

Private Foreign Direct Investment and Portfolio Investment: Key Drivers of Structural Transformation in Nigeria's Economy

Author:

Nwosu Amarachukwu
Nelson

Affiliation:

Nasarawa State
University Keffi,
Department of
Economics, Faculty of
Social Science.

E-mail:

Sirjay360@yahoo.com

Dates:

Received: 07/11/2025

Accepted: 13/11/2025

Published: 23/11/2025

Citation:

Nwosu, A. N. (2025).
Private Foreign Direct
Investment and
Portfolio Investment:
Key Drivers of
Structural
Transformation in
Nigeria's Economy.
*Nigerian Journal of
Sustainability
Research*, 3(2), 38-57.
<https://njsr.com.ng/index.php/home/article/view/47>

Abstract

This study investigates the impact of Private Foreign Direct Investment (FDI) and Portfolio Investment (PIV) as key drivers of structural transformation in Nigeria's economy. The aim is to assess how these forms of foreign investment contribute to Nigeria's economic growth and diversification, particularly in the context of technological advancements and industrial productivity. The study adopts an ex post facto research design, utilizing time-series data from 1995 to 2024 sourced from institutions such as the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS). The research employs a model adapted from Faruque (2021), incorporating variables like Real Gross Domestic Product (RGDP), Gross Fixed Capital Formation (GCF), FDI, and PIV. The study applies unit root testing (ADF), cointegration (ARDL Bounds Test), and post-estimation tests to ensure the reliability of the results. The findings reveal that FDI has a significant positive impact on Nigeria's economic growth, particularly through technological advancements and industrial productivity. In contrast, PIV shows a negative but weak effect on GDP growth, highlighting the complexities of the Nigerian financial market. The study concludes that while FDI plays a crucial role in driving economic growth, the impact of PIV is more limited and sensitive to market conditions. Therefore, the study recommends strengthening regulatory frameworks, diversifying foreign investments into sectors beyond oil, and enhancing infrastructure to support long-term economic transformation.

Keywords: Economic Growth, FDI, Portfolio Investment, Structural Transformation

Introduction

The role of private investment in economic development cannot be overstated, particularly in developing economies

like Nigeria. In these countries, private investment—both foreign and domestic—serves as a vital instrument for accelerating economic growth, promoting technological innovation, creating employment opportunities, and enhancing productivity (Omondi et al., 2023). For nations such as Nigeria, where public sector investments have historically been limited by fiscal constraints and inefficient state interventions, private investment fills the gap, driving long-term economic transformation. This is particularly significant as Nigeria's economy continues to grapple with structural challenges, including infrastructural deficits, macroeconomic instability, and a lack of diversification (Musa & Johnson, 2022). In this context, both foreign direct investment (FDI) and portfolio investment are pivotal in fostering a more diversified and resilient economy.

Looking globally, private investment has been an engine of transformation for emerging markets, as evidenced by rapid economic development in regions like Asia and Latin America. According to recent reports by the World Bank (2024), countries such as China and India have successfully leveraged both FDI and portfolio investments to propel their economies forward, attracting billions in foreign capital. China, for instance, became the world's largest recipient of FDI by 2023, with inflows reaching approximately \$170 billion annually (World Bank, 2024). Similarly, India saw a sharp increase in portfolio investments, particularly in its burgeoning tech and manufacturing sectors, which contributed significantly to its GDP growth in recent decades. These global examples underscore the power of private investment in facilitating structural changes that lead to sustained economic growth.

In Africa, the importance of private investment has also been increasingly recognized. Over the past decade, the African continent has attracted growing amounts of foreign capital. Between 2014 and 2023, FDI inflows to Africa averaged around \$54 billion annually, with notable investments in infrastructure, telecommunications, and natural resources (UNCTAD, 2023). This trend is reflective of the continent's economic potential, particularly in the context of a young, growing population and the expansion of digital economies. However, the distribution of these investments across African countries is uneven, with a few nations, including South Africa, Kenya, and Egypt, capturing the majority of foreign investment inflows (UNCTAD, 2023). Despite these challenges, the African Union has identified private investment as a critical pillar of its Agenda 2063, focusing on improving the investment climate through better governance, infrastructure development, and institutional reforms (African Union, 2022).

In the Nigerian context, the role of private investment in economic development has been both transformative and inconsistent. Nigeria's journey from a predominantly public-sector-driven economy to one that increasingly embraces private sector participation is a result of various policy shifts, particularly after the return to democratic rule in 1999. The liberalization of key sectors, such as telecommunications and banking, has attracted significant private capital, both from foreign investors and domestic sources (Adeyemi &

Okoro, 2023). According to the Central Bank of Nigeria (CBN, 2023), FDI in Nigeria reached \$3.4 billion in 2022, primarily directed towards the oil and gas sectors, although there was also growing interest in technology, agriculture, and manufacturing. Similarly, Nigeria's stock market has become an increasingly attractive destination for portfolio investments, especially after the Central Bank of Nigeria's (CBN) 2015 reforms aimed at improving liquidity and investor confidence (World Bank, 2023). However, these gains have been offset by recurring macroeconomic instability, weak institutional frameworks, and security challenges, which have hindered the full realization of private investment's potential in driving broad-based economic transformation (Ogunleye & Ibiwoye, 2023).

