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THE ASYMMETRIC IMPACT OF FOREIGN DIRECT INVESTMENT AND FINANCIAL DEVELOPMENT ON GROWTH USING A NONLINEAR ARDL APPROACH

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ABSTRACT

*Foreign direct investment and financial development are critical in enhancing the growth of the host economy. This study investigates the asymmetric impact of foreign direct investment (FDI) and financial development (FD) on growth in Nigeria. To accomplish this objective, the study employs time-series data and a nonlinear Autoregressive Distributed Lag (NARDL) framework to decompose FDI and FD into positive and negative changes. We use GDP growth as the regressor, FDI and trade openness as explanatory variables, financial development as a mediating variable, and the human development index and the exchange rate (EXR) as control variables. The results of this study show that FDI and positive financial development (+ve) significantly increase the GDP growth rate in the short and long terms. At the same time, negative FDI and financial development shocks reduce growth, suggesting that improvements in the financial sector and FDI potentially drive economic growth. Results also indicate that the mediating variable (FDI*FD) is significant, showcasing that financial development facilitates FDI's growth impact. Based on our empirical outcome, the paper concludes that FDI and FD are critical in enhancing growth. The findings of this study suggest that government and policy analysts should encourage FDI by initiating environmentally friendly policies and establishing an adequate institutional framework to protect and promote foreign investment not only in Nigeria but also in other developing countries. Significantly, absorptive capacity, such as the financial sector, should be strengthened to optimize FDI's impact on growth.*

INTRODUCTION

In recent years, the intricate relationship between foreign direct investment and growth has attracted substantial scholarly interest. The growing interest in the FDI-growth debate stems from its view as a catalyst for transforming the economies of developing countries trapped in a vicious circle of poverty. Thus, FDI as an essential component of foreign capital is required in developing countries (Mashrur, 2025). Many scholars (Eliman & Alattas, 2025; Fazaalloh, 2024; Humta & Şahin, 2023; Wen et al., 2022) argue that FDI is a driving force of economic growth through capital accumulation, technology transfer, job creation, and the development of management expertise. However, these benefits are dependent on an efficient and robust financial system (Alfaro et al., 2010; Hermes & Lensink, 2003; Humta & Şahin, 2023; Li & Liu, 2005; Siddikee & Rahman, 2021; Waliu, 2017).

Foreign direct investment occurs when an investor from one country establishes a business entity in another country, either by acquiring an existing entity or by establishing a new venture (Humta & Şahin, 2023). This is different from financial development, which is concerned with improvement in the services offered by the financial system over time, including the allocation of capital to profitable investments, savings, and risk diversification. The growth prospects in every economy depend on the availability of an efficient financial system (Fauzel, 2016; Jalil & Feridun, 2011; Rahman et al., 2020). An enhanced financial system mobilizes resources, thereby boosting GDP growth (Humta & Şahin, 2023). This suggests that countries with absorptive capacity, including sound financial systems, attract more FDI than countries with low absorptive capacity. This perhaps explains why emerging economies like China, India, and Brazil are the leading recipients of FDI.

According to the United Nations Conference on Trade and Development (UNCTAD, 2025), emerging economies, particularly India, Brazil, and Mexico, were among the largest recipients of FDI inflows, while the United States remained

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in first place. While these countries continue to experience significant increases in FDI inflows, likely driven by stable macroeconomic policies and efficient absorptive capacity, inflows to African countries, including Nigeria, remain abysmal due to poor infrastructure, weak macroeconomic environments, and insecure institutional quality. In Africa, Egypt is the highest recipient of FDI inflows, with about $46.58 billion, followed by Ethiopia ($3.98 billion), Cote d'Ivoire ($3.8 billion), Mozambique ($3.5 billion), and Uganda ($3.3 billion). Nigeria, Africa's largest economy, attracted only $1.08b (0.6%).

