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CONTENTS

THE RELEVANCE OF EXTERNAL RESERVE IN AN EMERGING CAPITAL MARKET: EVIDENCE FROM NIGERIA

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ABSTRACT

This paper investigates the relevance of external reserve in an emerging capital market. The objective are in two folds, the first is to ascertain the influence of external reserve in attracting foreign portfolio investment and the second is to examine the impact of foreign portfolio investment on capital market development. To achieve these objectives, secondary data were obtained from Central Bank of Nigeria (CBN) and Nigeria Stock Exchange (NSE) fact book. The data were analysed using regression technique of the ordinary least square. We find out that there is strong positive link between external reserve and portfolio investment, and there is a positive correlation between stock market development and external reserve but a negative relationship between portfolio investment and stock market capitalization in Nigeria. We recommend that more effort· should be concentrated towards development of the local market and investor' friendly environment should be created to encourage foreigners to retain their capital invested in the stock market.
Key Words: External reserves, Emerging capital market.
JEL Classification: F21, G1

1.　　INTRODUCTION

The world economy has undergone noticeable changes over the past decade, both in terms of the shifting balance of economic and financial power among groups of countries and in terms of structural changes. Particularly, capital markets have undergone substantial changes with financial liberalization, deregulation, and globalization increasing wave of activities sharply. We now have emerging market economies, economies that embark on economic reform program leading to stronger and more responsible economic performance levels, as well as transparency and operational efficiency in the capital market. Emerging market economies also reform their exchange rate system to stabilize the local currency and builds confidence in the economy, especially when it is expecting foreign investors. One key characteristic of

such economy is increase in foreign investment both portfolio and direct. A growth in investment in a country often indicates that the country has been able to build confidence in the local economy. Moreover, foreign investment is a signal that the world has begun to take notice of the emerging market, and when international capital flows are directed toward a country, the injection of foreign currency into the local economy adds volume to the country's stock market and long-term investment to the infrastructure(Heakal,2003).

Financial intermediation has also undergone even greater changes over the last decade, both in the size of transactions and in the variety of instruments used. Prior to this time, tight restrictions exist on entry into capital market and this had constrained development in the capital market in terms of size and instrument traded. In Nigeria, foreign investors were not allowed to participate in the capital market until 1986. The capital market deregulation that took place in 1993 paved way for the internationalization of the Nigerian capital market, Nigeria company stock are listed on other exchanges but the first foreign stock listed on the floor of the Nigeria exchange first appeared in 1997.

In the more recent era of globalization and liberalization, new and effective techniques have been developed by most emerging markets to optimize performance and reallocate the various risks involved in domestic and cross-border financial transactions. Moreover, the huge capital flows of recent years, and the shifting trends in international investment, have had obvious effects on the financial markets.

Capital markets provide a mechanism for financial intermediation over a long term period between financial surplus units and financial deficit units. As such they form the artery for the flow of resources among the various economic sectors. A healthy capital markets grow from the real needs of the economy, especially the need for long-term financing, and they develop through serving resident and non-resident sectors. These markets thrive within an appropriate legal and regulatory environment and a stable economy.

In the past decade, global capital flows have helped to boost long-term capital investment as well as make up to national savings in most domestic economies. The fact that capital flows now largely reflect short term domestic imbalances between aggregate demand and supply in the major industrial countries has increased the volatility of capital markets in recent years. Real long term demand for capital investment of course exists in the less developed countries like Nigeria, but several well known factors have affected the flow of real investment into the economy.

In recent time, the Central Bank of Nigeria and the Federal Government of Nigeria, decided to build up the external reserve position of the country in order to attract foreign investment which will ultimately help to develop the domestic economy. In managing the reserve of the nation, the CBN gave fourteen commercial banks along with their foreign asset management companies' partners a portion of the Nation's external reserve to manage. From all indication this is the first time such a move is made by the CBN. Prior to this time, the nation's external reserve was deposited with

foreign banks without making any public statement on how it is managed. The main objective for the appointment of external fund manager was to allow for professional management, diversification of investment and to leverage on the expertise of the foreign bank to transform Nigeria banks into global financial institutions in line with global best practices (Ogbonna, 2006).

