

# **Effect of Foreign Direct Investment on Capital Market Development in Nigeria**

**JOHN, Dzarsa Dauda**

Department of Accounting,  
Bingham University,  
Karu, Nasarawa State

E – Mail:dzarsa@yahoo.com, Phone No: +234 8028356998

## **Abstract**

*Reliance of Nigeria on mono-product export (oil) which is prone to price shock in international market has led to many years of instability in government revenue and has served as constraint to effective implementation of national development plans. The study examines effect of foreign direct investment on capital market development in Nigeria for duration of 20 years starting from 2002 - 2021. Secondary data was obtained from Central Bank Nigeria Statistical Bulletin and the data was analysed using ordinary least square regression techniques. Findings show that the relationship between foreign direct investment and capital market development is positive and significant in the short run. The study therefore concluded that foreign portfolio has significant effect on capital market development in Nigeria. Since the exerts foreign portfolio investment has positive but significant effect on market capitalization in Nigeria, the study 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.*

Keywords: Foreign Direct Investment, Capital Market, Development, Investor, Trade, Openness

## **INTRODUCTION**

One of the salient features of globalization drive is conscious encouragement of cross-border investments, especially by transactional corporations and firms (TNCs). Foreign direct investment (FDI) is an important tool for the growth of any economy as it is more stable than several forms of capital flows. It provides the needed capital for investment, increases competition in the host country industries, and aids local firms to become more productive by adopting more efficient technologies or by investing in human and/or physical capital (Ajayi, 2006). Developed countries view attraction of foreign direct investment (FDI) as a strategy for economic development. This may be because FDI is often regarded as an amalgamation of capital, technology, marketing and management. To attract Foreign Direct investment (FDI), developing countries have established pro-investment policies that help firms to open subsidiaries in all parts of the world with relative ease. In this regard, policy makers in developing countries such as Nigeria attract FDI to accelerate economic growth, job creation and poverty reduction. This is based on the premise that FDI is a way of obtaining capital and technology that is not available in the host country (Olusanya 2013). According to Ajayi (2006), three main conduits through which FDI can bring about economic growth are augmenting domestic savings in the process of capital accumulation; main channel through which technology spillovers can increase factor productivity and efficiency in the utilization of resources leading to growth; and leading to increase in exports as a result of increased capacity and competitiveness in domestic production. This linkage is often said to depend on another factor, called “absorptive capacity”, which includes the level of human capital development, type of trade regimes and degree of openness (Borensztein, Gregorio and Lee, 1998). According to Loungari&Razin (2001), FDI has not only avoided creating an overhang of debts, but it has also facilitated the transfer of technology and managerial skills and hence, it can be directly tied to productive investment of a country.

The Nigerian economy has recorded some appreciable and moderate economic growth and FDI inflows (Bello & Adeniyi, 2010). Over the years, since the colonial era, Nigeria has had inflow of foreign capital. Foreign direct investment (FDI) inflow has been on the increase having an average growth rate of 10.8% between 1981 and 2006 (WilemteVelde, 2006). From 2010 – 2013, Nigeria attracted over US\$27 billion in foreign direct investment, making it one of the top FDI destinations on the African continent (Amobi, 2014). These FDI inflows targeted the oil and gas, real estate, communications and consumer goods

sectors of Nigeria's economy (Oguh, 2016). However, according to Onuba (2016) the Nigerian economy recorded its worst investment inflow in 10 years with the country attracting a total investment of \$5.12bn in the 2016 fiscal period. The three major categories of investment that make up the total investment inflow into the country which include portfolio investment – attracted \$1.81bn in 2016; foreign direct investment – attracted \$1.04bn; and other investments attracted \$2.26bn. This investment apathy in the Nigerian economy is a consequence of the weak value of the naira. Africa and Nigeria in particular joined the rest of the world in seeking FDI as evidenced by the formation of the New Partnership for Africa's Development (NEPAD), which has the attraction of foreign investment to Africa as a major component (Olokoyo, 2012; Okoyes&Nwisienyi, 2019). Generally, the importance of investments in the growth process has been recognized and efforts are made to rekindle investment in Nigeria. The inadequate capital for financing developmental projects has been a stumbling block facing the country and has retarded economic growth in Nigeria. Furthermore the reliance of Nigeria on mono-product export (oil) which is prone to price shock in international market has led to many years of instability in government revenue and has served as constraint to effective implementation of national development plans. While FDI have been seen as a very important source of capital that can bridge both the saving and trade gaps in Nigeria, little success has been achieved in attracting FDI despite reforms introduced by successive administrations in Nigeria. FDI inflows has been mainly in the mining sector while Agriculture, building and construction sectors has not attracted so much. The study examine effect of foreign direct investment on capital market development in Nigeria

