Foreign Direct Investment And Economic Growth In Developing Countries: How Has Nigeria Fared?

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Abstract: *Arising from the unsettled debate of the relationship between foreign direct investment (FDI) and economic growth in developing countries, this paper further examines the relationship, drawing inference from Nigeria, with a view to contributing to the on-going debate. Adopting co-integration and error correction methodology, the paper revealed that Nigeria has fared very well in the nexus between FDI and economic growth, as the former impacted positively and significantly on the latter in Nigeria, within the period under review. Domestic investment and stock of human capital were also found to have contributed significantly to growth in Nigeria. However, labour force and openness of the economy impacted insignificantly to growth. Consequently, the paper recommended as follows: the drive for inflow of FDI should be intensified in Nigeria to further boost growth; accumulation of domestic capital for domestic investment to complement FDI should be given top priorityand policies should be directed towards making the Nigerian business environment more investment friendly to aid in the capital accumulation process; intensive reform should be made in Nigeria's educational curriculum to emphasize technical and entrepreneurial training; employers of labour should put in place appropriate staff training schemes for periodic training and retraining of the labour force for improved performance; and openness of the economy in Nigeria should be pursued with caution since it hurts growth.*
Keywords:*FDI, Economic growth, Developing Countries, Nigeria, Openness, Co-integration and Error Correction mechanism.*
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I. Introduction

Growth, as suggested by economic theory is brought about by accumulation of factors of production and improvement in the level of technology. In a polarized world of developed and developing countries, developed countries are assumed to have abundant capital and high level of technology while developing countries are assumed to have abundant labour but deficient in capital and technology. Capital formation is brought about by savings. But developing countries including Nigeria are deficient in savings required for capital formation or investment. Thus, there exists a saving - investment gap in the domestic economies of these developing countries. To bridge this gap, international capital flows of which foreign direct investment (FDI) is a component, readily become a panacea to overcome the problem of capital shortage in the developing countries.

Theoretically, foreign direct investment is expected to bridge the savings-investment gap that exists in developing countries and enhance capital accumulation and technological transfer required to achieve sustainable economic growth. It is on this premise that developing countries have intensified the drive for FDI inflow into their economies in recent times. As argued by Blomstrom and Koko (1997), the main reason for many countries' efforts to attract more foreign direct investment is their desire to get modern technology for their economies. Corroborating their view, Ayawale (2007), maintained that FDI is seen by developing countries as an important element in strategizing for the achievement of sustained economic growth.

Although theoretical literature has identified a plethora of benefits associated with FDI inflow, paradoxically, empirical evidences suggest that such benefits are not randomly available globally (Blomstrom, 1992; De Mello, 1997; Hanson, 2001 and Aremu, 2003). According to economic theory, capital will flow from countries where it is in abundance to countries where it is scarce, with such flow being influenced by the returns on new investment opportunities. This capital inflow has the tendency of boosting investment in the recipient country and therefore bring about enormous social benefits. However, Lensik and Morrisey (2001) warned that such benefits may not be entirely robust as expected. While the proponents of FDI likened it to "Manna" from heaven and thus see it as a veritable tool for speedy economic growth and development of developing countries,

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the opponents, contend that FDI is associated with high incidence of crises, manifesting in the form of increased poverty, isolation and neglect of local capabilities (Aremu, 2003 and Oyeranti, 2003).

Given the unsettled debate between the proponents and opponents of FDI in flow and economic growth in developing countries, this paper sets to re-examine empirically how Nigeria, as a developing country, has fared in her effort in attracting in-flow of FDI over the years. The paper is structured in the following sequence: Section 1 has been the introduction. Section 2 explores related literature and theoretical framework. Section 3 presents the research methodology employed. In Section 4, empirical results are presented and analyzed while section 5 summarizes and concludes the paper.

II. Literature Review And Theoretical Framework

The role of foreign direct investment in the economic development of nations, particularly developing ones, has inevitably assumed a significant dimension in recent discourse. To this end, there exists an avalanche of literature on the subject matter. Conceptually, the International Monetary Fund - IMF (1995) refers to FDI as an investment made to acquire lasting or long-term interest in enterprises operating outside the economy of the investor with the purpose of having an effective voice in its management. In the same vein, the World Trade Organization (1996) conceptualizes FDI as a situation where by an investor based in one country (the home country) acquires an asset in another country (the host country) with the intent to manage that assets.