The consistent growth in the Nation's external reserve has aroused interest of many Nigerians which has induced discussion on how best it should be managed. The Nigeria external reserve position declined from N5445.6m in 1980 to N3587.4m in 1986, and then increased to N67245.6m in 1993. As at 2006 the total reserve stood at N5504.0b. The main objective of holding external reserve is to enhance the country's international credit worthiness. The reserve will represent the ultimate line of defense if the worthiness of a country is considered important for access to new capital inflow. A respectable level of reserve serves as a notice to the watching international community that the country prospects are good, a situation that enhances international investors' and serves to attract foreign investment (Obaseki, 2007).

The objective of this paper therefore is to examine the role of Nigeria external reserve in attracting portfolio investment and to establish the kind of relationship that exists between portfolio investment and stock market development. This paper is divided into five sections, following the introduction is the review of literature on external reserve and capital market development, section three discusses the methodology and research design, section four is data analysis while the last section deals with summary, conclusion and recommendation.

2.   LITERATURE REVIEW

There is no doubt that there is a causal relationship between financial sector development and economic growth (Schumpeter, 1911; Mckinnon, 1973 and Shaw, 1973). It has also been proved in empirical research that financial sector could be a catalyst for economic growth, however the financial sector has to be well developed and healthy (Greenwood and Jovanovic, 1990, King and Levine, 1993). Henry (2000), however, examined the relationship between stock market liberalization and the growth of real foreign direct investment using an event study approach on samples of developing countries. He finds out that the countries experience large temporary increase in the growth rate of real foreign direct investment on the heels of stock market liberalization.

Major reform in the Nigeria financial system started in 1986, the deregulation of the capital market followed in 1993, as part of the capital market reform; foreign investors were allowed entry and full participation in the capital market since 1986. Also, Exchange Control Act 1962 and the Nigerian Enterprises Promotion Act 1989 were repealed. These two Acts were replaced by the Foreign Exchange (Monitoring Miscellaneous Provisions) Decree 17 of 1995 and the Nigerian Investment Promotion Commission Decree 16 of 1995. The repeal of the earlier two laws is in accordance with the view that they hinder foreign capital inflows and thus impact negatively on the

internationalization of the Exchange. Investors Protection Fund was also introduced to compensate investors to a specified limit for loss due to failure, distress or liquidation of a stock broking houses (Odoko, 1998).

The major advantage of having foreign investor participation in the capital market according to Lee (2005) is that the "capital flows created by foreign investors allow a more efficient allocation of world savings and direct resources to their most productive uses. It also produces opportunities for intertemporal trade, portfolio diversification, and risk sharing. It allowed developing countries with limited capital to finance Investment so that economic growth is promoted without sharp increases in saving rates. That is financing of domestic investment and government budget deficit is not constrained by domestic private saving when foreign investors are present."

External Reserve Management

External reserves, otherwise referred to as foreign exchange reserves, are the stock of foreign reserves acquired from international transactions and available to the monetary authorities. According to Obaseki (2007), external resources are held in gold reserve position in the International Monetary Fund (IMF), foreign government securities and convertible currencies in bank balances abroad. In other words, they are stocks of savings from foreign exchange transactions between the residents of an economy and the rest of the world during a given period of time that are held and controlled by the monetary authorities. Aluko (2007), describes external reserves as the foreign currency deposits held by the central banks and monetary authorities, they are assets of the central banks which are held in different reserve currencies such as the US Dollar, Euro, Sterling, Yen, and others which are used to back its liabilities, such as the local currency issued. They are "those external assets that are readily available to and controlled by monetary authorities for direct financing of payments imbalances, for directly regulating the magnitude of such imbalances through intervention in exchange markets to affect the currency exchange rate, and for other purposes."