There are some unique research gaps that the current study aims to explore. There is a large body of literature on the FDI-growth nexus, with mixed and inconclusive results. Studies by Mwakabungu and Kauangal (2023), Wang et al. (2023), Nawaz (2024), Mehmood et al. (2025), and Mashrur (2025) have shown that FDI promotes growth in the recipient countries. Other strands of literature, particularly those of Jalil and Feridun (2011), Tariq et al. (2020), Hamid and Kumar (2020), Kumar and Narayan (2020), Shama et al. (2020), Joo and Shawl (2023), and Handayani et al. (2024), argued that FDI does not promote growth. However, few studies have explored the interplay among FDI, financial development, and economic growth in Nigeria. In addition, much existing literature on finance, particularly in Nigeria, primarily focuses on FDI and growth, while the literature regarding financial development's mediating role remains scanty. Additionally, most available studies in this field used traditional regressions (OLS and ARDL) in their estimations, which may not adequately address the complex asymmetry among variables, potentially yielding inaccurate results and conclusions. In light of these gaps, further examination in this field to address them becomes obvious.

The novelty and unique research contributions of this study are as follows. First, unlike prior studies, the current study uses an asymmetric modeling technique (NARDL), which is more robust than traditional linear regressions, such as OLS and ARDL, which, in most cases, cannot address the complex asymmetries among the variables. Second, by using financial development as a mediating variable, the study portends potential policy significance and originality. Third, by analyzing country-specific Nigeria, the biggest economy in Africa, it potentially enriches the FDI-growth debate in developing countries. Our study may be helpful to government representatives and financial-sector managers in decision-making regarding investments, not only in Nigeria but across African countries as a whole.

Our study's objective is to explore the asymmetry between FDI, financial development, and growth in Nigeria. Our tested hypothesis is that foreign direct investment and financial development do not significantly induce economic growth. To achieve this target, we employ the nonlinear autoregressive distributed lag (NARDL) method. The remaining article is organized as follows. Section two provides a brief literature review, followed by the data and methodology employed for the study, results and discussion, and, finally, the conclusion and policy implications.

LITERATURE REVIEW

Empirical Review

There is a growing debate among scholars over the asymmetric impact of FDI and financial development on economic growth in the host economy. While some argue that FDI promotes growth, others argue the opposite. Mashrur (2025) investigated the relationship between FDI, financial development (FINDEV), and economic growth in Bangladesh. Using the Vector Error Correction (VECM) model, he found that FDI enhanced growth. Handayani et al. (2024) employed the Fixed Effect Model (FEM) for ten ASEAN countries; results show that foreign direct investment (FDINV) positively influenced growth through its impact on financial development. Joo and Shawl (2023) employed the dynamic panel autoregressive distributed lag (ARDL) model for BRICS countries and found that FDI increased growth. Kumari et al. (2023) also found the same results in India. Mishra and Mishra (2019) also confirmed the results using the VECM model for India.

Bilal and Salah (2021) explored the FDI-financial development (FINDEV)-growth nexus in the Next 11 countries using the PMG (Pooled Mean Group) and ARDL approaches. Findings indicate FDI and FINDEV contribute significantly to economic growth. Shama et al. (2020) found no significant correlates in India using correlation analysis and regression. Alzaidy et al. (2017), using panel data from 129 countries and applying the autoregressive distributed lag (ARDL) model, find that FDI positively influences growth. Siddikee and Rahman (2021) confirmed that FDI and financial development positively influenced growth. Lenka (2015) also confirmed the same results in India using ARDL and ECM.

Additionally, Mwakabungu and Kauangal (2023) discovered the same results for Tanzania using the autoregressive distributed lag model. Anthony et al. (2021) used ordinary least squares (OLS) and found that foreign direct investment (FDI) and the human development index positively contribute to GDP in Nigeria. Contrarily, Tariq et al. (2020) found no significant impact of FDI on growth, agreeing with studies by Borensztein et al. (1998), Jalil and Feridun (2011), Choong (2012), Lenka (2015), Hamid and Kumar (2020), and Kumar and Narayan (2020).

