



FOREIGN DIRECT INVESTMENT AND NIGERIA'S ECONOMIC GROWTH

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Abstract

This study investigated the impact of foreign direct investment (FDI) on economic growth in Nigeria from 1981 to 2023. The reason for this study was based on the generally perceived opinion that FDI contributes to economic growth of any nation if properly utilised. Above all, there has been conflicting views about the impact of FDI on economic growth particularly for developing countries like Nigeria. Two null hypotheses were tested in the study after a review of relevant literature. The ordinary least square (OLS) method was employed to analyse the data for this study. This study found that FDI had positive and significant impact on the economic growth of Nigeria within the study period. Also, the trend analysis revealed that for some years the FDI into Nigeria was not always progressive. The study recommended that efforts should be made to have a conducive atmosphere for attracting foreign investors through an increase in security and the protection of property rights as well as the rule of law.

Keywords: Export, foreign direct investment, gross domestic product, ECM

JEL Code: F21, F24

1. Introduction

The roles that foreign direct investment (FDI) in-flows play in capital-deficient countries cannot be overemphasised. These flows constitute important sources of external finance to such countries and are therefore, regarded as being critical to their sustainable growth and development. There has been increasing opinions among many policy makers and academics that FDI can have robust positive effects on economic growth and development. In other words, FDI can be a source of valuable technology and know-

how and enhances linkages with local firms, which can help to boost growth in an economy. Foreign development investors are mostly invited by transition and developing countries in a hope that through this international activity, the positive experience from developed countries will come to their domestic economies (Silvio & Ariel, 2009). Thus, as FDI inflow increases in an economy, export volume of that economy is expected to increase too.

For a developing country like Nigeria, FDI is considered as a way of transferring

technology and huge capital from other developed and even developing countries to the domestic economy. According to Yu, Ning, Tu, Younghong and Tan (2011), FDI is considered to be one of the major channels of technological transfer. Kubatko and Pysarenko (2022) believe that when foreign direct investment comes to a domestic country (in specific business), that firm receives a competitive advantage due to the usage of new knowledge, experience, ways of production and management.

Muntah, Khan, Haider and Ahmad (2015) opined that foreign direct investment contributes significantly in the human resource development, capital formation and organization and managerial skills of the people in an economy. It is believed that the level and quality of foreign investment influences the financial sectors' contribution to growth in emerging markets. The advantage for investors is that investing in developing countries may bring higher gain and profits, stimulate industry competition, which is often useful for domestic firms, high-quality outputs, driving up production standards in other competitive domestic firms amongst others. The presence of foreign firms in the economy with their superior endowments of technology and management skills will expose local firms to fierce competition. Local firms may also be under pressure to improve their performance and to

invest in research and development (R&D). Thus, FDI enhances the marginal productivity of the capital stock in the host economies and thereby promotes growth.

One of the most salient features of today's globalization drive is conscious encouragement of cross-border investments, especially by Transnational Corporations and Firms (TNCs). Many countries and continents (especially developing) now see attracting FDI as an important element in their strategy for economic growth (Obasanmi, 2018). This is most probably because FDI is seen as an amalgamation of capital, technology, marketing and management. Sub-Saharan Africa as a region now has to depend very much on FDI for so many reasons (Morriset, 2000; Asiedu, 2011). The preference for FDI stems from its acknowledged advantages (Obwona, 2004). The effort by several African countries to improve their business climate stems from the desire to attract FDI. In fact, one of the pillars on which the New Partnership for Africa's Development (NEPAD) was adopted in 2001 by African leaders and ratified by the African Union (AU) in 2002, was to increase available capital to US\$64 billion through a combination of reforms, resource mobilization and a conducive environment for FDI (Funke & Nsouli, 2003). Unfortunately, the efforts of most countries in Africa to attract FDI have not been too impressive. This

is in spite of the perceived and obvious need for FDI in the continent. The development is disturbing, sending very little hope of economic development and growth for these countries. Further, the pattern of the FDI that does exist is often skewed towards extractive industries, meaning that the differential rate of FDI inflow into sub-Saharan African countries has been adduced to be due to natural resources, although the size of the local market may also be a consideration (Morisset, 2000; Asiedu, 2011). Be that as it may, the level of FDI attracted by Nigeria is mediocre (Asiedu, 2011) compared with the resource base and potential need. Further, the empirical linkage between FDI and economic growth in Nigeria is yet unclear, despite numerous studies that have examined the influence of FDI on Nigeria's economic growth with varying outcomes (Adelegan, 2000). Most of the previous influential studies on FDI and growth in sub-Saharan Africa are multi country studies. However, recent evidence affirms that the relationship between FDI and growth may be country and period specific. Considering these specifics, the paper investigates the impact of FDI on the growth of Nigerian economy from 1981-2023.

