



## Does Source of Foreign Direct Investment Matter for Nigeria's Economic Growth?

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### ABSTRACT

Foreign direct investment (FDI) is one of the sources used as a wedge to bridge the saving-financial requirement gap and many policies and programmes are mapped out to attract FDI in Nigeria. The study was aimed at examining whether source of FDI matter for growth in Nigeria. Using autoregressive distributed lag bound test model, we disaggregated FDI sources to determine individual impact, and then add interest rate and exchange rate to capture macroeconomic conditions of the economy. The results show while inflow from Asian and African countries had significant and positive impact on gross domestic product growth rate, FDI from United States of America and European Union countries had the opposite effect. Therefore, the impacts of FDI indeed differs depending on the country of origin and this is caused by differences in market structures of host country and country of origin, business system, institutions, policy formulation process, organizational features, level of development etc.

**Keywords:** Foreign Direct Investment, Autoregressive Distributed Lag, Source Country, Host Country

**JEL Classifications:** F6, O2, O4

### 1. INTRODUCTION

Developing countries like Nigeria are faced with many developmental challenges notably stunted economic growth, poverty, inequality, under-industrialization etc., and to surmount these challenges embark on many development policies, programmes and projects. However, these policies, programmes and projects require huge financial outlay which is often lacking, thus resulting to a vicious circle of poverty and development. These countries require foreign capital to complement the gap between domestic savings and investment outlay requirements that are needed to propel economic growth and development. With globalization and openness at the forefront of world economic policies, policies that encourage foreign direct investment (FDI) are often sought by developing countries.

To encourage FDI, Nigerian policy makers enacted laws which include Nigerian Investment and Promotion Commission

Act, No. 16 of 1995; The Foreign Exchange (Monitoring and Miscellaneous Provision) Act No. 17 of 1995; The Investment and Securities Act of 1999 and many others. These FDI promoting policies impacted positively on inflows of FDI into Nigeria. However, there is lack of consensus on growth impact of FDI. Although the issue is more widely studied but, so far, accumulated evidence is still unclear, because not all empirical evidence support the hypothesis that FDI plays a positive role in technological diffusion and stimulating economic growth. That makes the issue a complex phenomenon which calls for more research efforts.

Various arguments exist in literature on the likely impact of FDI on host country. On the positive side, FDI is expected to bridge the host country's saving-investment gap and serves as a source of capital, advanced technology and managerial practices. It is also expected to generate employment and access to foreign markets. These will lead to increase in economic growth. This view was supported

empirically by studies of Nigerian economy by Ebekoziem et al. (2015) and Osinubi and Amaghionyeodiwe (2010).

On the other hand, FDI is capable of hindering economic growth and development. This is possible through reduction of competitiveness of domestic firms as they try to compete with already well-established multinational companies; capital flight; worsens inequitable income distribution among many others. Empirical works by Awe (2013); Yaqub et al. (2013) and many others show this negative impact of FDI. Study by Egwaikhide (2012) found that the impact of FDI varies according to sector. The study found that FDI has insignificant impact on agricultural, manufacturing petroleum sectors but significant impact on telecommunication sector. On the other, Nabine (2009) found that impact varies according to time period. According to the study, in the short run, FDI from China does not contribute to economic growth while in the long run, it contributes to economic growth.

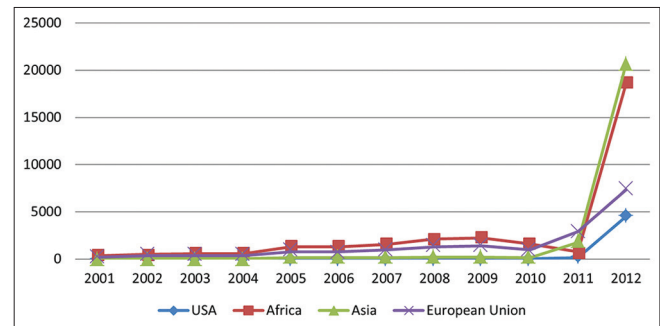
Reasons have been adduced to these differences in empirical literature. Osinubi and Amaghionyeodiwe (2010) posited that impact of FDI on a host country depends on a number of factors which includes host country characteristics, economic policies, macroeconomic framework and sector of inflow. But most importantly, the reasons for investing in a foreign country and/or plausible advantages is of FDI vary between host country and source country. That is, host country's reasons for attracting FDI, as explained above, differs from source country's reasons for investing in a foreign country.

