THE ROLE OF FINANCIAL SECTORS REFORMS ON THE MACRO ECONOMIC PEFORMANCE OF NIGERIA

By
Evbaziegbere ISIBOR Ph.D
Department of Finance, Faculty of Management Sciences, University of Benin.
Tel: +2348036725744 Email: evbaziegbere.isibor@unben.edu
&
Omoregbe Osas IMADE
Department of Finance, Faculty of Management Sciences, University of Benin
Tel: +2348063445453 Email: omoregbei62@gmail.com

Abstract

This study investigates the role of financial sector reforms on macroeconomic performance in Nigeria from 1990 to 2024. The research focuses on four key components of financial reforms: banking sector reforms, stock market development, financial inclusion, and market interest rate reforms. Using time-series data from the Central Bank of Nigeria (CBN) and World Bank Development Indicators. The study employed the Autoregressive Distributed Lag (ARDL) model to examine both short-run and long-run relationships. The ARDL bounds test confirms the existence of a long-run co-integrating relationship among the variables. Results indicate that banking sector reforms have a significant positive impact on GDP growth, highlighting the importance of a sound and well-capitalized banking system in promoting economic activity. In contrast, financial inclusion shows a negative but significant effect, suggesting that access to financial services alone may not translate into productive economic outcomes without complementary policies. Stock market development and market interest rate reforms are found to be statistically insignificant, reflecting structural and institutional constraints in the Nigerian financial system. The study concludes that while financial sector reforms are critical for economic growth, their effectiveness depends on efficient implementation, institutional support, and complementary measures to ensure financial access translates into real economic gains. Policy recommendations include strengthening banking reforms, improving financial literacy, enhancing the productive use of financial services, and supporting structural reforms to sustain long-term growth.

Keywords: Financial Sector Reforms, GDP Growth, Banking Sector Reforms, Stock Market Development, Financial Inclusion, Market Interest Rate Reforms, Nigeria

1.0 Introduction

Financial sector reforms in Nigeria have played a central role in shaping the country's economic trajectory since the mid-1980s. The need for reforms became particularly urgent following the adoption of the Structural Adjustment Programme (SAP) in 1986, which was designed to address macroeconomic imbalances, improve resource allocation, and enhance the efficiency of the financial system. The SAP emphasized liberalization, deregulation, and privatization, laying the foundation for a more market-driven economy. Key elements of these reforms included the liberalization of interest rates, the deregulation of the foreign exchange market, the strengthening of banking supervision, and the promotion of private sector-led growth (Sanusi, 2010).

Over the decades, financial sector reforms in Nigeria have evolved through several stages. The banking consolidation exercise of 2004 marked a significant milestone, reducing the number of commercial banks and increasing the minimum capital requirement for banks. This reform aimed to create a stronger, more resilient banking system capable of mobilizing resources for investment and economic growth. The banking crisis of 2009 prompted further reforms, including the restructuring of distressed banks and the establishment of stronger regulatory oversight by the Central Bank of Nigeria (CBN). Between 2010 and 2014, the CBN implemented reforms focusing on stability, capital adequacy, corporate governance, and financial inclusion, signaling a shift toward a more inclusive and robust financial sector (Central Bank of Nigeria, 2018).

The performance of the Nigerian macroeconomy has often been linked to the effectiveness of these financial reforms. Empirical studies suggest that a well-functioning financial sector enhances the efficiency of resource allocation, facilitates investment, and promotes sustainable growth (Afolabi & Etowa, 2023; Alagidede & Ibrahim, 2021; Ayeni et al., 2024). A reformed financial sector is expected to improve credit availability, reduce transaction costs, support entrepreneurship, and increase investor confidence in the economy.

Nigeria continues to experience macroeconomic challenges. Persistent inflationary pressures, volatile economic growth, weak financial intermediation, limited access to credit, and foreign exchange instability have characterized the Nigerian economy over the past decades (Ghosh & Ghosh, 2019; Munezero & Niyonkuru, 2020). These challenges raise questions about the depth, implementation, and sustainability of financial sector reforms. Critics argue that reforms have often been reactive rather than proactive, addressing symptoms rather than underlying structural weaknesses (Patel, 2023; Sulemana, 2023).

The relationship between financial sector reforms and macroeconomic performance is complex and multifaceted. While reforms are designed to enhance stability, efficiency, and inclusiveness, their success depends on the broader institutional environment, policy consistency, regulatory enforcement, and market discipline

(Poghosyan, 2022; Rajan & Zingales, 2019). Understanding the linkages between reforms and macroeconomic outcomes is critical for policymakers seeking to design strategies that not only stabilize the financial system but also stimulate sustainable economic growth.

This study investigates the impact of financial sector reforms on Nigeria's macroeconomic performance from 1990 to 2024, focusing on key reform measures such as banking sector consolidation, stock market development, financial inclusion, and interest rate liberalization. By examining these reforms alongside indicators of economic performance including GDP growth, inflation, and exchange rate stability, the study aims to provide empirical evidence on the effectiveness of financial sector interventions and their contribution to Nigeria's economic development (Bui, 2021; Gizaw, 2024; Mlambo, 2024; World Bank, 2017, 2020).

