



FOREIGN INVESTMENT INFLOW AND CAPITAL MARKET DEVELOPMENT IN NIGERIA

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Abstract

The study investigates the impact of foreign capital investment inflow on capital market development in Nigeria. The time series secondary data covering the period 1990 to 2019 used for the study were obtained from the Central Bank of Nigeria Statistical Bulletin, Nigerian Stock Exchange factbook. Vector Error Correction Model was used in determining the impact of the independent variables on the dependent variable. The granger causality test and correlation coefficient were also used to determine the relationship between the variables of the study. The findings from the VECM revealed that FDI, FPI and EXTR have positive but insignificant impact on capital market development in Nigeria. The coefficient correlation disclosed positive correlation between FDI, EXCHR, EXTR and MCAP while the granger causality result revealed that both EXTR and FDI variables have ability to influence market capitalization. It is recommended that a deliberate policies including ease of doing business and adequate infrastructural facilities provision that will attract foreign investment inflow be established by the relevant authorities in Nigeria.

Key Words: Foreign Investment Inflow, Capital Market Development, Nigeria, Nigerian Stock Exchange, Vector correction model

1. Introduction

Foreign capital investment inflows essentially consisting the foreign direct investment (FDI) and foreign portfolio investment are believed to be contributing to



economic growth of many nations. According to Dirk and Oliver, (2002), foreign direct investment is an important source of private capital for developing countries. Foreign investment inflow impact on economic growth cannot be overemphasized because of its direct effect on employment of the receiving country which in turn alleviates the poverty of the citizens. The foreign direct investment is quite different from the foreign portfolio investment which is regarded as indirect investment. Foreign portfolio investment (FPI) is a capital flows that engages in transfer of financial assets including cash, stock or bonds across intercontinental borders in order to earn mostly short term investment profit (Baghebo & Apere, 2014). The foreign direct investment is the one made by an investor in one country into the business or corporate entity in another company (Corporate Finance Institute, 2015). This could be made by obtaining a lasting investment interest or by expanding one's business into a foreign country.

There is always a necessity for economic growth that required foreign capital in addition to domestic investment. It is mostly difficult to achieve any moderate economic growth without adequate foreign capital inflow whether direct or indirect. As a result of scarce resource in financing long-term development, countries with deficiency in capital formation for investment always rely on foreign capital for quick economic growth

According to apex bank, foreign direct investment in Nigeria averaged 943.13 USD Million from 1990 until 2020, reaching an all time high of 3,084.90 USD Million in the fourth quarter of 2012 and a record low of 63.50 USD Million in the fourth quarter of 1990 (CBN, 2021). Nigeria is still enjoying sizeable volume of investment inflow despite some challenges of insecurity and infrastructural deficit. The investor interest in the country could be attributed to the availability of huge human and natural resources with bulk of these investments coming from United States of America, United Kingdom, India and lately from Asian giant China with presence in several industries in the economy including construction, manufacturing, trading among others.

The Nigeria capital market and economy is considered to be developing compared to the one of South Africa and Egypt despite the fact that its economy base is rank highly in the continent. There is lot of challenges including insecurity and infrastructural deficiency that requires urgent intervention which the private and public sector funding has found difficult to handle. Attracting foreign investment has been a very difficult task in taking care of these challenges. However, some empirical studies confirm that foreign intervention in form of capital inflow has greatly improved the economy of the receiving countries (Roman, 2012; Lautier & Moreaub, 2012;



Nwankwo, Ademola & Kehinde, 2013). Therefore most developing countries including Nigeria strive hard to attract foreign investment into their economies with the expectation of improved employment opportunities, infrastructural development, technological transfer, increase revenue base e.t.c. Reviewing past empirical literatures on this area under discussion revealed that scanty and conflicting studies was carried out in Nigeria specifically on capital market development (Saibu, 2012; Oka & Anthony, 2018).