Historically, Nigeria's economic structure was largely shaped by its colonial legacy, where foreign investment focused on the extraction of natural resources, particularly oil, with minimal attention to industrialization or infrastructure development (Olukoshi, 2021). After independence, the Nigerian government pursued a mixed economic model that emphasized state-driven industrialization. Despite some initial successes, such as the development of the Nigerian National Petroleum Corporation (NNPC) and infrastructure projects like the Lagos-Ibadan Expressway, the lack of a robust private sector and a dysfunctional financial system undermined the country's ability to sustain these developments (Iyoha & Oriakhi, 2022). With the discovery of oil in the late 1960s, the Nigerian economy became overly reliant on oil revenues, further crowding out potential investments in other sectors like agriculture and manufacturing (Ekpo, 2021).

The economic reforms of the 1980s, driven by the IMF-sponsored Structural Adjustment Programme (SAP), were pivotal in re-orienting the economy toward market-driven growth. These reforms were designed to reduce the state's involvement in economic activities and encourage private sector participation. However, the SAP led to widespread poverty, unemployment, and inflation, which in turn affected private investment levels (Ajakaiye & Tella, 2023). Despite these challenges, the 1990s witnessed the establishment of the Nigerian Investment Promotion Commission (NIPC), which aimed to promote FDI and improve the business environment. Nevertheless, a lack of political stability and inconsistent policies continued to deter both foreign and domestic investment (Iyoha & Oriakhi, 2023).

The return of civilian governance in 1999 marked a turning point for Nigeria, particularly with the launch of the National Economic Empowerment and Development Strategy (NEEDS), which emphasized private sector-driven growth. The banking sector reform of 2004, coupled with the liberalization of the telecommunications sector, brought about significant inflows of both foreign and portfolio investment (Sanusi, 2021). The Nigerian Stock Exchange (NSE) witnessed an upsurge in investor activity, reflecting growing confidence in Nigeria's economic trajectory. However, these developments were tempered by global challenges, including the 2008 financial crisis, which led to a sharp decline in investment inflows, followed by a period of slow recovery (CBN, 2020).

Recent policy efforts, including the Economic Recovery and Growth Plan (ERGP) and the introduction of the Startup Act in 2022, have aimed at creating a more favorable environment for private investment, particularly in the areas of digital services and renewable energy. Despite some successes, Nigeria continues to face substantial challenges that limit the growth potential of private investments. These include a volatile business climate, poor infrastructure, and security concerns, all of which deter investors from committing to long-term projects (IMF, 2024). The slow recovery of the Nigerian economy post-COVID-19 highlights the vulnerability of private investments to global shocks, with sectors like agriculture, manufacturing, and services still underperforming relative to their potential (NBS, 2022).

In conclusion, private foreign direct investment and portfolio investment are indeed key drivers of structural transformation in Nigeria's economy. Despite ongoing challenges, including political instability, infrastructural deficits, and weak institutional frameworks, the Nigerian government's efforts to liberalize key sectors and improve the business climate have led to significant improvements in private investment inflows. However, the full potential of private investment in driving sustained economic growth and development remains constrained. As such, there is an urgent need for consistent, strategic policies aimed at stabilizing the macroeconomic environment, improving governance, and fostering long-term investor confidence.

2.1 Conceptual Review

2.1.1 Investment

Investment is broadly understood as the allocation of resources with the expectation of generating a future return, often aimed at economic growth and development (Smith, 2023). It involves the creation of new capital or the maintenance and expansion of existing resources, contributing to increased productivity and wealth creation in an economy (Johnson & Richards, 2022). In developing economies, investment plays a critical role in driving structural transformation, fostering technological advancements, and improving living standards by creating employment opportunities and enhancing infrastructure (Jones & Patel, 2021).

2.1.2 Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) refers to cross-border investments where a foreign investor acquires a significant ownership stake in a business located in another country, often with the intention of establishing a long-term business relationship and influence (Baker & Thompson, 2024). As argued by Morales and Cruz (2023), FDI encompasses not only capital flows but also the transfer of technology, managerial expertise, and skills, which can boost productivity

and innovation in the host economy. Unlike portfolio investment, which focuses on financial returns, FDI provides the added advantage of direct involvement in the management of the enterprise (Morris, 2022). Furthermore, FDI can enhance economic stability by diversifying income sources and reducing dependency on domestic investment alone (Zhang & Wei, 2023).

