Asian Economic and Financial Review

Foreign Direct Investment and the Nigerian Financial Sector Growth

Oke, Micheal Ojo (Faculty of Management Sciences Ekiti State University, Ado Ekiti, Nigeria)

Asian Economic and Social Society
www.aessweb.com

Author (s)

Oke, Micheal Ojo. (Phd)
Faculty of Management Sciences
Ekiti State University, Ado Ekiti,
Nigeria
E-mail: okemike2001@yahoo.com

Foreign Direct Investment and the Nigerian Financial Sector Growth

Abstract

Foreign Direct Investment (FDI) stimulates financial sector growth through the presence of foreign participation in investment in the nation. This paper explores the relationship between foreign direct investment and financial sector growth, providing empirical evidence from Nigeria. Annual time-series data were gathered on foreign direct investment, market capitalization, Gross Domestic Product, External Debt, Inflation rate, Exchange Rate and Degree of openness (ratio of imports and exports to gross domestic product) from 1981-2010. The empirical model was analyzed using the econometric techniques of ordinary least square method, unit root test, co-integration test, Error correction Mechanism, and Granger causality test. The findings suggest that the inflow of FDI has a positive impact on the Financial Sector in the short run but fail to translate to real long financial sector growth that could promote speedy economic growth due to the fact that the bulk of foreign direct investment has been channeled to other sectors of the economy namely the Oil and Gas Sector. The study recommends that government should encourage and formulate policies that will increase the volume and magnitude of Foreign Direct Investment into the Financial Sector as well as implement policies that attract foreign participation in domestic economy and create good and conducive investment climate that assures that foreign businesses thrive, among others.

Inroduction

Foreign Direct Investment (FDI) usually consists of external resources, including technological, managerial and marketing expertise, in addition to capital. These may generate considerable impact on Nigerian real sector in general and production capabilities in particular, since they are directly linked to productive investment. Foreign Direct Investment also facilitates transfer of technology and managerial and marketing skills, which are indispensable in the quest for viable solution to the problems of industrial inputs and diversification as well as expansion of export. Thus, the ability of Nigeria to sustain growth and development as well as meet her external obligations, millennium development goals (MDG) and to realize her dream of joining the league of highly industrialize nation by the year 2020 depends on adequate inflow of foreign investment resources. Unfortunately, the country has been experiencing difficulties in her effort to meet these goals. At the current level of foreign exchange earnings and high external debt servicing obligation, little or nothing is available for new investments.

Consequently, given the low level of per capital real income characterizing underdeveloped economies, traditional model of economies assumes that average and marginal consumption propensities are high, that savings are low and that the formation of new productive capital is restricted. Some reasons for the slow economic growth in Nigeria

include mono-cultural economy, high population growth, import dependency, misguided deregulation/re-regulation, lack of incentives for investment in terms of infrastructure globalization and political instability.

Based on the above scenario, it is discovered that there exists a gap between the domestically available supply of savings, foreign exchange, government revenue and skills and the planned level of the resources necessary to achieve development targets (Todaro, 1977). This gap necessitates the need for external resources to augment domestic resources in the country. These external resources could be in the form of foreign aids or grants, short-term credit, state loans and private investments. The genesis of foreign investment in Nigeria cannot only be attributed to the desire by the country to fill these two-gaps. This is because foreign investment in the country started with the imposition of British colonial rule in Nigeria in the 19th century. This category of foreign investment is referred to as the "forced historical perspective". This has been well documented, (Bauer, 1954; Weeks and Macy, 1957).

Weeks and Macy for instance note that the foreign corporations have more than a century of trading (business) experienced in West Africa behind them. Through mergers and amalgamations, they have attained a far-flung and diverse establishment reaching virtually every town in Nigeria. Representative of this group are the United Africa Company of Nigeria (UACN), Ltd; John Holt & Co. (Nigeria) Ltd.; Campaigne Francaise de L'Afrique Occidental (CFAO); Paterson Zochonis & Co. Ltd.; just to mention a few. Expatriate Bank such as the Union Bank (formerly Barclays Bank Dc & O), First Bank (formerly Standard Bank), United Bank for Africa, dominate Banking in Nigeria.

The major aim of this study is to investigate the contributions of foreign direct investment to the country's financial sectors development. Foreign direct investment has been referred to as a source of foreign finance urgently, needed for development by the Third World. Indeed, Kojima (1978) has indicated that instead of

conflicting with international trade, foreign direct investment complements it.

