

# Impact of Foreign Direct Investment on Nigerian Capital Market Development

Adaramola Anthony OLUGBENGA<sup>1</sup>  
Obisesan Oluwaseun GRACE<sup>2</sup>

<sup>1,2</sup>Department of Banking and Finance, Faculty of Management Sciences, Ekiti State University, Ado Ekiti, Nigeria

<sup>1</sup>E-mail: [gbenqaadaramolaunad@yahoo.com](mailto:gbenqaadaramolaunad@yahoo.com) (Corresponding author)

**Abstract** *The fundamental objective of this research work is to 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.*

**Key words** Market capitalization, investment, capital market

DOI: 10.6007/IJARAFMS/v5-i1/1503

URL: <http://dx.doi.org/10.6007/IJARAFMS/v5-i1/1503>

## 1. Introduction

The slow spate of development in the third world is usually traceable to inadequate resources to speed up economic growth and development. Saving in this part of the world is usually less than the investment needs. Most economies have resorted to foreign borrowings while others geared efforts toward attracting foreign contributions to stimulate development. Hence, the importance of foreign investment either by private or public agencies in promoting growth and development in developing countries cannot be overemphasized. Foreign investment is expected to serve as a means of complementing Nigeria's domestic resources in order to ensure development and improve the standard of living of the people.

In essence, the purpose of foreign investments is to complement indigenous efforts. Specifically, foreign direct investment may be defined as a situation whereby the concern of the investing countries is to exercise control over the assets created in the capital importing countries by means of that investment. Also, foreign public investments are investments by governmental entities in another country. It is generally recognized that government in developing economies have not only directed efforts to creating enabling environment for business to grow but also tried to create attractive business environment for foreigners to participate.

Achievement of the above objective culminated the establishment of the Lagos Stock Exchange which was registered on 1<sup>st</sup> March, 1959, incorporated on 15<sup>th</sup> of December 1960 and started operation on 5<sup>th</sup> June 1961. It was later transformed to the Nigerian Stock Exchange in 1977 to pave way for conduct of capital market activities. Capital market hence provides a medium for continuous attraction and operation of foreign capital for development of Nigerian economies. It is a paradox however, that despite the hype of foreign public and private investments in Nigeria, the country has not witnessed a reasonable growth and development traceable to its capital market. As a matter of fact, some analysts are of the opinion that the role of capital market as a veritable channel for foreign direct investment is yet to be fully appreciated.

A number of studies have been carried out on the contribution of foreign direct investment on Nigerian economic development. Testing for such impact is essentially a subject of empirical study. The relevant questions now are: Does foreign direct investment contributes to the development of capital market in Nigeria? Is foreign direct investment a significant factor in measuring development of Nigerian capital market? Are there any efforts for proper incentives and better social environmental conditions to put in place in order to set the stage for capital market development in Nigeria? These research questions are the sources of inspiration for this write up. The rest of the paper is divided into three (3) segments; which are: literature review, method and material and results and discussions.

## 2. Literature Review

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 (Adeusi, 2000). Osita, (1990) 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 (Adeusi, 2000). Sustainable economic growth and development can be realized through lot local and foreign investment efforts which made it possible with presence of a well-functioning capital market. (Ekundayo, 2002)

Ezeoha *et al.* (2009) conducted a study on nature of relationship between stock market development and levels of domestic or foreign private investment flows in Nigeria. This research revealed a positive link between capital market development and domestic private investment while a negative relationship is found between stock market development and foreign private investment in Nigeria. Afeeze and Kazeem (2010) concluded that there exist a unidirectional relationship between market capitalization and economic growth, and an absence of causal linkage between economic growth and total value traded and bidirectional causality between economic growth and turnover ratio. Ultimately, the result of the granger causality test shows that capital promote economic development. Olawoye (2011) conducted a study on the impact of capital market on economic growth of Nigeria. He used GDP as a proxy for economic growth and market capitalization, new issues, value of transaction and total listing as capital market variables. Multiple regression techniques were used for analysis and the results revealed a positive relationship between capital market and economic development.

