Financial Internet Quarterly 2026, vol. 22 / no. 3, p. 20-32
https://dx.doi.org/10.65748/fiqf-2026-0016

FINANCIAL DEEPENING AND GLOBAL INTEGRATION AS DRIVERS OF ECONOMIC GROWTH IN NIGERIA: AN EMPIRICAL ANALYSIS

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Abstract

This study gathered secondary data from the Central Bank of Nigeria's (CBN) Statistical Bulletin and the World Development Indicators (WDI) to investigate the association among financial deepening, global integration, and Nigerian economic growth between 1990 and 2024. An Auto-regressive Distributed Lag (ARDL) approach was employed based on the outcome of the unit root test and a bounds test. The results revealed that both financial deepening and global integration significantly influence Nigerian economic growth, with broad money supply and private sector credit showing negative and positive effects, respectively, while trade openness exhibits a direct link with economic growth. In addition, the lending rate hinders economic growth. This study concludes that financial deepening and global integration have a significant impact on Nigeria's economic growth. It is recommended that policymakers enhance credit access, promote trade openness, and ensure stable, growth-friendly interest rates. The study contributes to existing literature by exploring several dimensions of financial deepening and global integration as they influence economic development, while incorporating corruption and macro-economic yardsticks as a moderating variable influencing financial sector development.

JEL classification: E2, E6, F4, F6, O1, O4
Keywords: Financial Deepening, Fintech Companies, Global Integration, Economic Growth

Received: 09.06.2025 Accepted: 19.01.2026

Cite this:
Musa, W.A. & Uthman, M.Z. (2026). Financial deepening and global integration as drivers of economic growth in Nigeria: An empirical analysis. Financial Internet Quarterly 22(3), pp. 20-32. https://dx.doi.org/10.65748/fiqf-2026-0016.

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Introduction

It is commonly said that the only constant in the universe is change, implying that economic conditions, a subset of global dynamics, are expected to be influenced by fluctuations in specific metrics. Economic growth is a cornerstone of development, enabling nations to enhance living standards, reduce poverty, and achieve sustainable progress (Li et al., 2022; Wang et al., 2021). As output, income, employment, and living standards fluctuate over specific periods, the economy's growth pattern continues to be reshaped by prevailing mechanisms (Ahmad & Wu, 2022; Ran et al., 2020; Wanjala & Gogo, 2020). Nigeria, being Africa's fourth-largest economy, has experienced fluctuating growth patterns influenced by various factors, including financial development and global integration (Olorogun et al., 2022). Despite its vast natural resources, its economic growth has been inconsistent. Historically, Nigeria's economic growth trajectory has been shaped by factors such as oil price volatility, fiscal policies, and global economic trends (Anthony-Orji et al., 2023). The country's growth experience underscores the importance of identifying key drivers of economic growth to inform policy decisions (Sarwar et al., 2021; Ustarz & Fanta, 2021).

Consistent with previous research, financial deepening and global integration remain key drivers of economic growth (Wen et al., 2022; Shapoval & Shpanel-Yukhta, 2021; Li et al., 2021; Song et al., 2021; Chen et al., 2020). Financial deepening promotes growth by broadening access to financial services, enabling individuals and businesses to save, invest, and access credit, thereby boosting economic activity, reducing poverty, and enhancing financial stability (Paramati et al., 2021; Cheng et al., 2021; Acquah & Ibrahim, 2020; Erdoğan et al., 2020). Similarly, global integration stimulates growth by encouraging cross-border flows of goods, services, capital, and technology (Misati et al., 2024; Umar et al., 2021; Saleem et al., 2021). This allows countries to leverage their comparative advantages, improving efficiency, productivity, and living standards.

This study is motivated by Nigeria's long-standing economic challenges, rooted in its colonial history. Despite various efforts to use financial deepening as a catalyst for growth, progress has been hampered by poor infrastructure, low digital literacy, and inconsistent policies (Hassan & Musa, 2023; Afolabi, 2022). Furthermore, Nigeria's limited participation in the global economy, due to structural and policy barriers, has prevented it from fully benefiting from globalization, such as increased foreign investment and trade (Michael et al., 2021). These issues collectively constrain financial deepening and hinder inclusive economic growth. Cultural beliefs and low literacy levels have traditionally led many older Nigerians to store money at home, bypassing the formal banking system (Lei et al., 2022). Even those who participate in community-based savings schemes don't patronise banks due to their informal nature (Jahanger et al., 2022). However, the growing presence and awareness of fintech solutions have improved financial deepening, particularly among market women and older citizens. Companies such as OPAY, PALMPAY, Moniepoint, and Kuda Bank have facilitated digital transactions, with many payments for goods and services now processed through point-of-sale (POS) systems. Additionally, cooperative societies and local savings groups increasingly use microfinance banks to manage members' contributions and savings (Liu et al., 2020).

