

Relationship Between FDI, Capital Market and Nigerian Economy

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Abstract

This research work explored the relationship between FDI, capital market and the Nigerian economy. Three hypotheses were formulated and tested using data obtained from CBN statistical bulletin 2013 – 2015. Ordinary Least Squares regression technique with the aid of SPSS 22 was employed and findings revealed that capital market has positive significant impact on Nigerian economy; FDI in Nigeria have significant impact on economic growth and that FDI enhances the capitalization of Nigerian capital market. It was recommended that Government should help improve the investment climate to attract higher FDI inflows which consequently will translate into higher gross fixed capital formation, which in turn leads to greater economic growth.

Keywords: FDI; Economy; Capital Market; Investment

The Nigerian government has over the years implemented various policy reforms with a view to stimulating aggregate output. One of these reforms was the promotion of financial market development combined with financial policies aimed at stimulating increased inflow of capital into the Nigerian economy. At the early stage of this policy reform (*particularly in the later 1980s and early 1990s*) emphasis was placed on financial intermediaries, relaxation of bank regulation, interest rate deregulation and the restriction on bank licenses was lifted. Also, monetary policy framework shifted from direct to indirect approach and market was being used more to regulate the flow and cost of credit. Despite these measures, the flow of credit to the real sector was below expectation and inadequate to meet the needs of the real sector. The failure by the banking institution to provide long term finance and the need for alternative sources of long term finance for the dying real productive sectors led to the resurgence of interest in the development of stock market as alternative source of finance for the real sector (Oyejide, 2002; Nnanna,Englamaand Odoko, 2004; Sanusi, 2002).

Foreign direct investment, capital market and economic growth are economic friends who rely heavily on each other for survival. FDI checks the economic condition of a country before channeling capital into it and the volume of available investment capital influences economic growth. This was evident in the recent capital flight from the Nigerian capital market within these periods of retarded economic productivity occasioned by immense drop in oil price. According to Onuba (2017), 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 economic crisis currently being experienced in the country and the weak value of the naira is one of the reasons for the low investment inflow into the Nigerian economy, which affected the level of portfolio investment negatively.

The economic situation in Nigeria is as result of the government playing deaf ears to diversification of our export base to other mineral resources in the country other than oil. Since Nigeria discovered oil and its development between 1956 to 1958, the volume of foreign investment to Nigeria improved significantly and even when there was global financial crises in 2007/2008, Nigeria was barely affected. This, some scholars have attributed to excess external reserve Nigeria accumulated then, but that wasn't what saved Nigeria. The financial crisis did not affect Nigeria because the crisis did not scratch the source of national revenue in Nigeria – Oil. Recently, the world experienced a drop in price of oil which has been the major source of revenue of Nigeria and the Nigerian economy was not exempted – it affected many macroeconomic variables and the Naira lost value against the dollar by almost 100%. This drop in oil price is the major reason for capital flight in Nigeria because foreign investors reads the hyper-fluctuatory nature of the Naira as a sign of economic instability, hence they withhold their investments to watch for changes in Nigerian financial sector. Through out this work, we will be exploring the existing relationship between FDI, Nigerian capital market and economic growth.

Research Objectives

This research work will be pursuing the following:

1. To ascertain the extent to which capital market influences economic growth in Nigeria.
2. To determine if there exists any relationship between foreign direct investment and economic growth in Nigeria
3. To examine the relationship between the capital market and foreign direct investment in Nigeria.

Research Hypotheses

The following categorical statement will help answer the research questions in the heart of this study:

1. H_0 : The capital market does not have positive significant impact on Nigerian economy
2. H_0 : Foreign direct investment in Nigeria have no significant impact on economic growth.
3. H_0 : Foreign direct investment does not enhance the capitalization of Nigerian capital market.

Theoretical Review

Harrod-Domar Theory of Growth

Harrod and Domar assigned a key role to investment in the process of economic growth. But they lay emphasis on the dual character of investment.

Firstly, it creates incomes, and secondly, it augments the productive capacity of the economy by increasing its capital stock. The former may be regarded as the 'demand effect' and the latter the 'supply effect' of investment. Hence, so long as net investment is taking place, real income and output will continue to expand. However, for maintaining a full employment equilibrium level of income from year to year, it is necessary that both real income and output should expand at the same rate at which the productive capacity of the capital stock is expanding. Otherwise, any divergence between the two will lead to excess or idle capacity, thus forcing entrepreneurs to curtail their investment expenditures. Ultimately, it will adversely affect the economy by lowering their incomes and employment in subsequent periods and moving the economy off the equilibrium path of steady growth. Thus, if full employment is to be maintained in the long run, net investment should expand continuously. This further requires continuous growth in real income at a rate sufficient enough to ensure full capacity use of a growing stock of capital. This required rate of income growth may be called the warranted rate of growth or 'the full capacity growth rate'

Neoclassical Theory

According to neoclassical theory, FDI influences income growth by increasing the amount of capital per person. It spurs long-run growth through such variables as research and development (R&D) and human capital. Through technology transfer to their affiliates and technological spillovers to unaffiliated firms in the host economy, (Multi-National Companies) MNCs can speed up the development of new intermediate product varieties, raise product quality, facilitate international collaboration on R&D, and introduce new forms of human capital (Ikiara, 2003). Bajona & Kehoe (2006) discussed explanations of multinational production based on neoclassical theories of capital movement and trade within the Heckscher-Ohlin framework.

However, they criticize these theories on the basis that they were founded on the assumption of existence of perfect factor and goods markets and were therefore unable to provide satisfactory explanation of nature and pattern of FDI. In the absence of market imperfections, these theories presumed that FDI would not take place. Nevertheless, they argue that the presence of risks in investing abroad implies that there must be distinct advantages to locating in a particular host country.