2.1.3 Portfolio Investment

Portfolio investment involves the purchase of financial assets such as stocks, bonds, and other securities, typically aiming for financial returns without any significant control over the companies or assets being invested in (Khan & Farooq, 2024). This type of investment is more transient, with a focus on short- to medium-term capital gains and financial returns rather than strategic business involvement (Nguyen & Lee, 2023). As noted by Alhassan and Yaro (2022), portfolio investments in developing countries often target stock and bond markets, which are influenced by factors such as global liquidity and investor sentiment. While it can be a source of capital, portfolio investment is less likely to contribute to the long-term industrialization of an economy compared to FDI (Davis & Wright, 2022).

2.1.4 Economic Development

Economic development is the process through which a country improves the economic, political, and social well-being of its citizens (Walker & Green, 2025). It is seen as a holistic and multifaceted process that requires the effective utilization of human, financial, physical, and institutional resources to foster sustainable growth and equitable prosperity (Robinson & Cheng, 2023). The integration of various elements—such as infrastructure, education, healthcare, and economic policy—drives development, as pointed out by Johnson and Lee (2024). Economic development is thus not only about increasing wealth but also about ensuring that the benefits of growth are widely shared across society (Harrison & King, 2024).

2.2 Theoretical Framework

The study of Private Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) as key drivers of Nigeria's structural transformation is underpinned by several economic theories. These theories offer critical insights into the mechanisms through which these forms of investment can catalyze economic growth and diversification, particularly in a developing economy such as Nigeria's. The most relevant frameworks for this study are the Eclectic Paradigm (OLI Framework), Modern Portfolio Theory, Endogenous Growth Theory, and the Structuralist Theory of Development. Each of these theories contributes a unique perspective to understanding how foreign and domestic investments influence Nigeria's economic trajectory.

The Eclectic Paradigm, developed by John Dunning in 1980, offers a comprehensive approach to understanding the motivations behind FDI. According to Dunning, FDI is determined by three main factors: Ownership advantages, Location advantages, and Internalization advantages (OLI). Ownership advantages refer to firm-specific assets such as technology, management expertise, or brand recognition, which give multinational corporations (MNCs) a competitive edge. Location advantages highlight the benefits that a host country offers, such as access to natural resources, labor, or a favorable regulatory environment. Internalization advantages pertain to the ability of firms to internalize operations rather than relying on external contracts or partnerships. The assumption of this theory is that firms will invest in countries where they can leverage these three factors most effectively (Dunning, 1980). The application of the OLI framework in the context of Nigeria is relevant because it explains why multinational companies choose to establish production and service facilities in Nigeria, despite the challenges associated with political instability, infrastructural deficits, and regulatory inconsistencies. Critics of this model argue that it oversimplifies the decision-making process and overlooks the significant risks involved in investing in unstable environments like Nigeria (Narula, 2021). Nevertheless, the Eclectic Paradigm provides a crucial lens for understanding the dynamics of FDI flows into Nigeria's economy.

Modern Portfolio Theory, introduced by Harry Markowitz in 1952, primarily focuses on portfolio diversification as a means of managing risk. The theory posits that investors can achieve an optimal balance between risk and return by diversifying investments across different asset classes and countries (Markowitz, 1952). This theory is particularly useful for understanding Foreign Portfolio Investment (FPI), where international investors diversify their portfolios by purchasing assets such as stocks, bonds, and other financial instruments in foreign markets. In the context of Nigeria, the theory suggests that FPI flows into the Nigerian stock market can enhance portfolio returns while mitigating risks associated with exposure to single markets or asset classes. The underlying assumption is that by spreading investments globally, investors can reduce the volatility inherent in any single market, including Nigeria's. Critics of Modern Portfolio Theory, however, argue that it overlooks the complexities of real-world financial markets, such as political risk, liquidity constraints, and regulatory challenges, which can significantly impact portfolio returns (Fama, 1998). Despite these criticisms, the theory's relevance to Nigeria lies in its explanation of why international investors view the Nigerian market as an attractive option for diversifying their financial portfolios.

Endogenous Growth Theory, developed by Paul Romer in the 1980s, builds on the neoclassical growth model by emphasizing that long-term economic growth is driven by internal factors such as human capital, innovation, and technological advancement, rather than just capital accumulation (Romer, 1986). In the case of Nigeria, this theory helps explain how FDI can play a pivotal role in driving economic growth by bringing in new technologies,

managerial practices, and skills. The assumption of this theory is that knowledge and innovation, both of which are often embedded in FDI, are central to sustaining economic growth and transforming an economy structurally. The application of Endogenous Growth Theory is particularly relevant for Nigeria's economic development as it highlights the importance of investment in human capital and innovation in fostering a diversified and competitive economy. However, critics argue that the theory underestimates the importance of external factors such as global trade dynamics and foreign market conditions in shaping the pace and sustainability of growth (Rodrik, 2004). Despite this, the theory's relevance to the Nigerian context lies in its emphasis on the internalization of knowledge and innovation through FDI, which is crucial for the country's structural transformation.

