



Re-examining the relationship between Foreign Direct Investment and Economic Growth in Nigeria

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Abstract

This study examined the impact of foreign direct investment on Nigeria economic growth at large using time series data from World Bank Development Indicators. The research employed Auto Distributed Lag Model (ARDL) to investigate the impact of FDI on Nigeria economic growth both in the short-run and long-run. It was revealed that foreign direct investment has positive significant impact on Nigeria economic growth within the period under review.

The research therefore concludes, that foreign direct investment has significant impact on Nigeria economic growth corroborating the earlier findings in theoretical and empirical literatures. The research therefore, recommends among others that Nigeria government and other West-African countries should invest more in infrastructural development and on R&D to increase the country domestic firm absorptive capacity and inflow of FDI in the country.

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1. Introduction

Foreign direct investment has been regarded as a major tool and source of sustainable economic growth and development in developed, emerging, and developing economies through direct effect on the GDP and indirect spillover effect on the domestic firms (Hussain and Rahman, 2022; ONCTAD, 2007). Classical and neo-classical economics theory projected convergence between poor developing countries and the developed countries in the long-run largely due to transfer of technology and capital from the developed countries to the developing countries (Ozekhome, 2017).

One of the way capital and technology are transferred from developed countries to developing countries is through foreign direct investment (Ozekhome, 2017). This is based on Mundel (1957) assertion that trade enhance capital flow from countries with low returns on

capital to countries with high returns. This implies that capital tends to move from a saturated market where there is high competition to underdeveloped market with low competition. However, Hymer (1960) argued that Multinational Corporations (MNCs) invest in foreign country not because of high return on capital but rather because of the MNCs proprietary ownership like managerial skills, better access to capital, better technology among others that can aid the MNCs take advantage of the information asymmetric in the foreign market (Abate, 2022; Onyekwena, 2012; Denisa, 2010). Vernon (1966) explaining why capital moves from home country to another foreign country argued that MNCs makes direct investment in a foreign enterprise to protect their market in those foreign countries that the local industries might have copied. It was Dunning (1976) that gave a better explanation and reconciled the

difference in earlier theories trying to explain the determinant of FDI inflow. He argued that MNCs will engage in direct investment when these three advantages are available; ownership, location and internationalization advantages. The ownership advantages explain the earlier advantages pointed out by Hymer (1960), where the location advantages are country specific economic and political factors that can promote or hinders trades.

The unique advantages possessed by the MNCs particularly technology and managerial expertise cannot always be internalized by the MNCs and as such spills to the domestic firm, thereby improving their technological and managerial abilities giving them leverage to compete better with the MNCs and largely improves the welfare of the masses as well as the economic growth of the host countries (Gachino, 2007; Moheddine, Marwa and Hasna, 2021). Of course, spillover effect from the MNCs to the domestic firm's occurrence depends on many factors including but not limited to the technological gap between the domestic firms and the MNCs (the lesser the better), the absorptive capacity of the domestic firms (the more the better), the country infrastructural development (the more the better) among other factors that must be considered by nations before seeking inflows of FDI (Moheddine, Marwa and Hasna, 2021).

The potential role of FDI in accelerating economic growth and economic transformation through positive spillover on the domestic firms, increasing the country capital formation, export over time among others has propelled many countries (developing and developed) to develop strategies to increase FDI inflow in the country (Issac &

Mathew, 2012; Okoli & Agu, 2015). Issac and Mathew (2012) revealed that in the mid 1900's when most developed countries are adopting policies to open up their economy in the quest to attract FDI, some developing countries particularly Sub-Saharan Africa countries are rather adopting policies of restricting trade openness which hinders FDI inflow in those countries. However, when most of the developing countries realised the importance of FDI to economic growth most started opening up their economy by adopting trade liberalization policies. For instance, Nigeria enacted some law that is aimed at accelerating FDI inflow in the country, such as the 'Nigerian Investment Promotion Commission (NIPC) Act 16 and the Foreign Exchange (Monitoring and Miscellaneous Provision) Act 17', and both Act were enacted in 1995. The Act legalized NIPC as the coordinator of foreign investment in Nigeria. Thus, the institution coordinate, promote, encourage foreign investment in the country as well as enhance capacity utilization in the productivity sector of the economy (NIPC, 2017; Tonuchi & Andrew, 2019).

