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## REVIEW ARTICLE

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

**Cornelius M. Ojong, Ogar Anthony and \*Oka Felix Arikpo**

Department of Banking and Finance, Faculty of Management Sciences, University of Calabar, P.M.B.  
1115 Calabar, Cross River State, Nigeria

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#### ABSTRACT

The study examined the impact of capital market on foreign portfolio investment in Nigeria for the period 1986 to 2014. The study specifically assessed the relationship between market capitalization, all share index, total new issues and foreign portfolio investment in Nigeria. To achieve these objectives, the study adopted the ex-*post facto* research design. The desk survey method was used to collect time series data from the CBN statistical Bulletin for the period under study. The ordinary least squared multiple regression technique was used to analyse the data. Result from the analysis showed that there exist positive and significant relationships between market capitalization and foreign portfolio investment. Also, it was revealed that all share price index had an inverse but significant relationship with foreign portfolio investment in Nigeria and finally, total new issue had a positive but insignificant relationship with foreign portfolio investment in Nigeria. Based on these findings, it was recommended that the regulatory authorities should ensure that abuses and sharp practices are completely eradicated from the market to enhance transparency and fair play and boost the confidence of foreign investors to retain and increase their investments in the market. Also government should relax the listing requirements of both the first and second tier securities markets to encourage more domestic firms and foreign firms to be listed to be listed as this will enhance more portfolio investment in the market and lastly government should introduce more investment instruments such as derivatives, convertibles, future, and swaps options in the market to give foreign investors more avenues to invest their securities.

#### INTRODUCTION

Nigeria in the last few years had clamoured for foreign portfolio investment in the country. This is believed to be a facilitator of economic growth and development, which leads to the industrialization of the economy in the long run (Adeleke, 2004). Foreign portfolio investment means the purchase of shares in a foreign country where the investing party does not seek control over the investment. A portfolio investment typically takes the form of the purchase of equity (preference share) or government debt in a foreign stock market, or loans made to a foreign company. Obviously the purchase of bonds issued by a company, which gives no voting rights, or of government debt, and making loans to foreign company do not give control (Bosodersten and Geogrey, 1996). Portfolio investment is a recent phenomenon in Nigeria. Up to the mid 1980's, Nigeria did not record any figure on portfolio investment (inflow or outflow) in her balance of payment account. The nil return on the inflow column of the account is attributable to the absence of foreign portfolio investors in the Nigerian economy. This is largely because of the non-internalization of the country's money and capital markets as

*\*Corresponding author: Oka Felix Arikpo,  
Department of Banking and Finance, Faculty of Management  
Sciences, University of Calabar, P.M.B. 1115 Calabar, Cross River  
State, Nigeria.*

well as the non-disclosure of information on the portfolio investments in foreign capital/money markets (Obadan, 2004). Following a careful review of the consequences of the Exchange Control Act of 1962 on the economy, after some thirty three years of its operation, Nigerian authorities came to the conclusion that the Act had not brought the economy any substantial benefits. The Act was judged inimical to a market driven economy, new policy government had pursued since 1986, with the deregulation of the economy. While equity investment trickled into Nigeria as a result of the Exchange Control Act of 1962, Portfolio Investments dried up, because portfolio investments required an investment climate, which guarantees speedy "free entry" and "free exit" of investment funds into and out of a country in a flash. The investment climate in Nigeria engineered by the Exchange Control Act of 1962 did not guarantee the speedy mobility of funds across international borders. It took the authorities more than three decades to realize that protection of the economy in a world striving to dismantle economic frontiers had not paid off, and that the stock market being a major player in the mobilization of funds for investment has to be liberalized and modernized to enable it capture enough resources for the economy from within and from outside. The Exchange Control Act of 1962 was identified as a major constraint on the growth of the Nigerian capital market. Accordingly the Act was blown away with gale force in 1995, by the strong wind of deregulation,

which swept across the Nigerian Macro-economic policy arena, from the beginning of the last quarter of 1986 (Onoh, 2002). The deregulation of securities pricing by SEC in 1993; the abolition in 1995 of both the Exchange Control Act of 1962 and the Nigerian Enterprises Promotion Decree (NEPD) of 1989, demanded the reorganization of the Nigerian Stock Exchange to make it more dynamic and mobile in the provision of adequate liquidity of investment bring up the operation of the exchange to international standard and attract foreign portfolio investors. Accordingly, Federal Government of Nigeria in March 1996 set up a panel on the Nigerian Stock Exchange and the panel's term of reference include the reorganization of the Nigeria Stock Exchange to make it more dynamic, to recommend ways for modernizing the exchange to bring it up to international standard and to make other recommendations, which in the view of the panel, would strengthen the operation of the exchange, and position it to deal with the domestic and international capital market challenges to the coming millennium (Onoh, 2002).

With the recommendations of the panel, the Nigerian capital market was internationalized in 1996. There has also been competition among emerging markets to attract foreign portfolio investments, which has led to a situation in which in order to sustain inflows of portfolio investments, it has become increasingly important for developing countries to ensure attractive returns for portfolio investors. Often this means offering increasing operational flexibility (Parthapratim, 2006). On the other hand, several related studies on Nigerian emerging market had neglected the fact that foreign portfolio investment may exert positive influence on stock market returns. Among these papers are the case of Temitope and Osita (2002), Tokunbo (2004), Rose and Sara (1998), examined the trend towards promoting stock market and economic growth but fail to consider the fact that foreign portfolio investment according to Adeleke (2004) is believed to facilitate economic growth and development which leads to industrialization of the economy. Olugunde, Elumilade and Asaolu (2006) showed that interest rate exert positive influence with stock market returns, this is in line with the empirical result of Temitope and Osita (2002). Robert (2008) and Shehu (2009) investigated the relationship that exists between stock market returns and the exchange rate. Meanwhile, Adabag (2005) had opined that foreign investors are blamed for financial instability through sudden flows in emerging markets. To this end, this study shall examine the relationship between stock market development and foreign portfolio investment in Nigeria.