## **LITERATURE REVIEW**

### **Conceptual Framework**

#### **Foreign Direct Investment**

Foreign direct investment is not just a capital movement (Devrim, 2009). In addition to capital, a controlled subsidiary often receives direct input of managerial skills, technology, and other tangible and intangible assets. Unlike portfolio investors, foreign direct investors have substantial control over the management of foreign subsidiary. According to Thomas and Peter (2000), FDI is any flow of lending to, or purchase of ownership in a foreign enterprise that is largely owned by the residents of the investing country. Also, FDI has been described as investment so as to acquire a lasting management interest (for instance 10% of voting stocks) and at least 10% of equity shares in an enterprise operating in another country other than that of investors' country (Mwillima, 2003 & World Bank, 2007). Foreign direct investment (FDI) is seen as a major and integral part of an open and international economic system and a major catalyst to development (OECD, 2002). It refers to investment made to acquire a lasting management interest (usually at least 10 % of voting stock) and acquiring at least 10% of equity share in an enterprise operating in a country other than the home country of the investor; it can take the form of either "greenfield" investment (also called "mortar and brick" investment) or merger and acquisition (M&A), depending on whether the investment involves mainly newly created assets or just a transfer from local to foreign firms (Mwilima, 2003). It involves the mobilization of investment funds from foreign investors into the host economy. It may be in the form of transfer of ownership from domestic to foreign investors, or in the form of expansion in productive capacity and capital formation in a country (Adelopo, 2010).

Foreign direct investment is the category of international investment in which an enterprise resident in one country (the direct investor) acquires an interest of at least 10 % in an enterprise resident in another country the direct investment enterprise (World Investment Report, 2007, 2009). According to United Nations Conference on trade and development (UNCTAD), subsequent transactions between affiliated enterprises are also direct investment transactions. Broadly speaking, FDI is a type of international capital flows from one country to another. What makes FDI different from financial capital flows is the usage of transferred capital in the host country. When foreign investors invest on financial instruments, it is called financial flows. Nonetheless, FDI implies that foreign investors either invest into an existing company or

found a new company (factory) in the host country. Since FDI is a form of physical investment, it is expected to have direct and indirect impacts on macroeconomic variables such as growth, current account, gross capital formation, productivity, employment, and so on. In this regard, it gets a great deal of attention in empirical and theoretical studies (Tintin, 2010). FDI is also seen as an engine of growth as it provides the much needed capital for investment, increases competition in the host country industries, and aids local firms to become more productive by adopting more efficient technology or by investing in human and/or physical capital (Ajayi, 2006).

### **Foreign Portfolio Investment**

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 (Aderamola&Obisesan, 2015). 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. Foreign portfolio investments include portfolio equity, direct and real estate investment - between one country and others are recorded in the current accounts in the balance of payments. It enables investors to diversify their portfolios, spread investment risks more broadly and promote inter-temporal trade. In turn, higher rates of return can encourage savings and investment that deliver faster economic growth. Foreign Portfolio investment includes investments by a resident entity in one country in the equity and debt securities of an enterprise resident in another country which seek primarily capital gains and do not necessarily reflect a significant and lasting interest in the enterprise. The category includes investments in bonds, notes, money market instruments and financial derivatives other than those included under direct investment, or in other words, investments which are both below the ten percent rule and do not involve affiliated enterprises. Foreign Portfolio investment includes the flow of both equity and long-term debt (bonds and loans) between individuals and/or institutions domiciled in different countries. This is achieved either indirectly through the capital market, or directly in a foreign company, as long as the financial stake is below that which constitutes a direct investment. Such investment may be channeled across national boundaries in several different ways (Araoye, 2021).