Again, Thirlwall (1994) maintains that FDI is investment by multinational companies with headquarters in developed countries. This investment is all embracing. It consists of transfer of funds (including re-investment of profits), transfer of a whole package of physical capital, techniques of production, management and marketing expertise, products, advertising as well as business practices for the maximization of global profits (Oyeranti, 2003).

In concrete terms, FDI entails an investment made to acquire a lasting management interest of about 10 percent or more of shares in the enterprise operating in a country other than that of the investor's country of origin (Akomolafe, Danladi and Adebimpe, 2015). Thus, management dimension is what distinguishes FDI from portfolio investment in foreign stocks, bonds and other financial instruments.

Aside conceptualization, FDI-growth nexus is also documented in the literature. For example, Falki (2009) asserted that FDI plays an important role in the economic growth of a nation. Accordingly, it helps to increase domestic investment and promote the transfer of technology to the host countries. In a related development, Aitken and Harrison (1999) argued that FDI can help in the transfer of technology across countries, and improve technical expertise linkages between the local firms and their foreign counter parts.

Adewumi (2006) investigated the impart of FDI on growth in developing countries, drawing evidence from Africa, the author adopted both graphical and regression analyses collecting data for eleven countries within the continent from 1970 to 2003. The results showed that the contribution of FDI is positive but insignificant for most of the countries. Again, Almfraji and Almsafir (2014) reviewed an amount of researches to examine the relationship between FDI and economic growth from 1994 to 2012. The results revealed that FDI-Economic growth relation is significantly positive, but in some cases it is negative or even null. Several factor were identified influencing the relation such as adequate level of human capital, the well-developed financial markets, and the complementarity between domestic and foreign investment etc.

In a cross country regression framework study, Borensztein, De Gregorio and Lee (1998) investigated the effect of foreign direct investment on economic growth. They utilized data on FDI flows from industrial countries to 69 developing countries for a period of two decades. The results suggest that FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. Borensztein et al (1998), however concluded that FDI contributes to economic growth only when a sufficient absorptive capability of advanced technology is available in the host economy.

FDI and Economic Growth in Nigeria

Olatunji and Shahid (2014) examined whether or not there is a long run relationship between FDI and economic growth in Nigeria from 1970 to 2010. They used co-integration analysis and found out that there is no long run relationship between FDI and economic growth in Nigeria. Olatunji et al (2014) concluded by recommending that there is need to improve the business environment, with the provision of necessary infrastructure and political stability in the country. In the same vein, Okeke and Ezeabasili (2014) employed the use of co-integration analysis to determine the impact of FDI inflows on the growth of the Nigerian economy from 1977 – 2011. The findings revealed that FDI has a positive relationship with economic growth in Nigeria.

Again, Adeleke, Olowe and Fasesin (2014) adopted the ordinary least squares (OLS) estimation technique to analyze the impact of FDI on economic growth in Nigeria. The results show that FDI is an engine of growth in Nigeria. Also, Olokoyo, (2012) used the OLS regression technique to examine the impact of foreign direct investment on economic growth in Nigeria from 1970 to 2007. The findings show no evidence of a strong link between FDI and economic growth.

Furthermore, Adigwe, Ezeagba and Udeh (2015) investigated the relationship between foreign direct investment and economic growth in Nigeria, using Pearson correlation analysis. The outcome of the investigation indicates that there is a significant relationship between the variables. Awolusi (2012), also used a multivariable co-integration and Granger causality technique to examine the long run relationships among the international factors and economic growth as well as the short term impact of inward FDI, trade and domestic investment on economic growth in Nigeria from 1970 to 2010. The results indicate the existence of a long run relationship among the variable while the direction of causality is either unidirectional or bidirectional.

In a related development, Moses (2011) assessed the sectoral impact of oil and non-oil FDI on economic growth in Nigeria from 1970 to 2008, using the OLS technique. The findings reveal that both the oil and non-oil FDI have positive impact on economic growth in Nigeria, with the non-oil FDI being more statistically significant. Still on sectoral FDI, Akomolafe, Danladi and Adebimpe (2015) used co-integration and vector error correction modeling to evaluate the effect of sectoral FDI inflows on economic growth in Nigeria between 1980 and 2012. The results reveal that there is a positive relationship between FDI inflow to manufacturing and economic growth, a positive relationship between FDI inflow to the oil sector and economic growth and a positive influence between FDI inflow to the service sector and economic growth in the long run. However, there is a negative long run relationship between FDI inflow to the Agricultural sector, telecommunication sector and economic growth.

