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IMPACT OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM NIGERIA, 1985-2016

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Abstract:
This study analyses the impact of foreign direct investment on economic growth in Nigeria using data for 32 years, from 1985-2016. The OLS estimation and the Johansen cointegration test were the key techniques of analysis employed. The results indicate that foreign direct investment has no positive impact on the Nigerian economic growth. Trade openness and exchange rate, however, have positive but insignificant influence on economic growth. The cointegration test result revealed that there is evidence of a long-run relationship between foreign direct investment and economic growth. The paper thus recommends that there is need for in-depth investigation of economic and institutional forces that determine the composition of FDI inflows to developing countries and to work towards improving such forces. Moreover, government should also take measures in order to stabilize the exchange rate system that may attract foreign investors in the country, and also liberalize the trade policy to attract foreign investors to the country.

JEL: E22, F21, G11

Keywords: foreign direct investment, trade openness, exchange rate, economic growth, cointegration

1. Introduction

Nigeria is an import dependent country with heavy reliance on oil as the main export activity. The flow of Foreign Direct Investment (FDI) in Nigeria had been mainly from

the extractive industries consequential to lack of productive investment activities that could integrate the economy into global market chain. The focus of the government on crude oil exports subsequent to the oil boom led to the abandonment of the agricultural sector and made irrelevance of Nigeria's agricultural sector in the global market, thus reducing the overall productive activities of the economy (Azeez, Dada and Aluko, 2014).

FDI dates back to the era of colonial masters who came with the intention of exploiting the Nigeria's oil resources. The colonial masters made only little investment in Nigeria but with the discovery of oil, the flow of FDI increased (Macaulay, 2012 in Adeleke, Olowe and Oladipo 2014). World Bank, (1996) regarded Nigeria as the second largest foreign direct investment recipient in Africa due to the nation's large endowment in oil. Overvaluation of the naira during the oil boom also accounted for the large magnitude of FDI in the country. Profit from United Kingdom (UK) companies operating in Nigeria and due to other foreign liabilities which transnational companies' partners operating in Nigeria from United Kingdom and United State of America were to pay as overseas commitments also accounted for the huge net inflow (Korna, Tagher and Idyu 2013).

FDI is attracted in a country through the activities of the Trans National Companies (TNCs) by establishing local companies through foreign associates. The foreign partners interact with the local economy by building production facilities that will hire and train workers. Foreign capital investments are the most proficient and safe way to integrate into the world economy (Pelinescu and Radulescu, 2009). This however depends on the openness of the economy to foreign investors.

Foreign Direct Investment is expected to contribute to economic growth through capital accumulation of new productive activities into the host countries economy. However, accumulation of new capital is dependent upon certain level of macroeconomic and institutional development. Researchers have recognized the level of development as human capital, markets size (Esew and Yaroson, 2014), business environment, political risks among others. However, deficiency in these institutional developments has been a source of worry to Nigerian economy.

Presuming from the extensive studies (Adigwe, Ezeagbu and Udeh, 2015, Ndaba, 2015) on theoretical expectations on the role of FDI on economic growth which have formed one of the core study area to scholars, foreign direct investment mostly made by multinational enterprises or by a foreigner in an enterprise of host beneficiary countries over which they have a control and earn private return is referred to as net inflows of investment in an economy of a country is expected to serve as a means of balancing Nigeria's domestic resources in order to ensure speedy economic

development. Unfortunately, in spite of the effort to attract foreign direct Investment, the growth of FDI in Nigeria remains an issue of concern to the nation. The level of insecurity in the country, especially *Boko Haram* insurgency constitutes a major hindrance to multinational companies' influx with serious impediment to Foreign Direct Investment inflow (Nsofor, 2016). FDI is also hindered by other forms of insecurity, including insecurity from weak and government inefficiency, policy reversals bureaucratic bottleneck and regulatory burden. These affects business environment and might lead to decrease in the level of foreign investors in the economy.

Despite the importance of FDI in economic growth, this area of study remains less investigated in Nigeria. It is against this backdrop that this study seeks to examine the extent to which FGI affects economic growth in Nigeria.

2. Review of Related Literature

Foreign direct investment is an investment that reflects capital transaction(s) undertaken by a foreign direct investor resident in another country other than the host country's economy and where the resident firm (direct investment enterprise) in the economy of the host country has a long-term relationship, reflecting a lasting interest and control. The Organization for Economic Cooperation and Development (OECD, 2013) noted that a direct investor may be an incorporated or unincorporated private or public enterprise, an individual or a group of related individuals, a government, or a group of related incorporated and/or unincorporated enterprises which have a direct investment enterprise. Conversely, a direct investment enterprise is an incorporated or unincorporated enterprise in which a foreign investor has economic interests in the incorporated/unincorporated enterprise.

