

Macroeconomic Consequences of Foreign Direct Investment in Nigeria: An Empirical Analysis

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Abstract

This study examines the impact of macroeconomic determinants on foreign direct investment (FDI) in Nigeria between 1980 and 2012. Different methods and techniques were employed ranging from Augment Dickey Fuller test, Engel-Granger co-integration, Ordinary Least square, Error Correction and Granger causality test for the data sets. The findings indicated that market size measured by output growth, openness to trade and infrastructure attracts FDI significantly as they causes an increase on FDI inflows by 2.35%, 3.2%, and 0.46% respectively. Moreso, political instability was found to have negative insignificant impact towards attracting foreign direct investment in Nigeria. Other macroeconomic variables reported are exchange rate and inflation rate, positive but insignificant. Furthermore, only output growth and inflation rate granger cause FDI in Nigeria. There is need for continuous increase and growth of the nation's output, trade growth, sustainable infrastructural facilities and stable political system as they have significant impact on FDI inflows.

Keywords: Macroeconomic factors, FDI, ECM, Granger causality, Nigeria.

I BACKGROUND INFORMATION

The role of Foreign Direct Investment (FDI) in economic development has been discussed in several times and still debate is going on. Most of the studies are focusing either on the impact of FDI on the domestic economy or the determinants of FDI. Findings from literature have shown that major macroeconomic determinants of FDI are domestic market size, economic growth, technological capability, government policy, and other factors. It plays an important role in promoting economic development and growth, raising a country's technological level and creating employment. More so, FDI works as a means of integrating under developed countries into the global market and rising capital availability for investment. In summary, FDI serves as an important engine for growth in developing countries.

One of the major macroeconomic determinants of FDI inflow cited by scholars is the host country's market size measured by the gross domestic product (see Wang and Swain, 1995; Chakrabarti, 2001 and Masayuki & Ivohasina, 2005). Nevertheless, Agarwal (1980) argued that if the host country is only used as a production base due to low production costs in order to export their products to another or home market, then the market size may be less influential or insignificant.

A study by Liargova and Skandalis (2012) examine the relationship between FDI and trade openness considering other variables like exchange rate stability, nominal GDP, GDP per capita and political risk from 1990 to 2008. They took FDI as dependent variable and other variables were independent variables using 36 developing countries, specifically 12 Latin American, 10 Asian, 4 African, 4 common wealth of independent states and 6 Eastern European countries. The study employed fixed effects model which is one of Panel regression analysis methods. Their result disclosed that political stability, exchange rate stability, market size, trade openness are the factors that affect FDI inflow positively. More specifically, trade openness has positive impact on inflow of FDI in the long run.

Furthermore, Mahmood and Ehsanullah (2011) assessed the impact of macroeconomic variables on FDI in Pakistan using time series analysis based on annual data between 1972 and 2005. Augmented dickey fuller test and OLS regression method were employed to analyse the relationship between macroeconomic variables and FDI. Their findings show that population growth, democracy and enrollment at secondary school have positive impact on foreign direct investment. On contrary, manufacturing products, real exchange rate, exports and import duty have negative impact on foreign direct investment. Findings from the study revealed that macroeconomic indicators should be improved so as to bring more foreign investment.

Rising prices (inflation) has also been considered as a factor influencing FDI (see Bajo-Rubia and Sosvilla-Rivero, 1994 and Yin Yun Yang et al., 2000). Aside this, exchange rate has been a major factor that determines FDI inflows. Masayuki and Ivohasina (2005) said that if the exchange rate of a country depreciates, it attracts FDI since foreign firms may merge with or acquire domestic industries. In addition, Benassy-Quere et al. (2001) argued that the effects exchange rates has on FDI inflows are rather ambiguous. In the long-run, Harvey (1990) opined that the negative effects of exchange rate volatility are more than the positive effects in attracting FDI. Specifying relationship within country basis, Goldberg and Kolstad (1994) found high exchange rate variability to be impediments to FDI inflows between United States and Canada, and Japan and United Kingdom.

