Received: 25.01.2026
Accepted: .03.04.2026
Published: 06.05.2026

Vol.1.1.2026 pp.28-44 **http://globreshub.org/index.php/gaijm https://doi.org/10.65186/gaijm.v1.i2**

SECTORIAL EFFECTS OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH IN NIGERIA: AN ARDL APPROACH (1986–2025)

SYDNEY CLEVER KEREMAH (Ph. D)[1]
Department of Accounting and Finance, Faculty of Management and Social Sciences
Margaret Lawrence University, Galilee, Delta State, Nigeria.
donsyd4all@gmail.com **https://orcid.org/0009-0001-1039-3587**

OKOH GABRIEL[2]
Department of Accounting and Finance, Faculty of Management and Social Sciences
Margaret Lawrence University, Galilee, Delta State, Nigeria.
Okohgabriel39@gmail.com

Onyemaechi Bethel Amarachi[3]
Department of Accounting and Finance, Faculty of Management and Social Sciences
Margaret Lawrence University, Galilee, Delta State, Nigeria.
Onyemaechibethel5@gmail.com

Abstract

This paper will look at the effects of Foreign Direct Investment (FDI) on the economic performance of the sector in Nigeria, which are agriculture, manufacturing, transportation and communication, and oil and gas between 1986 and 2025. The study uses the Autoregressive Distributed Lag (ARDL) model to examine both the short-run and the long-run relationships among the variables used in the study. The secondary data were obtained in Central Bank of Nigeria and other data bases that were considered as relevant. The results indicate that FDI produces an ambivalent effect in industries. Transport and communication investment has a positive and significant effect on economic growth with manufacturing FDI having a positive but lagged effect. Conversely, FDI in agriculture and oil and gas sectors makes weak or insignificant contributions to growth. The ARDL bounds test shows that there is a long-run relationship between FDI and economic growth, whereas the error correction model indicates that the speed at which the relationship moves towards equilibrium is slow. The paper finds that despite the fact that FDI is one of the factors contributing to economic growth in Nigeria, its effectiveness is influenced by the sector-specific conditions and structural factors. It suggests better infrastructure, stability of the policies, better security and diversification of the FDI in the productive sector to ensure the maximum developmental impact.

Keywords: Foreign Direct Investment, Economic Growth, Sectoral Performance, ARDL Model, Nigeria.

*Corresponding author. **SYDNEY CLEVER KEREMAH** Author(s) agree that this article remain permanently open access under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. See for details: https://creativecommons.org/licenses/by-nc-nd/4.0/

1.0 Introduction

Foreign Direct Investment (FDI) has been a major driver of economic growth, technology transfer and managerial efficiency in developing economies such as Nigeria and has also linked the economies with the rest of the world. In 1986, the government of Nigeria adopted the Structural Adjustment Programme (SAP), and liberalization and investment friendly policies were adopted in order to attract foreign capital into the key sectors (Adelegan, 2000). These reforms were hoped to improve productivity and the performance of the sectors, but the results have been mixed. FDI inflows into Nigeria have traditionally been very concentrated in the oil and gas industry where exports and government revenue have been concentrated. Although this has generated substantial foreign exchange, it has also deepened sectoral imbalances and dependence on extractive industries (Akinlo, 2004; United Nations Conference on Trade and Development [UNCTAD], 2023). This means that critical sectors like agriculture and manufacturing which have a high potential in terms of employment, food security and industrialization have received relatively low FDI inflows (World Bank, 2022). Empirical studies also suggest that the impact of FDI on growth is sector specific and varies on the basis of the quality of infrastructure, human capital and institutions (Borensztein et al., 1998; Alfaro, 2003).

Nigeria's economic development from 1986 to 2025 is a period worth noting because of the presence of globalization, privatization, and varying inflows of capital. Recent trends show a trend towards the shift from long term productive FDI to short term portfolio investments, with concerns of sustainability and real sector growth (UNCTAD, 2023; Central Bank of Nigeria [CBN], 2024). The sectoral evidence shows that there are different effects of FDI. Although agriculture employs a large proportion, it is a sector that is structurally underfunded with factors including poor infrastructure and low mechanization (World Bank, 2022). In the manufacturing sector, the various factors of production, especially power supply, are characterized as unreliable, high production costs and inconsistent policy, all of which impede FDI spillovers.In manufacturing, the various factors of production are characterized as unreliable power supply, high production costs and inconsistent policy, which all limit the FDI spillovers (Okafor, 2012). The transportation and communications industry, particularly the telecommunications industry, has, however, gained greatly from the process of liberalization with foreign investment and better service delivery (Ekpo, 2014; CBN, 2024). However, the robust profitability of the oil and gas industry continues to draw FDI, despite a lack of strong linkages with other sectors.

In the light of these dynamics, the relationships between FDI and the sectoral performance in Nigeria is yet to be ascertained. Some studies have found positive growth impacts, and others have contended that it is hindered by structural inefficiencies and weak institutions. This further highlights the importance of having a detailed sectoral analysis of FDI's impact on sectoral economic performance. To this end, this study focuses on the effect of FDI on the performance of Nigerian economy in agriculture, manufacturing, transportation and communication and oil and gas sector for the period 1986 – 2025. This aim is to determine the contribution of FDI to the growth of these sectors and to give policy-oriented suggestions for balanced and sustainable economic development..

Problem Statement.

Regardless of the tremendous recognition that FDI has been given as a major catalyst for growth, Nigeria has not been able to achieve a significant sectoral impact from FDI. Empirical evidence indicate that foreign direct investment is an important source of capital, but its effect is not uniform across the various sectors because of differences in absorptive capacity, regulatory quality and technology advancement (Udoinyang et al., 2024). This is of concern in terms of its effectiveness to achieve balanced growth. The high level of macroeconomic instability, especially exchange rate volatility and financial market fluctuations, have been significant obstacles to FDI flows, and have lowered the impact of these flows (Abdullahi, 2024). Analogously, fiscal discipline is poor, and budget implementation is inadequate, all of which are bad for sustainable growth, both domestically and internationally (Onyemaechi & Clever, 2026).

Despite the significant benefits of FDI, the institutional problems including corruption, political risk and the low quality of regulations continue to present a challenge to investors and hence reduce the benefits of FDI in the long run (Osuma et al., 2024; Ibekwe, 2023). Insecurity, in terms of insurgency, militancy, boko haram insurgencies and kidnapping also restricts inflows and reduces sectoral productivity (Odumegwu et al., 2024). While FDI can contribute to development, it can also lead to problems like capital flight and environmental degradation, and have weak domestic linkages, particularly in extractive industries like the oil and gas sector (Kalu & Ijiomah, 2024). This focus worsens sectoral imbalance and key sectors such as Agriculture and Manufacturing which are vital for employment and industrialisation are

underdeveloped (Ekechukwu et al., 2023).

The general problem is not only the inflow of FDI but also the effectiveness of the inflow and distribution of FDI across sectors. As there is no consensus in the existing studies, it is pertinent to draw a comprehensive sectoral

analysis of FDI's effect on the economic performance of Nigeria in the agriculture, manufacturing, transportation and communication, and oil and gas sectors with a focus on the period 1986-2025 in order to inform policies that would support sustainable and inclusive growth.