The recent decline in the performance of the Nigerian stock market has raised doubt as to the ability of the market to retain foreign securities. Investors have lost confidence in the market due to the persistent decline in the performance indicators of the market. For instance, the ASI closed at 28641.25 from 34684.32 at which it opened for 2015. Similarly, the market capitalization fell by N1.63 trillion from N11.478 trillion to N9.851 trillion in the same period. By the first quarter of 2016, the Nigerian Stock Exchange Market capitalization and the all share index had fallen to N8.704 trillion and 25306.22 basis point respectively. The fear by foreign investors of losing their investment has resulted in the withdrawal of many foreign securities from the market. Firms are suffering for lack of access to long term funds for expansion and modernization of

operation. The economy is at stand still for lack of long term funds needed to boost economic activities and support growth. This has further discouraged foreign equities from being invested in the market. Viewing this, this study is intended to examine the impact of stock market development on foreign portfolio investment in Nigeria.

### Objective of the study

This study is majorly intended to examine the impact of stock market development on foreign portfolio investment in Nigeria. Specifically, the study seeks to:

- (i) Assess the relationship between market capitalization and foreign portfolio investment in Nigeria;
- (ii) Ascertain the relationship between all share index and foreign portfolio investment in Nigeria;
- (iii) Examine the relationship between total new issues and foreign portfolio investment in Nigeria.

### Research Hypotheses

The following hypotheses will be formulated for this study:

- H<sub>0</sub>:** There is no significant relationship between market capitalization and foreign portfolio investment in Nigeria;
- H<sub>0</sub>:** There is no significant relationship between all share index and foreign portfolio investment in Nigeria;
- H<sub>0</sub>:** There is no significant relationship between total new issue and foreign portfolio investment in Nigeria.

### Literature Review and Theoretical Framework

#### Theoretical Framework

This study shall be anchored on the neoclassical theory of portfolio flowst. The study also reviewed the Vernon's product life cycle and theory capital market theory of FDI. Below is a brief discussion of these theories:

#### Neoclassical financial theory of portfolio flows

This theory was propounded by Harison (2000) in iwedi and Igbanibo (2015). Theory lies in interest rate differentials between countries. According to this theory, portfolio investment moves in response to changes in interest rate differentials between countries, regions and multinational companies which are simply viewed as arbitrageur of capital from countries where return is low to countries where it is high. This explanation, however, fails to account for the cross movements of capital between and across countries. In practice, capital moves in both directions between countries. In addition, the theory posits that capital is only a complementary factor in direct investment.

#### Vernon's product life cycle theory

This theory was propounded by Vernon (1966). The theory focuses on the role of innovation and economy of scale in determining trade patterns. It states that FPI is a stage in the life of a new product from its invention to maturity. A new product is first manufactured in the home country for the home market when the home market is saturated, the product is

exported to other countries. At later stages, when the new product reaches maturity and loses its uniqueness, competition from similar rival products becomes more intense. At this stage, producers would then look for lower cost foreign locations. This theory shows how market seeking and cost reduction motives of companies lead to FPI. It also explains the behaviours of multinational companies and how they take advantage of different countries that are at different levels of development. Additionally, it has been noted that Vernon's theory perceives Foreign Direct Investment as a defensive strategy by firms to protect their existing market position.

### **The Foreign Portfolio Investment (FPI)**

The phenomenon of Foreign Portfolio Investment in emerging market economies has always attracted the attention of writers from the theoretical and empirical perspective. Proponents of foreign portfolio investment picture it as adding new resources/capital to the host economy in a way that improves efficiency and stimulates economic growth. It is thus viewed as a panacea for economic development by providing the capital underdeveloped countries desperately need to fill their savings-investment gap. From the neoclassical theory, growth is achieved by increasing the quantity of factors of production optimally. In a simple world of two factors, labour and capital, it is often presumed that low-income countries have abundant labour but scarce capital. This situation arises owing to shortage of domestic savings in these countries (especially the developing countries), which places constraint on capital formation and hence growth. Even where domestic inputs in addition to labour, are readily available, increased production may be limited by scarcity of imported inputs upon which production processes in low-income countries are based. Based on this fact, international capital flows readily as popularized by O'Connor and Iscarot (2010) become an important means of helping developing countries to overcome their problem of capital shortage. As Lebragacio (2010) suggests that capital will move from countries where it is abundant to countries where it is scarce. The resultant capital relocation will boost investment in the recipient country.

A survey of the pockets of empirical works available reveals a divergence of views. Knill (2003) examines the impact of foreign portfolio investment on small firms and finds that it helps to bridge the gap between the amounts of financing small firms require and that which they can access through the capital markets. Specifically, he finds that foreign portfolio investment is associated with an increase ability to issue publicly traded securities for small firms in all nations, regardless of property rights development. Again, Yasmin (2005) still on the phenomenon on Pakistan applied the simultaneous equation model for Foreign Capital Investment, GNP and Savings where he finds a positive and statistically significant relationship between FCI and growth. However, contrary to the finding above, Durham (2003) on the effects of foreign portfolio investment and "other" foreign investment on economic growth using cross-country data observes that FPI has no effect on economic growth and does not correlate positively with macroeconomic volatility. This result is in line with Sethi and Patnaik (2005) impact of international capital flows on India's financial markets and economic growth. By using monthly data, they find that FDI positively affects the economic growth, while the effect of Foreign Portfolio

Investment is negative. In the same vein, Harichandra and Thangavelu (2004) study the role of institutional investors (pension fund, insurance companies and investment companies) in the development of the financial sector and economic growth in Organization for Economic Co-operation and Development (OECD) countries by employing a dynamic panel VAR and find that institutional investors significantly Granger causes economic growth.

