

## **Impact of Foreign Capital Inflows and Foreign Exchange Rate on Stock Market Returns**

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### **Abstract**

Stock is one of the key securities traded in the capital market and as such, has attracted the attention of researchers. While it is said to propel economic activities, empirical studies conducted on different countries present divergent outcomes. The effect of foreign capital inflows in the stock market return in emerging economy like Nigeria have so far received inadequate attention in the literature. This study contributes to the literature by examining a possible determinant of stock market return that has received less attention in the literature: foreign investment inflows. The work covered a period of 1990-2017 using annual data from Central Bank of Nigeria statistical bulletin. Causal research design was used in this study. The study found that foreign direct investment and foreign portfolio investment have positive and significant impact on the stock market return. However, exchange rate has negative but statistically insignificant impact on the stock market return in Nigeria. Based on this finding, it recommends that that policymakers should be concerned with stock market liquidity, given that market capitalization is a strong indicator of stock market development as it is positive and statistically significant. If this can be done, it will help to attract foreign investors into the Nigeria stock market.

**Keywords: Foreign direct investment, foreign portfolio investment, international remittance inflow and stock market return**

### **Introduction**

Foreign capital has significant role for every national economy, regardless of its level of development. Stock market development is not only important in economic development of a nation, it is also an important indicator of future economic activity and a nation's economic strength. Stock market plays an important role in the development of every economy's financial system and serves as an avenue for financing projects and investments capable of providing job opportunities, reducing poverty, and accelerating economic growth (Akinlo, 2014). Stock markets are the best indicators to estimate future economic activity and stock market health is also a measure of economic strength of a country (Raza, Iqbal, Ahmed, Ahmed, & Ahmed, 2012).

The determinants of Stock Market return have drawn the attention of many scholars and researchers in recent times. Studies have revealed that a well-developed and functioning stock market can boost economic growth by enhancing faster capital accumulation and allowing for a better resource allocation in developing countries. Thus, it is the general belief amongst scholars that stock markets play a pivotal role in the growth and development of an economy.

Foreign capital inflow may create both short and long run impact on the stock market return of a nation. Foreign capital inflow is the movement of capital resources from one country to another country for investment purpose, trade or business production (Nwosa, 2015). Capital inflows allow the recipient country to invest and consume more than it produces when the marginal productivity of capital within its borders is higher than in the capital-rich regions of the world (Chigbu, Ubah and Chigbu, 2015). The composition of foreign capital inflow to developing countries in general and Nigeria in particular has shifted from commercial loans to foreign direct investment (FDI) and portfolio investment (Ndem, Okoronkwo and Nwamuo, 2014).

Foreign portfolio investment means the purchase of shares in a foreign country where the investing party does not seek control over the investment. A portfolio investment typically takes the form of the purchase of equity (preference share) or government debt in a foreign stock market, or loans made to a foreign company (Mucuk, Demirsel and Şahin, 2014). Portfolio investment is a recent phenomenon in Nigeria. Up to the mid 1980's, Nigeria did not record any figure on portfolio investment (inflow or outflow) in her balance of payment account. The nil return on the inflow column of the account is attributable to the absence of foreign portfolio investors in the Nigerian economy. This is largely because of the non-internalization of the country's money and capital markets as well as the non-disclosure of information on the portfolio investments in foreign capital/money markets (Obadan, 2004).

Foreign direct investment (FDI) on the other hand, is long term investment made by the foreign investor to acquire lasting interest in enterprises operating outside the country or economy of the investor (Singh, 1997). FDI is central to the economic growth of a country and it represents an important financing source for capital investment. This is because it supports the transfer of technology, expertise and organizational capital between two countries as well as stimulating productivity growth (Nkalu, Edeme and Ifelunini, 2016). The benefits of FDI are employment generation; increase in the level of income and savings of investing country as well as transmitting of knowledge and technology (Haque, Patnaik and Hashmi, 2017).