This difference is capable of explaining the ambiguous empirical result and this was the focus of this paper. The paper aims to examine whether source of FDI matter for growth in Nigeria. This was achieved by disaggregating FDI sources to determine individual impact of various sources. Our study hypothesized that the growth rate of the economy depends on FDI, interest rate and exchange rate. FDI, the variable of focus, was broken into various sources: European Union (EU), United States, Africa and Asia.

No doubt, Nigeria has enjoyed inflow of FDI, especially in the last decade as observed from data from UNCTAD. From a total inflow of US\$1277 in 2001, it increased to US\$8650 in 2009, and then dipped to US\$2277 in 2011. By 2012, it increased by almost 96% to US\$5234. Surprisingly, FDI inflows to Nigeria from African countries were more than those from Asia, United States of America (USA) and EU in the years in focus. Analysis of data obtained from UNCTAD as presented in Figure 1 show that FDI inflow from USA, EU, Africa and Asia in 2001 were US\$8, US\$202, US\$330 and US\$30. Consistently, FDI from these groups of countries witnessed increases except in 2010 where FDI from all of them dipped. By 2012, there was surge of FDI from all these sources and for the first time, FDI from Asia surpassed FDI from Africa and other sources.

The performance and robustness of an economy can be measured with the rate of growth of its gross domestic product (GDP). The annual percentage growth of Nigeria's GDP as well as sectoral GDP growth rate is presented in Table 1. The Table 1 shows that GDP growth rate was 6.51% in 2005 with the fastest growth in the

**Figure 1:** Foreign direct investment inflow to Nigeria, by geographic region (in US\$, million)



Source: UNCTAD Foreign direct investment/TNC database

trade sector. The year 2007 saw GDP growth rate to be at 6.45% and the trade sector remained the fastest growth sector at 15.20%.

After re-basing of GDP in 2010, GDP growth rate shrank to 4.21% in 2011 from its previous level of 5.31% in 2010. By 2016, the rate of economic growth was -1.58 from 2.75 in 2015.

## 2. LITERATURE

### 2.1. Theoretical Literature

Sodersteen and Reed (1994) defined FDI as the flow of capital from a foreign investor or through a multi-national enterprise (MNE) and it involves control by creating and operating subsidiaries in other countries. The level of control varies but for an inflow of capital to be considered as FDI, it must not be less than 10%. There are potential gains from such inflows for the investor and recipient but generally, FDI occurs both parties have some advantages to be maximized from the inflows and disadvantages to eliminate or ameliorate. For instance, FDI for the investor is an outlet for savings and increase in market size as well as a source of cheap raw materials. For the recipient, FDI is a source of capital, generate employment and facilitates access to foreign markets among other benefits.

In this section, we presented theories of FDI and through it elucidated why countries invest and the why recipients vigorously seek for FDI. Plausible explanation for the varying sources of FDI and impacts on host countries were also offered.

### 2.2. Basic Theory of FDI

In the Heckscher-Ohlin (O-H) model, trade between two countries is caused differences in relative factor endowments. To explain how differences in relative factor endowments that triggers trade, the model assumes a perfectly competitive market where there are no impediments to trade, however factors are perfectly mobile within industries but perfectly immobile between countries. It also assumes a constant-returns-to-scale production function with varying factor intensities between commodities which are however, production functions are the same in both countries. Implicitly, according to the theory, trade equalizes prices; increasing the price of the abundant factor and decreasing the price of the scarce factor. Trade also serves as a substitute for factor movement from one country to another.