Foreign direct investments as defined by World Bank, (2013) are the net inflows of investments to acquire lasting management interest in an enterprise operating in an economy other than that of the investor. The interest should be 10% or more of voting stock totaling of equity capital, reinvestments of earnings, other long-term capital, and short term capital as shown in the balance of payments. FDI are classified into horizontal and vertical. Horizontal FDI which is often a market expansion strategy of the investing company into potentially high growth economies is an investment made to carry out similar business operations as already operated by the foreign investor in other countries. Vertical FDI is the disintegration of the production process vertically by contracting out some production stages with different input requirements with the intention of maximising profit margins. In this case, goods are not produced for sale to

the country receiving FDI, but for export purposes. Vertical integration at times entails that the foreign associates source inputs and materials from the parent company.

Matjekana (2002) classified FDIs in terms of directions of flows as inward and outward FDI. He defined inward FDI as investment in which foreign capital is invested in local resources and outward FDI as investment of local capital invested in foreign countries. Barros, Caporale and Damaslo (2013) assert that FDI is attracted through the activities of the multinational companies (MNCs). Improving (MNCs) returns can increase the host countries' savings and investment and improve technology. It also contributes to capacity building through the transfer of technical and management skills from the originating country. External firms train host countries personnel to specialize in area of their operations.

As reported by UNCTAD (2013), in Nigeria FDI has witnessed growth in the past two decades with slight decrease during the global financial crises but has improvement steadily with potential for more growth. FDI has been gainful to the Nigerian economy in provision of capital to finance investment by filling the savings gap in the country. Onaji-Benson (2016) opines that foreign investment is an external source of investment in the theory of investment and savings is an important source of generating investment, employment and growth. Increased Multi National Company's activities has been attracted in the country due to its market size with a population of about 170 million and an increasing middle class with a high propensity to consume (Mckinesy, 2010 in Onaji-Benson, 2016). Notwithstanding, the economy has certain characteristics that deter FDI from taking place. These include political instability, heavy reliance on oil, regional disparity restricting FDI to a few areas, preventing a majority ownership to foreigners as well as requiring a local partner in a joint venture or to acquire privatized companies.

One of the important channels for economic growth in developing countries is foreign direct investment. Sustainable economy depends on the accumulation of capital resource. An economy is said to be growing when there is an increase in the volume of goods and services produced by a country in a given period. This means that each person in the country gets more goods and services and higher standard of living. Standard of living could be achieved by increasing per capita income. Ademola, Olusuyi, Ibiyemi and Babatunde (2013) see FDI as a remedy for slow rate of economic growth, which has been experienced in the country.

Import and export is a function of trade openness and a source of strength for trade among nations. Trade openness expands business opportunities for domestic companies by opening up new markets, eliminating unnecessary barriers and making it possible for them to export. The contribution of openness to growth depends on the

pattern which a countries trade evolves. Ademola, et al., (2013) opined that one indicator of openness is the relative size of the export sector. Exports, more often than not reflect production in excess of what is required for domestic consumption in a circumstance where no deliberate policy for exports is pursued.

Exchange rate of a country means the unit of a country's currency needed to purchase one unit of another country's currency. Exchange rate instability may have effect on export earnings and may as well constrain investment bearing in mind that Nigeria is an import dependent country.

2.1 Empirical review

Ndaba (2015) examined whether 80% of all FDI channeled to the mining sector, could have an influence on the level of impact exerted by FDI on growth in Zambia. With the use of time series data from 1990 to 2013, the study finds that FDI contributed to increasing output in the mining sector due to recapitalization but this in turn has not resulted in active growth for the economy. The study concludes that FDI has not contributed to dynamic economic growth but has reinforced dependence on the mining sector.

Louzi and Abadi (2011) study examined the FDI-led growth hypothesis in of Jordan economy. The study is based on time series data from 1990 to 2009. The econometric framework of co-integration and error correction mechanism was used to capture two way linkages between variables interest. Result shows that FDI inflows do not exert an independent influence on economic growth.

The study of Trojette (2016) covering five regions (SSA, MENA, Europe, Asia and America) on whether the effect of foreign direct investment on economic growth is dependent upon institutional level revealed that FDI contribute to economic growth. A generalized-method-of moment (GMM) panel estimator covering the period 1984-2013 reveal that with government stability and the respect of law and order FDI enhances GDP growth.

Tshepo (2014) studied the impact of FDI on economic growth and employment in South Africa for a period of 24 years from 1990 to 2013. The study made use of the Johansen Cointegration test to test for the existence of long-run relationship among the variables and the unit root test to test for stationarity. The result shows that there was a positive long-run relationship between FDI, GDP and employment. The Granger Causality test results confirmed the direction of causality which runs from FDI to GDP.

