

# Impact of Foreign Direct Investment on Economic Growth in Nigeria

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## Introduction

In most developing countries, Foreign Direct Investment (FDI) serves as a means of earning foreign reserves via investments, businesses and foreign aids from advanced countries. FDI is considered a valuable source of finance and capital formation, Technology-Transfer and know-how, as well as a viable medium for trade among countries. The Spillover effect also allows for the transfer of innovations and invention to the receiving countries, one of which Nigeria belongs. According to the requirement for accelerated growth in association with the Sustainable Development Goals is not completely clear, however, for economies to experience sustainable and inclusive development, cross-border trade is paramount (UNCTAD, 2019).

Presently, Nigeria is the first host economy of FDI in Sub-Saharan Africa, and the third in the continent. Recently, Nigeria has witnessed several trade policies which aim at diversifying the economy away from oil revenue. These policies are focused on improving the industrial sector, and of course, results in austerity. In 2018, the total FDI inflow to the country was around USD 1.9 billion, while in 2017, FDI inflow was around USD 3.5 billion, showing a decrease due to the consequence of the austerity measures imposed in 2018. At the third quarter of 2019, the FDI was only 3.37% (USD 200.08 million) of the total capital inflow for the period.

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Traditionally, FDI is designed to improve the recipient economies thereby enhancing economic growth and development, it is in this view that many developing countries attract foreign investors with the hope of strengthening their economy by increasing the foreign investment portfolio. However, most empirical analysis of the impact of FDI on economic growth advises otherwise, hence, a controversy. According to the existing literature, some empirical results found a negative relationship between FDI and economic growth, while others opined that as FDI increases, it results in a boost of output productivity, hence a positive relationship between the variables (Emmanuel, 2016). Therefore, this study contributes to the existing literature by investigating the effects of FDI both on the owner, and the host country, using Nigeria as a case study.

**Keywords:** Foreign Direct Investment, Economic Growth, Sustainable Development Goals, Nigeria.

## 1. Literature Review

In Nigeria, the performance of the FDI has been low, this is as a result of the weak macroeconomic framework in Nigeria. The success of foreign investments in the country mainly is determined by the market size, human capital, and stable macroeconomic environment, and influenced largely by the pull factor and the push factors. FDI has a positive influence on output, but not significant, suggesting the poor performance of FDI on economic growth in Nigeria. According (Akanegbu & Chizea, 2017), the country's share of the global FDI is an insignificant percentage regardless of the various reforms. Using annual time series data from 1991-2014, and the neoclassical production function (whereby FDI, capital and labour are all taken as production inputs), the study employed the Ordinary Least Square estimation technique to determine the impact of FDI on economic growth in Nigeria, the result shows a positive but insignificant impact of FDI on output productivity in Nigeria.

Analysing the extent to which economic growth is influenced by FDI inflows in Nigeria, (Egbo, 2010), used annual secondary data spanning 1981-2007 and the OLS estimation technique, findings show that FDI stimulates growth, hence, a positive relationship. Also, (Emmanuel, 2016) found a positive relationship between FDI and economic growth, using time series data from 1981-2015, and the multiple regression estimation techniques, the result shows a statistically significant relationship. In the short run, FDI has a positive and significant impact on growth in Nigeria, an analysis that was done using annual secondary data between 1979-2013 estimated using the Error Correction Model (ECM) and the Granger causality test (Uwubanmwun & Ogiemudia, 2016).

A more recent study by (Anetor, 2019) found that FDI accounts for the significant variation in Nigeria economic growth compared to other capital inflow into the country. Using quarterly data from 1961Q1-2016Q4, estimated using the Structural Vector Autoregression model

(SVAR), to evaluate the effects of shocks of private capital inflow on the growth of the Nigerian economy. The result shows that shocks of FDI and portfolio investment inflow have a positive and direct relationship on economic growth Nigeria and is statistically significant.