Okwu and Obiakor (2011) employed Ordinary Least Square to analyze the impact of capital market development on Nigerian Economy Growth from 1981 to 2008. They found that market capitalization gross capital formations of foreign private investment are significant determinant of Nigerian Economic Growth while the volume of share traded relate positively but insignificantly. Baghebo and Edoumiekumo (2012) used group unit root and Johansen co-integration test to examine the relationship between Foreign Private Capital Accumulation and Economic Development in Nigeria from 1970 to 2010. It was discovered that current and lagged FPI have positive impact on economic development. However, while the latter is statistically significant, the former is not. Thus formulating policies that encourage such investment would be a way forward. Uremadu (2010) examined the impact of Foreign Private Investment on Capital Formation in Nigeria from 1980 to 2004 using Ordianry Least Square method. The result showed a negative influence of foreign exchange rate, gross national savings, inflation rate, debt service ratio, lending rate, exchange rate all discourage gross capital formation in Nigeria. However cumulative foreign private

investment, index of energy consumption and banking system credit to domestic economy showed a positive influence.

Ugochuckwu, Okore and Onoh (2013), investigating the impact of foreign direct investment on the Nigerian economy that from 1981 to 2009 employed Ordinary Least Square method in order to derive the relationship between them. The study found a positive but insignificant relationship between foreign direct investment and growth of Nigerian economy for the period studied and the same hold for interest rate while domestic investment is positive and significant. There exists a long run relationship between capital market and economic growth and bidirectional causation between gross domestic product and value of transactions while only market capitalization causes economic growth. In essence, capital market plays a significant positive role in economic development of less developed countries. However, Kolapo and Adaramola (2012) submitted that continuous flow of foreign investment to developing economies has not been able to solve problems confronting these countries. Osinubi (2010), used secondary data from 1970-2005 to assess the effect of foreign private investment on Nigerian economic growth. Empirical results show that foreign private investment, domestic investment growth and net export growth have significant positive impact on Nigerian economic growth.

HarunaDanja (2012) studied about Foreign Direct Investment and the Nigerian Economy using Ordinary Least Square method of data analysis. The result therefore revealed a positive relationship between FDI and those variables but FDI has not contributed much to the growth and development of the Nigerian economy. Eniekezimene (2013) examined the impact of foreign portfolio investment on capital market growth: evidence from Nigeria. Ordinary Least Square method was used to analyze the data collected. It was revealed that foreign portfolio investment has a positive impact on capital market growth. Edame and Okoro (2013). Discussed on The Impact of Capital Market on Economic Growth in Nigeria. The scientific method of Ordinary Least Square (OLS) regression technique was used in the study. From the findings it was obtained that capital market has positive and significant impact on economic growth in Nigeria.

Conversely, Idowu and Babatunde (2012). The study investigated the effect of financial reform on capital market development in Nigeria over the period 1986 to 2010. Ordinary Least Square (OLS) technique was also used. The findings however revealed that the variables that represented the development of the banking sector interacted negatively with market capitalization which implies that the activities of those institutions deterred the development of the capital market. The puzzle in the literature over whether FDI has an impact on capital market development in Nigeria is the motivation behind this work.

### **3. Method and Materials**

#### **3.1. Data and Data Sources**

This study covers a period of 40 years (1970-2010). For the purpose of this work, data are gathered from published or secondary sources such as publication by the Central Bank of Nigeria, Economic and Financial bulletin, Nigerian Stock Exchange fact books. The ordinary least square regression technique is used to measure the impact of foreign private investment and capital market development in Nigeria. The dependent variable which is the capital market development is proxy by all market share index, while the explanatory variables includes: foreign direct investment and foreign portfolio investment.

#### **3.2. Statement of Hypothesis**

In order to realize the major objective of the study, the following hypothesis is formulated:

H<sub>0</sub>: Foreign Direct Investment has no significant impact on the Nigerian Capital Market Development

#### **3.3. Data Analysis Technique**

We shall test the above hypotheses using the Ordinary Least Square (OLS) method. Hence the multiple regressions technique is used to estimate the parameters the objective being to minimize the error term with a view of finding the regression equation that explains the data. This is preferred for its unbiasedness, consistency, efficiency and simplicity.