Adeleke, et al (2014) analyzed the impact of foreign direct investment on Nigeria economic growth over the period of 1999- 2013. With the use of regression analysis of the ordinary least square (OLS), findings revealed that economic growth is directly

related to inflow of foreign direct investment and it is also statistical significant at 5% level which implies that a good performance of the economy is a positive signal for inflow of foreign direct investment.

Adigwe, Ezeagba and Udeh (2015) conducted a relationship study between FDI, exchange rate and gross domestic product in Nigeria from 2008 to 2013. With the use of Pearson Correlation, findings show that there is a significant relationship between FDI, EXR and GDP. It indicates that economic growth in Nigeria is directly related to foreign direct investment and exchange rate. The paper recommends that there is need for government to be formulating investment policies that will be favorable to local investors in order to compete with the inflow of investment from foreign countries.

Antwi and Zhao (2013) carried out a study on the relationship between FDI and economic growth in Ghana for the period 1980-2010 using time series data taken from the World Banks World Development Indicators. Co-integration methodology was employed to analyze data. Findings revealed that a long-run equilibrium and causal relationship exists between the FDI and the two independent variables under consideration namely, GDP and Gross National Income.

Sohail, Sohail and Azeem (2014) examined the Impact of foreign direct investment (FDI) on economic growth in Pakistan. The study made use of data from 2000 to 2010 by using Two- Stage least squares method of simultaneous equations estimation. The results show that there exists a positive relationship between economic growth and FDI in Pakistan.

Ur Rahman (2014) employed multiple regression technique examine the impact of foreign direct investment (FDI) on economic growth of Pakistan with data covering 1981 to 2010. Foreign direct investment (FDI) and consumer price index (CPI) were used as independent variables. The result indicates that there is a positive relationship between the FDI and GDP while there is negative relationship with CPI.

Gul and Imran (2015) examined the impact of FDI and trade openness on economic growth of Pakistan using time series data from 2008-2013. To test the long run relation and association among variables, co-integration analysis, regression analysis, correlation and Durbin Watson test were employed. It was found that FDI, trade openness and domestic capital are positively effecting the economic growth.

3. Data and Methodology

This study adopted *ex-post facto* research design**.** *Ex-post facto* research involves historical events where data already exist. This research design is employed because of its suitability in research survey of this nature – where event under study had indeed

already taken place. In this method of research design, variables cannot be manipulated. This study made use of secondary source of data covering 1999 to 2015. We obtained data for the variables from Central Bank of Nigeria statistical bulletin. To analyze the impact of FDI on economic growth proxy by Gross Domestic Product growth rate, diagnostic test and linear multiple (OLS) technique is employed. The study used E-view 9.0 as the statistical package for regression analysis. The t- value and p-value was used as the basis for acceptance or rejection of the statistical significance of the research hypotheses.

3.2 Model specification

The baseline model for this study can be represented as follows:

$$GDP = \beta_0 + \beta_1 FDI_t + \beta_2 TOPN_t + \beta_3 EXR_t + \varepsilon t \quad (1)$$

Where;

GDP = Economic growth
FDI = Foreign direct investment
TOPN = Trade openness (Import +Export /gdp)
EXR = Exchange rate
ε_t = Error term
β_1 - β_3 are the coefficients of the regression

Table 4.1: Descriptive Result

	GDP_GROWTH	FDI_GDP	OPN	EXR
Mean	4.628934	3.217745	58.16664	85.93807
Median	4.649226	2.749506	60.52219	106.4643
Maximum	33.73578	10.83256	129.5849	253.4923
Minimum	-10.75170	0.650345	20.68383	0.893774
Observations	32	32	32	32

Table 4.1 reveals descriptive statistics of model variables. It showed that GDP growth averaged 4.63 percent between 1985 and 2016. GDP growth peaked at 33.74 percent and was lowest at negative 10.75 percent. Mean value of the ratio of FDI to GDP was3.22 percent while openness and exchange rate averaged 58.17 percent and 85.94 respectively over the 32 year period.