Before the 2021 launch of the e-Naira, Nigeria's economy was defined by a heavy reliance on cash, which left a large share of the population unbanked, constrained monetary policy, and bolstered a vast informal sector. In response, the Central Bank of Nigeria introduced central bank digital currency (CBDC) as a strategic remedy. This state-regulated e-Naira was designed to digitize the physical currency, aiming to formalize economic activity, dramatically expand financial deepening, and reduce transaction costs (Akanbi, 2024). This initiative positions Nigeria as a fintech leader, fostering a more inclusive financial system while strengthening monetary sovereignty. The nation plays a pioneering leadership role in Africa through its anti-colonial diplomacy, peacekeeping, institution-building, economic contributions, energy leadership, and influential cultural and tech sectors, reinforcing its status as a regional powerhouse and driver of continental integration and development.

The e-Naira enables individuals to pay for everyday expenses directly from a mobile wallet, without a bank account. This allows instant payment receipt, reducing cash risks and transfer fees, particularly for SMEs. As for the government, it fosters faster and more transparent welfare disbursements. A strong potential to advance financial deepening and global economic integration is attained as transaction costs are lower, and cross-border payments are accelerated in formal financial services. Nonetheless, its success is contingent on overcoming key challenges such as the digital divide, cybersecurity risks, and the need for comprehensive regulatory frameworks that ensure interoperability with global financial systems while safeguarding monetary stability (Nnachi, 2021).

The role of the private sector remains germane for the long-term impact of e-Naira in boosting the nation's economy, leading CBN to explore several means of collaboration with fintech firms and industry stakeholders. This includes signing an MoU with a blockchain firm and the employment of a sector-led stablecoin

(NGN) to enhance e-Naira's infrastructure (Ree, 2021). The unbanked population is thus brought into the formal financial system, unlocking new economic activity and consumer opportunities.

Following banking sector distress in the 1990s, Nigeria raised minimum capital from ₦2 billion in 2002 to ₦25 billion in 2004. Due to naira depreciation, ₦25 billion dropped in value from $187 million to $32.5 million by 2023. In 2024, the CBN introduced new capital thresholds: ₦500 billion (international), ₦200 billion (national), ₦50 billion (regional), ₦20 billion (non-interest national), and ₦10 billion (non-interest regional), highlighting the importance of strong capital for financial stability and economic growth. Financial deepening in Nigeria took a significant turn during the 2023 elections when a government policy restricted cash circulation to combat electoral malpractice. This forced many previously reluctant individuals, such as market vendors and transporters, to adopt digital payment methods, thereby accelerating financial deepening and economic activity. Fintech firms like OPAY and Moniepoint gained widespread trust for their efficient services, often surpassing traditional banks in customer satisfaction. By 2024, these companies had attracted over $2 billion in investments. Their rapid growth led to increased regulatory oversight by the Central Bank of Nigeria (CBN) and insurance coverage by the Nigerian Deposit Insurance Corporation (NDIC). To further promote deepening, several fintech apps were launched, simplifying transactions. Nevertheless, regulatory issues persist; in April 2025, the CBN fined Paystack ₦250,000,000 for violations related to its peer-to-peer app (Omotayo, 2025).

In 2024, the Central Bank of Nigeria (CBN) sanctioned several fintech companies over issues related to customer identification, commonly known as Know Your Customer (KYC). This action was prompted by concerns over illegal foreign exchange transactions and suspected money laundering activities, as reported by Punch News Paper in 2024 (Okamgba et al., 2024). While this highlights the CBN's growing scrutiny of fintech firms and the need for stronger regulatory alignment within the sector, the economic impact of these actions could be significant.

In the last 25 years, Nigeria has experienced significant trade growth, with imports generally surpassing exports. Key export destinations have included India, Spain, and China, while most imports come from China, Europe, and the U.S. Foreign Direct Investment (FDI) levels have been inconsistent, reflecting the need for a more stable and investor-friendly climate to sustain long-term investment. The sharp decline in Nigeria's FDI in 2023, followed by a rebound in early 2024 due to policy reforms, highlights the volatility of investment inflows and the need to examine the factors influencing FDI in the country (NESG, 2024).

This study is justified by Nigeria's current economic challenges and the rapid growth of financial technology, which has increased financial deepening but also heightened risks such as fraud and money laundering. With Nigeria's deeper integration into the global economy, examining how financial deepening and global integration jointly impact economic growth is vital. The research is timely and relevant for informing policies that promote sustainable development while managing associated risks. The Supply-Led and Demand-Follow Hypotheses, propounded by Schumpeter (1911) and Goldsmith (1967), respectively, offer complementary perspectives on the finance-growth nexus; this study adopts an integrated framework that captures their two-way relationship while accounting for key macroeconomic and institutional factors.

Literature review

Recent empirical research has extensively examined the multifaceted relationship between financial deepening and economic growth, with studies categorized into single-country and cross-country analyses.