The results from the empirical literature survey are mixed. Whether cross-country analysis or country specific evaluation, uniformity of results is far from being attained. This has provoked this study to further investigate empirically the FDI- growth nexus, drawing inferences from developing countries and focusing on Nigeria, with a view to contributing to the on-going debate.

Away from empiricism, theoretically, the traditional neo-classical growth model pioneered by Solow (1957) provides a plausible underpinning for the explanation of FDI-Economic growth nexus. The neoclassical theorists argue that liberalization of national markets draws additional domestic and foreign investment and thus increase the rate of capital accumulation. Specifically, the traditional neoclassical Solow model maintains that growth in output is brought about by one or more of three factors, namely, increases in labour quantity and quality (through population growth and education), increases in capital (through saving and investment) and improvement in technology. The model assumes diminishing returns to labour and capital separated and constant returns to both factors jointly (Todaro and Smith, 2011). The standard exposition of the Solow's model is stated in an aggregate Cobb-Douglas production function of the form: $Y = AK^{\alpha}L^{\beta}$

Where:

Y	=	Gross Domestic Product
K	=	Capital Stock
L	=	Labour input
A	=	State of the economy (including policy and control variable that influence productivity)
α & β	=	Output elasticity for capital and labour respectively.

The flow theory of capital has also been used to illustrate why firms in foreign countries decide to invest elsewhere other than their home countries. The theory states that in a bi-country world, developing country and developed country, ceteris paribus, when interest rate is increased in the domestic economy in relation to the foreign interest; that this will lead to an increase in capital flow from the foreign to the domestic economy so as to take advantage of higher differences in returns between the two economies (Nyong, 2005).

Yet another theoretical foundation for explaining FDI - Economic growth link is the neoclassical two-Gap theory. According to this theory, financial capital is a critical factor in driving growth. Given the importance of financial capital, Less Developed Countries (LDCs) may be impeded by lack of adequate financial resources to execute their development initiatives. Therefore there is the existence of two gaps: the saving and foreign exchange gaps as a result of low income and hence low savings. Once this happens, saving rates will lag behind the target rate. Moreover, for the fact that developing countries are highly foreign indebted and heavily dependent on primary exports with the characteristics of price and quantity fluctuation, a foreign exchange gap exists as they may not have sufficient foreign exchange to pay for their imports. This therefore necessitate the inflow of foreign capital to finance the gap.

III. Research Methodology

The paper adopts co-integration and error correction mechanisms in its analysis. Thistechnique of analysis is chosen because of various reasons. First, it is important to ensure that time series data are stationary to avoid spurious regression. For this reason unit root test is conducted using Augmented Dickey-Fuller (ADF) technique. Second, co-integration test is conducted to ascertain whether a long run equilibrium relationship exists among the variables in the series. Third, if it is certified that a long run relationship exists, the stage is set

to fix an error correction model to differentiate the short run dynamics from the long run equilibrium and hence determine the speed of adjustment from the short run to the long run equilibrium.

3.1 Model Specification

Although the theoretical base of the model is eclectic, it is however anchored on the neoclassical Solow model which maintains that growth in output is dependent on capital and labour accumulation as well as the state of technology, (assumed to be exogenously determined). The traditional neoclassical Solow model of the form of Cobb-Douglas production function is specified as follows:

$$Y = AK^\alpha L^\beta \qquad (1)$$

Where:

Y	=	Gross Domestic Product
K	=	Capital Stock
L	=	Labour input
A	=	State of the technology

α & β = Output elasticity for capital and labour respectively.

To linearize the Cobb-Douglas production function in equation (1), both sides of the equation are logged as follows: $\text{Log } Y = \text{Log } A + \alpha \text{Log } K + \beta \text{Log } L$. . . (2)

Equation (2) is however modified to include human capital (H) as well as other variables specified by the flow theory of capital and the neoclassical two-gap theory, such as Openness (OPNS) and Foreign Direct Investment (FDI). Therefore, the standard estimation model is specified as follows:

$$RGDP = F \ (GFCF, LBFR, SCNR, OPNS, FDI) \qquad . \qquad . \qquad (3)$$

Equation (3) is further transformed to an estimated form by including the error term as:

$$RGDP = a_0 + a_1 GFCF + a_2 LBFR + a_3 SCNR + a_4 OPNS + a_5 FDI + U. \quad . \quad . \quad . \quad (4)$$