The New Growth Theory

This theory was developed in the 1980's as a response to criticism of the neoclassical growth model. The endogenous growth theory holds that policy measures can have an impact on the long run growth rate of an economy. For example, a subsidy on research and development or education increases the growth rate in some endogenous growth models by increasing the incentive to innovate.

The main implication of recent growth theory is that policies which embrace openness, competition, change and innovation will promote growth. Conversely, policies which have the effect of restricting or slowing change by projecting or favouring particular industries or firms are likely over time to slow growth to the disadvantage of the community.

Solow Type Growth Theory

The role of foreign direct investment (FDI) in stimulating economic growth is one of the controversial issues in the development literature. In the standard Solow type growth model, FDI enables host countries to achieve investment that exceeds their own domestic saving and enhances capital formation. According to this theory, the potential beneficial impact of FDI on output growth is confined to the short run. In the long run, given the

diminishing marginal returns to physical capital, the recipient economy could converge to the steady state growth rate as if FDI had never taken place leaving no permanent impact on the growth of the economy (De Mello, 1997).

Mankiw (2003) applying the Solow growth model argues that private businesses invest in traditional types of capital such as bulldozers and steel plants and newer types of capital such as computers and robots. On the other hand, government invests in various forms of public capital, called infrastructure, such as roads, bridges and sewer systems. Mankiw further argues that policy makers trying to stimulate growth must confront the issue of what kinds of capital the economy needs most. In other words, what kind of capital yields the highest marginal products?

Empirical Review

Evidence on the link between FDI and economic growth is inconclusive. Bosworth and Collins (1999), Blomstrom, Konan and Lipsey (2000), Borensztein, DeGregorio and Lee (1998), Zhang (2001), DeMello (1999), and Obwona (2004) provided evidence on the positive effects of FDI on economic growth. Growth enhancing effect of FDI is not however, automatic, but depends on various country specific factors. UNCTAD (2004), Blomstrom et al (2000), and DeMello (1999) indicated that the positive effect of FDI is stronger the higher the level of development of a host country. Higher level of development allows countries to reap the benefits of productivity fostered by foreign investment. For similar reasons, Bronsznestein et al. (1998) found that significant relations between FDI flows and economic growth depends on the level of human capital. Host countries with better endowment of human capital are believed to benefit more from FDI induced technology transfer as spillover-effects than others with less human capital. FDI can broaden access to export markets as transnational corporations often serve as channels for the distribution of goods from one country to other markets located in another country.

Similarly, Nair-Reichert and Weinhold (2001), using a mixed fixed and random panel data estimation method to allow for cross country heterogeneity in the causal relationship, found some evidence that efficacy of FDI in raising future growth rate, although heterogeneous across countries, is higher for more open economies. Alfaro, Chanda, Kalemil-Ozcan, and Sayek (2001) examined the role of financial market in FDI-growth nexus. Their empirical evidence indicates that FDI plays an important role in contributing to economic growth. However, the level of development of local financial markets is crucial for the positive effects to be realized.

In contrast, Aitken and Harrison (1999) and Carkovick and Levine (2002) argued that there is no significant positive relation between FDI and economic growth. Even when the relation is positive, the effects tend to be weak. Rodrick for example argues that much of the correlation between FDI and economic growth is driven by reverse causation.

De Mello (1997) surveyed the developments in the literature on impact of foreign direct investment (FDI) on growth in developing countries. He asserts that FDI is thought of as a composite bundle of capital stocks, know-how, and technology, and that its impact on growth is manifold and vary a great deal between technologically advanced and developing countries. He concluded that the ultimate impact of FDI on growth in recipient economy depends on the scope of efficiency spillovers to domestic firms. Lahiri and Ono (1998) in their investigation on foreign direct investment (FDI), local content requirement and profit taxation in developing countries posited that host countries must strike a balance between costs and benefits of FDI in formulating appropriate policies. The efficiency level of domestic firms must play a role and that a host country should make use of non-tax instruments such as specification on local content of inputs to enhance benefits from FDI.

Renewed research interest in FDI stems from the change of perspectives among policy makers from “hostility” to “conscious encouragement”, especially among developing countries. FDI had been seen as “parasitic” and retarding the development of domestic industries for export promotion until recently. However, Bende-Nabende and Ford (1998) submits that the wide externalities in respect of technology transfer, the development of human capital and the opening up of the economy to international forces, among other factors, have served to change the former image.

Caves (1996) observes that the rationale for increased efforts to attract more FDI stems from the belief that FDI has several positive effects. Among these are productivity gains, technology transfers, the introduction of new processes, managerial skills and know-how in the domestic market, employee training, international production networks, and access to markets. Borensztein et al. (1998) sees FDI as an important vehicle for the transfer of technology, contributing to growth in larger measure than domestic investment. Findlay (1978) postulates that FDI increases the rate of technical progress in the host country through a “contagion” effect from the more advanced technology, management practices, etc., used by foreign firms. On the basis of these assertions governments have often provided special incentives to foreign firms to set up companies in their countries. Carkovick and Levine (2002) noted that the economic rationale for offering special incentives to attract FDI frequently derives from the belief that foreign investment produces externalities in the form of

technology transfers and spillovers.

Blomstrom et al. (1994) reported that FDI exerts a positive effect on economic growth, but that there seems to be a threshold level of income above which FDI has positive effect on economic growth and below which it does not. The explanation was that only those countries that have reached a certain income level can absorb new technologies and benefit from technology diffusion, and thus reap the extra advantages that FDI can offer. Previous works suggest human capital as one of the reasons for the differential response to FDI at different levels of income. This is because it takes a well-educated population to understand and spread the benefits of new innovations to the whole economy. Borensztein et al. (1998) also found that the interaction of FDI and human capital had important effect on economic growth, and suggest that the differences in the technological absorptive ability may explain the variation in growth effects of FDI across countries. They suggest further that countries may need a minimum threshold stock of human capital in order to experience positive effects of FDI.