Single-country studies

In Kenya, Misati et al. (2024) highlighted the positive role of digital financial innovation in enhancing financial depth and promoting economic growth. Similarly, Anthony-Orji et al. (2023) found that financial development and financial deepening significantly drive Nigeria's economic growth, advocating for more inclusive financial services. Lei et al. (2022) emphasized the importance of financial development in promoting renewable energy use, showing how financial deepening supports cleaner energy transitions. Focusing on Nigeria, Olorogun et al. (2022) affirmed the FDI-led growth hypothesis and the pivotal role of financial development, while Afolabi (2022) noted that despite the significance of financial development and monetary variables, trade openness did not substantially affect growth, calling for diversified trade-enhancing reforms.

Furthermore, Umar et al. (2021) presented nuanced findings on asymmetric effects, indicating that negative shocks in financial development spurred growth while positive shocks had dampening effects. In studies incorporating Islamic finance, Saleem et al. (2021) illustrated the dynamics between Islamic financial indicators and economic growth under dual banking systems. In China, Wang et al. (2021) uncovered the complex, bidirectional relationships among financial development, renewable energy, and economic growth, showing a temporal reversal in impacts. Ran et al. (2020) highlighted financial development's redistributive effects by reducing urban-rural income disparity. Meanwhile, Wanjala and Gogo (2020) focused on East Africa, revealing the growth-enhancing role of broad

money supply, private sector credit, and stock volume. In another asymmetric investigation, Chen et al. (2020) found divergent effects of financial development shocks on growth, underscoring inflation and government spending as significant macroeconomic influencers.

Cross-country studies

Cross-country analyses offer broader insights into these dynamics across varying institutional and economic contexts. Li et al. (2022) discovered that financial deepening has a conditional effect on ecological efficiency across BRICS economies, depending on development levels. Similarly, Ahmad and Wu's (2022) echoed these findings in G20 nations, suggesting tailored financial reforms to optimize sustainability. Jahanger et al. (2022) emphasized the role of innovation and globalization in mitigating ecological footprints in developing countries. Wen et al. (2022) challenged the traditional finance-growth narrative, finding a negative impact of financial development on growth but positive effects on employment and inflation. Shapoval and Shpanel-Yukhta (2021) affirmed a linear relationship between GDP growth and credit availability, reinforcing the foundational role of financial deepening.

Focusing on environmental concerns, Paramati et al. (2021) found that while green technology and FDI reduce emissions in OECD countries, financial deepening can exacerbate environmental degradation. Michae et al. (2021) provided evidence of country-specific dynamics in Africa, showing mixed results in how stock market development influences growth. Li et al. (2021) identified a complex interaction between financial development and CO_2 emissions in BRICS countries, suggesting that development strategies must balance growth and sustainability. Addressing governance factors, Song et al. (2021) showed that corruption impedes the positive effects of growth on financial development, especially in developing countries. Sarwar et al. (2021) highlighted that both human capital and financial development synergistically boost economic growth in emerging economies.

Cheng et al. (2021) examined the interplay between financial development, ICT diffusion, and growth, finding contrasting impacts across income levels, with ICT serving as a mitigating factor against negative financial effects in high-income nations. Ustarz and Fanta (2021) revealed that sectoral impacts of financial development vary, benefiting agriculture and services more immediately, while industry requires a development threshold. Liu et al. (2020) studied One Belt One Road countries, showing that financial deepening attracts FDI mainly in less developed economies. Erdoğan et al. (2020) emphasized a threshold effect in oil-exporting nations, where financial deepening is necessary to convert oil revenues into growth. Lastly, Acquah and Ibrahim (2020) revealed a counterintuitive finding that financial development may dampen FDI's growth impact in Africa, underscoring the need for careful alignment of financial sector policies with growth objectives.

Research gap and contribution

This research breaks new ground by offering a dual-pronged contribution to the literature on Nigeria's economy. First, it moves beyond simplistic measurements by employing a comprehensive set of proxies to simultaneously capture the nuanced effects of financial deepening and global integration on economic growth. This relationship has remained ambiguously explored in the Nigerian context. Second, and more uniquely, it confronts the often-overlooked reality of financial malpractice. This is achieved by explicitly incorporating corruption as a moderating variable; the study ingeniously captures how some entities circumvent formal regulations such as KYC, thereby providing the first empirical evidence that corruption can paradoxically impact the development of Nigeria's financial sector. This dual approach not only clarifies existing growth drivers but also unveils the critical, hidden interplay between informal practices and formal financial progress. Additionally, the study captured the dependent variables with two measures, assisting in the robustness of the study to changes in the variable measures.

Methodology

Research design

This study employed an ex-post facto design to examine the effect of existing independent variables on economic growth without manipulating them. A correlational approach was also used to assess the relationship between financial deepening, global integration, and economic growth, providing insights into how these factors are associated.