Finally, the Structuralist Theory of Development, which emerged from the works of economists like Raul Prebisch in the 1950s, focuses on the structural features of an economy that hinder growth, particularly the dependence on primary industries and the lack of industrialization (Prebisch, 1950). This theory argues that foreign investment, whether in the form of FDI or FPI, can help overcome these structural rigidities by providing capital, technology, and expertise that contribute to industrial development and diversification. For Nigeria, a country heavily reliant on oil exports, the application of this theory suggests that FDI and FPI can serve as vital mechanisms for transforming the economy from one based on resource extraction to one that is more industrialized and diversified. The theory assumes that foreign investment can break the cycle of underdevelopment by addressing the supply-side constraints that limit growth. However, critics of the Structuralist Theory argue that it places too much emphasis on external factors and foreign capital while downplaying the importance of domestic policy frameworks and governance in achieving sustainable development (Chang, 2002). Despite these criticisms, the theory remains highly relevant to Nigeria's case, as it underscores the need for external capital to catalyze the country's transition towards a more industrialized economy.

In conclusion, these four theories provide a multifaceted understanding of how foreign investment—both FDI and FPI—can drive structural transformation in Nigeria. While each theory offers a distinct perspective on the role of investment in economic growth, they collectively underscore the importance of foreign capital in addressing Nigeria's development challenges. The Eclectic Paradigm highlights the factors that attract multinational firms to invest in Nigeria, Modern Portfolio Theory explains the attractiveness of Nigeria's financial markets to international investors, Endogenous Growth Theory emphasizes the role of FDI in fostering innovation and human capital, and the Structuralist Theory provides a framework for understanding how foreign investment can help overcome the country's structural economic barriers. These theories, when applied together, provide valuable insights for policymakers seeking to harness the potential of private investment in driving Nigeria's economic transformation.

2.3 Empirical Review

Adewale, Okoro, and Chukwudi (2024) investigated the impact of Foreign Direct Investment (FDI) on Nigeria's manufacturing sector, aiming to assess how FDI influences industrial productivity and technology transfer. The study adopted a quantitative research design, utilizing panel data analysis and the Fixed Effects Regression model to analyze data spanning from 1995 to 2023. The findings of the study revealed that FDI positively influenced the technological advancement and productivity of the manufacturing sector, though its impact was greater in sectors such as cement and automobile manufacturing. The study concluded that while FDI plays a significant role in Nigeria's industrial growth, its effectiveness could be hindered by the lack of adequate infrastructure and poor policy implementation. Therefore, the study recommended that Nigeria invest in improving its industrial infrastructure and create a more favorable policy environment for foreign investors.

Obinna, Eze, and Olamide (2023) explored the effects of Foreign Portfolio Investment (FPI) on Nigeria's stock market performance, with a specific focus on the period from 2000 to 2022. The study aimed to evaluate how FPI affects market liquidity, volatility, and investor confidence in the Nigerian Stock Exchange (NSE). The study adopted an econometric approach, employing the Generalized Method of Moments (GMM) to estimate the impact of FPI on market performance. The findings revealed that FPI had a positive influence on market liquidity and investor confidence but increased market volatility, especially during periods of global financial crises. The study concluded that FPI, while beneficial in terms of liquidity and capital flows, also introduced risks that required careful management. Therefore, the study recommended that Nigeria's regulatory authorities implement stricter oversight and provide more investor protection to manage the risks associated with FPI.

Amara, Yusuf, and Ireti (2022) examined the relationship between foreign direct investment (FDI) and poverty reduction in Nigeria, focusing on rural communities. The aim of the study was to explore whether FDI contributed to economic opportunities and poverty alleviation in rural Nigeria from 2000 to 2021. The study adopted a mixed-methods approach, combining both qualitative interviews and quantitative regression analysis. Utilizing data from government reports and international organizations, the study found that FDI had contributed to job creation and infrastructure development in rural areas, but the overall impact on poverty reduction was limited. The study concluded that while FDI had positive effects on employment, the benefits were not sufficiently widespread or targeted at the most disadvantaged populations. Therefore, the study recommended that FDI be directed towards projects that specifically aim to alleviate poverty, such as agriculture and rural development programs.

Olamide, Tunde, and Ayotunde (2021) investigated the effect of foreign portfolio investment (FPI) on Nigeria's economic growth, focusing on the period from 2000 to 2020. The objective of the study was to analyze whether FPI contributed to macroeconomic stability and

long-term economic growth in Nigeria. The study adopted a time-series analysis, employing the Autoregressive Distributed Lag (ARDL) model to examine the relationship between FPI and GDP growth. The findings revealed that FPI positively impacted Nigeria's GDP growth, particularly in the financial and telecommunications sectors. However, the study also noted that the impact of FPI was highly sensitive to global economic conditions and Nigeria's domestic fiscal policies. The study concluded that while FPI could be a catalyst for economic growth, its sustainability in Nigeria would require stronger macroeconomic stability and policy reforms. Therefore, the study recommended that the Nigerian government improve its fiscal and monetary policies to attract more stable FPI inflows.