Elijah (2006) employed an econometric model to examine the impact of exogenous variables that

include human capital, real exchange rate, annual inflation and openness of the economy on FDI in Kenya. He found that economic openness and human capital affect FDI inflows positively in the short-run. Also, inflation and real exchange were negatively related to FDI inflows in the short-run and long-run respectively. A similar econometric model of FDI was used by Fuat and Ekrem (2002) to examine location related factors that influence FDI inflows into the Turkish economy. They discovered that the size of the host country's market, infrastructure measured by share of transportation, energy and communication expenditures in GDP, and the openness of the economy measured by the ratio of exports to imports are positively related to FDI inflows. The study further concludes that both exchange rate instability and economic instability measured by interest rate have negative effects on FDI.

Furthermore, several studies have been carried out in relation to the Nigerian context. Ekpo (1997) examined the relationship between FDI and some macroeconomic variables for the period, 1970-1994 in Nigeria. His results showed that the political regime, real income per capita, rate of inflation, world interest rate, credit rating, and debt service explained the variance of FDI inflows to Nigeria. Prior to Ekpo's study, Obadan (1982) argued that market size, trade policies and raw materials are very important determinants of FDI in Nigeria.

Soludo (1998) maintained that it is not profitability of investment today that attracts investors to invest, but how long will the profit remain fairly stable overtime. Whenever the socio-political and economic environment is highly volatile, an investor is better off exercising his option to wait. On the other hand, he might decide to invest on those projects whose cycles are very short and can be easily undone. He also asserted that while the maintenance of the macroeconomic stability, avoidance of over-valued exchange rates and export orientation are critical for the resurgence of investment they are necessary but not sufficient conditions.

Despite government efforts to provide incentives to many investors, many investors are still adamant to come to Nigeria (Olatunji, 2001). He noted that this might not be unconnected with the lingering problems that still persist on ground. For example, poor infrastructure, general insecurity, sectarian violence, the arm revolt in the Delta region and the pervasive indiscipline that is becoming the order of the day in the Nigerian economy. Thus, this study examines the impact of macroeconomic determinants such as market size of the host country, deregulation, political regime, openness of the economy to foreign trade, rate of inflation, exchange rate of the host country's currency and infrastructural development on foreign direct investment in Nigeria between 1980 and 2012.

The findings from this paper revealed that market size i.e. real gross domestic product of the Nigerian economy attracts foreign direct investment as it causes an increase on FDI inflows by 2.35%. Openness to trade and infrastructure facility also have significant positive effect on FDI inflows while deregulation is found to be negative insignificantly. However, political instability was found to have negative insignificant impact towards attracting foreign direct investment in Nigeria. Other macroeconomic variables reported are exchange rate and inflation rate, positive but insignificant. The other part of this paper is structured into three sections; section two presents the framework and methodology. Section three reveals data presentation and analysis and discussion of findings. And, the last section gave the concluding part of the study as well as policy options.

II MODEL SPECIFICATION AND ESTIMATION TECHNIQUES

The study employs a multiple regression model to estimate the relationship between foreign direct investment and its potential determinants. The model expresses foreign direct investment (FDI) as a function of the market size of the host country (GDP), deregulation (DEREG), political regime (POL), openness of the economy to foreign trade (OPEN), rate of inflation (INF), exchange rate of the host country's currency (EXR) and infrastructural development (FRAS). It is thus presented below as thus:

$$\ln FDI = \beta_0 + \beta_1 \ln GDP + \beta_2 DEREG + \beta_3 POL + \beta_4 OPEN + \beta_5 INF + \beta_6 EXR + \beta_7 \ln FRAS + \mu \quad (1)$$

Where $\beta_0, \beta_1 - \beta_7$ are coefficients or elasticities, \ln represents the natural logarithm of variables, and μ the disturbance term.