Nature and source of data

Secondary data were sourced from the CBN Statistical Bulletin and World Development Indicators, covering the period 1990-2024. This timeframe was chosen due to a significant rise in the domestic debt-to-GDP ratio, exceeding 40%, which underscores the relevance of the study variables. The year 1990 marks the onset of major financial reforms in Nigeria during a period of economic instability, highlighting the link between financial stability and economic growth. It also marked the beginning of efforts toward financial deepening and global integration, making it a relevant starting point for this study.

Model specification

The model for this study is developed in line with the theoretical underpinnings of both the Supply-Led and Demand-Follow hypotheses, integrating insights

from empirical literature and the contextual realities of the Nigerian economy. This dual-theory approach allows for a comprehensive framework that captures the relationship between financial development and economic growth. The model in its functional form is shown below:

$$Economic\ Growth = \int (Financial\ deepening, Global\ Integration, Controls) \quad (1)$$

Control variables of inflation, interest rate, and corruption level were added based on their influence in shaping the economy of a nation, as evidenced in past theories and current realities.

The econometric specification of the model is presented as follows:

$$GDPGR_t = \beta_0 + \beta_1 M2GDP_t + \beta_2 FSGDP_t + \beta_3 PCGDP_t + \beta_4 TRDOP_t + \beta_5 FINOP_t + \beta_6 FDINT_t + \beta_7 INFLT_t + \beta_8 LNDRT_t + \beta_9 CRPLV_t + U_t \quad (2)$$

GDPGR: GDP Growth Rate at time t. This measures how much the economy has grown over a period. It is calculated by comparing the current GDP to the previous period's GDP, dividing the difference by the previous GDP.

M2GDP: Broad Money Supply to GDP at time t. This measures the size of a country's money supply relative to its economic output. It is calculated by dividing broad money (including cash and bank deposits) by GDP, and it indicates the level of financial deepening and liquidity in the economy.

FSGDP: Financial Savings to GDP at period t. The ratio measures the portion of a country's GDP that is saved in financial instruments like bank deposits, insurance, pensions, and mutual funds. It is calculated by dividing total financial savings by GDP. This ratio indicates how much of the national income is being saved and invested through formal financial channels, reflecting the strength and depth of the financial deepening.

PCGDP: Private Sector Credit to GDP at period t. The ratio measures the total credit provided by financial institutions to the private sector as a share of GDP. It is calculated by dividing the amount of credit extended to businesses and households by the country's GDP. This ratio indicates the level of financial intermediation and access to finance in the economy; a higher value suggests a more active and developed financial deepening.

TRDOP: Trade Openness at time t. It is the ratio of a country's total exports and imports to its GDP. It shows how much the economy relies on international trade. A higher ratio means greater integration with the global market.

FINOP: Financial Openness at time t. It refers to the extent to which a country allows capital to move freely across its borders. The study adopts the Chinn-Ito Index (KAOPEN) approach, which measures the degree of capital account openness based on the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). This is a De jure (legal/policy-based) openness which ranges from -1.8 (fully closed) to +2.5 (fully open).

FDINT: FDI Net Inflow at period t. It refers to the difference between the inflow and outflow of foreign direct investment during a specific period. It represents funds invested by foreign entities to acquire a lasting interest in businesses or assets. This inflow indicates how attractive the country is to foreign investors and can boost economic growth.

INFLT: Inflation at time t. This is the rate at which the general level of prices for goods and services rises over time, causing the purchasing power of money to decrease. It's usually expressed as a percentage and shows how much prices have increased compared to a previous period.

LNDRT: Lending Rate at period t. This is the interest rate that financial institutions charge borrowers for loans. It reflects the cost of borrowing money and influences economic activity by affecting how much individuals and businesses are willing to borrow and spend. The study used the real interest rate, which adjusts for inflation.

CRPLV: Corruption Level at period t. The study adopts the perception-based indices by Transparency International, which rank countries based on perceived levels of public sector corruption. This is based on expert assessment and opinion survey on a scale between 0 (highly corrupt) and 100 (very clean).

U: Stochastic Error Term.

β_0: Intercept Parameter indicating the value of Y when X is zero.

$\beta_{1\text{-}9}$: Slope Parameters, also called coefficients of relationship.

Estimation procedure

This study employs both descriptive and inferential statistical approaches. The descriptive analysis utilizes summary statistics to examine trends in the variables, while the inferential analysis is based on time series regression techniques. The inferential process begins with testing for stationarity to determine the presence of unit roots in the data. This is followed by an assessment of long-run relationships through the bound testing approach. Depending on the outcomes of these preliminary tests, the appropriate regression model is estimated. Specifically, the Auto Regressive Distributive Lag (ARDL) method is employed to capture the long-run

relationships through the bound testing approach. This study expects a direct association between the exogenous variables of financial deepening and global integration, and the endogenous variable of economic growth. As for the control variables of inflation, interest rate, and corruption level, an inverse relationship is suspected based on theoretical underpinnings.