One of the many influences on foreign capital inflows activity is the behaviour of exchange rates. Exchange rates, defined as the domestic currency price of a foreign currency, matter both in terms of their levels and their volatility (Odili, 2014). Exchange rates can influence both the total amount of foreign direct investment that takes place and

the allocation of this investment spending across a range of countries (Goldberg, 2006). When a currency depreciates, meaning that its value declines relative to the value of another currency, the exchange rate movement has two potential implications for FDI. Firstly, it will increase FDI inflows into the country since it reduces cost of investment. Secondly, it will increase overall performance of stock market (Goldberg, 1993).

Capital flows in the form of foreign direct and portfolio investment to developing countries has been described as low in the past few decades (Nwankwo, 2013). It is worth noting that stock market returns all over the world including Nigeria is characterized by upward and downward movements. In the recent years' foreign capital inflows into Nigeria stock market is very low. For instance, the foreign portfolio investment inflow to Nigeria was ₦2,687.2 Billion in year 2012 as against ₦2,130.2 Billion and ₦832.4 Billion in year 2013 and 2014 respectively (Stabull, 2014).

Stock market response, to the above sluggish foreign capital inflows into Nigeria stock market, the All Share Index (ASI) has severally declined, exhibiting a secular bear posture since July 17, 2008 when, at ASI of 52,910, the Index fell below 20% of its all-time high. It fell further, crossing below the 50,000 mark on August 8, 2008 and closing on October 22 at 42,207 (a 36.4% loss from the high within just seven months, and a year to date decline of 27.9%) (Mobolaji, 2008). Business Report (BR) in May 27, 2018, revealed that All Share Index (ASI) depreciated by 2.84% to settle at 39,323.62 points, while market capitalization decreased by 416 billion to finish at 14.244 trillion as against its previous close of 14.660 trillion (Business Report, 2018).

The factors driving stock price movements (upward and downward) have become issue of concern to both researchers in academics and professional portfolio managers in different cycle. As a result, several studies investigated the impact of foreign capital inflows on stock market return in various countries (Adam and Tweneboah, 2009; Garacia and Liu, 1999; Yartey, 2008). But there is no consensus among the previous studies.

Incidentally, few studies in Nigeria have attempted to provide empirical evidence of the foreign capital inflow on stock market return (Udegbumam and Eriki, 2001), while few others have done that at theoretical level (Adabag, 2012). On the other hand, several related studies on Nigerian emerging market had neglected the fact that foreign portfolio investment may exert positive influence on stock market returns. For instance, Temitope (2002), Tokunbo (2004), Rose and Sara (1998), examined the trend towards promoting stock market and economic growth but failed to consider the fact that foreign portfolio investment, Adeleke (2004) is believed to facilitate economic growth and development which leads to industrialization of the economy. Ologunde, Elumilade and Asaolu, (2006) showed that interest rate exerts positive influence with stock market returns, this is in line with the empirical result of Temitope (2002). Robert (2008) investigated the relationship

that exists between stock market returns and the exchange rate. Meanwhile, Adabag (2012) had opined that foreign investors are blamed for financial instability through sudden flows in emerging markets. To this end, it needs to be investigated whether the inflow and outflow of foreign portfolio investments on the stock market is significant enough to lead to an increase or fall in stock market returns.

It is in the light of the issues raised above that this study would analyze the foreign portfolio investment in Nigeria. The necessity of this study is that Nigeria government has been searching for foreign investors to boost her economy that is in recession, since global fall in the crude oil price which is the major source of income to the country. The policy relevance of this study cannot be over stressed since Nigeria has increasingly become an investment destination for most foreign financial investors because of the recent financial sector reforms (Haque, Patnaik and Hashmi, 2017). The broad objective of this study is to investigate impact of foreign capital inflows on stock market return in Nigeria. Specifically, the study seeks to; firstly, investigate impact of foreign direct investment on stock market return in Nigeria; secondly, examine impact of foreign portfolio investment on stock market return in Nigeria and thirdly, examine impact of exchange rate in stock market return in Nigeria.

## **Conceptual Clarification**

### **Concept of Stock Market Return**

The flow of foreign capital is highly dependent on the functioning of the financial market. One major aspect of the financial market that triggers investment is the stock market. The stock market enhances investment opportunities of the investors by providing avenues for the sale of securities when the need for cash/liquidity arises and enables investors to alter their choice of asset portfolio (Nwosa, 2015). All Share Index (ASI) is an indicator of the stock market which measures the overall performance of the market and specified as the dependent variables in this study.

