## IMPACT OF CAPITAL MARKET DEVELOPMENT ON FOREIGN PORTFOLIO INVESTMENT IN NIGERIA

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#### Abstract

The study examines the effect of capital market development on the foreign portfolio investment 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, Nigeria Stock Exchange fact sheet, National Bureau of Statistics, Articles, Journals libraries and Internet. The study analyzed the data using unit root test to determine the stationarity or otherwise of the time series data with Augmented Dickey Fuller (ADF) unit root test. Vector Error Correction Model was employed in estimating the effect of the independent variables on the dependent variable. Granger causality test was also adopted to establish the direction of causality among the relevant variables. The findings revealed that market capitalization has positive but significant impact on foreign portfolio investment in Nigeria. The granger causality result indicates unidirectional causality movement from market capitalization (MCAP) and real gross domestic product (RGDP) to foreign portfolio investment. The study recommended that capital market regulators should apply all necessary tools to encourage listing of private companies on the floor of stock exchange market.

Key Words: Capital Market, Development, Foreign Portfolio, Investment, Nigeria

### **1.0 INTRODUCTION**

The contribution of capital market to economic growth and development of a nation has been considered positive by many authors in the last two decades (Ayanwale, 2007; Osazee, 2018; Syed, Syed & Sahar, 2013; Lamouchi & Zouari, 2013; Ezeanyeji & Ifeako, 2019). The impact of capital market development on the economic activities is achieved by effectively and efficiently performing functions such as mobilization of savings, creation of liquidity, spreading of investment risk, and engaging in

investment information management (Okereke-Onyiuke, 2000; Levine & Zervos, 1996; Obadan, 2004).

The capital market is regarded as a multifaceted institution that mobilises long-term funds of the major sectors of the economy and made it available to productive sectors of the economy. The capital market is therefore an economic institution, which ensures efficiency in capital formation and allocation.

The level of development of capital market in the host country could really enhance the inflow of investment opportunity availability. Foreign portfolio investment is an indirect foreign investment that deals with savings made by the holders in the form of purchasing securities on international capital markets in order to obtain an interest or dividend income. It involves the purchase of stocks or government bonds or corporate bonds traded on the host country's stock exchange or elsewhere. The issue of foreign portfolio investment only became visible in the last three decades in Nigeria. This is coming several decades after the advent of foreign direct investment that came with colonial regime. The non-exposure of Nigeria's money and capital markets to external economies made the capital market unable to attract a sizable amount of foreign portfolio investment into the system. However the liberalization of the Nigeria financial markets in mid-2000 eventually opened up the Nigeria capital market to international investors leading to steady increase inflow of foreign portfolio investment into the market (Ozurumba, 2012).

According to Nwosa (2015), the flow of foreign capital is to great extent dependent on the effective operation of the capital market. The study affirm that the stock market enhances investment opportunities for the investors through provision of channel for the sale of securities when there is a need for cash/liquidity that enables investors to alter their choice of asset portfolio. The capital investment required availability of long term fund which the capital market provides at a reduced cost (Dailami & Aktin, 1990; Kohli, 2003; Adenuga, 2011; Greenwood & Smith, 1996). Stiglitz, (1985) also ascertain that the existence of a well structured and liquid capital market is a strong stimulus to foreign investors in investing in local stock market.

### **1.1 Statement of Problem**

According to economic concept of scarcity, human wants are unlimited with limited resources. This assertion is also true with regard to the development of the capital market that requires appreciable level of inflow of investment into the market. A major challenge facing most developing stock markets is insufficient investment that could engender the achievement of desired capital market development and economic growth. The gap that exist between the required capital and the available saving