The Q2 2022 data on FDI revealed that United States is the leading FDI recipient worldwide, followed by China and Brazil, similarly, United States is also the major investor worldwide, followed by the Netherlands and Australia (OECD, 2022). The data further revealed that more than 70 percent of FDI flows to developed countries while emerging countries like China, India, and some east Asian countries receive almost 24 percent of the remaining FDI. Only about 4 percent of the Global FDI flows to Africa with South Africa being the leading recipient of FDI since 2019 in Africa.

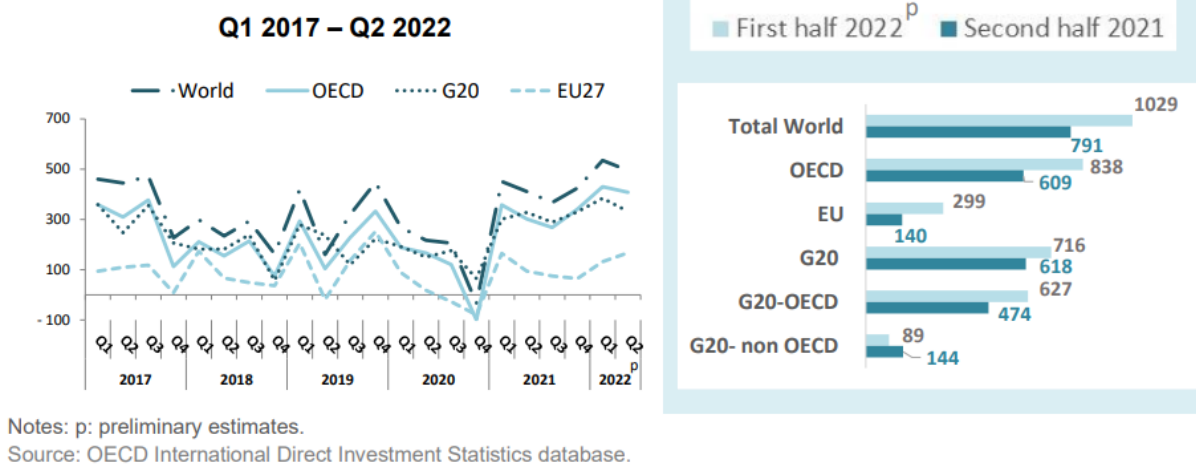


Figure 1: FDI inflow across the global since Q1 2017 to Q2 2022

For instance, UNCTAD (2022) revealed that entire Africa continent except South – Africa received a total FDI inflow worth US\$ 8.2 billion in 2000, which is equivalent to the total FDI inflow into Finland in the same year. Recent data on FDI revealed that Africa as whole received only about 3.1% of global FDI in 2019, 3% in 2020, and 4.2% in 2021 despite the continent population. Within Africa, Nigeria which is supposedly the giant of Africa has been performing poorly in terms of FDI inflow

into the country. Data revealed that of \$39 billion FDI received in Africa in 2020, Nigeria account for only 6.1% while country like South Africa and Egypt account for more than 16% and 13% respectively (UNCTAD, 2022).

The question that readily comes to the mind is whether, the inflow of FDI in Africa has positive spillover effect on the domestic firms and the economic growth at large or not. Or has FDI through capital flight, crowding out effect

through adverse competition from the Multinational corporations (MNCs) with the local industries discourages local investment thereby hindering employment generation, aggregate demand, and subsequently poor economic growth? To this end, the present study will discuss FDI and how FDI could spur economic growth. In the next section, the article will provide detail discussion of what FDI is all about, theories that provide insight on what drives FDI into a country and what empirical evidence to support the relationship between FDI and economic growth.