Historically, external reserves predate currency. It was held only in gold as official gold reserves and when the dollar was pegged to gold, the US Government made the dollar a reserve currency. The purpose of holding reserves is to allow central banks an additional means to stabilize the issued currencies from excessive volatility and protect the monetary system from shocks. In addition to meeting the transaction needs of countries, reserves are used as a precautionary purpose to provide a cushion to absorb unexpected shocks or a sharp deterioration in their terms of trade or to meet unexpected capital outflows (Aluko, 2007). Reserves are also used to manage the exchange rate through intervention in the foreign exchange market and control of money supply through buying and selling of foreign exchange; improvement of a country's credit worthiness; and wealth accumulation through prudent management. Thus the motives for holding adequate level of external reserves can therefore be summarized into transaction, precautionary and speculative.

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In explaining the importance of proper management of the reserve, Obaseki (2007) states external reserves are managed to ensure that they are adequate for meeting a range of defined national objectives including the settlement of external obligations as scheduled and defense of the external value of the domestic currency to ensure that it is correctly valued and that the external sector does not lose competitiveness. External reserves are also managed to control risks and thus ensure the security of reserves and guarantee reasonable earnings from their placement. Depending on the general goals of macroeconomic management and the specific objectives of monetary policy, reserves management may be guided by certain preferences. The management of external reserves is critical to a Central Bank since the movement in the quantum of reserves, the deployment of the reserves and the allocation of the net accretion to reserves between sterilisation and monetisation impact on monetary aggregates and the ability of a Central Bank to conduct monetary policy efficiently.

In the management of a country reserve IMF (2000) cited in Ogbonna (2006) suggests a well diversified portfolio of currencies that are not positively correlated with each other. A portfolio should contain up to ten non-correlated assets in order to be adequately diversified. Beyond these measures, Higgins and Klitgard (2004) observed that in the context of hybrid approaches to exchange rate management, where the system is neither fully pegged nor freely floating, the optimum level of reserves would be determined by: the degree of openness of the economy, the degree of responsiveness of an economy to macroeconomic policy initiative, the degree of controls on trade and capital flows and the degree of credit worthiness of the economy.

The optimum composition of reserves is influenced by the transactions motive which reflects in the pattern of external trade flows and the nation's out payments, the intervention approach which demands the holdings of reserves that would be more frequently used for intervention with the level dependent on the volume, value and frequency of intervention and the mean-variance approach which demands that returns should be maximized with risks minimized. The objective would be to achieve currency composition at the Efficiency Frontier of a portfolio that would yield the best return for a given level of risk. Thus, the intervention and the mean-variance approaches seem to offer a pareto improving reserves management tool for central banks, (Higgins & Klitgard, 2004).

A review of foreign reserves management in Nigeria showed that the nation's reserves have been managed over the years by correspondent banks abroad as well as reputable international investment companies with instructions from the Foreign Operations Department of the Central Bank of Nigeria. Most of the reserves are in liquid assets, foreign currencies and foreign government securities, while a small proportion representing gold, SDR, are non-liquid assets. (Obaseki, 2007).

External reserve and Capital Market development in Nigeria

The Nigerian capital market has been described in recent times as one of the most active and vibrant in Africa, but despite this, it is still considered very small, highly illiquid

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and underdeveloped when compared to developed nation market such as London and New York. (Ologunde, Elumilade & Asaolu, 2006). The securities trade in the Nigeria capital market is limited and turnover ratio very low. There is no doubt that the development of the market will require some amount of foreign capital inflow as the nation propensity to save is low due to low capacity utilization and high poverty level in the country. Obadiah (2005) noted that foreign capital flows (in the form of Portfolio investment) has contributed in filling the resource gap in the country because domestic savings are inadequate to finance investment.