capability made many developing countries to usually resort to foreign borrowing while some others do all it could to ensure attraction of foreign investment into their economy. From review of relevant literature, it was noticed that some studies have been carried out in the areas of capital market development and foreign direct investment; foreign direct investment influence on economic growth; portfolio investment and capital market development (Osazee, 2018; Baghebo & Apere, 2014; Agu, Ogu & Ezeanyeji, 2019; Ezeanyeji & Ifeako, 2019). Furthermore, very few studies were done in the area of capital market development and foreign portfolio investment in Nigeria with inappropriate methodology (Akinmulegun, 2018; Adesola & Oka, 2017; Ozurumba, 2012). These inadequacies in literature with contradiction in methodology and result in studies on this topic made it necessary to carry out further examination so as to gain more knowledge on this field. Therefore, the objective of this study is to explore the impact of capital market development on foreign portfolio investment in Nigeria with the use of dependent variable of foreign portfolio investment and explanatory variables of market capitalization, all shares index and gross domestic product.

## 1.2 Objective of the Study

The broad objective of the study is to examine the impact of capital market development on foreign portfolio investment in Nigeria. However, the specific objectives include:

- i) To assess the effect of market capitalization on foreign portfolio investment
- ii) To establish the impact of all share index on foreign portfolio investment
- iii) To evaluate the influence of gross domestic product on foreign portfolio investment

## 1.3 Hypothesis

H<sub>01</sub> market capitalization has no significant effect on foreign portfolio investment

H<sub>02</sub> all share index has no significant impact on foreign portfolio investment

 $H_{\rm O3}$  gross domestic product has no significant influence on foreign portfolio investment

## 2.0 LITERATURE REVIEW

#### 2.1 Conceptual Review

Akingbohungbe, (1996) described capital market as the market where medium and long terms finance is raised. It offers different types of financial instruments that enable economic agents to pool price and exchange risk. Capital market mobilizes saving in financial form for government and other institutions in need of long term funds (Nwankwo, 1999). According to Al-Faki (2006), **the** capital market is a network of specialized financial institutions, series of mechanism, processes and infrastructure that, in various ways facilitate the bringing together of suppliers and users of medium to long term capital for investment in economic developmental project. Capital market mopped up long term funds from different institutions and individuals with surplus fund and channels it to the deficit economic units. In another assertion, Ekezie (2002) posited that capital market is the market where long term lending and borrowing takes place. Therefore, capital market plays a very critical role in capital formation useful for operation of diverse economic units for economic growth and development.

Foreign investment inflow has been confirmed to have a significant impact on economic growth of the host country which normally results into alleviating the poverty of the citizens. The foreign portfolio investment is regarded as indirect investment. It is capital flow 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). IMF (1993) describe foreign portfolio investment as equity and debt issuances including country funds, depository receipts and direct purchases by foreign investors of less than 10% control. Koluman (2020) also described foreign investment portfolio as indirect investment and different from foreign direct investment with the features which includes the fact that the investor has no influence on the control and management of the investee, the risk factor which makes inflow of portfolio investments into the country to be rapid as well as the outflows in a negative situation, the contribution of investments to the development of states which is regarded as short term or temporary and that there is no high entry and exit costs or detailed planning.

#### **2.2 Theoretical Review**

### 2.2.1 Capital Market Theory

The capital market theory, being a foreign investment one was established by Boddewyn (1985). The theory ascertains that foreign investment inflow is a function of the rate of interest charged by the host country's financial institutions. It is a portfolio investment and capital market theory for attraction of foreign investment.

The theory confirm factors that influence the capital inflow to consist of undervalued exchange rate for lower production cost, the non existence of well structured financial securities that encourages long term investment and assumption that foreign investors have limited knowledge about the host countries' securities and hence prefers foreign direct investment which allows control of host country's assets (Morgan & Katsikeas, 1997). However, the liberalization of the Nigeria capital market in the last three decades has invalidated these assumptions in Nigeria.

## 2.2.2 Dynamic macroeconomic Theory

The dynamic macroeconomic theory was put forward by Sanjaya (1976). The theory affirms that the timing of investments depends on the changes in the macroeconomic environment. The theory opines that volatility in macroeconomic environment factors including inflation, exchange rate, interest rate, money supply, openness and national productivity determines the flow of foreign investment to host countries.