Similarly, Lebragacio (2010) assesses the effect of various components of foreign capital flows on the growth MENA countries using panel data and finds that besides FDI which is growth enhancing both in the short and long run, short-term capital inflow has adverse effect on the growth prospects. However, when the capital flow is long term such as foreign portfolio investment, the result recorded a positive robust contribution on the growth process. Finally, we present a lead of mixed evidence by Bordo and Meissner (2007). They explore the association between economic growth and participation in the international capital market using standard growth regressions. They find mixed evidence of association between economic growth and foreign capital inflows. If there is an impact, it comes with a long lag and it is transitory having no impact on either the steady state or the short run growth rate. This suggests a view that there were long gestation lags of large fixed investments consistent with neoclassical growth model.

### **Capital flows to Nigeria: Nature and trend**

Foreign portfolio investment, though a recent phenomenon in Nigeria compared to foreign direct investment, Oversea Development Assistance (ODA) and bank loans, were on the increase since the mid-80s. The relative importance of Portfolio investment to a small emerging market like Nigeria has been attributed to the effective role played by the Nigerian capital market in the recent past. This includes the deregulation of the capital market in 1993 which made the federal government to internationalize the market in 1995, with the abrogation of laws that constrained foreign participation in the Nigeria capital market. Following the abrogation of the Exchange Control Act 1962, foreigners can participate in the Nigerian capital market both as operators and investors. Accordingly, with the internationalization of the Nigerian stock exchange, which was part of the financial liberalization policy in Nigeria in the mid 2000, there were increased inflows of foreign portfolio investment into the Nigeria economy through the capital market (CBN, 2006).

Before 1986, capital flows to Nigeria were mainly, foreign direct investment, ODA and bank loans. However, from 1986, there was a change in the composition of private capital flows to Nigeria. Foreign portfolio investment took the centre stage and its share of private capital flows to Nigeria were on the increase while at the same time official flows, (ODA) and bank loans were declining in real terms. FPI (bond and equity) increased dramatically over the last twenty years that by the end of 2005 it surpassed every other type of capital inflows into Nigeria. It should be noted that institutional investors have also become very important. Not only have they increased their share of companies listed on the stock markets, they have also started to invest more in other emerging and developed markets (AFDB/OECD, 2007). However, with the global financial and

economic crisis that started in 2009, the FPI flow into Nigeria decreased significantly. Even though, FPI is generally considered more passive or speculative in nature than direct investment in equity capital and by contrast highly sensitive to changes in its determinants, and may be withdrawn from the market at short notice, it is still very important in the investment climate of Nigeria considering the saving-investment gap as recorded in the National Economic Empowerment and Development Strategy (NEEDS) and in the vision 20:2020.

### **The Role of Foreign Capital in Less Developed Countries (LDCS)**

It is believed by neoclassical economists that international capital flows increase the volume of international investment. Capital inflow, it is argued, finances projects and production activities, and has the capacity to generate a good number of new employment opportunities (Williamson, 1995). Foreign capital inflow is widely considered a very welcome idea for raising level of investment and for encouraging economic growth as well as for building-up of foreign exchange reserve (Yang-Yung, 1997). Supporting this view, Pontes (1999) believes capital inflow is widely embraced by developing economies to raise their level of investment as well as build up their foreign exchange reserves. According to Williamson (1995), inflow is seen as a piece of good fortune that permits a country to enjoy a larger real income. Empirical surveys have established positive impact of capital inflow on economic growth and development of host countries (Blomstrom and Kokko, 2003); (Caves, 1974); (Markusen, 1995) and (Chowdury and Mavrotas, 2003). Calvo, Leiderman and Reinhart (1996) writing in support of the positive role of capital inflow stated as follow: After about a decade in which little capital flowed to the developing nations, capital has started in the 1990s to move from industrial countries like USA, and Japan to developing regions like Latin America, the Middle East and parts of Asia as well as Africa. The preliminary data have indicated that in most countries, resurgence in economic growth accompanied the increase in capital inflow.

Also, Larosiene (2004) argued that countries are involved in international transactions and are, in particular, very dependent on private inflows, and advised nations to count on flows to do the bulk of financing. Still in support of the importance of capital inflow; world economic leaders during the G-20 London Summit of April 12, 2009, emphasized that international capital flows should be encouraged to improve the world economy, particularly, the economies of the host countries (G-20 Communiqué – [www.fco.gov.uk](http://www.fco.gov.uk)). The economic theories of capital inflow, the product life cycle theory, and the motivational theory and others are in agreement that capital inflows impact positively on economic growth of the host or recipient country (Mkpakan, 2004). The above views have not received the support of many authors. In the mid 1990s some economists argued that foreign capitals have no positive effect on economic growth of LDCs. The alternative view argues that removing one obstacle-restriction on capital movement, while there is the presence of other distortions that often exist in emerging markets may not necessarily enhance welfare (Younger, 1992; White and Wignaraja, 1992). This alternative view gained particular

relevance after the onset of the Asian Crisis. This crisis focused attention on how malfunctioning domestic financial markets in recipient countries and poor risk management in capital exporting countries could undermine the gains on the macroeconomic and growth effects of capital liberalization. A large empirical literature has emerged during the past decade in an attempt to settle the issue. In Tong and Wei (2009), Cross-country empirical literature on the relationship between capital inflow and economic growth has been extensively surveyed by these alternative viewers – Eichengreen (2003); Prasad, Rogoff, Wei and Kose (2003) and (2009), Henry (2003). Most of their findings revealed that capital inflow impacts negatively on economic growth of the LDCs. This formed the basis of their argument. The critics of capital account liberalization interpreted the findings to mean that liberalization does not promote growth in LDCs.