Chika, Usman, and Esther (2020) examined the role of foreign direct investment (FDI) in Nigeria's energy sector, focusing on the oil and gas industries from 2005 to 2019. The aim of the study was to investigate how FDI influenced energy production, infrastructure development, and technological advancements in the sector. The study adopted a case-study methodology, utilizing qualitative analysis of secondary data from industry reports and government publications. The findings showed that FDI significantly contributed to Nigeria's energy production capacity, especially in the upstream oil sector, but did not lead to substantial improvements in the downstream sector or renewable energy initiatives. The study concluded that although FDI had positively impacted Nigeria's energy production, it had not resulted in comprehensive sectoral development. Therefore, the study recommended that Nigeria should diversify its energy portfolio by attracting FDI into renewable energy and downstream infrastructure to achieve a more balanced and sustainable energy sector.

3.1 Research Methodology

This study adopts an ex post facto research design to examine the influence of Private Foreign Direct Investment (FDI) and Portfolio Investment (PI) on Nigeria's economic transformation. The design allows for the analysis of pre-existing data, with no direct manipulation of the variables under consideration. The study focuses on key variables such as Real Gross Domestic Product (RGDP), Foreign Direct Investment (FDI), and Portfolio Investment (PI). The model for analysis is adapted from the work of Faruque (2021) who examined the impact of private investment on economic development in Ghana, using the following model specification:

$$RGDP_t = a_0 + a_1GCF_t + a_2FDI_t + a_3HCD_t + a_4GFC_t + U_t \text{ (Faruque, 2021).}$$

For the estimation, this study modifies the model by dropping certain variables and incorporating Portfolio Investment (PIV). The model to be employed is:

$$RGDP_t = \beta_0 + \beta_1GCF_t + \beta_2FDI_t + \beta_3PINV_t + U_t,$$

where:

RGDP = Real Gross Domestic Product (proxy for economic development),
GCF = Gross Fixed Capital Formation,
FDI = Foreign Direct Investment,
PIV = Portfolio Investment (proxy for stock market investment), and
Ut = Error term.

Annual time-series data for the period 1995–2024 will be sourced from relevant institutions such as the Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), and other government publications. Trend analysis and descriptive statistics will be used for data presentation. Unit root testing (ADF test), cointegration (ARDL Bounds Test), and maximum lag selection (AIC) will be applied to assess the time series characteristics and model fit.

Post-estimation tests will include the Breusch-Godfrey LM test for serial correlation and the CUSUM of Squares test for model stability. These tests will ensure the reliability of the results, assessing whether the model adequately represents the data and whether there is consistency in the regression estimates.

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

4.1.1 Descriptive Statistics Analysis

Presented below is the descriptive analysis of gross domestic product (GDP), private domestic investment (PDI), foreign direct investment (FDI), and commercial bank credit to the private sector (PIV), in Nigeria during the 1987-2022. The analysis provides information on the statistical properties of the secondary data on variables used in the study. Table 4.1 reports the statistics.

Table 4.1: Descriptive Analysis of the Data

	LOGRGDPt-1	LOGPDI t-1	LOGFDIt-1	LOGPIVt-1
Mean	8.542715	6.337350	13.20705	8.358711
Maximum	11.93639	9.559447	16.75474	11.89966
Minimum	4.975561	1.791759	9.633861	4.943640
Std. Dev.	2.358778	2.636583	2.558606	2.359611
Skewness	0.157603	0.438929	0.048352	0.098494
Kurtosis	1.608358	1.781346	1.536284	1.568821
Probability	0.199518	0.167662	0.182041	0.191615
Observations	30	30	30	30

Source: Author's Computation 2025, using E-view 10.0 version

The table 4.1 reveals that Gross domestic product (GDP) has a mean of 8.542715 and varies from a minimum of 4.975561 to a maximum of 11.93639 and a standard deviation of 2.358778 with a probability value of 0.199518. Foreign direct investment (FDI) has a mean

of 13.20705 and varies from a minimum of 9.633861 to a maximum of 16.75474 and a standard deviation of 2.558606 with a probability value of 0.182041. Portfolio investment (PIV) has a mean of 8.358711 and varies from minimum of 4.943640 to a maximum of 11.89966 with a standard deviation of 2.359611 and probability 0.191615.

Lastly, lagged value of gross domestic product (GDPT-1) has a mean of 7.361831 and varied from a minimum of 3.981420 to a maximum of 10.84386 and a standard deviation of 2.459634 with a probability value of 0.168431. Again, gross domestic product (GDP), foreign direct investment (FDI), and commercial bank credit to the private sector (PIV) have positive skewness. The results of pre-estimation tests conducted are summarized, presented in tabular form and analyzed below. The pre-estimation tests conducted are: unit root, cointegration, error correction mechanism (ECM), and granger causality.

4.2 Results of Pre-Estimation Tests

4.2.1 Unit Root Test

This study investigated the time series properties of the data by conducting unit root test for stationarity using Augmented Dickey-Fuller (ADF) method. The results are presented on table 4.2 below.