Theoretically, this study is supported by two theories that serve as the research's building blocks. They include the two-gap model and neoclassical growth theory. The two-gap model attributed the economic backwardness of developing countries to two significant gaps: the foreign exchange gap and the savings gap (Easterly, 2003). Consequently, the theory argued that, through FDI, underdeveloped countries could overcome their financial constraints. However, the Solow growth model is most relevant to this study because it explains that a country's steady growth rate depends on three driving forces: capital (K), labor (L), and technological progress (A). In this context, as developing countries open up to FDI and other capital inflows, they will obtain not only net financial transfers (which augment domestic savings) but also superior proprietary technology not available within the domestic economy (Masila et al., 2025). Following Tariq et al. (2020), the analytical framework can be expressed in the following production function.

$$Y_t = K^{\alpha}(A,L)^{1-\alpha} \quad \text{.....[1]}$$

Linearizing Equation [1] yields

$$\ln Y_t = \alpha_0 + \propto K + 1 - \alpha L \ldots\ldots\ldots\ldots\ldots\ldots [2]$$

Taking the logarithmic function of equation [2], we have

$$\ln Y_t = \alpha_0 + \propto \ln K_t + \beta \ln L_t + \varepsilon_{it} \ldots\ldots\ldots\ldots [3]$$

Where: *Y* denotes economic growth, *A* is an index of technological progress embodied in FDI, L is labor, K is capital, and *t* denotes the time period, while α and β stand for the parameter estimates for labor and capital, respectively, and Ɛit represents the stochastic error term.

MATERIALS AND METHODS

Data

This study used a yearly dataset covering the period from 1990 to 2024. Our start and end dates are driven by data availability and the corresponding banking sector reforms and other regulatory frameworks introduced by the Central Bank of Nigeria (CBN) during this period. Data for the study are taken from the online UNCTAD World Investment Report database.

The recently introduced nonlinear ARDL framework by Shin et al. (2014) is employed for this work. The choice of this technique is based on certain advantages it offers over traditional linear regression. First, unlike conventional regression techniques, NARDL enables analysis of differential impacts, providing a more nuanced or thorough examination of the intricate relationships among FDI, financial development, and economic growth. Second, our dataset possesses the asymmetric properties. Third, this approach performs better and yields more consistent results than conventional regressions, and it can adequately address nonlinearity and outliers, which are common in financial datasets. Using nonlinear ARDL improves the accuracy and robustness of our estimations and reduces the likelihood of biased conclusions. Finally, these mixed levels of integration support the use of the nonlinear ARDL. Thus, our data set falls into this category, showing a mixed order of integration, and no variable is stationary at the second order or 1 (2), indicating that the nonlinear ARDL procedure is appropriate for this study.

Model

Following the works of Kumar and Narayan (2020), Naresh and Singhal (2022), and Dash et al. (2025), the empirical model may be expressed in the following equations:

Growth=f (FDI$^+$ FDI$^-$,FD^+ FD^-,HUC , TOP, EXR) [4]

Equation (5) is re-specified econometrically as follows.

$$Growth = \lambda_0 + \lambda_1 FDI^+ + \lambda_2 FDI^- + \lambda_3 FD^+ \lambda_4 FD^- + \lambda_5 HUC + \lambda_6 TOP + \lambda_7 EXR + \varepsilon_{it} \ldots\ldots [5]$$

Introducing the interaction variable, we specify the equation as follows.

$$\Delta Gdp_t \equiv \lambda_0 + \lambda_1 Gdp_t + \Delta\lambda_2 Fdi^+ + \Delta\lambda_3 Fdi^+ + \Delta\lambda_4 Fd^+ + \Delta\lambda_5 Fd^- + \Delta\lambda_6 Huc + \Delta\lambda_7 (Fdi * Fd)$$

$$+ \Delta\lambda_8 Top + \lambda_9 Exr + \sum_i^q \lambda_1 Gdp + \sum_i^r \lambda_2 Fdi + \sum_i^s \lambda_3 Fd + \sum_i^s \lambda_4 (Fdi * Fd) + \sum_i^t \lambda_5 Huc +$$

$$\sum_i^u \lambda_6 Top + \sum_i^v \lambda_7 Exr + \theta_i ECM + \varepsilon_t \text{``````````} \text{``````````} \text{``````````} \text{``````} [6]$$