### **Concept of Foreign Direct Investment**

Foreign direct investment (FDI) is an important source of stock market returns (SMR). It can also play its task in raising domestic savings in the country through enhancement of technology transfer and creating job opportunities (Singh, 1997). It may be difficult to acquire such huge investment through the country's domestic savings without foreign direct investment. Nwankwo, (2013), found positive and statistically strong relationship between FDI and stock market returns. Foreign direct investment net inflows in reporting (current US\$) is used as a proxy for FDI and sourced from the World Bank Development Indicator Database. FDI is measured as the aggregate annual value. Previous studies have used the same proxy for FDI and found mix finding between FDI and stock market return (Adam and Tweneboah, 2009; Mordi, 2006; Nwankwo, 2013).

### **Concept of Foreign Portfolio Investment**

Foreign Portfolio Investment (FPI) is the transfer of financial assets such as cash, stock or bonds into a country by foreigners in need of profit and sometimes for speculation reason (Idowu and Babatunde, 2012). Foreign portfolio investment as an international capital flow comprises of transfers and financial assets such as stocks or bonds (Eniekezimene, 2013). It occurs when investors purchase non-controlling interest in foreign companies or buy foreign corporate or government bonds, short term securities or notes (Ekeocha, Ekeocha, Victor and Onyema, 2012). The desire by foreign firms, governments and individuals to explore their comparative advantage has necessitated international capital flows. Therefore, foreigners seeking to maximize their earnings, move their accumulated foreign assets to countries where they will be more productive. Hence, it is the productivity of capital that facilitates international investments. However, in this study foreign portfolio investment would be measured using annual aggregate value.

### **Concept of Exchange Rate**

Exchange rate has been defined as the price of one currency in terms of another (Mordi, 2006). Oladipupo and Ogheneov (2011) defined Exchange rate as the price of one currency (the domestic currency) in terms of another (the foreign currency). Exchange rate plays a key role in international economic transactions because no nation can remain in isolation due to varying factor endowment. Therefore, exchange facilitates the inflows of foreign capital into a country stock market. In this study exchange rate would be measured using exchange rate of Nigeria naira par US dollar.

### **Review of Related Studies**

Chauhan (2013) examined the impacts of foreign capital inflows on stock market development for the period 2000 to 2011. The study employed Ordinary Least Square, Karl Pearson's correlation and Analysis of Variance techniques. The findings of the study showed that FDI had the greatest effect on both Bombay and National stock exchanges up to 61 per cent and 86 per cent respectively. Further, the study observed that FPI had a very low impact on Bombay stock market and a comparative high impact on the National stock exchange while foreign portfolio investment had the least impact on both markets. In the same view, LO Duca (2012), examined the factors affecting the capital inflows on GDP growth rate, market efficiency and higher returns expectation. The study employed ordinary least square approached. The study found that foreign direct investment and portfolio investment have positive and insignificant effect on the stock market return. In Nigeria Adaramola and Obisesan (2015) investigated impact of foreign direct investment on the Nigeria capital market development. The study found absence of co-integration between the variables. The study found that FDI has positive and significant impact on the stock market development. Eniekezimene (2013) examined the impact of foreign portfolio investment on capital market growth. Ordinary Least Square method

was used to analyze the data collected. It was revealed that foreign portfolio investment has a positive impact on capital market growth. Conversely, Idowu and Babatunde (2012) investigated the effect of financial reform on capital market development in Nigeria over the period 1986 to 2010. Ordinary Least Square (OLS) technique was also used. The findings however revealed that the variables that represented the development of the banking sector interacted negatively with market capitalization which implies that the activities of those institutions deterred the development of the capital market.

Ayunku and Etale (2014), study examined the determinants of stock market development for the period of 1977-2010. The study further investigated the long run and short run relationship between the variables, using ex-post facto research design and the utilization of Johansen Co-integration and Error Correction Model (ECM) approach. The empirical result indicated that market capitalization, credit to private sector and exchange rates are all important determinants of stock market development both in the long run and short run in Nigeria.