## 2.2.3 Modern Portfolio Theory

The modern portfolio theory was propounded by Harry Markowitz in 1952. This was established in the paper "Portfolio Selection" by emphasizing that risk is an inherent part of higher reward. The theory deals with finance and investment. It is a mathematical framework use in assembling portfolio assets for maximum expected return for a given level of risk

## 2.3 Empirical Review

Several related studies have been conducted to ascertain the influence and impact of capital market on foreign inflow of investment with diverse results.

Vladimir, Tomislav and Irena (2012) examine the long run and short run association between stock market development and foreign direct investment in Croatia using a co-integration and regression analysis. The findings revealed positive relationship between the stock market indicators and foreign direct investment in Croatia. Syed et al., (2013) however, investigate the effect of foreign capital inflows and economic growth on stock market capitalization in Pakistan for the period of 1976 to 2011. The study used autoregressive distributed lag (ARDL) bound testing co-integration approach. The result revealed 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.

In a similar study, Umar, Ismail and Sulong (2015) evaluate the impact of the stock market development on foreign direct investment in Nigeria for the period 1970 to 2013 using autoregressive distributed lag (ARDL). The finding shows a positive and

of the foreign direct investment on the value of the total

significant long-run impact of the foreign direct investment on the value of the total stock transaction, but has a negative and significant effect on the rate of stock returns.

Ozurumba, (2012) investigate the impact of stock market returns on foreign portfolio investment in Nigerian. The study used multiple linear regression analysis to capture the impact of foreign portfolio investment and inflation rate on stock market returns, as well as Granger causality tests to determine the direction of causality between the variables. The results showed that foreign portfolio investment has a positive and significant impact on stock market development.

Unlike most studies, Lamouchi and Zouari (2013) obtained contradictory findings in their study. Their study examined the influence of financial development in the capital flows on real effective exchange rates for thirty-eight developed and developing countries for the period 1989 to 2011. The findings, using a dynamic panel co-integration technique revealed that in the long run financial development weaken the appreciation effect of capital flows on real effective exchange rates.

In another study, Jarita and Salina, (2009) assess the connection between foreign portfolio investment and Malaysia's economic performance using Granger causality text and Toda Yamamoto (1995) non causality test in confirming the direction of causality between the two variables. The result revealed that economic growth causes changes in foreign portfolio investment and its volatility but not vice versa. However, the study of Tokunbo, Osinubi & Amaghionyeodiwe (2010) analyzed the effect of foreign portfolio investment on the economic growth in Nigeria for the period 1990-2005. The study findings revealed that foreign portfolio investment, domestic investment growth and net export growth has positive and significant impact on economic growth in Nigeria.

Nonnemberg and De Mendonca (2004) affirm that the growth in capital markets in advanced countries is also a powerful determinant of investment outflows from these countries to other countries. Furthermore, the study of Anyanwu (2006) investigate the economic determinants of foreign direct investment inflow in Nigeria using the Ordinary Least Square technique; the study's findings revealed that market size is a strong determinant of foreign direct investment inflow in Nigeria. Ayanwale (2007) **also** examines the determinants of foreign direct investment inflow to Nigeria and finds that market size, infrastructure development, and stable macroeconomic policy are positively related to foreign direct investment to Nigeria. The study finds a positive connection between foreign direct investment and gross domestic product in Nigeria.

Agu et al, (2019) examine the impact of foreign portfolio investment on capital market returns in Nigeria for the period 1986 to 2017. The study made use of Ordinary Least

Square and Auto Regressive Distributed Lag (ARDL) model to measure the impact of Foreign Portfolio Investment on Stock Market Returns in Nigeria. The finding shows that there is no long run relationship between foreign portfolio investment and stock market returns in Nigeria. The methodology as regard to analysis is considered inappropriate with the simultaneous use of OLS and ARDL.