2.0 Literature Review

Foreign Direct Investment Concept.

Foreign Direct Investment (FDI) is a long term investment undertaken by a company or individual in one nation in business affairs in another country with the aim of acquiring a permanent interest and control over the business. With the advent of globalization, FDI has become a significant source of cross-border transfer of capital, technology and skills that contributes significantly to the growth and development of the economy of the developing countries.

Liberalization policies have been implemented by many developing countries since in the mid-1980s to make their countries attractive to FDI through liberalization policies. Such reforms usually involve trade openness, financial market deregulation, elimination of the restrictions on the free flow of capital, and privatization of state-owned enterprises (Asiedu, 2002; Todaro and Smith, 2020). These policy measures are directed towards increasing the involvement of the private sector and increasing efficiency in the economy.

Eclectic paradigm explains theoretically that ownership, location, and internalization advantages are the key factors that determine the decisions of foreign investment (Dunning, 2008). Recent research also point out that the positive impacts of FDI including transfer of technology and spillovers in productivity are dependent on the institutional quality of the host country, human capital, and macroeconomic stability (Blomström and Kokko, 1998; United Nations Conference on Trade and Development [UNCTAD], 2025).

Various Forms of Foreign Investment.

There are several broad categories of foreign investment depending upon the nature, purpose, and degree of control by the investor:

Foreign Direct Investment (FDI): This is a long term investment in which there is a significant control of the investor (usually at least 10% ownership) in a foreign enterprise. It could be in the form of green field investments, mergers and acquisitions or joint venture (Dunning, 1993).

Foreign Portfolio Investment (FPI): It is an investment in financial assets like stocks, bonds, and treasury bills in a foreign country without having the power to control the running of business operations. It is generally short-term and very liquid (International Monetary Fund [IMF], 2022).

Official Development Assistance (ODA): This is a type of financial support and concessional loans given by governments or international organisations to stimulate economic growth and wellbeing in the developing countries (Organisation for Economic Co-operation and Development [OECD], 2021).

Foreign Aid and Grants: This is a non-repayable amount or resources given by foreign governments or institutions to a development project, humanitarian aid, or development of infrastructure.

Remittances: Remittances are not a formal investment, but they do involve money sent abroad by people to their home countries, which has a significant effect on household income and economic stability in developing economies (World Bank, 2023).

Determinants of Foreign Direct Investment.

A set of economic, institutional, political, and structural factors in the host country influence the Foreign Direct Investment (FDI) inflows. These factors indicate why multinational enterprises prefer certain places to invest in and why FDI differs among countries and sectors.

Market size and economic growth is one of the most significant determinants. The larger and growing markets attract more FDI as it provides them with greater demand potential and profitability opportunities. Those countries with continuous growth of GDP are the more appealing to foreign investors (UNCTAD, 2023).

Another important factor is macroeconomic stability. Low inflation rates, stable exchange rates and good fiscal policies would minimize the risk of investments and stimulate the inflow of capital in the form of long-term investments. Instead, high economic volatility is counterproductive to foreign investors because of unpredictability in

returns (World Bank, 2022).

The critical role is also played by institutional quality and political stability. Having well established legal

systems, property rights protection, low level of corruption, and stable political environments enhance investor confidence. Political instability and weak institutions are likely to deter inflows of FDI (North, 1990; Asiedu, 2002).

Availability of infrastructure is also a requirement. The availability of sufficient transport networks, availability of reliable power supply, and efficient communication networks reduces the cost of production and increases the attractiveness of investment. Poor infrastructure is one of the greatest limitations in most of the developing economies including Nigeria.

The FDI is affected greatly by the trade openness and investment policies. Economies that implement liberal trade regimes, lower tariffs, and liberalize foreign ownership are more likely to receive higher levels of investment. Regularity of policies and investor friendly regulations are also vital in maintaining the FDI inflows (Todaro and Smith, 2020). Lastly, the nature and effectiveness of foreign investment depends on the availability of skilled labour and human capital. Efficiency seeking and technology intensive FDI is more likely to be attracted to countries with educated and skilled workforces (Borensztein et al., 1998).

Recent Trends of Foreign Direct Investment Across major sectors in Nigeria.

Recent developments in Foreign Direct Investment (FDI) in Nigeria indicate that there is still a sectoral concentration and uneven distribution of investment in the sectors of agriculture, manufacturing, transportation and communication, and oil and gas. Although Nigeria continues to be among the largest receivers of FDI in Africa, there has been a concern over the composition and sectoral allocation of these inflows in respect of their contribution to broad-based economic development.

The oil and gas industry remains to be the most important source of FDI inflows because of its high profitability and the strategic significance it represents to the world energy market. However, as the world moves towards renewable energy, the petroleum industry in Nigeria continues to receive the biggest proportion of foreign investment. Nevertheless, the recent events including regulatory uncertainty, oil theft, and global energy transition policies have added to the fluctuations in the inflows of investments, which reduces the long-term commitments in the upstream activities (UNCTAD, 2023). This overdependence on the oil sector has limited the spillover effects of FDI on other productive sectors.

Conversely, the manufacturing sector has received a relatively small inflows in FDI because of the structural issues that continue to pervade the sector like poor supply of electricity, high cost of production, volatile exchange rates, and poor infrastructure. Despite the introduction of policy reforms intended to industrialize the country and replace imported goods with local products, these reforms have not been effective in attracting large-scale foreign investment. Consequently, the industry has not enjoyed the envisaged technology transfer and productivity benefits that come with FDI (World Bank, 2022).

Although the agricultural sector has a large percentage of the Nigeria population, it still has the least percentage of FDI compared to the major sectors. The poor infrastructure, low levels of mechanization, land tenure challenges and poor access to modern equipment continue to limit foreign investment in agriculture. Despite the introduction of recent government initiatives promoting agricultural transformation and food security, they have not yet translated into significant inflows of foreign investments into the sector (FAO, 2023).

Conversely, the transportation and communication sector has seen significant enhancement in the FDI inflows, especially after the telecommunications sector was liberalized. The industry has been positively affected by technological development, involvement of the private sector, and heightened need of digital services. In Nigeria, foreign investment in telecommunications, in particular, has helped to improve connectivity, innovation, and expansion of digital infrastructure in Nigeria (Central Bank of Nigeria [CBN], 2024).

The effects of Foreign Direct Investment on the Economic Growth in Nigeria.

Foreign Direct Investment (FDI) has been a major contributor to the economic growth of Nigeria through its contribution to the capital formation, job creation, and transfer of technology. It helps to supplement domestic investment and expand productive capacity across key sectors of the economy. In Nigeria FDI has played a positive role in the overall GDP growth, especially in the oil and gas sector, which attracts the highest proportion of foreign capital. Nonetheless, such reliance on one industry has exposed economic growth to external shocks like fluctuations in global oil prices (UNCTAD, 2023).

The manufacturing and agricultural industries

have enjoyed few benefits of FDI because of structural issues like poor infrastructure, inconsistency in policies, and low industrial capacity (World Bank, 2022). Conversely, the transport and communication industry has seen increased evident growth effects, particularly through foreign investment in telecommunications, which have enhanced productivity and connectivity (CBN, 2024). All in all, although FDI positively affects the economic growth in Nigeria, its impact is skewed in various sectors, limiting the extent to which it has an impact towards sustainable and inclusive economic development.