**Table 1: Sectoral GDP growth rate (%)**

Activity sector	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015	2016
Agriculture	7.06	7.40	7.19	6.54	5.94	2.92	6.70	2.94	2.9	1.72	4.11
Mining						2.41	-4.78	-12.81	-12.8	-5.27	-14.45
Quarrying	9.61	9.39	9.57	9.28	7.94	17.82	13.46	21.80	21.7	-1.46	-4.32
Manufacturing	12.10	12.99	13.03	13.06	12.26	15.71	9.44	14.22	14.2	4.35	4.00
Construction	13.51	15.26	15.20	14.00	11.27	7.21	2.21	6.64	6.6	5.14	-1.24
Trade						48.3	27.36	14.93	14.9	9.40	1.72
Arts, entertainment and recreation	2.85	4.98	5.03	4.82	4.02	-26.9	21.02	8.63	8.6	7.12	4.54
Finance and insurance real estate	10.62	11.29	11.35	11.42	10.65	0.43	5.65	11.98	11.9	2.11	
GDP (total)	6.51	6.03	6.45	5.98	6.66	5.31	4.21	5.49	5.5	2.75	-1.58

Source: National Bureau of Statistics, Abuja. GDP: Gross domestic product

In the real world, some of these assumptions of the O-H model may not be obtainable. For instance, the production function is prone to change as a result of changes in supply of factors of production and technology as well as changes in demand. More importantly, the assumption of identical production function (technology) is not often met as production function differs across countries as result of difference in technical and managerial skills. Reality tells us that transport costs are impediments to trade and that the assumption of a perfect competition is not a close approximation to reality. These real life facts could make factor prices fail to equalize, necessitating investors to establish foreign subsidiaries in countries with lower labour costs (or any other advantage).

Dunning's "eclectic theory" (1993), often called OLI paradigm offers, a complete and integrated explanation of theory of FDI. These paradigms are three categories of conditions that determine whether a firm, industry or company will be a source or host of FDI Sodersteen and Reed (1994). These are ownership advantages (O), locational considerations (L) and internationalization gains (I). Ownership advantages include advantages in technology, management skills, size and diversification, access to or control over raw materials, political support from government, access to finance in foreign and domestic market, and the ease to shift production between countries. Locational considerations include cost of transportation either finished products or raw material; policy on importation and other macroeconomic policies; ease of doing business; the ease with which the ownership advantages may be combined with factor endowments in other countries; tax policies in both source and host countries; political stability in the host country, among others. Internationalization gains include gains from avoiding market imperfections such as uncertainty, economies of scale, problems of control, asymmetric information etc. Thus, in all, foreign investors are seeking for markets, efficiency and resources when they invest.

Another categorization of determinants of FDI are push or demand side and pull or supply side determinants (Polat, 2015). The pull factors are those micro and macro features of the host country that induce inflow of FDI. They include size of a country's foreign reserve, availability of infrastructure, cost of borrowing, factor cost especially labour, macroeconomic environment (which include Debt-GDP ratio, industrial disputes, inflation rate, BOP deficit, economic growth rate, unemployment rate), quality of institutions, cultural, social and political factors. The push factors are those micro and macro features in the source countries that compel investment outwards to recipients. They include the search for larger markets for finished goods and cheaper raw materials

and efficient production. Tax policies and trade conditions in the home country also influence FDI outflow. FDI outflow is more importantly induced by the need to increase political powers and domination of the home country over host country. With these differences in motive for FDI inflow or outflow, there is bound to be differences in potential benefits for home and host countries.

Nicet-Chenaf and Rougier (2014) offered some explanations on the source of FDI and FDI inflows. They posited that FDI inflow can be affected by output volatility in both host and source country. Accordingly, source country volatility and instability can have either negative or positive effects on FDI flows. They explained that the non-synchronization of business cycles in source and host countries may have positive effects due to substitution effects or negative effects due to revenue effects. Furthermore, Nicet-Chenaf and Rougier (2014) posited that generally, FDI inflows to developing countries have the propensity to reduce in periods of global economic crisis especially when macroeconomic conditions are worsening in the source countries.

For Levy-Yeyati et al. (2007), FDI inflow from developed countries to developing countries tend to move in opposite direction relative to the business cycle in the source country. They concluded that FDIs sourced from Europe and USA are mainly countercyclical while FDIs sourced from Japan are procyclical.