Result

Descriptive statistics

Table 1 presents the descriptive statistics for all variables incorporated in the model, detailing the mean, median, standard deviation, and the minimum and maximum values. It also includes time series plots, skewness, kurtosis, and Jarque-Bera measures for the dependent variable - economic growth. The explanatory variables represent financial deepening and global integration, captured through specific proxies. Moreover, the study incorporates control variables, consistent with findings from previous empirical studies.

Table 1: Summary Statistics

Statistics	GDPGR	M2GDP	FSGDP	PCGDP	TRDOP	FINOP	FDINT	INFLA	LNDRT	CRPLV
Mean	4.28	18.71	45.09	10.70	36.92	0.87	1.28	18.12	3.14	18.83
Median	3.90	17.56	34.45	10.06	36.54	-0.66	1.28	12.55	5.53	22.00
Maximum	5.30	40.76	45.15	27.91	53.28	-0.25	2.90	48.84	18.18	27.00
Minimum	-2.00	9.06	21.56	4.96	21.33	-1.93	-0.04	5.39	-31.45	6.90
Std. Dev.	3.77	7.04	20.69	4.51	8.07	0.51	0.86	16.16	10.07	7.67
Skewness	0.64	0.73	1.14	1.89	0.17	-1.55	0.17	2.13	-1.36	-0.53
Kurtosis	3.80	3.69	4.04	7.69	2.48	3.73	1.83	6.54	5.58	1.72
Jarque-Bera	3.23	3.71	8.91	51.52	0.56	14.40	2.10	43.34	20.01	3.89
p-Value	0.19	0.16	0.01	0.00	0.76	0.00	0.35	0.00	0.00	0.14

Source: Author's own work.

Multicollinearity test

Multicollinearity, which inflates standard errors and diminishes the significance of variables, can render model results unreliable and spurious (Gujarati, 2009). To address this issue, the study employs the Variance Inflation Factor (VIF) to test for high correlations among the independent variables. The results are presented in Table 2.

Table 2: Variance inflation factor

Variable	VIF	Inverse
M2GDP	7.4309	0.1289
FSGDP	5.2479	0.1882
PCGDP	6.3158	0.1549
TRDOP	1.3293	0.7239
FINOP	4.9677	0.2006
FDINT	1.4210	0.6988
INFLA	9.4258	0.1060
LNDRT	4.1984	0.2373
CRPLV	8.3841	0.1146
Average VIF	5.5200	

Source: Author's own work.

Table 2 shows that none of the variables exhibit a VIF value equal to or above 10, suggesting an absence of significant multicollinearity among the independent variables. Consequently, the regression results can be considered reliable. The inverse of the VIF also supports this assertion of no strong linear association among the variables of this study.

Unit root test

Unit root tests assess whether a time series is stationary, meaning its statistical properties like mean and variance remain constant over time, which is essential for reliable econometric modelling. Non-stationary series, indicated by a unit root, often follow a random walk and do not revert to a long-term mean. This study

uses the Augmented Dickey-Fuller (ADF) test to determine if differencing or transformation is needed to achieve stationarity. The results are shown in Table 3.

Table 3 shows that some variables are non-stationary at the 5% significance level, indicating the presence of unit roots. This means that OLS regression on these variables would produce spurious results. However, the variables become stationary after first differencing, confirming that they are integrated of order I (1). Since there is a mixture of I (0) and I (1) variables and Johansen integration cannot be used to establish a long-run association, the study uses the ARDL bounds test to examine possible long-run relationships (Godson, 2014).

Table 3: Unit root test using Augmented Dickey Fuller (ADF)

Variable	Level		First Difference		Order of Integration
	T. Stat	P. Val	T. Stat	P. Val	
GDPGR	-3.9009	0.0054	-	-	I (0)
M2GDP	0.0165	0.9537	-3.2517	0.0257	I (1)
FSGDP	-5.8650	0.0000	-	-	I (0)
PCGDP	-0.8959	0.7773	-2.7673	0.0740	I (1)
TRDOP	-3.1978	0.0288	-	-	I (0)
FINOP	-26.0411	0.0001	-	-	I (0)
FDINT	-2.3084	0.1752	-7.1819	0.0000	I (1)
INFLA	-2.1916	0.2128	-4.5484	0.0010	I (1)
LNDRT	-2.3172	0.1731	-4.4792	0.0012	I (1)
CRPLV	-1.4663	0.5382	-5.8088	0.0000	I (1)

Source: Author's own work.

Co-integration Test using Bound Testing Approach

The model variables comprise a mix of I (0) and I (1) series. Following Pesaran (1997) and Pesaran et al. (1997), the ARDL bounds testing approach is appropriate for such data, given its single-equation structure and flexibility in lag selection. This method assesses the existence of a long-run relationship among variables, with the test results presented in Table 4.

