# Empirical Analysis of the Relationship between Foreign Direct Investment and Economic Growth in Developing Countries- Evidence from Nigeria

Lawal Muhammad
Department of Economics,
School of Business Education,
Federal College of Education (Technical) Gusau,
Zamfara State-Nigeria.
*lawalm3@gmail.com*

Victor Ushahemba Ijirshar
Department of Economics,
Benue State University,
Makurdi-Nigeria.
*ijirsharvictor@gmail.com*

**Abstract - This study examines the effect of Foreign Direct Investment (FDI) on economic growth of Nigeria. The main objective of the study is to explore and quantify the contribution of Foreign Direct inflows to economic growth in Nigeria and other macro-economic variable(s). The model built for the study proxy real gross domestic product as the endogenous variable measuring economic growth as a function of Foreign Direct Investment, Domestic capital, Government Expenditure, real exchange rate and Inflation rate as the exogenous variables in the first model while unemployment was expressed as a function of Foreign Direct Investment, Government expenditure and real GDP. Annual time series data was gathered from Central Bank of Nigeria Statistical bulletin, National Bureau of Statistics (NBS) and the World Economic Outlook spanning 1970 to 2013. The study used econometric techniques of Augmented Dickey-Fuller (ADF) unit root test, pairwise granger causality test, Johansen co-integration test and error correction model (ECM) for empirical analysis. The results of unit root revealed that, all the variables in the model were integrated at first difference while pairwise granger causality revealed a unidirectional relationship between Foreign Direct Investment (FDI) and Economic growth (GDP) in Nigeria and no causal relationship between Foreign Direct Investment and unemployment rate. The co-integration test shows that, long-run equilibrium relationship exists among the variables captured in model but model 2 revealed no hypothesized co-integrating equation. FDI had positive but not statistically significant relationship with Nigerians economy growth in both the short and long run. The findings from the error correction method show that, the distortion in will adjust itself to equilibrium at 0.3% in each period which is very slow in adjusting to equilibrium in case of any distortion. The study recommends that, the government need to aggressively initiate policies to channel the Nation's domestic savings for investment purposes and enact policies to train human capital to argument increasing FDI into the country to stimulate the economy towards rapid and sustained economic growth.**

**Keywords: Foreign Direct Investment, Economic Growth, Unemployment and Government Expenditure**

## 1.1 Introduction

Over the last four decades, the Nigerian macroeconomic performance can be described as being chequered. The average GDP growth rate of 3.95%

achieved between 1970 and 2008 translates into a low growth rate of 1.49% in per capita income terms. On an aggregate basis, the economy when measured by the Real Gross Domestic Product (GDP) grew by 6.54% of real GDP in the second quarter of 2014, higher than 5.4% recorded in the corresponding quarter of 2013, and also higher than the 6.21% recorded in the first quarter of 2014 (NBS, 2014). This rate of growth in per capita income is insufficient to reduce in a significant way, the level of poverty which remains the primary goal of development policy in Nigeria. Ajayi (2006) noted that the savings rate in Nigeria is lower than that of most other countries and far lower than the required investments that can induce growth rates that are capable of alleviating poverty. More so, literature reviewedthat in developing economies, domestic investment has proven to be insufficient in giving the economy the required momentum to enable it meet its growth target due to the gap between their capital requirements and saving capacity like Onu (2012) who have shown that Foreign Direct Investment (FDI) is what is needed to bridge the savings investments gap that exists in Africa in general and Nigeria in particular.

Foreign Direct Investment (FDI) is a component of international capital flows and it has been the largest single source of external finance for developing countries since 1993 since it is widely

IJBAMR

believed that economic growth depends critically on both domestic and foreign investments equally the rate of inflow of foreign investment depends on the rate of economic growth (Andenyangtso, 2005). Going by the rationale of FDI, there is little or no doubt that, FDI will argument real resources directly as stated by Oyeranti (2003:17) that, "FDI is a good choresterol" and though to be "bottled down and cannot leave so easily at the first sign of the trouble". Incidentally, Sadik and Bolbol (2001:2115) asserted that "FDI inflows are the least volatile of capital flows, and more important can have direct and indirect effects on economic growth. The stability of FDI stems from the fact that direct investors have a large term view of the market thus making them more resistant to herd behavior, and from the sheer difficulty of liquidating asserts at short notice. The direct effect on growth arises from human capital formation and the effect is more significant if FDI is complemented with human capital. In addition, while proponents argue that FDI is a manner from heaven and thus good for speedy economic development of developing countries in particular, opponents contend that, FDI leads to increased poverty, isolation and neglect of local capabilities. Aremu(2003:39) and Aitken and Harrison (1999)who showed that foreign entry, by disturbing the existing equilibrium is the host country, could force domestic firms to produce less output; push up their average cost curves and hence lower the productivity of these firms thereby leading to a decline in net domestic productivity despite technology transfer from foreign firms.