This research focuses on the financial sector of the economy. Although, effort have been made to investigate real sector of various economies of the world, but there exist no concrete evidence from literature that brings out the salient problems, findings, conclusion and recommendation with respect to financial sector FDI. Furthermore, no efforts have been made to investigate the country by country contributions of FDI to Nigerian economy. However, it would be instructive to examine the sectorial relationship between FDI and other sectors of the economy. Although, it is expected "a priori" that the impact of FDI is noticeable and felt on Services and Financial sectors, there is still need to carry out a quantitative analysis of FDI and financial sector variables in Nigeria to back it up. This is because of the obvious reasons that can be attributed to Nigeria economy like inadequate power supply, weak infrastructural facilities, inconsistent and unstable government policies, inefficient capital market, Bank robbery and abuse, environmental risk; such as the Niger Delta Militant activities, to mention just a few. Since most economic and indeed socio-political phenomena cannot be adequately understood except in a historical context, the study will cover a period of thirty years (1981– 2010).

Litrature Reveiw

The recent economic challenges and failure of some countries that have experienced both increases in FDI and stock market activities have made scholars to raise issues with respect to the relation between FDI and stock market development. On one hand, there is the view that FDI tends to be larger in countries that are riskier, financially underdeveloped and institutionally weak, (Haussmann and Fernandez-Arias, 2000). Under this view, FDI is a substitute for stock market development- FDI takes place to overcome the difficulties of investing through capital market. According to this view, FDI should be negatively correlated with the development of stock market. In contract to this view, evidence from some countries showed that FDI flows into countries with good institutions and fundamentals and

fuels the development of stock market through different channels.

This invariably implies that FDI and stock market may be complementary and not substitute; this was confirmed by the study of (Adam and Tweneboar in 2009) in a study of Foreign Direct Investment and Stock Market Development in Ghana. Also, the study on the role of Foreign Direct Investment and Stock Market Development in Pakistan by Ali Raza et.al in 2012 disclosed a positive impact of foreign direct investment along with other explanatory variables in developing stock markets of Pakistan. FDI can be positively related to the participation of firm in capital markets, since foreign investors might want to finance part of their investment with external capital or might want to recover their investment by selling equity in capital markets.

Also, given that foreign investors partly invest through purchasing existing equity, the liquidity of stock markets will likely rise, thus the value traded domestically and internationally might both increase depending on where these purchases take place. Apart from the aforementioned views, another view posits that FDI and stock market have no direct linkage with economic growth; rather they affect other growth determinants (saving, investment and consumption) of which their final effect depends substantial on the linkage between these intermediate variables and economic growth. In view of the foregoing, examining relationship between these variables and economic growth in Nigeria is imperative and compelling.

Theories of Foreign Direct Investment and Financial Sector Development

There are a number of factors which may explain a decision to invest in financial institutions abroad. This can generally be grouped as micro and macro factors as discussed below:

Microeconomic/behavioural framework

Virtually all existing theoretical paradigms focus on the comparison of benefits and costs of the investment decision. As with any kind of investment, the bank will face uncertainty about the expected profits of such decision, and even expected costs. On the cost side, Hymer and Zurawicki (1969) introduce the widely accepted notion that foreign banks face significant cost disadvantages when compared with local competition. These additional costs can arise as a consequence of cultural differences, legal barriers or increased control problems, just to cite a few examples. Therefore, in order to operate profitably in a foreign market, international banks must be able to realize gains that are unavailable to local competitors. These expected gains, to be realized when operating in a foreign financial sector, generally stem from (i) Competitive advantage factors, (ii) Efficiencies that cannot be attained operating exclusively in local markets; and (iii) Geographical risk diversification**.**

Regarding **comparative advantages**, innovative products, better intermediation technologies or superior management quality are among the frequently cited both by the eclectic theory of the multinational corporations (see Dunning 1979 and Gray and Gray 1981) for an early application to multinational banking and the internalization theory [Buckley and Casson (1991). Some authors argue that these factors, however, are not very relevant in the case of financial FDI, or at least not permanently, because of the need to assume that financial firms have intangible assets which cannot be imitated, in a generally highly competitive sector, such as the banking system (Dufey and Giddy 1981) or because management quality can easily be transferred. Nonetheless, the case against the persistence of these competitive advantages is considerably weaker for emerging market economies, where the dominance of government-owned banks has generally resulted in low competition in the banking sector (Marichal 1997).