2. Literature Review

2.1 Overview of Foreign Direct Investment

There is a common misconception about the meaning of FDI among few scholars that see FDI to mean all investments that emanate from foreign countries. In other words, FDI is seen as cross border investment. However, FDI is much narrower than the above definition, as the definition includes both FDI and portfolio investment. FDI was defined by UNCTAD (2007) as “an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate)”. [OECD \(2018\)](#) further include in the definition that the direct investor must own up to 10% of the equity or voting power in the investment for it to be regarded as direct investment.

There are key words that must be noted in the above definition. The first phrase is “investment involving a long-term relationship and reflecting a lasting interest and control”, this implies that the direct investor must possess long term relationship with the direct investment enterprise as well as significant influence in the management of the enterprise ([Banco, 2013](#)). This is further demonstrated by the 10% equity power of the direct investor on the direct enterprise. The second phrase is “by a resident entity in one economy”, meaning that the direct investor must be an enterprise whose headquarter is located in a foreign country. The third phrase, “enterprise resident in an economy other than that of the foreign direct investor”, this implies that for investment to be qualified as direct investment, the enterprise must be located in a country different from the country of the direct investor.

According to [Banco \(2013\)](#) citing IMF report), the 10% equity share by the direct investor on the direct investment is necessary to distinguish between direct investment and portfolio investment. Thus, if a foreign investor increases his shareholding in an enterprise located in a country other than his, it should be recorded as direct investment instead of portfolio investment. Thus, a direct investor (parent enterprise, government, individual whose country is different from the direct investment enterprise country) could own up to 100%, 50% till 10% equity share in the direct investment

enterprise ([OECD, 2018](#); [UNCTAD, 2022](#); [Abate and Papavassiliou, 2022](#); [Abdul and Barnabas, 2012](#); [Adamu and Hajara, 2015](#)).

2.2 Theoretical Literature

2.2.1 Industrialization or Classical theory of FDI

Arguably, the origin of FDI theories can be traced to work of [Mundel \(1957\)](#), when he argued that, restriction on trade enhance capital flow from countries with low returns on capital to countries with high returns on capital ([Ziyoda et al, 2021](#)). It was the same thing that propelled Solow (1956) to state that countries will converge in the long-run since capital tends to move from countries with low return to countries with high returns, the capital movement are regarded as “direct investment”. However, a better argument on direct investment was put forward by [Hymer \(1960\)](#) when he argued that capital movement are not primarily determined by its returns but by the desire of the MNCs to make investment and take advantage of the imperfect market, its available advantages ([Adamu and Hajara, 2015](#)).

[Hymer \(1960\)](#) in his doctoral degree, was the first to give a comprehensive explanation of motivation behind direct investment ([Adamu and Hajara, 2015](#)). Hymer (1960) noted that the MNCs are oligopolistic and possess some unique advantages including managerial skill, product differentiation, proprietary technology, better access to capital that can be used to take advantage of the information deficiencies with respect do local industries competitors ([Sun et al., 2002](#)). [Kindelberger \(1969\)](#) cited in [Adamu and Hajara, 2015](#)) elaborating Hymer assertions argued that the MNCs unique advantages over the local industry rivals aid the MNCs to offset the disadvantages of operating in foreign country. [Vernon \(1966\)](#) attempts to provide a different determinant of direct investment by direct investor especially the US companies after the Second World War ([Denisia, 2010](#)). He believes that there are four stages of production cycle: “innovation, growth, maturity and decline”. He argued that at first stage, the MNCs creates new product for the local market and export the surplus. At the innovative stage of the product the MNCs has technological advantage in the international market. But as the product develops the technology is copied by the international competitors where the product is exported. As such, the MNCs is forced to establish subsidiary in the local markets where the products are exported to maintain its market share, this led to direct investment ([Vernom, 1966](#); [Denisia, 2010](#)).