The amount of foreign direct investment inflow into Nigeria has suddenly increased from the rate of 3.34% in 2006 to 3.62% in 2011 and 17.24% in 2012 (The PUNCH, 2013). Nigeria is argued to be buoyantly blessed with enormous mineral and human resource but believed to be highly risky market for investment. Also decade of bad governance have almost crippled. The national economy with corruption and misappropriation is of fund becoming the norm rather than expectation. Although some scholars are of the view that Nigeria needs foreign direct investment as a verifiable boaster of the Nigeria economy while others are of the view that foreign direct investment is a form of neo-colonialism. The perception of FDI as parasitic and retarding the development of domestic industries for export promotion had engendered hostility to multi-national companies and their direct investments in many countries. According to Ajayi (2006) FDI is seen as an engine of growth as it provides the much needed capital for investment, increases competition in the host country industries and aids local firms to become more productive by adopting more efficient technologies or by investing in human and/or physical capital. Osaghale and Amenkhieman (1987), Ohiorheman (1993), Fabayo (2003) and Aremu (2005) establish a relationship between investment and growth in Nigeria. However, empirical studies of the impact of FDI on growth are concerned with either the overall effect on growth (or net welfare) and not with specific aspects of the FDI impact on employment, technology and other areas of the economy, such as, infrastructures, education and health. However, Nigeria is characterized by high rate of poverty, low per-capita income, high rate of unemployment, unfavourable balance of payment as well as low and unstable growth rate of GDP; problems which FDI is theoretically supposed to solve.

It is against this background that this research work seeks to investigate the impact of (FDI) on economic growth and unemployment rate in Nigeria which has remained unclear. The study seeks to:

i. determine the Causal relationship between Foreign Direct Investment, Unemployment rate and Economic growth in Nigeria
ii. analyse the impact of Foreign Direct Investment on the growth of Nigeria economy(1970-2013).
iii. examine the impact of Foreign Direct Investment on the growth of Nigeria economy

### 1.2 Hypotheses

$H_{01}$: There is no causal relationship between Foreign Direct Investment, Unemployment rate and Economic growth in Nigeria

$H_{O2}$: Foreign Direct Investment has no significant impact on the growth of the Nigeria economy

$H_{O3}$: Foreign Direct Investment has no significant impact on unemployment rate of the Nigeria economy

### 2.1 Conceptual Framework

**Foreign Direct Investment (FDI)**

Lipsey and Chrystal (2004) define FDI as "non-resident investment in the form of a takeover or capital investment in a domestic branch, plant or subsidiary corporation in which the investor has voting control". The Investment Monetary Fund (IMF, 1993, section 359) defines FDI as "an investment that reflects the objective of obtaining a lasting interest by a resident in another economy… the lasting interest implies the existence of a long-term relationship between direct investor and the (foreign) enterprise and a significance degree of influence by the investor on the management of the enterprise".

**Government Expenditure (GEX)**

Government expenditure refers to expenses incurred in the public sector. It refers to expenses

IBAMR

incurred by the government at various levels which include the Federal, State and Local government levels in Nigeria (Siyan, 2000).

**Economic Growth**

Jhingan (2003) defines economic growth as "a quantitative sustained increase in the country's per capita output or income accompanied by expansion, capital and volume of trade. Todaro and Smith (2007) have defined economic growth as "a steady process by which the productive capacity of an economy is increased overtime to bring about rising levels of national output and income".

**Unemployment**

The International Labour Organization (ILO) defined the unemployed as members of the economically active populations who are without work but available for work and naturally results in the displacement of labour and finally causing unemployment.

## 2.2 Theoretical Literature

The electric theory describes FDI as a non-zero sum game being the most profitable form of investment for some oligopolistic industries and at the same time serving as a tool of economic progress of the host countries in LDCs.The theory postulates that the special factors of both the investing foreign firm and the host country are necessarily for a firm's foreign investment and for the firm to have positive contribution of economic growth of the host country. Dunning, the proponent of this theory, maintained that on the side of the firm, it must have "firm specific or ownership advantage". That is, the firm must have both tangible assets which may hardly be available to other firms to enable the investing firm have competitive advantage in global market. The investing foreign firm may also have "internationalization advantage". This advantage enables an investing foreign firm to use its firm specific or ownership advantage rather than license them. The second advantage gives room for wholly foreign owned and controlled enterprises joint ventures and others. On the side of the host country, Dunning maintained that it must have "location specific advantage". This embraces availability of natural resources, minimum infrastructure good macroeconomic policies among others.The above factors of both the investing firm and the host country induce MNCs to locate part of their production facilities abroad to achieve their primary objectives and auxiliary motives which are profit maximization and social responsibility to the host country. The implication of this theory to Nigerian economy is that, the nation has abundant, untapped and even undiscovered natural resources as its "location specific advantage" which can be used maximally to stimulate economic growth and development. For the nation to achieve rapid and sustained economic growth, this advantage must be backed up with good and consistent macroeconomic policies, good governance, improvement in infrastructure peace and security and human capital security among other factors for the country to serve as attractive site for foreign firms and for the firms to have positive contribution to economic growth of the country.

The principle of acceleration is based on the fact that the demand for capital goods is derived from the demand for consumer goods which the former helps to produce. The acceleration principle explains the process by which an increase or decrease in the demand for consumption goods leads to an increase or decrease in investment on capital goods. The accelerator coefficient is the ratio between induced investment and an initial change in consumption expenditure. Symbolically, $\beta=\Delta I/\Delta C$ or $\Delta I=\beta\Delta C$ where $\beta$ is the accelerator coefficient, $\Delta I$ is net change in investment and $\Delta C$ is net change in consumption expenditure while Harrod and Domar assign a key role to investment in the process of economic growth. But they lay emphasis on the dual character of investment. Firstly, it creates incomes, and secondly, it augments the productive capacity of the economy by increasing its capital stock. The former may be regarded as the "demand effect" and the latter the "supply effect" of investment. Hence so long as net investment is taking place, real income and output will continue to expand. However, for maintaining a full employment equilibrium level of income from year to year, it is necessary that both real income and output should expand at the same rate at which the productive capacity of the capital stock is expanding. Otherwise, any divergence between the two will lead to excess or idle capacity, thus forcing entrepreneurs to curtail their investment expenditures. Ultimately, it will adversely affect the economy by lowering their incomes and employment in subsequent periods and moving the economy off the equilibrium path of steady growth. Thus, if full employment is to be maintained in the long run, net investment should expand continuously. This further requires continuous growth in real income at a rate sufficient enough to ensure full capacity use of a growing stock of capital. This required rate of income growth may be called the warranted rate of growth or "the full capacity growth rate"