More empirical evidence reveals a positive relationship between FDI and output productivity in Nigeria. (Akiri, Vehe, & Ijuo, 2016) contributed to the debate using secondary data for the period 1981-2014 and result from the VECM shows a significant positive effect of FDI on economic growth in Nigeria. In Cambodia, FDI also enhances economic growth, a study by (Sokang, 2018), utilized annual time series data between 2006-2016, analysed using correlation matrix and multiple regression to investigate the impact of FDI on economic growth in Cambodia, the result shows a positive relationship. The same result was achieved in Pakistan by (Gudaro, Chhapra, & Sheikh, 2012) for the period 1981-2010 using time series data, and the multiple regression techniques. According to (Melynk, Kubatko, & Pysarenko, 2014), there is also a positive impact of FDI on economic growth in the communism transition countries, using panel data on annual transition report indicators from 1998-2010, analysed using the Fixed-Effects estimation to analyse the data.

FDI stimulates growth in the long run, although it exhibits a negative impact on economic growth in the short run in some selected developing countries under review. Testing the impact of FDI on both short run and long run economic growth in developing countries (Trang, Duc, Anh, & Thang, 2019) use VECM, and FULLY MODIFIED OLS (FMOLS) to analyse both the short and long run impact of FDI on economic growth in developing countries (lower-middle) income group for the period 2000-2014. In Portugal, there is some convergence among the trading partners and the country. Research by (LEITAO & RASEKHI, 2013) using panel data, suggest that FDI and bilateral trade enhance economic growth. Meanwhile, a study carried out by (Umeora, 2011), shows that FDI does not conform to the A-priori and theoretical expectation of a positive relationship between FDI and economic growth. Using secondary data between 1986-2011, a model which was regressed using the OLS and multiple regression techniques, it was concluded that in Nigeria, there is a negative impact of FDI on economic growth contrary to other findings.

## **2. Theoretical Framework**

For most developing countries, investments come in different forms either foreign or local investment, one of the foreign means is the FDI which is a form of direct investment by foreign multinational companies (MNC) with headquarters in developed countries. This study is supported by the Harrod-Domar theory of growth which states that for any economy to grow, a proportion of its GDP must be saved and invested. In other words, the capital-output ratio and savings available to a country determine the economic growth level.

Specifically, in case there is no government intervention, the growth rate of the national income is positively/directly related to savings-and investment whereby higher savings rate increases growth, and inversely or negatively related to the capital-output ratio, whereby a capital increase reduces the GDP growth rate. The main obstacle to growth according to the Harrod-Dormar's growth model is a low capital formation which brings about low savings-investment, however, the main criticism of this theory is that it is a necessary but not sufficient condition for growth. It is a kick-off requirement for growth, but not sufficient enough to drive growth.

### **3. Methodology**

This study aims to examine the impact of FDI on economic growth in Nigeria by (1) determining the effect of FDI on the host country, and (2), evaluating the effect on the owners of FDI using Nigeria as a case study. The variables under consideration are the FDI inflow, FDI outflow, and the GDP, for the period 1970-2019, which will be collected from the World Bank indicators (2019 version) and analysed using the ordinary least square (OLS) method. In a linear form, the model is given as:

$GDP=f(\text{in FDI, out FDI})$  hence:

$$GDP=\alpha + \beta_1\text{inFDI} + \beta_2\text{outFDI} + \mu$$

Where: GDP= Gross Domestic Product

inFDI= Foreign Direct Investment inflow

outFDI= Foreign Direct Investment outflow

$\mu$ = The Error term

The model passes through the unit root stationarity test given that annual time series data reacts to time structure. The result shows all variables are stationary at the first difference I(1). Therefore, the only acceptable regression technique usually is a simple OLS regression or ARDL. For this model, the OLS is preferred because it is unbiased in its analysis, and also because it is a single (2 variable) model. The augmented dickey-fuller (ADF) unit root test checks for stationarity of the variables.

The Johansen-Cointegration tests for a long-run relationship, (though not compulsory in this case), results show no cointegrating equation, hence, a simple OLS regression model is justified (Muhammad, 2017). This model also adopts the specification of (Gudaro, Chhapra, & Sheikh, 2012) with a difference in one variable.

Economic growth is measured by the GDP which is the total amount of goods and services produced within a country for a given period, usually one year. The data is sourced from World Bank using the World Bank Indicators. The FDI inflow measures the private and public

investments into the country, while the FDI outflow represents the direct investments from Nigeria to other host nations in form of trade, capital and multinational companies. The data is also sourced from the World Bank indicators.