Foreign Direct Investment Implications on Economic Growth in Nigeria.

Over the past years, the economic growth of Nigeria has been rather modest and moderately stable, with the services sector, agricultural sector, and digital communications playing a leading role in driving growth in the country. As an example, the growth in GDP increased to approximately 3.19% in Q2 2024, with the growth being driven mainly by services, which contributed the highest proportion of output, and agriculture and industry registered slower yet positive growth (National Bureau of Statistics [NBS], 2024). On the same note, the overall growth stood at approximately 3.4% in 2024, which indicates enhanced fiscal reforms and performance of the non-oil sector (World Bank, 2025).

FDI has remained a significant contributor towards this growth process by aiding in capital formation, technology transfer, and sectoral expansion. Nonetheless, its effects are not uniform across the sectors. A large portion of foreign investment continues to go into the oil and gas sector, but the sector does not contribute to inclusive growth because of volatility in production and global energy transitions. Simultaneously, more than 90% of the growth of GDP is now due to the non-oil sector, in particular, agriculture, manufacturing, and services (Reuters, 2025).

Agriculture is growing at a modest pace with more than 20 percent of GDP contributed, although it is limited by low productivity, insecurity, and low inflow of investments (NBS, 2024). High production costs, lack of infrastructure and unstable exchange rates also result into poor performance of manufacturing in terms of its ability to enjoy full benefits of FDI. Conversely, the telecommunications and other wider ICT sector has experienced high growth rates which are attributed to inflow of foreign capital, digitalization and liberalization in policy, making it one of the most vibrant sectors in the economy.

Regardless of these benefits, Nigeria continues to experience structural issues like inflationary pressure, exchange rate volatility, and poor industrial capacity, which curtail the full developmental impact of FDI. Also, the inflows of FDI are rather low in comparison with the economy size, which means that the improvement of the investment climate and the enhancement of the institutional reforms are required (World Bank, 2024).

Theoretical Framework

The current research paper is based on two significant theories, namely, the Eclectic Paradigm (OLI Framework) and the Endogenous Growth Theory.

Eclectic Paradigm (OLI Framework)

Foreign Direct Investment (FDI) is explained by the Eclectic Paradigm developed by Dunning (1993), which explains FDI as the three advantages included in the paradigm: ownership, location, and internalization. Ownership advantages are firm-specific resources like technology and management skills. Location benefits justify why companies invest in specific nations depending on aspects such as market size, resources, and policy environment. The benefits of internalization are associated with the fact that firms tend to operate foreign subsidiaries directly as opposed to licensing. In Nigeria, the theory can be used to explain why FDI is concentrated in certain areas of the economy like oil and gas, and why some sectors of the economy receive less FDI such as agriculture and manufacturing due to poor infrastructure and institutional constraints.

Endogenous Growth Theory.

According to Endogenous Growth Theory which has been developed by Romer (1990), emphasis is made on the fact that economic growth is driven by internal factors such as technology, human capital, and knowledge spillovers. FDI leads to growth since it transfers technology, enhances productivity, and enhances skills in the host

economies. And similarly, Lucas (1988) points out the relevance of human capital in supporting long-term growth, as FDI is more practical in economies well-endowed in absorptive capacity.

Empirical Literature

Consecutive reports on Foreign Direct Investment (FDI) in Nigeria have always indicated that even though FDI can help in economic growth, the impacts of this phenomenon are widely differentiated across the sectors and also greatly influenced by the nature of the structural and institutional conditions.

Ekperechukwu et al. (2026) investigated the effect of FDI in information and communication, telecommunications, and trading in 2010-2024 in the service sector. They used an ARDL model and the National Bureau of Statistics data, and found that FDI in all three subsectors had positive but statistically non-significant impacts, except in telecommunications, which surprisingly had a negative but statistically insignificant relationship with growth. This indicates that despite the inflow of foreign investment to these sectors, this does not necessarily translate to high or immediate productivity.

In a similar way, Okpala and Ifeyinwa (2026) evaluated the FDI and economic growth in Nigeria during 1981-2023 using CBN data and various econometric models. The results of their studies indicated that FDI in agriculture as well as telecommunications had had a significant positive impact on economic growth when conditions were conducive.

Continuing on the topic, Ngozi et al. (2026) researched the topic of FDI and trade openness using an ARDL model in a long period (1980-2025). They have concluded that FDI promotes the growth of the economy in the long run, although this depends on structural constraints like ineffective industrial capacity and trade inefficiency. This implies that FDI on its own is inadequate unless it is backed by a stable and productive economic environment.

Igbokwe et al. (2026) conducted a study of FDI in six sectors based on GDP per capita and human development indicators. Their findings indicated great sectoral variation with manufacturing FDI being the only one that had consistently significant contribution to both income and human development. Other industries, including agriculture, transport, construction, and trading, had weak or insignificant impacts, although they were being invested in. This gives an indication of a lack of efficiency in the absorption and use of FDI within the Nigerian economy.

Ezeanyeji and Ifebi (2016) in their previous work concentrated on telecommunications and found out that FDI considerably improved the sectoral performance and positively impacted GDP. This substantiates the consideration that liberalized and technology driven industries are more likely to be receptive to foreign investment.

A more recent study by Udoinyang et al. (2024) gives a mixed picture. In their ARDL study, they discovered that agriculture, services, telecommunications FDI are significant short-run growth drivers. Nonetheless, it was only the telecommunications that had a significant long-run effect. Surprisingly, manufacturing FDI was identified to lead to the short and long-term negative effects indicating inefficiencies or structural bottlenecks. It was also found that Agriculture FDI is positive in the short run but insignificant in the long run and hence low sustainability of gains.

Ogbonna et al. (2026) discovered in the manufacturing industry and specifically that FDI has a higher impact in the short-run than in the long-run. Their findings indicate that albeit temporarily, foreign capital can be used to boost output, but there will be long-term benefits, which hinge on more structural changes of improving infrastructure, energy supply, and the local capacity building.

In addition to sectoral development, institutional and environmental aspects also have significant influence on the determination of FDI results. Ananti et al. (2025) emphasize that insecurity, which includes insurgency in the North-East and militancy in the Niger Delta, and widespread kidnapping, is a big deterrent to foreign investment. Such risks make it more expensive to conduct business and make investors less confident, particularly in agricultural and oil-producing countries.

Regional position Kamara (2026) assessed 35 sub-Saharan African nations and discovered that FDI, trade openness, imports and exports all have a positive effect on growth. Inflation has an adverse impact on performance, however. Notably, the paper demonstrates that FDI is more effective in the presence of trade openness, which implies that its efficacy is greater when incorporated into the global markets.

Akinwalere et al. (2025) examined sectoral FDI inflows in Nigeria based on information obtained in various international institutions. They discovered that FDI is very concentrated in oil and gas, manufacturing, banking, telecommunications and trading, and relatively low inflows are in agriculture and services. Their findings also indicate that oil and gas and telecommunications have the most significant positive influence on growth whereas agriculture and services tend to perform poorly because of poor infrastructure, lack of access to the market and structural inefficiencies. They also highlight the existence of the so-called resource curse where, due to overreliance on oil, there is no diversification and other productive sectors are weakened.