> In support of this, Soludo (2005) reiterated that the flow of FDI to Nigeria is one of the highest in Africa. More importantly FDI has one of the highest returns on investment in real dollar terms estimated by expert to about 30%. "Nigeria has sustained macroeconomic stability, including stable exchange rate and appreciating local currency, backed by the highest level of reserves, in Africa, of about $42 billion. Nigeria has a rapidly growing non-oil sector, which is recording phenomenal growth in some sectors, with telecoms growing at 30 per cent per annum. In cassava, it is now world's highest producer, solid minerals, services and even manufacturing are growing and Nigeria's banking sector is the fastest growing in Africa while the growth of the nation's capital market is about the fastest in the world." In addition, "Nigeria's base GDP (2005 year end) was $113 billion and the average growth rate for 2003 to 2004 has been 7.4 per cent while Non-oil grew at about 8.8 per cent. Nigeria's population is made up of teenagers and youths, which implies a vibrant population for the future which is necessary to unleash and take advantage of economic growth".

Enumerating how to promote portfolio investment in Nigeria, Bello (2005) explained that for the capital market to attract the required amounts of Foreign Portfolio Investment and perform its major functions, certain fundamental conditions must prevail such as; policy consistency / transparency, fairness and efficiency in securities transactions, high ethics and professionalism. Furthermore, he stated that the market must be allowed to operate freely, and must have depth and breath. Despite the current limitations, he acknowledged that progress has been made in the development of the capital market. He listed some challenges confronting the Nigeria capital market as follows: inadequate disclosure by quoted companies, low capital base of quoted companies, low technology adaptation, inadequate market research, and low domestic investment. He concluded that capital market plays a veritable role in the industrial development of a nation and should therefore, be consciously fostered if its full potentials were to be realized.

On return on investment Obadiah (2005), stated that Africa as a region provided the highest investment returns than other regions in recent years, yet it recorded the lowest investment inflow. The pull-factor for capital flows was enumerated to include: good macroeconomic performance, adequate external current account position, prudent fiscal

management, transparency in the conduct of monetary policy, structural reforms and good infrastructure among others. He advocated for capital flow that is non debt creating. Supporting this line of argument Soludo (2005) reiterated the importance of capital inflows, especially, FDI and remittances, for investment and consumption. He noted that capital inflow into Nigeria was very inadequate until late 1990s. He enumerated factors which attract capital inflows as macroeconomic stability (especially price and exchange rate stability), openness and competitiveness of the economy as well as stable political environment and good infrastructure. He stated that Nigeria has the potential to be a recipient of substantial capital inflow in Africa given her abundant human and material resources, huge population and the policy initiative of the National Economic Empowerment and Development Strategy (NEEDS). He, however, observed that there is a large gap between the country's potential and the actual inflow of foreign direct investment.

Capital inflow to the country should be received with mixed feelings, according to Oyejide (2005) capital flows carry a mixed blessing, depending on the 'initial conditions' of a developing economy. The flows can have positive effects on key real sector variables and contribute to the promotion of economic growth and development. The downside risk is however, evident in macroeconomic shocks that could undermine the stability of the real sector and impose high adjustment cost on the economy. Similarly, the instability of capital flows may retard economic growth and structural developments. This position was further stressed by Ogunleye (2005) when he stated that though capital flows have some benefits, it nonetheless carry some risks. Consequently, the author advised the relevant regulatory institutions to minimize these risks while promoting the overall objective of achieving sustainable economic growth. He acknowledged that capital inflows to medium income countries were largely in the form of portfolio investments while low income countries rely on official debt flows. In order to promote capital flows, the regulatory institutions in Nigeria were enjoined to harmonize their guidelines in order to obviate regulatory arbitrage.

Portfolio Investment And Capital Market Development

The 1990s open a new era of capital mobility whereby private capital flows assume an increasing role as a source of finance for emerging markets. A noticeable feature of the new system of private financial transfer is that capital flows are increasingly channelled through securities markets and portfolio investment has become an important component of private flows. Thus, the capital market plays a vital role in fostering economic growth of the country, as it augments the quantities of real savings; increases the net capital inflow from abroad; raises the productivity of investments by improving allocation of investible funds; and reduces the cost of capital in the economy. (Claessens, Klingebiel, and Schmukler, 2001)

Sub-Saharan African Stock exchanges lose out from Portfolio Investment despite the recently good performance because of their small size and very low liquidity. According to Moss (2006) ''the New York Stock Exchange trades more before tea time

than all of Africa trades in a year. The glaring exception is the Johannesburg Stock Exchange (JSE) which is as large and popular as any emerging market stock exchange. The bottom line a stock exchange must have $50 billion in market capitalization and $10 billion in value traded to attract any interest from global emerging market funds. Of the 15 African exchanges, only South Africa hits either metric". He thinks African exchanges might get a boost from large privatizations, but argues that the real key is to focus on investment climate issues. Big home-grown firms, hungry for equity finance, are needed to build up stock markets, which in turn attract mutual fund managers.