The findings and recommendations will enable policy makers, and those piloting the foreign economic base of the nation to form relevant structural policy frameworks that

will enable the country improve on its economic development via foreign direct investment. The study will also add to other studies on the subject matter and also fill any gap that may exist in previous studies.

2. Literature Review

Economic growth is the increase in the goods and services produced by an economy, typically a nation, over a long period of time. It is measured as percentage increase in real gross domestic product (GDP) which is gross domestic product (GDP) adjusted for inflation. GDP is the market value of all final goods and services produced in an economy (Ashaka, 2023). Economic growth is obtained by an efficient use of the available resources and by increasing the capacity of production of a country. It facilitates the redistribution of incomes between population and society. It is easier to redistribute the income in a dynamic, growing society, than in a static one. According to Leszek Balcerowicz, (in Haller 2012) economic growth is a process of quantitative, qualitative and structural changes, with a positive impact on the economy and on the population's standard of life, whose tendency follows a continuously ascendant trajectory.

Foreign direct investment (FDI) is a direct investment into production or business in a country by an individual or company of another country, either by buying a company in the target country or by expanding

operations of an existing business in that country (Khun, 2018). FDI is in contrast to portfolio investment which is a passive investment in the securities of another country such as stocks and bonds. World Bank (2016) conceptualized Foreign Direct Investment (FDI) as investment that is made to acquire a lasting management interest (usually 10% of voting stock) in an enterprise and operating in a country other than that of the investors (define according to residency). The investors' purpose being an effective voice in the management of earning either long term capital or short-term capital as shown in the nations balance of payments account statement (Macaulay, 2022). Broadly, FDI includes mergers and acquisitions, building new facilities, reinvesting profits earned from overseas operations and intra company loans. In a narrow sense, foreign direct investment refers just to building new facilities. Todaro, (1977) believed that FDI encourages the inflow of technology and skills and fills the gap between domestically available supplies of savings, foreign exchange and government revenue. It also encourages the inflow of technology and skills.

The Investment Code that created the Nigerian Investment Promotion Commission (NIPC) (Decree No. 16 of 1995) and the Foreign Exchange (Monitoring and Miscellaneous Provision) Decree, also enacted in 1995, gave full backing for FDI in

Nigeria. Nigeria has a high potential to attract significant foreign private investment inflow. Most countries strive to attract FDI because of its acknowledged advantages as a tool of economic development. Africa and Nigeria in particular, joined the rest of the world in seeking FDI as evidenced by the formation of the New Partnership for Africa's Development (NEPAD), which has the attraction of foreign investment to Africa as a major component.

From the perspective of the multinational company, or the investor (Akpoviro & Vareckovo, 2023), there are two major types of FDI: horizontal FDI and vertical FDI. Horizontal FDI is undertaken when the company wants to expand horizontally to produce the same or comparable goods in the host country as in the home country. Product differentiation is a central aspect for horizontal FDI to be successful. There are two main motives for a company to engage in horizontal FDI. The first one is that it is more profitable for the multinational company to be at the foreign location, and the second motive is that the company can save a lot on low-cost inputs, such as labour. In addition, horizontal FDI is often undertaken to make substantial use of monopolistic or oligopolistic advantages, especially if there are fewer restrictions in the host country. Vertical FDI on the other hand, is undertaken when a company seeks to exploit raw materials, or

wants to be closer to the consumer by acquiring distribution outlets. The idea is to make the production process more cost-efficient by reallocating some stages to low-cost locations. By establishing their own network in the host country, it is easier for the multinational companies to market their products (Brakman, Garretsen & Van Marrewijk, 2016).