## 2.3 Empirical Literature

Olumuyiwa (2013)examined the impact of Foreign Direct Investment inflow and economic growth in a pre and post deregulated Nigerian economy, a Granger causality test was use as the estimated technique between1970-2010. However, the analysis

IJBAMR

de-aggregates the economy into three period; 1970 to 1986, 1986 to 2010 and 1970 to 2010, to test the causality between foreign direct investment inflow (FDI) and economic growth (GDP). However, the result of the causality test shows that there is causality relationship in the pre-deregulation era that is (1970-1986) from economic growth (GDP) to foreign direct investment inflow (FDI) which means GDP causes FDI, but there is no causality relationship in the post-deregulation era that is (1986-2010) between economic growth (GDP) and foreign direct investment inflow (FDI) which means GDP causes FDI. However, between 1970 to 2010 it shows that is causality relationship between economic growth (GDP) and foreign direct investment inflow (FDI) that is economic growth drive foreign direct investment inflow into the country and vice versa.

Umoh, Jacob and Chuku (2012) empirically investigated the relationship between foreign direct investment and economic growth in Nigeria between 1970 and 2008. The study makes the proposition that there is endogeniety i.e., bi-directional relationship between FDI and economic growth in Nigeria. Single and simultaneous equation systems are employed to examine if there is any sort of feed-back relationship between FDI and economic growth in Nigeria. The results obtained show that FDI and economic growth are jointly determined in Nigeria and there is positive feedback from FDI to growth and from growth to FDI. The overall policy implication of the result is that policies that attract more foreign direct investments to the economy, greater openness and increased private participation will need to be pursued and reinforced to ensure that the domestic economy captures greater spillovers from FDI inflows and attains higher economic growth rates.

Adeniyi, Omisakin, Egwaikhide and Oyinlola (2012) examined the causal linkage between foreign direct investment (FDI) and economic growth - in Cote' d'Ivoire, Gambia, Ghana, Nigeria and Sierra Leone - with financial development accounted for over the period 1970-2005 within a trivariate framework which applies Granger causality tests in a vector error correction(VEC) setting. Three alternative measures of financial sector development - total liquid liabilities, total banking sector credit and credit to the private sector - were employed to capture different ramifications of financial intermediation. The results support the view that the extent of financial sophistication matters for the benefits of foreign direct investment to register on economic growth in Ghana, Gambia and Sierra Leone depending on the financial indicator used. Nigeria, on the other hand, displays no evidence of any short- or long-run causal flow from FDI to growth with financial deepening accompanying. In sum, therefore, what should be of utmost urgency is concerted efforts in most of these countries, which have typically been in the throes of economic reforms, to upgrade their financial structure to better position them to reap the desirable growth promoting effects of FDI flows.

Onu (2012) investigated the impact of foreign direct investment (FDI) on Economic Growth in Nigeria within the period 1986-2007. The objective of the study was to assess the impact of FDI on Economic Growth in Nigeria within the period under review. The study employed multiple regression models to determine the impact of some external or macro variables on the gross domestic product (GDP) proxy for economic growth in Nigeria. The study used time series data to ascertain the inflow of FDI to the Nigerian economy and its implications on economic growth. The study found that FDI has the potential to positively impact upon the economy though its contribution to GDP was very low within the period under review. The multiple regression results also revealed that FDI, government tax revenue (GTR) and savings exerted positive but not significant impact, except savings, on GDP during the study period. However, foreign exchange and public expenditure on education (PEE) had inverse relationship with GDP. The study concluded that FDI induces the inflow of capital, technical know-how and managerial capacity which can stimulate domestic investment and accelerate the pace of economic growth. Considering the crucial role of FDI, the paper recommended the need for maintaining a steady economic growth and low inflation, increased investment in human capital development and increased national savings and investments among others

Imoudu (2012) investigated the relationship between foreign direct investment (FDI) and economic growth in Nigeria between 1980-2009 through the application of Johansen Co-integration technique and Vector Error Correction Methodology in which FDI is disaggregated into various components. Similarly, it examines the determinants of FDI in Nigeria. The Johansen Co-integration result establishes that the impact of the disaggregated FDI on real growth in Nigeria namely: agriculture, mining, manufacturing and petroleum sectors is very little with the exception of the telecom sector which has a good and promising future, especially in the long run. Furthermore, past level of FDI and level of infrastructures are FDI enhancing. In the light of the above, the study recommends, among other things, the creation of enabling investment climate in Nigeria through the overhauling of the security system which will help in no small measure in boosting investors' confidence as instability scare way prospective investors. And also, there is the need to liberalise the foreign sector in Nigeria while all barriers that are inimical to cross-border trade such as arbitrary tariffs; import and export duties and other levies should

IJBAMR

be reduce to the beeriest minimum or, if possible, removed.

### 3.1 ResearchMethodology

This research work is fundamentally analytical as it embraces the use of secondary data. The annual time series data were sourced from the Central Bank of Nigeria (CBN) statistical Bulletin (various issues).