Furthermore, it was noticed that few related studies carried out in Nigeria on this subject include effect of foreign direct investment on capital market development; impact of foreign portfolio investment on capital market development (Adesola & Oka, 2017; Baghebo & Apere, 2014). This study however, intends to evaluate the effect of both direct and indirect foreign investment on capital market development in Nigeria. This is apparently absent in most literature reviewed so far especially using Nigeria as a case study. This created gap clearly identified, requires urgent attention for further study so as to escalate the contribution to knowledge on the topic. Therefore, this study is unique and different from previous studies because it combines the effect of both foreign direct investment and foreign portfolio investment on capital market development. This is a great novelty that intends to contribute to academic knowledge. Therefore, the objective of this study is to examine the impact of foreign investment inflow on the capital market development in Nigeria.

2. Literature Review

2.1 Conceptual Review

Boyce, (2020) defines foreign direct investment (FDI) as venture where an individual or business from one nation, invests in another. This could be to start a new business or invest in an existing foreign owned business. However, the definition is not the same when investment is done in a foreign company asset. According to international monetary fund, a foreign direct investment is where the investor purchases over a 10 percent stake in the company. Any investment below this amount is classified as part of a 'stock portfolio'. A foreign direct investment could be considered on the basis of its lasting interest and element of control it exercise in the foreign business. Lasting interest is established when an investor obtains at least ten percent of the voting right in a firm (Koluman, 2020). Foreign direct investment involves the transfer of resources other than capital, including technology, management, organisational and marketing skills. These resources are moved internally within the firm with control retained over their usage which is a very important distinction between portfolio and



direct investment (Razin, Sadka & Yuen, 1998).

Baghebo and Apere, (2014) describe foreign portfolio investment (FPI) as an aspect of international capital flows that deals with the move of financial assets including cash, stock or bonds across international borders with the aim of making profit. This happen with the purchase of controlling interest in foreign companies or buying of securities or notes by the investor. Although foreign direct investment has been in existence in Nigeria since the era of colonial power, the phenomenon of foreign portfolio investment could be traced back to the past four decades when foreign individual and businesses started showing interest in the Nigeria capital market by acquiring shares, bonds and other financial asset thereby boosting the market capitalization.

2.2 Theoretical Review

There are some theories by different authors that are relevant to this study and stated as follows with capital arbitrage theory as anchor:

2.2.1 Capital Arbitrage Theory

This is a traditional or capital asset pricing theory developed by Stephen (1976). The theory states that the direct investment naturally flows from countries where profitability is low to countries where profitability is high. It therefore suggests that capital flows is mobile both nationally and internationally. A connection between the long-term interest rate and return on capital, portfolio investment and FDI should ensure movement in the same direction.

2.2.2 Capital market theory

This theory was postulated by Boddewyn (1985). It argues that foreign direct investment is determined by the rate of interest charged by the receiving country's financial institutions. This theory discover factors which attract foreign direct investment to a country including undervalued exchange rate, level of organized financial securities platform and knowledge about the host Countries' financial asset. The challenges associated with these factors makes foreign investors prefer direct investment which allows control of host country's assets rather than investment in financial securities (Morgan & Katsikeas, 1997).

2.2.3 Dynamic macroeconomic theory

This theory was established by Sanjaya (1976). The theory concluded that investment is dependent on the changes in the macroeconomic environment. It affirm that volatility in macroeconomic environment such as inflation, exchange rate, interest



rate, money supply, openness and national productivity determines the flow of foreign direct investment to the host countries.

2.2.4 The Theory of Exchange Rates on Imperfect Capital Markets

This theory analyzed the foreign exchange risk from the viewpoint of international trade. Itagaki (1981) and Cushman (1985) analyzed the influence of uncertainty as a factor of foreign direct investment. Empirical analysis of Cushman shows that real exchange rate increase stimulates foreign direct investment made by United State Dollar, while a foreign currency appreciation has reduced American foreign direct investment.