Table 4: Bound test result

F - Stat	Significance	Lower Bound	Upper Bound	Decision
3.3751	10%	1.88	2.99	Rejection of Null Hypothesis
	5%	2.14	3.30	
	1%	2.65	3.97	

Source: Author's own work.

Table 4 presents the bounds test results, assuming all variables are I (0) for the lower bound and I (1) for the upper bound. With an F-statistic of 3.3751 exceeding the 5% upper critical value of 3.30, the null hypothesis of no co-integration is rejected, indicating the presence of a long-run relationship among the variables.

ARDL dynamic regression result

Given the presence of a long-run co-integration relationship among the variables, the model was estimated using the ARDL specification presented in Table 5. The optimal lag length for each variable was determined using information criteria, as shown in Table 5. A key advantage of the ARDL model is its ability to select appropriate lags for each variable. The lag lengths were automatically selected by the Eview estimator using standard information criteria (AIC and SBC) to ensure an objective and efficient model specification. This approach minimizes bias and captures the dynamic relationships among variables without over-parameterization.

Table 5: The ARDL Dynamic Regression for long-run estimate

Variable	Lag	GDP Growth Rate		GDP Per Capita	
		Coefficient	p-value	Coefficient	p-value
M2GDP	1	-0.5459	0.0187*	82.9816	0.0473*
FSGDP	0	-0.0278	0.6528	-12.9823	0.2218
PCGDP	0	0.6429	0.0516*	106.7421	0.0361*
TRDOP	1	0.1801	0.0505*	-29.1057	0.0154*

Variable	Lag	GDP Growth Rate		GDP Per Capita	
		Coefficient	p-value	Coefficient	p-value
FINOP	0	3.2365	0.2258	-787.5508	0.0276*
FDINT	0	0.8435	0.2820	140.8852	0.1854
INFLA	0	-0.1557	0.1144	-17.7329	0.0922*
LNDRT	0	-2.2371	0.0593*	-38.9752	0.0159
CRPLV	1	0.3907	0.1127	54.4657	0.0965*
C		1.0613	0.9041	2855.9160	0.0815

Source: Author's own work.

Taking into consideration the objective of this study, which is to examine the impact of financial deepening and global integration on Nigeria's economic growth, Table 5 presents the ARDL dynamic regression for the long-run estimate. It should be recalled that the explanatory variables of this study are grouped into financial deepening, global integration, and controls, with each having three different measures.

Starting from financial deepening proxies, the ratio of broad money supply to gross domestic product (M2GDP) displays a negative association with economic growth captured by gross domestic product growth rate (GDPGR). The magnitude of the variable suggests that a percent decrease in M2GDP will boost the growth of the Nigerian economy by 0.54%. This is significant at a 5% probability threshold. Following this, the ratio of financial savings to GDP (FSGDP) also revealed an inverse link with economic growth by a small magnitude, suggesting that GDP will grow by 0.02% if less money is saved in the economy, though this outcome is not significant based on the acceptable threshold. Conversely, the ratio of private sector credit to GDP (PCGDP) revealed a positive and significant nexus with economic growth, as a percent rise in its value brings about a 0.64% improvement in GDP, in line with the 10% acceptable threshold. The negative coefficients on M2GDP and FSGDP likely reflect structural weaknesses in Nigeria's economic transmission mechanisms. For M2GDP, increases in money supply may not translate into productive activity due to weak financial intermediation, high informality, and inflationary pressures, leading to short-term output distortions. Likewise, FSGDP outcome may stem from fiscal inefficiencies, where savings temporarily crowd out private activity or heighten uncertainty. These signs, therefore, indicate rigidities rather than a contradiction of theory.

Concerning the global integration measures, trade openness (TRDOP) had a significant positive relationship with economic growth based on the coefficient magnitude of 0.18% and a significant threshold of 10%. This implies that as more trade is conducted in the international scene, the Nigerian economy will skyrocket. Similarly, financial openness (FINOP) boosts the Nigerian economy as a rise in capital inflow will lead to a 3.24% growth in GDP. Unfortunately, FINOP is not a significant variable based on the acceptable threshold. The result also shows that net inflow from foreign direct investment (FDINT) has a direct relationship with economic growth, though insignificant based on the acceptance yardstick. This means that the economy will rise to the tune of 0.84% if net inflow from FDI improves.

Inflation rate (INFLA) revealed an indirect and insignificant link with economic growth showing that GDP will rise if inflation is managed to the barest minimum. Conversely, interest rate (LNDRT) significantly impacts economic growth as a unit fall in interest rate will yield a 2.23% rise in economic growth. As far as the level of corruption is concerned, the growth in the Nigerian economy will be assured if corruption is reduced entirely.