#### 4. Empirical Results

The simple regression model was specified as:

$$GDP = \alpha + \beta_1 inFDI + \beta_2 outFDI + \mu$$

Augmented Dickey-Fuller unit root test result is presented in table 1 below:

**Table 1**  
**ADF- UNIT ROOT TEST**

	Test Value	Critical	t-statistics	Probability	Stationarity
<b>GDP</b>	1% level		-5.528650	0.0000	I(1)
<b>FDI_in</b>	1% level		-11.32745	0.0000	I(1)
<b>FDI_out</b>	1% level		-7.956152	0.0000	I(1)

Source: Authors' computation using Eviews 11SV

Table 2 shows the OLS results:

**Table 2: OLS Regression Result**

Dependent Variable: GDP

Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.88213	1.901632	6.248386	0.0000
FDI_in	0.706767	0.121062	5.838069	0.0000
FDI_out	-0.067700	0.065512	-1.033395	0.3087

R-squared                      0.608296.                      Durbin-Watson stat.                      0.671245

Adjusted R-squared                      0.585255                      F-statistics                      26.40012

Prob(F-statistics)                      0.000000

Source: Authors' computation using Eviews 11SV

The  $R^2$  is 0.608, implying that about 61 per cent of the variations in GDP is caused by the independent variables, hence a good fit. The intercept is positive and statistically significant at 1% level of significance, implying that the economy is positive. The coefficient of FDI inflow is 0.70, suggesting a positive relationship between the GDP and FDI (inflow). One per cent change in the FDI brings about 0.70% change in the GDP. Conversely, the FDI outflow shows a negative effect on GDP. The coefficient of the FDI\_outflow is (-0.067), but not significant. The Durbin-Watson statistics is 0.67 which is less than one, suggesting a probable positive

autocorrelation in the model. To correct this, the Breusch-Godfrey serial correlation LM test is used to verify that the error term has the same variance and that there is no serial correlation. The result is presented in Table 3 below:

**Table 3: Breusch Godfrey Serial Correlation LM Test**

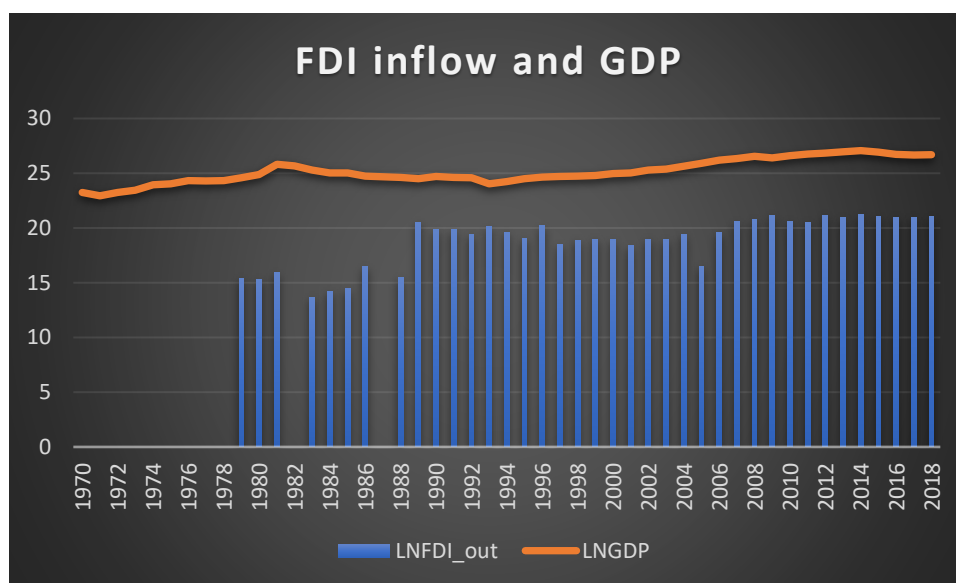
F-statistics	12.34124	Prob. F(2,32)	0.0001
Obs*R-squared	16.11171	Prob. Chi-Square	0.0003