Where GDP is our dependent variable, FDI is net foreign direct investment (% of GDP, FD is the financial development index, FD*FDI is the mediating variable, TOP is trade openness, calculated as the ratio of the sum of exports & imports as a percentage of GDP, HUC is the human capital, and EXR is the nominal exchange rate (in USD). The coefficients are λ_1–λ_7, while λ_0 denotes the intercept.

Like Shin *et al.* (2014), we disaggregate FDI and financial development into partial positive and negative sums as follows.

$$Fdi^+ = \sum_{i=0}^{q} \Delta Fdi^+ = \sum_{i=0}^{q} \max(\Delta Fdi_{i\,i}, 0) \ldots\ldots\ldots [6.1]$$

$$Fdi^- = \sum_{i=0}^{q} \Delta Fdi^- = \sum_{i=0}^{q} \min(\Delta Fdi_{i\,2i}, 0) \ldots\ldots\ldots [6.2]$$

$$Fd^{+} = \sum_{i=0}^{q} \Delta Fd^{+} = \sum_{i=0}^{q} \max(\Delta Fd_{ii}, 0) \ldots\ldots\ldots\ldots [6.3]$$

$$Fd^{-} = \sum_{i=0}^{q} \Delta Fd^{-} = \sum_{i=0}^{q} \min(\Delta Fd_{i2i}, 0) \ldots\ldots\ldots\ldots [6.4]$$

Where Fdi^{+}, Fdi^{-}, Fd^{+}, and Fdi^{-} represent foreign direct investment and financial development positive and negative sums, respectively.

Variable Measurements

We measured FDI as net inflows expressed as a % of GDP, in line with Wang et al. (2023). Economic growth was measured using the GDP per capita growth rate, consistent with studies by Mishra and Mishra (2019) and Nawaz (2024). We use the financial development index (FDindex) as an indicator of financial development, consistent with the approach of Shahbaz et al. (2011), Ogbuagu et al. (2021), and Masila et al. (2025), while trade openness (TOP) was calculated as the sum of exports and imports as a percentage of GDP, consistent with the methods of Osei and Kim (2020) and Kumari et al. (2023). We use the Human Development Index as an indicator of human capital. FD is expected to be positive, suggesting that a well-developed financial sector is a prerequisite for FDI's impact on growth. The expected signs for exchange rates and trade openness are positive, suggesting that stable exchange rates lead to macroeconomic stability. In contrast, a volatile exchange rate has the opposite effect on GDP.

RESULTS AND DISCUSSIONS

Descriptive Statistics

Table 1 presents the descriptive statistics. All the series are positively skewed except the financial development index (FD), which is negatively skewed, suggesting an overall positive trend. The mean and standard deviation suggest a high degree of stability. The Jarque-Bera test indicates normal distribution. The values of the mean and median are closely related, further evidence of normalcy.

Table 1. Descriptive Statistic Results

VARIABLES	FDI	GDP	FD	HUC	EXR	TOP
Mean	23222.32	18.83599	35.76398	11.02221	19.02891	172.0173
Median	6360.810	13.24602	35.12768	10.60470	17.94833	132.1500
Maximum	586942.0	72.83550	53.27796	19.62560	31.65000	850.2320
Minimum	2221.450	5.388008	16.35219	5.241096	11.48313	8.040000
Std. Dev.	98167.07	15.60529	9.096927	3.678661	3.858445	166.0766
Skewness	5.645071	2.143741	-0.046072	0.579116	1.080103	2.097847
Kurtosis	32.92414	6.843876	2.544173	2.591976	4.817559	8.978245
J-Bera	1491.760	48.35524	0.315393	2.199147	11.62292	77.79225

Source: Author's computations

Results of Unit Root Tests

The outcomes of the unit root test are presented in Table 2. Findings confirmed that the variables are integrated at mixed order 1(1) and 1(0), but none are integrated at order 2, justifying the use of the NARDL framework.