It could be seen that only four out of the nine exogenous variables were significant when GDPGR was proxied for economic growth. But when the proxy was changed to per capita income, significant variables changed to six. Financial openness that was initially insignificant under GDP growth rate became significant under per capita income, signifying a NGR 787.55 rise in individual income if minimized. Similarly, inflation is also significant, implying that Nigerian citizens' income will improve by NGR 17.73 if inflation falls. In addition, the corruption level is significant, meaning NGR 2855.92 will be added to the income level if corruption is eliminated. However, FSGDP and FDINT were still classified as insignificant even when per capita income was proxied for economic growth. All these show the robustness of this research to variable measurements and proxies.

Table 6: The ARDL Dynamic Regression for short-run estimate

Variable	GDP Growth Rate		GDP Per Capita	
	Coefficient	p-value	Coefficient	p-value
D(M2GDP)	0.2196	0.4359	45.5142	0.0181*
D(FSGDP)	-0.0329	0.6541	-9.7351	0.0635*
D(PCGDP)	0.7636	0.0587*	75.1328	0.0000*

Variable	GDP Growth Rate		GDP Per Capita	
	Coefficient	p-value	Coefficient	p-value
D(TRDOP)	0.2301	0.0783*	23.0426	0.0154*
D(FINOP)	3.8441	0.2740	-564.1427	0.2886
D(FDINT)	1.0018	0.2642	125.7204	0.4949
D(INFLA)	-0.1949	0.1136	-19.0532	0.1372
D(LNDRT)	-0.2817	0.1035	-27.6835	0.7835
D(CRPLV)	-0.5399	0.1002	42.6618	0.8420
CointEq(-1)	-0.8419	0.0001*	-0.2814	0.0040
C	1.2605	0.9044	3634.7390	0.5903

Source: Author's own work.

The short-run ARDL estimates provide nuanced insights into the drivers of Nigeria's economy. The analysis reveals that Private Sector Credit (PCGDP) is a robust and significant driver for both GDP growth and GDP per capita, underscoring the critical role of accessible credit in stimulating business activity and productivity. It was also noted that money supply has a direct impact on economic growth, suggesting that an increase in the former boosts the latter. Conversely, Financial Savings (FSGDP) shows a significant negative relationship with GDP per capita. This counterintuitive finding may reflect a "savings-investment gap" in Nigeria, where domestic savings are not efficiently intermediated into productive private-sector investments, potentially remaining trapped in low-yield instruments or being channeled into government borrowing.

The highly significant and negative error correction terms confirm a stable long-run relationship for both models. The coefficient of -0.84 for the growth model indicates a rapid 84% correction of any short-run disequilibrium within a period. This suggests that Nigeria's economy, while volatile, possesses a strong self-correcting tendency, likely driven by market adjustments and policy responses to shocks. The significant pull of this long-run equilibrium underscores that short-run policies must be consistent with sustainable growth paths to avoid the rapid reversal of their effects. The per capita model also mirrors the result of the growth model, suggesting adjustment to equilibrium when there is short-run disequilibrium.

Post estimation test

Drawing reliable conclusions from data affected by non-normality, heteroscedasticity, serial correlation, or instability can be challenging. To ensure the validity and reliability of the results, post-estimation tests were conducted, as summarized in Table 7.

Table 7: Post Estimation test

S/N	Test	Instrument	Statistics	Figure	Decision
1	Normality	Histogram	Jarque bera	2.7336	Residuals are normally distributed
			Probability	0.2549	
2	Heteroscedasticity	Breusch-Pagan-Godfrey Heteroscedasticity test	Obs *R-squared	23.1572	No heteroscedasticity
			Prob Chi-square	0.0809	
3	Serial correlation	Breusch-Godfrey Serial correlation test	Obs *R-squared	8.6136	No serial correlation
			Prob Chi-square	0.0966	
4	Model Stability	CUSUM & CUSUMSQ	Graphical Representation	Within 5% Bound	Stable Coefficients
5	Model Functional Form	Ramsey RESET Test	F. Stat	22.9980	Normally Distributed
			Probability	0.0522	

Source: Author's own work.

Table 7 indicates no evidence of heteroscedasticity or serial correlation, as the p-values exceed the 5% significance level. Additionally, the residuals are normally distributed, supported by p-values above the 5% threshold.