3.0 Methodology

The research design that is employed in this study is the ex-post facto research design which is a quantitative research approach. The model used in the study is stipulated by the works of Igbokwe et al. (2026) and Udoinyang et al. (2024), with the necessary changes related to the objectives and the

focus of the study on a specific sector. The modified model uses sector-specific inflows of FDI, such as agriculture, manufacturing, transportation and communication (FCT), and oil and gas (FCO) as key explanatory variables, with economic performance proxied by Gross Domestic Product (GDP). This paper thus uses the following multiple equation models in the following manner:

The functional version of the model has been defined as:

RGDP = f (FCA, FCM, FCT, FCO) ---------- (1)

The model of this study has been thus modeled as follows in the econometric form;

$RGDP = \propto_0 + \propto_1 FCA + \propto_2 FCM + \propto_3 FCT + \propto_4 FCO + \mu i$ ---------- (2)

Where;

RGDP = Real Gross Domestic Product

FCA = Foreign Direct Investment contribution to Agriculture sector.

FCM = Foreign Direct Investment contribution to Manufactural sector.

FCT = Foreign Direct Investment contribution to Transportation and communication.

FCO = contribution to Oil and Gas by Foreign Direct Investment.

$\propto_0$ = Constant Parameters/ Slope

$\propto_1$-$\propto_4$ = Estimation parameters

µi = Error term

A priori expectations

A priori expectation is a type of expectation whereby some fundamental principles are presumed to be the truth. Then there is need to apply empirical evidence but base on the axioms being true. Accordingly, on a priori;

$\propto_1 > 0$, $\propto_2 > 0$, $\propto_3 > 0$ & $\propto_4 > 0$,

This implies that all the employed variables of sectoral foreign direct investment indicators will likely have positive theoretical relationship with the dependent variable (Real Gross Domestic Product).

The data used in the study is time series data, which is acquired by secondary sources like the Central Bank of Nigeria (CBN), World Bank, and UNCTAD. Econometric techniques including Unit Root Test, and Autoregressive Distributed Lag (ARDL) model are used to analyze the data, depending on the stationarity properties of the variables. The changes that have been made to the adopted models include disaggregating FDI into the sectoral components as well as extending the period under study to 2025 to capture the recent economic dynamics in Nigeria. This would enable a more in depth evaluation of the sector-specific effect of FDI on economic performance.

4.0 Data Presentation and Analysis

Table 4.1: Descriptive statistics output of Real Gross Domestic Product (RGDP), Foreign Direct Investment contributions to: Agriculture (FCA), Manufactural (FCM), Transportation and communication (FCT) and Oil and Gas (FCO) in Nigeria for the periods 1986 to 2025.

	RGDP	FCA	FCM	FCT	FCO
Mean	44317.15	1.648221	2.77E+09	17661.14	12.29682
Median	39541.24	1.335545	1.88E+09	10240.30	11.78275
Maximum	82200.00	5.790850	8.84E+09	68591.55	35.24434
Minimum	17007.77	0.352540	5.846288	14.90000	2.800010
Std. Dev.	22266.67	1.147104	2.65E+09	20723.14	6.960002
Skewness	0.261325	1.989647	0.820797	1.167763	0.934670
Kurtosis	1.458460	7.041695	2.489355	3.168759	4.296698
Jarque-Bera	4.415848	53.61680	4.925983	9.138605	8.626429
Probability	0.109929	0.000000	0.085180	0.010365	0.013390
Sum	1772686.	65.92884	1.11E+11	706445.6	491.8727
Sum Sq. Dev.	1.93E+10	51.31802	2.74E+20	1.67E+10	1889.224
Observations	40	40	40	40	40

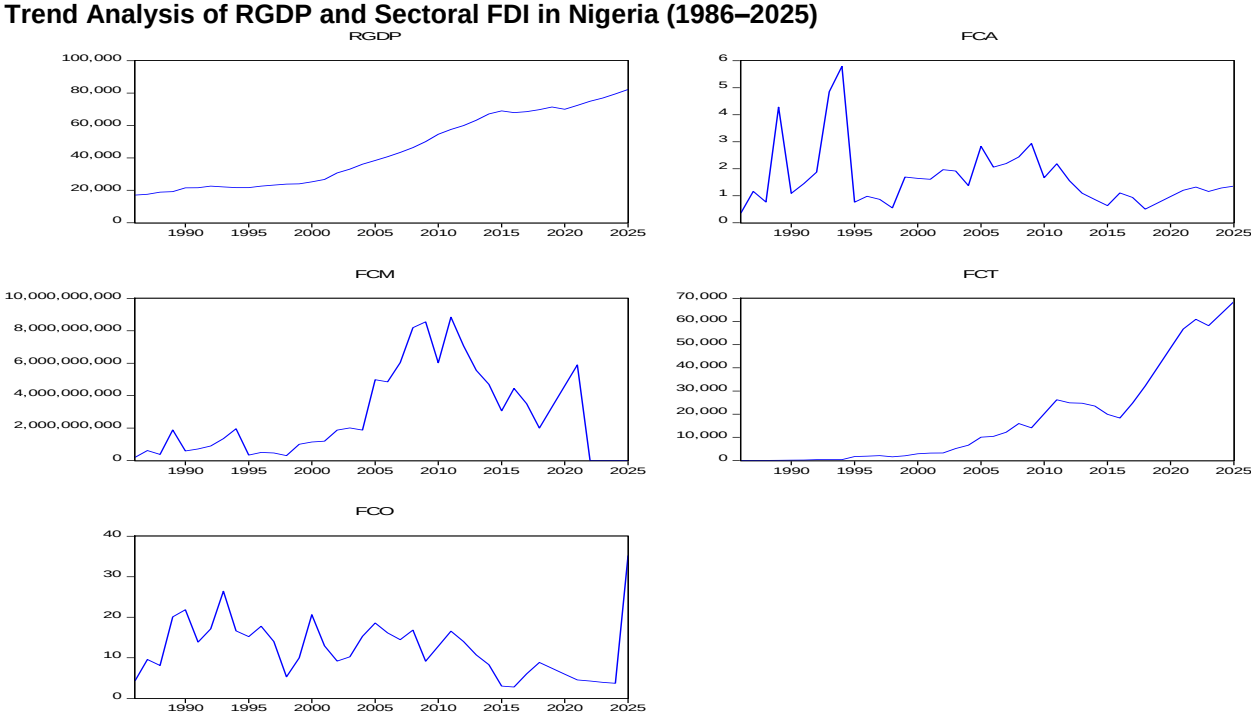
Source: E-Views 10 output extract.