The neoclassical economists argue that FDI influences economic growth by increasing the amount of capital per person. However, because of diminishing returns to capital, it does not influence long-run economic growth. Bengos and Sanchez-Robles (2003) asserts that even though FDI is positively correlated with economic growth, host countries require minimum human capital, economic stability and liberalized markets in order to benefit from long-term FDI inflows. Interestingly, Bende-Nabende et al. (2002) found that direct long-term impact of FDI on output is significant and positive for comparatively economically less advanced Philippines and Thailand, but negative in the more economically advanced Japan and Taiwan.

Hence, the level of economic development may not be the main enabling factor in FDI growth nexus. On the other hand, the endogenous school of thought opines that FDI also influences long-run variables such as research and development (R&D) and human capital (Lucas, 1988).

In a panel study of China, Japan, India, South Korea and Indonesia using data for 1993 to 2011, Agrawal and Khan (2011) investigated the impact of FDI on GDP Growth and report that "FDI promotes economic growth, and further provides an estimate that one dollar of FDI adds about 7 dollars to the GDP of each of the five countries". Similarly, Rabiei and Masoudi (2012) examined FDI growth nexus in Eight Developing Countries (D8) countries namely; Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan and Turkey. Results showed that FDI has positive effect on growth in D8. Furthermore, Li and Liu (2005) examines whether FDI affects the economic growth of the host economy. The study utilize data from 84 countries over the period 1970 to 1999 and employ single as well as simultaneous equation techniques in order to test the relationship between FDI and economic growth. In order to achieve the desired result endogeneity is tested using the Durbin-Wu-Hausman (DWH) test, and result show for the sample as whole endogeneity is not significant but when the period is split, 1985 to 1999 show a significant relationship between FDI and Gross Domestic Product (GDP). Further, Phillips Perron (PP) was employed to test for stationary of the variables and the variables were found to be stationary. The study suggests a strong complimentary connection between FDI and economic growth.

Using univariate and panel co-integration from 1970-2007, Pradhan, (2009) studied the relationship between foreign direct investment (FDI) and economic growth in the five ASIAN countries namely: Indonesia, Malaysia, Philippines, Singapore and Thailand results reports evidence of positive relationship between FDI and economic growth at both panel and individual level for the countries though with exemption of Indonesia, Malaysia and Philippines at individual level. However, when Granger causality test was done and results show evidence of bidirectional causality both at individual and panel level with exception of Malaysia.

In a survey by Ilhan (2007) of over 50 empirical investigations on the relationship between FDI and economic growth, 40 of such studies showed a positive relationship with only 2 reporting negative and the rest demonstrating no effect. These empirical evidences point to the fact that most FDI's are associated to growth. Furthermore, Lumbila (2005) tested a hypothesis, whether FDI has an overall effect on economic growth and the results showed a significant difference that a 10 percent increase in FDI can bring about 0.34 percent growth. In another study, Feridun and Sissoko (2006) examined the relationship between FDI and economic growth for the period 1976 to 2002 in Singapore using Granger causality and vector auto regression (VAR). Their findings revealed a unidirectional causation running from FDI to economic growth.

Apergis, Lyrودي, and Vamvakidis (2004) used a panel data set covering 27 transitional economies over the period 1991 to 2000 to investigate the direction of the relationship between FDI and economic growth in transitional economies by applying what they call the "novel methodology of panel co-integration and causality" because of the belief that there is significant heterogeneity in cross country economic growth so as to allow them estimates presence heterogeneity in the parameters and dynamics across countries. Their findings suggest that FDI has a significant positive relationship with economic growth in the case where all countries are included in the sample. On the other hand, when sample were split into high income countries and countries with successful privatization and those without successful privatization programmes, and the findings are the same.

Levine and Zervos (1996) examined whether there is a strong empirical association between stock market development and long-run economic growth. The study used pooled cross-country time-series regression of forty-one countries from 1976 to 1993 to evaluate this association. The study toed the line of Demirguc-Kunt

and Levine (1996) by conglomerating measures such as stock market size, liquidity, and integration of the world markets into index of stock market development. The growth rate of Gross Domestic Product (GDP) per capita was regressed on a variety of variables designed to control for initial conditions, political stability, investment in human capital, and macroeconomic conditions; and then include the conglomerated index of stock market development. They found a strong correlation between overall stock market development and long-run economic growth exist. This means that the result is consistent with the theories that imply a positive relationship between stock market development and economic growth.

Pedro and Erwan (2004) asserted that financial market development raises output by increasing the capital used in production and by ensuring that capital is put into best uses. Ogwumike and Omole (1996), Ojo (1998), Abdullahi (2005), Adamu and Sanni (2005) also stressed the importance of capital market in economic development in Nigeria. Agarwal (2001) argued that financial sector development facilitates capital market development, and in turn raises real growth of the economy. Thornton (1995); Rousseau and Sylla (2001); Calderon and Liu (2002) supported that financial system development promotes economic growth. In the same vein, Beckaert et al (2005) demonstrated that capital market development increases economic growth.