FDI can take the form of Green Field Investment, Mergers and Acquisitions (M&As) and Joint Ventures. Greenfield investment is the process whereby the investing company establishes new production and distribution facilities in a foreign country (Moosa, 2012). He asserted that, because this form creates new employment opportunities and high value-added output, the host country is generally positive to greenfield investments. An acquisition of, or a merger with an already existing company in a foreign country is another form of FDI. M&As are cheaper than greenfield investments and makes it easier for the investor to get quick market access. But M&As can be harmful to the host country because they may only imply a transfer of ownership that is followed by layoffs and closing of advantageous activities. Moreover, according to Obasanmi, (2018) compared to greenfield investments, the acquisition of companies in the host country is generally not as welcomed, since the majority of countries

prefer to maintain control over domestic companies. Joint venture is the third form of FDI and can be seen as a partnership, either with a company in the host country, a government institution or another foreign company. Joint ventures are often formed to share the risk and expertise. Usually, one partner provides the technical skills and access to financial means, while the other partner offers its local knowledge concerning the market as well as laws and regulations (Moosa, 2012 and Obasanmi, 2018). This is of course very valuable to the foreign company and in particular if the investment takes place in a developing country.

Trends of GDP and FDI

The taking a cursory look at GDP growth within the study period, Figure 1, shows that total GDP of ₦192.27B as at 1985 rose to about ₦499.68B in 1990. Part of the reasons were the introduction of the Structural Adjustments Program (SAP) and financial prudence of the then government. There were steady increases in the GDP from 1991 to 1994. The figures recorded were ₦596.04B, ₦909.8, ₦1,259.07B and ₦1,762.81B for 1991, 1992, 1993 and 1994 respectively. The 1995 figures of ₦2,895.20B grew to ₦6,897.48B in 2000. This upward trend may be due to the political stability that Nigeria started enjoying in 1999, although the process actually took off in 1998 as opined by

Boluwatife, Oladeji, and Eytayo, (2022). By 2005, it increased to ₦22,269.98B. Despite the global financial crisis of 2007/2008 that resulted in the mild increase from ₦32,995.38B to ₦39,157.88B the GDP witnessed a sharp rise from the ₦54,612.26B figures of 2010 to the 2015 GDP figures of

₦94,144.96B representing 172%. There was a 107.8 % increase in GDP from 2016 to 2017. This increase was also experienced in 2019 as ₦145,639B ₦154,252,32B and ₦229,912.94B were recorded for 2020, 2021, 2022 and 2023 respectively (CBN, 2009)

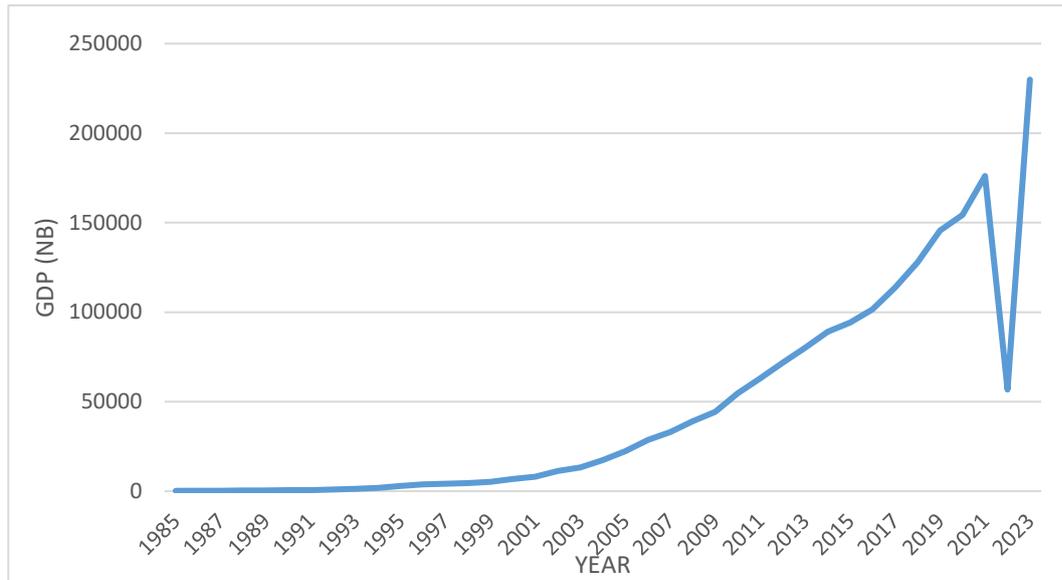


Figure 2.1: Nigeria GDP (NB) 1985-2023)

Source: CBN Statistical Bulletin and National Bureau of Statistics (Various editions).