As concerns **efficiency**, the main factors mentioned in the literature are the size of the bank, its degree of internationalization and product and distribution channels. First, a large **size** enables banks to translate their scale efficiencies to foreign markets at a relatively low cost and to compete with local institutions even after taking into account the extra costs faced by foreign competitors (Terrell 1979;

Tschoegl 1983; and Sabi 1988). The importance of size depends heavily on the kind of activity developed by the foreign firm in the host market. If the business model implies a duplication of costs, scale efficiencies will be difficult to attain. This is why some authors (for example, Casson 1990) argue that a model based on subsidiaries with a retail focus is unlikely to benefit from large gains in efficiency, while a branch model would if directed to wholesale or investment banking markets.

Second, the degree of **internationalization** is also relevant since banks with a large and geographically diversified customer base will be able to reduce transaction costs [Ursacki and Vertinsky 1992]. Thirdly, the use of their own **distribution channels** may imply large gains in efficiency, particularly in developing countries where the supply of certain banking services is generally poorer or sometimes nonexistent. In this case, subsidiaries oriented towards retail banking can certainly profit from product efficiencies. This is even more the case if foreign banks share the same culture and language with the host country since practically no change will be required in the products offered.

Finally, **risk diversification** is another important motive for financial FDI in the theoretical literature. Banks can diversify their income base by operating in a foreign country, obtaining gains in terms of their risk-return profile. The importance of these gains will be closely related to the extent of financial market imperfections, which render diversification by a final investor less worthy than diversification by banks' local operations. In the case of financial FDI to emerging economies, informational and legal problems for individual investors may explain why banks prefer to operate locally in a foreign country.

Macroeconomic framework
As previously mentioned, macroeconomic and general financial conditions haven been hardly analyzed in the theoretical literature of financial FDI. This is why we focus on theories explaining general FDI. These may be classified in two broad groups.

First, **general equilibrium models** compare trade and FDI on the basis of the relative factor endowments, transport costs and opportunities for knowledge transfer [Markusen and Makus [2001, and Helpman 1987]. Secondly, **financial conditions-related theories** are based on hypothesis of imperfect capital markets. In this vein, the relative wealth hypothesis of Froot and Stein (1991) focuses on the effects of exchange rates movements in general FDI flows. A depreciation of the local currency increases the relative wealth of foreign investors, allowing them to outbid local rivals for profitable projects.

Methodology

This research paper is empirical in nature based on the subject matter. Therefore, it is designed to bring out concrete and determinable empirical evidence relating to the effect of FDI on Nigeria Financial Sector. Four (4) models will be built to test the relationship between FDI and other explanatory variables while One (1) model will be built to test the causal link between FDI and the growth of Nigeria financial sector. Therefore, we will measure the financial determinant by Market Capitalization of the Nigeria stock Exchange (NSE) while the macroeconomic variables are Gross Domestic Product (GDP), External Debt (EXDEBT), Inflation rate (INF), Exchange rate (ECHR). The institutional determinant is represented with Degree of Openness (DOP) which measures the rate at which an economy is open to foriegn trade. It is the ratio of the summation of export and import values to GDP.

Research Hypothesis
The main arguments of this research paper will be synthesized into the following hypotheses stated in nulls (H_o) forms as:

1   Foreign Direct Investment does not influence the growth of Nigeria Financial sector

2   The Nigerian Capital Market does not play any active role in the accumulation of foreign capital to the Nigeria Financial sector.

3 Foreign Direct Investment does not significantly affect the growth of the Nigeria capital market.

Model Specification

Sequel to the research design above, the following models are adopted for the purpose of this study. Model 1 will adopt and modify the work of Al nessar and Gomez (2009), which made use of pooled data from 15 Latin American countries between 1978 and 2003. The variables adopted are FDI and other banking sector variables. In this study, we will modify the model to include the contribution of financial sector to Gross Domestic Product (GDP$_{fin}$), and Foreign Direct Investment (FDI). Model 2 and 4 will be related to the work of Alfaro et al (2008) and Lee and Chang (2009) which provides evidence for the relationship between FDI and local financial market. We will adopt All Share Index (ASI) as a proxy for Nigeria Financial market. Furthermore, Model 3 will go in line with the assertions of (Ncube, 2007; Claesen and Laeven 2003; Meon and Weill, 2010; Asiedu, 2002; Yartey and Adjasi, 2007; Ang, 2008) who all posited that there exist financial, macroeconomic and institutional determinants of Foreign direct Investment (FDI). All these models will be estimated by the Ordinary Least Square (OLS) of Regression analysis and the Johansen Cointegration technique using the Error Correction Mechanism (ECM). The model will be estimated using the Pairwise Granger Causality test of 1969.