In another related study of Adesola & Oka, (2017) examined the relationship between financial market performance and foreign portfolio investment in Nigeria for the period 1984 to 2015. The study used the Autoregressive Distributive Lag (ARDL) technique for data analysis. The result of analyses revealed that financial market performance has no long run causal relationship with foreign portfolio investment in Nigeria. The no long run causal relationship could also be seen in the study of Akinmulegun, (2018) that examined the effect of capital market development on foreign portfolio investment in Nigeria over the period 1985 to 2016. The study used Vector Error Correction Mechanism (VECM) to analyze the short run and long run dynamism of the variables with focus on the direction of causality between capital market development and foreign portfolio investment in Nigeria. The finding revealed that capital market development has significant effect on foreign portfolio investment in Nigeria with granger causality test showing that there is no causality between capital market development and foreign portfolio investment in Nigeria.

# **3.0 METHODOLOGY**

## 3.1 Research design

The study made use of exploratory and ex-post facto. The unit root test was used to determine the stationarity or otherwise of the time series data with Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) unit root test. Vector Error Correction Model was employed in estimating the effect of the independent variables on the dependent variable because it assists in adjusting the short run disequilibrium among the variables. Granger causality test was also adopted to establish the direction of causality among the relevant variables.

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, Nigeria Stock Exchange fact sheet, National Bureau of Statistics, Articles, Journals libraries and Internet.

## **3.2 Model Specification**

The model for this study is anchored on the modern portfolio theory developed by Harry Markowitz. It is an investment hypothesis centered on the idea that risk-averse investors can construct portfolios to optimize expected return based on a given level of market risk. Thus, the response of foreign investors in constructing a portfolio of various assets depends on the development of the capital market to guide against the vulnerability of investors' funds. The model construct for this study is therefore adopted from the work of Ekeocha, Ekeocha, Malaolu, & Oduh, (2012) and Muhammad, Muhammad, Shamila & Shujahat, (2017) with modification as follows;

FPI=f(MCAP,ASI,RGDP).(1)

Explicitly, equation 1 is given as:

 $FPI_{t} = \alpha_{0} + \alpha_{1}MCAP_{t} + \alpha_{2}ASI_{t} + \alpha_{3}RGDP_{t} + \mu_{t}....(2)$ 

From equation 2, the log of the variables is given as:

 $logFPI_{t} = \alpha_{0} + \alpha_{1}logMCAP_{t} + \alpha_{2}logASI_{t} + \alpha_{3}logRGDP_{t} + \mu_{t}.....(3)$ 

Where:

FPI= Foreign Portfolio Investment

MCAP= Market capitalization (proxy for capital market development)

ASI= All share index

RGDP= Real Gross domestic Product

 $\alpha_1$ - $\alpha_3$ = Coefficients of explanatory variables.

 $\mu_t$  = error term.

A priori expectation is such that  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3 > 0$ .

#### 4.0 RESULT AND INTERPRETATION

#### 4.1 Unit Root Test

The analysis for this study was carried out by testing the properties of the time series, since most macroeconomic time series data do exhibit non-stationary behaviour in their level form, which often poses a serious problem to econometric analysis and leading to spurious result if appropriate measures are not taken (Araoye, Ajayi & Aruwaji, 2018). In order to prevent this problem, there is a need to perform a pre-test with the use of Augmented Dickey-Fuller (ADF) and Phillips Perron (PP) test. The result of this test is revealed in the table 4.1 below.

### Table 4.1 Unit Root Test

VARIABLES	AUGMENTED DICKEY FULLER TEST		PHILLIPS-PERRON TEST		Order of Integration	
	Level	1 <sup>st</sup> Difference	Leve	1 <sup>st</sup> Difference		
			1	Difference		
FPI	-0.198550	-6.397671	-1.684213	-7.497854	I(1)	
ASI	-1.864040	-5.416095	-1.744086	-7.019566	I(1)	
RGDP	-2.225036	-3.818793	-0.162634	-4.789611	I(1)	
MCA	0.730463	-5.347333	2.633590	-5.382653	I(1)	
Р						
CRITICAL VALUE						
1%	-3.724070	-3.699871	-3.679322	-3.689194		
5%	-2.986295	-2.976871	-2.967767	-2.971853		
10%	-2.632804	-2.627420	-2.622989	-2.625121		