Discussion of Research Findings

Financial deepening impacts Nigerian economic growth based on the directions and significance of its measures. This highlights the importance of managing M2GDP, FSGDP, and PCGDP to achieve sound and sus-

tainable economic growth in Nigeria. The negative relationship between M2GDP and FSGDP with economic growth in Nigeria highlights inefficiencies in the financial sector. Issues such as inflation, poor financial intermediation, low financial deepening, and misallocated liquidity hinder credit access and weaken the effectiveness of monetary policy. These findings emphasize the urgent need for comprehensive reforms to enhance financial resource allocation, improve savings efficiency, and channel investments into productive sectors to support sustainable economic growth. The significant link between PCGDP and Nigeria's economic growth suggests effective credit use, driven by investment-focused lending and favourable structural conditions. Continued impact depends on better credit allocation, risk controls, and private sector reforms. This result supports the work of Misati et al. (2024), Anthony-Orji et al. (2023), Lei et al. (2022), and Wanjala and Gogo (2020), which highlight the role of financial deepening in driving growth. However, this outcome contradicts the findings of Umar et al. (2021), Wang et al. (2021), and Chen et al. (2020), who provided conflicting evidence regarding positive and negative shocks, as well as bi-directional impacts. Additionally, evidence is found supporting the work of Ran et al. (2020), Paramati et al. (2021), as well as Shapoval and Shpanel-Yukhta (2021) on income parity and redistribution. In addition, it affirms the supply-led theory of economic growth.

The Nigerian economy has grown significantly, as evidenced by the behaviour of global integration proxies. The study finds that TRDOP has a significant positive effect on Nigeria's economic growth, indicating that increased participation in global trade enhances market access and economic performance. However, FINOP and FDINT, though positively related to growth, are not statistically significant, possibly due to institutional weaknesses, regulatory barriers, and policy instability. This suggests that Nigeria has yet to fully benefit from financial globalization. To address this, the country should focus on strengthening institutional frameworks, ensuring macroeconomic stability, improving the investment climate, and aligning policies with international standards to better harness the growth potential of global integration. This is in tandem with the findings of Olorogun et al. (2022) and Liu et al. (2020), who affirm the FDI-led growth hypothesis. However, it contradicts the study by Afolabi (2022), which criticizes trade openness as a driver of economic growth. The findings also align with the works of Ahmad and Wu (2022), Jahanger et al. (2022), Michael et al. (2021), and Erdoğan et al. (2020), who emphasized the trade threshold in foreign trade, as well as Acquah and Ibrahim (2020), who examined the FDI effect of international trade.

The findings show that INFLA has a negative but insignificant impact on Nigeria's economic growth, indicating it has not been a major driver during the study period. However, high LNDRT significantly hinders growth by restricting access to credit for investment and consumption. CRPLV, though positively linked to growth, is statistically insignificant - possibly due to short-term effects that bypass institutional inefficiencies. These results suggest the need for policies that lower interest rates, improve credit access, control inflation through structural reforms, and strengthen anti-corruption efforts to support long-term economic development. This evidence is in line with Wen et al.'s (2022) study on inflation but goes against the study of Song et al. (2021) on corruption. It also justifies the supply-led hypothesis as discussed in the previous theory.

Conclusions

This study examines how financial deepening and global integration affect Nigeria's economic growth, revealing a complex relationship. The results indicate that, within the framework of financial deepening, both M2GDP and PCGDP are key contributors to economic growth, highlighting the vital role of money supply and private sector credit. Under globalization, however, only TRDOP directly impacts economic performance. Among the control variables considered, LNDRT is the sole indicator found to be statistically significant. The study further underscores that the selection of indicators for both dependent and control variables significantly influences the identification of the main drivers of economic growth. Based on the analyses of data and the conclusion reached, the following recommendations were suggested to the government and policymakers to enhance Nigerian economic growth:

Since money supply (M2GDP) and private sector credit (PCGDP) significantly support growth, the Central Bank of Nigeria and related financial agencies should expand access to credit and financial services. Strengthening digital finance, supporting microfinance institutions, and incentivizing private sector lending can enhance financial deepening and stimulate broader economic activity.

With trade openness (TRDOP) as the only globalization-related factor linked to growth, the Ministry of Trade should prioritize policies that enhance Nigeria's access to global markets. This includes streamlining trade procedures, improving logistics infrastructure, and encouraging exports beyond oil to strengthen the country's position in international trade.

As the lending rate (LNDRT) is the only significant control variable, monetary authorities should focus on maintaining stable and growth-friendly interest rates. A transparent and balanced interest rate policy can encourage investment and consumption, supporting overall economic performance.

While this study focuses on the Nigerian context, the findings have broader academic and policy relevance. The relationships between financial deepening, global integration, and economic development, as well as the moderating role of corruption, are issues that resonate across developing and emerging economies. Consequently, the insights and policy implications derived from this study can inform both comparative research and policy formulation in similar contexts beyond Nigeria.

This study is limited by its focus solely on Nigeria, which restricts the opportunity for cross-country comparisons with other African nations. Additionally, the exclusion of fintech-related variables represents a limitation, as their inclusion could potentially provide further insights and enhance the study's contribution. Despite these limitations, the study makes a meaningful contribution to the existing literature by employing multiple proxies for both dependent and independent variables, enhancing robustness against measurement issues. Furthermore, it incorporates corruption as a moderating variable, highlighting its influence on the relationship between financial deepening, global integration, and economic development. Finally, the long time period covered by the study strengthens the validity of the observed relationships, providing a reliable basis for understanding the dynamics among the variables.

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