Inflows of FDI in the Nigerian economy have been fluctuating over the years as can be seen in Figure 2.2. From a value of ₦434.10M in 1985, which was the lowest over the study period. The FDI inflow was relatively stable over the first nine years. The seeming stability in the trend of the inflow from 1986 to 1995 actually masked the sharp increase of over 700% from 1988 to 1989 when it became ₦13.88B. This sharp increase has been attributed to the introduction of the Structural Adjustment Programme (SAP) in 1986 which led to the subsequent liberalisation of some

aspects of the Nigerian economy. From ₦22.23B in 1994, the flow followed an upward trend over the next two years to reach ₦111.29B in 1996. It then went on a gradual decline for the next two years to become ₦80.75B as at 1998. Thereafter, it followed an upward trend between 2000 and 2005 to reach ₦654.19B, representing an increase of more than 500B over the 2000 figures of ₦115.95B. However, the value declined by about 3% between 2003 and 2004 which may be attributed to the presidential election that took place around that period.

Furthermore, FDI rose steadily from ₦624.5B in 2006 to ₦1.27T in 2009, representing an increase of about 104%. Between 2009 and 2010, it declined by 26.2%, i.e., from ₦1.27T to ₦905.7B. This decline can be attributed to the lingering challenges posed by the poor state of infrastructure. It picked up the following year as it increased by about 50% to reach its highest value of ₦1.36T in 2011. It declined by about 55.7% over the next four years, but rose by 86.7% between 2015 and 2016 to reach ₦1.12T. The upward surge was partly due to the injection of fresh equity capital into Nigerian companies to the tune of ₦714.1B and partly due to the effect of exchange rate depreciation (CBN, 2016). The inflow declined by 4.9% to ₦1.07B from 2016 to 2017, which was due largely to lower inflow of fresh equity capital in the wake of the economic recession (CBN, 2018). It declined

further a year later by 42.9% to ₦610.3B, which was due largely to lower inflow of new equity capital, owing to uncertainties, ahead of the 2019 general elections and the lingering effect of the 2016-2017 economic recession (Ashaka, 2023). It rose over the last two years, first by 15.9 % from ₦610.3B in 2018 to ₦707.7B and by 28.4% as it settled at ₦908.8B in 2020. The increase in 2019 was due largely to higher inflow of new equity capital, occasioned by stable macroeconomic conditions, improved ease of doing business and policy consistency. The increase in 2020 was as a result of inflow of fresh FDI equity and other capital, despite the global economic challenges of COVID-19 pandemic (Boluwatife, 2022). However, by 2020, the ₦466.76B recorded dropped by over a 49.68% to ₦229.91B despite an initial increase to ₦704.31 in 2021.