1.3 Objectives of the Study

The general objective of this study is to examine the effect of financial sector reforms on macroeconomic performance in Nigeria. Specifically, the study seeks to:

1. To investigate the impact of banking sector reforms (BSR) on GDP growth in Nigeria.
2. To analyze the influence of stock market development (SMD) on GDP growth in Nigeria.
3. To assess the contribution of financial inclusion (FI) to GDP growth in Nigeria.
4. To evaluate the effect of market interest rate reforms (MIR) on GDP growth in Nigeria.

2.0 Review of literature

2.1 Concept Review

2.1.1 Concept of Financial Sector Reforms

Financial sector reforms refer to deliberate policy-driven changes implemented by governments and monetary authorities to improve the efficiency, stability, and depth of the financial system. In the Nigerian context, reforms have often been spearheaded by the Central Bank of Nigeria (CBN) to address systemic weaknesses, foster intermediation, and align the domestic financial system with global best practices (Central Bank of Nigeria, 2018). Common reform measures include interest rate liberalization, bank recapitalization, prudential regulation, adoption of risk-based supervision, and strengthening of financial market infrastructure (Alagidede & Ibrahim, 2021; Ayeni et al., 2024).

The rationale behind reforms is grounded in the broader theoretical perspective that liberalized and well-regulated financial systems can mobilize savings, allocate

credit efficiently, and reduce macroeconomic vulnerabilities (Bui, 2021; Ghosh & Ghosh, 2019). In Nigeria, reforms such as the 2004/2005 bank consolidation exercise increased minimum capital requirements, reduced the number of weak banks, and enhanced resilience to shocks (Aluko, 2022; Sanusi, 2010). However, while reforms often strengthen banking soundness, their effectiveness in driving real sector growth depends on complementary macroeconomic and institutional conditions (Munezero & Niyonkuru, 2020; Sulemana, 2023). Nigeria have undertaken a number of reforms in the past, some these are as follows:

1. Interest Rate Deregulation (1986–1992)

The era of interest rate deregulation in Nigeria began under the Structural Adjustment Programme (SAP) of 1986. Prior to this, the financial system was heavily regulated. The shift to market-determined interest rates aimed to stimulate competition among banks, enhance efficiency in resource allocation, and mobilize domestic savings (Alagidede & Ibrahim, 2021). Empirical studies confirm mixed results: while deregulation improved financial deepening and encouraged capital market activities, it also introduced volatility into lending rates, creating challenges for the private sector (Afolabi & Etowa, 2023; Ayeni et al., 2024).

2. Banking Consolidation (2004–2005)

The 2004/2005 banking consolidation reform was one of the most far-reaching in Nigeria's financial history. Banks were required to raise their minimum capital base, reducing the number of banks and creating stronger, more competitive institutions (Aluko, 2022; Sanusi, 2010). Evidence suggests that consolidation enhanced capitalization, improved depositor confidence, and positioned Nigerian banks for regional expansion (Ayeni et al., 2024; Afolabi & Etowa, 2023). However, critics argue that while consolidation improved structural soundness, it did not immediately translate into increased lending to the real sector, highlighting persistent bottlenecks in credit transmission (Ghosh & Ghosh, 2019).

3. Post-Crisis Reforms (2009–2014)

The 2008 global financial crisis exposed vulnerabilities in Nigeria's banking sector. In response, the CBN introduced reforms aimed at stabilizing the system, including the establishment of the Asset Management Corporation of Nigeria (AMCON) to purchase non-performing loans and strengthen balance sheets (Central Bank of Nigeria, 2018; Ayeni et al., 2024). Additional measures included enhanced risk - based supervision, corporate governance codes, and disclosure requirements (Poghosyan, 2022). These reforms improved banking resilience and reduced systemic risks, though lending to the real sector remained constrained (Munezero & Niyonkuru, 2020; Bui, 2021).

4. Recent Reforms (2016–2020s)

Following declining oil prices and the COVID-19 pandemic, Nigeria undertook reforms focusing on financial inclusion, digital banking, and foreign exchange management. The National Financial Inclusion Strategy (NFIS) sought to reduce the proportion of financially excluded Nigerians, supported by mobile money services, agent banking, and microfinance expansion (Central Bank of Nigeria, 2018; World Bank, 2020). Digital banking reforms promoted electronic payments and wider participation in the formal financial system (Alagidede & Ibrahim, 2021). On foreign exchange, the CBN introduced the Investors' and Exporters' window to improve liquidity and align exchange rates with market realities (Gizaw, 2024). These reforms boosted financial access, though challenges such as high lending rates and regulatory uncertainty remain (Ayeni et a1., 2024; Afolabi & Etowa, 2023).

5. Macroeconomic Performance

Macroeconomic performance is assessed through GDP growth, inflation, unemployment, balance of payments, and exchange rate stability (World Bank, 2017, 2020). A stable macroeconomic environment supports investment, innovation, and growth. Financial sector performance is closely linked to these outcomes, as well-functioning financial systems mobilize savings into productive investment, while unstable systems can amplify inflationary pressures and exchange rate volatility (Bui, 2021; Alagidede & Ibrahim, 2021). Empirical evidence in Nigeria indicates that reforms can enhance macroeconomic stability, though their effects on unemployment and poverty alleviation are mixed (Ghosh & Ghosh, 2019; Munezero & Niyonkuru, 2020).

2.2.0Theoretical Framework

The study draws on several theoretical perspectives:

Financial Repression and Liberalization Theory: posits that interest rate ceilings, directed credit, and excessive regulation stifle savings and investment, while liberalization enables efficient allocation of resources (Bui, 2021; Aluko, 2022).

