.41	-6.17
Za	-35.87	21	2001	-90.35	-78.52	-75.56

Source: Author's Computation (Stata 14)

In both Table 4.5 and Table 4.6, the results from the Gregory-Hansen cointegration tests, while accounting for changes in level, trend, and regime shifts, reveal an important commonality. In these tests, the respective test statistics for ADF, Zt, and Za are consistently observed to be below the critical values at the 1%, 5%, and 10% significance levels. This alignment signifies that there is no strong evidence of cointegration between financial development and economic growth across the different data regimes considered.

These outcomes are particularly noteworthy when considering the previous results presented in Table 4.4. In Table 4.4, the findings suggested strong evidence of cointegration when only a change in the level of the data was taken into account. This indicated the presence of a stable long-term relationship between financial development and economic growth, with the structural shift identified in 2001. These results supported the idea that changes in the level of the data did not disrupt the cointegration relationship.

SUMMARY AND CONCLUSION

This section offers a comprehensive summary of the study's findings, which focused on examining the intricate relationship between financial development, structural breaks, and economic growth within the context of Nigeria. The research adopted a multifaceted approach, encompassing graphical, descriptive, correlation, statistical stationarity, cointegration with structural break, and ARDL regression analyses to unearth crucial insights.

The graphical analysis provided an initial glimpse into Nigeria's economic history, highlighting periods of economic booms and slumps. Descriptive analysis enabled a deeper understanding of the data's central tendencies and distributions, preparing the data for further examination. The correlation analysis unveiled preliminary associations between financial development indices, economic growth, and control variables, serving as a foundation for more advanced statistical testing.

The Augmented Dickey-Fuller (ADF) unit root test played a pivotal role in verifying the stationarity of the data. It established whether differencing was necessary to render the data suitable for further analysis. In addition, the Gregory-Hansen cointegration test with structural break addressed the long-term equilibrium relationship between financial development and economic growth, accounting for potential structural breaks.

The final ARDL regression analysis tied the various elements together, offering a comprehensive examination of both long-term and short-term relationships. The findings further revealed the importance of trade openness in driving long-term economic growth positively. In summary, the study's combined analyses delivered a multifaceted perspective on the interplay between financial development, structural breaks, and economic growth in Nigeria, offering valuable insights for policymakers and researchers alike.

The conclusion of this study offers a comprehensive and insightful understanding, driven by the extensive exploration of the relationship between financial development, structural breaks, and economic growth in Nigeria. The analysis, spanning various empirical tests, historical perspectives, and data-driven insights, has unveiled a nuanced and complex dynamic between these key variables.

Primarily, this research has confirmed that financial development plays a pivotal role in influencing economic growth, particularly in the long run. The positive associations between the financial institution index (FII) and the financial market index (FMI) with economic growth underscore the significance of a robust financial sector, marked by strong institutions and active markets. Nigeria's economy benefits from a well-developed financial sector that fosters economic growth.

In sum, this research underscores the importance of holistic analyses when examining the elaborate dynamics of financial development and economic growth. It is a call to action for a concerted effort to harness the potential of the financial sector, manage structural breaks effectively, and maintain open and thriving trade relationships to drive Nigeria's continued economic growth and development.

RECOMMENDATIONS

The findings of this study provide valuable insights into the dynamics of financial development, structural breaks, and economic growth in Nigeria, offering a foundation for several strategic recommendations. First and foremost, it is imperative for Nigerian policymakers to prioritize the continual development and strengthening of the financial sector. Robust financial institutions, active financial markets, and efficient intermediation mechanisms are essential for stimulating long-term economic growth.

In recognition of the disruptive impact of structural breaks, proactive measures should be taken to enhance economic resilience. Policymakers should develop contingency plans and mechanisms to manage and mitigate the adverse effects of structural breaks.

Trade openness has consistently demonstrated a positive influence on economic growth in Nigeria. Therefore, the government should continue to promote trade liberalization and international economic engagement.

Furthermore, given the nuanced interaction between financial development and structural breaks, policymakers should leverage the stabilizing role of a well-developed financial sector during economic crises. Additionally, it is essential to foster a culture of continuous research, data collection, and analysis to monitor the state of financial development and economic growth.

Lastly, this study advocates for a multi-pronged approach to economic development in Nigeria, emphasizing that the relationship between financial development, structural breaks, and economic growth is multifaceted. By recognizing the complex interplay of these factors, policymakers can tailor strategies that address the unique challenges and opportunities in the Nigerian economic landscape.

These recommendations collectively provide a roadmap for policymakers, financial institutions, and stakeholders in Nigeria to harness the potential of financial development, navigate structural breaks, and promote sustainable economic growth in the country. The multifaceted and dynamic nature of this relationship calls for a comprehensive and adaptable approach to economic development in Nigeria.

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