Table 4.1 shows the descriptive statistics of Real Gross Domestic Product (RGDP) and Foreign Direct Investment (FDI) inflows into key sectors in Nigeria between 1986 and 2025. The trend of RGDP over a period indicates that the value has steadily increased with time with average value of ₦44,317.15 billion and a maximum of ₦82,200.00 billion. The moderate growth and near normal distribution indicates that economic growth though fluctuating has been relatively stable in the period. FDI in agriculture (FCA) seems to be very volatile with high variation between the minimum and maximum values. The high positive skewness and non-normality distribution depicts the abnormal and inconsistent inflow of investments in the sector. In the manufacturing sector (FCM), FDI exhibits a moderate degree of fluctuation, but is

comparatively more stable than in the case of agriculture. The distribution is more towards normal implying a more uniform pattern of investment although it is still subject to the fluctuations. Transportation and communication sector (FCT) shows a high level of variability, and this reflects a rapid growth in the sector, in particular, telecommunications area within the sector. Non-normal distribution however means that the patterns of investments are uneven. In the same vein, FDI in oil and gas (FCO) is characterized by moderate fluctuations and positively skewed distribution, which underscores the oil and gas sector as being highly sensitive to external factors like global oil prices and internal challenges. On the whole, the findings indicate that although economic growth in Nigeria was quite stable, the inflows of FDI in different sectors were uneven and usually volatile, with higher concentration of FDI inflows in such sectors as oil and telecommunications than in agriculture and manufacturing

.

Trend Analysis of RGDP and Sectoral FDI in Nigeria (1986–2025)



Source: E-Views 10 output extract.

The graphical results above would give a better understanding of how economic growth and sectoral Foreign Direct Investment (FDI) have changed over the years in Nigeria. Real Gross Domestic Product (RGDP) is on a steady increasing trend, particularly since the beginning of the 2000s. This is an indication of long-term economic growth, albeit with slight deceleration at times of economic shocks. The gradual increase is indicative of the fact that the overall economic performance of Nigeria has increased tremendously throughout the study period. The pattern in FDI in agriculture (FCA) is very unstable with sharp increases and decreases in the early years and relatively low and consistent inflows in the recent years. This means that agriculture has not been able to get consistent foreign investment despite its significance to employment and food security. The trend in manufacturing industry (FCM) is not steady, but it has apparent peaks and declines. Strong inflows are observed in the mid-2000s, after which there is intense volatility. This implies that the production of FDI is sensitive to economic factors, infrastructure issues, and inconsistencies in policies.

The most remarkable growth trend is the transportation and communication sector (FCT). Beginning at extremely low levels, it increases sharply - particularly after the 2000s - reflecting the effect of telecommunication liberalization and higher investment in digital. This is one of the most remarkable achievements towards the attraction of the sustained FDI. On the other hand, FDI in oil and gas (FCO) shows a fluctuating yet an overall downward trend in recent years, even though it was the dominant type of FDI in the past. Although there are occasional spikes, the general trend is one of instability, probably due to the volatility of global oil prices, the lack of security and the global transition to renewable energy. The general trends are quite clear that, although the economy of Nigeria (RGDP) has been increasing steadily, the inflows of FDI are not even across industries. The focus of investment is also moving towards telecommunications with the traditional sectors of the economy such as agriculture and oil and gas being unstable. This indicates why there is an urgent need to have improved policies in order to attract balanced and sustainable FDI in all sectors.

Table 4.2: Presentation of Results of Unit Root Test: Augmented Dickey-Fuller Test at Level and First Difference.

Variable	Level I(0)				1st Difference I(1)				Order of Integration
	ADF-statistics	5% Crit value	P-value	Remark	ADF-statistics	5% Crit value	P-value	Remark	
RGDP	-3.808134	-3.544284	0.0280	**Stationary**					**I(0)**
FCA	**-4.776615**	**3.529758**	0.0023	**Stationary**					**I(0)**
FCM	-1.551951	-3.529758	0.7935	Non-stationary	-7.349156	-3.533083	0.0000	**Stationary**	**I(1)**
FCT	-0.952245	-3.533083	0.9389	Non-stationary	-4.057872	-3.533083	0.0149	**Stationary**	**I(1)**
FCO	-3.253685	-3.529758	0.0892	Non-stationary	-4.598237	-3.533083	0.0038	**Stationary**	**I(1)**

Note: Statistical decisions are based on 5% level of significance.

Source: Author's computation.

The table 4.2 result of the Augmented Dickey-Fuller (ADF) test indicates that the two variables in the table, namely RGDP and FCA are at level stationary since the ADF statistic of the two variables in the table are more negative than the 5 percent critical values and their p-values are less than 0.05. This means that the two variables are both integrated of order 0, I(0), and do not have to be differentiated prior to analysis. On the other hand, FCM, FCT, and FCO are non-stationary at level, as their ADF statistics are less negative than the critical values and their p-values are greater than 0.05. Nevertheless, once first differenced, all three variables become stationary, and significant ADF statistics and p-values below 0.05. This means that they are order one, I(1) integrated. In general the variables are characterized by a mixed order of integration with both I(0) and I(1) series. This makes the further analysis by the use of Autoregressive Distributed Lag (ARDL) model appropriate since it is effective in dealing with variables of varying integration orders.

Table 4.3: Autoregressive Distributed Lag (ARDL) Result.

Dependent Variable: RGDP				
Method: ARDL				
Date: 05/05/26 Time: 03:00				
Sample (adjusted): 1988 2025				
Included observations: 38 after adjustments				
Maximum dependent lags: 2 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (2 lags, automatic): FCA FCM FCT FCO				
Fixed regressors: C				
Number of models evalulated: 162				
Selected Model: ARDL(2, 0, 1, 0, 0)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RGDP(-1)	1.357724	0.147352	9.214170	0.0000
RGDP(-2)	-0.414931	0.148863	-2.787342	0.0091
FCA	-275.6562	199.4563	-1.382038	0.1772
FCM	1.61E-08	1.37E-07	0.117032	0.9076
FCM(-1)	2.80E-07	1.35E-07	2.072284	0.0469
FCT	0.054008	0.025429	2.123831	0.0420
FCO	18.73827	32.67993	0.573388	0.5707

C	1903.381	993.7839	1.915286	0.0650
R-squared	0.997820	Mean dependent var		45740.16
Adjusted R-squared	0.997312	S.D. dependent var		21931.88
S.E. of regression	1137.163	Akaike info criterion		17.09512
Sum squared resid	38794194	Schwarz criterion		17.43988
Log likelihood	-316.8074	Hannan-Quinn criter.		17.21779
F-statistic	1961.833	Durbin-Watson stat		2.232112
Prob(F-statistic)	0.000000			
*Note: p-values and any subsequent tests do not account for model selection.				

Source: E-Views 10 output extract.

Through the ARDL results of this study, it is observed that the economic growth in Nigeria is highly persistent over time with past GDP playing a significant role in influencing the current output. This observation is in line with the opinions of Ngozi et al. (2026) who also found that the economic growth of Nigeria is highly influenced by long-run structural trends, with FDI playing a more significant role over time than instantaneously. The fact that transportation and communication FDI (FCT) has a positive and significant impact on the economic growth is consistent with the results of Ezeanyeji and Ifebi (2016), who indicated that foreign investment has a significant positive impact on the telecommunications sector performance. It also supports Udoinyang et al. (2024) who discovered that telecommunication-related FDI is among the most crucial drivers of economic growth in Nigeria, particularly in the short run. Likewise, the positive lagged effect of manufacturing FDI (FCM(-1)) supports the results of Ogbonna et al. (2026), who have highlighted that manufacturing FDI is more likely to have more effects on the long run than in the short run. This implies that the manufacturing investment will take time before its fruits are fully felt in the economy such as job creation, transfer of technology and expansion of manufacturing.