### 3.2 Model Specification

The model for this study is derived from the electric theory. Thus the function is stated as (**model 1**):

RGDP = f (DMKA, FDI, GEXP, REXR, INFL) (1)

The log linear form of the equation (1) above can be written stochastically as:

$$InRGDP=b_0+b_1InDMKA+b_2InFDI+b_3InGEXP+b_4InREXR+b_5InINFL+U_i \quad (2)$$

Where, RGDP= Real Gross Domestic Product (Economic Growth), DMKA = Domestic capital,FDI= Foreign Direct Investment (Foreign capital), GEXP= Government expenditure. REXR= Exchange rate and INFL= Inflation rate.

To determine the impact of FDI on unemployment level in Nigeria is captured in the function stated below **(model 2)**:

UEMP = f (RGDP, FDI, GEXP) (3)

The log linear form of the equation (3) above can be written stochastically as:

$$InUEMP = b_0 +b_1InRGDP+b_2InFDI+b_3InGEXP +U_i \quad (4)$$

Where, UEMP= Unemployment rate, $B_0$ = intercept, $B_{1-5}$= Coefficients and U = Stochastic error term

The paper used both descriptive statistical tools and econometric tools. The study used the Augmented Dickey Fuller Test (ADF) to ascertain the stationary properties of the time series .The ADF formula was specified as:

$$\Delta P_{it} = \beta_1 + \beta_{2t} + \sigma P_{it-1} + \alpha \sum_{t-1}^{m} \Delta P_{it-1} + \varepsilon_{it} \quad (5)$$

Thus, Granger causality test was employed to determine the causal relationship between the variables under study. There are four possible outcomes regarding causal relationships: unidirectional causality, bidirectional causality and finally, lack of any causal relationship between variables. It is thus stated as:

$$y_t = a_0 + a_1 y_{t-1} + \ldots + a_l y_{t-l} + b_1 x_{t-1} + \ldots + b_l x_{t-l} + e_t \quad (6)$$

$$x_t = a_0 + a_1 x_{t-1} + \ldots + a_l x_{t-l} + b_1 y_{t-1} + \ldots + b_l y_{t-l} + u_t \quad (7)$$

for all possible pairs of series in the group.

The ECM incorporates both the short run and the long run effects. The purpose of the ECM is to indicate the speed of adjustment from the short-run equilibrium to the long-run equilibrium state. The greater the coefficient of the parameter, the higher the speed of adjustment of the model from the short-run to the long run state will be. Therefore, equation (2) will be represented to include ECM to reflect the short run dynamics as:

$$\Delta InRGDP_t = b_0 + \sum_{i-1}^{n} b_{1t}\Delta InRGDP_{t-1} + \sum_{i-1}^{n} b_{2t}\Delta InDMKA_{t-1} + \sum_{i-1}^{n} b_{3t}\Delta InFDI_{t-1} + \sum_{i-1}^{n} b_{4t}\Delta InGEXP_{t-1} + \sum_{i-1}^{n} b_{5t}\Delta InREXR_{t-1} + \sum_{i-1}^{n} b_{6t}\Delta InINFL_{t-1} + U_t \quad (8)$$

When equilibrium holds $[RGDP_{t-1} - \beta_0 - \sum_{i-1}^{n} b_{it}\Delta InX_{i\,t-1}] = 0$ but in the short run when equilibrium exists, this term is non-zero and measures the distance by which the system is away from equilibrium during time t.

The equation (3) will be represented to include ECM to reflect the short run dynamics in the model as:

$$\Delta InUNEMP_t = \alpha_0 + \sum_{i-1}^{n} \alpha_{1t}\Delta InUNEMP_{t-1} + \sum_{i-1}^{n} \alpha_{2t}\Delta InRGDP_{t-1} + \sum_{i-1}^{n} \alpha_{3t}\Delta InFDI_{t-1} + \sum_{i-1}^{n} \alpha_{4t}\Delta InGEXP_{t-1} + U_t \quad (9)$$

### 3.6 Apriori Expectation

$B_0$ is a constant factor and represent the level of economic growth holding all the explanatory variables in the first model while unemployment level in the second model. This is expected to be positive and negative respectively. $B_1$ to $B_3$ are expected to be positive in both models while $B_4$ to $B_5$ are expected to be negative in the first model.

IJBAMR

### 4.1 Result of Unit Root Tests

Before any meaningful regression is performed with the time series variables, it is essential to test the existence of unit roots in the variables and hence to establish their order of integration. The variables used in the analysis need to be stationary and/or should be co-integrated on order to infer a meaningful relationship from the regression. The test result of the Augmented Dickey-fuller statistic for all the time series variables used in the estimation are presented in the Table 1: From the results of unit root (with constant and trend), all the variables (RGDP, DMKA, FDI, GEXP, INFL, REXR and UNEMP) are integrated at the first difference i.eI(1). However, Inflation rate achieved stationarity at a level when estimated with constant while all other variables were integrated at first difference. This is because the probability value of Real Gross Domestic Product, Domestic Capital, Foreign Direct Investment(Foreign Capital), Government Expenditure, Inflation rate, Real Exchange rate, and Unemployment rate are less than 5% critical valueat first difference.