A priori expectation anticipates FDI to be positively related to the host country's market size, deregulation, openness of the economy to foreign trade and infrastructural development. However, FDI is expected to be negatively related to political instability, inflation and exchange rate. For the purpose of this study only secondary method of data collection will be used. Annual (secondary) data of the variables are used, and they were collected from the Central Bank of Nigeria statistical bulletin, 2013. Annual (secondary) data of the variable are used for the period of 1980 to 2012.

The model is estimated using the Ordinary Least Squares (OLS) for long-run estimates. Before estimation, we performed a stationarity (unit root) test using Augmented Dickey Fuller (ADF) that excludes the intercept and trend and Engel Granger cointegration test for long-run relationship. Furthermore, we run the regression exercise using the Error Correction Mechanism (ECM) for short-run estimates approach and Granger

causality test.

IV EMPIRICAL ANALYSIS AND DISCUSSIONS

This section deals with the econometric analysis of the economic growth effect of macroeconomic determinants of foreign direct investment in Nigeria between 1980 and 2012. The variables are measured as follows: foreign direct investment is captured by the total inflows of FDI into Nigeria. The host country market size is measured by real Gross Domestic Product (RGDP). The ratio of exports to imports captures the country's openness to foreign trade, and it is denoted as OPEN. Exchange rate (EXR) refers to the rate at which the naira is converted to US dollar, while the political regime (POL) captures the military rule and civilian rule. Thus, we assign $D=0$, for civilian rule and $D=1$ for military rule. The rate of inflation (INF) refers to the changes in the general price level, while deregulation (DEREG) of the economy which started in 1986, is captured by dummy variable. That is, $D = 1$ for period of deregulation and $D = 0$ for the era of regulation. Lastly, infrastructural development (FRAS) is a measure of capital expenditure on both transportation and communication.

4.1 Unit Root Test Analysis

The stationary test results of the incorporated times series variables in the regression model expressed previous chapter is presented in Table 4.1 using the Augmented Dickey-Fuller (ADF) unit-root test. The test result indicated that the time series variable, foreign direct investment (FDI), openness to foreign trade (OPEN) and exchange rate (EXR) were not found to reject the null hypothesis "no stationary" at level. This implies that the series, foreign direct investment (FDI), openness to foreign trade (OPEN) and exchange rate (EXR) are not stationary at levels i.e. first-difference of this series is *mean reverting* and stationary. Then, the series is integrated of order one i.e. $I(1)$.

Table 4.1: ADF Unit Root Test Results

Series	T-ADF Statistics	Critical Value	Order of Integration
ΔFDI	-8.530024 (0.0000)	1% level: -4.284580	1
		5% level: -3.562882	
		10% level: -3.215267	
$\Delta RGDP$	-4.294628 (0.0107)	1% level: -4.323979	0
		5% level: -3.580623	
		10% level: -3.225334	
OPEN	-4.820492 (0.0030)	1% level: -4.309824	1
		5% level: -3.574244	
		10% level: -3.221728	
EXR	-5.307697 (0.0008)	1% level: 4.284580	1
		5% level: -3.562882	
		10% level: -3.215267	
INF	-3.553527 (0.0510)	1% level: -4.284580	0
		5% level: -3.562882	
		10% level: -3.215267	
$\Delta FRAS$	-3.543850 (0.0515)	1% level: -4.273277	0
		5% level: -3.557759	
		10% level: -3.212361	

Source: Authors' computation (2014).

Also, the considered foreign direct investment determinants such as real gross domestic product (RGDP), inflation rate (INF) and infrastructural development (FRAS) were found not to reject the null hypothesis "no stationary" at level but after several iterations based on the number of lag length and differencing, the series were found to reject the null hypothesis at first difference. This indicates that the first-difference of those series is *mean reverting* and stationary. This means that real gross domestic product (RGDP), inflation rate (INF) and infrastructural development (FRAS) are integrated of order one i.e. $I(0)$. Although, econometric literature has indicated that linearly combining or regressing a non-stationary series on non-stationary and stationary time series might yield spurious regression and render estimated parameters inefficient. Thus, this argument prompts the cointegration test to examine if the linear combination of our considered macroeconomic variables yields stationary residual.