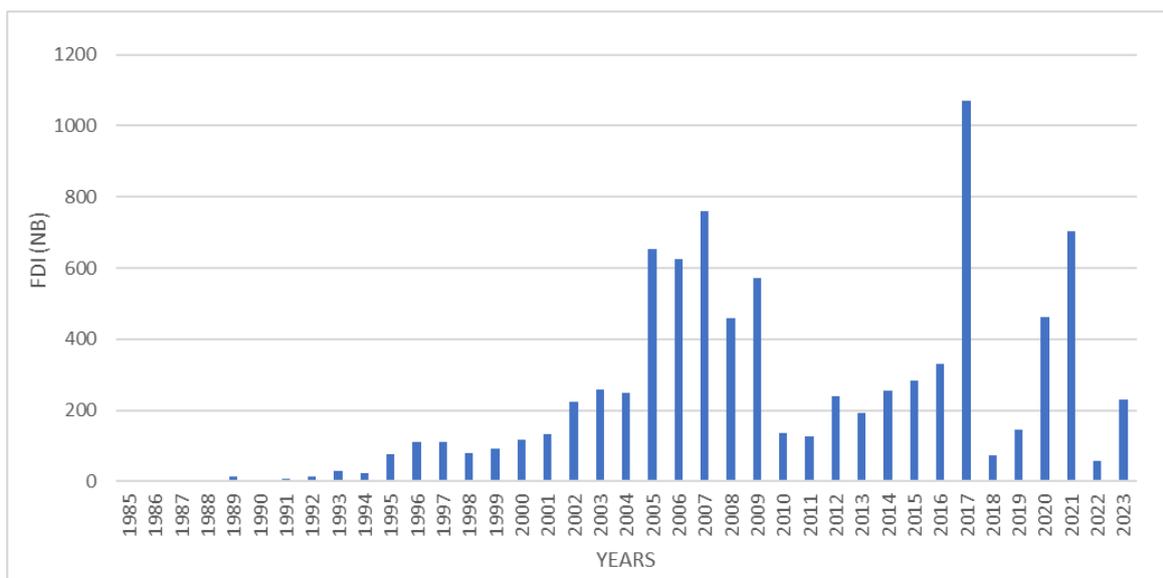


Figure 2.2: Foreign Direct Investment Inflows in Nigeria (1985-2023)

Source: CBN Statistical Bulletin and National Bureau of Statistics (Various editions).

Theoretical Literature Review

There are three main types of economic growth theories over time that have all attempted to answer growth question: The Classical, Neo-Classical, and New Economic Growth theories.

The classical theory of economic growth was a combination of economic work done by Adam Smith, David Ricardo and Robert Malthus in the eighteenth and nineteenth centuries. The theory states that every economy has a steady state GDP and any deviation off of that steady state is temporary and will eventually return. This is based on the concept that when there is a growth in GDP, population will increase. The increase in population thus has an adverse effect on GDP due to the higher demand on limited resources from a larger population. The GDP will eventually lower back to the steady state. When GDP deviates below the steady state, population will decrease and thus lower demand on the resources. In turn, the GDP will rise back to its steady state.

Next, is Neo-Classical theory developed by two economists, T.W. Swan and Robert Solow. They made important contributions to economic growth theory in developing what is now known as the Solow-Swan growth model. The theory focuses on three factors that impact economic growth: labour, capital, and technology, or more specifically, technological advances. The

output per worker (growth per unit of labour) increases with the output per capita (growth per unit of capital) but at a decreasing rate. This is referred to as diminishing marginal returns. Therefore, there will become a point at which labour and capital can be set to reach an equilibrium state. Since a nation can theoretically determine the amount of labour and capital necessary to remain at that steady point, it is technological advances that really impact the economic growth. The theory states that economic growth will not take place unless there are technological advances, and those advances happen by chance. Once an advance has been made, then labour and capital should be adjusted accordingly. It also suggests that if all nations have access to the same technology, then the standard of living will all become equal.

There were two major concerns with this era of theories. One is the conclusion that continuous economic growth can only occur with technological advances, which happen by chance and therefore cannot be modelled. Secondly, it relies on diminishing marginal returns of capital and labour. However, there is no empirical or real-life evidence to support this claim. Therefore, the model is known for identifying technology as a factor in growth but fails to ever substantially explain how (Haller, 2012).

The endogenous growth models, developed by Paul Romer and Robert Lucas placed

greater emphasis on the concept of [human capital](#). How workers with greater knowledge, education and training can help to increase rates of technological advancement. They place greater importance on the need for governments to actively encourage technological innovation (Brakman & Van-Marrewijk, 2016). They argue in the free market classical view; firms may have no incentive to invest in new technologies because they will struggle to benefit in competitive markets. The model places emphasis on increasing both capital and labour productivity.

Interrelationship Between FDI and Economic Growth

According to the standard neoclassical theories, economic growth and development are based on the utilization of land, labour and capital in production. Since developing countries in general, have underutilized land and labour and exhibit low savings rate, the marginal productivity of capital is likely to be greater in these countries. Thus, the neo-liberal theories of development assume that interdependence between the developed and the developing countries can benefit the latter. This is because capital will flow from rich to poor areas where the returns on capital investments will be highest, helping to bring about a transformation of 'backward' economies (Chete, Olanrele & Angahar (2024). Furthermore, the standard neo-

classical theory predicts that poorer countries grow faster on average than richer countries because of diminishing returns on capital. Poor countries were expected to converge with the rich over time because of their higher capacity for absorbing capital. The reality, however, is that over the years divergence has been the case, the gap between the rich and poor economies has continued to increase. The volume of capital flow to the poor economies relative to the rich has been low.