### **Trade Openness**

Trade openness is often measured by the ratio of import to Gross Domestic Product (GDP) or alternatively, the ratio of trade to GDP. Trade openness is interpreted to include import and export taxes, as well as explicit non-tariff distortions of trade or in varying degrees of broadness to cover such matters as exchange-rate policies, domestic taxes and subsidies, competition and other regulatory policies, education policies, the nature of the legal system, the form of government, and the general nature of institution and culture (Baldwin, 2012). Empirical literature suggests that an open economy attracts the needed technological transfer through trade and thus contributes significantly to the growth of the nation. The positive a priori sign assumed for this variable in this study is therefore due to the theory that openness encourages specialization in the production and marketing of certain goods based on comparative advantages. Openness is considered under two titles; trade openness and financial openness. Trade openness is considered to be a prerequisite for financial openness. Accordingly, trade openness can be described as the approach aiming to facilitate the international free trade by the removal of the government control on the trade of goods and services. Financial openness is a set of policies aiming to remove the control and intervention of state on the domestic banking and other financial instruments and the integration of domestic markets to international markets. Briefly, trade and financial openness can be described as the removal of the national restrictions that have a negative effect on the competition and block the free circulation of the good, services, workforce and capital (Adigwe, Ezeagba& Francis, 2015).

### **Capital Market**

Capital market is a subset of financial market that deals with the mobilization and channeling of long term funds for investment purposes by bring together economic units requiring funds and economic units

desirous of parting with funds for relatively long period of time. It is a framework of institutions that arrange for long term financial instruments entailing shares debentures stocks and mortgages (Araoye, 2021). Aderamola and Obisesan, (2015) stressed the element of control in his definition of foreign private investment as “investment in a foreign country where the investing party that is, corporations, firms and so on retain control over the investment. The heart of any Foreign Private Investment is control”. According to International Monetary Fund (IMF), Foreign Private Investment is defined as “investment that is made to acquire a lasting business in an enterprise’s operation on economy other than that of the investor, the investor’s purpose being to have an effective voice in the management of the enterprises”. Essentially, the functions of capital market includes the promotion of liquidity and safety of financial assets in order to encourage saving and investment; ensuring a more refund allocation of resources by equating the demand and supply of loanable funds; enabling the transfer of funds from one sector or country to another for economic or commercial growth and enhancing successful implementation or monetary and indigenization policy (Araoye, 2021).

### **Market Capitalization**

Market capitalization represents the aggregate value of stock size. Market capitalization is the measurement of the size of businesses and corporations which are equal to the market share price times the number of shares in this case shares that have been authorized, issued, and purchased by investors of a publicly traded company (Araoye, 2021). Market capitalization is also calculated by multiplying the shares of the company by the price per share. The investment community uses the figure to determine a company’s size or worth, as opposed to sales or total asset figure (Adigwe, Ezeagba& Francis, 2015s). Market capitalization refers to the number of shares of a company multiplied by the market share price. In other words, market capitalization is usually considered as reflecting the worthiness of a company used by the investing public to determine the credit worthiness of a firm in terms of investing in such companies.

### **Empirical Review**

Araoye (2021) examined 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. Ekine, Ewubare and Ajie (2019) examined the impact of foreign portfolio investment and Foreign Direct Investment on the performance of the Nigerian Economy over a period of 1980-2017. The data used were purely secondary sourced from the central Bank of Nigeria statistical Bulletin and World Bank Development indicator. The ordinary least square (OLS) regression analysis was used. The findings revealed that the performance of the Nigerian Economy is directly related to inflow of foreign portfolio investment and foreign direct investment and it is also statistically significant at 5% level. This means that a good performance of the economy depends on the inflow of these variables, or that the variables serve as an engine of economic growth. The study therefore recommends that policy makers should work on improvement of economic incentives capable of mobilizing external resources to the country to engender macroeconomic stability. A stable economy will attract foreign investment and this result to increased inflow of foreign capital.