### 4.2 Granger Causality Results

From the results of the pairwise granger causality, Foreign Direct Investment (FDI) granger causes real Gross Domestic Product (RGDP) and Domestic Capital (DMKA) at 5% critical level, real exchange rate(REXR) granger cause Domestic Capital (DMKA) and Foreign Direct Investment (FDI) at 5% critical level, Domestic Capital (DMKA) granger cause Inflation rate (INFL) while Unemployment rate granger cause real Gross Domestic Product (RGDP). The results also showed that real exchange rate (REXR) granger cause Government Expenditure (GEX) at 10% critical level while real Gross Domestic Product (RGDP) granger causes Domestic Capital (DMKA) at 10% critical level. These show that, the foreign direct investment impacts significantly to the economic growth of Nigeria while affecting the gross domestic savings of the Nigeria economy however has no direct link in reducing the unemployment rate in Nigeria. This finding is in line with that of Imoudu (2012) who regretted that "despite the huge inflow of FDI recorded annually over past decade, not much impact is evidenced in the lives of the citizens" and stated several implications for the country that: "the flow of FDI to the extractive sector is not growth enhancing as much as other sectors, because oil sector is often an enclave sector with little backward and inward linkages withother sectors and that manufacturing and services sectors are not playing leading roles in the determination of national output, employment generation and income, and this explains why the majority of Nigerian citizens are living in poverty , the country's huge petroleum resources notwithstanding".

### 4.3 Johansen Hypothesized Co-integration Result

The Johansen hypothesized co- integration was carried out to determine the number of stationary long-run relationship among the variables included in the study. It offers two tests, the trace test and the Eigen value test, with a view to identify the number of co-integrating relationships. The results are shown in the table 2 and 3: Table 2 revealed that there is co-integration among the variables. This is because the Trace Statistics of 124.6541 and 83.79865 are greater than theirrespective critical values of 95.75366 and 69.81889at 5% level of significance. We reject the null hypothesis of none* and at most 1 of the hypothesized number of co-integrating equations. Accordingly, Trace statistic test indicates 2 co-integrating equation at 5 percent level of significance. For the remaining number of hypothesized co-integrating Equations ( at most 2, 3, 4 and 5), we do not reject the null hypotheses as their trace statistic values are less than the critical values at 5 percent level of significance.

From the Table 3, it revealed that, there is co-integration among the variables. This is because the Max-Eigen statistic of 40.85549 is greater than the critical value of 40.07757at 5% level of significance. We reject the null hypothesis of none* of the hypothesized number of co-integrating equation. Accordingly, the Max-Eigen test indicates 1 co-integrating equation at 5 percent level of significance. For the remaining number of hypothesized co-integrating equation (at most 1, 2, 3, 4 and 5), we do not reject the null hypothesized as their Max-Eigen statistic values are less than the critical values at 5 percent level of significance, meaning that there is a long run relationship among the variables employed for the study. This implies that there is a long-run relationship between Foreign Direct Investment and Economic Growth in Nigeria.

From the Table 5, it revealed that, there is no co-integration among the variables. This is in line with the result of pairwise granger causality that revealed no causal relationship between foreign direct investment and unemployment reduction (i.e employment generation) in Nigeria. This implies that foreign direct investment in Nigeria is not invested in the sectors that would generate more employment opportunities for the teaming youth as most of the FDI funds are directed to extractive sector instead of manufacturing or other sectors such as; tradable/employment generating sectors

IDRAMR

of the economy thus calls for no further statistical investigation as specified.

### 4.4 The Impact of Foreign Direct Investment on Economic Growth in Nigeria (Long-run)

This relationship is captured in the estimates presented below:

InRGDP= 0.000272InDMKA+0.003106InFDI-0.000269InGEXP-

(0.000051) (0.00163) (0.00005)

5.572841InREXR+10.87274InINFL

(3.75724)(2.56388)

**Note:** Standard Error in parenthesis.

The model estimate revealed a positive relationship between FDI and economic growth this implies that a N1 increase in the foreign direct investment increases RGDP by 0.003106 in Nigeria at long run. The model estimates also that, in the long-run, domestic capital has positive impact on the Nigerian economic growth. This implies that, N1 increase in DMKA will lead toincrease in RGDP by 0.000272.The model also revealed a negative relationship between Government Expenditure and Economic growth. This implies that N1 increase in government expenditure reduces the gross domestic product by 0.000269. This could also be that, the government has been spending heavily on overheads more than on capital projects which will cumulate into economic growth at long-run. Real exchange rate was found to negatively influence economic growth by 5.572841 while Inflation rate positively influenced the Nigerian economic growth.From the estimates of the long-run relationship between the exogenous variables and the endogenous variable captured in the first model, it revealed that Foreign Direct Investment and Real exchange rate were statistically insignificant in influencing the Nigeria economy while Domestic capital, Government expenditure and Inflation rate were statistically significant in influencing the Nigerian economic growth in the long-run.

### 4.5 The Impact of Foreign Direct Investment on Economic growth in Nigeria (Short-run)

Having ascertained the long-run dynamics of the long-run relationship among variables, we proceeded to estimate the short-run dynamics of the variables by employing a vector error correction mechanism. The result of the short-run relationships indicates that, among the all the explanatory variables were insignificant in influencing Nigerian economic growth (RGDP). This implies that, the coefficients of domestic capital, foreign direct investment, government expenditure, real gross domestic product in the previous year were statistically insignificant in contributing to economic growth of Nigeria in the short run while domestic capital, foreign direct investment, government expenditure were not rightly signed showing negative relationship with economic growth.

It is obvious from the coefficient of multiple determinations ($R^2$) that the model has jointly explained 59% of the movement in the dependent variable as a result of the changes in the explanatory variables captured in the model with the $R^2$-adjusted ($\overline{R^2}$) of 49.5%. The fitness of the model is continued by the low F-statistic of 2.597489 which is statistically insignificant at explaining the overall significance of all the variables incorporated in the model.