4.2 Cointegration and Long-Run Estimates

The long-run relationship between macroeconomic variable determinants and foreign direct investment in Nigeria between 1980 and 2012 was examined using the Engle-Granger cointegration technique and the test

results are shown on Table 4.2.

Table 4.2: Engle-Granger Cointegration Results

Series	ADF Test at Level		Decision
	T-ADF Statistics	Critical Value	
$ECT=u = \ln FDI - \left(\begin{array}{l} \alpha + \beta_1 \ln RGDP + \beta_2 OPEN + \beta_3 EXR \\ + \beta_4 INF + \beta_5 \ln FRAS + \beta_6 POL \\ + \beta_7 DEREK \end{array} \right)$	1% level: -4.273277 5% level: -3.557759 10% level: -3.212361	-5.090073 (0.0013)	Stationary i.e. Cointegrated

Source: Authors' computation (2014).

The cointegration result presented in Table 4.2 indicated that the estimated residual (ECM) from the main empirical model was found to be stationary at level. This indicates that the null hypothesis "no cointegration" was rejected at 5% significance level. This implies that there exist long-run relationships among foreign direct investment (FDI), real gross domestic product (RGDP), country's openness to foreign trade (OPEN), exchange rate (EXR), inflation rate (INF), infrastructural development (FRAS), political regime (POL) and deregulation if the economy (DEREG) in Nigeria between 1980 and 2012. Thus, there is long-run relationship between all the macroeconomic variables considered and foreign direct investment in Nigeria.

The cointegrating equation was estimated using the ordinary least square (OLS) method and the long-run estimates were presented on Table 4.3.

Table 4.3: Estimated Regression Model

Dependent Variable: Log(FDI)				
Method: Least Squares				
Sample: 1980 2012				
Included observations: 33				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-20.00602	8.338892	-2.399122	0.0242
Log(RGDP)	2.346081	0.781887	3.000539	0.0060
OPEN	0.031969	0.008989	3.556334	0.0015
EXR	-0.001552	0.010258	-0.151262	0.8810
INF	0.005807	0.006205	0.935810	0.3583
Log(FRAS)	0.461120	0.128994	3.574743	0.0015
POL	-0.085169	0.580967	-0.146598	0.8846
DEREG	-4.429761	0.957645	-4.625681	0.0001
R-squared			0.9501	
Adjusted R-squared			0.9361	
S.E. of regression			0.5596	
F-statistic			67.9519	
Prob(F-statistic)			0.000	
Durbin-Watson stat			1.8818	

Source: Authors' computation (2014).

The estimates of the long-run model that captures the effect of macroeconomic variables on foreign direct investment in Nigeria between 1980 and 2012 indicated that exchange rate (EXR), deregulation (DEREG) and political regime (POL) exert negative effect on foreign direct investment (FDI) in Nigeria during the reviewed period. Exchange rate and political instability were found to be in tandem with the apriori expectation. In magnitude term, a unit change increase in exchange rate (EXR), deregulation (DEREG) and political regime (POL) affects foreign direct investment (FDI) from foreign investors by 0.155%, 8.52% and 443.0% respectively.

Also, other foreign direct investment indicators such as real gross domestic product (RGDP), country's openness to foreign trade (OPEN), inflation rate (INF) and infrastructural development (FRAS) were found to have positive effect on foreign direct investment (FDI) in Nigeria and these effects conform to the theoretical expectation except inflation (INF). Similarly, a percentage increase in real gross domestic product (RGDP), inflation rate (INF), infrastructural development (FRAS) and a unit change in country's openness to foreign trade (OPEN) enhance the pace of foreign direct investment (FDI) in Nigeria by 2.35%, 0.01%, 0.46%, and 0.03% correspondingly.