Supply-Leading Hypothesis: suggests that financial development stimulates economic growth by mobilizing savings and facilitating investment (Ayeni et al., 2024; Poghosyan, 2022). Nigeria's banking consolidation and post-crisis reforms align with this theory.

Endogenous Growth Theory: emphasizes financial intermediation as a driver of long-run growth via innovation, human capital accumulation, and efficient resource allocation. Nigeria's emphasis on digital banking and financial inclusion fits within this framework (Mlambo, 2024; Gizaw, 2024).

In this study, financial sector reforms are conceptualized as policy-driven interventions (e.g., AMCON, consolidation, digital banking, financial inclusion, FX reforms) that affect financial deepening measured through credit-to-GDP ratio and broad money supply which in turn influence macroeconomic performance, captured by GDP growth, inflation, unemployment, exchange rate stability, and balance of payments.

2.3 Empirical Review

Levine (2021) updated earlier surveys and stressed the importance of integrating inequality considerations into the finance growth debate, showing that access matters as much as depth.

Gizaw (2024) analyzed emerging economies using system-GMM and found that financial deepening has a positive but diminishing effect on growth, with excessive credit expansion harming stability. Mlambo (2024), studying SADC countries, revealed that private credit and banking depth improve growth only under strong governance conditions.

Poghosyan (2022) documented financial sector trends in the Caucasus and Central Asia, finding that development correlates with higher investment and long-run growth, though shallow markets remain a constraint. Aluko (2022) explored financial globalization and showed that it supports domestic financial development in OECD countries when regulatory frameworks are strong but increases volatility in weakly regulated contexts.

Ayeni et al. (2024) applied ARDL and VECM methods and reported that broad money and private sector credit drive economic growth, while interest rate volatility undermines reform benefits. Afolabi and Etowa et al. (2023) extended the scope by linking financial development to human development, showing improvements in life expectancy and education.

Sulemana et al. (2023) conducted a meta-analysis on microfinance and concluded that it supports entrepreneurship and asset accumulation but has modest long-term poverty effects. Patel (2023) similarly reviewed empirical microfinance outcomes and found heterogeneous impacts, with consistent gains in small business activity but mixed results for income and poverty.

Sahay et al. (2015) compiled panel evidence to show that finance promotes growth at early stages but generates risks of instability beyond certain thresholds, reinforcing the importance of sequencing and governance. Complementing this, Demirgüç-Kunt et al. (2018), using Global Findex microdata, showed significant global gains in account ownership and digital finance, though disparities remain.

World Bank (2017) highlighted the opportunities and risks of financial globalization, while World Bank (2020–2022) country reports emphasized financial access progress but uneven transmission to growth. Alagidede and

Ibrahim (2021) demonstrated that financial inclusion through digital finance enhances growth and reduces inequality.

Munezero and Niyonkuru (2020) found that banking competition and financial depth promote investment and growth, though excessive competition undermines stability. Bui et al. (2021) linked financial development to green growth in ASEAN countries, showing that deeper finance promotes renewable investment and lowers carbon intensity.

Kpodar and Andrianaivo (2019) established that digital payment systems significantly enhance financial inclusion and GDP growth, while Ghosh and Ghosh (2019) confirmed that access to credit improves firm survival and employment creation. Cepeda and Soto (2018) highlighted heterogeneity in the finance–growth relationship, showing stronger effects in middle-income economies.

Rajan and Zingales (2019) re-examined their earlier work with updated data and reaffirmed that industries reliant on external finance grow faster in financially developed countries, while also stressing the role of vested interests in slowing reforms.

3.0 Methodology

The study adopts a longitudinal research design, enabling an in-depth examination of changes in financial sector reforms and their effects on macroeconomic performance in Nigeria over the period 1990 to 2024. This design allows for the capture of both short-run dynamics and long-run relationships, providing a comprehensive understanding of how reforms in the financial sector influence overall economic growth.

Data for the study were sourced from the World Bank Development Indicators (2024) and the Central Bank of Nigeria (CBN) Statistical Bulletin (2024), chosen for their reliability and consistency in reporting financial and economic statistics. The population of the study comprises financial sector activities and macroeconomic indicators in Nigeria within the specified period, with a particular focus on assessing the impact of financial sector reforms on economic growth.

The dependent variable for the study is the GDP growth rate (GDPG), measured as the annual percentage change in GDP, which serves as a proxy for macroeconomic performance. The independent variables represent key aspects of financial sector reforms. Banking sector reforms (BSR) are captured through indicators such as recapitalization levels, capital adequacy, and the number of banks following mergers. Stock market development (SMD) is measured using market capitalization (MCAP), the All Share Index (ASI), stock market liquidity (LIQ), and the number of listed companies (NLC). Financial inclusion (FI) is assessed through access to banking services, the number of deposit accounts, or credit to the private sector. Finally, market interest rate reforms (MIR) are represented by

lending or treasury bill rates, reflecting changes in monetary and interest rate policies.

For the analytical approach, the study employs the Autoregressive Distributed Lag (ARDL) model. This method is particularly suitable as it can handle variables integrated at different orders (I(0) or I(1)) and allows for the examination of both short-run and long-run relationships between financial sector reforms and GDP growth, thereby providing robust insights into the dynamics of Nigeria's financial sector and its macroeconomic implications.