Table 2. Unit Root Test

Regressors	ADF	Remarks	P-P	Remark
GDP	-4.357*	1(1)	-4.679*	1(1)
FDI	-5.272***	1(1)	-5.673***	1(1)
FD	-7.841***	1(0)	- 4.327***	1(0)
HUC	-5.375*	1(1)	-6.428***	1(1)
TOP	-3.459**	1(1)	-6.541**	1(1)
EXR	-4.369**	1(0)	-5.528**	1(0)

Note: Asterisks *, **, and *** indicate significant @ 10, 5, and 1 percent.
Source: Calculated by the Author

After evaluating the integration order of our variables, we conducted a long-run cointegration test. The outcomes of NARDL bounds cointegration are displayed in Table 3.

Table 3. NARDL Cointegration

Model	F-Value	Critical Value Bounds	
F(GDP/ FDI^{-} POS, FD^{-} POS, HUC, TOP, EXR))***	6.526815	Upper **1(1)**	Lower **1(0)**
Significance Level			
10%		3.00	2.08
5%		3.38	2.30
2.5%		3.73	2.7
1%		4.15	3.08

Source: Author's computations

Our findings provide evidence of a long-term association, as indicated by the F-value (6.526815), which exceeds the 5 percent critical threshold. This is further proof from the outcomes in Table 3.

Table 4. Short-Run Nonlinear ARDL Model Results
(Dependent Variable is GDP)

Variables	Co-efficient.	t-Statistic	Prob.values
D(GDP(-1))	1.355810	7.324050	0.0000
D(FDI_POS(+ve)	0.780031	2.647977	0.0154
D(FDI_POS(-1))	0.725314	2.860019	0.0055
D(FDI_NEG(-ve)	-0.004295	-2.222897	0.0379
D(FDI_NEG(-1))	-0.142479	-2.447328	0.0233
D(FD_POS)	0.229142	2.653887	0.0167
D(FD_POS(-1))	0.131140	2.274689	0.0335
D(FD_NEG(-ve)	-0.156907	-1.729921	0.0990
FDI_FD	0.247717	3.651759	0.0016
D(HUC)	0.801348	0.936352	0.3603
D (HUC(-1))	0.915004	1.069975	0.2974
D(TOP)	1.032950	2.958014	0.0093
D(TOP (-1))	1.520060	2.275624	0.0370
D(EXR)	1.175205	5.782402	0.0000
D(EXR(-1))	276.0921	2.046586	0.0440
CointEq(-1)*	-0.041274	-6.233260	0.0000

Source: Author's computations

Table 5. Nonlinear ARDL Model Results (Long-Run)
(Dependent Variable: GDP (*GDPgr))*

Variables	Coefficient	T-statistic	P-values.
FDI_POS	16.99606	2.433805	0.0224
FDI_NEG	-47.29043	-1.806283	0.0867
FD_POS	17307.54	3.030153	0.0056
FD_NEG	-610.6549	-1.917291	0.0815
HUC	10336.51	1.612152	0.1195
FDI_FD	1788.837	2.098447	0.0598
TOP	15647.25	2.576315	0.0163
EXR	-896440.3	-3.587161	0.0014
C	6.249373	0.313131	0.7580
R-Squared (R^2)	0.819452		
R^2 Adjusted	0.793659		
D-Watson	2.094018		
F-value	36.76466		
Prob(F-statistic)	0.000000		

Note: ***, ** and * explain 1, 5and 10 percent levels.
Source: Author's calculations