Where:

RGDP - Real Gross Domestic Product (Proxy for economic growth)
GFCF   - Gross Fixed Capital Formation (Proxy for capital formation)
LBFR- Labour Force (Proxy for Labour input)
SCNR - Primary and Secondary School Enrolment (Proxy for human
         Capital or stock of knowledge in the host economy)
OPNS - Openness (Proxy for the liberalization of the domestic economy
         to attract inflow of foreign capital).
FDI   - Foreign Direct Investment (Net inflows)

3.2 Sources of Data

The data used in this study are secondary data sourced from National Bureau of Statistics (various issues), Central Bank of Nigeria statistical Bulletin (various issues) and the World Bank Database (2015).

IV. Presentation of Stylized Facts, Empirical Results and Analysis.

4.1 Stylized Facts

Stylized facts on the net inflows of FDI to selected developing countries, Nigeria, South Africa, Ghana and Botswana drawn from Sub-Saharan Africa between 2000 and 2015 are presented in Table 4.1. Table 4.1 indicates that the net inflows of FDI to Nigeria in the year 2000, stood at $1,140,137,659.8 while that of South Africa, Ghana and Botswana stood at $968,831,356.0; $165,900,000.0 and $57,176,113.3 respectively for the same period. Net FDI inflow to Nigeria has witnessed steady growth and by 2003 it stood at $2,005,390,032.5, before declining to $1,874,033,034.8 in 2004. It started increasing again from 2005 up to 2009. It declined to $6,026,232,041.3 in 2010 before jumping to an unprecedented high of $8,841,113,286.9 in 2011 (Table 4.1). But between 2012 and 2015, net inflows of FDI to Nigeria have been declining steadily (Table 4.1).

In South Africa, Ghana and Botswana, net inflows of FDI have been characterized by fluctuations, with South Africa recording the highest net inflow of $9,885,001,293.4 in 2008 and Ghana $3,363,389,444.4 in 2014 while the highest for Botswana was $1,371,086,982.3 in 2011 (Table 4.1). In all, on the average, in absolute terms. Nigerian is the highest recipient of Net FDI in flows within the period under review.

TABLE 4.1: Foreign Direct Investment Net Inflows (BOP, Current U.S. $) for SelectedDeveloping Countries 2000- 2015

Year	Nigeria	South Africa	Ghana	Botswana
2000	1,140,137,659.8	968,831,356.0	165,900,000.0	57,176,113.3
2001	1,190,632,023.7	7,270,344,986.5	89,320,000.0	30,681,925.0
2002	1,874,042,129.7	1,479,804,588.8	58,930,000.0	403,413,826.4
2003	2,005,390,032.5	783,136,092.3	136,751,000.0	417,985,826.4

2004	1,874,033,034.8	701,422,007.6	139,279,000.0	391,066,916.4
2005	4,982,533,942.9	6,522,098,178.2	144,970,000.0	278,591,244.1
2006	4,854,416,867.5	623,291,744.3	636,010,000.0	486,640,084.8
2007	6,034,971,231.0	6,586,792,253.1	1,383,177,929.9	494,681,695.0
2008	8,196,606,673.2	9,885,001,293.4	2,714,916,343.7	520,918,695.0
2009	8,554,840,769.0	7,624,489,973.9	2,372,540,000.0	208,699,414.0
2010	6,026,232,041.3	3,693,271,715.5	2,527,350,000.0	218,379,961.1
2011	8,841,113,286.9	4,139,289,122.7	3,247,588,000.0	1,371,086,982.3
2012	7,069,934,204.8	4,626,029,122.4	3,294,520,000.0	855,456,446.3
2013	5,562,873,605.7	8,232,518,815.6	3,227,000,000.0	880,882,080.0
2014	4,665,849,169.8	5,791,659,020.1	3,363,389,444.4	515,184,471.0
2015	3,064,170,000.0	1,575,170,029.6	3,192,320,530.8	393,574,791.7

Source: World Development Indicators.

Again, looking at FDI as a percentage contribution to Gross Domestic Product (GDP), table 4.2 presents net inflows of FDI as a percentage of GDP for Nigeria, South Africa, Ghana and Botswana for the period, 2000 to 2015.