### **Review of Empirical Literature**

Clark and Berko (1996) show graphically that the percentage of foreign investor holding in Mexico has increased during the period analyzed. However, a more format statistical test would be necessary to assure that the base is really broadening. Following this line of reasoning, Tabak (2003) tested for co-integration of Brazilian stock returns and foreign exchange portfolio investment (FEPI) on the Sao Paulo stock exchange (Bovespa). He found that the Bovespa index is co-integrated of order one with the FEPI. Then he built an error correction model, being the FEPI series integrated of order one during the period analyzed. One important methodological issue when analyzing the above hypothesis is whether to use exogenous or control variables in the specification or regression. One natural specification would be a VAR (Vector autoregressive) model with returns and not foreign portfolio flows as endogenous variables. Chen (2002) uses a VAR model with these two variables and no control variables. Clark and Berko (1996) also use control variables when assessing the base broadening hypothesis. Dahlquist and Roberston (2004) use only the excess return on the world market as exogenous variable. Clark and Berko (1996) use several control variables. Including movements in foreign stock markets, the level and control variables including movements in foreign stock markets, the level and change in Short-term Mexico interest rates, the percentage change in Peso dollar exchange rate the within the month volatility of Mexican stock prices, shifting assessment of Mexican country risks and a measure of revision to aggregate the earnings forecasts for Mexican stock.

Adeleke (2004) used the Augmented Dickey fuller (ADF) unit root test to check the stationary of exchange rate and other relevant variables. Robert (2008) investigated the time series relationship between stock market returns and the macroeconomic variables of exchange rate and oil price in for emerging economies: Brazil, Russia, India and China (BRIC) using the Box-Jenkins Azuma model. Agarwal (2006) examines the determinants of foreign portfolio investment (FPI) and its impact on the national economy in six developing Asian countries. Regression results show that inflation rate, real exchange rate, index of economic activity and the share of domestic capital market in the world stock market capitalization are four statistically significant determinants of FPI. The first variable has a negative coefficient while the last three variables possess positive coefficients. Foreign direct

investment, total foreign trade and current account deficit variables are found to be statistically insignificant. Regarding the impact of FPI on the national economies, it is found that the index of economic activities and inflation rate show an upward trend. Volatility in portfolio flows has not increased overtime. Ratio of foreign debt and debt-servicing to GDP has declined. But the rule of thumb regarding the issue of sustainability of FPI suggests that India and Indonesia have crossed the upper bounds of permissible debt ratios 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. Sethi and Patnaik (2005) opine that the international capital flow such as direct and portfolio flows has huge contribution to influence the economic behaviour of the countries where they are present, positively. Countries with well developed financial markets gain significantly from Foreign Direct Investment (FDI). Given the huge volume of capital flows and their influence on the domestic financial markets, understanding the behaviour of the flows becomes very important especially at the time of liberalizing the capital account. The study attempts to examine the impact of international capital flows on India's financial markets and economic growth. The study also examines trends and composition of capital inflows, changing pattern of financial markets in view of globalization, and tries to ascertain the impact of domestic financial policy variables on international capital flows and thus suggest policy implication thereof. By using monthly time series data, they find that Foreign Direct Investment (FDI) is positively affecting the economic growth direct contribution, while Foreign Institutional Investment (FII) is negatively affecting the growth. The empirical analysis using the time series data between April 1995 to December 2004 shows that FDI plays unambiguous role in contributing to economic growth.

Rai and Bhanumurthy (2007) try to examine the determinants of Foreign Institutional Investments (FII) in India, which have crossed almost US\$ 12 billions by the end of 2002. Given the huge volume of these flows and its impact on the other domestic financial markets understanding the behaviour of these flows becomes very important at the time of liberalizing capital account. In this study, by using monthly data, we found that FII inflow depends on stock market returns, inflation rate (both domestic and foreign) and ex-ante risk. In terms of magnitude, the impact of stock market returns and the ex-ante risk turned out to be major determinants of FII inflow. This study did not find any causation running from FII inflow to stock returns as it was found by some studies. Stabilizing the stock market volatility and minimizing the ex-ante risk would help in attracting more FII inflow that has positive impact on the real economy. Lee (2007) posits that in the last several years there has been a substantial theoretical advancement in our understanding of the factors determining international portfolio capital movements. From the mechanistic flow theory, progress has been made to the portfolio-adjustment theory which rests on a firmer microeconomic foundation. However, because of the multifarious functions of the United States in the world economy the portfolio-adjustment theory is not quite adequate in explaining the foreign portfolio investments in the United States. There are other motives such as maintaining working balances and compensatory balances in

addition to the expected utility maximization. In some studies, ad hoc assumptions are introduced to account for these motives for holding U.S. liabilities. Given some statistically successful results, there is much to be desired in this simple portfolio approach modified with ad hoc assumptions. Despite the theoretical weakness Lee asserts that there would have been more empirical research in this area if data on wealth for foreign countries were available. Gabel, (1998) opines that since the mid-1980s, there has been a dramatic increase in the magnitude of international flows of portfolio investment, especially from countries in the North to emerging market economies across the South. He posits that North-South Portfolio Investment (PI) flows have been heralded as a relatively safe, efficient means of transferring capital to those countries where it is needed most. But this view has been challenged by the series of financial crises across the South, from Mexico in 1994 to Southeast Asia in 1997-98. Thus, many economists have argued that these crises are anomalous, reflecting exceptional circumstances. A closer look however reveals that the unregulated international flow of PI, especially into emerging market economies, is fraught with deep structural problems. Errunza (2005) posits that the reform of local capital markets and relaxation of capital controls to attract foreign portfolio investments (FPIs) has become an integral part of development strategy. The proximity of market openings and large, sudden shifts in international capital flows gave credence to the notion that the liberalization was the primary culprit that precipitated the Asian crisis. Hence, he reassesses the benefits and costs of FPIs from the perspective of the recipients. Specifically, he discusses the various FPI contributions and presents empirical evidence regarding the relationship between FPIs and market development, degree of capital market integration, cost of capital, cross-market correlation and market volatility. It is clear that the evidence on the benefits of FPIs is strong, whereas the policy concerns regarding resource mobilization, market co-movements, contagion, and volatility are largely unwarranted. He proffers some policy suggestions on preconditions for capital market openings, market regulation, and liberalization sequencing.