Furthermore, Ibrahim and Akinbobola (2017) examined the relationship between foreign portfolio investment, democracy and economic growth in Nigeria. The results showed that, in the long run. Foreign portfolio investment had positive and significant effect on the economic growth in Nigeria. Haider, Khan, Saddique and Hashim, (2017) investigated the impact of stock market performance and inflation on foreign portfolio investment (FPI) in China. For this purpose, time series quarterly data from 2007 Q1 to 2015 Q4 was used. The results showed that there was significant positive impact of stock market performance on the FPI, whereas inflation is found to be negatively associated with the FPI.

Fayyaz, Draz, and Yang, (2016) concluded that the major determinants of the foreign portfolio investments are the GDP growth, market size and market efficiency and higher expectation of returns, which played a vital role in the movement of the foreign portfolio investment.

Loice (2017) investigated the effect of foreign portfolio equity outflows on stock returns of listed financial institutions in Kenya. Using purposive sampling technique, the study concentrated on 14 financial institutions. Panel estimation results indicated that foreign portfolio equity outflows had no effect on stock returns of listed financial institutions in Kenya.

Ouedraogo (2017) explored the impact of the inflows of portfolio capital into three institutional sectors (government, banks and corporates) on the real effective exchange rate. Using a large sample of 73 countries, it was shown that the effect of portfolio inflows on the real effective exchange rate depended on the sector the investment that flowed in. The results were robust to different econometric methods, additional variables in the model, and various indicators of real effective exchange rates.

Syed, Syed and Sahar (2013) examined the impacts of foreign capital inflows and economic growth on stock market capitalization in Pakistan for the period of 1976 to 2011.

Employing an ARDL bound testing co-integration approach. The study observed that foreign direct investment, workers' remittances and economic growth have significant positive relationship with the stock market capitalization both in long run and the short run.

Umar, Ismail and Sulong (2015) studied the impact of the stock market development on foreign direct investment using autoregressive distributed lag (ARDL) in the presence of structural breaks (dummies) in Nigeria. The study utilized annual time series data from 1970 to 2013. The data were generated from World Bank and Central Bank of Nigeria (CBN). The result suggests that the foreign direct investment (FDI) has a significant positive long-run impact on the value of the total stock transaction, but has a negative and significant effect on the rate of stock returns.

Evidence from the empirical reviewed shows that there is no consensus on the relationship between foreign capital inflows and stock market return. These mixed findings may be attributed to methodological, theoretical, market and economy peculiar factors, political instability etc., in different countries in which these studies were conducted. Very few studies conducted so far in emerging market most especially in Nigeria context. This creates a vacuum that requires urgent solution.

### **Theoretical Framework**

One way of linking macroeconomic variables and stock market returns is through Arbitrage Pricing Theory (APT) propounded by Ross (1976). The model as formulated by Ross (1976) rests on the hypothesis that the equity price (Stock) is influenced by limited and non-correlated common factors and by specific factor totally independent of the other factors. The risk associated with holding a particular security came from two ways. The *first source* of risk is the macroeconomic factors such as inflation, interest rate, etc. that affect stock prices. Their influence pervades the whole stock market and cannot be diversified away. The *second source* of risk is the idiosyncratic or peculiar element. This element is unique to each security and, in a broadly diversified portfolio it can be diversified away. In this regard, the model assumes that macroeconomic variables such as exchange rate can influence the stock market.

The theory made use of multiple risk factors to explain asset returns. However, the theory assumed that returns on market securities are affected by two factors (security characteristics and macroeconomic factors). Macroeconomic variables could be reflecting a change in an underlying systematic risk factor influence future returns. Furthermore, most of empirical studies such as Syed, Syed and Sahar (2013); Loice (2017), Adam and Tweneboah, 2009; Mordi, 2006; Nwankwo, 2013, on APT theory, linking the state of foreign capital inflows to stock market returns, are characterized by modeling a short-run relationship between foreign direct investment and foreign portfolio investment and the stock price (Goldberg, 1993). However, this theory would be used to underpin the study

as it clearly shows the interrelationship between the study's independent and dependent variables.