Table 4.2: Foreign Direct Investment Net Inflows (% of GDP) for Selected Developing Countries

Year	Nigeria	South Africa	Ghana	Botswana
2000	2.5	0.7	3.3	1.0
2001	2.7	6.0	1.7	0.6
2002	3.2	1.3	1.0	7.4
2003	3.0	0.4	1.8	5.6
2004	2.1	0.3	1.6	4.4
2005	4.4	2.5	1.4	2.8
2006	3.3	0.2	3.1	4.8
2007	3.6	2.2	5.6	4.5
2008	3.9	3.4	9.5	4.8
2009	5.0	2.6	9.1	2.0
2010	1.6	1.0	7.9	1.7
2011	2.1	1.0	8.2	8.7
2012	1.5	1.2	7.9	5.8
2013	1.1	2.2	6.8	5.9
2014	0.8	1.7	8.7	3.2
2015	0.6	0.5	8.4	2.7

Source: World Development Indicators

Table 4.2 shows that the percentage share of net FDI inflows in GDP stood at 2.5, 0.7, 3.3 and 1.0 percent for Nigeria, South Africa, Ghana and Botswana respectively. For Nigeria, the net inflows of FDI as a percentage of GDP was approximately 3.0 percent between the period 2000and 2003. In 2004 the percentage share of net FDI in GDP fell to 2.1 percent before fluctuating approximately between 3 and 5 percent from 2005 to 2009. From 2010 to 2015 it fell drastically, ranging approximately from 2 to 1 percent (Table 4.2).

In South Africa, apart from 2001 where the percentage share of net FDI in GDP stood at 6.0 percent, all the rest of the years, it fluctuated between 0 and 3 percent. Ghana and Botswana seem to fare better in terms of the share of net FDI inflows as a percentage of GDP compared with Nigeria and South Africa (Table 4.2).

4.2 Empirical Results and Analysis:
Unit Root Test: Toensure that the time series data used in the model are stationary, unit root test is conducted using Augmented Dickey – Fuller (ADF) technique. The unit root test result is presented in Table 4.3.

Table 4.3: ADF Unit Root Test Result

Variable	Level	1st Diff.	Decision
RGDP	-1.039665	-8.940054	I (1)
FDI	-3.167088	-8.842170	I (1)
SCNR	-1.828548	-7.084577	I (1)
GFCF	-2.012478	-4.607919	I (1)
LBFR	-0.651969	-4.607919	I (1)
OPNS	-2.002419	-12.56118	I(1)

Critical value at level			Critical value at 1st Difference		
1 percent	=	-3.596616	1 percent	=	-3.592462
5 percent	=	-2.933158	5 percent	=	-2.931404
10 percent	=	-2.604867	10 percent	=	-2.603944

The Augment Dickey-Fuller unit root result shows that none of the variables was stationary at level since their estimated coefficients were less than the critical values. However, the variables were all stationary at first difference (Table 4.3). The variable were all integrated of order one – I (1).

Since the variables were all integrated of the same order, that is I(1), the paper proceeds to test for the existence or other wise of long run relationship between Real Gross Domestic Product (RGDP) and other explanatory variables, using Johansen co-integration test. The result of the co-integration test is presented in tables 4.4a and 4.4b.

Table 4.4a: Unrestricted Co-integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigen value	Trace statistics	0.05critical value	Prob.**
None *	0.676640	122.5141	95.75366	0.0002
At most 1 *	0.559879	73.96763	69.81889	0.0224
At most 2	0.360064	38.67725	47.85613	0.2733
At most 3	0.244483	19.48258	29.79707	0.4586
At most 4	0.095537	7.427415	15.49471	0.5285
At most 5	0.069763	3.109598	3.841466	0.0778

Trace indicates 2 co-integrating equations at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
** Mackinnon-Haug-Michelis (1999) p-values

Table 4.4b: Unrestricted Co-integration Rank Test (Max. Eigen Value)

Hypothesized No. of CE(s)	Eigen value	Max. Eigen statistics	0.05critical value	Prob.**
None *	0.676640	48.54649	40.07757	0.0044
At most 1 *	0.559879	35.29038	33.87687	0.0337
At most 2	0.360064	19.19467	27.58434	0.3996
At most 3	0.244483	12.05516	21.13162	0.5422
At most 4	0.095537	4.317816	14.26460	0.82444
At most 5	0.069763	3.109598	3.841466	0.0778

Max-Eigen value test indicates 2 co-integrating equation(s) at the 0.05 level
* denotes rejection of the hypothesis at 0.05 level
** Mackinnon-Haug-Michelis (1999) p-values.