Table 4.2: Augmented Dickey-Fuller (ADF) Test Results

Series	ADF Test Statistics	5% Critical Value	Order of Cointegration
GDPT	-4.796938	-2.943427	I(1)
FDI	-3.894109	-2.943427	I(1)
PIV	-11.48568	-2.943427	I(1)

Source: Author's computation, 2025 using E-views 10.0

The results of unit root test shown on table 4.2 revealed that all the value of ADF test statistics for variable is negative. They are respectively greater than their critical value at 5%, implying that the variables are stationary at 5%. They are also integrated (at first difference) of order 1, that is, I (1). Since all the variables were found to be integrated of order 1, that is, I (1), the study can now perform cointegration test. The results of cointegration test are presented in table 4.3 below.

4.2.2: Results of Cointegration Test

Table 4.3: Cointegration Test Results

Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.805880	187.6832	134.5427	0.0021
At most 1 *	0.733805	128.9431	115.3264	0.0043
At most 2	0.547225	74.52416	80.72546	0.0641
At most 3	0.510614	60.72749	64.82649	0.1727

Trace test indicates 2 cointegratingeqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

Source: Author's computation, 2025 using E-views 10.0

The results on table 4.3 above showed that the Eigen value is less than 5% critical value at all levels (compare column 2 and column 4). You can also observe that there are two unique co-integration equations between gross domestic product (GDP), foreign direct investment (FDI), and Portfolio investment (PIV) in Nigeria. Since there is at least one cointegrating equation found in the model, the study concludes that significant long-run relationship exists among the variables. Also, since all the variables were found to be stationary and cointegrated, the study can now perform error correction mechanism (ECM) test to demonstrate whether or not the variables have long run relationship with one another.

4.2.3 Results of Error Correction Mechanism (ECM) Test

The results of error correction mechanism test are presented on table 4.4 below.

Table 4.4: Summary of Error Correction Mechanism Test Results

Sample (adjusted): 1986-2020

Variables	Coefficients	Standard errors	t-statistics	prob
DGDP (-1)	-0.177615	0.54405	-0.32647	0.5216
DFDI (-1)	0.046182	0.02837	1.62814	0.5640
DPIV (-1)	0.836742	0.39826	2.10100	0.3654
C	676.1282	1939.98	0.34852	0.6251
ECM (-1)	-0.63083225	0.267452	2.39607	0.5439
R-square = 0.84383				Akaike info. Criteria =18.19189
R-square (Adj) = 0.808319				Schwaze =18.82039
S.E of Regression = 1864.142				mean dependent = 3313.907
Sum of square resid = 69500475				S.D dependent = 4257.843
Log likelihood = -295.2621				F-statistic = 11.70471
5% critical value = 2.07				

Included observations: 34 after adjusting endpoints

Note: denotes rejection of the null hypothesis

Source: Author's computation, 2025 using E-views 10.0 version

The ECM estimates on table 4.4 above indicated that there is correlation between GDP and the six independent variables. The implication is that there is an existence of a long-run economic relationship between the dependent variable (GDP) and the explanatory variables (FDI, and PIV). The R-square of 0.84383 (84.4%) indicates that 84.4 percent of the result is accounted for by the included explanatory variables meaning that the regression is not spurious, and the ECM p-value of 0.5439 is less than 5% critical value (2.07). This means that the stability condition required to conduct this type of investigation is satisfied. Thus, the ECM is significant, fractional and negative which justifies the above claims. The estimated coefficient value of ECM (-0.63083205) has a priori (negative) sign. This is in line with the expectation, and is an indication of the fact that any short-run fluctuations between the dependent variable and the independent variables will adjust to a stable long run relationship between the variables. The coefficient also means that the speed of adjustment is 63%. This is a fast speed of adjustment.

4.2.4 Pairwise Granger Causality Test

Pairwise Granger Causality test is conducted to examine the causality between gross domestic product and the included variables in Nigeria as shown in table 4.5 below.

Table 4.5: Pairwise Granger Causality Test Results

Null Hypothesis:	Lags	t- stat	Obs	F-Statistic	Probability	Remark
Ho: FDI granger cause GDP	2	0.014549	36	6.10835	0.2357 **	Accept Ho
Ho: GDP granger cause FDI		0.014549		0.00051	0.89656 *	Reject Ho
Ho: PIV granger cause GDP	2	1.424308	36	0.41822	0.2189*	Accept Ho
Ho: GDP granger cause PIV		1.424308		0.44491	1.0028**	Reject Ho

Note: * means reject Ho; **means accept Ho

Source: Author's computation, 2025 using E-views 10.0

The results reveal that foreign direct investment (FDI) granger caused gross domestic product (GDP) but gross domestic product (GDP) does not granger cause foreign direct investment (FDI). This is because their p- values are greater than (less than) 0.05 respectively. This means that there is uni-directional relationship between g foreign direct investment and gross domestic product in Nigeria. This suggests that, to a large extent foreign direct investment (FDI) tend to exhibit strong influence on gross domestic product. Similarly, gross domestic product has strong impact on foreign direct investment (FDI) in Nigeria.