2.3.2 Internationalization Theory of FDI (OLI)

A major breakthrough on the theory of FDI was the work of Professor [Dunning \(1976\)](#). It was [Dunning \(1976\)](#) that was first to provide a comprehensive framework and harmonize the various theories that had attempted to define the reason stimulating direct investment ([Denisia, 2010](#)). The theory often referred as **eclectic theory of FDI** is a mix of three different theories of FDI (O.L.I, for ownership, location and internationalization

advantages). Accordingly, MNCs will only engage in direct investment if these three advantages are in place (Nayyar, 2014).

Ownership Advantages

Ownership advantages include all intangible assets owned by the MNCs in relative to its competitors that can be readily transferred across transnational companies (TNCs) at low costs. Thus, FDI will take place when the merit of implementing the advantages are higher than the opportunity cost (Nayyar, 2014). Denisia (2010) noted that the ownership advantage could be in the form of monopolistic advantage through ownership of certain exclusive resources, patents right, trademarks etc. Hymer (1960), technology advantage in the form of innovative ability and economics of large scale like greater access to large financial resources.

Location Advantage

The location advantage determines the choice of where to locate direct investment enterprise. It complements the ownership advantage (Dunning, 2001). The location advantage can be grouped into three categories; the **economic factors** including exchange rate, market size, inflation rate, cost of transportation, nearness to parent company. The second category are the **political factors** including government policies on trade and thirdly social factors like cultural diversity, attitude towards strangers among others (Nayyar, 2014).

Internationalisation Advantage

Once the first two conditions are met, the next is the internalization advantage. According to Denisia (2010), the 'I' advantage offers "a framework for assessing different ways in which the company will exploit its powers from the sale of goods and services to various agreements that might be signed between the companies". He argued that the 'I' factor is high if the MNCs will prefer to engage in direct production in the foreign countries rather than offering licenses and franchise. The analysis above revealed that OLI factors differs across organisations and the host countries.

2.2.3 FDI and Economic growth -Spillover Effect theories

According to Holger & David (2013), when a company establishes subsidiary in foreign country, it is expected that the company will realise a higher return than a domestic firm with an equivalent investment. The technological advantage as discussed earlier is the source of this higher returns. Gachino (2007) argued that the indigenous firm can only gain from external benefits through indirect transfer of technology from the MNCs as the MNCs cannot in any way willingly share some of its technology to the local firms. The spillover from the MNCs to the local firms can happen in two form; inter and intra-industry spillover effects. The **inter-industry spillover** occurred "when the local suppliers have to meet the demand from the foreign firm in the form of higher quality, price and delivery standards". The

MNCs increased demand for local intermediate goods can also create spillover effect in the local industry.

Similarly, **intra industry or horizontal spillover** result from the presence of the MNCs in a particular sector and the influence wields on the local competing industry in the host country. Gachino (2007), argued that the spillover from the MNCs to the local industries do not occur immediately, as it required time for the intangible asset to materialize; the speed depends on the channels. Theoretical literature has identified four major channels through which spillover from the MNCs to the local industry can take place. These four channels will be examined below.

1. Imitation/ Demonstration

This is the most common form of technological spillover, when the local industries watch, observe, copy, and imitate the technology, managerial, organisation structure of the MNCs. Wang and Blomström (1992) noted that "the speed at which the local industries imitate the MNCs depends largely on the product and processes involved, as more complex product process takes more time and effort to imitate". On their own, Glass and Saggi (1992) argued that the quality of technology transferred through imitation depends technology gap existing between the MNCs and domestic firms. They argued further that the spillover also depends on the incentives in the host country to imitate the MNCs (Nayyar, 2014).

2. Worker's Mobility/ Human Capital Development

Some countries' labour policy requires employment of certain percentage of working force in the direct investment enterprise from the host country's labour force. Since, the MNCs require the best from its workforce, it embark on training the workers. Thus, spillover can occur when the workers in the MNCs decide to move to local industries or to establish a new industry. Literature has it that MNCs train their workers more than the domestic firm resulting to higher skills and capabilities (Driffield, 2006). Driffield (2006) argued that spillover from human capital development plays crucial role not only in the "dissemination of technological knowledge from MNCs to the domestic companies, but also in the dissemination of best practices and other organisational innovations which are more difficult to disseminate in other ways".