Therefore, we can conclude that the characteristics of country of origin affect the way FDI affects the host country in many ways. By its direct control and management of MNEs, through intra-company sales and trade and the size of domestic manufacturing and Research and Development; sector specialization, forms of ownership and ways of internationalization; capital intensity of production and technology use; human resource management practices etc., FDI impact on the host country would differ.

### 2.3. Empirical Literature

To identify how sensitive FDI inflows are reflective of both host and source countries' macroeconomic instability, Nicet-Chenaf and Rougier (2014), used gravity model to link 32 different sources of FDI inflow to 5 largest MENA countries - Egypt, Lebanon, Morocco and Tunisia. They found that the lower the source country's output volatility, the higher the European FDI flows to these MENA host countries.

Polat (2015) estimated the impact of some identified pull and push factors of total FDI into Central and Eastern European Countries

and transition countries between 2001 and 2012 using fixed-effect and random-effect models. The author found that EU Country Risk indices, labor cost, electricity prices of each host country, real GDP growth rate of USA and global crisis are negatively correlated with FDI inflows into the region. While, Country Risk indices and real exchange rate of each host country and real GDP growth rate of EU have power to affect FDI inflows positively. The study did not find any effect of openness, tax rates on commercial profits, USA Country Risk indices, interest rate differentials and host real GDP growth on FDI.

Gee and Karim (2011) used autoregressive distributed lag (ARDL) model to investigate whether varying origin of FDI has different effect on Malaysia's manufacturing sector using data from 1991 to 2006. They found that inflows of FDI from China and U.S. had significant positive effect on the growth of manufacturing sector in Malaysia while FDI inflows from Japan and ASEAN-4 had significant negative impact on the growth of manufacturing sector and is significant at the 5% level. This shows that source of FDI had varying effects on host countries.

Similarly, Fortanier (2007) examined the differences in growth of 71 countries as a result of FDI from six countries for the period 1989 to 2002. Using various estimation methods, the study supports the hypothesis that the impact of FDI differs by country of origin, and so does its interaction with host country characteristics.

### 3. METHODOLOGY AND DATA

The study was closely patterned after study by Gee and Karim (2011) whose work followed the works of Borensztein et al. (1998), Alfaro (2003), and Fortanier (2007). These empirical studies used the augmented Solow's growth model to evaluate the impact of FDI from different source countries on the growth rate of Nigeria's GDP. Following the study by Borensztein et al. (1998), Alfaro (2003), and Fortanier (2007), Gee and Karim (2011) posits that the direct effect of FDI on economic growth is dependent on GDP per capita, total investment, human capital and FDI in general. They then separated FDI into various sources so as to study the varying impact of FDI from different countries on the growth of manufacturing sector. For Gee and Karim (2011), the growth rate of manufacturing sector real GDP depends on the growth rate FDI from various sources (China, Japan, ASEAN-4, US, European countries); gross fixed capital formation; credit to private sector; human capital; and trade openness, measured as the ratio of total of export and import to GDP. Then, they used ARDL bound test for analysis.

Our study hypothesized that Nigeria's economic growth depends on FDI, interest rate and level of capital formation. FDI, the variable of focus, was broken into various sources: EU, United States, Africa and Asia. Interest rate captures the macroeconomic condition of Nigerian economy while the level of capital formation captures the level of investment in the economy.

The ARDL bound test as proposed by Pesaran et al. (2001) was employed in the analysis for several reasons. One, irrespective of the stationarity of the variables, it is a consistent estimates of long

run relationship. The results of the conventional cointegration test are usually biased if the variables of the model were integrated of different orders. Secondly, as pointed out by Nell (2001), the ARDL include dynamics in the estimation of the short-run and long run coefficients. In addition, when sample size is small, ARDL is more appropriate and robust.