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

The results in table 4.1 revealed that all variables of the study are non-stationary at the level with both ADF and PP values less than the critical values at 1%, 5% and 10%. We therefore fail to reject the null hypothesis of no unit root for all the variables. However, the null hypothesis was rejected after 1<sup>st</sup> difference because all the variables are stationary with ADF and PP values greater that the critical values at 1%, 5% and 10%. It means that all the variables of the study are integrated of I(1). This nature of integration is a pre-condition for further investigation with the use Johansen co-integration technique to determine the long run relationship between the variables.

### 4.2 Johansen Co-Integration Test

The required but insufficient condition for co-integrating test is that each of the variables be integrated of the same order. The Johansen co-integration test uses trace and the maximum eigenvalue test for this purpose. The first row in each of the table 4.2 test the hypotheses of no co-integrating relation, the second row test the hypothesis of one co-integrating relation and so on, against the alternative of full rank of co-integration. The results of the co-integration are presented below:

#### **Table 4.2 Johansen Co-Integration Test**

#### **Unrestricted Cointegration Rank Test (Trace)**

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.631117	60.13488	47.85613	0.0023
At most 1 *	0.541130	32.21112	29.79707	0.0259
At most 2				
*	0.206400	10.39943	15.49471	0.0412
At most 3	0.130844	3.926516	3.841466	0.0675

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 *	0.631117	27.92376	27.58434	0.0453
At most 1 *	0.541130	21.81169	21.13162	0.0401
At most 2 *	0.206400	6.472913	14.26460	0.0493
At most 3	0.130844	3.926516	3.841466	0.0675

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

The table 4.2 above revealed that in both the Trace statistic and Max-Eigen statistic, there is presence of two (2) cointegration equation among the variables at 5% level of significance. This implies that a long run association exists between economic development and foreign portfolio investment variables.

## 4.3 Vector Error Correction Model:

Since co-integration relationship was noticed among the variables of the study, the short run equation can be estimated to show if a long run relationship adjusts toward equilibrium. Table 4.3 present the result of vector error correction model.

Cointegrating Eq:	CointEq1			
FPI(-1)	1.000000			
MCAP(-1)	-0.002413			
	(0.00037)			
	[-6.46888]			
RGDP(-1)	1.374610			
	(0.15110)			
	[ 9.09707]			
ASI(-1)	-2.596559			
	(0.59434)			
	[-4.36882]			
С	-2941635.			
Error Correction:	D(FPI)	D(MCAP)	D(RGDP)	D(ASI)

#### **Table 4.3 Vector Error Correction Model**

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	0.00/2017	1067640	0.102054	0.061404
CointEq1	-0.296347	126.7643	0.182854	0.061494
	(0.12013)	(94.7104)	(0.07097)	(0.03848)
	[-2.46696]	[ 1.33844]	[ 2.57634]	[ 1.59792]
	0.005100	201 1212	0.0072.62	0.10757
D(FPI(-1))	0.885100	-391.1213	-0.097363	-0.10/5/6
	(0.21189)	(99.6721)	(0.07469)	(0.04050)
	[ 4.17723]	[-3.92408]	[-1.30351]	[-2.65621]
D(FPI(-2))	0.009323	-62.19251	0.082356	-0.032878
	(0.20588)	(96.8443)	(0.07257)	(0.03935)
	[ 0.04529]	[-0.64219]	[ 1.13479]	[-0.83551]
D(MCAP(-1))	-0.901020	-1.324087	4.01E-05	-0.000470
	(0.30120)	(0.56221)	(0.00042)	(0.00023)
	[-2.99165]	[-2.35513]	[ 0.09512]	[-2.05675]
D(MCAP(-2))	1.403169	1.046439	0.001123	0.000194
	(0.50116)	(0.54348)	(0.00041)	(0.00022)
	[2.79984]	[ 1.92542]	[ 2.75724]	[ 0.87820]
D(RGDP(-1))	1.813223	-312.9489	0.968201	-0.112105
	(0.83118)	(390.989)	(0.29300)	(0.15887)
	[ 2.18151]	[-0.80040]	[ 3.30444]	[-0.70564]
D(RGDP(-2))	2.469069	477.4388	-0.948569	0.059917
	(1.25486)	(590.292)	(0.44235)	(0.23985)
	[ 1.96760]	[ 0.80882]	[-2.14436]	[ 0.24980]