The models are specified in functional form as follows:

Model 1 - GDP$_{fin}$ = f(FDI) …… (1)

Model 2 - FDI$_{fin}$ = f(MRKCAP) …… (2)

Model 3 - FDI$_{fin}$ = f(MRKCAP, GDP, EXDEBT, INF, ECHR, DOP EXTR)…………… (3)

Model 4 - MRKCAP = f(FDI)……4)

Where:

GDP$_{fin}$ = Contribution of Nigeria Financial sector to Economic growth

FDI = Foreign Direct Investment

FDI$_{fin}$ = Foreign Direct Investment to the Nigeria Financial sector

MRKCAP = Market Capitalisation

EXDEBT = External Debt

INF = Inflation rate

DOP = Degree of Openness

EXTR = External Reserve

Model Estimation Techniques

The study adopted the technique of Simple Regressions Analysis of Ordinary Least Square (OLS) and Cointegration analysis of Error correction model (ECM) as estimation technique. The linear regression equations for these models are:

GDP$_{fini}$ = $\alpha_1 + \beta_1$FDI + ε_1 …………………. (1)

FDI$_{fini}$ = $\alpha_2 + \beta_2$MRKCAP + ε_2 ………… (2)

FDI$_{fini}$ = $\alpha_3 + \beta_3$MRKCAP + β_4GDP + β_5EXDEBT + β_6INF + β_7ECHR + β_8DOP + β_9EXTR + ε_3 … (3)

MRKCAP$_i$ = $\alpha_4 + \beta_{10}$FDI + ε_4…………………… (4)

Where GDP$_{fini}$, FDI$_{fini}$, MRKCAP$_i$ are as earlier defined at a particular time respectively while ε_1 - ε_4 represents the "noise" or error term; α_1-α_4 represent the constant parameter and β_1 - β_{10} represents the slope and coefficients of regression.

Unit Root Test

In the study, the test for the stationarity of the variables using the Augmented Dickey Fuller (ADF) unit root test (Engle and Granger, 1987). The simple ADF equation is as follows

GDP$_{fini}$ = GDP$_{fini-1}$ + β_2FDI$_i$ + ε_i …………………. (5)

FDI$_{fini}$ = FDI$_{fini-1}$ + β_3MRKCAP$_i$ + …………..…… (6)

FDI$_{fini}$ = FDI$_{fini1}$ + β_4MRKCAP$_i$ + β_5GDP$_i$ + β_6EXDEBT$_i$ + β_7INF$_i$ + β_8ECHR$_i$ + β_9DOP$_i$ + β_{10}EXTR$_i$ + ε_i ….. (7)

MRKCAP$_i$ = MRKCAP$_{i-1}$ + β_{11}FDI$_i$ + ε_i………………. (8)

Where the dependent variables are also estimated as repressor's lagged by one year period (i-1).

The condition for stationarity is that the ADF statistics must be greater than the Mackinnon critical value at 5% which may happen at level I (0), first difference I(1) or second difference I(2) which are order of integration.

Co-Integration Analysis

E-Views supports VAR-based Cointegration tests using the methodology developed in Johansen (1995) performed using a Group object or an estimated Var object.

Consider a VAR of order: $y_i = A_1 y_{i-1} + … + A_p y_{i-p} + Bx_i + \varepsilon_i$…………………. (9)

Where y_i is a k-vector of non-stationary $I(1)$ variables, x_i is a d-vector of deterministic variables, and ε_i is a vector of innovations.