Ajayi and Araoye (2019) examined the effect of trade openness on economic growth of Nigeria using data from 1970 to 2016. We used secondary data obtained from world development data base (2000), World Bank and International Financial Statistics, IFS- International Monetary Fund Data Base (2010) and Central Bank of Nigeria Statistical Bulletin 2014. Using the Augmented Dickey-Fuller (ADF) and Phillip-Peron (PP) unit root test, they discovered that all the series are non-stationary at levels. However taking the variables at first difference, results shows that all are I(1) at 5% for ADF and 1% for PP level of significance except the labour input which was not stationary at first difference in ADF. The findings from Co-integration test showed that an equilibrium relationship exists among the variables and using the Co-integration test in line with Engel and Granger (1987) which believed that there is a long-run relationship among economic variables if tested for unit root problem and since no problem is found which then conform with the claim of the study. Thus, all the coefficient was correctly signed and stationary at 5% level. Trade openness and economic growth depicted a positive relationship but a negative relationship existed between economic growth and exchange rate but this was expected especially for a country that engaged in international trade. The study recommended that Government should formulate policies that will liberalize trade and should be administered with caution so as not to discourage local production and exploitation and exploration of resources that will improve revenue earning capacity of Nigeria which would hasten growth and development. Chukwuemeka (2018) researched on the long-run influencing factors of foreign portfolio investment in Nigeria. They discovered the appropriate policies to attract foreign portfolio investment in the long-run. They used the quarterly time series data over the period of 1981-2010. Market capitalization, real exchange rate, real interest rate, real gross domestic product, and trade openness were considered variables. Net portfolio investment was considered as dependent variable. They applied finite distributed lag model of time series analysis. The study revealed that foreign portfolio investment flow into Nigeria had a positive long-run relationship with market capitalization and degree of openness. The study recommended that it was good to make Nigeria's trade policy as investment welcoming policy for attracting portfolio investment flows.

Shanab (2017) examined the effect of Foreign Portfolio Investment (FPI) on capital market indices for the period 2005-2016. The study employed Ordinary Least Square (OLS) for the analysis. The study revealed that there is a statistically significant effect on both the purchases and sales by foreign investors on market capitalization. The study also found no statistically significant effect between inflation and market capitalization. Based on their findings, the study recommends that the government should ensure there is good monetary and fiscal policy to grow the economy and woo more foreign investors in the capital market which could drive economic growth. Shares and bonds should be regularly advertised to attract domestic and foreign investors in the portfolio market for enhanced sustainability. Ibrahim and Akinbobola (2017) investigated the relationship between foreign portfolio investment, democracy and economic growth in Nigeria from 1986 to 2013. The results revealed that foreign portfolio investment inflow was more stable in democratic periods between 1999 and 2013 than the military periods between 1986 and 1998 and that the correlation between economic growth and foreign portfolio investment is positive and very significant. Furthermore, the result revealed that in the longrun foreign portfolio investment had positive and significant effect on the economic growth in Nigeria. It also showed that democracy had a positive and significant effect on economic growth, while it has positive but not significant effect on the relationship between foreign portfolio investment and economic growth. The study recommend the need for bureau-de change market and asymmetric portfolio in the capital market be monitored properly to ensure compliance to financial regulation because their activities are important to inflow of foreign capital to the country.

Ajayi, Adejayan and Obalade (2017) examined the impact of foreign private investment on the Nigerian capital market using time series data from 1986 to 2014. Johansen co-integration model was used to estimate the causal effect between both variables. Market capitalization, foreign direct and portfolio investments were proxies for the dependent and independent variables respectively. The result of the study revealed that that there is a long run relationship between Market capitalization and foreign

portfolio investment however this relationship is negative meaning that an increase in foreign portfolio investment will cause a decrease in Market capitalisation. The study concluded that foreign direct investment has a positive and significant impact on capital market Development while foreign portfolio investment has positive but insignificant impact. They recommend that a robust re-investment incentive policy or roll-over window package need to be established to encourage retention of foreign portfolio investment proceeds within the system. This is required in order to minimize the rate of flight capital through illegal and indiscriminate repatriation of investment proceeds through foreign portfolio investment channel. Adaramola and Obisesan (2015) assess the impact of foreign direct investment on Nigerian capital market development given the role of the later in stimulating the development of the nation's economy. The study employed ADF unit root test and Johansen co-integration test to analyze the secondary data obtained from Central Bank of Nigeria statistical bulletin from 1970-2010. The absence of co-integration between foreign direct investment and market capitalization informed the resort to OLS regression result which shows that foreign direct investment impact positively and significantly on market capitalization. Since foreign direct investment is a significant determinant. Efforts should be made by government and monetary authority to encourage foreign direct investment into Nigeria. However given the lack of co-integration and low beta weight suggest that emphasis on foreign direct investment as a way of stimulating long run growth in the developing country like Nigeria does not worth the while.