From tables 4.4a and 4.4b, the Johansen co-integration test shows the existence of a long run relationship among the variables adopted in the model. The trace statistics test shows that there exists two co-integrating equations at 5 percent level of significance. Also, the maximum Eigen value indicates two co-integrating equations. This implies that no matter how the variable wander away from one another, they co-integrate in the long run.

Having established that the variables are co-integrated, the stage is set to formulate an error correction model. The error correction model is essential because it helps in recovering the long run information lost in the course of differencing the variables. This is achieved with the introduction of an error correction term derived from the long run equation based on economic theory. Basically, the error correction term is an innovation that measures the speed of adjustment of the variables in the short run to the long run equilibrium. It shows the proportion of disequilibrium errors accumulated in the previous period which are corrected in the current period.

To fix an error correction model first, an over parameterized model is estimated. The over parameterized model contains a number of variables and lagged values. Its essence is to help in selecting variables that are statistically significant and of interest to be included in the parsimonious (preferred) model. Usually, estimates of the over parameterized model are not analyzed as they are not relevant for policy formulation. It merely provides a platform for eliminating all lags that are not statistically significant. Estimates of the over parameterized model are presented in Table 4.5 in the appendix.

Table 4.6: Parsimonious Model Result

Variable	Coefficient	Std-error	t-statistic	Prob.
C	0.539881	0.098588	5.476119	0.0000
D (LOG(FDI))	0.183339	0.077157	2.376189	0.0362
D(LOG(FDI(-1)))	0.036749	0.017943	2.048079	0.0619
D(LOG(GFCF))	1.168863	0.367945	3.176751	0.0032
D(LOG(LBFR))	0.631208	0.781807	0.807370	0.4252
D(LOG(LBFR(-1)))	-0.535535	0.279140	-1.918516	0.0773
D(LOG(OPNS))	-0.208769	0.091418	-2.283679	0.0484

D(LOG(SCNR))	0.116746	0.077880	1.499053	0.1434
D(LOG(SCNR(-1)))	0.155665	0.051748	3.008132	0.0050
ECM(-1)	-0.318896	0.136432	-2.337405	0.0256

R-Squared	0.724126	Mean dependent var.	12.24726
Adjusted R-Squared	0.704343	S.D. dependent var.	1.302594
S.E. of regression	1.013731	Akaike info criterion	3.065575
Sum squared resid.	33.91244	Schwarz criterion	3.275157
Log likelihood	-55.90986	Hannan- Quinn Criter.	3.216616
F- statistic	12.38462	Durbin-Watson Stat.	2.028738
Prob (F – statistic)	0.001464		

From the parsimonious result in Table 4.6 above, all the variables were consistent with a priori expectation except one year lag of labour force and openness at current year. The result indicates that a 10 percent increase in foreign direct investment at current year and one year lagged period will stimulate economic growth by 1.83 percent and 0.37 percent respectively. This conforms to theoretical expectation. In-flow of foreign direct investment is expected to stimulate economic growth in the recipient country.

Gross Fixed Capital Formation (GFCF) was also consistent with theoretical expectation, as it turned out with a positive sign. It shows that if gross fixed capital formation is increased by 10 percent, Real GDP (RGDP), proxy for economic growth, will increase by 11.69 per cent ceteris paribus. In the same vein, a 10 per cent increase in labour force (LBFR) in the current period will stimulate economic growth by 6.31 per cent.

However, the one year lagged value of labour force does not conform to apriori expectation as it turned out with a negative sign. This implies that a 10 per cent increase in labour force will lead to 5.36 per cent decreased in economic growth after one year period, contrary to theoretical expectation. Again, openness of the economy (OPNS) was found to cause a fall in real GDP. A 10 per cent increase in openness leads to 2.09 per cent decrease in economic growth all things being equal.

Furthermore, primary and secondary school enrolment (SCNR), proxy for human capital is consistent with economic theory, as it turned out with a positive sign both in the current period and one year lagged period. A 10 per cent increase in human capital will stimulate economic growth in Nigeria by 1.17 per cent and 1.56 per cent in the current year and one year lagged period respectively.The result shows that all the variables were statistically significant except labour force and primary and secondary school enrolment that were not statistically significant in the current period, using their probability values.

The estimated coefficient of the error correction term (ECM) is correctly signed, fractional and statistically significant. However, the result further shows that the speed of adjustment is slow, as the ECM indicate that only about 32 per cent of the disequilibrium in the short run was corrected in each period in the long run.