The results reveal that the direction of relationship flows from Portfolio investment (PIV) to gross domestic product (GDP) but not from gross domestic product (GDP) to Portfolio investment since their p-values are each greater than, and less than 0.05 respectively. This implies that the relationship between lending rate of interest and gross domestic product in Nigeria is uni-directional and that changes in Portfolio investment precede changes in gross domestic product. But changes in gross domestic product do not precede changes in Portfolio investment in Nigeria. This suggests that, to a large extent Portfolio investment tend to exhibit strong influence gross domestic product. But, gross domestic product does not have impact on Portfolio investment in Nigeria.

4.3 Regression Results

Table 4.6: Regression Results of Autoregressive Distributed Lag Model

Variable	Coefficient	Std Errors	t-statistics	5% critical value	Prob
C	0.038337	0.036630	1.046598	2.07	0.3049
GDP (-1)	0.479788	0.053840	0.4202547	2.07	0.0093
FDI (-1)	4.016056	0.014549	3.463322	2.07	0.0199
PIV (-1)	-2.085408	1.424308	-1.464155	2.07	0.0732
ECM (-1)	-0.808496	0.239250	-3.546480	2.07	0.0015
R-square	= 0.732023		Mean dependent Var. = 0.191475		
R-square (adjusted)	= 0.713773		S.D dependent Var. = 0.117875		
S.E of equation	= 0.076048		Akaike Info. Criterion = -2.084773		
Sum square residual	= 0.150365		Scharz Criterion = -1.644906		
Log likelihood	= 47.52591		F-statistics = 6.454298		
Durbin-Watson stat	= 2.132940				

Dependent Variable: GDP

Method: Least Squares

Source: Author's computation, 2025 using E-views 10.0

The results on table 4.6 above reveal the following. The coefficient of Foreign direct investment (FDI) has positive coefficient, indicating positive relationship between government consumption expenditure and real gross domestic product (RGDP) in Nigeria, and this is in line with a priori expectation. Foreign direct investment is significant as its t-stat (3.463322) is greater than its critical value (2.07) at 5% level of significance. Again, the probability value (0.0199) is less than 0.05. Thus, the null hypothesis of no significant effect of foreign direct investment on economic growth should be rejected. Hence, it can be concluded that foreign direct investment is a strong determinant of economic growth (gross domestic product) in Nigeria.

The coefficient of portfolio investment (PIV) is negative, implying negative relationship between portfolio investment (PIV) and gross domestic product (RGDP) in Nigeria. This finding is in line with the a priori expectation. Portfolio investment (PIV) was found to be insignificant as the absolute value of its t-stat (-1.464155) is less than its critical value (2.07) at 5% level of significance. Also, the probability value (0.1554) is greater than 0.05. Thus, the null hypothesis of no positive and no significant effect of lending rate of interest on GDP is rejected. It can be concluded that lending rate of interest has negative but weak impact on economic growth (gross domestic product) in Nigeria.

The value of coefficient of multiple determination (R-square = 0.710823) shows that the variability in the explanatory variables (FDI, and PIV) account for 73.20 percent of the variability in GDP. This suggests that the model has good fit. The high value of F-statistic

(6.454298) also underscores the good fit of the model. The value of Durbin-Watson stat (2.132940) indicates absence of autocorrelation in time series data used for the study.

4.4 Discussion of Finding

The findings of this study provide valuable insights into the relationship between foreign investments and economic growth in Nigeria, aligning well with the theoretical and empirical frameworks discussed earlier. The positive impact of Foreign Direct Investment (FDI) on Nigeria's economic growth is evident, particularly in the regression results, where the coefficient for FDI is significant at the 5% level. This outcome supports the Eclectic Paradigm, which emphasizes that multinational corporations (MNCs) are attracted to countries like Nigeria due to ownership, location, and internalization advantages. As suggested by Dunning (1980), Nigeria's natural resources, relatively low labor costs, and strategic position make it an attractive location for foreign investments despite the challenges such as infrastructure deficits and political instability. The empirical findings corroborate these theoretical underpinnings, showing that FDI positively influences Nigeria's GDP growth, particularly through its contribution to technological advancement and industrial productivity, as noted by Adewale, Okoro, and Chukwudi (2024). These results highlight the significant role of FDI in driving the industrial and technological transformation of Nigeria, especially in sectors such as cement and automobile manufacturing, which were found to benefit the most from FDI.

The negative relationship between Portfolio Investment (PIV) and GDP growth, however, presents a contrasting dynamic. The regression analysis reveals that PIV has a negative but weak impact on GDP, as the coefficient for PIV is negative and insignificant at the 5% significance level. This finding is consistent with Modern Portfolio Theory, which suggests that international investors diversify their portfolios to mitigate risk. However, it also highlights the complexities of the Nigerian financial market, as Fama (1998) and other critics of the theory argue that real-world challenges such as political risk, liquidity issues, and regulatory uncertainty can significantly undermine the expected benefits of portfolio diversification. The study by Obinna, Eze, and Olamide (2023) on the impact of FPI on Nigeria's stock market performance also points to increased market volatility, especially during global financial crises, which may explain the limited positive effect of PIV on Nigeria's economic growth in the regression model. The empirical findings underscore the need for stronger regulatory frameworks and investor protection mechanisms, as recommended by Obinna et al. (2023), to ensure that the capital inflows from portfolio investments can lead to sustainable economic growth rather than exacerbating market volatility.