2.3 Empirical Review

Some authors carried out studies on the subject of foreign direct investment and stock market development/economic growth with divergence results. The study of Vagias and Van Dijk (2011) investigate the relationship between international capital flows and local market liquidity for a group of forty-six countries in six regions for the period 1995 to 2008. The result revealed positive connection between foreign capital inflow and local market liquidity. Asiedu (2003) investigate the effect of macroeconomic stability on foreign direct investment in 22 countries in Sub-Saharan African countries for the period of 1984-2000. The findings revealed positive relationship between macroeconomic stability and foreign direct investment. Adam and Tweneboah (2008) examine dynamic relationship between foreign direct investment and capital market development, one of major macroeconomic indicator in Ghana and discovered a positive and significant association between foreign direct investment and capital market development.

Rai and Bhanumurthy (2007) empirically used monthly data to investigate the impact of foreign direct Investments on local financial market in India. The study revealed that foreign direct investment has a positive effect on domestic financial market. Agrawal (2006) examine the effect of determinants of foreign portfolio investment on the national economy in six developing Asian countries. The regression result shows a positive relationship between determinant of foreign direct investment and economic growth. Syed, Syed and Sahar (2013) investigate the effect of both foreign capital inflows and economic growth on market capitalization in Pakistan between the periods of 1976 to 2011 using autoregressive distributed lag (ARDL) co-integration method of analysis. The study found a positive but significant relationship between three explanatory variables of foreign direct investment, workers' remittances, economic growth and market capitalization both in long and short run.



Roman (2012) examines the association between foreign direct investment and economic growth in Romania. The result found that FDI and capital endowments are positively correlated with GDP. Furthermore, Chauhan (2013) investigate the impacts of foreign capital inflows on stock market development for the period 2000 to 2011 using Ordinary Least Square, Karl Pearson's correlation and Analysis of Variance techniques to obtain result that revealed significant impact of foreign direct investment on both Bombay Stock Exchange (BSE) and National Stock Exchange (NSE).

In Nigeria, Tokunbo, Osinubi, and Amaghionyeodiwe (2010) examine the effect of foreign portfolio investment on economic growth in Nigeria for the period 1990-2005. The study revealed a positive relationship between foreign Portfolio investment and economic growth in Nigeria. Oka and Anthony, (2018) examined the effect of foreign direct investment and capital market development in Nigeria for the period 1972 to 2016. The study data was analysed with the use of Vector Auto Regression (VAR) method. The result of the analysis revealed that there is a significant positive relationship between foreign direct investment and market capitalization. Similarly, the study of Obida and Abu (2010) examine the determinants of foreign direct investment in Nigeria employing the error correction technique to analyze the relationship between capital market size and foreign direct investment. The findings of the study revealed that market size has a positive influence on the foreign direct investment in Nigeria.

The study of Adefoso and Agboola (2012) investigate impact of the determinants of FDI on economic growth in Nigeria and carried out the data analysis with the use of residual-based Engel-Granger and Augmented Dickey-Fuller Co-integration test to test the variables. The result revealed a long run significant relationship between the macroeconomic variables of market size, openness, ICT, oil sector, tax, tourism, phone penetration and the capital inflow of foreign direct investment in Nigeria. Olukoyo (2012) investigate the influence of foreign direct investment on the economy. The study applied OLS regression technique to test the time series data from 1970 – 2007. The findings revealed insignificant impact of foreign direct investment on economic growth in Nigeria. The work of Adesola and Oka (2017) investigate the relationship between financial market performance and foreign portfolio investment in Nigeria for the period of 1984-2015. The study employed the Autoregressive Distributive Lag (ARDL) technique for data analysis. The findings revealed that financial market performance has no long run association with foreign portfolio investment in Nigeria.