The trace statistic for the null hypothesis of cointegrating relations is computed as:

$$LR_{tr}(k) = -T\sum_{i=r+1}^{h}\log(1-\mu i) \quad \text{……. (10)}$$

Where: LR_{tr} – trace statistics
K – Cointegratin relations
μi- ith Eigen value

Specifying the models in a general ECM (Error Correction Mechanism):

Model 1

$$\S\ \log(GDP_{fin}) = \alpha_0+\sum_{i=0}^{n}\alpha_1\log(FDI)_{i-1}+\sum_{i=0}^{n}(ECM)_{i-1}+\varepsilon_i \quad\text{................(11)}$$

Model 2

$$\S\ \log(FDI_{fin}) = \alpha_0+\sum_{i=0}^{n}\alpha_1\log(MRKCAP)_{i-1}+\sum_{i=0}^{n}(ECM)_{i-1}+\varepsilon_i \quad\text{................(12)}$$

Model 3

$$\S\ \log(FDI_{fin}) = \theta_0 + \sum_{i=0}^{n}\theta_1\log(MRKCAP)_{i-1} + \sum_{i=0}^{n}\theta_2\log(GDP)_{i-1} + \sum_{i=0}^{n}\theta_3\log(EXDEBT)_{i-1} + \sum_{i=0}^{n}\theta_4\log(INF)_{i-1} + \sum_{i=0}^{n}\theta_5\log(ECHR)_{i-1} + \sum_{i=0}^{n}\theta_6\log(DOP)_{i-1} + \sum_{i=0}^{n}\theta_7\log(EXTR)_{t-1} + \sum_{i=0}^{n}(ECM)_{t-1} + \varepsilon_i \quad\text{........................(13)}$$

Model 4

$$\S\ \log(MRKCAP) = \alpha_0+\sum_{i=0}^{n}\alpha_1\log(FDI)_{i-1}+\sum_{i=0}^{n}(ECM)_{i-1}+\varepsilon_i \quad\text{................(14)}$$

Where:
$i-1$ = Meaning the were lagged by one period
$\sum_{i=0}^{n}(ECM)_t$ = Error Correction Mechanism
ε_i= White Noise Residual

Granger Causality Test

The Granger causality test is employed to establish the direction of causality among the concerns variables. The model below is a causality model with respect to Hypothesis 2 and 4 respectively.

$$MRKCAP_i = a + \sum\mu_iMRKCAP_{i-1} + \sum\rho_jFDI_{i-1}+\varepsilon_i \quad\text{……………………. (15)}$$

$$GDP_{fini} = a + \sum\mu_i\ GDP_{fin\ i-1} + \sum\rho_jFDI_{i-1} +\varepsilon_i \quad\text{……………………… (16)}$$

Apriori Expectation

Base on theory below are the various anticipations that are expected in the study.

Model 1

a. It is expected that a positive relationship should exist between GDP_{fin} and DFI. That is, $\delta GDP_{fin}/\delta DFI > 0$

Model 2

b. It is expected that a positive relationship should exist between FDI_{fin} and MRKCAP. That is, $\delta FDI_{fin}/\delta MRKCAP > 0$

Model 3

- A positive or negative relationship is also expected between FDI_{fin}, GDP,ECHR,DOP,MRKCAP,EXTR. That is, $\delta FDI_{fin}/\delta GDP > < 0$
- $\delta FDI_{fin}/\delta ECHR > < 0$
  $\delta FDI_{fin}/\delta DOP > < 0$
  $\delta FDI_{fin}/\delta MRKCAP > < 0$
- $\delta FDI_{fin}/\delta EXTR > < 0$
- It is however expected that a negative relationship will exist between FDI_{fin}, INF and EXDEBT. That is, $\delta FDI_{fin}/\delta INF < 0$
  $\delta FDI_{fin}/\delta EXDEBT < 0$

Model 4

c. It is expected that a positive relationship exists between FDI and MRKCAP. That is, $\delta FDI/\delta MRKCAP > 0$

Nature and Sources of Data

This study adopts time series data sourced through secondary sourced from institutions like the Central Bank of Nigeria (CBN), Federal Office of Statistics (FOS), World Bank Statistical Information, World Debt Tables, IMF International Financial Statistics and other sources of already processed data that are relevant to the study.