Arghiri (2012) in the study on unequal exchange brought the whole issue of the validity of comparative advantage once again, into sharp focus. The study accepts the law on its own but tries to integrate international capital and commodity flow into the law. The argument attempts to overthrow Ricardo's most fundamental assumption on international immobility of factors. It sets out to investigate how international capital flows affect Ricardo's law and endeavours to see the current form of the law in a modern world. Arghiri showed that international capital flows negate gains from all form of trade because of low wages and high profits in LDCs. If profits are re-invested, there will be rapid development and a narrowing of the gap between the rich and the poor. Hence, trade would be mutually gainful. However, with capital flows and foreign investment, this is not the case. Since foreigners face low profits in their home countries, they are willing to

accept much lower rates of profit than local investors are. Hence, they invade local markets, drive down prices and siphon profits back to their countries. In the advanced countries, therefore, foreign investment leads to higher profits, higher prices and growth while in the LDCs it creates economic imperialism and stagnation. Hence, Arghiri posits that capital flows from the developed to the underdeveloped capitalist countries is primarily to take advantage of the enormous difference in the cost of labour power.

According to this view, unequal exchange is predicated on the basis of the dominant position enjoyed by the advanced industrial countries and the resultant dependence of the poor countries on the rich. Other critics (Silvio & Ariel, 2009; Aguda & Oladoja, 2019) argued that FDI is often associated with enclave investment, sweatshop employment, income inequality and high external dependency. All these arguments regarding the potential negative impact of FDI on growth point to the importance of certain enabling conditions to ensure that the negative effects do not outweigh the positive impacts. At present, the consensus seems to be that there is a positive association between FDI inflow and economic growth, provided the enabling environment is created. Given the fact that economic growth is strongly associated with increased productivity, FDI inflow is particularly well suited to affect

economic growth positively. The main channels through which FDI affects economic growth has been uncovered by the new growth theorists (Lemi & Asefa, 2001 cited in Arghiri, 2012).

Technological diffusion via knowledge transfer and adoption of best practice across borders is arguably a key ingredient in rapid economic growth. And this can take different forms. Imported capital goods may embody improved technology. Technology licensing may allow countries to acquire innovations and expatriates may transmit knowledge. Yet, it can be argued that FDI has greatest potential as an effective means of transferring technical skills because it tends to package and integrate elements from all of the above mechanisms. First, FDI can encourage the adoption of new and improved technology in the production process through capital spillovers. Second, FDI may stimulate knowledge transfers, both in terms of manpower training and skill acquisition and by introduction of alternative management practices and better organizational arrangements (Grossman & Helpman 2005 cited in Arghiri, 2012)).

Empirical Literature

Several researchers have carried out studies to ascertain the growth enhancing capability of FDI as well as divergent views on the link between FDI and growth rates of recipient

country. Ejiko (1996) found growth rates to be negatively related to foreign capital stocks while the same relationship in Akintayo & Oyelade (2019) was found to be positively significant. Earlier, Burcu (2008), also in their study of endogenous relationship between FDI and growth using a panel data set for 23 OECD countries for the period of 1975-2004 and analysed with generalized methods of moments (GMM) found that there was a relationship between FDI and growth.

Elias and Obi (2015) investigated the determinants of economic growth in Nigeria using vector error correction method (VECM) technique. The results of the co-integrating technique suggested that there was a long run relationship among domestic savings, openness to trade, FDI, public infrastructure, and financial deepening with growth of real GDP per capita. The results of the VECM revealed that while domestic savings, openness, and financial depth (in the second lag) were positive determinants of economic growth, FDI did not drive economic growth in Nigeria. A major policy implication of their result was that concerted effort should be made by policy makers to ensure macroeconomic stability and a conducive investment climate.

An investigation of the performance of FDI in Nigeria within the period 1999-2018 was carried out by Unwana-Abasi, Udoh and

Kufre (2021). They adopted a historical descriptive method of enquiry with data gathered mainly from secondary sources. The data collected were presented in the logical data framework and verified through empirical verification method. Three findings were made and one of which was that FDI had direct impact on the economic development of Nigeria. It was concluded that the re-designing of the agreements and the effective use of the FDI opportunities will stimulate and guarantee economic transformation and development of Nigeria.