The general ARDL bound test equation is stated thus:

$$\Delta X_{1t} = b_0 + \sum_{i=0}^n b_{1i} \Delta X_{2t-i} + \dots + \sum_{i=0}^n b_{ni} \Delta X_{nt-1} + \sum_{i=1}^n c_{1i} \Delta X_{1t-i} + d_1 X_{1t-1} + \dots + d_n X_{nt-1} + \varepsilon_t \quad (1)$$

The impact of each source of FDI were analyzed separately as in equation:

$$GDPG = FDI_{EU} + FDI_{US} + FDI_{AF} + FDI_{AS} + INT + EXR + \varepsilon \quad (2)$$

Where:  $FDI_{EU}$  = Stock of FDI from EU countries (million US\$),  
 $FDI_{US}$  = Stock of FDI from USA (million US\$),  
 $FDI_{AF}$  = Stock of FDI from African countries (million US\$),  
 $FDI_{AS}$  = Stock of FDI from Asian countries (million US\$),  
 INT = Cost of borrowing (%),  
 EXR = Exchange rate,  
 GDPG = Growth rate of gross domestic product (%),  
 $\varepsilon$  = Error term.

Equation 2 was estimated using ARDL method of estimation and then the bound test based F-statistic proposed by Pesaran et al. (2001) was conducted to analyze the existence of long-run relationship. The null hypothesis of no cointegration among the series of the model was:  $H_0: d_1 = d_2 = d_3 = \dots d_7 = 0$ . The null hypothesis is rejected if the computed F-statistic is higher than the upper bound critical value, and thus concluded that there is long-run equilibrium among the variables. But if the computed F-statistic is lower than the lower bound critical value, the null hypothesis cannot be rejected which shows that there is no long-run relationship among the variables. However, an inconclusive result is obtained if the F-statistic falls between the upper and lower bound critical values.

Annual data for the period 2001–2012 were used for the study. These annual data were converted into quarterly data using E-views. Stock of FDI inflows from various sources, measured in millions of US dollars, was obtained from UNCTAD FDI/TNC database. Growth rate of GDP measured in millions of US dollars was sourced from world development indicator. Data for interest rate and exchange rate were sourced from Central Bank of Nigeria statistical bulletin.

### 4. RESULTS AND DISCUSSION

The series of the study went through Augmented Dickey-Fuller unit root tests. Summary of the tests is presented in Table 2. The results of test shows that FDI from African countries, growth rate of GDP,

**Table 2: Results of unit root test**

Variable	ADF test statistic				Remark
	Level with constant	Level with constant and trend	First difference with constant	First difference with constant and trend	
FDI <sub>EU</sub>	-1.107612	-3.080137	-8.873744***	-	I (1)
FDI <sub>US</sub>	-0.928125	-2.544849	-9.015866***	-	I (1)
FDI <sub>AF</sub>	-5.137162***	-	-	-	I (0)
FDI <sub>AS</sub>	-0.863570	-2.322080	-8.435516***	-	I (1)
GDPG	-1.876819	-5.552814***	-	-	I (0)
EXR	-4.159231***	-	-	-	I (0)
INT	-3.276930**	-	-	-	I (0)

Source: Authors' E-views result. ADF: Augmented Dickey-Fuller, GDPG: Growth rate of gross domestic product, EXR: Exchange rate, FDI: Foreign direct investment

exchange rate, and INT were stationary at level forms while the rest of the series had properties of unit root at level form but became stationary at first difference. None of the variables is integrated of order two I (2) reaffirming the appropriateness of ARDL model.

Equation 2 was estimated to find out the impact of different sources of FDI inflow into Nigeria given some conditional variables, gross fixed capital formation and interest rate, using ARDL estimation method. The over-parameterized output of the estimation of ARDL (4, 4, 4, 4, 4, 4, 4, 4) selected through Akaike information Criteria is presented in Table 3.

Table 3 shows the relationship between GDP growth rate and FDI inflow from USA, EU countries and Asian countries. While current inflows from African and Asian countries had positive and significant impact on GDP growth rate, current FDI inflow from USA and EU countries had significant negative relationship with GDP growth rate. The R<sup>2</sup> of 84.8% and the adjusted R<sup>2</sup> = 60.3% shows that the explanatory variables adequately explained the variations in GDP growth rate. The P-value of about 0.002 of the F-statistics indicates that the regressors are jointly significant at 1% level. Insignificant Jarque Bera test shows that the error term is normally distributed. The Bruesch-Godfrey LM test with a probability of 0.1118 indicates the absence of serial autocorrelation in the residual of the model. In line with the LM test, the non-significant correlogram-Q-statistics as shown in Table 4 confirms the absence of serial autocorrelation in our model.