## **Theoretical Framework**

### **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 Internalization Theory of FDI**

Buckley and Casson (1976) coined the notion of internalization itself, based on the application of the market imperfections approach in an international context. In the theory, Buckley and Casson suggest that firms try to maximize profits under the imperfect condition existing in intermediate products by internalizing the key intermediate products such as knowledge, marketing, human capital and management expertise. They think the markets for key intermediate products are imperfect. Under the imperfect market conditions in intermediate products, firms link different activities through markets under common ownership and control. The linking of different activities through these markets, however involves significant time lag and transaction costs. Thus, firms want to bypass the external markets in intermediate products by creating internal markets in order to avoid the significant time lag and transaction costs. In other words, firms are encouraged to replace these external markets with their own internal markets for these products to avoid the above mentioned difficulties. For reason of increase in profit, some transactions should be carried out within a firm rather than between firms. In other words, some transactions should be internalized to reduce transaction cost and hence increase profitability. There are technologies that are embodied in the mind of a group of individuals and not possible to sell to other parties. This difficulty of marketing and pricing know-how forces multinational corporations to open a new subsidiary in a foreign country instead of selling the technology. Also a number of problems may arise if an output of a firm is an input to other firm in another country. For instance if each has a monopoly power, they may try to hold the price down while the firm that produces the input tries to raise price. Hence this problem can be avoided by integrating various activities within a firm rather than subcontracting the activities (Krugman&Obstfeld, 2003).

### **Product Life Cycle Theory of FDI**

This theory was developed by Vernon in 1970. At the early stage, a new product is first produced and sold in home market. When the home market is saturated, the product will be exported to other countries.

The firm starts to open subsidiaries in locations where cost of production is lower when the competition from the rival firms become intense and the product reach its maturity. This theory was for a set of studies that regarded the spreading of multinational firms as being sequential, taking place in stages. The firm would initially supply the export markets, then establish trade representatives abroad, and eventually end up setting up production outfit in target markets by way of subsidiaries. Agarwal (1980) explains that product life cycle is conceived in three stages. In the first stage when the product is new it is produced by the innovating firm in its home market, because of the greater need for efficient co-ordination between research and development ( R & D) and the production units as well as the availability of demand for it there. The second stage is marked by the maturity and export of the product to countries having high level of income. Expansion of demand and growing competition in these markets lead eventually to FDI of the innovator into these countries for local production of the product. The third stage is characterized by a complete standardization of the product as well as its production technique which is no longer an exclusive possession of its innovator. Price competitions from other producers' forces innovators to now invest in developing countries to seek cost advantages, especially labor costs and other factor costs such as land and materials.

## **METHODOLOGY**

The methodology employed is the expo-facto research design. Ex post facto design examines how an independent variable, present prior to the study, affects a dependent variable. The target population and sample size of the study is from 2002-2021. The study employed secondary data collection. The study variables were obtained from Central Bank of Nigeria Statistical bulletin for the year. Ordinary Least Square (OLS) regression technique will be used and it is useful for estimation, (Capital Market) which is the dependent variable will be regressed on the explanatory variables in the equation which includes: Trade openness and foreign portfolio investment. Some statistical and econometric test will be used to evaluate the regression, the include Multiple R, which is the correlation and it, measures the extent of relationship between variables, R – squares which is the coefficient of determination measures the percentage (proportion) of variation in the dependent variable that can attribute to the independent variables. The F statistic, the Beta coefficient measures the relative significance of each of the independent variable, “t” statistics and Durbin Watson test. In formulating an econometric model for the relationship between Foreign Direct Investment and Capital Market in Nigeria. The objective of this study will be specifying a regression equation model.

### **Model Specification**

$$MCAP = f(FPI)(TO) \dots\dots\dots 1$$

From the above function, the following model is derived:

$$MCAP = \alpha + \beta_1 FPI + \beta_2 TO + \epsilon$$

Where;

MCAP = Market Capitalization

FPI = Foreign Portfolio Investment

TO = Trade Openness

$\epsilon$  is the error term.

$\alpha$  is to take care of the constant variable;  $\beta_1$  and  $\beta_2$  is the coefficient of FPI (Foreign Portfolio Investment) and TO (Trade Openness)

## **RESULT AND DISCUSSION**

### **Descriptive Statistics Results**

Descriptive statistics provide simple summaries about the sample and about the observations that have been made. Such summaries may be either quantitative, i.e summary statistics or visual. These

summaries from the basis of the initial description of the data as part of a more extensive statistical analysis that will be presented in this section. The summary of the descriptive statistics is presented;