**Methodology**

The study used causal research design which is more quantitative in nature as well as deliberate and configured design. Causal research design happens when variation in one incident, an independent variable, leads to, on average, a variation in another incident, the dependent variable (Delbert and Neil, 2002). The study utilized secondary data which was collected from Nigeria Bureaus of Statistics, Central Bank of Nigeria and Nigeria Securities Exchange.

**Model Specification**

The selection of the model is based on the theoretical perspectives of the nexus between foreign capital inflows, which maintains that such inflows have effect on stock market return. The variables used in this study on the effect of foreign investment inflows on stock market return in Nigeria are exchange rate (EXR), foreign direct investment (FDI), foreign portfolio investment (FPI). Thus, the growth model is specified as

$$\begin{aligned}
 ASI_t = & a + \beta_1 FDI_t + \beta_2 PFI_t \\
 & + \beta_3 EXCH_t + ut \dots \dots \dots (1)
 \end{aligned}$$

**Table 1. Measurement of Variable**

Variables	Measurement	Source
Stock market return	The Nigerian Stock Exchange Market All Share Index was used as a proxy for Stock Market Returns.	Koskei (2017); Sulieman Sa'ad & Abba, Mohammed (2016)
Foreign Direct investment	FDI is measured as the annual aggregate value	Chauhan (2013)
Foreign portfolio investment	FPI is measured as the annual aggregate value	Chauhan (2013)
Exchange Rate	Exchange rate of Naira to US Dollar	Chauhan (2013)

Source: Researcher Computation from Literature 2019



**Result and Discussion**

**Table 2. Diagnostic Tests Results**

<b>Test Specification</b>	<b>Chi2</b>	<b>P-value</b>
Normality Test (Shapiro-Wilk W test for normal data)	0.0010	0.9994
Multicollarity Test (VIF) (FDI 2.61, FPI 1.58 and FDI 2.62)		
Model Specification Test (Ramsey RESET test)	0.7324	0.2883
(Breusch-Pagan / Cook-Weisberg test for heteroskedasticity)	0.9007	0.4566
Serial Autocorrelation Test (Breusch–Godfrey test LM)	1.1061	0.6130

Source: Researcher Computation 2019

The regression model of differenced value of the stock market returns (dependent variable) against differenced values of foreign direct investment, foreign portfolio investment and exchange rate and the error correction term was estimated. Diagnostic tests for the estimated model were done and the results are hereby discussed.

Ramsey test was used to test for the correct model specification. In this test, if non-linear combinations of the explanatory variables do not have any power in explaining the endogenous variable, the model is correctly specified (Ramsey, 1969). The null hypothesis of the test is that the model is linear against an alternative. The results show that the null hypothesis of non-linearity was rejected since its p-value is greater than 5% significance level. The model was therefore correctly specified. This implies that there is not evidenced of omitted or additional variables in the model.

Serial correlation is a statistical term used to describe the situation when the residual is correlated with lagged values of itself which is not desirable. Breusch-Godfrey Serial Correlation LM Test was used to test for the presence of serial correlation on the residuals. The null hypothesis is of no serial correlation. The p-value is 0.6130 (61.30%) which is more than 5 percent ( $p > 0.05$ ), hence null hypothesis could not be rejected. This means that residuals (u) are not serially correlated which is desirable.

Heteroscedasticity is a term used to describe the situation when the variance of the residuals from a model is not constant. Breusch-Pagan-Godfrey test (B-P-G Test) was used to test for the presence of heteroscedasticity. The p-value is 0.4566 (45.66%) which shows that null hypothesis of homoscedasticity cannot be rejected. This implies that the residuals have constant variance which is desirable.

One of the assumptions of the regression model is that the error term, follows the normal distribution. Jarque Berra statistics was used to test for normality. The result in show that its value is 0.0010 and the corresponding p value is 0.9994. Since p value is greater than 5 percent the null hypothesis of normal distribution cannot berejected meaning that

population residual is normally distributed which fulfills the assumption of a good regression line.

### Unit Roots Test Result

In this study, the Augmented Dickey Fuller (ADF) unit roots test was employed to test for the time series properties of model variables. The null hypothesis is that the variable under investigation has a unit root against the alternative. The decision rule is to reject the null hypothesis if the ADF statistic value exceeds the critical value at a chosen level of significance (in absolute term). These results are presented in table 2 below.