Stability of the coefficients of the regression is vital to the robustness of an ARDL model. Figures 2 and 3 shows that the plots of CUSUM and CUSUMSQ statistics remained within 5% level of significance bound. Hence the estimated coefficients of our model are stable.

To analyze the existence of long run relationship among the variables of the study, the bound test was performed and the output is shown in Table 5.

The hypothesis is that there is existence of long run relationship if the F-Statistic is higher than the upper bound critical value but no long relationship exists if the F-statistic is lower than the lower bound critical value. The result shows that the computed F-Statistic of is higher than the upper bound critical values at all levels of significance and hence the null hypothesis of no long run relationship is rejected. Thus, long run relationship exists among the variables.

**Table 3: Over-parameterized output of impact of FDI from various sources on GDPG**

Dependent variable: GDPG			
Variable	Coefficient	t-Statistic	Prob.
GDPG(-1)	0.247562	1.541626	0.1381
GDPG(-2)	-0.623210	-2.266658	0.0341
GDPG(-3)	0.585852	2.940855	0.0078
GDPG(-4)	-2.050664	-2.822222	0.0102
FDI <sub>AF</sub>	0.133861	2.795744	0.0108
FDI <sub>AF</sub> (-1)	0.000158	0.203500	0.8407
FDI <sub>AF</sub> (-2)	0.000435	0.547042	0.5901
FDI <sub>AF</sub> (-3)	0.000828	0.945180	0.3553
FDI <sub>AF</sub> (-4)	0.183015	2.199080	0.0392
FDI <sub>AS</sub>	1.333245	2.704032	0.0133
FDI <sub>AS</sub> (-1)	-0.000264	-0.041899	0.9670
FDI <sub>AS</sub> (-2)	0.001791	0.288606	0.7757
FDI <sub>AS</sub> (-3)	0.007714	1.210287	0.2396
FDI <sub>AS</sub> (-4)	1.264798	1.955223	0.0640
FDI <sub>EU</sub>	-0.165564	-2.768083	0.0115
FDI <sub>EU</sub> (-1)	0.000201	0.170858	0.8660
FDI <sub>EU</sub> (-2)	1.09E - 05	0.009263	0.9927
FDI <sub>EU</sub> (-3)	-0.001132	-0.962197	0.3469
FDI <sub>EU</sub> (-4)	-0.179289	-2.013875	0.0570
FDI <sub>US</sub>	-6.618895	-2.683659	0.0139
FDI <sub>US</sub> (-1)	0.000905	0.030334	0.9761
FDI <sub>US</sub> (-2)	-0.010707	-0.365620	0.7183
FDI <sub>US</sub> (-3)	-0.038498	-1.263676	0.2202
FDI <sub>US</sub> (-4)	-6.328400	-1.972653	0.0618
INT	1.301291	0.440494	0.6641
INT(-1)	-0.187096	-0.291676	0.7734
INT(-2)	0.813350	1.514162	0.1449
INT(-3)	0.969375	1.564152	0.1327
INT(-4)	0.918846	1.085544	0.2900
EXR	-0.261625	-1.688168	0.1062
EXR(-1)	-0.099151	-0.897276	0.3797
EXR(-2)	-0.097518	-0.829270	0.4163
EXR(-3)	0.082556	0.629177	0.5360
EXR(-4)	1.930381	2.252259	0.0351
C	-311.7920	-1.880958	0.0739
R <sup>2</sup>		0.848426	
ADJ R <sup>2</sup>		0.603021	
S.E of regression		3.952968	
F-Statistic (P-value)		4.358364 (0.001977)	
Jarque Bera (P-value)		0.243336 (0.885442)	
LM Test (P-value)		4.382252 (0.1118)	
DW		2.241633	

Source: Authors' E-Views Result. EU: European Union, GDPG: Growth rate of gross domestic product, EXR: Exchange rate, FDI: Foreign direct investment