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$\mathbf{D}(\mathbf{A}\mathbf{C}\mathbf{I}(1))$	1 (770)5	2522.010	1 (50157	1.041167
D(ASI(-1))	-1.677825	3533.818	1.659157	1.241167
	(2.75441)	(1295.68)	(0.97096)	(0.52648)
	[-0.60914]	[ 2.72738]	[ 1.70877]	[ 2.35750]
D(ASI(-2))	2.509026	-1623.019	-1.662245	-0.245344
	(2.39622)	(1127.19)	(0.84470)	(0.45801)
	[ 1.04708]	[-1.43988]	[-1.96786]	[-0.53567]
С	-455945.7	13854332	66566.24	13401.29
	(155109.)	(7.3E+07)	(54677.8)	(29647.4)
	[-2.93952]	[ 0.18988]	[ 1.21743]	[ 0.45202]
R-squared	0.794315	0.626945	0.667300	0.539866
Adj. R-squared	0.685423	0.429445	0.491164	0.296265
Sum sq. resids	2.70E+12	5.97E+17	3.35E+11	9.85E+10
S.E. equation	398322.1	1.87E+08	140413.3	76134.82
F-statistic	7.294523	3.174407	3.788561	2.216191
Log likelihood	-380.2314	-546.3783	-352.0793	-335.5530
Akaike AIC	28.90603	41.21321	26.82069	25.59652
Schwarz SC	29.38597	41.69315	27.30062	26.07646
Mean dependent	-107598.7	95774135	167814.2	9531.285
S.D. dependent	710184.3	2.48E+08	196842.8	90756.71
Determinant resid co adi.)	ovariance (dof	4.12E+46		
Determinant resid covariance		6/18F±/15		
L og likelihood		-1577 200		
Akaike information criterion		120 0962		
Schwarz criterion		122.2080		
		122.2000		

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

The table 4.3 above revealed the result of the error correction model of **-0.2296347**. This signify that the error correction term ECM (-1) is correctly specified and the diagnostic statistics are good. The ECM (-1) variable has the appropriate sign and is statistically significant with t-statistics value of **-2.46696**. The coefficient indicates that the short run disequilibrium will be corrected in the long run at the rate of 30%. This indicates the proportion of the deviation from the long-term trend that is corrected every year.

The coefficient of market capitalization (MCAP) at lag1 revealed the value of **-0.901020** and t-statistics of **-2.99165**. This shows that market capitalization has negative but significant impact on foreign portfolio investment in Nigeria and not in line with the stated theoretical a priori expectation. A unit increase in market capitalization will result into 0.9 unit decrease in foreign portfolio investment in Nigeria. However, the market capitalization (MCAP) coefficient revealed value of **1.403169** with t-statistics of **2.79984** in lag 2. This result indicates that market capitalization (MCAP) has positive but significant effect on the foreign portfolio investment and that a unit increase in the value of market capitalization (MCAP) leads to 1.4 units increases in foreign portfolio investment in Nigeria. Hence, the null hypothesis is rejected.

Furthermore, the coefficient of all share index (ASI) revealed the value of **-1.677825** with t-statistics of **-0.60914** indicating that all share index (ASI) has a negative but insignificant impact on foreign portfolio investment. The result further revealed coefficient of **2.509026** at lag 2 with t-statistic of **1.04708** indicating a positive but insignificant impact of all share index (ASI) on foreign direct investment in Nigeria. The result is in congruence with the a priori expectation and stated null hypothesis of the study.