3. Data and Methods

3.1 Model specification

The model for this study is based on Demirgüç-Kunt and Levine (1996), Levine and Zervos (1996). The modified model is formulated as follows:

The functional relationship between foreign direct investment and capital market development in Nigeria was expressed thus:

$$MCAP = f(FPI, FDI, EXCHR, EXTR) \dots \dots \dots (1)$$

$$MCAP_t = \alpha_0 + \alpha_1 FPI_t + \alpha_2 FDI_t + \alpha_3 EXCHR_t + \alpha_4 EXTR_t + e_t \dots \dots \dots (2)$$

The log of the equation is given as follows;

$$\log MCAP_t = \alpha_0 + \alpha_1 \log FPI_t + \alpha_2 \log FDI_t + \alpha_3 \log EXCHR_t + \alpha_4 \log EXTR_t + e_t \dots \dots \dots (3)$$

Where:

MCAP = Market Capitalization

FPI = foreign portfolio investment

FDI = foreign direct investment

EXCHR = exchange rate

EXTR = external reserve

α_0 = intercept

$\alpha_1 \dots \alpha_4$ = coefficient of variables

e_t = error term

a priori expectation: $\alpha_1, \alpha_4 > 0$

MCAP is measured as the amount of Nigeria Stock Exchange market capitalization from 1990 to 2019. This method was selected because it is less arbitrary than any other measure of stock market development (Saibu, 2012). This is also affirmed by Djankov S, La Porta R, Lopez-de-Silanes F, Shleifer A (2008), suggesting that the measure of Nigeria's stock market capitalization is relevant for testing foreign capital inflow to Nigeria. FPI is the value of equity securities and debt securities. FDI is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term foreign investment to Nigeria from 1990 to 2019. Exchange rate is the dollar official foreign exchange rate obtained over the period of study while external reserve is the total value of gold and dollar reserve from 1990 to 2019.

3.2 Source of data

The study made use of secondary sources of data. They were extracted from the CBN Statistical Bulletins, CBN Annual Report, Nigeria Stock Exchange, Security Exchange Commission, World Development Indicator, National Bureau of Statistics, Articles, Journals libraries and Internet.



3.3 Method of Data Analyses

Time series data were collected for the period 1990-2019 and analysis done with the use of descriptive analytical tools such as simple tables and percentages. The correlation coefficient was used to measure the strength of the relationship between the variables of the study. Unit root test was also conducted using Augmented Dickey Fuller test to ascertain the stationarity or otherwise of the time series. The study also employed the vector correction error estimates to determine the level of relationship between variables and to capture dynamic adjustment of time series variables in the long run. The granger causality test and correlation coefficient was further used to determine the relationship between the variables of the study.

4. Data Analysis and Discussions

Table 1 Correlation Coefficient

	MCAP	EXCHR	EXTR	FDI	FPI
MCAP	1	0.5446490	0.8760475	0.7345070	-0.4397652
EXCHR	0.5446490	1	0.7289935	0.4343627	-0.6120692
EXTR	0.8760475	0.7289935	1	0.8326690	-0.4755257
FDI	0.7345070	0.4343627	0.8326690	1	-0.1914760
FPI	-0.4397652	-0.6120692	-0.4755257	-0.1914760	1

Source: Authors' Computation, (2021), E-View 9.0

The correlation coefficient shows and measures the strength of the relationship between the variables of the study. The result revealed that external reserve and foreign direct investment of 0.88 and 0.73 respectively has a strong positive relationship with market capitalization. Increases in external reserve and foreign direct investment leads to effective increase in market capitalization. However, foreign portfolio investment shows a negative and weak correlation with market capitalization. The coefficient of 0.54 for exchange rate indicates weak but positive association with market capitalization.



Table 2: Unit Root Test

VARIABLES	AUGMENTED DICKEY FULLER TEST		PHILLIP-PERON TEST		Order of Integration
	Level	1 st Difference	Level	1 st Difference	
MCAP	-1.936565	-5.985525	- 1.900458	- 6.392578	I(1)
EXCHR	0.576687	-4.185804	0.621964	- 4.105484	I(1)
EXTR	-1.207033	-5.030005	- 1.064889	- 4.928219	I(1)
FDI	- 1.548859	-6.112541	- 1.644368	- 6.047363	I(1)
FPI	- 0.198550	-6.397671	- 1.684213	-7.497854	I(1)
CRITICAL VALUE					
1%	-3.679322	-3.689194	-3.679322	-3.689194	
5%	-2.967767	-2.971853	-2.967767	-2.971853	
10%	-2.622989	-2.625121	-2.622989	-2.622989	