## RESEARCH METHODOLOGY

This study will use the exploratory and the ex-post facto research designs. The exploratory design will be used to gather relevant materials from text books, journal articles and so on while the ex-post facto design will be adopted on the basis that the data for the study are already in existence, the researcher does not need to go into the field to generate data. The data to be used in this study will be secondary time series data for the period 1986 to 2014 from Central Bank of Nigeria (CBN) Statistical Bulletin (various issues), Journals and the internet and other relevant publications.

### Techniques of Data Analysis

The analytical and interpretational tools employed comprise simple statistical as well as comparative analyses using tables (charts) representative. The ordinary least square multiple regression analytical technique and its interpretation will be used. The adoption of this technique is justified by its feature as the best linear unbiased estimate with built-in validation criteria used in establishing relationships among variables.

**Model Specification**

The functional relationship between the variables of this study is expressed thus

$$FPI = F(MCAP, ASI, TNI)$$

From this functional relationship, the ordinary least square model was obtained thus:

$$FPI = a_0 + b_1MCAP + b_2ASI + b_3TNI + e_t$$

Where:

FPI= Foreign Portfolio Investment

$a_0$  =Regression Constant.

MCAP=Market Capitalization

ASI=All Share Index

TNI = Total New Issue

$b_1, b_2$  and  $b_3$  = Regression Parameters

$e_t$  =Stochastic Error Term.

**Analysis of Data**

The beginning step in the estimation of a linear relationship is the testing procedure to find out the characteristics of the time series data. This procedure and the regression results will now be presented and analysed below:

**Table 4.2. Result of Regression Analysis**

**Dependent Variable: LFPI**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.59531	4.942751	4.369086	0.0005
LMCAP	2.790967	0.854244	3.267176	0.0048
LASI	-4.108009	1.131437	-3.630789	0.0022
LTNI	0.214230	0.577010	0.371275	0.7153
R-squared	0.786477			
Adjusted R-squared	0.741925			
F-statistic	4.860812	Durbin-Watson stat	0.722811	
Prob(F-statistic)	0.013690			

Source: Researcher E-view 9 Computation

Where:

LFPI- Log of Foreign Portfolio Investment

LMCAP-Log of Market Capitalization

LASI-Log of All Share Index

LTNI-Log of Total New Issues

The result in table 4.2 revealed that if capital market indices were held constant, foreign portfolio investment in Nigeria will be 21.59 percent. The result also revealed that there exist a positive relationship between market capitalization, total new issues and foreign portfolio investment in Nigeria. In clearer terms, one percent increases in market capitalization and total new issues resulted in 2.79 percent and 0.21percent increases in foreign portfolio investment in Nigeria. Furthermore, the result revealed an inverse relationship between the all share index and foreign portfolio investment in Nigeria. In numeric terms, a one percent increase in the all share index led to a 4.11 percent decrease in foreign portfolio investment in Nigeria. The goodness of fit of model as indicated by the  $R^2$  and adjusted  $R^2$  values of 0.786477 or 78.65 percent and 0.7419 or

74.19 percent indicated that the model fits the data well, the total variation in the observed behaviour of foreign portfolio investment is jointly explained by the variations in the market capitalization, all share index and total new issues up to 74.19 percent (adjusted  $R^2$ ), the remaining 25.81 percent is accounted for by the disturbance term. The overall significance of the model was also tested using the ANOVA or f-statistics. Here the significance of the f-statistics value of 4.86 confirmed that the high predictability of the model did not occur by chance, it actually confirmed that the model fitted the data well. The individual significance of the parameters of the respective independent variables was also tested. A review of the probability estimates of all the independent variables from table 4.2 show that market capitalization and all share index were significant at 5 percent level while total new issue was not significant at 5 percent level. We also tested for the presence of autocorrelation in the residual of the model using the d-w statistics, the test revealed that the calculated d-w value of 0.7228 fell within the negative autocorrelation region of the d-w table at 5 percent level. Hence we conclude that the model is not free from the first order autocorrelation problem at 5 percent level of significance.

**Test of Hypotheses**

**Hypothesis one**

**H<sub>0</sub>**:There is no significant relationship between market capitalization and foreign portfolio investment in Nigeria.

**H<sub>1</sub>**:There is a significant relationship between market capitalization and foreign portfolio investment in Nigeria.

**Decision Rule**

**Accept H<sub>0</sub>**: if calculated t-statistics value < table t-statistics value.'

**Reject H<sub>0</sub>**: if calculated t-statistics value > table t-statistics value.

From the regression result,  
 Calculated t-statistics value = 3.267  
 Table t-statistics value=2.787

Since the calculated t-statistics value of 3.267 is greater than the table t-statistics value of 2.787 at 5 percent level of significance, we reject the null hypothesis and accept the alternative hypothesis. It therefore implies that there is a significant relationship between market capitalization and foreign portfolio investment in Nigeria.

**Hypothesis two**

**H<sub>0</sub>**:There is no significant relationship between all share index and foreign portfolio investment in Nigeria

**H<sub>1</sub>**: There is a significant relationship between all share index and foreign portfolio investment in Nigeria

**Decision Rule**

**Accept H<sub>0</sub>**: if calculated t-statistics value < table t-statistics value.'

**Reject H<sub>0</sub>**: if calculated t-statistics value > table t-statistics value.

From the regression result,  
 Calculated t-statistics value = 3.631  
 Table t-statistics value = 2.787

Since the calculated t-statistics value of 3.631 is greater than the table t-statistics value of 2.787 at 5 percent level of significance, we reject the null hypothesis and accept the alternative hypothesis. It therefore implies that there is a significant relationship between all share index and foreign portfolio investment in Nigeria.