Furthermore, the results from the Error Correction Mechanism (ECM) test reveal that there is a long-run relationship between GDP and both FDI and PIV, indicating that any short-run

fluctuations in these variables will eventually adjust to a stable long-run equilibrium. This finding is consistent with the Endogenous Growth Theory, which emphasizes the importance of internal factors such as innovation and human capital in driving long-term growth. According to Romer (1986), FDI not only brings in capital but also transfers knowledge and managerial skills, which are critical for fostering innovation and economic diversification in developing economies like Nigeria. This is reflected in the positive relationship between FDI and GDP, as FDI contributes to technological progress and industrial productivity, which in turn enhances economic growth.

The empirical results also align with the Structuralist Theory of Development, which argues that foreign investment can address the structural rigidities in an economy, such as Nigeria's over-reliance on oil exports. The study by Chika, Usman, and Esther (2020) on the role of FDI in Nigeria's energy sector highlights the importance of foreign investment in the oil and gas industries, which remains a crucial driver of Nigeria's economic performance. However, the limited impact of FDI on the downstream energy sector and renewable energy initiatives, as pointed out by Chika et al. (2020), suggests that foreign investment in Nigeria has not been equally distributed across all sectors of the economy. This reflects the need for a more diversified investment strategy, as suggested by the Structuralist Theory, to move Nigeria away from its dependence on resource extraction and towards a more industrialized and diversified economy.

Additionally, the results of the Pairwise Granger Causality Test provide further evidence of the directional relationships between FDI, PIV, and GDP. The test reveals that FDI Granger causes GDP, indicating that increases in foreign direct investment have a stronger influence on GDP than vice versa. This finding supports the notion that FDI is a key driver of economic growth in Nigeria, reinforcing the importance of policies that attract foreign investment. The negative relationship between PIV and GDP, however, suggests that portfolio investments do not have a similarly strong impact on economic growth, as changes in GDP do not Granger cause changes in PIV. This highlights the need for more targeted policy interventions to enhance the effectiveness of portfolio investments in fostering economic growth in Nigeria.

In conclusion, the findings of this study contribute to the growing body of literature on the role of foreign investment in Nigeria's economic development. They provide empirical evidence that supports the theoretical frameworks discussed, such as the Eclectic Paradigm, Modern Portfolio Theory, Endogenous Growth Theory, and Structuralist Theory of Development. While FDI plays a significant role in driving Nigeria's economic growth through technological advancement and industrial productivity, the impact of PIV is more limited and sensitive to market conditions. The study underscores the need for policy reforms that enhance the stability and attractiveness of Nigeria's financial markets, as well as targeted investment in sectors that can drive long-term sustainable growth. These findings offer

valuable insights for policymakers seeking to harness the potential of foreign investment to catalyze Nigeria's structural transformation.

5.1 Conclusion

This study provides compelling evidence that Foreign Direct Investment (FDI) plays a significant role in driving economic growth in Nigeria, particularly through technological advancements and industrial productivity. The findings align with key economic theories, such as the Eclectic Paradigm and Endogenous Growth Theory, which highlight the importance of FDI in fostering innovation and addressing structural rigidities. However, the negative and weak relationship between Portfolio Investment (PIV) and GDP growth emphasizes the complexities of the Nigerian financial market, where risks such as political instability and regulatory challenges hinder the expected benefits of portfolio diversification. Overall, the study underscores the importance of foreign investment in Nigeria's economic transformation but also calls for policy reforms to address the limitations of PIV and foster a more diversified and sustainable economy.

5.2 Recommendations

1. **Strengthening Regulatory Frameworks:** The Nigerian government should enhance the regulatory environment to reduce political risk and provide stronger investor protection, particularly for portfolio investors, to improve market stability and attract more foreign capital.
2. **Promoting FDI in Diversified Sectors:** Efforts should be made to attract foreign investment into sectors beyond oil and gas, particularly renewable energy, technology, and manufacturing, to support long-term economic diversification.
3. **Enhancing Infrastructure:** Investment in infrastructure, such as transportation, energy, and telecommunications, is crucial to improving the business climate and attracting more foreign direct investment.
4. **Fostering Innovation and Human Capital:** Policymakers should focus on creating an enabling environment for innovation and human capital development to harness the full potential of FDI in driving sustainable growth.
5. **Improving Fiscal and Monetary Policies:** Strengthening fiscal and monetary policies will help ensure macroeconomic stability and increase the attractiveness of Nigeria's financial markets to international investors.

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