3. Competition

The role of competition in spillover effect from MNCs to Local industries are widely acknowledged in literature (Glass and Saggi, 2002). The entry of the MNCs usually disrupt the existing market equilibrium in the host market, thereby the existing local industries scramble for mediums to protect their existing market share. The competition can have both positive and negative effect on the local industries. Driffield (2006) noted that the coming of the MNCs will put pressure on the local

industries to adopt new technology or use the existing technology more efficiently, increasing productivity gains.

However, there are some its negative consequences, increased competition from the MNCs could possibly “crowd out” the domestic firms, especially when the host market is populated by domestic inefficient competitors. Those firms will quit the market due to adverse competition from the MNCs, because their unit cost has risen are usually the inefficient local firms in the industry (Nayyar, 2014).

4. Exports/Linkages

Several literatures argued that spillover also occur through the local industries learning from the MNCs to export their products (Driffield, 2006). The quest to export, will increase domestic firm awareness of best practices in product quality, learn more about customers’ taste, regulatory arrangement in oversee markets among others. Also, spillovers occur through backward and forward linkages from the MNCs to the domestic firms. A backward linkage occurs when the domestic firms supplies the MNCs companies with raw materials and intermediate goods. Linkages both backward and forward could yield positive or negative result on the domestic firm. Forward linkages occur when MNCs generate spillover to domestic customers in the downstream sector.

2.3 Empirical Literature

Several literatures have investigated the role of FDI on the economic growth and development across the globe. As expected, empirical evidence differs on whether FDI have positive impact on the economic growth of the host countries. With the use of panel data for 84 countries, Li and Liu (2005) used both single equation and simultaneous equation system techniques to investigate FDI on economic growth. The result shows that FDI has a positive effect on economic growth through its interaction with human capital in developing countries which can be likening to employee mobility from MNCs to domestic firms.

For instance, Ozekhome (2017) investigated the role of foreign direct investment on the economic growth of selected ECOWAS countries over a period of 2000 to 2015 using General Method of Moment (GMM) estimation technique. Their findings revealed among others that trade openness; foreign direct investment, real gross domestic capital formation and human capital have significant impact on economic growth over the sampled period. Similarly, it was revealed that foreign aid and inflation has negative impact on economic growth. The study concludes that trade openness, investment-enhancing policies, sound and stable macroeconomic policies, institutional structures, as well as policy coordination can improve ECOWAS countries attraction of foreign aids. The study failed to shed light on why foreign aids have failed to improve the economic development of ECOWAS countries. For instance,

Hussain and Rahman (2022) argued that most foreign aids failed to achieve its developmental purpose because funds utilization by the recipients are not often monitored by the international donors.

Abate (2022) who asked the question whether foreign aids and foreign direct investment is a blessing or curse to developing countries. The study provided possible explanation as to the negative relationship found between foreign aids and economic growth by Ozekhome (2017) using a threshold regression. The author investigated the relationship between foreign aids and economic development in 48 developing countries for the period of 2006 to 2019. It was revealed among others that the relationship between foreign aids and development is not linear as suggested by several literature but are u-shaped. The study reached a conclusion that aid stimulates economic growth when the sampled developing countries attain a minimum institutional quality threshold of -0.320. It also found that the overall economic freedom index of 53.481 should be attained to avoid undesirable effect of aid on economic growth. Therefore, donors should advance sufficient amount of aid to developing countries if they are really committed to support their economy.

Adamu, Zasha, and Umar (2022) examined the effect of FDI on the economic growth of Nigeria between the period of 1999 to 2021 through an explorative approach of literature review. The study reached a conclusion that the impact of foreign aids on economic development of Nigeria is yet established either empirically or contextually. The study argued that while some literature reviewed found positive relationship between the two - concept other found negative relationship between both. The study further argued that exploratory evidence revealed that more studies have a no impact or negative impact of foreign aids on the development of Nigeria economy. The study failed to establish a methodological approach of arriving at the conclusion, no evidence on number of article reviewed or the number of articles that found positive relationship as against those that found negative relationships.