**Table 3. Augmented Dickey-Fuller (1980)**

At Level 1(0)			
Variables	T-statistic	5% sig level	Order of integration
ASI	2.048914	2.986225	Not Stationary
FPI	3.033281	3.052169	Not Stationary
FDI	1.059839	3.004861	Not Stationary
EXR	2.215732	3.012363	Not Stationary
At First Difference 1(1)			
	T-statistics	5%sig level	Order of integration
ASI	3.312882	2.991878	Stationary
FPI	3.937457	3.052169	Stationary
FDI	5.352735	3.012363	Stationary
EXR	5.561955	3.020686	Stationary

Source: Eview 9.5 Output

The results of table 2 show that all the variables are not stationary at level given the value of t-statistics less than 5% significance level. Based on this null hypothesis of unit root was accepted. However, at the 1st difference all the variables (ASI, FDI, FPI and EXR) are free from unit root problem. This is evidenced from the T-statistic value greater than 5% critical level. Thus, we conclude that the variables under investigation are integrated of order zero one I(1). This indicates that all the variables are stationary at the first difference 1(1), which is a precondition to use Vector Error Correction Model (VECM) to test for long-run relationship between the study variables. Based on the foregoing, it became necessary to use the Johansen approach to test for co-integration among the variables. The order of lags on the first differenced variables are obtained from the unrestricted models by using the Akaike Information Criterion (AIC). Akaike's Information Criterion (AIC) provides the best fit for an autoregressive model to a set of

data. The model with the smallest value of the AIC is judged to be the most appropriate. The AIC revealed that the best fit for the model is an AR (1). This implied that the study would use lag (1), which is the lowest value for each criterion is its chosen VAR lag length.

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**Table 4. Johansen Co-integration Test**

Lags interval (in first differences): 1 to 1

**Unrestricted Cointegration Rank Test (Trace)**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.748833	66.13633	47.85613	0.0004
At most 1 *	0.628470	32.97705	29.79707	0.0208
At most 2	0.244221	9.214046	15.49471	0.3460
At most 3	0.098695	2.493890	3.841466	0.1143

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

**Unrestricted Cointegration Rank Test (Maximum Eigenvalue)**

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.748833	33.15928	27.58434	0.0086
At most 1 *	0.628470	23.76301	21.13162	0.0208
At most 2	0.244221	6.720156	14.26460	0.5227
At most 3	0.098695	2.493890	3.841466	0.1143

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: Eview Output, 2019

The co-integration test provides evidence on the existence of a long run relationship between the variables of interest such as foreign direct investment, foreign portfolio investment, exchange rate and sock market return. The Trace and Eigen value result in table 4 reveal existence of two (2) co-integration between the variables. This is evidenced from Trace and Eigen value statistic greater than 5% critical level. Thus, the null hypothesis of no cointegration is rejected at the 5 percent level of significance. In order to absolve the short-term dynamics of the relationship among the series, an Error Correction Model (ECM) was employed.

## Long-run Equation

**Table 5. The results of the long run estimations using (VECM) are presented below. Regression coefficient of Random Effect Model**

Variables	Coefficient	Standard Error	t-statistics	P-value
Constants	29.140	2.4652	11.82	0.000**
FDI	0.3517	0.0289	12.16	0.000**
FPI	0.1430	0.5181	2.76	0.043*
EXR	-0.2165	0.1207	-1.79	0.072
Coimt (-1)	-0.3927	0.0710	-5.53	0.000
R <sup>2</sup>	0.5867			
Adjusted R <sup>2</sup>	0.5825			
S.E of Regression	0.7133			
F-statistics	27.625			
P-Value	0.0000			

Source: Researcher computation 2019.

Note: \* significance at 5%, \*\* significance at 1%.