Table 4 demonstrates short-run ARDL results. The short-run asymmetrical results indicate that positive changes in FDI inflows significantly increased growth, highlighting the critical role of FDI in driving economic growth. Conversely, adverse shocks to FDI inflows adversely affect growth (-0.142), suggesting that reductions in FDI inflows hinder growth. This finding implies that FDI is critical to the host economy's growth. Bahri et al. (2017), Rahman et al. (2020), and Shama et al. (2020) found similar results. This finding also agrees with the hypothesis. We also discover that positive changes in financial development (FD) lead to an increase in GDP by an average of about 0.131 percent, while negative changes in FD dampen growth (-0.156), suggesting that any decrease in FD hampers growth. This finding corresponds with the submissions of Fauzel (2016), Xinxin et al. (2021), and Fazaalloh (2024). Furthermore, the FDI and financial development interaction variable (FDI*FD) is positive (0.247), stressing the critical role of FDI-FD growth impact. This finding aligns with the submissions of Zhang (2001), Hamid and Kumar (2020), and Xinxin et al. (2021), which argue that absorptive capacity enhances FDI's impact on growth, thereby supporting the study's hypothesis. The human development index shows a positive, insignificant association with GDP, underscoring the need for human capital development to achieve the desired growth. This finding aligns with the submissions of Kumari et al. (2023). Additionally, the exchange rate demonstrates a

positive impact on GDP. The estimated error-correction component was significant, indicating a rapid adjustment to equilibrium following a temporary change.

The long-term asymmetric analysis (as shown in Table 5) indicates that positive FDI shocks boost growth. In contrast, adverse shocks reduce it, suggesting the need to encourage FDI inflows into the economy. By the same reasoning, positive changes in FD boost growth, while adverse shocks reduce it. This result was confirmed by studies of Rahman et al. (2020). Furthermore, trade openness (TOP) positively influenced GDP. The interaction variable (FDI*FD) is also significant, indicating that FDI is driven by the availability of and well-functioning financial sector development, consistent with Azman-Saini et al. (2010) and Shama et al. (2020). This empirical evidence supports the study's hypothesis. The R^2 of 0.819452 indicates high explanatory power. Also, the F-value is significant, showcasing strong forecasting prowess.

Robust Check

To confirm our model's results, we conducted heteroskedasticity, serial correlation, and Ramsey tests. In addition, we check for possible endogeneity among variables. The results are presented below.

Table 6. Results of Diagnostic Test

Tests	F-calculated	Decision Rule
A. χ^2 **Serial correlation**	0.614 (0.531^{pr})	No serial correlation
B. χ^2 **Heteroskedasticity**	1.295 (0.290^{pr})	No heteroskedasticity
C. χ^2 **Ramsey**	1.078 (0.284^{pr})	Model correctly specified
D. χ^2 **Normality**	1.420 (0.491^{pr})	Residuals normally distributed
E. χ^2 **Endogeneity**	0.437(0.540^{pr})	No endogeneity

^{pr} indicates F-statistic Probability values (in parentheses)
Source: Author's computation

The analysis in Table 6 revealed no apparent cases of autocorrelation or heteroskedasticity in our model. In addition, the Ramsey test statistic is insignificant, indicating that the model is correctly specified. Results on endogeneity also confirmed the absence of endogeneity, suggesting that the NARDL model is reliable and robust for policy interventions.

Asymmetry Test

To confirm asymmetry in the nonlinear ARDL model, a Wald test was conducted. Results in Table 7 confirmed asymmetric correlation among the variables.

Table 7. Wald Test

Test Statistic	Value	Df	Prob. Values
F-statistic	72.683639	(2, 24)	0.0000
χ^2 Chi-square	127.4568	2	0.0000

Source: Author's calculations

Stability Test

Furthermore, we performed an NARDL stability test to confirm the model's stability. The results shown in Figures 1a and 1 b demonstrate that the model is stable.