**Table 1: Descriptive Statistics**

	MCAP	TO	FPI
Mean	1521.300	19.14850	82.11500
Median	1653.000	19.20000	87.55000
Maximum	2191.000	29.80000	142.3000
Minimum	129.0000	2.070000	21.80000
Std. Dev.	564.2112	6.615508	33.03009
Skewness	-0.813856	-0.697421	-0.431085
Kurtosis	2.995671	3.480148	2.858477
Jarque-Bera	2.207888	1.813437	0.636137
Probability	0.331561	0.403847	0.727553
Sum	30426.00	382.9700	1642.300
Sum Sq. Dev.	6048352.	831.5339	20728.75
Observations	20	20	20

**Source:** *E-View 10 Output (2022)*

Table 1 presents the explanatory enumerations of the effect of Foreign Direct Investment on Capital Market development in Nigeria, all the while the ending of 2002 to 2021. The table shows that market capitalization (MCAP) has a mean of 1521.300 accompanying a predictable difference of 564.2112 and the minimum and maximum principles of 129.0000 and 2191.000 respectively. Although the range middle from two points the minimum and maximum is off-course, it indicates a fixed acting as the predictable difference registered that skilled is no off-course dispersal of the dossier from the mean advantage. Similarly, the table shows that the average of trade openness and foreign portfolio investment ranging from 19.1485 and 82.1150. The minimum and maximum principles of TO and FPI are 2.07000 and 21.8000 with maximum of 29.8000 and 142.3000 respectively.

**Table 2: Correlation Matrix Result**

	MCAP	TO	FPI
MCAP	1.00000		
TO	0.630692	1.00000	
FPI	0.748656	0.771847	1.00000

**Source:** *E-View 10 Output (2022)*

Table 2 present the correlation between the dependent variables, Market Capitalization (MCAP) and the independent variables, Trade openness and foreign portfolio investment. Generally, a high correlation is expected between dependent and independent variables while a low correlation is expected among independent variables. Corrected coefficient representing the relationship between the variables is high as the coefficients of TO and FPI shows a positive relationship of 0.63069 and 0.74865 respectively.

**Unit Root Test**

Non-fixed dossier produces counterfeit reversion; therefore the result can be deceptive, essentially, it was inevitable to authenticate the stationarity of dossier. Overtime, moment of truth succession features of econometric studies have proved that most economic and large-business-related opportunity succession variables are non-fixed and utilizing non-fixed variables leads to counterfeit reversion. Thus, the variables were examined for their guessed possessions. Augmented Dickey-Fuller (ADF) test was used to double-check either the variables of the study exhibit whole root features.

**Table 3: Unit Root Test (MCAP at 1<sup>st</sup> Difference)**



Null Hypothesis: D(MCAP) has a unit root  
 Exogenous: Constant  
 Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.395815	0.0000
Test critical values: 1% level	-3.857386	
5% level	-3.040391	
10% level	-2.660551	

\*MacKinnon (1996) one-sided p-values.

**Source:** *E-View 10 Output (2022)*

From the table above, the established test of Augmented Dickey-Fuller (ADF) registered that the chance worth beneath the ADF is nothing 0.0000, inferior 0.05 at 1st dissimilarity. This means that capital market (organized) changing altered into non-fixed at standard (as joined inside the Unit root test inside the addendum), but have enhance table bound at 1st quality. Also, the Augmented Dickey-Fuller (ADF) t-Statistic (7.395815) is extra than certainly the essential principles of (3.040391) at 5% level of importance. This means the Null Hypothesis must be rebuffed and it maybe decided that MCAP has no whole root and the dossier is fixed.

**Table 4: Unit Root Test (TO at 1<sup>st</sup> Difference)**

Null Hypothesis: D(TO) has a unit root  
 Exogenous: Constant  
 LAG LENGTH: 1 (AUTOMATIC - BASED ON SIC, MAXLAG=4)

	t-Statistic	PROB.*
Augmented Dickey-Fuller test statistic	-18.45668	0.0000
Test critical values: 1% level	-3.886751	
5% level	-3.052169	
10% level	-2.666593	

\*MacKinnon (1996) one-sided p-values.

**Source:** *E-View 10 Output (2022)*

From the table above, the traditional test of Augmented Dickey-Fuller (ADF) indicated that the Probability value under the ADF is 0.0000, less than 0.05 at 1st difference. This implies that trade openness (independent) variable was non-stationary at level but became stationary at 1st difference. Similarly, the Augmented Dickey-Fuller (ADF) t-Statistic (18.4566) is greater than the absolute critical values of (3.05216) at 5% level of significance. This implies the Null Hypothesis must be rejected and it can be concluded that TOhas no unit root and the data is stationary.