Murtala (2023) empirically examined the impact of FDI on macroeconomic variables such as exchange rate, and inflation rate in Nigeria using data from 2017 to 2021. The study employed is the generalized autoregressive conditional heteroscedasticity (GARCH) model. The result revealed that FDI had positive impact on exchange rate while the inflation rate had negative impact. Based on this, the study recommended the delivery of suitable policy framework that will be conducive for doing business in Nigeria to attract the inflow of FDI necessary to stimulate favourable growth of macroeconomic variables.

3. Methodology

Theoretical Framework

The study used Solow's growth model which began with a production function of the Cobb-Douglas type:

$$Q = AK^a L^b \quad (3.1)$$

where A is multi factor productivity, a and b are less than one, indicating diminishing returns to a single factor, and $a + b = 1$, indicating constant returns to scale. Solow noted that any increase in Q could come from one of three sources:

- i. An increase in L. However, due to diminishing returns to scale, this would imply a reduction in Q/L or output per worker.
- ii. An increase in K. An increase in the stock of capital would increase both output and Q/L
- iii. An increase in A or in multi factor productivity could also increase Q/L or output per worker

To concentrate attention on what happens to Q/L or output per worker (and hence, unless the employment ratio changes, output per capita), Solow redefined the Cobb-Douglas production function in what is referred to as per capita form:

$$Q/L = AK^a L^{b-1} = AK^a/L^{1-b} \quad (3.2)$$

Since multiplying by L^{b-1} is the same as dividing by L^{1-b} . Also, since we assumed that $a + b = 1$, $a = 1 - b$. We have:

$$Q = AK^a/L^a = A(K/L)^a \quad (3.3)$$

Defining $q = Q/L$ and $k = K/L$, we have; $q = Ak^a$ which is the key formula used.

The model adapted Solow's growth model

$$Y_t = A_t K_t^\alpha H_t^\beta L_t^{1-\alpha\beta} \quad (3.4)$$

In the light of the shortcomings of Solow's growth model, the aggregate output of the economy appears as:

$$Y_t = A_t K_t^\alpha H_t^\beta L_t^{1-\alpha\beta} \quad (3.5)$$

Where A - index of technical change that varies overtime but for the moment held constant, K - the capital stock, L -s labour supply and H-stock of human capital. From Equ (3.5), the model was re-modified, incorporating FDI, and export, thus

$$Y_t = f(\text{FDI}, \text{EXP})$$

$$Y_t = \beta_0 + \beta_1 \text{FDI} + \beta_2 \text{EXP} + U_t \quad (3.6)$$

In- order to separate the long-run and short-run effects, and to test for cointegration or, more generally, for the existence of a long-run relationship among the variables of interest, the study applied ARDL model, hence

$$Y_t = \beta_0 + \beta_1 \text{FDI}_{t-1} + \beta_2 \text{EXP}_{t-1} + Y_{t-1} + U_t \quad (3.7)$$

Hence Equation 3.& is the model for the study where: Y_t Nigerian economic growth proxied by GDP; FDI is foreign direct investment ; EXP is total export; $t-1$ is the lag and because the study is using annual serial data, the lag is one year and U_t is the disturbance term

4. Result Presentation and Analysis
Pre-Estimation Test

Table 4.1-Unit-Root Test Result by Augmented Dickey Fuller Method

<i>Variables</i>	<i>1% critical level</i>	<i>5% critical level</i>	<i>10% critical level</i>	<i>First Difference</i>	<i>p-value</i>	<i>Order of Integration</i>
<i>logEXPT</i>	-3.626784	-2.945842	-2.611531	-6.284128	0.0000	<i>I(1)</i>
<i>logGDP</i>	-3.626784	-2.945842	-2.611531	-3.180464	0.0295	<i>I(1)</i>
<i>logFDI</i>	-3.626784	-2.945842	-2.611531	-7.572399	0.0000	<i>I(1)</i>

Source: Researcher's computation 2024

The study tested the variables for unit root problem using Augmented Dickey Fuller Test. The result of the stationarity test showed that all the variables were stationary at first difference using 5% and 10% significant levels as shown in Table 4.1. Having

established the stationarity of the variables, the researcher tested whether the said variables have long run co-movement using Johansen cointegration test.