### 4.6 Discussion of the Major Findings

The null hypothesis of no causal relationship between Foreign Direct Investment and Economic growth in Nigeria is rejected since the pairwise granger causality test revealed a unidirectional causal relationship leading from Foreign Direct Investment to Economic growth in Nigeria while there exist no causal relationship between unemployment rate and Foreign direct investment in Nigeria. This findings is at variance with Umoh, Jacob and Chuku (2012) who revealed that FDI and economic growth are jointly determined in Nigeria and there is positive feedback from FDI to growth and from growth to FDI

The second null hypothesis that FDI has no significant relationship with GDP in Nigeria was no rejected at 5% level of significance. Therefore, it implies that FDI has impacted positively in the long-run on the growth of the Nigerian economy but not statisticallysignificant from 1970-2013 in both the short (negative) and long-run.This agrees with the findings of Omoniyi and Omobitan (2011) which indicates that FDI has a negative relationship with the GDP of Nigeria and Kolawole (2013) that revealed that foreign direct investment impacts negatively while official development assistance has no effect on real growth in the country

The study also revealed that there is no co-integration relationship between the foreign direct investment and unemployment reduction in Nigeria.

From the empirical findings inferred, both on the long-run and short-run analysis, FDI have not statistically impactedon the Nigerian economic growth.

IJBAMR

The plausible explanation to this scenario was that Nigerian economy has not effectively mobilized adequate foreign capital inflow to engender desired growth of the domestic economy or the possibility of high capital flight in the domestic economy or weak institutional qualities have eroded the effectiveness of its benefits. This finding conformed to the conclusion of Ayawale (2007) that FDI was positive but insignificantly related to economic growth in Nigeria.

The FDI is expected to induce economic growth of $LDC_s$ especially Nigeria. But the short-run coefficient of FDI of Nigeria was negative. This implies that the government has been investing(FDI funds) more in extractive sector instead of manufacturing or other sectors such as; tradable/employment generating sectors of the economy to stimulate the growth of the economy thereby improving the macroeconomic variables of the Nigerian economy. The reasons are not farfetched. The corrupt nature of "some" Nigerians is worrisome and constitute a catastrophe to economic growth.

Furthermore, the coefficient of error correction term is insignificant though with the expected sign and low magnitude (-0.003068). Its magnitude indicates that if there is any deviation the long run equilibrium is adjusted slowly where about 0.3% of the disequilibrium maybe removed each period (i.e each year). This shows that, the speed of adjustment to where the Foreign Direct Investment will equilibrate the real economic growth of Nigeria even when there is initial disequilibrium is at the rate of 0.3%.

### 5.1 Summary

Foreign Direct Investment inflows to developing countries have undergone fundamental transformation during the past three decades. More recently, they have been influenced by the rapid wave of liberalization and deregulation of economic activities in the developing countries especially Nigeria. This increase is expected to argument internal growth variables and strong economic policy to transform the economy. The influx of multinationals into the country is expected to reduce the level of unemployment in the country, reduce poverty and above all stimulate economic growth. It was against this background that the study sought to investigate the impact of FDI and other variables in explaining the un-sustained economic growth of Nigeria.

From our empirical results, we found that, there exist a unidirectional relationship between the Foreign Direct Investment (FDI) and the Nigeria economic growth running fromForeign Direct Investment (FDI) to Nigeria economic growth and that in the short-run, Foreign Direct Investment (FDI) has an inverse relationship with economic growth this could be that, in the short-run, the Foreign Direct Investment (FDI)have not adequately been invested into productive ventures of the economy to stimulate economic growth. However, the normalized Johansen equation indicates that FDI positively impacted onreal GDP of Nigeria but not statistically significant at 5% critical level while government expenditure and domestic capital were found to have significantly affected real domestic product in Nigeria.

With the recent position of Nigeria for Foreign Direct Investment nothing worthy of statistical significance has been impacted on the economic growth that transcend to the unemployment status and poverty in Nigeria.

### 5.2 Conclusion

Based on the empirical evidence, we can conclude that Foreign Direct Investment has no significant positive impact on the growth of the Nigeria economy in the period under study since the funds were not invested properly and that there is no direct causal relationship between foreign direct investment and employment generation or rather unemployment reduction in Nigeria which is one among the macro-economic goals of the Nigerian economy.

### 5.3 Recommendations

1. The government need to aggressively initiate policies to channel the Nation's domestic savings for investment purposes to stimulate the economy towards rapid and sustained economic growth.
2. Sectors with major FDI inflows over the years have been the oil and gas, manufacturing, infrastructure development, services and consumer goods sectors. The study recommends that the FDI inflows into the sectors should be sustained but much attention to the manufacturing sector in order to boost industrialization in the country thus generating employment opportunities thereby reducing poverty.
3. Reforms such as zero duty on imported plant and machineries, and similar incentives can help improve domestic production, establish new investments and reduce the country's unemployment rate
4. The government and the private sector should enact policies to train human capital to argument increasing FDI into the country to

IJBAMR

achieve economic growth and country which paves way for wealth creation.

5. The country need to cut her recurrent expenditure and release more resources for capital projects which have direct bearing with productivity.
6. The weak institutional qualities and capabilities of the Nigerian state in transforming long term growth to development should be improved to transform the economy such as; ineffectiveness, corruption, lacks of regulatory quality, insecurity and political instability that can facilitates smooth process of rule of law and effectiveness of available funds/guaranteed investments as noted by analysts at Financial Derivatives Company Limited that the FDI in Nigeria would have been significantly better without the security challenges in some parts of the country (The PUNCH, 2013).