### Hypothesis three

**H<sub>0</sub>:** There is no significant relationship between total new issue and foreign portfolio investment in Nigeria

**H<sub>1</sub>:** There is a significant relationship between total new issue and foreign portfolio investment in Nigeria

### Decision Rule

**Accept H<sub>0</sub>:** if calculated t-statistics value < table t-statistics value.'

**Reject H<sub>0</sub>:** if calculated t-statistics value > table t-statistics value.

From the regression result,

Calculated t-statistics value = 0.371  
 Table t-statistics value = 2.787

Since the calculated t-statistics value of 0.371 is less than the table t-statistics value of 2.787 at 5 percent level of significance, we accept the null hypothesis and reject the alternative hypothesis. It therefore implies that there is no significant relationship between total new issue and foreign portfolio investment in Nigeria

## DISCUSSION OF FINDINGS

From the above analysis, it was discovered the impact of capital market on foreign portfolio investment in Nigeria is felt through the changes in market capitalization, all share index and total new issues. The study therefore reveals that there is a positive and significant relationship between market capitalization and foreign portfolio investment in Nigeria. In other words the higher the capitalization of the Nigerian capital market, the better the performance of foreign securities traded in the market. This finding is in agreement with the finding Tabak (2003) who studied the relationship between Brazilian stock market and foreign portfolio investment. Using the ARDL techniques his finding revealed the existence of a significant positive relationship between stock market capitalization and foreign portfolio investment in Brazil.

The study also reveals an inverse but significant relationship between all share price index and foreign portfolio investment in Nigeria. This implies that the higher the all share index the lower the foreign portfolio investment in Nigeria. In other words, increases in all share index reduces foreign portfolio investment in Nigeria. This finding is in opposition with the findings of Eichengreen (2003) who studied the relationship between foreign capital and the growth of the Colombo stock exchange. Using the VAR analytical tool, the study had evidence to support a positive relationship between foreign

capital and the Colombo exchange all share price index. Lastly the study showed that there is a positive but insignificant relationship between total new issues and foreign portfolio investment in Nigeria. This implies that an increase in total new issues in the Nigerian capital market led to a less than proportional increase in foreign portfolio investment in Nigeria. This could be stated in other words that the higher the total new issues, the higher the foreign portfolio investment in Nigeria. This findings has been supported by Agarwal (2006) who found evidence to show that there is a positive relationship between total new issues and foreign capital inflow in Asian countries in his study on the determinants of foreign portfolio investment in six Asian countries.

## Summary of Findings, Conclusion and Recommendation

### Summary of Findings

This research study was carried out to evaluate the impact of capital market on foreign portfolio investment in Nigeria for the period 1986 to 2014. The study adopted the Ordinary Least Square (OLS) to examine the relationship between market capitalization, all share index total new issues and foreign portfolio investment in Nigeria. Consequently, the following findings were made.

- (i) Market capitalization has a positive and significant relationship with foreign portfolio investment in Nigeria
- (ii) All share index has an inverse but significant relationship with foreign portfolio investment in Nigeria
- (iii) Total new issues has a positive but insignificant relationship with foreign portfolio investment in Nigeria

### Conclusion

This study examined the impact of capital market on foreign portfolio investment in Nigeria. Findings ultimately revealed that the Nigerian capital market has played a significant role in foreign portfolio investment in Nigeria. In effect foreign securities flow into Nigeria through the capital market; hence a vibrant capital market enhances foreign securities in Nigeria. On the other hand, a poorly performed capital market deters foreign portfolio investment. Conclusively, the Nigerian capital market has impacted significantly on foreign portfolio investment within the period cover by this study.

### Recommendation

Having analysed the impact of capital market on foreign portfolio investment in Nigeria, the following recommendations were made:

- (i) Regulatory authorities should ensure that abuses and sharp practices are completely eradicated from the market to enhance transparency and fair trading and boost the confidence of foreign investors to retain and increase their investments in the market.
- (ii) Government should relax the listing requirements of both the first and second tier securities markets to encourage more domestic firms and foreign firms to be listed to be listed as this will enhance more portfolio investment in the market
- (iii) Government should introduce more investment instruments such as derivatives, convertibles, future, and swaps options

in the market to give foreign investors more avenues to invest their securities.