The results of the study shows that FDI in agriculture (FCA) has a negative and insignificant impact are however in line with the findings of the study by Igbokwe et al. (2026), who reported weak or insignificant impacts of agricultural FDI on economic development due to structural inefficiencies. It is also in line with Akinwalere et al. (2025) who have found that agriculture attracts relatively low FDI inflows in Nigeria and suffers due to poor infrastructure and limited market access. Similarly, the negligible impact of oil and gas FDI (FCO) is indicative of the so-called resource dependence pattern, which Akinwalere et al. (2025) show, is not necessarily accompanied by broad-based economic growth. This also serves to support the argument of Ananti et al. (2025), who noted that insecurity and instability within oil-producing regions diminishes the productive effects of foreign investment within the sector. On the whole, although some studies like Okpala and Ifeyinwa (2026) demonstrated strong positive impacts of FDI in agriculture and telecommunications on growth, this paper paints a more nuanced picture. It substantiates the uneven effect of sectoral FDI in the sense that telecommunications and manufacturing exhibit stronger growth effects than agriculture and oil and gas.

The findings also indicate that FDI would be more effective when complemented by other factors like infrastructure development, openness to trade, and macroeconomic stability (in line with Kamara, 2026). Despite the fact that the model indicates a very high level of explanatory power, as well as some material variables, but the model does not confirm the existence of long-run equilibrium relationship between RGDP and sectoral FDI. Thus, one needs to carry out the ARDL Bounds Test of cointegration to determine whether or not there exists such a long-run relationship.

Table 4.4: ARDL Bounds Test

ARDL Long Run Form and Bounds Test				
Dependent Variable: D(RGDP)				
Selected Model: ARDL(2, 0, 1, 0, 0)				
Case 2: Restricted Constant and No Trend				
Date: 05/05/26 Time: 03:04				
Sample: 1986 2025				
Included observations: 38				
Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1903.381	993.7839	1.915286	0.0650
RGDP(-1)*	-0.057208	0.028077	-2.037503	0.0505
FCA**	-275.6562	199.4563	-1.382038	0.1772
FCM(-1)	2.96E-07	9.96E-08	2.973416	0.0058
FCT**	0.054008	0.025429	2.123831	0.0420
FCO**	18.73827	32.67993	0.573388	0.5707
D(RGDP(-1))	0.414931	0.148863	2.787342	0.0091
D(FCM)	1.61E-08	1.37E-07	0.117032	0.9076
* p-value incompatible with t-Bounds distribution.				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	3.181731	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: E-Views 10 output extract.

The results of the ARDL bounds test show that the calculated F-statistic (3.1817) is larger than the upper bound critical value at the 10% level of significance, but falls short of the upper bound critical value at the 5% level of significance. This confirms the existence of a long-term relationship between the economic growth (RGDP) and sectoral FDI in Nigeria, though at a moderate level of significance. Notably, the error correction term is negative, statistically significant (-0.0572, p = 0.05) which serves further to confirm the presence of a long-run equilibrium relationship between the variables. This is consistent with the results of Udoinyang et al. (2024) who also found that the effects of FDI are more pronounced in the long term compared to the short term across most industries. The error correction mechanism justifies the validity of the cointegration result even with the borderline F-statistic. The combination of the bounds test and the error correction term give enough evidence to conclude that there is a stable long-run relationship between RGDP and sectoral FDI in Nigeria. In general, these findings coincide with Igbokwe et al. (2026), who emphasized that the effects of FDI differ across the industries, and some of the areas have stronger long-run benefits than others due to the structural constraints

.

Table 4.5: ARDL Error Correction Regression Result

ARDL Error Correction Regression				
Dependent Variable: D(RGDP)				
Selected Model: ARDL(2, 0, 1, 0, 0)				
Case 2: Restricted Constant and No Trend				
Date: 05/05/26 Time: 03:05				
Sample: 1986 2025				
Included observations: 38				
ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RGDP(-1))	0.414931	0.115991	3.577284	0.0012
D(FCM)	1.61E-08	1.17E-07	0.137696	0.8914
CointEq(-1)*	-0.057208	0.012122	-4.719335	0.0001
R-squared	0.500866	Mean dependent var		1701.261
Adjusted R-squared	0.472344	S.D. dependent var		1449.353
S.E. of regression	1052.808	Akaike info criterion		16.83197
Sum squared resid	38794194	Schwarz criterion		16.96125
Log likelihood	-316.8074	Hannan-Quinn criter.		16.87796
Durbin-Watson stat	2.232112			
* p-value incompatible with t-Bounds distribution.				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	3.181731	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: E-Views 10 output extract.

The results of the ECM indicate how the economy of Nigeria responds to a change in Foreign Direct Investment (FDI) in short run and the speed at which the economy of Nigeria will be back on its feet in the long run. The negative error correction value (−0.0572) indicates that the economic growth and sectoral FDI have a long-run relationship. But the rate at which such an imbalance in the short run is cleared is very slow--only on an average basis about 5.7 per cent of any temporary imbalance in the short run is cleared each year. In a straightforward explanation it takes a long time to restore the economy once it has been hit by shocks.

Past economic performance (lagged RGDP) is very strong in the short-run in influencing current growth. This indicates that the economy of Nigeria is likely to follow the current trends as opposed to changing rapidly. At the same time, FDI in manufacturing does not have an immediate impact, suggesting that the benefits of such investments take time to show due to underlying challenges.

These findings are a reflection of what is presently going on in Nigeria. These results are consistent with Udoinyang et al. (2024) and Ngozi et al. (2026) who discovered that FDI has greater long-run impacts than short-run impacts. The low rate of adjustment is comparable to the fact that the economy is also incapable of recovering fast due to the shocks such as removal of fuel subsidies and depreciation of the exchange rate. This also justifies Akinwalere et al. (2025) who noted that structural constraints, including poor infrastructure and weak institutions, are key factors that limit the effectiveness of FDI in Nigeria. The low short-run effect of FDI is also the reason why the increase in foreign investment is yet to bring perceivable changes in the standard of living of the people. These issues are further strengthened by the discovery of Ananti et al. (2025) who highlighted that insecurity and high risks of business remain a deterrent to productive investment.

Besides this, the structural issues which have long hampered the success of FDI, as exemplified by poor infrastructure, high cost of doing business and inconsistent policies, also continue to limit the effectiveness with which FDI can take place, particularly in sectors such as agriculture and manufacturing. The results indicate that though FDI is beneficial to the economy in the long-term, its short-

term effects are minimal, and the economy adapts slowly. This is an indication of the necessity of more superior policies, and a more stable economic environment to be able to fully enjoy the benefits of foreign investment.

Breusch–Godfrey Serial Correlation LM Test

The Breusch–Godfrey Serial Correlation LM test was conducted to check whether the model suffers from autocorrelation (serial correlation) in the error terms.