Similarly, Bolbol, Fatheldin & Omran (2005) indicated that capital market development has contributed to the economic growth of Egypt. Tharavanji (2007) observed that countries with deeper capital market face less severe business cycle output contraction and lower chances of an economic downturn compared to those with less developed capital market. On their part, Ben and Ghazouani (2007) reported that financial system development could have adverse effect on economic growth in a sample of 11 countries they studied, and therefore advocated for a vibrant financial sector. The World Bank (1994) found that stock market development does not merely follow economic development, but provides the means to predict future rates of growth in capital, productivity and per capital GDP. The conclusion of the Bank is that, increase in banking and stock market development leads to increased real per capital growth. Hamid and Sumit (1998) examined the relationship between stock market development and economic growth for 21 emerging markets over 21 years, using a dynamic panel method. Their results indicated a positive relationship between several indicators of stock market performance and economic growth both directly and indirectly by boosting private investment behaviour.

In Belgium, Nieuwerbug, Buelens and Cuyvers (2005) investigated the long term relationship between economic growth and financial market development. The authors' used a new set of stock market development indicators to argue that financial market development substantially affects economic growth. They found strong evidence that stock market development leads to economic growth in Belgium, especially in the period between (1973) and (1993). Chee, Zulkornian, Siong and Venus (2003) indicated that stock market development has a significant positive impact on economic growth in Malaysia. The authors also reported that stock market development Granger-causes economic growth. The study by Muhammed, Nadeem and Liaquat (2008) suggested that there is a long-run relationship between stock market development and economic growth. Liu and Hsu (2006) reported a positive impact on economic growth of stock market development in Taiwan, Korea and Japan. The work of Francis, Xavier and Raja (2007) showed that shareholder protection causes stock market development and eventually economic growth.

In Nigeria, some authors have also attempted to examine the relationship between stock market development and economic growth. For instance, Adamu and Sanni (2005) examined the roles of stock market on Nigeria's economic growth using Granger causality test and regression analysis. The authors discovered a one-way causality between GDP growth and market capitalization and a two-way causality between GDP growth and market turnover. They also observed a positive and significant relationship between GDP growth turnover ratios. The authors advised that government should encourage the development of the capital market since it has a positive effect on economic growth.

Okpara (2010) analyzed the capital market performance and the growth of the Nigerian economy. A co-integration approach was used for the analysis of data. He used the real gross domestic product (as a proxy for development indicator) on the market capitalization, new issues, value of shares traded and turnover ratio as capital market indicators. It showed a long run relationship between the growth of GDP and the capital market indicators.

Abu (2009), examined whether stock market development raises economic growth in Nigeria, by employing the error correction approach. The econometric results indicate that stock market development (market capitalization GDP ratio) increases economic growth. He however, recommended the removal of impediment to stock market development which include tax, legal and regulatory barriers, development of the nation's infrastructure to create enabling environment where business can thrive, employment policies that will increase the productivity and efficiency of firms as well as encouraging of the Nigerian Securities and Exchange Commission to facilitate the growth of the market, restore the confidence of stock market participants and safeguard the interest of shareholders by checking sharp practices of market operators.

Osinubi and Amaghionyeodiwe (2003) also examined the relationship between Nigeria stock market and economic growth during the period 1980 to 2000 using ordinary least squares regression (OLS). The result

indicated that there is a positive relationship between the stock market and economic growth and suggest the pursuit of policies geared towards rapid development of the stock market.

Obamiro (2005) investigated the role of the Nigeria stock market in the light of economic growth. The authors reported that a significant positive effect of stock market on economic growth. He suggested that government should create more enabling environment so as to increase the efficiency of the stock market to attain higher economic growth. Ezeoha, Ebele and Ndidi (2009) investigated the nature of the relationship that exists between stock market development and the level of investment (domestic private investment and foreign private investment) flows in Nigeria. The authors discovered that stock market development promotes domestic private investment flows thus suggesting the enhancement of the economy's production capacity as well as promotion of the growth of national output. However, the results show that stock market development has not been able to encourage the flow of foreign private investment in Nigeria.

Efforts were also made by Nyong (1997) to develop an aggregate index of capital market development and used it to determine its relationship with long-run economic growth in Nigeria. The study employed a time series data from 1970 to 1994. Four measures of capital market development, the ratio of market capitalization to GDP (in percentage), the ratio of total value of transactions on the main stock exchange to GDP (in percentage), the value of equities transaction relative to GDP and listings were used. The four measures were combined into one overall composite index of capital market development using principal component analysis. A measure of financial market depth (which is the ratio of broad money to stock of money to GDP) was also included as control variable.

The result of the study was that capital market development is negatively and significantly correlated with long-run growth in Nigeria. Ted et al (2005) examine the empirical association between stock market development and economic growth in India. Whereas the authors found support for the relevance of stock market development to economic development during pre-liberation, they discovered a negative relationship between stock market development and economic development for the post liberalization period. Ewah, Essang, and Basse(2009) appraised the impact of capital market efficiency on economic growth in Nigeria, using time series data on market capitalization, money supply, interest rate, total market transaction, and government development stock between 1961 and 2004 using multiple regression and ordinary least squares estimation techniques. The result of the study showed that the capital market in Nigeria has the potential to induce growth, but it has not contributed meaningfully to the economic growth of Nigeria because of low market capitalization, low absorptive capacity, illiquidity, misappropriation of funds among others. Some authors focus on the causal relationship between stock market development and economic growth for example; Gursoy and Muslumov (1999) confirmed the existence of a bidirectional causal relationship between stock market development and economic growth. Their study also revealed a stronger association between stock market development and economic growth in developing countries.