**References**


[1] Adeniyi, O. A., Omisakin, O. A., Egwaikhide, F. O and A. Oyinlola (2012). "Foreign Direct Investment, Econoomic growth and Financial sector development in small open developing economies", Economic analysis and policy, Vol.42 No.1

[2] Ajayi S. I. (2006). "FDI and Economic Development in Africa", Department of Economics, University of Ibadan, Ibadan, Nigeria

[3] Aitken, B.J., and A. E. Harrison (1999). "Do Domestic Firms Benefit from Foreign Direct Investment?" Evidence from Venezula, American Economic Review, Vol. 89, No.3, 605-18

[4] Aremu, J.A. (2003). "Foreign Direct Investment: Determinants and Performance". Central Bank of Nigeria: National Centre for Economic Management and Administration (NCEMA), Macro-economic Policy Analysis and Management Program.

[5] Aremu, J.A. (2005). "Attracting and Negotiating Foreign Direct Investment with Transnational Corporations in Nigeria". Lagos, Nigeria: Market Link Communications.

[6] Ayanwale, A. B. (2007). "FDI and Economic Growth: Evidence from Nigeria". Kenya: The African Economic Consortium, Nairobi, April 2007.

[7] Fabayo, J. A. (2003). "Foreign Direct Investment and Manufacturing Industries in Nigeria: Performance, Prospects and Problems" in Nnanna, O.J.; Okafor, C.M. &Odoko, F.O. (eds.): "Foreign Private Investment in Nigeria", Central Bank of Nigeria: Proceedings of the 12th Annual Conference of the Regional Research Units.

[8] Imoudu , E. C. (2012). "The Impact of Foreign Direct Investment on Nigeria's Economic Growth; 1980-2009: Evidence from the Johansen's Cointegration Approach", *International Journal of Business and Social Science,* Vol. 3 No. 6

[9] International Monetary Fund (IMF), (1993)."Balance of Payment Manual". 5th Edition; Washington, D.C.: International Monetary Fund.

[10] Jhingan, M. L. (2003). "Advanced Economic Theory". Delhi: Vrinda Publishers Limited.

[11] Kolawole B. O (2013). "Foreign Assistance and Economic Growth in Nigeria: The Two-Gap Model Framework", *American International Journal of Contemporary Research* Vol. 3 No. 10

[12] Lipsey and Chrystal (2004)."Economics". New York: Oxford University Press Inc.

[13] National Bureau of Statistics (2014). "Nigerian Gross Domestic Product Report, Quarter two 2014", Abuja–Nigeria

[14] Omoniyi, B.B. and Omobitan, O.A. (2011)."The impact of Foreign Direct Investment on Economic Growth in Nigeria".*International Research Journal of Finance and Economics*: Euro Journals Publishing, Inc. 2011.

[15] Onu, A. J. C. (2012). "Impact of Foreign Direct Investment on Economic Growth in Nigeria"*Interdisciplinary Journal of Contemporary Research in Business*, Vol. 4 No. 5

[16] Ohiorheman, J. F. (1993). "Multinational Corporation and the Nigerian Political Economy".*The Nigerian Journal of Economic and Social Studies (NJESS)*, (35).

[17] Oseghale, B. D. and F. Amenkhieman (1987). Foreign Debt, Oil Exports, Direct Foreign Investment and Economic Performance in Nigeria (1960-1984). *The Nigerian Journal of Economic and Social Studies,* 29(3).

[18] Oyeranti, O. A. (2003). "Foreign Private Investment; conceptual and theoretical issues". A paper presented at the CBN 12th Annual Conference of the Regional Research Unit in Kaduna State on September, 1.5, 2003.


IJBAMR

[19] Sadik A. T and A. A. Bolbol (2001). "Capital flows, FDI, and Technology Spillovers: Evidence from Arab countries. World Development, Vol. 29 Issues 12.
[20] Siyan, P. (2000). "Introduction to Econometrics Economic Analysis". Abuja Nigeria: B. Anny Publishers, 1st Edition.
[21] Soludo, C.C. (2007). "Debt Poverty and Inequality: Towards an exit strategy for Nigeria and Africa".Proceedings, International Conference on Sustainable Debt Strategy, Abuja-Nigeria.
[22] The PUNCH (2013). "Foreign direct investment in Nigeria tops $6.8bn" by Coordinating Minister for the economy and Minister of Finance, Dr. NgoziOkonjo-Iweala onApril 1, 2013 by AdemolaAlawiye
[23] The PUNCH (2013). "Nigeria, still top investment destination in Africa — UNCTAD", by Minister of Trade and Investment, Mr. OlusegunAgangaonJune 27, 2013 by IfeanyiOnuba, Abuja
[24] Todaro, M. and Smith, S. (2007). "Economic Development".8th Edition. New Delhi: Dorling Kindersley (India).
[25] Umoh, O.J., Jacob, A.O. and Chuku, C.A. (2012). Foreign Direct Investment and Economic Growth in Nigeria: An Analysis of the Endogenous Effects. *Current Research Journal of Economic Theory* 4(3): 53-6