Moheddine, Marwa, and Hasna (2021) examined the effects of foreign direct investment and domestic investment on economic growth in African countries using data between the period of 1990 to 2016. Specifically, both panel fixed effect estimation and system GMM was used to examine the relationship between foreign aids, FDI and economic growth in Africa. The findings revealed among others that foreign aids, FDI and economic growth does not have linear relationship as often estimated in literature.

Most specific studies on the impact of FDI and economic growth have found a positive significant impact of FDI on Nigeria economic growth. For instance, Umoh et al (2012) examined the relationship between foreign direct investment and Nigeria economic growth in Nigeria. Their findings revealed that FDI has positive relationship with economic growth in Nigeria. Their findings were upheld by Adeleke & Olowe (2014) that investigated the

impact of foreign direct investment on Nigeria economic growth. They also found a positive relationship between economic growth and FDI inflow in Nigeria. They argued that, the extent FDI inflow can impact on the economy depends on the infrastructural system put in place by the government.

3. Methodology

3.1 Model specification

Following the work of [Remirez \(2000\)](#) and using an augmented Cobb-Douglas production function as shown below.

$$Y = A f(L, K, E) = AL^\alpha K^\beta E^{(1-\alpha-\beta)} \quad \text{.....1}$$

Where; Y equals real domestic output, A' equals production efficiency parameter, L, labour force, K, capital stock, and E equals FDI inflow. The model recognises that the sum of α and β is less than unity and FDI is an integral factor of the production of national output.

The study therefore modified the model employed by the authors considering their findings and the peculiarity of the present study. The theoretical model for this study is therefore specified as; $RGDP = f(FDI, GCF, EXP, EXR)$ 2

Where; GCF represent gross capital formation, EXP represent export and EXR represent exchange rate. Exchange rate is included in the model as control variables as it serve as one of the prominent economic factors considered by the MNCs when deciding the country to invest their resources.

The study employed Auto Distributed Lag (ARDL) Model to investigate both the short and longrun relationship between FDI and Nigeria economic growth. [Woodbridge \(2013\)](#) noted that, an ARDL model is a dynamic model in which the effect of a regressor on the regressant occurs over time rather than once. The general case for one explanatory variable and a linear relationship is as given below:

4. DATA PRESENTATION AND ANALYSIS

To determine the behaviour of the series, the data were subjected to a unit root test. The unit root test of the data using the standard Augmented Dickey Fuller (ADF) test is presented in table 1.

Table 1: Unit root test result

Variables	Level		1 st difference		ORDER OF INTEGRATION	REMARKS
	ADF VALUE	5% CV	ADF VALUE	5% CV		
D(LRGDP)	-0.646723	-3.510740	-6.065659	-3.513075	I(1)	Stationary
D(LFDI)	-2.262474	-3.513075	-12.15978	-3.513075	I(1)	Stationary
D(LEXP)	-3.892376	-3.533083	-	-	I(0)	Stationary
D(LGCF)	-0.422889	-3.510740	-5.060861	-3.513075	I(1)	Stationary
D(EXR)	-0.516541	-3.510740	-4.618531	-3.513075	I(1)	Stationary

Source: Researcher's Computation

Table 1 revealed that only export was stationary at level while the other series were stationary after first

$$y_t = \alpha + \beta(L)x_t + \mu_t = \alpha + \sum_{s=0}^{\infty} \beta_s x_{t-s} + \mu_t$$

The major advantage of ARDL modelling lies in its flexibility with small sample study and it can be useful when the variables are of different order of integration.