The coefficient of real gross domestic product (RGDP) shows the value **1.813223** with t-statistics of **2.18151** at lag 1. This indicates that real gross domestic product (RGDP) has significant influence on the foreign portfolio investment in Nigeria and that a unit increase in RGDP will culminate in 1.8 increases in foreign portfolio investment in Nigeria. Moreover, the RGDP result at lag 2 show coefficient of **2.469069** and t-statistics of **1.96760** indicating that real gross domestic product has no significant influence on the foreign portfolio investment in Nigeria. The null hypothesis is accepted. The result in both lag 1 and 2 confirm and support the theoretical statement of a priori expectation.

The result of  $\mathbb{R}^2$  with coefficient of **0.794315** in table 4.3 indicates that the goodness of fit is good. This implies that about 79% of the total variations in foreign portfolio investment (FPI) are explained by the explanatory variables of MCAP, ASI and RGDP.

The findings of the analysis obtained for market capitalization and all share index lay credence to the fact that a well-developed capital market in an economy could attract a sizeable amount of foreign portfolio investment into the country resulting into economic growth. Therefore the need to ensure robust development of the Nigeria capital market cannot be overemphasized because of its significant impact in ensuring foreign inflow of capital.

The finding of the study is in agreement with some studies (Akinmulegun, 2018; Muhammad et al., 2017). Their studies confirm that stock market performance has significant positive impact on foreign portfolio investment in Nigeria. However, the finding is in conflict with the study of Adesola and Oka, (2017). Their findings revealed that financial market performance has no long run causal relationship with foreign portfolio investment in Nigeria.

### **Table 4.4 Granger Causality Result**

Pairwise Granger Causality Tests

Date: 02/03/21 Time: 11:36

Sample: 1990 2019

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
ASI does not Granger Cause FPI	28	2.89944	0.0753
FPI does not Granger Cause ASI		0.96533	0.3958
MCAP does not Granger Cause FPI	28	7.49383	0.0031
FPI does not Granger Cause MCAP		2.24282	0.1289
RGDP does not Granger Cause FPI	28	6.82373	0.0047
FPI does not Granger Cause RGDP		0.61083	0.5515

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

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The Granger causality result presented in table 4.4 indicates that there is no causality between one of the proxies of capital market i.e all share index (ASI) and foreign portfolio investment in Nigeria. The obtained result means that all share index does not influence the attraction of foreign portfolio investment into Nigerian. However, another capital market proxy of market capitalization (MCAP) and economic growth proxy of real gross domestic product (RGDP) revealed unidirectional causality movement with foreign portfolio investment. This implies that both MCAP and RGDP have capability of influencing foreign portfolio investment into Nigeria. The findings is in line with the study of Ozurumba (2012) with evidence showing that

there is a unidirectional causality running from stock market returns to foreign portfolio investment in Nigeria. The result is however in conflict with Akinmulegun, (2018) granger causality test that revealed no causality between capital market development and foreign portfolio investment in Nigeria.

### 5.0 CONCLUSION AND RECOMMENDATION

The study examined the effect of capital market development on the foreign investment portfolio in Nigeria using all share index, market capitalization and real gross domestic product as proxies for capital market development. The findings revealed that capital market development indicator included in the study, market capitalization (MCAP), have positive but significant effect on foreign portfolio investment in Nigeria while All Share Index (ASI) also indicates a positive but insignificant impact on foreign portfolio investment. The granger causality result revealed unidirectional causality movement between market capitalization (MCAP) and foreign portfolio investment with indication that MCAP have capability of influencing foreign portfolio investment into Nigeria. The study therefore concluded that capital market development has significant effect on foreign portfolio investment in Nigeria. The finding and conclusion of this study is in agreement with that of Akinmulegun, (2018). Since the market capitalization exerts a positive but significant effect on foreign portfolio investment in Nigeria, it is recommended that capital market regulators should apply all necessary tools and continue to encourage listing of private companies on the floor of stock exchange market.

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