**Table 5: Unit Root Test (FPI at 1<sup>st</sup> Difference)**

Null Hypothesis: D(FPI) has a unit root  
 Exogenous: Constant  
 Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.444169	0.0001
Test critical values:		
1% level	-3.857386	
5% level	-3.040391	
10% level	-2.660551	

\*MacKinnon (1996) one-sided p-values.

Source: E-View 10 Output (2022)

From the table above, the traditional test of Augmented Dickey-Fuller (ADF) indicated that the Probability value under the ADF is 0.0001, less than 0.05 at 1st difference. This implies that foreign portfolio investment (independent) variable was non-stationary at level but became stationary at 1st difference. Similarly, the Augmented Dickey-Fuller (ADF) t-Statistic (6.44416) is greater than the absolute critical values of (3.04039) at 5% level of significance. This implies the Null Hypothesis must be rejected and it can be concluded that FPI has no unit root and the data is stationary.

**Table 6: Summary Results of Augmented Dickey-Fuller Unit Root Tests**

Variables	Test Critical Values	Probability Values	Order of integration
MCAP	-3.040391	0.0000**	I(1)
TO	-3.052169	0.0000**	I(1)
FPI	-3.040391	0.0001**	I(1)

Note: \*\*indicate significant at 5% levels; Source: E-View 10 Output (2022)

The summary results of the Augmented Dickey-Fuller Unit Root Tests for all the three variables of the study; market capitalization (MCAP), trade openness (TO) and foreign portfolio investment (FPI) are bestowd in table 6 as proved above.

**Table 7: Regression Result**

Dependent Variable: MCAP

Method: Least Squares

Date: 03/22/22 Time: 01:16

Sample: 2002 2021

Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	399.2284	277.1947	1.440246	0.1680
TO	11.14882	21.39807	0.521020	0.6091
FPI	11.06483	4.285763	2.581764	0.0194
R-squared	0.567393	Mean dependent var		1521.300
Adjusted R-squared	0.516498	S.D. dependent var		564.2112
S.E. of regression	392.3202	Akaike info criterion		14.91952
Sum squared resid	2616558.	Schwarz criterion		15.06887
Log likelihood	-146.1952	Hannan-Quinn criter.		14.94867
F-statistic	11.14833	Durbin-Watson stat		2.443525
Prob(F-statistic)	0.000807			

Source: E-View 10 Output (2022)

From table 7 above, the coefficient of diversified determinations ( $R^2$ ) is 0.5673. This displays that about 56% of the total differences in market capitalization is related apiece alternatives in the free variables (TO and FPI), while the surplus 44% of the alternative in the model is apprehended apiece mistake term. This signifies that foul line of best fit is well equipped. The predictable difference test is used in consideration of measure the magnitude of the wrong and decides the grade of assurance in the genuineness of the estimates. Usually if the predictable difference is tinier than half the mathematical advantage of the limit estimate, it maybe decided that the estimate is statistically important. Having completed activity a predictable difference test on the limits supposed and as still determined by their particular feasibility principles, the limit estimate for TO is not statistically meaningful, likely that the individual probabilities is 0.6091 individually that is degree 5%, while that of FPI is statistically meaningful, likely that the individual contingency is 0.0194. The Durbin Watson test is consistently selected to test for Autocorrelation.

### **Discussion of Findings**

This study examined the effect of Foreign Direct Investment on Capital Market development in Nigeria range from 20 age grazing from 2002 to 2021. The effect of the independent variable on dependent variable was analyzed in terms of strength and significant and the Ordinary Least Square analysis was used to compare the relationship among the variables. The result of the analysis shows that the relationship between foreign direct investment and capital market development is positive and significant in the short run. This is consonance with apriori expectation and in agreement with the findings of Araoye (2021) but contradict the finding of Shanab (2017).

### **CONCLUSION AND RECOMMENDATIONS**

In the accounting and financial literatures, several studies have investigated the hyperlink between foreign direct investment on the only hand as well as and capital market development. A tremendous and statistically massive relationship exists between foreign direct investment and capital market development in Nigeria. The study therefore concluded that foreign portfolio investment has significant effect on capital market development in Nigeria. Since the foreign portfolio investment exerts a positive significant effect on market capitalization in Nigeria, the study 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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