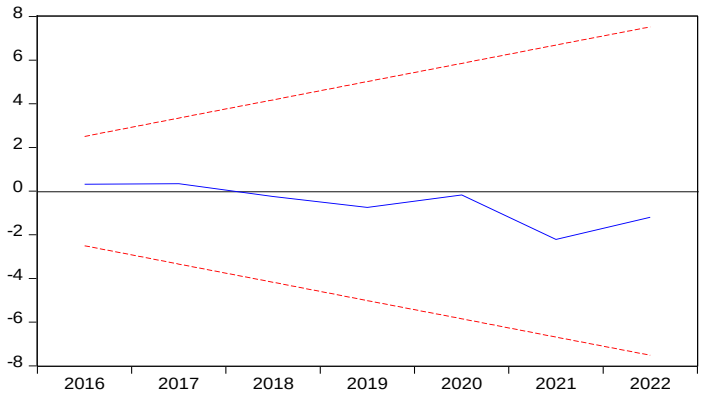

Figure 1a. Non-linear ARDL CUSUM
Source: Author's computation

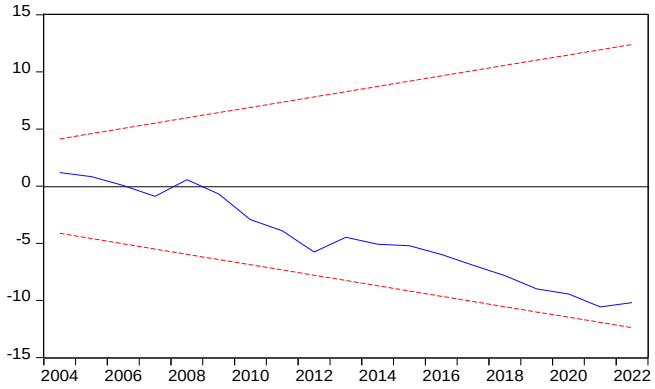

Figure b. CUSUM of Squares
Source: Author's computation

CONCLUSIONS

In this paper, we examined how foreign direct investment (FDI) and financial development (FD) significantly impact economic growth in Nigeria. We test the hypothesis that FDI and financial development do not significantly promote growth. The asymmetric nonlinear autoregressive distributed lag model was used to ascertain the asymmetric and intricate relationship. Findings from this study show that positive changes in FDI and financial development (FD) influenced growth, suggesting that enhanced FDI and financial development play a critical role in economic growth. Conversely, negative changes in FDI and financial development (FD) dampen growth, thereby supporting many prior empirical studies by Bahri et al. (2017), Wen et al. (2022), and Mehmood et al. (2025). We also find that interaction between FDI and financial development (FDI*FD) yields a positive impact on growth. The policy implication of this finding is that foreign direct investment and financial development are essential for renewed growth prospects in developing economies, such as Nigeria. The positive impact of the FDI*FD interaction variable suggests that financial development mediates between FDI and growth, supporting the economic theory that the availability and efficient absorptive capacity are an impetus for FDI to have a significant impact. This finding underscores the need for policy initiatives to encourage and strengthen both FDI and Nigeria's financial system.

Our study's outcomes have considerable policy implications. First, it provides policymakers and other regulatory bodies with insights to put in place an adequate institutional framework to protect and encourage foreign investment not only in Nigeria but also in other developing countries. In light of the findings, we recommend actionable policy measures: first, policy analysts should adopt effective, stable macroeconomic policies (e.g., a stable exchange rate, trade liberalization, and tax incentives) to encourage more FDI into the economy. Second, Nigeria's federal government should embark on a policy drive to create an enabling environment for FDI to flourish. Regulatory frameworks and institutions should be strengthened to ensure nationwide investor protection, and the financial sector should be strengthened.

As part of the limitations of this research, we explored the asymmetric nexus between FDI, FD, and economic growth using annual data and country-specific data for Nigeria, one of the African countries. Future research should concentrate on using cross-country analysis and employ dynamic panel regression models to enrich the work. In addition, given recent technological innovations, future studies can explore FDI in financial technology as internet banking rises to evaluate how these innovations translate into sustainable growth and development.

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