3.1 Model Specification

The study analyzes the relationship between financial sector reforms and GDP growth.

Functional Form

GDPG=f(BSR,SMD,FI,MIR)

Econometric Form

$GDPG_t=\beta0+\beta1BSR_t+\beta2SMD_t+\beta3FI_t+\beta4MIR_t+U_t$

Where:

Where GDPG represents the GDP growth rate, BSR denotes banking sector reforms, SMD indicates stock market development, FI measures financial inclusion, MIR reflects market interest rate reforms, $\beta0$ is the regression intercept, β_1-β_4 are the coefficients of the independent variables, and U_t is the error term.

Operationalization of Variables

Code	Target Variable	Measurement	A-priori Expectation
BSR	Banking Sector Reforms	Number of banks.	+
SMD	Stock Market Development	MCAP,	+
FI	Financial Inclusion	Deposit accounts / credit to private sector	+
MIR	Market Interest Rate Reforms	Lending / treasury bill rate	-
GDPG	GDP Growth Rate	Annual GDP growth (%)	+ / -

Source: Researcher's Compilation (2025)

4.0. Data Analysis

4.1.1. Descriptive Statistics

Table 4.2: Descriptive Statistics of All Study Variables

	GDPG	BSR	SMD	FI	MIR
Mean	3.934286	104.3429	25.64286	51.58571	13.76286
Median	3.200000	106.0000	24.00000	22.20000	12.90000
Maximum	7.000000	142.0000	54.00000	311.6000	22.50000
Minimum	-1.800000	60.00000	5.200000	5.000000	8.300000
Std. Dev.	2.025564	24.20372	15.68032	68.40151	3.817536
Skewness	-0.294932	-0.118039	0.275146	2.251851	0.633980

Kurtosis	3.049725	1.782909	1.700461	8.073413	2.605064
Jarque-Bera	0.511017	2.241521	2.904449	67.11665	2.572059
Probability	0.774523	0.326032	0.234049	0.000000	0.276366
Sum	137.7000	3652.000	897.5000	1805.500	481.7000
Sum Sq. Dev.	139.4989	19917.89	8359.666	159078.1	495.5017
Observations	35	35	35	35	35

Source: Researcher's Computation Based on E-Views 10.0 (2025)

The descriptive statistics for the study variables are presented in Table 4.2. The results show that, over the period 1990–2024, the average real GDP growth rate (GDPG) was 3.93%, while banking sector reforms (BSR) recorded a mean value of 104.34, stock market development (SMD) averaged 25.64, financial inclusion (FI) averaged 51.59, and market interest rate reforms (MIR) averaged 13.76.

The median values indicate that the distributions of the variables are reasonably symmetric, although FI shows a higher median (22.2) compared to its mean (51.59), suggesting occasional large values in recent years, likely due to rapid growth in financial inclusion in the 2020s.

The maximum and minimum values indicate substantial variation across the period. FI shows the widest range, with a minimum of 5.0 million account holders and a maximum of 311.6 million, reflecting the sharp expansion of financial inclusion in recent years. BSR ranged from 60 to 142, reflecting key banking sector reforms and consolidation. GDPG ranged from -1.8% to 7%, showing periods of economic contraction and growth.

The standard deviations indicate that most variables oscillate moderately around their means. GDPG, BSR, SMD, FI, and MIR have standard deviations below or close to their mean values, suggesting moderate volatility. However, FI exhibits a particularly high standard deviation (68.40), reflecting significant increases in account holders in recent years, while BSR and MIR are relatively stable.

Skewness and kurtosis values show that most variables are approximately normally distributed. GDPG and BSR are slightly negatively skewed, while FI shows strong positive skewness (2.25) and high kurtosis (8.07), indicating occasional extreme increases in financial inclusion. The Jarque-Bera test confirms that all variables, except FI, are normally distributed at the 5% significance level.

Overall, the descriptive statistics indicate that financial inclusion has expanded significantly in Nigeria, banking sector reforms have been relatively stable, and GDP growth exhibits moderate fluctuations over the study period. The results also show that the variables are suitable for further econometric analysis, as they provide

sufficient variation without extreme outliers (except for FI, which reflects real structural changes in the financial sector).

4.2. Correlation Analysis

Table 4.3: Summary of Correlation Analysis

Study Variables	GDPG	BSR	FI	SMD	MIR
GDPG	1.0000				
BSR	0.5025	1.0000			
FI	-0.3165	0.0273	1.0000		
SMD	0.0740	0.3573	0.0612	1.0000	
MIR	-0.1464	-0.0630	0.1565	0.1158	1.0000

Source: Researcher's Computation Based on E-Views 10.0 (2025)

The correlation results in Table 4.3 show that banking sector reforms and stock market development are positively related to GDP growth, while financial inclusion and market interest rate reforms are negatively related to GDP growth. All correlation coefficients are relatively low, indicating that none of the independent variables are highly correlated with one another. This suggests that multicollinearity is minimal, allowing the individual effects of each variable to be clearly identified in the regression analysis.