No serial correlation up to 2 lags

## 5. Discussion of Results

This study investigates the effects of FDI inflow and FDI outflow on economic growth with evidence from Nigeria for the period 1970-20. The OLS single regression result shows FDI inflow has a positive impact on the economy which implies that the developmental goal of foreign investment in developing countries is evident in Nigeria. In other words, as FDI increases its flow into the country, positive economic changes are also recorded. FDI inflow in Nigeria is the third largest host country to FDI and has always been an economic harbour to trade and foreign investment. The ease of doing business in Nigeria now ranks 131 according to the World Bank 2020 index, moving up a total of 15 places in 2019 (World Bank, 2020).

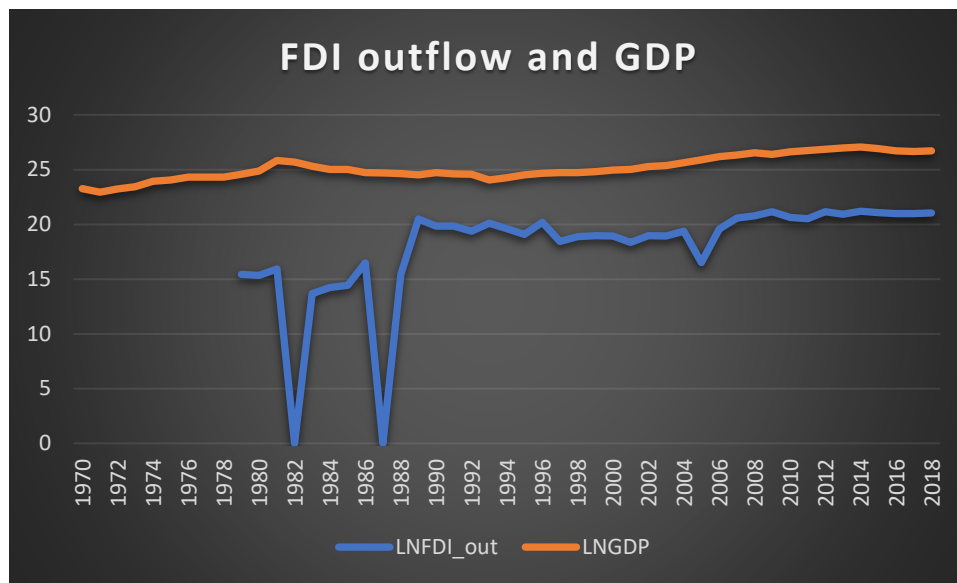
**Figure 1: FDI and GDP Chart**



Source: Authors' computation

On the other hand, FDI outflow has a negative effect on economic growth, though not significant. Perhaps it is as a result of low investment and capital accumulation amongst other determinants.

**Figure 2: FDI outflow and GDP**



Source: Authors' computation

From the graph, the pattern of FDI investments can be deduced.

## 6. Conclusion and Recommendation

Investments play a major important role in economic development, be it an investment in assets, cash flow, capital and other forms, it is expected to exert a positive relationship on the economy. The magnitude of the effect however does not entirely depend on the direct investment alone, other economic, social, political, and institutional structure affects the performance of FDI in the host country. It is pertinent to also note that FDI is an integral part of trade, hence policies that promote foreign investment and at the same time protect, supplement domestic production and investment, as well as complements the development goals of the host countries should be encouraged. I, therefore, recommend that for all FDI inflow into the country, at least 80% local content should be emphasized and closely monitored to ensure compliance, thereby strengthening the domestic markets and stimulating a sustained economic growth.

The impact of FDI outflow on the owners depends on the level of development and financial strength of the country itself. Investors are attracted by high expected returns on their investment, as well as a conducive, favourable term of trade and working condition, not to underestimate internal institutional structure. Since this study is done for Nigeria, being a developing country, it is evident that any form of investment for Nigeria should be more of an infusion into the country, perhaps advance the financial strength of the country, as FDI outflow impedes economic growth (GDP). It is important to also mention that FDI outflow may have a negative result on most owners of FDI (the USA, and other European countries). A further test may be conducted.

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