## REFERENCES

- Adabag, M.C. and Ornelas, J. R. J. 2005. Behavior and effects of foreign investors Istanbul stock exchange. *Journal of Monetary Economics*, 5(2), 18-27.
- Adeleke S. O. 2004. Impact of Exchange Rate on Foreign private investment in Nigeria. *Journal of Finance*, 1 (2), 12-20
- Aggarwal, R. and Zong, S. 2006. The cash flow-investment relationship: International evidence of limited access to external finance. *Journal of Multinational Financial Management*, 6(1), 89-104
- Akingbohungbe, S. S. 1996. The role of financial sector in the development of the Nigerian Economy: *A paper presented at a Workshop organized by the Centre for African Law and Development Studies*.
- Akinsulire, O. 2014. *Financial management (8<sup>th</sup> Ed.)*. Lagos: El-Toda Venture Ltd.
- Akpan, I. (2004). *Fundamentals of finance (2<sup>nd</sup> Ed.)*. Uyo: Nelgrafik Press.
- Anyanwu, J. C. 1993. *Monetary economics; theory, policy and institutions*. Hybrid [4]: Publishers ltd, Onitsha, Nigeria.
- Asalu, N. 1996. *Research methodology in the behavioural sciences*. Lagos: Longman.
- Babalola, J. A. and Adegbite, M. A. 1999. The performance of the Nigerian capital market Since deregulation in 1986. *CBN Economic and Financial Review*, 39(1), 1-19.
- Boddewyn, J. J. 1985. Theories of foreign direct investment and divestment: A classificatory note. *Management International Review*, 25 (1), 57-65.
- Bosodersten and Geogrey, R. 1996. *International economic, (3<sup>rd</sup> ed.)*. Macmillan press Ltd.
- Calvo, G., Leiderman, L. and Reinhart C. 1996. Inflows of capital to developing countries in the 1990s. *The Journal of Economic Perspectives*, 10(5), 123-139.
- Caves, R. 1974. Multinational firms, competition and productivity in the host country. *Economica*, 41, 176-193.
- Chowdhury, A. and Mavrotas, G. 2003. *Foreign direct investment and growth: What causes what?* Paper presented at the wider Conference on sharing global prosperity, World Institute for Development Economics Research of the United Nations University (UNU/WIDER).
- Clark, J. and Berko, E. 1996. *Foreign investment fluctuation and emerging market stock returns: The case of Mexico*. New York: Federal Reserve Bank Research Paper, No. 9635.
- Durham, K. 2004. Foreign ownership and plant productivity in the Thai automobile industry in 1996 and 1998: A conditional quartile analysis. *Journal of Asian Economics*, 15, 321-353.
- Eichengreen B. 2003. Capital account liberalization: what do the cross country studies show us? *World Bank Economic Review*, 15: 341-366.
- Ekezie, E. S. 2002. *The elements of banking: money, financial institutes and markets*. Onitsha: Africana Publisher Limited, Nigeria
- Ekineh, S. D. 1996. The securities and exchange commission and investor protection in the capital market. *Security Market Journal*, 9, 1 - 86
- Errunza, V. 2005. *Foreign portfolio equity investments, financial liberalization, and economic development*. Faculty of Management, McGill University, Montreal, Canada
- Grabel, I. 1998. Rejecting exceptionalism: Reinterpreting the Asian financial crisis. *Cambridge Journal of Economics* 22(6).
- Harichandra, K. and Thangavelu, S. M. 2004. Institutional Investors, financial sector development and economic growth in OECD Countries. *Working Paper No. 0405* <http://nt2.fas.nus.edu.sg/ecs/pub/wp/wp0405.pdf>
- Henry P. B. 2000. Stock market liberalization economics reform, and emerging market equity prices. *Journal of Finance* 55, 529-564
- Knill, H. 2003. Corporate governance and firm value in Japan: Evidence from 1985 to 1998. *Pacific-Basin Finance Journal*, 11, 239-265.
- Larosiene, J. 2004. *Three points of view on IMF of the 21st century*. Finance and Development, IMF.
- Lebragacio 2010. *Components of foreign capital flows and economic progression: Panel data evidence from MENA Countries*. ACT Mimeograph.
- Markusen, J. 1995. The boundaries of multinational enterprises and the theory of international trade. *Journal of Economic Perspectives*, 9, 169 - 189.
- Mbat, D. O. 2001. *Financial management*. Uyo: Domes Associates.
- Mkpakan, E. E. 2004. *International investment: Theory, analysis and case studies*. Lagos: University of Lagos Press.
- Morgan, R. E. and Katsikeas, C. S. 1997. Theories of international trade, foreign direct investment and firm internalization: a critique. Available: [http://www.standrews.ac.uk/business/distance/Economics/Reading/Critique\\_trade\\_theories.pdf](http://www.standrews.ac.uk/business/distance/Economics/Reading/Critique_trade_theories.pdf) [Accessed on 15th January 2016]
- Muhtar, M. 2009. *Developing capital markets*. Arab-America-Asia-Africa Business Summit, Dubai, February 4-5.
- Nwankwo, G. O. 1980. *Nigerian financial system*. Lagos: Macmillian Publishers (International College Edition).
- Nwankwo, G. O. 1991. *Money and capital markets in Nigeria today*. Lagos: University of Lagos Press.
- Nzotta, S. N. 2004. *Money, banking and finance: Theory and practice*. Owerri: Hudson-Jude Nigerian Publishers.
- O'Connor T. and Iscarriot, H. 2010. *Trade liberalization, employment, capital and productivity dynamics*. Latin American Economic Society
- Obadan M. I. 2004. *Foreign capital flows and external debt perspectives on Nigeria and the LDCS Group*. Ibadan: Ibadan University Press
- Obadan M.I. 1982. Direct foreign investment in Nigeria: an empirical analysis. *African Studies Review*, 25 (1), 67-81
- Odetayo, T. A. and Sajuyogbe, A. S. 2012. Impact of Nigerian capital market on economic growth and development. *International Journal of Art and Commerce*, 1 (5), 1-8
- Olowe, R. A. 1997. *Financial management*. Lagos: Brierly Domes.
- Olowe, R. A. 2004. The impact of deregulation on the behaviour of industry returns on the Nigerian Stock Exchange. Proceedings of the Annual Conference of the Nigeria Society for Financial Research (NSFR), Department of Business Administration, University of Lagos, November 10th-12th.
- Oluba, Martin 2008. *Nigeria: The equity market crisis - Causes, solutions*.