Summary of Vector Error Correction Model (VECM) are presented in the table 5. The coefficient of the VECM as could be observed in the table 5 is negative signed and highly significant, showing that the model has a self-adjusting mechanism for adjusting the short-run dynamics of the variables with their long-run values. The coefficient of the ECM is significant at 1 percent level of significance and has the correct negative sign. According to Afolabi and Oluyemi (2005), a highly significant error correction term is a further proof of the existence of a stable long run relationship. This implies that there is a long-run relationship between foreign capital inflows and stock market return its determinants. The speed of adjustment to equilibrium is given by the coefficient of ECM (-1) as -0.3927. This speed is very high, indicating that a deviation in stock market return proxy with all share index (ASI) from equilibrium is corrected by as high as 39.3% the following year in Nigeria. Only about 39.3% of the adjustment to long run equilibrium is completed within the first period (year).

The value of adjusted R<sup>2</sup> of the estimated model shows about 0.5825 or 58.3% of the variation in stock market return is explained by the combined effects of all the predictor while the remaining 42.7% is attributed to the unexplained variation that is the variables not captured in this model. Also, the equation's standard error of 0.7133 signifies that in about 71% of the time the predicted value of stock market return would be within 71.33% of the actual value.

The F-statistic of 27.625 is significant at 1 percent level, as the p-value estimate of 0.0000 has indicated. The F-statistics shows that the explanatory variables are jointly significant in explaining stock market return (dependent variable). It shows that there is a linear relationship between the dependent variable and at least one of the independent

variables. The explanatory variables used in this study are good enough to explain the various foreign capital inflows on stock market return in Nigeria.

## **Results and Discussions**

The coefficient of foreign direct investment reveals a positive and significant impact on the stock market return. This is evidenced from positive coefficient 0.3517 with the corresponding p-value 0.000 less than 5% significance level. This finding implies that FDI has positive and significant influence on the stock market return proxy by all share index. Based on this finding, the study rejects the null hypothesis that foreign direct investment has no significant impact on the stock market return in Nigeria. This finding is in line with the work of Chauhan (2013), Syed, Syed and Sahar (2013) who document positive and significant relationship between foreign direct investment and stock market performance. However, the finding is not in line with the work of Ahmed and Ahmed, (2012) who document negative and insignificant relationship between foreign direct investment and stock market performance.

The result also revealed that foreign portfolio investment has positive and statistically significant impact on the stock market return. This is evidenced from the coefficient value of 0.1430 with p-value of 0.043 less than 5% significance level. This finding signifies that foreign portfolio investment has significant impact on the stock market return in Nigeria. Based on this finding, the study rejects null hypothesis that foreign portfolio investment has no significant impact on the stock market return in Nigeria. This finding is in line with the work of Chauhan (2013) who found a positive and significant relationship between stock market return and foreign portfolio investment.

Furthermore, the finding the coefficient of real exchange rate is -0.2165; that is, a given percent increase in real exchange rate leads to 21.65 percent decrease in stock market return. Real exchange rate is not statistically significant in the analysis. This implies that it is not a key determinant of stock market return movements in Nigeria. The negative coefficient could be attributed to the instability in the foreign exchange market which can lead to crisis of confidence that could cause capital flight, or a large-scale withdrawal of short-term credit facilities. In essence, high exchange rate is expected to encourage round tripping and discourages stock market investment. This will cause an upward movement in operating cost and lower corporate profit in the real sector. The higher the operating cost the lower the profit. When the value of the currency is dropping, the incentive to invest by foreign investors in the domestic economy is lost. This would no doubt have negative effect on the stock market return. This finding is not in line with the work of Asaolu and Ogunmuyiwa (2011), Ajayi (2006) who found a positive and significant relationship between exchange rate and stock market return in Nigeria.

## Conclusion and Recommendations

Accordingly, we conclude by reiterating the fact that whatever the benefits of FDI, the development process must start from within, through a strong investment in human capital accumulation and a significant increase in infrastructure provision so that a strong basis for a diversified production system can be established; a means to promote technological learning and technology diffusion.

Based on the findings of this study, the following recommendations are advanced:

That policymakers should be concerned with stock market liquidity, given that market capitalization is a strong indicator of stock market development as it is positive and statistically significant. If this can be done, it will help to attract foreign investors into the Nigeria stock market. To promote stock market development in Nigeria, the banking sector should be encouraged to increase lending to the both local and international investors of the economy so as to boost their financial strength stock market performance.

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