The ARDL bound test model used in this study is expressed as follows:

$$\begin{aligned} \Delta \ln RGDP_t &= \alpha_0 + \sum_{i=1}^n \beta_1 \Delta \ln FDI_{t-i} + \sum_{i=1}^n \beta_2 \Delta \ln GCF_{t-i} \\ &+ \sum_{i=1}^n \beta_3 \Delta \ln EXR_{t-i} + \sum_{i=1}^n \beta_4 \Delta \ln EXP_{t-i} + \varphi_1 \ln FDI_{t-1} \\ &+ \varphi_2 \ln GCF_{t-1} + \varphi_3 \ln EXR_{t-1} + \varphi_4 \ln EXP_{t-1} \\ &+ \varepsilon_t \quad \text{.....3} \end{aligned}$$

$\ln$ represents natural logarithm, Δ is the first difference operator, and α_0 is the drift component. The expression with summation sign ($\beta_1 - \beta_4$) represents the short-run dynamics of the model, while the coefficients ($\varphi_1 - \varphi_4$) represents long-run relationship and ε_t is the serially uncorrelated disturbance with zero mean and constant variance. The null and alternative hypothesis of the bond testing is represented below;

$H_0: \varphi_1 = \varphi_2 = \varphi_3 = \varphi_4 = 0$

$H_1: \varphi_1 \neq \varphi_2 \neq \varphi_3 \neq \varphi_4 \neq 0$

3.2 Data and Sources

Data for this research work were sourced from World Bank development indicators data bank. The data used for the research span from 1975 to 2021. The choice of the scope is to cover the period when Nigeria first discovered crude oil in large quantity till the present. It should be noted that more than 90 percent of the country FDI inflows is domiciled in oil and gas sector.

orders, the research therefore, tested the short-run and long-run relationship between FDI inflows and Nigeria economic growth using ARDL bounds test

Co-integration Test

The validity of the regression for the underlying ARDL equation was tested against serial correlation (Breusch-Godfrey test) and stability of the model using cumulative sum of recursive residuals (CUSUM) so as to assess the parameter stability (Pesaran and Pesaran, 1997).
Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.87	Prob. F(2,27)	0.1734
Obs*R-squared	5.23	Prob. Chi-Square(2)	0.0730

The Observed- R^2 is 5.234576, and as revealed above, while its P-value is 0.0730. The P-value is greater than the chosen level of significance [0.05], therefore, we cannot reject the null hypothesis. Also, a look at P-value (0.1734) of the F-statistics is also greater than 5% level of significance. This implies that our model is free from serial correlation. The model is tested to check if it is stable or not using CUSUM stability test:
The blue line is within the two red lines. This implies that the model is stable. The stability of the model using to ascertain the long-run relationship of the model is necessary, since a stable model tends to produce more consistent and efficient result over time.

THE WALD TEST

To ascertain the long-run relationship between FDI and Nigeria RGDP, the researcher conducted Wald test as presented below.