Following Gursoy and Muslumov (1999), authors like Luintel and Khan (1999) and Hondroyiannis, Lolos and Papapetron (2005) also reported a bidirectional between stock market development and economic growth. This study is very important because the Nigerian stock market which witnessed a boom in the last few years is now experiencing a meltdown, as market capitalization has declined from over N13trillion in 2007, N9.918trillion in 2010. The all-share index has also fallen from 57,990.22 points to approximately 24,770.52 points in the same period. Moreover, the confidence of shareholders and investors seems to be eroding. Thus, it is expected that this study would complement the efforts of government and policy makers in reviving the Nigeria stock market and restoring the confidence of shareholders and other participants in the market. In addition, it is believed that a vibrant and well developed stock market would attract foreign investors and enhance the attainment of higher economic growth.

Research Methodology

The research design employed by the researcher is ex post-facto research which aims at determining or establishing or measuring the relationship between one variable and another or the impact of one variable on another (Onwumere, 2009). The nature of data for the analysis of this study is secondary and data for this study is gotten from the Central Bank of Nigeria Statistical Bulletin, 2013.

Model Specification

A regression model has been employed, the essence of regression is to use a mathematical equation to express the nature of the relationship existing between variables and ultimately to use this equation to predict the value of one variable given a specific value of the other variable (Ugbam, 2001). This research work uses a 3-model regression to capture the interaction between: capital market and economic growth; foreign direct investment and economic growth; and foreign direct investment and capital market. The basic aim of the regression model in this study is to investigate empirically the extent to which the predictor variable explains the variation in dependent variable (i.e. to establish the relationship between capital market, foreign direct investment and the economy of Nigeria). The model will be estimated using the coefficients of the independent variable and its level

of significance. This tests provide empirical platform in drawing generalization for this study. The variable to be predicted is called the dependent variable while the variable whose value will be used in the prediction is called the independent variable (Ugbam, 2001).

In analyzing data, the simple regression model will be employed which is:

$$Y = b_0 + b_1X + \mu.$$

Where:

Y = the variable we are trying to predict

b_0 = the intercept

b_1 = the slope

X = the variable we are using to predict Y

μ = the error term

The *intercept* (b_0) is the value of the dependent variable when the independent variable is equal to zero while the *slope* of the regression line (b_1) represents the rate of change in Y as X changes. Because Y is dependent on X, the slope describes the predicted values of Y given X.

The above model can thus be applied in this study as:

$$GDP = b_0 + b_1CAP + \mu \dots \dots \dots \text{Eqn. (I)}$$

Where

GDP – Gross Domestic Product (proxy for Economic growth) {Dependent Variable}

CAP – Annual Market Capitalization (Independent Variable)

$$GDP = b_0 + b_1FDI + \mu \dots \dots \dots \text{Eqn. (II)}$$

Where

GDP – Gross Domestic Product (Dependent Variable)

FDI – Foreign Direct Investment (Independent/Explanatory Variable)

$$CAP = b_0 + b_1FDI + \mu \dots \dots \dots \text{Eqn. (III)}$$

Where

CAP – Annual Market Capitalization (Dependent Variable)

FDI – Foreign Direct Investment (Independent/Explanatory Variable)

Techniques of Data Analysis

Techniques of data analysis employed by the researcher is the ordinary least square method using the Statistical Package for Social Sciences (SPSS). The researcher chose this method because it minimizes the squares of the residuals. The formulas for obtaining the estimates of the beta coefficients, standard errors, etc. are all based on this principle. The aim of using this method is to minimize the error in our prediction of the dependent variable, and by minimizing the residuals, error will be minimized. By using the "squares" the researcher is precluding the problem of signs thereby giving positive and negative prediction errors the same importance.

DATA PRESENTATION ANALYSIS

DECISION RULE: Reject H_0 if $p\text{-value} \leq .05$, otherwise accept H_0

First Model: $GDP = b_0 + b_1MCAP + \mu$

In the SPSS output (see table 2a in the Appendix), the R of .937 shows that there is a strong positive relationship between the dependent variable and the explanatory variable. The R^2 of .878 shows that 87.8% of the variation in GDP is explained by the MCAP (see table 2a in the Appendix). The Anova Table (see table 2b in the Appendix) shows the overall significance of the model. In this study, the model is very significant ($Sig. < .001$).

Table 2c (See Appendix) shows the intercept, the slope and standard error. The intercept of 7421.156 shows the value of MCAP when the dependent variable is constant (zero) while the slope of 4.257 shows the value of the dependent variable as the explanatory variable changes, the slope of 4.257 shows that at every unit increase in MCAP, GDP will increase by 4.257 units. After substituting the intercept, the slope and the standard error with its values from analysis in table 2a, 2b, 2c (See Appendix), we will have $GDP = 7421.156 + 4.257MCAP + 10758.210$

Second Model: $GDP = b_0 + b_1FDI + \mu$

In the SPSS output (see table 3a in the Appendix), the R of .631 shows that there is a fair positive relationship between the dependent variable and the explanatory variable. The R^2 of .398 shows that 39.8% of the variation in GDP is explained by the FDI (see table 3a in the Appendix). The Anova Table (see table 3b in the Appendix) shows the overall significance of the model. In the referred table, the model is very significant ($Sig. = .009$).

Table 3c (See Appendix) shows the intercept, the slope and standard error. The intercept of 10386.429 shows the value of FDI when the dependent variable is constant (zero) while the slope of 47.038 shows the value of the dependent variable as the explanatory variable changes, the slope of 47.038 shows that at every unit increase in FDI, GDP will increase by 47.038 units. After substituting the intercept, the slope and the standard error with its values from analysis in table 3a, 3c (See Appendix), we will have $GDP = 10386.429 + 47.038FDI + 23902.951$

Third Model: $MCAP = b_0 + b_1FDI + \mu$

In the SPSS output (see table 4a in the Appendix), the R of .623 shows that there is a fairly positive relationship between the dependent variable and the explanatory variable. The R^2 of .388 shows that 38.8% of the variation in MCAP is explained by the FDI (see table 4a in the Appendix). The Anova Table (see table 4b in the Appendix) shows the overall significance of the model. In the referred table, the model is very significant ($Sig. = .010$).