Table 4.2-Johansen Cointegration Result

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigen value	Statistic	Critical Value	Prob.**
None *	0.398386	33.92420	29.79707	0.0158
At most 1 *	0.269517	15.63121	15.49471	0.0477
At most 2 *	0.113213	4.325421	3.841466	0.0375
Trace test indicates 3 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Table 4.2 shows that there exist three (3) co-integrating equations at 5% level of significance. This is because the trace test statistic is greater than the critical value at 5%

and the probability values (Prob) are less than 0.05. This showed that there is long run relationship among the variables.

Table 4.3 Regression Estimation (DV : GDP)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
<i>C</i>	0.979451	0.116334	8.419311	0.0000
<i>logFDI</i>	0.233882	0.083530	2.799971	0.0083
<i>logEXPT</i>	1.067913	0.079873	13.37021	0.0000
R-squared	0.971259	Mean dependent var	3.706444	
Adjusted R-squared	0.969617	S.D. dependent var	1.014675	
S.E. of regression	0.176865	Akaike info criterion	-0.551207	
Sum squared resid	1.094839	Schwarz criterion	-0.421923	
Log likelihood	13.47293	Hannan-Quinn criter.	-0.505209	
F-statistic	591.3967	Durbin-Watson stat	1.930015	
Prob(F-statistic)	0.000000			

Source: Researchers Computation, 2024

Table 4.3 indicates that approximately 97% (R-square) of the systematic variation in the dependent variable (GDP) is explained or accounted for by the independent variables (FDI, and EXPT). This is endorsed by the adjusted -R-square which is approximately 97%. The result also shows that at least or all the independent variables are significant with the probability of the f-statistic (0.000) less than 0.05. The result of the DW statistic (1.93) approximately “2” indicates the absence of serial autocorrelation in the model. All the independent variables agreed to the apriori expectation

The result of the FDI showed that foreign direct investment positively affected GDP and had a significant impact on the GDP. The result showed that a unit increase in FDI inflow will increase GDP by 0.233882 units and had a significant impact on the

GDP because the p-value (0.0083) is less than 0.05. This study is in-line with the study of Alabi (2019), who found and concluded that foreign direct investment was positive and significant to economic growth. Also, this study agreed with Khun (2018) whose study revealed that FDI had a positive impact on the economic growth of Cambodia. Same also applied to Aguda and Oladoja (2017) who revealed that that FDI largely promotes economic growth in Nigeria and Emmanuel (2016) who revealed that FDI has a positive and significant effect on gross domestic product.

The result showed that exportation had a positive and significant impact on Nigerian economic growth. A unit increase in EXPT will positively affect GDP by 1.067913 units and has significant impact on the GDP because the *p-value* (0.0000) is less than 0.05.

Table 4.4: ECM result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.979451	2.61E-16	3.75E+15	0.0000
FDI	-0.233882	1.78E-16	-1.32E+15	0.0000
EXPT	1.067913	1.87E-16	5.71E+15	0.0000
ECM	-0.560000	0.27E-16	-2.074074	0.0200
R-squared	0.890154	Mean dependent var	3.706444	
Adjusted R-squared	0.870600	S.D. dependent var	1.014675	
S.E. of regression	8.95E-17	Sum squared resid	2.56E-31	
F-statistic	9.52E+32	Durbin-Watson stat	1.927518	
Prob(F-statistic)	0.000000	Log likelihood	1355.049	
AIC	-71.00258	Schwarz criterion	-70.74402	
HQ	-70.91059			

Source: Researchers Computation, 2024

With the ECM value of -0.56, it means that speed of adjustment from previous disequilibrium is approximately 56%. It shows that the system corrects its previous disequilibrium at a speed of 56% annually.

5. Conclusion and Recommendations

From the analyses, it is clear that FDI and export are drivers of any economy as it significantly promotes economic growth. Most of the developed as well as the emerging economies of the world encourage FDI and export as the major catalysts to their rapid economic growth. Hence, Nigerian government and the various policy makers should evolve enabling and suitable policies towards attracting FDI and improve export both in oil and non-oil sectors of the economy. Necessary incentives should be given to the foreign investors and exporters as well. A suitable exchange rate regime that is

conducive for attracting foreign investors and encourage export should also be looked into. The importance of all these, among others cannot be over-emphasized for Nigeria and of course other African countries to effectively attract FDI with all its positive implications for rapid and sustainable economic growth.

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