- <http://allafrica.com/stories/200811040483.html>  
(Downloaded 23/03/2009)
- Olugunde A.O., Elumilade D.O. and Asaolu T.O. 2006. Stock market capitalization and interest Rate in Nigeria: A time series analysis. *International Research Journal of Finance and Economics*, 3(2), 29-38
- Onoh, J. K. 2002. *Dynamics of money, banking and finance in Nigeria*. An emerging market: Astra Meridian publishing, Lagos.
- Parthaprati, P. 2006. *Foreign portfolio investment Stock market and economic development: A case study of India*. Draft paper submitted for the Annual conference of Development and Change mission promoting development in a globalized world
- Pontes, A. P. 1999. *Capital flow: Should it be more controlled?* Institute of Brazilian Business and Public Management Issues.
- Prasad, E. S., Rajan, R. G. and Subramanian, A. 2007. Foreign capital and economic growth. *Working Paper 13619* National Bureau of Economic Research.
- Prasad, E., Rogoff, K., Wei, S. and Kose, A. M. 2003. Effects of financial globalization on developing countries: Some evidence, *IMF Occasional Paper*, 220.
- Rai, K. and Bhanumurthy, N. R. 2007. Determinants of foreign institutional investment in India: The role of return, risk and inflation. *The Developing Economics*, 42, 479-493
- Robert, D. 2008. Effect of Macroeconomic variables on stock market returns for four emerging economies: Brazil, Russia, India, and China. *International Business and Economics Research Journal*, 7 (3), 21-28
- Sachs, Jeffrey, Aaron Tornell, and Velasco, A. 1996. Financial crises in emerging markets: The lessons from 1995. *Brookings Papers on Economic Activity*, 1 (1996b), 147-215.
- Sachs, Jeffrey, Aaron Tornell, and Velasco, A. 1996. The Collapse of the Mexican Peso: What Have we Learned?" *Economic Policy*, 22, 14-63.
- Sethi, N. and Patnaik, K. U. S. 2005. Impact of international capital flows on India's economic growth. Unpublished Thesis, Department of Economics, University of Hyderabad, P.O - Central University.
- Sethi, N. and Patnaik, U. S. K. 2007. International capital flows on India's economic growth-In view of changing financial market. *The Indian Journal of Economics* , 45 (348).
- Shehu U. R. A. 2009. Stock prices and exchange rate interaction in Nigeria: An intra Global financial Crisis Maiden investment. *Social science research Network*, 2(3), 12-21.
- Tabak, B. M. 2003. The random walk hypothesis and the behavior of foreign capital portfolio flows. The Brazilian stock market case. *Applied Financial Economic*, 13 (4), 16-27.
- Tasmin, F. A. 2005. Free cash flow, debt monitoring and managers' LIFO/ FIFO policy choice. *Journal of Corporate Finance*, 7, 475-492.
- Temitope, W. 2002. *Financial liberalization, emerging stock markets and Economic development in Africa*. An international Development Research Centre Documents.
- Tokumbo, 2004. Does stock market promote economic growth in Nigeria. *Journal of Applied Finance*, IJAF 5(3) 52-64.
- Tong, H and Wei, S. 2009. The composition matters: Capital inflows and liquidity crunch during a global economic crisis, National Bureau of Economic Research, *Working Paper 15207*.
- White, H and Wignaraja, G. 1992. Exchange rates trade liberalization and aid: The Sri Lanka Experience. *World Development*, 20(10) 1471-1480.
- Williamson, J. 1995. *The management of capital inflows*. Paper published in Pensamiento Iberoamericano: Peterson Institute for International Economics.
- Yang-Yung, L. 1997. Sterilizing capital inflows. The Economic Issues, International Monetary Fund
- Younger, S. D. 1992. Aid and the dutch diseases: Macroeconomic management when everybody loves you. *World Development*, 20(11) 1587-1597.

## Appendix A: Regression Result

Dependent Variable: LFPI  
Method: Least Squares  
Date: 11/26/16 Time: 23:14  
Sample: 1986 2014  
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.59531	4.942751	4.369086	0.0005
LMCAP	2.790967	0.854244	3.267176	0.0048
LASI	-4.108009	1.131437	-3.630789	0.0022
LTNI	0.214230	0.577010	0.371275	0.7153
R-squared	0.786477	Mean dependent var		6.519815
Adjusted R-squared	0.741925	S.D. dependent var		2.767084
S.E. of regression	2.181038	Akaike info criterion		4.574335
Sum squared resid	76.11081	Schwarz criterion		4.773482
Log likelihood	-41.74335	Hannan-Quinn criter.		4.613211
F-statistic	4.860812	Durbin-Watson stat		0.722811
Prob(F-statistic)	0.013690			

Table 4.1. Data used for the study

YEAR	FPI	MCAP	TNI	ASI
1986	151.6	6.79	833	149.82
1987	4353.1	8.3	450.7	176.92
1988	2611.8	10.02	400	210.81
1989	-1618.8	12.85	1629.9	273.87
1990	-435.2	16.36	9964.5	423.66
1991	-594.9	23.13	1870	677.62
1992	36851.8	31.27	3306.3	931.02
1993	-377	47.44	2636.9	1229.03
1994	-0.2	663.68	2161.7	1913.23
1995	-5.8	180.31	4425.6	3815.12
1996	-12.1	281.82	5858.2	5955.14
1997	-4.8	281.89	10875.7	7638.79
1998	-0.6	262.52	15018.1	5961.88
1999	1	300.04	12038.5	5264.19
2000	51.1	472.29	17207.8	6701.18
2001	92.5	662.56	37198.8	10185.08
2002	24.8	764.98	61284	11631.87
2003	23.6	1359.27	180079.9	15559.9
2004	23.5	2112.55	195418.4	24738.65
2005	883	2900.06	552782	22876.72
2006	2825.6	5120.94	707400	25343.55
2007	2665.5	13294.06	1935080	48773.31
2008	1334.3	9562.97	1509230	50424.7
2009	481.7	7030.84	1739349	23091.55
2010	3747.9	9918.22	1925471	24775.59
2011	5192.8	10275.34	1724683	23393.65
2012	17200.5	14800.9	195360	23432.69
2013	13652.2	19077.42	286760	36307.08
2014	5292.8	16875.1	271050	39409.82

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