Table 4c (See Appendix) shows the intercept, the slope and standard error. The intercept of 1257.472 shows the value of FDI when the dependent variable is constant (zero) while the slope of 10.222 shows the value of the dependent variable as the explanatory variable changes, the slope of 10.222 shows that at every unit increase in FDI, MCAP will increase by 10.222 units. After substituting the intercept, the slope and the standard error with its values from the analysis in table 4a, 4c (See Appendix), we will have $MCAP = 1257.472 + 10.222FDI + 5304.169$

Hypotheses Testing

Restatement of Hypothesis

1. H_0 : The capital market has no positive significant impact on Nigerian economy
2. H_0 : Foreign direct investment in Nigeria have no significant impact on economic growth.
3. H_0 : Foreign direct investment does not enhance the capitalization of Nigerian capital market.

Hypothesis I: *The capital market has not had positive significant impact on Nigerian economy*

Decision

The P-value on which basis we can reject the null hypothesis that capital market have no positive significant impact on Nigerian economy is p-value < .001. Since the p-value < .05, we reject the null hypothesis and state that capital market has positive significant impact on Nigerian economy.

Hypothesis II: *Foreign direct investment in Nigeria have no significant impact on economic growth.*

Decision

The P-value on which basis we can reject the null hypothesis that foreign direct investment in Nigeria have no significant impact on economic growth is p-value < .001. Since the p-value < .05, we reject the null hypothesis and conclude that foreign direct investment in Nigeria have significant impact on economic growth.

Hypothesis III: *Foreign direct investment does not enhance the capitalization of Nigerian capital market*

Decision

The P-value on which basis we can reject the null hypothesis that foreign direct investment does not enhance the capitalization of Nigerian capital market is p-value < .001. Since the p-value < .05, we reject the null hypothesis and conclude that foreign direct investment enhances the capitalization of Nigerian capital market.

Summary of Finding/Conclusion

Itemized below are the summary of findings for this study:

1. Capital market has positive significant impact on Nigerian economy.
2. Foreign direct investment in Nigeria have significant impact on economic growth.
3. Foreign direct investment enhances the capitalization of Nigerian capital market.

In explaining the relationship between FDI, the capital market and economic development in Nigeria, FDI helps develop local stock markets by its investment spillover effects. This is true because more foreign capital inflow increases the possibility that the affiliates of multinationals involved in FDI activities will be listed on local stock markets since multinationals tend to hail from industrialized countries where financing through the stock market is a norm. Hence the relationship between FDI, Capital market and economic growth is positive as each improves and depends on the other.

Recommendation

In view of the findings, the following is recommended

1. Government should help improve the investment climate to attract higher FDI inflows which consequently will translate into higher gross fixed capital formation, which in turn leads to greater economic growth. Particularly, improvements in capital market regulation and banking sector reforms, such as improvements in minority shareholders and creditor rights, which would increase new equity or bond issuance and allow greater expansion of domestic credit to enterprises, are beneficial for capital formation
2. Government should make efforts to further deregulate the economy (with caution) in order to attract more FDI into Nigeria. This should be because, the inflow of FDI has been on the increase since the introduction of the Structural Adjustment Programme (SAP) in 1986. In addition, the deregulation policies pursued by the immediate past administration (particularly through reduction in government intervention or interferences in economic activities) have further encouraged and boost foreign investment in various sectors of the economy.
3. More so, the government should invest more in infrastructure (like power, energy, transportation,

telecommunication, etc.) so as to enhance the competitiveness of the environment of investment and ultimately increase FDI inflows. All of these should be complemented with the on-going war on corruption.