The adjusted R-squared, the coefficient of determination explains about 70.43 per cent of total variation in economic growth (RGDP). This shows that the model has a good fit. The F-statistic also indicates that the overall model is statistically significant with an estimated coefficient of 12.38.

Finally, the Durbin-Watson statistic with an estimated coefficient of about 2.03 shows that serial or autocorrelation does not exist in the estimated model consequently the model can be used in forecasting the future behaviour of economic growth in Nigeria and hence the findings of this study can be used for policy formulation.

V. Summary And Conclusion

The paper has attempted to contribute to the unsettled debate of the nexus between foreign direct investment (FDI) and economic growth in developing countries, with emphasis on Nigeria. Unarguably, in the modern society, no country is in a state of autarky. Countries open their borders and source for foreign capital for investment, foreign technology and foreign markets. The world has become a global village and engender global competition. Existing studies in the literature have underscored the linkage between foreign direct investment and economic growth.

From the empirical results, foreign direct investment has impacted positively and significantly on economic growth in Nigeria. Analysis of the stylized facts showed that among the four selected Sub-Saharan countries - Nigeria, South Africa, Ghana and Botswana, Nigeria was the highest recipient of net inflows of FDI in absolute terms within the period under review. The results further indicate that domestic investment also contributed significantly to economic growth in Nigeria. Thus foreign direct investment (FDI) and domestic investment play a complementary role in driving economic growth in Nigeria.

Based on the empirical findings, the following recommendations are imperative for Nigeria.

i. The drive for inflow of foreign direct investment should be intensified in Nigeria as foreign direct investment has been found to be an important economic growth driver in Nigeria.

ii. Efforts should be intensified to further boost the accumulation of domestic capital for investment, since gross fixed capital formation has been found to positively and significantly contribute to economic growth in Nigeria. Policies should be put in place to make the Nigerian business environment investment friendly to attract more FDI and boost domestic investment.

iii. Intensive reform should be carried out in Nigeria's educational curriculum to place emphasis on technical and entrepreneurial training. This will equip the human capital in Nigeria with entrepreneurial skills to absorb foreign capital productively and further drive enterprises for greater productivity and economic growth.

iv. Related to technical and entrepreneurial training, employers of labour should endeavor to put in place appropriate staff training schemes to train and retrain their staff. This can be inform of refresher courses, seminars, workshops, etc., to improve the quality of labour force in Nigeria. From the empirical findings, labour force was found to be impacting negatively on economic growth in Nigeria.

v. Finally, openness in Nigeria should be pursued with caution since from the findings, it contributes negatively to growth.

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APPENDIX

TABLE 4.5: OVER PARAMETERIZED RESULT
Dependent variable: LOG (RGDP)
Method: least Squares
Date: 09/18/15 Time/; 07:31
Sample (adjusted) 1972, 2014
Included observations: 43 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.304912	0.0307118	4.248895	0.0000
D(LOG(FDI))	0.248472	0.717336	1.646381	0.1114
D(LOG(FDI(-1)))	-0.230466	0.784443	-1.593796	0.1209
D(LOG(GFCF))	-1.132769	0.400639	-2.82740	0.0081
D(LOG(GFCF(-1)))	0.127841	0.408996	0.312574	0.7567
D(LOG(LBFR))	0.054756	0.061440	-1.491221	0.1597
D(LOG(LBFR(-1)))	0.737651	0.536291	1.375468	0.1788
D(LOG(OPNS))	-0.084378	0.050786	-1.661444	0.1130
D(LOG(OPNS(-1)))	-0.417244	0.596685	-0.699271	0.4896
D(LOG(SCNR))	2.161461	1.519157	1.422802	0.1648
D(LOG(SCNR(-1)))	-0.505441	0.171418	-2.948587	0.0060
ECM(-1)	-0.289661	0.123456	-2.346271	0.0255

R-squared	0.831856	Mean dependent var		12.24726
Adjusted R-squared	0.805740	S.D. dependent var		1.302594
S.E of regression	1.037392	Akaike info criterion	3.142223	
Sum squared resid	33.36162	Schwarz criterion	3.633720	
Log likelihood	-55.55778	Hannan-Quinn criter		3.323472
F-statistic	9.201720	Durbin-Watson stat		1.690592
Prob(F-statistic)	0.005234			