### 3.4. Model Specification

The model to be used in testing the above hypothesis contains the dependent and independent variables. This model is specified as follows:

$$\text{MCAP} = f(\text{FDI}) \tag{1}$$

Presenting equation 1 in linear form

$$\text{MCAP} = a_0 + b_1 \text{FDI} + U \tag{2}$$

Where:

MCAP = market capitalization;

FDI= Foreign Direct Investment;

U= Error term or stochastic term of the estimates;

$a_0$ ,  $b_1$  are beta weight or regression coefficient.

Representing in time series form, equation 2 becomes:

$$\text{MCAP}_t = a_0 + b_1 \text{FDI}_t + U \tag{3}$$

Where: t = time series

On a priori, the following relationships are expected:

$$\frac{\delta \text{MCAP}}{\Delta \text{fdi}} > \text{positive relationship} \tag{4}$$

$\beta_1$  is expected to be  $> 0$ . On a priori, we expect that the relationship between market capitalization and foreign direct investment to be positive. The sign of the estimated coefficient is thus expected to be greater than zero since rise in foreign direct investment will lead to an increase in market capitalization.

## 4. Findings

### 4.1. Ordinary Least Square Regression Result

Table 1. Results of the ordinary least square regression

Model specification	MCAP	Constant	FDI
B		-789.7491	0.017021
Standard Error		318.0557	0.001335
t-statistics		-2.483052	12.74767
F= 162.5032, DW= 1.6398, R <sup>2</sup> = 0.848566			

Source: computation using E-view 6 stat package

$$\text{MCAP} = -789.7491 + 0.017021 \text{FDI}$$

This equation shows that constant relates negatively with MCAP. That is, if FDI were taken to be constant, for every unit rise in other factors other than FDI, MCAP will be reduced by 789.749 units. However, FDI relates positively with MCAP such that a unit rise in FDI will bring about 0.017021 units rise in MCAP. It must be noted however that the slope of the constant parameter is very high which means that there are various other factors which affect GDP that are not included in the study, hence there is room for further studies. f-statistics with appropriate probability value of 0.0000 shows that the model is fit. The correlation coefficient (R=0.9212) shows a very high positive correlation between MCAP and FDI. The degree of determination (R<sup>2</sup>=0.8486) shows that FDI accounts for 84.86% of the variation in MCAP while the degree of non-determination (1-R<sup>2</sup>=0.1514) shows that FDI cannot account for 15.14% of the variation in GDP. Moreover the degree of alienation (√1-R<sup>2</sup>=0.3891) shows that 38.91% of variation in GDP is alien to FDI.

#### 4.2. Standard Error Test

Table 2. Result of Standard Error Test

Variables	Coefficient	coefficients/2	Standard Error	Remark
FDI	0.017021	0.0085105	0.001335	Significant

Source: computation using E-view 6 stat package

The standard error result in table 2 shows that FDI has a significant impact on Nigerian Capital Market growth because the average of the coefficient of FDI is greater than the standard error

#### 4.3. Unit Root Test

Table 3. Result of ADF Unit Root Test

Variables	ADF test statistics	Mackinnon Critical Value @ 5%	Order of Stationarity	Remark
MCAP	2.502288	-2.998064	1(0)	Stationary
FDI	3.242743	-2.998064	1(0)	Stationary
ECM	-1.856664	-2.998064	-	Not Stationary
ECM	-1.491626	-2.991878	-	Not Stationary
ECM	-5.408563	-2.998064	1(2)	Stationary

Source: computation using E-view 6 stat package.

From table 3, it can be seen that MCAP and FDI are stationary at level, because the ADF test statistics are greater than Mackinnon critical value at 5%. Only ECM is stationary at 2<sup>nd</sup> difference.

#### 4.4. Johansen Co-integration test

Table 4. Johansen Co-integration test Results

Hypothesized number of EC(s)	Eigen Value	Trace Statistics	5% Critical Value	Probability **
None*	0.375333	13.93116	15.49471	0.0849
at most 1	0.009800	0.285609	3.841466	0.5930

Source: computation using E-view 6 stat package

The result of Johansen Co-integration test shows that there is no Co-integration between MCAP and FDI in the long run, because the Trace statistics is less than 5% critical value at none hypothesized. The implication is that there's no long run relationship between the two variables.