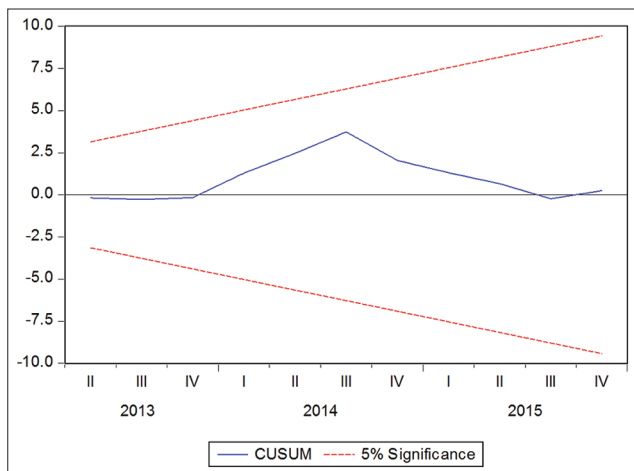
The result of the error correction model is as shown in Table 6. This is the parsimonious result and it shows the short run

**Table 4: Correlogram-Q-statistics**

Date: 06/01/17 Time: 18:27		Sample: 2001Q1 2015Q4					
Included observations: 56		Q-statistic probabilities adjusted for 4 dynamic regressors					
Autocorrelation	Partial correlation	AC	PAC	Q-Stat	Prob*		
* .	* .	1	-0.127	-0.127	0.9487	0.330	
. .	* .	2	-0.049	-0.066	1.0911	0.580	
. .	. .	3	0.071	0.058	1.4040	0.705	
** .	** .	4	-0.291	-0.283	6.6798	0.154	
. .	* .	5	-0.011	-0.082	6.6874	0.245	
. .	* .	6	-0.055	-0.116	6.8822	0.332	
. .	. .	7	0.033	0.035	6.9565	0.433	
* .	* .	8	-0.083	-0.188	7.4223	0.492	
. .	. .	9	0.008	-0.051	7.4263	0.593	
. .	. .	10	0.042	-0.050	7.5512	0.673	
* .	* .	11	-0.118	-0.118	8.5484	0.663	
. .	* .	12	-0.036	-0.186	8.6436	0.733	
. .	. .	13	0.081	0.003	9.1398	0.762	
. .	. .	14	0.028	-0.005	9.1998	0.818	
. .	. .	15	0.051	-0.006	9.4070	0.855	
. .	. .	16	0.044	-0.055	9.5649	0.888	
. .	. .	17	-0.017	-0.014	9.5903	0.920	
* .	* .	18	-0.140	-0.171	11.269	0.883	
. .	. .	19	0.013	-0.046	11.284	0.914	
. .	* .	20	0.121	0.084	12.596	0.894	
* .	. .	21	-0.097	-0.062	13.477	0.891	
. .	. .	22	0.108	0.006	14.593	0.879	
. .	* .	23	-0.045	-0.099	14.788	0.902	
* .	. .	24	-0.070	-0.028	15.292	0.912	

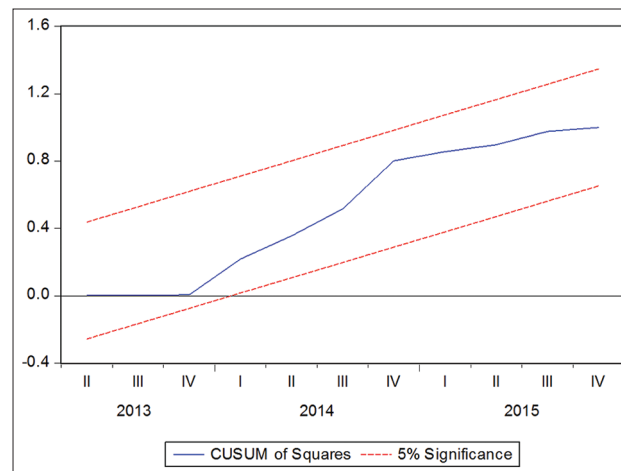
\*Probabilities may not be valid for this equation specification. Source: Authors' E-views result

**Figure 2: Recursive estimates (OLS only) - CUSUM test**



Source: Authors' E-views result

**Figure 3: Recursive estimates (OLS only) - CUSUMSQ test**



Source: Authors' E-views result

equilibrium relationship between FDI inflow from different sources and G21DP growth rate given the level of exchange rate and interest rate.