4.3. Stationarity (Unit Root) Test

Table 4.4: Unit Root for All Study Variables (ged Form)

AT LEVEL					
Study Variables	ADF Test Statistics	MacKinnon Critical Values @ 5%	P-value	Order of Integration	Conclusion
GDPG	-0.993576	2.936942	0.7465	1(0)	Non-stationary
BSR	0.106668	-2.936942	0.9624	1(0)	Non-stationary
SMD	-2.433456	-2.936942	0.1393	1(0)	Non-stationary
FI	-2.784849	-2.938987	0.0697	1(0)	Non-stationary
MIR	-3.837288	-2.936942	0.0054	1(0)	Stationary
FIRST DIFFERENCE					
Study Variables	**ADF Test Statistics**	**MacKinnon Critical Values @ 5%**	**P-value**	**Order of Integration**	**Conclusion**
GDPG	-23.08624	-2.941145	0.0001	1(1)	Stationary

BSR	-4.376556	-2.938987	0.0012	1(1)	Stationary
SMD	-4.942784	-2.938987	0.0002	1(1)	Stationary
FI	-5.141633	-2.938987	0.0001	1(1)	Stationary
MIR	-8.607366	-2.938987	0.0000	1(1)	Stationary

Source: Researcher's Computation Based on E-Views 10.0 (2025)

The unit root test results in Table 4.4 show that all the study variables, except the market interest rate, are non-stationary at their levels. Only the market interest rate has an ADF statistic greater (in absolute terms) than the 5 percent critical value and a p-value below 0.05, indicating stationarity at level. However, after taking the first difference, all the variables become stationary, as reflected in their large negative ADF statistics and very small p-values. This indicates that the variables are integrated of mixed orders, with the market interest rate stationary at level and the remaining variables stationary at first difference. The mixed order of integration supports the use of the ARDL co-integration framework for further analysis..

4.4 ARDL Bound Co-integration Test

Table 4.5: ARDL Bounds Test

Date: 10/12/25 Time: 17:19		
Sample: 1990 2024		
Included observations: 35		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	K
F-statistic	**3.684907**	**4**
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.12	3.23
5%	**2.45**	**3.61**
2.5%	2.75	3.99
1%	3.15	4.43

Source: Researcher's Computation Based on E-Views 10.0 (2025)

The ARDL bounds test in Table 4.5 shows that the calculated F -statistic of 3.6849 exceeds the 5 percent upper bound critical value of 3.61. This indicates that the null hypothesis of no long-run relationship is rejected. Therefore, the variables in the model exhibit a long-run co-integrating relationship over the study period.

4.5. Regression Analysis

This section covers both the short and long run analysis. The individual results for both are presented thus:

Table 4.7: ARDL Cointegrating And Long Run Form
Dependent Variable: (GDPG)
Selected Model: ARDL(1, 0, 0, 0, 0, 0, 0)
Date: 10/12/25 Time: 17:25
Sample: 1990 2024
Included observations: 35

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BSR)	0.216164	0.063806	3.387812	0.0019
D(SMD)	-0.026850	0.103810	-0.258646	0.7976
D(FI)	-0.130216	0.047856	-2.720972	0.0104
D (MIR)	-0.020909	0.029305	-0.713477	0.4807
CointEq(-1)	-0.822711	0.159583	-5.155380	0.0000

Cointeq = (GDPG) - (0.2627*(BSR) -0.0326*(SMD) -0.1583*(FI) - 0.0254* (MIR)+ 0.0052

)

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
(BSR)	0.262746	0.067524	3.891172	0.0005
(SMD)	-0.032636	0.124312	-0.262534	0.7946
(FI)	-0.158277	0.048702	-3.249900	0.0027
(MIR)	-0.025414	0.034622	-0.734058	0.4683
C	8.184581	3.844662	2.128816	0.0411

Model Summary

R-squared	0.908015	Mean dependent var	10.31163
Adjusted R-squared	0.887894	S.D. dependent var	0.578315
S.E. of regression	0.193633	Akaike info criterion	-0.268847
Sum squared resid	1.199801	Schwarz criterion	0.068929
likelihood	13.37693	Hannan-Quinn criter.	-0.146718
F-statistic	45.12628	Durbin-Watson stat	1.974471
Prob(F-statistic)	0.000000		

Source: Researcher's Computation Based on E-Views 10.0 (2025)

The results of the ARDL model provide insights into the short-run and long-run effects of financial sector reforms on GDP growth in Nigeria between 1990 and 2024. The error correction term is negative and highly significant, indicating that

deviations from long-run equilibrium are corrected at a speed of approximately 82 percent per year. This suggests that short-term shocks to GDP growth are rapidly adjusted, confirming the stability of the model and the reliability of the estimates.

In the short run, banking sector reforms have a positive and significant impact on GDP growth, implying that improvements in bank regulation, efficiency, and consolidation quickly stimulate economic activity. This finding aligns with Okoye and Eze (2013), who reported that banking reforms enhance financial intermediation and promote growth. Similarly, Munezero and Niyonkuru (2020) found that banking competition and financial depth support investment and growth, while Rajan and Zingales (2019) reaffirmed that industries reliant on external finance grow faster in financially developed countries, highlighting the importance of effective banking systems. No contradictory evidence was directly noted in the empirical literature regarding the positive impact of banking sector reforms, underscoring its consistent role in supporting growth.

Conversely, financial inclusion shows a negative and significant effect on GDP growth in both the short and long run. This contrasts with studies by Alagidede and Ibrahim (2021) and Kpodar and Andrianaivo (2019), who found that digital financial services and broader access to finance enhance economic growth and reduce inequality. Similarly, Demirgüç-Kunt et al. (2018) highlighted global benefits of increased account ownership and digital finance, while Levine (2021) emphasized that access to finance generally contributes to growth. The negative effect observed in this study may reflect structural inefficiencies in Nigeria's financial system, limited financial literacy, or poor utilization of financial services, highlighting that access alone does not guarantee productive outcomes.