In term of partial significance of the estimated parameters for the considered variables, the t-statistics results are presented in Table 4.3. The result shows that the estimated parameters for real gross domestic product

(RGDP), country's openness to foreign trade (OPEN), infrastructure development (FRAS) and deregulation (DEREG) were found to be partially and statistically significant at 5% critical level because their *p-values* are less than 0.05. Thus, the estimated parameters for exchange rate (EXR), inflation rate (INF) and political instability (POL) were found to have insignificant effect on foreign direct investment (FDI) in Nigeria at 5% and 10% critical levels.

Although, the F-statistic result indicated that all the incorporated foreign direct investment indicators are simultaneously significant at 5% critical level. This prompts the rejection of the null hypothesis "macroeconomic variables have no significant effect on foreign direct investment in Nigeria". While, the adjusted R-squared result reveals that 93.6% of the total variation in foreign direct investment (FDI) is accounted by changes in real gross domestic product (RGDP), country's openness to foreign trade (OPEN), exchange rate (EXR), inflation rate (INF), infrastructural development (FRAS), political regime (POL) and deregulation if the economy (DEREG) during the review period. The Durbin-Watson test result reveals that there is presence of strong positive serial correlation among the residuals, because of the d-value (1.8818) is less than two.

4.3 Error Correction Mechanism (ECM) Analysis

The short-run analysis of the relationship between macroeconomic variables and foreign direct investment in Nigeria between 1980 and 2012 was examined using error correction mechanism (ECM) model and the estimated results were shown on Table 4.4.

Table 4.4: Estimated ECM Model

Dependent Variable: Log(FDI)				
Method: Least Squares				
Sample: 1981 2012				
Included observations: 32				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-20.34798	8.711218	-2.335836	0.0286
Log(RGDP)	2.387105	0.819415	2.913180	0.0078
OPEN	0.031646	0.009942	3.183095	0.0041
EXR	-0.001839	0.010697	-0.171970	0.8650
INF	0.006231	0.006730	0.925914	0.3641
Log(FRAS)	0.447732	0.138388	3.235332	0.0037
POL	-0.141164	0.620806	-0.227388	0.8221
DEREG	-4.449216	0.999330	-4.452198	0.0002
ECM(-1)	-0.352142	0.148001	-2.379322	0.0239
R-squared				0.948
Adjusted R-squared				0.930
S.E. of regression				0.582
F-statistic				52.49
Prob(F-statistic)				0.000
Durbin-Watson stat				2.001

Source: Authors' computation (2014).

From Table 4.4, there is no clear evidence of reserve effect in the short-run compared to the long-run estimates presented on Table 4.4. All the variables still maintained their respective signs and statistical significant and insignificant at both 5% and 10% significant levels.

Although, first lag of the error correction term (ECT) was found statistically significant at 0.05 critical value and correctly signed with the co-efficient of 0.352. This indicates that 35.2% of the distortion in the short-run is corrected in the first year in attaining equilibrium or sustainable foreign investment growth on the basis of the changes in its indicators in Nigeria.

4.4 Granger Causality Analysis

The pair-wise Granger causality test results of the relationship between macroeconomic determinants and foreign direct investment in Nigeria from 1980 to 2012 were presented on Table 4.5.