In short run, FDI inflows from African and Asian countries had positive and significant impact on GDP growth rate while FDI inflow from USA and EU countries had significant negative relationship with GDP growth rate. FDI inflows from African countries had negative and insignificant impact on GDP growth rate. The error correction term is properly signed and significant, showing that the speed of adjustment is 284%.

The long run result is similar to the short run result as shown in Table 7. FDI inflows from African and Asian countries had positive and significant impact on GDP growth rate while FDI inflow from USA and EU countries had significant negative relationship with GDP growth rate. FDI inflows from African countries had negative and insignificant impact on GDP growth rate.

### 5. CONCLUSION

The outcomes of the study show that the impacts of FDI indeed differs depending on the country of origin and it is caused

**Table 5: ARDL bound test**

Computed F-Statistic 8.399248		
Level (%)	Critical bound value	
	Lower bound I (0)	Upper bound I (1)
10	2.12	3.23
5	2.45	3.61
2.5	2.75	3.99
1	3.15	4.43

Source: Authors' E-views result

**Table 6: Error correction model**

Variable	Coefficient	t-Statistic	Prob.
D (FDI <sub>AF</sub> )	0.133861	2.795744	0.0108
D (FDI <sub>AS</sub> )	1.333245	2.704032	0.0133
D (FDI <sub>EU</sub> )	-0.165564	-2.768083	0.0115
D (FDI <sub>US</sub> )	-6.618895	-2.683659	0.0139
D (INT)	1.301291	0.440494	0.6641
D (EXR)	-0.261625	-1.688168	0.1062
CointEq(-1)	-2.840461	-3.836959	0.0010

Source: Authors' E-views result. EXR: Exchange rate, FDI: Foreign direct investment

**Table 7: Long run model**

Variable	Coefficient	t-Statistic	Prob.
FDI <sub>AF</sub>	0.112058	2.964861	0.0074
FDI <sub>AS</sub>	0.917909	2.799702	0.0107
FDI <sub>EU</sub>	-0.121731	-2.949928	0.0076
FDI <sub>US</sub>	-4.575172	-2.779172	0.0112
INT	1.343362	0.902829	0.3769
EXR	0.547321	1.565291	0.1325
Constant	-109.768093	-1.391514	0.1786

Source: Authors' E-views result. EXR: Exchange rate, FDI: Foreign direct investment

according to Luo (1998) by the interactions between the market structures in the countries of origin and host. Apart from differences in market structures of host country and country of origin, they also differ in terms of business system, institutions, policy formulation process, organizational features, level of development etc. When these differences interact, they are bound to produce varying operational and financial synergies because of location and ownership advantages (Gee and Karim, 2011). Thus, it will be erroneous to assume that impact of FDI on economic growth will be homogenous.

The Eclectic paradigm of Dunning (1993) posited that multinationals establish abroad mainly to capture some benefits and these are most often achieved through exploitation of imperfections in the markets of the host countries. The findings of this study conformed to the study of Gee and Karim (2011) and Fortanier (2012) who found varying impact of FDI from different sources. The study found that FDI from African and Asian countries have positive significant impact on economic growth while FDI from USA and EU countries have negative significant impact on economic growth. The implication of this is that FDI from developing and emerging economies (like China) have positive impact on developing economies.

Several explanations can be adduced from this finding. These source countries whose FDI have positive and significant effect on the host country (Nigeria) are at almost the same level of

development with almost similar attendant developmental challenges. Thus lessons learnt from countries of source in tackling some of these challenges can be easily adapted and applied in Nigeria. Moreover, these emerging economies aim to displace the already existing FDI block like USA and EU countries and they are likely to formulate and implement programmes and policies that will give them the desired competitive edge.

On the basis of these, the paper recommends that FDI from developing and emerging economies should be encouraged and better incentives given to them. It is important that policy makers should encourage investors from within especially within the African continent. It is also worthy to note that macroeconomic situation of Nigeria has influence on the impact of FDI. A stable macroeconomic environment, captured in the study by interest rate and exchange rate attracts and supports the FDI's impact on the economy. Therefore, it is recommended that policies that will stabilize the macroeconomic environment should be vigorously supported and pursued.

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