Foreign portfolio investment can contribute to the development of local securities markets in a number of ways. According to United Nations Conference on Trade and Development UNCTAD (1998) analysis, first, by providing an additional supply of capital to supplement domestic savings, foreign investment contributes to a reduction in the cost of capital, thereby stimulating a greater supply of securities and fostering the expansion of the corporate sector. Second, by adding liquidity to local markets, foreign investment could reduce the volatility which results from the thinness of markets. Third, it can improve corporate governance in so far as foreign investors demand higher disclosure standards. Fourth, it can strengthen domestic stock markets, as foreign investors demand timely and quality information, as well as minority shareholder protection, and require adequate market and trading regulations. Lastly, it can encourage the development of new institutions and services (such as asset management and investment banking services and custody services), transfer of technology and training of local personnel. All this will contribute to the strengthening of domestic financial systems and support a competitive capital market which will mitigate over-reliance on bank lending (and improve the debt/equity structure of domestic companies)."

On the contrary, UNCTAD (1997), posit that "foreign investment can generate more volatility of asset prices on domestic capital markets. It has been found that the period following the upsurge in private capital flows in 1993 was marked by an increase in volatility of stock market prices in the majority of emerging markets which received important flows of foreign investment. Although it is not completely certain that this increase in volatility was entirely due to an increase in the participation of foreign investors in domestic markets, in some countries a positive correlation between foreign portfolio equity investment and volatility of stock market prices has been observed. This can be explained by the fact that large inflows and outflows of foreign investment can have an important impact on domestic asset prices, especially in insufficiently developed markets. Better liquidity reduces transaction costs and makes it easier for foreign investors to open and liquidate positions. Volatility can also result from problems of asymmetrical information and herding behaviour.

In a survey of managers of international equity investment funds undertaken by UNCTAD (1997), fund managers identified the following six factors as important for investment decisions thay are; market growth potential as an element in determining the level of attractiveness of a market; a favourable environment for foreign investors (including macroeconomic stability) and the degree of ease with which investment

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proceeds can be repatriated, the adequacy, availability and reliability of financial information and the level of financial disclosure standards; Political stability and a good settlement system; the comprehensiveness of securities market regulations. Such regulations govern exchange membership, trading, clearing and settlement as well as the activities of financial intermediaries, and they seek to ensure market integrity and stability, and investor protection. the degree of effectiveness in enforcing these regulations is a closely related consideration; a stable currency and a liquid securities market, a relatively stable currency protects investors from foreign exchange risk and allows them to plan more effectively by reducing the potential for sudden shifts in currency value. The level of liquidity of the securities market is generally important because it often acts as an exit mechanism through which investment positions are liquidated.

3. METHODOLOGY

Instrumentation, Sources and Data Description

The study employed secondary data obtained from the Central Bank of Nigeria (CBN) statistical bulletin and the Nigerian Stock Exchange (NSE) annual reports. The study employed regression analysis to establish the relationship that exists between the Nation's External Reserve, Portfolio Investment and Capital Market Development. The test statistics employed were the Regression Analysis of the Ordinary Least Square (OLS) method, the correlation analysis techniques (R^2),the students T-Test, and F-test to measure the significance of the relationship that exist between the variables.