F-statistic	0.676725	Prob. F(2,28)	0.5164
Obs*R-squared	1.752130	Prob. Chi-Square(2)	0.4164

The results show that the F-statistic (0.6767) with a probability value of 0.5164 and the ObsR-squared probability (0.4164) are both greater than 0.05. This means that the null hypothesis that there is no serial correlation could not be rejected. This shows that there is no evidence of autocorrelation in the model. This implies that the error terms do not depend on time and that errors made in the past are not affecting the current errors. The results show that the model is well specified and not plagued by the serial correlation issues This augers well with the reliability of the ARDL estimates, that is, the findings on the relationship between FDI and economic growth in Nigeria are both statistically valid and dependable.

Heteroskedasticity Test (Breusch–Pagan–Godfrey)

This test checks whether the model has a problem where errors are unevenly spread (which can make results unreliable).

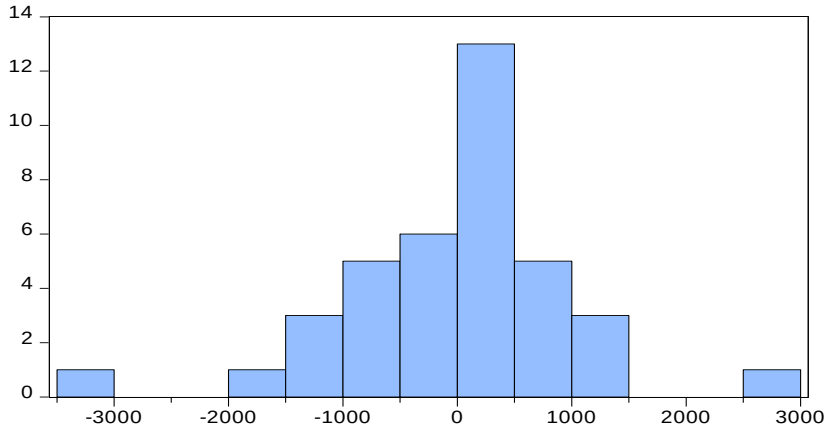
Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.433722	Prob. F(7,30)	0.8731
Obs*R-squared	3.492248	Prob. Chi-Square(7)	0.8360
Scaled explained SS	4.979923	Prob. Chi-Square(7)	0.6624

The results show that the F-statistic (0.4337) and its probability value (0.8731) are both much higher than 0.05. This is also true of the ObsR-squared probability (0.8360). This implies that, we cannot reject the null hypothesis and hence there is no evidence of heteroskedasticity. This implies that the model is stable, and the errors are evenly distributed. This is significant in that it implies that the results are not being skewed by strange fluctuations or uneven distribution of the data. The model is well behaved and reliable, there is no indication of heteroskedasticity. This enhances the belief in the previous ARDL findings and indicates that the correlation between FDI and economic growth in Nigeria is statistically sound.

Normality Test (Residual Diagnostic)

The residual diagnostic results assess whether the error terms of the model are normally distributed, which is important for the reliability of statistical inference.



The Jarque-Bra probability value (0.0030) is less than the probability value of 0.05, which means that the data is not normally distributed. This implies that the error terms are not normally distributed as the normality assumption is essential in achieving perfect statistical inference. The skew value (-0.416) indicates

that there is slight left-skewness, and the kurtosis (5.58) indicates that the distribution is peaked with heavy tails, indicating the mean may have a few extreme values. The findings indicate that there is slight non-adherence to normality in the residuals. Nevertheless, it is typical of time-series data, particularly in developing economies such as Nigeria where shocks (e.g., exchange rate volatility, inflation, and policy changes) can result in extreme observations. Notably, as the other diagnostic tests (serial correlation and heteroskedasticity) are satisfactory, the model still remains econometrically appropriate to make an inference.

5.0 Summary of Findings

This paper has discussed how Foreign Direct Investment (FDI) has influenced sectoral economic performance in Nigeria, which has been in the agricultural, manufacturing, transportation and communication, and oil and gas sectors between 1986 and 2025 using the ARDL model. The findings indicated that the past growth of the economy has a significant impact on the current growth in Nigeria and therefore there is a high level of persistence in GDP growth in Nigeria. FDI in transportation and communication in the economic development had a positive and significant implication and a time lag in manufacturing FDI, which indicated that the benefits would take time. Nevertheless, the impact of FDI in agriculture was adverse and insignificant, which means that the investments in this sector have not resulted in any meaningful growth. Equally, the FDI in oil and gas although it attracted the highest percentage of foreign investment did not have any significant effect on the total economic growth. The results of ARDL bounds test and the ECM confirmed that long-run relationship between economic growth and sectoral FDI exists but the adjustment to equilibrium is sluggish. Additional diagnostic tests revealed that the model is stable, without any serial correlation or heteroskedasticity, but with a slight deviation of normality.

Conclusions

According to the study, Foreign Direct Investment (FDI) is supportive of economic growth in Nigeria, however, its effects are dependent on the destination of the investment. Other industries such as transportation and communication have been doing better, whereas agriculture and oil and gas have been performing poorly because of the structural challenges that the industries are facing.

It further concludes that changes in FDI are slowly adapted to in the economy of Nigeria. The poor infrastructure, unstable policies and insecurity are some of the issues that hinder the economy to gain fast benefits due to foreign investment. Consequently, FDI is more likely to have long-term impacts as compared to short-term ones. Lastly, the strong concentration of FDI in the oil industry has not resulted in wide economic growth. This underscores the importance of ensuring that there is better diversification and enhancement of the utilization of foreign investment in other sectors of the economy that are vital.

Recommendations

Based on the findings, the study recommended the following;

1. To enhance the spread of FDI, Nigeria should promote investment in agriculture and manufacturing by incentivizing these investments through incentives such as tax-relief and easier access to finance.
2. There is a need for development of infrastructure, such as power, transport, digital infrastructure, etc., to enhance the impact of FDI.
3. Uniform and transparent policies are important in attracting and keeping in place for long-term foreign investment.

The fight against insecurity will further reduce investment risk in the country and make the country more attractive to investors.

5. By enhancing human capital by skills development and technology transfer, it will be able to maximize the benefits of FDI.
6. Therefore, there is need for increased investment in the oil and gas industry in the local refining and value addition to support the overall economic growth.

References

Abdullahi, K. (2024). How exchange rate and stock market volatilities affect foreign direct investment in Nigeria: A non-linear approach. *Journal of Economics and Allied Research*, 8(4), 253–269.

Adelegan, J. O. (2000). Foreign direct investment and economic growth in Nigeria: A seemingly unrelated model. *African Review of Money, Finance and Banking*, 5(1), 5–25. https://www.jstor.org/stable/23026281.

Akinlo, A. E. (2004). Foreign direct investment and growth in Nigeria: An empirical investigation. *Journal of Policy Modeling*, 26(5), 627–639. https://doi.org/10.1016/j.jpolmod.2004.04.011

Akinwalere, S., Chang, K., & Laho, A. (2025). Foreign direct investment (FDI) and economic growth in Nigeria: A sectoral analysis.

Alfaro, L. (2003). Foreign direct investment and growth: Does the sector matter. *Harvard Business School*, *2003*, 1-31.

Ananti, M. O., Nwokike, C., & Ezeneme, E. (2025). Security Challenges and Foreign Direct Investment in Nigeria: Implications for Economic Growth (2010-2024). *Available at SSRN 5345577*.