Source: Authors' Computation, (2021), E-view 9.0

Augmented Dickey-Fuller (ADF) and Phillip Perron (PP) unit root was used to test for nature of integration. The variables used include MCAP, EXCHR, EXTR, FDI and FPI that are non stationary at the level in both ADF and PP test because their values was less than the critical values at 1%, 5% and 10 % resulting in acceptance of null hypothesis of unit root existence. The result however, shown that these variables are integrated at first difference because all of their values were greater than the critical values in absolute term. The null hypothesis of non stationary is rejected. With this result, it is necessary to examine the long run equilibrium association between these variables using Johansen co-integration test.

Table 3: Johansen co-integration test

Date: 03/01/21 Time: 04:42

Sample (adjusted): 1992 2019

Included observations: 28 after adjustments

Trend assumption: Linear deterministic trend

Series: MCAP EXCHR EXTR FDI FPI

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 *	0.770362	104.1148	69.81889	0.0000
At most 1 *	0.698697	62.91968	47.85613	0.0011
At most 2	0.544925	29.32975	29.79707	0.0565
At most 3	0.219291	7.285570	15.49471	0.5447
At most 4	0.012567	0.354101	3.841466	0.5518

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 *	0.770362	41.19509	33.87687	0.0056
At most 1 *	0.698697	33.58993	27.58434	0.0075
At most 2 *	0.544925	22.04418	21.13162	0.0371
At most 3	0.219291	6.931469	14.26460	0.4973
At most 4	0.012567	0.354101	3.841466	0.5518

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

The co-integration test result of Johansen co-integration under Trace test indicates 2 cointegrating equation(s) at the 0.05 significance level while the Max-eigenvalue test indicates 3 cointegrating equation(s) at the 0.05 significance level. This implies that long run association exists among the variables used in the model. The presence of co-integration makes it possible to estimate the error correction mechanism (ECM) model. Vector error correction estimates that provide solution to the problem of spurious results associated with estimating equations involving time series variables is required to capture dynamic adjustment in the long run.



Table 4: Vector Error Correction Model

Date: 03/01/21 Time: 04:57

Sample (adjusted): 1993 2019

Included observations: 27 after adjustments

Standard errors in () & t-statistics in []

Cointegrating Eq:	CointEq1				
CMCAP(-1)	1.000000				
EXCH(-1)	2.245992 (2.72226) [0.82505]				
EXR(-1)	9.220887 (2.56689) [3.59224]				
FDI(-1)	-53.74370 (14.9179) [-3.60264]				
FPI(-1)	43.55549 (4.10795) [10.6027]				
C	6909.061				
Error Correction:	D(CMCAP)	D(EXCHR)	D(EXTR)	D(FDI)	D(FPI)
CointEq1	-0.042118 (0.03050) [-1.38084]	0.006004 (0.00448) [1.34162]	0.011979 (0.00907) [1.32097]	0.008953 (0.00220) [4.06838]	-0.011242 (0.00463) [-2.42779]
D(CMCAP(-1))	-0.678008 (0.25780) [-2.63001]	-0.044605 (0.03782) [-1.17926]	-0.053624 (0.07665) [-0.69961]	0.015723 (0.01860) [0.84540]	0.097668 (0.03914) [2.49565]
D(CMCAP(-2))	-0.911962 (0.36873) [-2.47328]	0.068811 (0.05410) [1.27193]	-0.297726 (0.10963) [-2.71575]	0.000191 (0.02660) [0.00716]	0.020198 (0.05598) [0.36084]
D(EXCHR(-1))	-3.455673 (1.89165) [-1.82680]	0.217361 (0.27755) [0.78315]	-1.692796 (0.56243) [-3.00981]	-0.307421 (0.13647) [-2.25262]	0.141526 (0.28717) [0.49284]
D(EXCHR(-2))	-0.438723 (1.58551) [-0.27671]	-0.107888 (0.23263) [-0.46378]	0.142625 (0.47140) [0.30255]	0.040745 (0.11439) [0.35621]	-0.015832 (0.24069) [-0.06578]
D(EXTR(-1))	1.829263 (0.71005) [2.57626]	0.001671 (0.10418) [0.01604]	1.003808 (0.21111) [4.75488]	0.036980 (0.05123) [0.72190]	-0.078146 (0.10779) [-0.72499]