**Table 1 Result of Unit Root Test for Order of Integration of the Variables (ADF)**

| Variables | ADF with Constant and Trend | | | ADF with Constant | | |
|---|---|---|---|---|---|---|
| | At level | First Difference | Order of Integration | At level | First Difference | Order of Integration |
| RGDP<br>Prob* | 0.070181<br>0.9960 | -5.992277<br>0.0001 | I(1) | 2.411942<br>1.0000 | -5.224768<br>0.0001 | I(1) |
| DMKA<br>Prob* | -1.551184<br>0.7952 | -6.168070<br>0.0001 | I(1) | 0.617424<br>0.8558 | -6.639676<br>0.0000 | I(1) |
| FDI<br>Prob* | -1.627801<br>0.7648 | -9.000189<br>0.0000 | I(1) | 1.006083<br>0.9959 | -8.532555<br>0.0000 | I(1) |
| GEXP<br>Prob* | -1.661092<br>0.7493 | -8.327669<br>0.0000 | I(1) | 0.460346<br>0.9828 | -8.113339<br>0.0000 | I(1) |
| INFL<br>Prob* | -3.233287<br>0.0916 | -6.294809<br>0.0000 | I(1) | -3.251282<br>0.0237 | -6.346702<br>0.0000 | I(0) |
| REXR<br>Prob* | -1.711343<br>0.7290 | -6.302406<br>0.0000 | I(1) | 0.459010<br>0.9832 | -6.091668<br>0.0000 | I(1) |
| UNEMP<br>Prob* | -1.565952<br>0.7899 | -5.945275<br>0.0001 | I(1) | -1.705891<br>0.4212 | -5.929807<br>0.0000 | I(1) |

***Source: Computed from the Unit Root Test (ADF), 2015***

**Note:** These critical values are computed from Mackinnon (1996) and if the probability value of a particular variable is less than the 5% critical value, we reject the null hypothesis of the variable having a unit root.

**Table 2 Result of Unrestricted Co-integration Rank Test (Trace) - Model 1**

| Null hypothesis | n-r | Hypothesized No of CEs | Eigen value | Trace statistic | 0.05 critical value | Prob** |
|---|---|---|---|---|---|---|
| r= 0 | 5 | None * | 0.678538 | 124.6541 | 95.75366 | 0.0001 |
| r ≤2 | 4 | At most 1 * | 0.631479 | 83.79865 | 69.81889 | 0.0026 |
| r≤ 2 | 3 | At most 2 | 0.498583 | 37.86136 | 47.85613 | 0.1599 |
| r ≤ 3 | 2 | At most 3 | 0.378972 | 23.00995 | 29.79707 | 0.2456 |
| r ≤ 4 | 1 | At most 4 | 0.145654 | 5.860282 | 15.49471 | 0.7120 |
| r ≤ 5 | 0 | At most 5 | 0.005352 | 0.193200 | 3.841466 | 0.6603 |

**Source: E-views-7 Output, 2015**

IJBAMR

Trace test indicates 2 co-integration equation(s) at the 0.05 level *denotes rejection of the hypothesis at the 0.05 level. **Mackinnon – Haug –Michelis (1999) p –values

**Table 3 Result of Unrestricted Co-integration Rank test (Maximum Eigen value)-Model 1**

| Null hypothesis | Hypothesized No of Ces | Eigen value | Trace statistic | 0.05 critical value | Prob** |
|---|---|---|---|---|---|
| r= 0 | None * | 0.678538 | 40.85549 | 40.07757 | 0.0408 |
| r ≤2 | At most 1 | 0.631479 | 30.93729 | 33.87687 | 0.0880 |
| r≤ 2 | At most 2 | 0.498583 | 24.85141 | 27.58434 | 0.1076 |
| r ≤ 3 | At most 3 | 0.378972 | 17.14967 | 21.13162 | 0.1651 |
| r ≤ 4 | At most 4 | 0.145654 | 5.667081 | 14.26460 | 0.6562 |
| r ≤ 5 | At most 5 | 0.005352 | 0.193200 | 3.841466 | 0.6603 |

**Source: E-views-7 Output, 2015**

Max- Eigen value test indicates 1 co-integrating equation(s) at the 0.05 level *denotes rejection of the hypothesis at the 0.05 level. **Mackinnon – Haug – Michelis (1999) p- values.

**Table 4 Result of Unrestricted Co-integration Rank Test (Trace)-Model 2**

| Null hypothesis | n-r | Hypothesized No of CEs | Eigen value | Trace statistic | 0.05 critical value | Prob** |
|---|---|---|---|---|---|---|
| r= 0 | 3 | None | 0.468078 | 38.67472 | 47.85613 | 0.2734 |
| r ≤2 | 2 | At most 1 | 0.350118 | 17.84318 | 29.79707 | 0.5777 |
| r≤ 2 | 1 | At most 2 | 0.091829 | 3.621367 | 15.49471 | 0.9317 |
| r ≤ 3 | 0 | At most 3 | 0.013326 | 0.442708 | 3.841466 | 0.5058 |

**Source: E-views-7 Output, 2015**

Trace test indicates no co-integration equation(s) at the 0.05 level *denotes rejection of the hypothesis at the 0.05 level. **Mackinnon – Haug –Michelis (1999) p –values. Table 4 revealed that there is no co-integration among the variables.

**Table 5 Result of Unrestricted Co-integration Rank test (Maximum Eigen value)-Model 2**

| Null hypothesis | Hypothesized No of Ces | Eigen value | Trace statistic | 0.05 critical value | Prob** |
|---|---|---|---|---|---|
| r= 0 | None | 0.468078 | 20.83154 | 27.58434 | 0.2865 |
| r ≤2 | At most 1 | 0.350118 | 14.22181 | 21.13162 | 0.3471 |
| r≤ 2 | At most 2 | 0.091829 | 3.178660 | 14.26460 | 0.9341 |
| r ≤ 3 | At most 3 | 0.013326 | 0.442708 | 3.841466 | 0.5058 |

**Source:E-views-7 Output, 2015**

Max- Eigen value test indicates no co-integrating equation(s) at the 0.05 level *denotes rejection of the hypothesis at the 0.05 level. **Mackinnon – Haug – Michelis (1999) p- values.

IJBAMR