Methods of Data Analysis and Model Specification

In an attempt to investigate the relevance of the external reserve and capital market development in an emerging economy using Nigeria as a case study simple and multiple technique were adopted. Since the adoption of this technique initially requires specification of a model describing the functional relationship between the variables under investigation, this study specifies two models as follows,

$$P_1 = f(ER)\dots\dots\dots\dots\dots\dots\dots\dots\dots(1)$$

$$MC = f(ER, P_1)\dots\dots\dots\dots\dots\dots\dots\dots(2)$$

Where MC = Market Capitalization, P_1 = Portfolio Investment, ER = External Reserve.

$$P_1 = \beta o + \beta_1 ER + Ui\dots\dots\dots\dots\dots\dots\dots\dots(3)$$

$$MC = \beta o + \beta_1 ER + \beta_2 PI + Ui\dots\dots\dots\dots\dots\dots\dots(4)$$

In Equation (1), the dependent variable is portfolio investment (PI) and the independent variable is external reserve (ER). We are interested in seeing how external reserve has

helped to attract portfolio investment into the country. We expect that there would be a positive relationship between external reserve and portfolio investment. That is, on apriori basis $\beta_1 > 0$,.

In equation (2), the dependent variable is market capitalization (MC), while the independent variables are External Reserve (ER) and Portfolio Investment (PI). This equation intends to show the effect of External Reserve and Portfolio Investment on Stock Market Capitalization. That is trying to see how the nation's External Reserve and Portfolio Investment attracted to the country affected the development of the Capital Market. We expect a positive relationship between the variables that is, on a priori basis $\beta_1 > 0$, $\beta_2 > 0$,.

The Data

The data used in this study covered a period from 1986 to 2005. This was because the earliest data officially reported on portfolio investment in Nigeria was in 1986. The Nigerian stock market itself came into existence in 1960 as Lagos Stock Exchange but official coordinated reporting on the activity of the exchange started much later. However, since we used the most current data we believe that it is a good representation for the study.

4.0 DATA ANALYSIS AND DISCUSSION OF RESULTS

Data Analysis
Table 1: Regression Result for External Reserve and Portfolio Investment
Dependent Variable: Portfolio Investment

	Constant	Explanatory Variable External Reserve	R^2	Adj R^2	F-Stat	D.W
	-16421.37 (-1.3499)	0.073078 (6.7156)	0.7147	0.6988	45.10	1.81
Std Error	12164.03	0.010882				
Prob	0.1938	0.0000			0.0000	

Notes: T-values are in parenthesis

Interpretation of results

The result from table 1 shows a positive relationship between Portfolio Investment and External Reserve. The coefficient of determination (R^2) stood at 0.71. This indicates that 71% of the total variation in the Portfolio Investment is accounted for by the Nation's External Reserve while the remaining 29% is accounted for by other variables. The result shows that there is a strong positive correlation between the dependent variable and the independent variable. The positive relationship implies that as External Reserve increases, Portfolio Investment in the country also increases meaning that the increase in the size of the External Reserve gives foreign investors confidence to invest in the Nigerian capital Market. This is as expected according to the reviewed literature larger external reserve attract foreign investment both direct and portfolio investment

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The result as shown as by the DW Statistic (1.8166) further indicates that the regression equation is free from the problem of autocorrelation. The implication of this is that the estimated equation can be relied upon in making valid inferences about the influence of external reserve on portfolio investment in the country. The t-statistic value of 6.7156 is significant at 5% level. This indicates that the parameter estimate is statistically significant in determining the level of Portfolio Investment into the country. The F Statistic which test for the overall significance of the equation shows 45.10 which is greater than tabulated F value, this implies that we can accept that external reserve affect portfolio investment in Nigeria.

Table 2: External Reserve, Portfolio Investment and Stock Market Capitalization.
Dependent Variable: Market Capitalization

	Constant	Explanatory variable		R^2	Adj R^2	F-Stat	D.W
		External reserve	**Portfolio Investment**				
	84945746	494.4931	-2802.369				
	(2.3795)	(8.678714)	(-4.251392)	0.8647	0.8488	54.35	1.57
Std. Error	35698571	56.97769	659.1650				
Prob.	0.0293	0.0005	0.0000			0.0000	

Notes: T- values are in parenthesis

Interpretation of result
From table 2, it could be observed that the coefficient of the multiple determinations R^2 is 0.86, which is quite high. This indicates that about 86% of the variation in the Stock Market Capitalization in Nigeria is accounted for the nation's external reserve and portfolio investment. The F-statistics of 54.35 also shows the overall significance of the regression equation. The result as shown by the DW Statistic (1.5755) though seems low at glance but when checked to confirm revealed that with our sample size does not fall into the doubtful region which ends at 1.55. This means that the regression equation is free from the problem of autocorrelation. The implication of this is that the estimated equation can be relied upon to make valid inferences about the influence of the explanatory variables on the market capitalization.