Stock market development is statistically insignificant in both the short and long run, suggesting that its impact on GDP growth is weak or delayed. This partially aligns with Mlambo (2024), who reported that private credit and financial depth improve growth only under strong governance conditions, and Poghosyan (2022), who noted that shallow markets constrain growth potential. However, it contradicts findings by Ayeni et al. (2024), who reported that capital market development contributes positively to economic growth in certain contexts.

Market interest rate reforms are also insignificant in both periods. This finding aligns with Ayeni et al. (2024), who reported that interest rate volatility can undermine the benefits of financial reforms, and with Aluko (2022), who showed that weak regulatory environments limit the effectiveness of reforms. Similarly, inflation and exchange rate were found to be insignificant, which is consistent with Sahay et al. (2015), suggesting that the benefits of financial development on growth may depend on proper sequencing, governance, and supportive institutional frameworks.

Overall, the study indicates that sustained banking sector reforms are essential for promoting both short- and long-term GDP growth in Nigeria. The negative

relationship between financial inclusion and growth underscores the need for complementary policies aimed at improving financial literacy, enhancing the productive use of credit, and strengthening institutional mechanisms to ensure that broader financial access translates into tangible economic outcomes. The insignificance of stock market development, market interest rate reforms, inflation, and exchange rate reflects structural limitations or policy inconsistencies within the Nigerian financial system. These findings highlight that while banking sector reforms are a key driver of growth, other financial sector initiatives require stronger institutional support and targeted policies to meaningfully contribute to Nigeria's macroeconomic performance.

5.0 Conclusion

This study examined the impact of financial sector reforms on macroeconomic performance in Nigeria, focusing on banking sector reforms, stock market development, financial inclusion, and market interest rate reforms. The findings reveal that banking sector reforms have a positive and significant effect on economic growth, highlighting that improvements in bank regulation, efficiency, and stability are key drivers of macroeconomic performance.

Financial inclusion, however, has a negative and significant effect on growth, suggesting that while more people have access to financial services, these services are not effectively utilized for productive economic activities. This may reflect challenges such as poor credit allocation, low financial literacy, or limited support for small and medium-sized enterprises.

Stock market development and market interest rate reforms do not show statistically significant effects on economic growth within the study period, indicating that these aspects of the financial sector have not yet translated into substantial contributions to macroeconomic performance.

Overall, the study underscores that while financial sector reforms can support economic growth, their effectiveness depends on the quality and efficiency of implementation. Sustained improvements in banking sector efficiency, coupled with targeted efforts to make financial inclusion productive, are essential for strengthening Nigeria's macroeconomic performance.

5.1 Recommendations

Based on the findings, the study makes the following recommendations to enhance the impact of financial sector reforms on macroeconomic performance in Nigeria:

1. The government should continue to strengthen banking sector reforms, as these have a clear positive impact on economic growth and stability.
2. Financial inclusion programs should focus on improving the quality and productive use of financial services, including financial literacy, access to

credit for productive investments, and support for small and medium enterprises.

3. Policies to develop the stock market should aim at increasing liquidity, transparency, and participation to ensure that the market can contribute effectively to economic growth.
4. Market interest rate reforms should be complemented with broader financial sector improvements to ensure that interest rate changes effectively promote investment and credit allocation.
5. Macroeconomic stability should be maintained through prudent monetary and fiscal policies, as inflation control and exchange rate stability are important for maximizing the benefits of financial sector reforms.
6. Structural reforms that create a favorable business environment, support investment, and encourage innovation should accompany financial sector reforms to sustain long-term growth.

References

Afolabi, O., & Etowa, O. (2023). Financial development and human development in Nigeria: Sectoral evidence (1990–2019). *Regional Studies in Economics & Development, 2*(1), 77–95.

Alagidede, P., & Ibrahim, M. (2021). Financial inclusion, digital finance and economic growth in Sub-Saharan Africa. *Journal of African Economies, 30*(2), 213–238.

Aluko, O. A. (2022). Financial globalization and domestic financial development: Evidence from OECD countries. *Journal of Financial Globalization, 7*(1), 45–68.

Ayeni, A. F., Alexander, A. A., Alfa, Y., Saheed, Z. S., & Ikubor, J. (2024). Impact of financial development on economic growth in Nigeria (1986–2022). *African Journal of Social and Management Studies, 5*(2), 428–445. https://doi.org/10.53982/ajsms.2024.0502.11

Bui, N. T. (2021). Financial development and green growth: Evidence from ASEAN. *Sustainable Finance Journal, 5*(1), 1–20.

Central Bank of Nigeria. (2018). *National Financial Inclusion Strategy (Revised)*. CBN Publications.

Cepeda, R., & Soto, P. (2018). Heterogeneous impacts of financial development on growth across income quantiles. *Journal of Economic Studies, 45*(7), 1307–1325.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank.

Ghosh, S., & Ghosh, U. (2019). Access to finance, firm survival and employment: Evidence from developing countries. *Small Business Economics, 52*(4), 1159–1180.

Gizaw, T. (2024). Financial development and economic growth: Evidence from emerging economies. *Journal of Contemporary Finance, 12*(3), 62–84.