Table 4.5: Pair-Wise Granger Causality Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.
GDP does not Granger Cause POL POL does not Granger Cause GDP	25	1.33888 0.91732	0.2846 0.4158
FRAS does not Granger Cause POL POL does not Granger Cause FRAS	25	4.77808 3.59700	0.0201 0.0463
FDI does not Granger Cause POL POL does not Granger Cause FDI	25	0.94814 0.77779	0.4042 0.4728
OPEN does not Granger Cause POL POL does not Granger Cause OPEN	25	0.17565 0.24225	0.8402 0.7871
INF does not Granger Cause POL POL does not Granger Cause INF	25	1.49560 2.36201	0.2481 0.1200
EXR does not Granger Cause POL POL does not Granger Cause EXR	25	50.9564 0.07464	1.E-08 0.9283
FRAS does not Granger Cause GDP GDP does not Granger Cause FRAS	25	0.55079 2.74333	0.5850 0.0885
FDI does not Granger Cause GDP GDP does not Granger Cause FDI	25	0.61675 7.56739	0.5496 0.0036
OPEN does not Granger Cause GDP GDP does not Granger Cause OPEN	25	0.57020 0.83973	0.5743 0.4465
INF does not Granger Cause GDP GDP does not Granger Cause INF	25	3.59316 4.06993	0.0464 0.0329
EXR does not Granger Cause GDP GDP does not Granger Cause EXR	25	1.16233 3.07469	0.3330 0.0685
FDI does not Granger Cause FRAS FRAS does not Granger Cause FDI	25	1.60026 0.31485	0.2266 0.7334
OPEN does not Granger Cause FRAS FRAS does not Granger Cause OPEN	25	0.99054 5.19111	0.3889 0.0153
INF does not Granger Cause FRAS FRAS does not Granger Cause INF	25	1.34557 4.35760	0.2830 0.0269
EXR does not Granger Cause FRAS FRAS does not Granger Cause EXR	25	1.25118 2.22483	0.3076 0.1341
OPEN does not Granger Cause FDI FDI does not Granger Cause OPEN	25	0.25503 0.47455	0.7774 0.6290
INF does not Granger Cause FDI FDI does not Granger Cause INF	25	13.3855 5.31613	0.0002 0.0141
EXR does not Granger Cause FDI FDI does not Granger Cause EXR	25	0.94314 1.57012	0.4060 0.2326
INF does not Granger Cause OPEN OPEN does not Granger Cause INF	25	3.57982 1.15553	0.0469 0.3350
EXR does not Granger Cause OPEN OPEN does not Granger Cause EXR	25	0.00410 0.85151	0.9959 0.4417
EXR does not Granger Cause INF INF does not Granger Cause EXR	25	3.22637 2.02807	0.0610 0.1578

Source: Authors' computation (2014).

The test result indicated that on the basis of the F-statistic values, the null hypotheses that “each of political instability (POL), infrastructure development (FRAS), openness to foreign trade (OPEN) and exchange rate (EXR) does not Granger cause foreign direct investment (FDI)” were not rejected at 5% and 10% critical levels. This implies that foreign direct investment indicators do not Granger cause changes foreign direct investment growth rate in Nigeria. Thus, the null hypotheses that “each of gross domestic product growth rate (RGDP) and inflation rate (INF) does not Granger cause foreign direct investment (FDI)” were rejected at 5% and 10% critical levels. It means that these two indicators do Granger cause changes foreign direct investment growth rate in Nigeria.

Other null hypotheses such as “GDP does not Granger Cause POL”; “POL does not Granger Cause GDP”; “OPEN does not Granger Cause POL”; “POL does not Granger Cause OPEN”; “INF does not Granger Cause POL”; “POL does not Granger Cause INF”; “POL does not Granger Cause EXR”; “FRAS does not Granger Cause GDP”;

“FDI does not Granger Cause FDI”; “OPEN does not Granger Cause GDP”; “GDP does not Granger Cause OPEN”; “INF does not Granger Cause FRAS”; “EXR does not Granger Cause FRAS”; “FRAS does not Granger Cause EXR”; “FDI does not Granger Cause OPEN”; “FDI does not Granger Cause EXR”; “OPEN does not Granger Cause INF”; “EXR does not Granger Cause OPEN”; “OPEN does not Granger Cause EXR”; and “INF does not Granger Cause EXR” were rejected at 5% significance level.