Asiedu, E. (2002). On the determinants of foreign direct investment to developing countries: Is Africa different? *World Development*, 30(1),

107–119. https://doi.org/10.1016/S0305-750X(01)00100-0

Blomström, M., & Kokko, A. (1998). Multinational corporations and spillovers. *Journal of Economic Surveys*, 12(3), 247–277. https://doi.org/10.1111/1467-6419.00056

Central Bank of Nigeria (CBN). (2024). *Statistical bulletin*. Abuja: Central Bank of Nigeria. https://www.cbn.gov.ng/documents/statbulletin.asp

Central Bank of Nigeria (CBN). (2024). *Statistical bulletin*. https://www.cbn.gov.ng

Dunning, J. H. (1993). *Multinational enterprises and the global economy*. Addison-Wesley.

Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy*. Edward Elgar Publishing.

Ekechukwu, C., Ofoegbulam, T. E.& Chris-Ejiogu, U. G. (2023). A Multi-Sectoral Analysis of Effects of Foreign Direct Investment on Nigeria's Output Growth. *Account and Financial Management Journal*, 8(2), 3087 –3096

Ekperechukwu, U. J., Akunna R. C. & Ubah I. I. (2026). Foreign Direct Investment and The Growth of The Service Sector in Nigeria (2010-2024). World Journal of Finance and Investment Research. 10(3), 72-95.

Ekpo, A. H. (1997). Foreign direct investment in Nigeria: Evidence from time series data. *Economic and Financial Review*, *35*(1), 59-78.

Ezeanyeji, C. I., & Ifebi, O. L. (2016). Impact of foreign direct investment on sectoral performance in the Nigerian economy: A study of telecommunications sector. *International Journal of Humanities Social Sciences and Education (IJHSSE)*, *3*(2), 57-75.

Food and Agriculture Organization (FAO). (2023). *Agricultural investment and development report*. https://www.fao.org

Ibekwe, E. C. (2023). Promoting foreign direct investment (FDI) in Nigeria: Challenges and opportunities in the legal framework (2020–2023). *Babcock University Journal of History and International Studies*. 7(1), 91-108 (Babcock University Journals)

Igbokwe, I. P., Nwezeaku N.C. & Chris-Ejiogu, U.G. (2026). Effect of sectoral foreign direct investment on Nigeria's economic development. *Journal of Accounting and Financial Management*, 12(1), 493- 507.

International Monetary Fund (IMF). (2022). *Balance of payments and international investment position manual* (6th ed.). https://www.imf.org

Kalu, B. O., & Ijiomah, A. (2024). The impact of foreign direct investment on economic growth and development in Nigeria: Prospects, challenges, and policy implications. *GNOSI: An Interdisciplinary Journal of Human Theory and Praxis*, 7(2), 80–92. http://www.gnosijournal.com/index.php/gnosi/article/view/272,

Kamara, A. K. (2026). The impact of Foreign Direct Investment and Trade on Economic Growth: Evidence from sub-Saharan Africa. *Journal of Market Research*, *2*(1), 1-16.

Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22(1), 3–42. https://doi.org/10.1016/0304-3932(88)90168-7

National Bureau of Statistics (NBS). (2024). *Gross domestic product report Q2 2024*. https://www.nigerianstat.gov.ng

Ngozi, O. D, James, D, D, & John, A. A. (2026). The impact of foreign direct investment and international trade on economic growth of Nigeria. International Journal of Economics and Financial Management (IJEFM), 11(2), 49-59.

Odumegwu, M., Okoye, J. N., & Ezeneme, E. V. (2024). Security challenges and foreign direct investment in Nigeria: Implications for economic growth (2010–2024). *Milestone: Journal of Strategic Management*. 5(1), https://doi.org/10.19166/ms.v5i1.8985.

Ogbonna, U. E., Enyi, E. O., & Chioma, I. (2026). Impact of Foreign Direct Investment on the Manufacturing Sector Growth in Nigeria (1986-2025). *International Journal of Sub-Saharan African Research*, *4*(1), 730-739.

Okafor, H. O. (2012). Do domestic macroeconomic variables matter for foreign direct investment inflow in Nigeria. *Research journal of finance and accounting*, *3*(9), 55-67.

Okpala O. V. & Ifeyinwa, O. L. (2026). Effect of foreign direct investment on economic growth in Nigeria. *International Journal of Innovative Development and Policy Studies* 14(1):85-96.

Olugbenga, A. F, (2026). Foreign direct investment and economic growth in Nigeria: An empirical analysis of long-run dynamics and policy implications. *International Journal of Research and Innovation in Social Science (IJRISS)*10(3), 8536-8559.

Onyemaechi, B. A., & Clever, K. S. (2026). Budget Implementation and Economic Growth: Imperative for Economic Growth in Nigeria. *East African Finance Journal*, 5(2), 15-32.

Organisation for Economic Co-operation and Development (OECD). (2021). *Official development assistance (ODA)*. https://www.oecd.org

Osuma, G., Ayinde, A., Ntokozo, N., & Ehikioya, B. (2024). Evaluating the impact of systemic corruption and political risk on foreign direct investment inflows in Nigeria. *Discover Sustainability*, 5(1), 432. https://doi.org/10.1007/s43621-024-00676-7.

Reuters. (2025). *Nigeria's economic growth driven by services and non-oil sector*. https://www.reuters.com

Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98(5), S71–S102. https://doi.org/10.1086/261725

Todaro, M. P., & Smith S. C. (2020). Economic development,. Upper Saddle River, New

Jersey: Pearson Education, Inc.

Udoinyang, U. M., Ogwuche, D. D., & Ologunla, S. E. (2024). Impact of sectoral foreign direct investment on economic growth in Nigeria (2010Q1–2023Q4). *Advance Journal of Economics and Marketing Research*. *10*(9), 67–89. https://doi.org/10.5281/zenodo.17177546.

Udoinyang, U. M., Ogwuche, D. D., & Ologunla, S. E. (2024). Impact of sectoral foreign direct investment on economic growth in Nigeria (2010Q1–2023Q4). *Advance Journal of Economics and Marketing Research*. *10*(9), 67–89. https://doi.org/10.5281/zenodo.17177546.

United Nations Conference on Trade and Development (UNCTAD). (2023). *World investment report 2023: Investing in sustainable energy for all*. Geneva: UNCTAD. https://unctad.org/publication/world-investment-report-2023

United Nations Conference on Trade and Development (UNCTAD). (2023). *World investment report 2023*. https://unctad.org/publication/world-investment-report-2023

United Nations Trade, & Development (UNCTAD). (2025). *World Investment Report 2025: International Investment in the Digital Economy*. Stylus Publishing, LLC.

World Bank. (2022). *World development indicators*. https://databank.worldbank.org/source/world-development-indicators

World Bank. (2022). *World development indicators*. Washington, DC: World Bank. Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115–135. https://doi.org/10.1016/S0022-1996(97)00033-0.

World Bank. (2022). *World development indicators*. Washington, DC: World Bank. https://databank.worldbank.org/source/world-development-indicators

World Bank. (2023). *Migration and development brief*. https://www.worldbank.org

World Bank. (2025). *Nigeria development update: Building momentum for inclusive growth*. https://www.worldbank.org