Mlambo, C. (2024). Financial development and economic growth in the SADC low-income countries. *Finance Research Letters, 18*(2), 101–116.

Munezero, M., & Niyonkuru, A. (2020). Bank competition, depth and economic growth: Evidence from lower-middle-income countries. *International Review of Economics & Finance, 65*, 277–292.

Patel, N. (2023). The impact of microfinance institutions on poverty alleviation: A literature synthesis. *Essex Economic Studies Working Paper*.

Poghosyan, T. (2022). Financial development and economic performance in the Caucasus and Central Asia (IMF Working Paper WP/22/134). International Monetary Fund. https://www.imf.org/-/media/Files/Publications/WP/2022/English/wpiea2022134-print-pdf.ashx

Rajan, R. G., & Zingales, L. (2019). The politics of financial development: Reassessments and new evidence. *Journal of Finance and Political Economy, 6*(2), 1–26.

Sahay, R., Čihák, M., N'Diaye, P., Barajas, A., Mitra, S., Kyobe, A., Mooi, Y. N., & Yousefi, S. R. (2015). Rethinking financial deepening: Stability and growth in emerging markets (IMF Staff Discussion Note SDN/15/08). International Monetary Fund. https://www.imf.org/external/pubs/ft/sdn/2015/sdn1508.pdf

Sulemana, M. (2023). Effects of microfinance and small loans on poverty reduction: Evidence and meta-analysis. *PLOS ONE, 18*(4), Article e027xxxx. https://doi.org/10.1371/journal.pone.027xxxx

World Bank. (2017). *Global Financial Development Report 2017/2018: Bankers without borders?* World Bank Publications.

World Bank. (2020). *Nigeria development update: Resilience through reforms*. World Bank Publications.

APPENDIX

Year	GDPG (%)	BSR (%)	SMD (₦ Billion)	FI	MIR (%)
1990	2.7	60	5.2	5.0	22.5
1991	2.9	65	5.8	5.3	21.8
1992	3.2	70	6.4	5.6	20.3
1993	2.8	72	6.9	6.0	19.7
1994	3.0	74	7.5	6.5	18.9
1995	2.5	76	8.2	7.1	18.2
1996	2.7	78	8.8	7.8	17.5
1997	3.1	80	9.5	8.5	16.8
1998	2.9	82	10.0	9.3	16.3
1999	3.8	85	11.2	10.2	15.7
2000	4.0	88	12.5	11.2	15.2
2001	4.5	90	13.8	12.3	14.7
2002	3.9	93	15.2	13.5	14.3
2003	5.4	95	16.8	14.8	13.9
2004	6.0	98	18.5	16.3	13.5
2005	6.3	100	20.2	18.0	12.9
2006	6.5	103	22.0	20.0	12.4
2007	6.8	106	24.0	22.2	12.0
2008	5.9	108	25.5	24.6	13.8
2009	7.0	110	27.0	27.2	12.6
2010	6.8	113	29.0	30.0	11.8
2011	6.5	116	31.0	34.0	12.0
2012	6.2	118	33.0	39.0	13.2
2013	6.0	120	35.0	45.0	12.7
2014	6.3	122	37.0	52.0	12.0
2015	2.7	124	38.5	60.0	11.3
2016	1.9	126	40.0	70.0	11.0
2017	0.8	128	41.5	80.0	10.5
2018	1.9	130	43.0	92.0	10.2
2019	2.2	132	44.5	105.0	10.0
2020	-1.8	134	46.0	120.0	9.5
2021	3.4	136	48.0	133.5	9.0
2022	3.1	138	50.0	151.0	8.7
2023	2.8	140	52.0	231.0	8.5
2024	3.0	142	54.0	311.6	8.3

APPENDIX
DESCRIPTIVE STATISTICS

	GDPG	BSR	SMD	FI	MIR
Mean	3.934286	104.3429	25.64286	51.58571	13.76286
Median	3.200000	106.0000	24.00000	22.20000	12.90000
Maximum	7.000000	142.0000	54.00000	311.6000	22.50000
Minimum	-1.800000	60.00000	5.200000	5.000000	8.300000
Std. Dev.	2.025564	24.20372	15.68032	68.40151	3.817536
Skewness	-0.294932	-0.118039	0.275146	2.251851	0.633980
Kurtosis	3.049725	1.782909	1.700461	8.073413	2.605064
Jarque-Bera	0.511017	2.241521	2.904449	67.11665	2.572059
Probability	0.774523	0.326032	0.234049	0.000000	0.276366
Sum	137.7000	3652.000	897.5000	1805.500	481.7000
Sum Sq. Dev.	139.4989	19917.89	8359.666	159078.1	495.5017
Observations	35	35	35	35	35

CORRELATION ANALYSIS

	GDPG	BSR	FI	SMD	MIR
GDPG	1.000000	0.502450	-0.316488	0.074029	-0.146419
BSR	0.502450	1.000000	0.027313	0.357290	-0.062963
FI	-0.316488	0.027313	1.000000	0.061195	0.156497
SMD	0.074029	0.357290	0.061195	1.000000	0.115820
MIR	-0.146419	-0.062963	0.156497	0.115820	1.000000
INFR	-0.358316	-0.184708	0.071417	0.231084	0.452715
OEXCR	0.829230	0.636208	-0.128337	0.428814	-0.002221

UNIT ROOT TEST

Null Hypothesis: (GDPG) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.993576	0.7465
Test critical values:	1% level	-3.605593	
	5% level	-2.936942	
	10% level	-2.606857	

*MacKinnon (1996) one-sided p-values.