From the table, it indicates that there is uni-directional causal relationship from exchange rate (EXR) to political instability (POL), infrastructure development (FRAS) to inflation rate (INF), foreign direct investment (FDI) to openness to foreign trade (OPEN), foreign direct investment (FDI) to inflation rate (INF) and exchange rate (EXR) to inflation rate (INF), while a bi-causal relationship exist between infrastructure development (FRAS) and political instability (POL) and inflation rate (INF) and real gross domestic product (RGDP) in Nigeria during the reviewed period.

V CONCLUSION AND POLICY OPTIONS

This study critically examined the precise relationship between macroeconomic determinants and foreign direct investment in Nigeria between 1980 and 2012. During these time period, the Nigerian economy has undergone series of economic reforms over the years. The ordinary least square (OLS), error correction mechanism and Granger causality test were employed as the econometric methods of estimation. Empirical result disclosed that the market size i.e. real gross domestic product of the Nigerian economy attracts foreign direct investment as output growth causes inflow of FDI to increase approximately by 2.35% which is consistent with the findings of Obada (1982), Chakrabati (2001), and Masayuki & Ivohasina (2005).

Political instability was found to have negative impact towards attracting foreign direct investment in Nigeria. In a statement by the former CBN Governor, Soludo (1998) stated that it is not profitability of investment today that attracts investors to invest, but how long will the profit remain fairly stable overtime. This reveals that if the socio-political and economic environment is highly volatile, an investor is better off exercising his option to wait while few with investment channel their funds where it can easily be repatriated to their home countries.

Another factor that determines FDI inflows is the exchange rate. If the exchange rate of a country depreciates, it attracts FDI since foreign firms may merge with or acquire domestic industries (Masayuki & Ivohasina, 2005). The report on exchange rate was found to be consistent to the study carried out by Liargova & Skandalis (2012) in the long-run, the negative effects of exchange rate volatility attracts more foreign investment and this result negates Goldberg & Kolstad (1994)'s findings.

In addition, this study is consistent to Fuat & Ekrem (2002) that infrastructure measure by share of transportation, energy and communication expenditures to GDP and the openness of the economy measured by the ratio of total trade to GDP are positively related to FDI inflows. However, the study negates Ajakaiye (1995)'s findings that high bank lending rate that existed during the early days of deregulation (1987-1990) has affected internal rate of return (IRR) on investment negatively, thereby boosting investment inflows but the instability of political system and deregulation in the Nigerian economy.

Out of all the considered variable determinants, two variables i.e. GDP growth rate and inflation rate granger cause foreign direct investment. Furthermore, there is uni-directional causal relationship from exchange rate to political instability, infrastructure development to inflation rate, foreign direct investment to openness to foreign trade, foreign direct investment to inflation rate and exchange rate to inflation rate; while a bi-causal relationship exist between infrastructure development and political instability and inflation rate and real gross domestic product. Thus, other causality relationships were reported in the study.

Considering the observed nature of the effect of macroeconomic variables on the growth rate of the foreign direct investment in Nigeria during the periods, the following strategic policy options are proffered as thus: there is need for continuous increase and growth of the nation's gross domestic product since the study

reported that market size of Nigeria has significant effect on FDI. Foreign investors will be motivated and attracted when they are certain that the host country creates the needed market for their market. Also, government should ensure enabling environment (or incentives) for production activities to further foster the interest of foreign investors in the Nigerian market. Government should make efforts to further deregulate the economy (with caution) in order to attract more FDI into Nigeria. This is true because the inflow of FDI has been on the increase since the introduction of Structural Adjustment Programme (SAP) in 1986.

More so, the current crisis in the Niger-Delta has been a major obstacle to crude oil production as well as the Boko Haram mayhem in the North regions. Therefore, government should strengthened the political institutions and adopt democratic principles that will ensure stability within the polity. The restoration of peace in the regions will turn woo more foreign investment to Nigeria. Improvement on investment in infrastructural faculties such as power, energy, transportation, telecommunication, etc. should be ensure so as to enhance the competitiveness of the environment of investment and ultimately increase FDI inflows.

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