The OLS regression estimate shows a negative relationship between the Stock market capitalization and portfolio investment. The result shows that for every N1million increase in portfolio investment stock market capitalization decrease by N2802 million in size. The negative correlation between the two variables implies that as portfolio investment increases in the capital market it brings about a decrease in the stock market capitalization which indicates drop in the level of growth and development in the capital market. This could be explained further as found in literature (Singh, 1997, Ojo, 1974 & 1992) that for developing market like Nigeria which does not have a currency advantage but yet has been deregulated to encourage attraction of foreign investment, portfolio investment may not be ideal because foreign investment in the market is speculative and that account for the volatility in the market. The foreigners bring in ..

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their capital to invest in the market; they take advantage of the high return on investment in the market and move out their capital in bulk because they do not have confidence in the market. As they move their funds out they cause volatility in the market. So for a developing economy like Nigeria foreign portfolio investment is not ideal when the local market is not well developed. The t-value of 5.0366 indicates that the equation estimate is statistically significant at 5% significance level; this implies that the parameter estimate can be relied upon in determining the value of the stock market capitalization. And the f-value of 54.35 implies that the parameter estimate can be relied upon hence, we can conclude that portfolio investment has negative impact on the stock market development.

The OLS regression estimation further shows that a positive relationship exists between the external reserve and stock market capitalization. The coefficient of correlation (Adj. R^2) is also 0.84 which indicates a strong positive relationship between the variables expressed. The estimated regression equation shows that the higher the external reserve the higher the stock market capitalization. This is probably by other variable such as capital gain as inflow by Nigeria companies which are listed on international stock exchange. The t-statistical value of 8.6787 is statistically significance at 5% significance level which indicates the parameter estimate can be relied upon. We therefore conclude that external reserve has positive effect on stock market development.

5.0 CONCLUSION AND SUMMARYS
The study provides an empirical test of the relevance of external reserve in an emerging economy. The study was based on time series data obtained from Central Bank of Nigeria (CBN) and the Nigeria Stock Exchange (NSE). Regression analysis of the Ordinary Least Square (OLS) method was used to test the model specified to capture the relationship that exist between stock market capitalization, external reserve and portfolio investment.

The result of the study is in line with previous conclusion drawn from the literature on portfolio investment. In this study we find that there is a negative relationship between portfolio investment and stock market capitalization in Nigeria. This make us conclude that the Portfolio investment attracted to the nation cause stock market volatility as the foreigner take advantage of the high rate of return in the Nigeria Stock Market and withdraw their capital along with the gain made in the market than what was invested initially. We also find that there is a positive relationship between stock market and external reserve, which implies that as the nation external reserve increases it result in development of the stock market probably through the activities of local participants in the market issuing more instrument to raise money and thereby expanding the scope of the market and domestic firms investing in other economy and bringing in gains in form of capital inflow as the external reserve stand as a buffer against sudden shocks in the international market.

The study also concludes that there is a positive relationship between external reserve and portfolio investment. Meaning that external reserve of the country does attract

portfolio investment into the country because the foreigners are more comfortable investing in the country.

Recommendations

The Nigerian government should make the Nigerian investment environment more investor friendly. From the data analysed, it is obvious that there are foreign portfolio investment in the country but the investors do not have such confidence to leave their capital for a long time in the economy. Investors move their capital to where the risk is low, so effort should be geared towards building the confidence of the investors in the country.