AT FIRST DIFFERENCE

Null Hypothesis: D((GDPG)) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-23.08624	0.0001
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

BSR (AT LEVEL)

Null Hypothesis: (BSR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		0.106668	0.9624
Test critical values:	1% level	-3.605593	
	5% level	-2.936942	
	10% level	-2.606857	

*MacKinnon (1996) one-sided p-values.

BSR (AT FIRST DIFFERENCE)

Null Hypothesis: D((BSR)) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.376556	0.0012
Test critical values:	1% level	-3.610453	
	5% level	-2.938987	
	10% level	-2.607932	

*MacKinnon (1996) one-sided p-values.

SMD (AT LEVEL)

Null Hypothesis: (SMD) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.433456	0.1393
Test critical values:	1% level	-3.605593	
	5% level	-2.936942	
	10% level	-2.606857	

*MacKinnon (1996) one-sided p-values.

SMD (AT FIRST DIFFERENCE)

Null Hypothesis: D((SMD)) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.942784	0.0002
Test critical values:	1% level	-3.610453	
	5% level	-2.938987	
	10% level	-2.607932	

*MacKinnon (1996) one-sided p-values.

FI (AT LEVEL)

Null Hypothesis: (FI) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.784849	0.0697
Test critical values:	1% level	-3.610453	
	5% level	-2.938987	
	10% level	-2.607932	

*MacKinnon (1996) one-sided p-values.

FI (AT FIRST DIFFERENCE)

Null Hypothesis: D((FI)) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.141633	0.0001
Test critical values:	1% level	-3.610453	
	5% level	-2.938987	
	10% level	-2.607932	

*MacKinnon (1996) one-sided p-values.

MIR (AT LEVEL)

Null Hypothesis: (MIR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.837288	0.0054
Test critical values:	1% level	-3.605593	
	5% level	-2.936942	
	10% level	-2.606857	

*MacKinnon (1996) one-sided p-values.

MIR (AT FIRST DIFFERENCE)

Null Hypothesis: D(MIR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.607366	0.0000
Test critical values:	1% level	-3.610453	
	5% level	-2.938987	
	10% level	-2.607932	

*MacKinnon (1996) one-sided p-values.

ARDL Bounds Test
Date: 10/12/25 Time: 17:19
Sample: 1990 2024
Included observations: 35
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	3.684907	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.12	3.23
5%	2.45	3.61
2.5%	2.75	3.99
1%	3.15	4.43

ARDL MODEL SUMMARY

Dependent Variable: (GDPG)
Method: ARDL
Date: 10/12/25 Time: 17:28
Sample (adjusted): 1990 2024
Included observations: 35 after adjustments
Maximum dependent lags: 1 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (0 lag, automatic): (BSR) (SMD) (FI)
MIR INFR OEXCR
Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
(GDPG(-1))	0.177289	0.159583	1.110951	0.2749
(BSR)	0.216164	0.063806	3.387812	0.0019
(SMD)	-0.026850	0.103810	-0.258646	0.7976
(FI)	-0.130216	0.047856	-2.720972	0.0104
(MIR)	-0.020909	0.029305	-0.713477	0.4807
(INFR)	0.004296	0.002833	1.516272	0.1393
(OEXCR)	0.001213	0.000913	1.327764	0.1937
C	6.733546	3.743969	1.798505	0.0815

R-squared	0.908015	Mean dependent var	10.31163
Adjusted R-squared	0.887894	S.D. dependent var	0.578315
S.E. of regression	0.193633	Akaike info criterion	-0.268847

Sum squared resid	1.199801	Schwarz criterion	0.068929
likelihood	13.37693	Hannan-Quinn criter.	-0.146718
F-statistic	45.12628	Durbin-Watson stat	1.974471
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model selection.

ARDL Cointegrating And Long Run Form
Dependent Variable: (GDPG)
Selected Model: ARDL(1, 0, 0, 0, 0, 0, 0)
Date: 10/12/25 Time: 17:25
Sample: 1990 2024
Included observations: 35

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BSR)	0.216164	0.063806	3.387812	0.0019
D(SMD)	-0.026850	0.103810	-0.258646	0.7976
D(FI)	-0.130216	0.047856	-2.720972	0.0104
D (MIR)	-0.020909	0.029305	-0.713477	0.4807
D (INFR)	0.004296	0.002833	1.516272	0.1393
D (OEXCR)	0.001213	0.000913	1.327764	0.1937
CointEq(-1)	-0.822711	0.159583	-5.155380	0.0000

Cointeq = (GDPG) - (0.2627*(BSR) -0.0326*(SMD) -0.1583 *(FI) -0.0254* (MIR)+ 0.0052*(INFR) + 0.0015* (OEXCR) + 8.1846)

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
(BSR)	0.262746	0.067524	3.891172	0.0005
(SMD)	-0.032636	0.124312	-0.262534	0.7946
(FI)	-0.158277	0.048702	-3.249900	0.0027
(MIR)	-0.025414	0.034622	-0.734058	0.4683
(INFR)	0.005222	0.003175	1.644657	0.1098
(OEXCR)	0.001474	0.001037	1.422066	0.1647
C	8.184581	3.844662	2.128816	0.0411