D(EXTR(-2))	-0.262220 (0.59329) [-0.44198]	-0.079257 (0.08705) [-0.91050]	-0.651192 (0.17640) [-3.69163]	-0.083943 (0.04280) [-1.96116]	0.371070 (0.09007) [4.11999]
D(FDI(-1))	2.748074 (2.69349) [1.02026]	-0.651834 (0.39519) [-1.64941]	1.958856 (0.80083) [2.44604]	-0.282504 (0.19432) [-1.45380]	-1.227659 (0.40889) [-3.00241]
D(FDI(-2))	5.265628 (3.06616) [1.71734]	-0.653602 (0.44987) [-1.45287]	-1.673587 (0.91163) [-1.83582]	-0.182961 (0.22121) [-0.82711]	0.181286 (0.46546) [0.38947]
D(FPI(-1))	2.567827 (1.58233) [1.62282]	-0.223501 (0.23216) [-0.96270]	0.329844 (0.47046) [0.70111]	-0.150077 (0.11416) [-1.31467]	0.412396 (0.24021) [1.71682]
D(FPI(-2))	-0.872655 (1.28649) [-0.67832]	0.083231 (0.18875) [0.44095]	-0.290115 (0.38250) [-0.75847]	-0.109134 (0.09281) [-1.17585]	0.300262 (0.19530) [1.53745]
C	5313.338 (3701.62) [1.43541]	1065.732 (543.104) [1.96230]	3128.615 (1100.56) [2.84274]	325.1320 (267.051) [1.21749]	-612.6041 (561.932) [-1.09017]
R-squared	0.653117	0.577204	0.810496	0.725743	0.834540
Adj. R-squared	0.398736	0.267154	0.671527	0.524622	0.713202
Sum sq. resid	2.43E+09	52297081	2.15E+08	12644466	55985880
S.E. equation	12726.27	1867.210	3783.772	918.1309	1931.940
F-statistic	2.567476	1.861647	5.832193	3.608482	6.877833
Log likelihood	-285.5647	-233.7456	-252.8151	-214.5794	-234.6658
Akaike AIC	22.04183	18.20338	19.61593	16.78366	18.27154
Schwarz SC	22.61775	18.77931	20.19186	17.35959	18.84747
Mean dependent	1124.889	1099.963	1368.593	59.07407	-283.0741
S.D. dependent	16412.27	2181.156	6601.993	1331.634	3607.494
Determinant resid covariance (dof adj.)	2.87E+33				
Determinant resid covariance	1.52E+32				
Log likelihood	-1191.926				
Akaike information criterion	93.10564				
Schwarz criterion	96.22525				

Source: Authors' Computation (2021), E-View 9.0

The result of VECM estimates shows error correction term of -0.042118 that is statistically insignificant with t-statistics of -1.38084. The speed of adjustment of -0.042118 implies a low level of convergence and that about 4.2% disequilibrium or divergence from long run of market capitalization (MCAP) in the prior year is corrected in the current year.

The coefficient of exchange rate (EXCHR) revealed -3.455673 with t-statistics of -1.82680 at lag 1. This result shows a negative but insignificant influence of exchange



rate regime on capital market development in Nigeria and that a unit increase in exchange rate reduces the MCAP by about 3.5 units at lag 1. Similar result was obtained at lag 2 with coefficient of -0.438723 and t-statistics of -0.27671. The external reserve (EXTR) revealed coefficient of 1.829263 and t-statistics of 2.57626. This indicates a positive but significant impact of external reserve on market capitalization. A unit increase in external reserve will result in 1.8 units rise in market capitalization (MCAP). This is in line with the theoretical a priori expectation of the study. On the other hand, lag 2 result for external reserve (EXTR) shows a coefficient of -0.262220 and t-statistics of -0.44198 indicating that there is a negative but insignificant impact of external reserve on market capitalization. A unit increase in external reserve will lead to 0.44 unit decrease in market capitalization.