The Nigerian Government should focus more on attracting foreign direct investment (FDI) as this help to fill the unemployment gap in the country and not lay so much emphasis on Portfolio investment since the local market is not well developed to tolerate portfolio investment.

As foreign investors move their capital out of the stock market it causes market volatility. We therefore recommend the recognition of institutional investors such as the pension fund and insurance companies should be encouraged to invest more in the capital market so that they could stand as stabilizer as foreigners speculate in the market.

There should be better awareness of the stock exchange to attract more domestic savings. As domestic savings are mobilise, it will enhance the development of the capital market which will attract foreigner portfolio investment and culminate in enhancement in market capitalization.

The level of awareness of the capital market is very low even among the Nigerian populace; those that use the market do not know how to trade on the market thereby limiting the development of the market. Majority of Nigerians buy and hold their investment and this limit the development of the market.

The role of the Central Bank of Nigeria (CBN) in the management of the reserve is very important. The CBN should develop appropriate instruments to influence liquidity and the cost of funds in the market. The regulatory authority should not just rest their oars in making the capital market attractive to foreigners; their ultimate aim should be to develop the market. So they should take the responsibility of ensuring that there is enough incentive in the market to encourage the foreign investor to retain capital invested in the market.

Above all, Nigeria and Africa in general should develop its own indigenous savings mobilisation process that is pattern after our peculiar socio-economic terrain that would make it possible for every one to participate in the capital market.

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Appendix 1

Table 1: Regression Coefficients: The effect of External Reserve on Portfolio Investment

Dependent Variable: PI
Method: Least Squares
Date: 11/05/07 Time: 23:52
Sample: 1986 2005
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16421.37	12164.03	-1.349994	0.1938
ER	0.073078	0.010882	6.715659	0.0000

R-squared	0.714739	Mean dependent var	27077.20
Adjusted R-squared	0.698891	S.D. dependent var	83912.40
S.E. of regression	46045.59	Akaike info criterion	24.40729
Sum squared resid	3.82E+10	Schwarz criterion	24.50686
Log likelihood	-242.0729	F-statistic	45.10008
Durbin-Watson stat	1.816622	Prob(F-statistic)	0.000003

Source: Eview file output

Table 2: Regression Coefficient: External Reserve and Portfolio Investment on Stock Market Capitalization.

Dependent Variable: MC
Method: Least Squares
Date: 11/05/07 Time: 23:54
Sample: 1986 2005
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	84945746	35698571	2.379528	0.0293
ER	494.4931	56.97769	8.678714	0.0000
PI	-2802.369	659.1650	-4.251392	0.0005

R-squared	0.864758	Mean dependent var	3.03E+08
Adjusted R-squared	0.848847	S.D. dependent var	3.31E+08
S.E. of regression	1.29E+08	Akaike info criterion	40.32245
Sum squared resid	2.82E+17	Schwarz criterion	40.47181
Log likelihood	-400.2245	F-statistic	54.35015
Durbin-Watson stat	1.575557	Prob(F-statistic)	0.000000

Source: Eview file output

Table 1. Time series data

Year	MC (₦ Million)	ER (₦ Million)	PI(₦ Million)
1986	6790000	3587.4	151.6
1987	8300000	4643.3	4353.1
1988	10020000	3272.7	2611.8
1989	12850000	13457.1	-1618.8
1990	16360000	34953.1	-435.2
1991	23130000	44249.6	-594.9
1992	31270000	13992.5	36851.8
1993	47440000	67245.6	-396.4
1994	66370000	30455.9	-203.5
1995	171100000	40333.2	-6785
1996	285600000	174309.9	-12056.6
1997	292000000	262198.5	-4785.8
1998	263300000	226702.4	-637.5
1999	299900000	546873.1	-1015.7
2000	472900000	1090148	51079.1
2001	662600000	1181652	26317.1
2002	763900000	1013514	24871.4
2003	844000000	1065093	23634.1
2004	886700000	2252644	23629.5
2005	903600000	3835433	376573.9

Source: Central Bank of Nigeria Statistical Bulletin
And Nigeria Stock Exchange Annual Report.

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