References

- Abdulahi, S. A. (2005). Capital market performance and economic development in Nigeria. An empirical analysis paper presented at the Dept. of Business Administration, Bayero University Kano.
- Abu N. (2009). Does stock market development raise economic growth? Evidence from Nigeria. *Journal of Banking and Finance*, 1(1), pp. 15-26
- Adamu, J. A. &Sanni, I. (2005). Stock market development and Nigerian economic growth. *Journal of Economic and Allied Fields*, 2(2), pp. 116-132
- Adamu, J. A. &Sanni, I. (2005). Stock market development and Nigerian economic growth. *Journal of Economic and Allied Fields*, 2(2), pp. 116-132
- Agrawal, G. and Khan, M. A. (2011): Impact of FDI on GDP Growth: A Panel Data Study. *European Journal of Scientific Research*, pp.257-264
- Aitken, B. J. and Harrison, A. E. (1999). Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela, *the American Economic Review*, 89(3), pp. 605- 618.
- Alfaro L., Chanda, A., Kalemil-Ozcan, S. and Sayek, S. (2001), FDI and Economic Growth: The Role of Local Financial Markets, *University of Houston Working Papers*.
- Apergis, N., Lyroudi, K. and Vamvakidis, A. (2004). The Relationship between Foreign Direct Investment and Economic Growth: Evidence from Transition Countries. *A Paper Presented during the Atlantic Economic Association Conference Meetings in Lisbon*.
- Ben Naccur, S. &Ghazouani, S. (2007). Stock markets, banks and economic growth: Empirical evidence from MENA region. *Research in International Business Finance*, 21(2), pp. 297-315.
- Bende-Nabende, A. and J. L. Ford (1998). FDI, policy adjustment and endogenous growth: Multiplier effects from a small dynamic model for Taiwan 1959-1995. *World Development*, 26(7), pp. 1315-1330.
- Bengos, M. and B. Sanchez-Robles (2003). Foreign direct investment, economic freedom and growth: New evidence from Latin America. *European Journal of Political Economy*, 19(3), pp. 529-545.
- Blomström, M.; Konan, D. and Lipsey, R. E. (2000). FDI in the Restructuring of the Japanese Economy, *the European Institute of Japanese Studies (EIJS) Working Paper No. 91, Stockholm*.
- Bolbol, A., Fatheldin, A. &Omran M. (2005). Financial development, structure and economic growth. The case of Egypt, 1974-2002. *Research in International Business finance*. 19(1), 171-194.
- Borensztein, E., DeGregorio, J. and Lee, J. W. (1998). How does foreign investment affect growth? *Journal of International Economics*, pp. 45-61
- Bosworth and Collins (1999). Capital Flows to Developing Economies: Implication for Saving and Investment. *Brookings Papers on Economic Activity*.
- Calderon C. & Liu L. (2002). The direction of causality between financial development and economic growth. *Working Papers, Central Bank of Chile*.
- Carkovick, M. and Levine, R. (2002). Does Foreign Direct Investment Accelerate Economic Growth? *University of Minnesota. May 2002*.
- Caves, R. (1996). *Multinational Enterprise and Economic Analysis*, 2nd ed., Cambridge University Press, Cambridge (originally published 1982).
- Chee, Keon C., Zulkornian, Y., Siong, H. L. & Venus, K. S. (2003). Financial development and economic growth in Malaysia: The stock market perspective. Retrieved, February 4, 2015 from, <http://129.3.20.41/eps/mac/papers/0307/0307010.pdf>
- De Mello, L. R. (1997). Foreign Direct Investments in Developing Countries and Growth: A Selective Survey. *The Journal of Development Studies*, 34, pp. 115-135.
- Demirguc-Kunt, A. and Levine, R. (1996). Stock Market, Corporate Finance and Economic Growth: An Overview. *The World Bank Review*, 10(2), pp. 223-239.
- Ewah S.; Essang A. E. &Bassey J. U. (2009). Appraisal of capital market efficiency on economic growth in Nigeria. *International Journal of Business and Management*, 4(12), pp. 219-225.
- Ezeoha, A., Ebele, O. &NdidiOkereke, O. (2009). Stock market development and private investment growth in Nigeria. *Journal of Sustainable Development in Africa*, 11(2), pp. 20-35.
- Feridun, M, and Sissoko, Y. (2006): Impact of FDI on Economic Development: A Causality Analysis for Singapore. *1976-2002 6th Global Conference on Business and Economics October 15-17, Gutman Conference Center, USA*
- Findlay, R (1978). Relative backwardness, direct foreign investment and the transfer of technology: A simple dynamic model. *Quarterly Journal of Economics*, 92, pp. 1-16.
- Gursoy, C. T. &Muslumov, A. (1999). *Stock Markets and Economic Growth: Causality Test*. MBA Thesis

- Submitted to them Institute of Social Sciences, Istanbul Technical University Turkey, pp. 124-131
- Hamid M. & Sumit A. (1998). Stock market development and economic growth evidence from developing countries. Retrieved, February 2, 2015 from <http://faculty.apec.umn.edu/mohta001/PA1-4-01.pdf>
- Ikiara, M. M. (2003). Foreign Direct Investment (FDI), Technology Transfer, and Poverty Alleviation: Africa's Hopes and Dilemma, *African Technology Policy Studies Network (ATPS) Special Paper Series No. 16, 2003, Nairobi, Kenya.*
- Ilhan, O. (2007). Foreign Direct Investment - Growth Nexus: A Review of the recent literature. *International Journal of Applied Econometrics and Quantitative Studies*, 4(2), pp. 79-98
- Levine R and Zervos S (1996). Stock Market Development and Long-Run Growth. *Policy Research Working Paper*, No. 1582. The World Bank
- Li, X. and Liu, X. (2005). Foreign Direct investment and Economic growth: An Increasingly Endogenous Relationship. *World Development*, 33(3), pp. 393-407.
- Liu, W, & Hsu, C. (2006). The role of financial development on economy: the experience of Taiwan, Korea and Japan. *Journal of Asian Economies*, 17, pp. 666-687
- Lucas, R. E. J. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22, pp. 3-42.
- Luintel K. & Khan M. (1999). A Quantitative Re-assessment of Finance-Growth Nexus: Evidence from a Multivariate VAR. *Journal of Development Economics*, 60, pp. 381-405.
- Lumbila, K. N. (2005). What Makes FDI Work: A Panel Analysis of the Growth Effect of FDI in Africa. *Africa Region Working Paper Series No.80*
- Mankiw, G. (2003). Macroeconomics 5th edition, Worth Publishes, USA. Measurement Systems, *Business Process Management Journal*, 11(2), pp. 109-122
- Nair-Reichert, Usha and Diana Weinhold (2001). Causality tests for cross-country panels: a new look at FDI and economic growth in developing countries. *Oxford Bulletin of Economics and Statistics*, 63(2).
- Nieuwerburgh, S.; Buelens, F & Cuyvers, L. (2005). *Stock market development and economic growth in Belgium.* NYU working Paper, pp. 05-024.
- Nnanna, O. J., Englama, A. and Odoko, F. O. (2004). Financial Markets in Nigeria, Central Bank of Nigeria Publication.
- Nyong M. O. (1997). Capital Market Development and Long Run Economic Growth: Theory, Evidence and Analysis, *First Bank Review*. pp. 13 – 38.
- Obamiro, J. K. (2005). Nigerian economy: Growth and the role of stock market. *Journal of Economic and Financial Studies*, 2(2), pp. 554-568
- Obwona, Marios B. (2004). Foreign direct investment in Africa. In *Financing Pro-Poor Growth: AERC Senior Policy Seminar VI, Kampala, Uganda, 2-4 March 2004 – Seminar Papers*, pp. 60-95. Nairobi: African Economic Research Consortium.
- Ogwumike, F. O. & Omole, D. A. (1996). The stock exchange and domestic resource mobility in Nigeria. S. Mensah Ed –Rector Ltd, Massachusetts, pp. 230-251
- Ojo, M. D. (1998). Deregulation of government securities: implication for Nigerian capital market. Paper presented at MIDAS Merchant Bank
- Okpara G. C. (2010) Analysis of Capital Market Performance and the Growth of the Nigerian Economy: A Cointegration Approach. *Global Journal of Human Social Science* vol. 10 (1) September. http://globaljournals.org/GJHSS_Volume10/2-Analysis-of-CapitalMarket-Performance-and-the-Growth-of-the-Nigerian-Economy-A-Cointegration-Approach-Copy.pdf. Retrieved 23rd September, 2014
- Onwumere, J. U. J. (2009). *Business and Economic Research Methods*. 2nd Edition ed. Enugu, Nigeria: Vougasen Limited
- Osinubi, T. S. & Amaghionyeodiwe, L. A. (2003). Stock market development and long-run growth in Nigeria. *Journal of African Business*, 4(3), pp. 103-129.
- Pedro S. Amaral & Erwan Quintin (2004). The implications of capital-skill complementarity in economies with large informal sectors' Center for Latin America Working Papers, 0404, Federal Reserve Bank of Dallas.
- Pradhan, R. P. (2009). The FDI- Led- Growth Hypothesis in ASEAN- 5 Countries: Evidence from Co-integrated Panel Analysis. *International Journal of Business and Management*, 4 (12), pp. 132-154
- Rabiei. M. and Masoudi Z. G. (2012). Foreign Direct Investment and Economic Growth in Eight Islamic Developing Countries. *European Journal of Scientific Research*, 6(8), pp. 487-493
- Rousseau, P. L. & Sylla R. (2001). Financial system, economic growth and globalization". NBER working papers No 8323.
- Tharavaniji P. (2007). Capital market, severity of business cycles, and probability of economic downturn. MPRA paper No, 49-53
- Thornton, J. (1995). Financial deepening and economic growth in developing countries. *Economic International*, 48(3), pp. 423-430