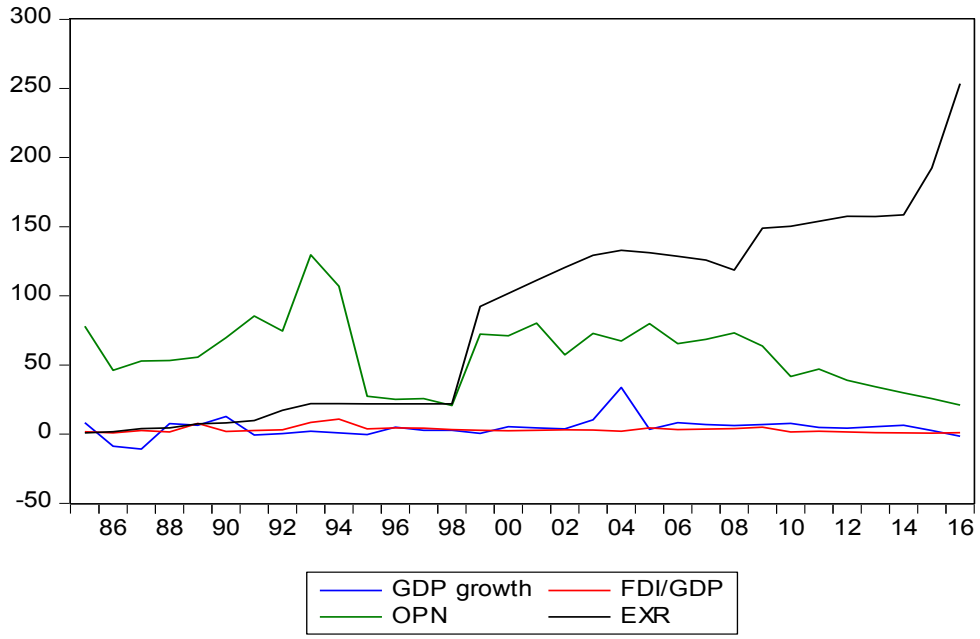

Figure 1: Graph of Variable Proxies

Table 4.3: Unit Root Test

Variable	ADF Test Statistic	5% Critical Value	Test for Unit Root	Durbin-Watson stat
GDPgrowth	-5.639902	-3.489235	1(1)	1.737846
FDI/GDP	-6.362896	-3.489235	1(1)	1.548764
TOPN	-7.200148	-3.489235	1(1)	1.723590
EXR	-5.783904	-3.489235	1(1)	1.835209

Table 4.3 presents the Augmented Dickey-Fuller test for stationarity. The results show that all the series are stationary and therefore has no unit root. The stationarity of the variables were at first difference.

3.3 Test for Long-Run Relationship

Table 3: Johansen Cointegration Test

Series: GDP_GROWTH FDI_GDP OPN EXR

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.531273	55.49119	47.85613	0.0081
At most 1 *	0.486146	32.75917	29.79707	0.0221
At most 2	0.316194	12.78469	15.49471	0.1229
At most 3	0.045030	1.382252	3.841466	0.2397

Result in Table 3 indicates that the variables that our variable are cointegrated, and thus have long-run association. This is revealed by trace test which indicated two cointegrating equation. The null hypothesis of no cointegrating equation is therefore rejected.

Table 4: OLS Regression Result

Dependent Variable: GDP_GROWTH
Method: Least Squares
Date: 12/21/17 Time: 07:29
Sample: 1985 2016
Included observations: 32

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.514454	4.132286	-0.124496	0.9018
FDI_GDP	-0.288580	0.705704	-0.408925	0.6857
OPN	0.064545	0.060107	1.073835	0.2921
EXR	0.026969	0.019635	1.373475	0.1805
R-squared	0.537915	Mean dependent var		0.314994
Adjusted R-squared	0.319033	S.D. dependent var		8.858977
S.E. of regression	7.310492	Akaike info criterion		7.083297
Sum squared resid	1015.423	Schwarz criterion		7.554778
Log likelihood	-92.70780	Hannan-Quinn criter.		7.230959
F-statistic	25.457554	Durbin-Watson stat		1.933611
Prob(F-statistic)	0.000000			

Results in Table 4 reveal that FDI has negative and insignificant impact on GDP growth; one percentage change in FDI leads to 28.9 percent decline in economic growth. On the other hand, trade openness and exchange rate both exerted positive but insignificant influence on economic growth. The regressors jointly accounted for about 53.79 percent of the variations in GDP growth. The overall results are shown to be significant while the Durbin-Watson statistics indicates that our model has no autocorrelation issues.

4. Conclusion

This study analyzes the impact of FDI, TOPN and EXR on economic growth using data for 32 years. Positive and significant impact was observed among the variables. Despite the point of views and evidence sustained in the positive impacts of Foreign Direct Investment (FDI) on growth, empirical literatures on most developed countries says the contrary. However, foreign direct investment is an important factor growth emphasis

on most economy especially developing countries' economy. The impact of FDI on economic growth is country specific and the level of inflow modulated by institutional quality. The interaction between FDI and institutions can seriously hinder FDI influx where there is poor institutional development and the subsequent effect on the attraction of the multinational enterprises. FDI comes in different forms. It can be through creation of new productive units or through merger and acquisition which reflects a change of ownership of already existing firms. Based on the findings, we recommend that there should be in-depth investigation of economic and institutional forces that determine the composition of FDI inflows to developing countries and to work towards improving such forces. Government should also take measures in order to stabilize the exchange rate system that may attract foreign investors in the country, and as well liberalize the trade policy to attract foreign investors to the country.

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