### 5. Summary and Implication of Findings

#### 5.1. Summary of Findings

The Ordinary least Square result revealed the existence of positive relationship between Foreign Direct Investment and Capital Market Development in Nigeria. The coefficient of multiple determination shows that the model has a good fit while the degree of determination shows that FDI accounts for 84.86% of the variation in MCAP. Co-integration test however shows a lack of long run relationship between market capitalization and foreign direct investment and hence the reliance on regression results for our discussion. Durbin Watson shows that data are free from serial autocorrelation.

#### 5.2. Implication of Findings

The fundamental objective of this research work is to assess the impact of foreign direct investment on Nigerian capital market development. The result of the analysis shows that the relationship between capital market development and foreign direct investment is positive and significant in the short run. This is consonance with apriori expectation and in agreement with the findings of Ugochuckwu, Okore and Onoh (2013) and Baghebo and Edoumiekumo (2012) even though they use GDP as dependent variables. The

effect would be the same through a multiplier process. Ideally, the objective of foreign direct investment is to encourage growth and development of the receiving economy. One could never have thought of the absence of long run relationship between market capitalization and foreign direct investment as revealed by the result of the co-integration test. The implication of this is that emphasis on foreign direct investment as a way of stimulating growth in the developing country like Nigeria does not worth the hype given the relationship that does not last. For instance, special concession offered by the host countries government to encourage direct foreign investment by the way of free tax, free landscape and so on will only drain our limited resources that should have been committed to development project. As if that is not enough, competition between foreign and local firms reduces the profit of the later and affects their abilities to make further investment that would have enhanced the trading activities in the stock exchange. Lastly, foreign firms having become established are found continuously repatriating profit to their home country rather than reinvestment.

### 5.3. Recommendation

This research work has been able to discover that a significant relationship exists between foreign direct investment and capital market development in Nigeria. It is therefore recommended based on research findings that the present democratic dispensation should be sustained so as to have more foreign inflows into Nigeria because the attraction of foreign investment, no matter under any policy measure depends largely on the economic and political situation of the country. As a corollary to this, a sustained democratic dispensation will boost foreign investors' confidence in Nigeria and this will lead to more inflow of foreign investment.

### References

1. Adeusi S.O. (2000) *Nigerian Monetary and Financial Institution*, Akure, Adeyemo Publishing House.
2. Abel Ezeoha, Ebele Ogamba and Ndi Okereke Onyiuke (2009). Stock market development and domestic or foreign private investment flows in Nigeria. *Journal of sustainable development in Africa*. 11(2), 54-59.
3. Bayo Oloyede (2002). *Principle of International Finance*. Lagos, Forthright Educational Publishers
4. Edame, Greg Ekpung & Okoro, Uchenna 2013. The Impact of Capital Market on Economic Growth in Nigeria. *Journal of Poverty, Investment and Development - An Open Access International Journal* 1, 1-12.
5. F.T. Kolapo and A.O. Adaramola (2012). Impact of the Nigerian Capital Market on Economic Growth (1990-2010). *International Journal of Developing Societies*, 1(1), 11-19.
6. Francis A. Enekezimene (2013). The impact of foreign portfolio investment on capital market growth: evidence from Nigeria. *Global business and economic research journal*, 2(8), 121-129.
7. Idowu, Abiola and Babatunde, M.A (2012). Effect of Financial Reforms on Capital Market. *Development in Nigeria Asian Journal of Business and Management Sciences*, 1(8), 44-52
8. Kabir HarunaDanja (2012). Foreign Direct Investment and the Nigerian Economy. *American Journal of Economics*. 2(3), 33-40,
9. Osinubi T.S. and Amaghioneodiwe L.A. (2010) Foreign Private Investment and Economic Growth in Nigeria. *Review of Economic and Business Studied*, 3(1), 105-127.
10. Rowland T. Obiakor, Andy T. Okwu (2011). Empirical Analysis of Impact of Capital Market Development on Nigeria's Economic Growth (1981–2008) (Case Study: Nigerian Stock Exchange). *DLSU Business & Economics Review*, 20(2), 89-99.
11. Sebastian Ofumbia Uremadu (2010). The Impact of Foreign Private Investment (FPI) on Capital Formation in Nigeria, 1980-2004: An Empirical Analysis. *Unpublished Research Work*. Submitted to the Department of Banking and Finance, Covenant University, Ota, retrieved from: <http://212.lesij.es.xv.2.2008.art.13>.