Ugbam, O. (2001). *Quantitative Techniques: An Introductory Text*. First ed. Enugu: Chirol Publishers.
 World Bank (1994). *Adjustment in Africa: Lessons from country case studies*, Washington D.C. The World Bank.

APPENDIX

Table 1 Necessary Econometric Variables for Analysis

YEAR	GDP (₦, Billion)	FDI (₦, Billion)	MCAP (₦, Billion)
2000	6,897.48	115.9522	472.3
2001	8,134.14	132.4337	662.5
2002	11,332.25	225.2248	764.9
2003	13,301.56	258.3886	1,359.30
2004	17,321.30	248.2246	2,112.50
2005	22,269.98	654.1932	2,900.10
2006	28,662.47	624.5207	5,120.90
2007	32,995.38	759.3804	13,181.70
2008	39,157.88	971.5438	9,563.00
2009	44,285.56	1273.816	7,030.80
2010	54,612.26	905.7308	9,918.20
2011	62,980.40	1360.308	10,275.30
2012	71,713.94	1113.511	14,800.90
2013	80,092.56	875.1025	19,077.40
2014	89,043.62	738.1972	16,875.10
2015	94,144.96	602.1	17,003.40

Sources: CBN Statistical Bulletin, 2013 – 2015

$$GDP = b_0 + b_1MCAP + \mu$$

Table 2a Model Summary

Equation 1	Multiple R	.937
	R Square	.878
	Adjusted R Square	.869
	Std. Error of the Estimate	10758.210

Table 2b ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Equation 1	Regression	11657311718.881	1	11657311718.881	100.721	.000
	Residual	1620347163.590	14	115739083.114		
	Total	13277658882.471	15			

Table 2c Coefficients

		Unstandardized Coefficients		Beta	t	Sig.
		B	Std. Error			
Equation 1	(Constant)	7421.156	4395.259		1.688	.113
	CAP.M	4.257	.424	.937	10.036	.000

$$GDP = b_0 + b_1FDI + \mu$$

Table 3a Model Summary

Equation 1	Multiple R	.631
	R Square	.398
	Adjusted R Square	.355
	Std. Error of the Estimate	23902.951

Table 3b ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Equation 1	Regression	5278743806.468	1	5278743806.468	9.239	.009
	Residual	7998915076.004	14	571351076.857		
	Total	13277658882.471	15			

Table 3c Coefficients

		Unstandardized Coefficients		Beta	t	Sig.
		B	Std. Error			
Equation 1	(Constant)	10386.429	12083.391		.860	.405
	FDI	47.038	15.475	.631	3.040	.009

$$MCAP = b_0 + b_1MCAP + \mu$$

Table 4a Model Summary

Equation 1	Multiple R	.623
	R Square	.388
	Adjusted R Square	.344
	Std. Error of the Estimate	5304.169

Table 4b ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Equation 1	Regression	249303343.208	1	249303343.208	8.861	.010
	Residual	393878971.721	14	28134212.266		
	Total	643182314.929	15			

Table 4c Coefficients

		Unstandardized Coefficients		Beta	t	Sig.
		B	Std. Error			
Equation 1	(Constant)	1257.472	2681.357		.469	.646
	FDI	10.222	3.434	.623	2.977	.010