The result for foreign direct investment shows coefficient of 2.748074 with t-statistics of 1.02026 at lag 1. The finding indicates that FDI has a positive but insignificant effect on market capitalization with implication that a unit rise in foreign direct investment will ensure about 2.8 units increase in market capitalization. Similar result which agrees with the a priori expectation was obtained at lag 2 with coefficient of 5.265628 and t-statistics of 1.71734. The coefficient of foreign portfolio investment (FPI) revealed 2.567827 with t-statistics of 1.62282. This shows a positive but insignificant impact of FPI on MCAP and a unit increase in FPI will raise the MCAP by about 2.6 units at lag 1. This is in congruence with the a priori expectation of the study. The result of lag 2 revealed a coefficient of -0.872655 and t-statistics of -0.67832 indicating that FPI has a negative but insignificant impact on MCAP in Nigeria. A unit addition to foreign portfolio investment will result in 0.87 unit increase in market capitalization.

The findings from the analysis generally agreed with some previous similar studies (Oka & Anthony, 2018; Adam & Tweneboah, 2008; Rai & Bhanumurthy, 2007). The result of their studies revealed a positive relationship between foreign direct investment and capital market development. The result of R^2 with coefficient of 0.653117 implies that the goodness of fit is good. This indicates that about 65% of the total variations in market capitalization (MCAP) are explained by the explanatory variables of FPI, FDI, EXCHR, and EXTR.



Table 5: Pairwise Granger Causality Tests

Date: 03/01/21 Time: 05:00

Sample: 1990 2019

Lags: 2

Null Hypothesis:	Obs	F-Statistic Prob.	
EXCHR does not Granger Cause MCAP	28	1.01743	0.3772
MCAP does not Granger Cause EXCHR		5.87641	0.0087
EXTR does not Granger Cause MCAP	28	6.57385	0.0055
MCAP does not Granger Cause EXTR		0.02572	0.9746
FDI does not Granger Cause MCAP	28	7.49625	0.0031
MCAP does not Granger Cause FDI		1.74300	0.1973
FPI does not Granger Cause MCAP	28	2.24282	0.1289
MCAP does not Granger Cause FPI		7.49383	0.0031

Source: Author's Computation, (2021), E-View 9.0

The Granger causality result revealed unidirectional causality movement from external reserve and foreign direct investment to market capitalization in Nigeria. This implies that both external reserve and foreign direct investment variables have ability to influence market capitalization in Nigeria leading to rejection of null hypothesis. The result further revealed that other variables of exchange rate (EXCHR) and foreign portfolio investment (FPI) do not influence market capitalization (MCAP) in Nigeria. The null hypothesis is accepted.

Conclusion and Recommendation

The study examined the effect of foreign capital investment inflow on capital market development in Nigeria using variables such as MCAP as proxy for capital market development and FDI, FPI, EXCHR and EXTR as proxies for foreign capital investment inflow. The findings from the VECM empirical analysis revealed that FDI, FPI and EXTR have positive but insignificant impact on capital market development in Nigeria. The coefficient correlation further disclosed positive correlation between FDI, EXCHR, EXTR and capital market development. The granger causality result revealed that both external reserve and foreign direct investment variables have ability to influence market capitalization. The study therefore concluded that foreign capital investment inflow has positive impact on the capital market development in Nigeria and this is in agreement with the findings of



Rai and Bhanumurthy (2007). It is recommended that a deliberate policies including ease of doing business and adequate infrastructural facilities that will attract foreign investment inflow be established by the relevant authorities.

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