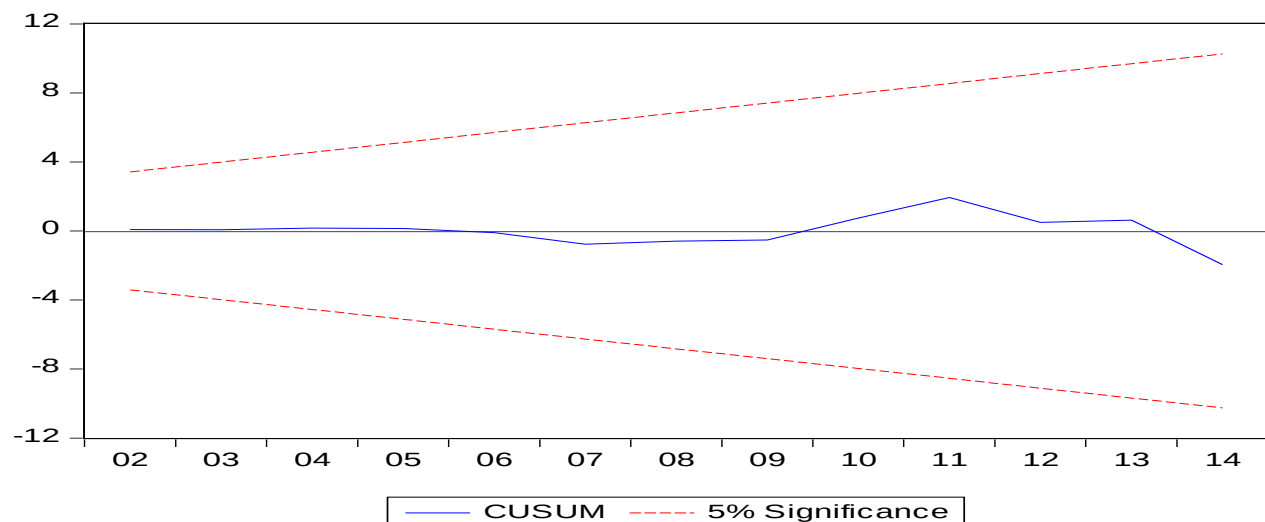


Table 2: Wald test

Test Statistic	Value	df	Probability
F-statistic	6.113087	(5, 27)	0.0007
Chi-square	30.56544	5	0.0000

Wald Test Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89

The F-statistic value is 6.11. Comparing the F-statistic value with the two sets of critical values for a given significance level can be determined (Pesaran et al., 2001). The first level is calculated on the basis that RGDP included in the ARDL model is integrated of order zero, while the second, third, fourth and fifth variables are

calculated on the basis that the variables are integrated of order one. From these results, it is clear that there is a long run relationship amongst the variables when *RGDP* is the dependent variable because its F-statistic (6.11) is higher than the upper-bound critical value (4.35) at the 5% level.

Table 3: Longrun Relationship Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Remarks
C	7.639920	2.421955	3.154444	0.0030	Significant
LRGDP(-1)	0.636879	0.117347	5.427320	0.0000	Significant
LFDI(-1)	0.061085	0.022447	2.721299	0.0047	Significant
LGCF(-1)	0.035864	0.024232	1.480014	0.1467	Non-Significant
LEXP(-1)	0.002712	0.012457	0.217719	0.8288	Non-Significant
EXR(-1)	0.001672	0.000429	3.898039	0.0004	Significant

$R^2 = 0.986946$, F-statistics = 604, F-statistics (P-value = 0.00000)

Adjusted- $R^2 = 0.985314$

The long-run relationship test of the model as presented in table 4.4 above revealed that the model satisfies a goodness of fit with high adjusted- R^2 , which revealed that 98% of the variation in Nigeria economic growth is accounted by FDI, GCF, EXR in the longrun while only about 2% is accounted by other variables not included in the model. The model equally revealed that, all the variables have positive relationship with Nigeria economic growth in the longrun. Although, the findings revealed that while FDI and exchange rate coefficient have significant influence on Nigeria economic growth, but the other controlled variables (GCF & EXP) do not have significant influence on RGDP judging by their P-value which is much greater than the 5% level of significance (0.1467, 0.8288 > 0.05).

The positive relationship in the long-run implies that both variables moves together in the longrun. And a one per cent increase in FDI will increase the economic growth by 6.1 per cent in the long-run. Increase in the inflow will propel increase capital accumulation, technology spillover, rise in domestic investment and ultimately to economic growth. The findings of this research collaborate with the findings of earlier researchers that find positive significant impact of FDI on Nigeria

economic growth. For instance, Abdul and Barnabas (2015) using ARDL approach finds a positive impact of FDI on the manufacturing firms and Nigeria economic growth at large in the long-run and short-run.

5. Conclusion and Policy Implication

The study examined the impact of foreign direct investment on economic growth in Nigeria. It was revealed that FDI has significant positive effect on the economic growth of Nigeria both in the short run and long-run, upholding the earlier findings of other researchers (Salim et al, 2015; Anshul, 2013). The implication is that increase in the inflow of FDI into Nigeria, all other factors remaining constant will propel the rise in the country economic performance through capital accumulation and spillover effect on the domestic firms raising their output and profitability.

The policy implication is that there is need to build the infrastructure base of the country to reduce the operating cost of the MNCs investing in the country. There is need to improve on energy technology to ensure sustainable development of the energy sector. Improved energy development will reduce the power supply in the country that is currently in the epileptic state. An improved energy sector will attract more investor in the country, since it will reduce their operating cost.

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