Data Analysis and Findings
Presentation Of The OLS result for the Model

The summary of short-run relationship among the variables in each model using ordinary least

square (OLS) technique of multiple regression   analysis is presented below:

Model 1
GDPfin = -0.642233 + 0.987265FDI

R^2	$ADJR^2$	FC	DW
0.857	0.852	167.96	1.021

Model 2
FDIfin = 6.926077 + 0.383842MRKCAP

R^2	$ADJR^2$	FC	DW
0.811	0.804	119.87	0.368

Model 3
FDIfin = 8.121394 + 0.563703MRKCAP – 0.059259GDP -0.019626EXDEBT – 0.262509INF – 0.185921ECHR–0.307012DOP+ 0.004598EXTR

R^2	$ADJR^2$	FC	DW
0.868	0.826	20.63	0.911

Model 4
MRKCAP = -13.86806 + 1.704968FDI

R^2	$ADJR^2$	FC	DW
0.895	0.892	239.40	1.500

From the above OLS results, it could be seen that Model 1 has its constant parameter (B_0) negatively related to financial sector contribution to Gross Domestic Product (GDPfin) while FDI is positive. The constant parameter (B_0) and the explanatory variable (MRKCAP) are positively related to inflow of FDI to financial sector (FDIfin) in Model 2. In model 3, MRKCAP, and EXTR are positively related to FDIfin while GDP, EXDEBT, INF, ECHR and DOP are negatively related to FDIfin

In model 1, the constant parameter (B_0) is negatively related to GDPfin which indicates that if the explanatory variable is held constant, GDPfin will reduce by 0.642233. However, FDI is positively related to GDPfin in consonance with the apriori expectation. This means that an increase in FDI will increase GDPfin by 0.987265. The result of model 2 shows that MRKCAP is positively related to FDIfin with about 0.383842 in conformity with the stated apriori expectation. This means that an increase in MRKCAP will increase FDIfin by 0.383842. Model 3 shows that the constant parameter (B_0), MRKCAP, and EXTR are

positively related to FDIfin while GDP, EXDEBT, INF, ECHR, and DOP are negatively related to FDIfin. The coefficient of MRKCAP and EXTR are 0.563703 and 0.004598 respectively. This shows that an increase in MRKCAP and EXTR will increase FDIfin by 0.563703 and 0.004598 respectively. Furthermore, the coefficient of GDP, EXDEBT, INF, ECHR, and DOP are negative -0.059259, -0.019626, -0.262509, -0.185921, -0.307012. It shows that an increase in GDP, EXDEBT, INF, ECHR, and DOP will reduce FDIfin by 0.059259, 0.019626, 0.262509, 0.185921 and 0.307012 respectively. Model 4 shows that a positive relationship exists between MRKCAP and FDI as the coefficient of FDI stands at 1.704968. This shows that an increase in FDI increases MRKCAP by 1.704968. However, the constant parameter (B_0) is negatively related to MRKCAP.

Coefficient of Multiple Determinations (R^2)
The coefficient of multiple determinations (R^2) measures the goodness of fit. The (R^2) in Models 1, 2, 3 and 4 are 0.857, 0.811, 0.868, and 0.895. These show that a strong positive relationship exist between the variables in the

respective models and that about 85.7%, 81.1%, 86.8% and 89.5% variation in the dependent variable of Models 1, 2, 3 and 4 can be explained by the explanatory variables respectively. The adjusted coefficient of determinations further confirmed the above assertions.

Test for the Short-Run Reliability of the Parameters

The tests for reliability of the parameters are done with the use of student T-distribution test under 95% confidence level. The T-tests are done on a two-tale basis which is presented in the table below.

Table 4.1. Test of significance for parameters

Variables	T-Calculated	T-Tabulated	H0	H1	Remark
Model 1					
Constant	-0.766769	2.048	Accept	Reject	Insignificant
Fdi	12.95981	2.048	Reject	Accept	Significant
Model 2					
Constant	35.82553	2.048	Reject	Accept	Significant
Mrkcap	10.94861	2.048	Reject	Accept	Significant
Model 3					
Constant	1.105553	2.074	Accept	Reject	Insignificant
Mrkcap	1.198745	2.074	Accept	Reject	Insignificant
Gdp	0.083820	2.074	Accept	Reject	Insignificant
Exdebt	0.144871	2.074	Accept	Reject	Insignificant
Inf	1.450145	2.074	Accept	Reject	Insignificant
Echr	0.526134	2.074	Accept	Reject	Insignificant
Dop	0.956906	2.074	Accept	Reject	Insignificant
Extr	0.020640	2.074	Accept	Reject	Insignificant
Model 4					
Constant	-11.44642	2.048	Reject	Accept	Significant
Fdi	15.47260	2.048	Reject	Accept	Significant

Source: computer output (E-view 4.1)

The table above shows that the constant parameter in Model 1 and 3 are insignificant while that of model 2 and 4 are statistically significant. Furthermore, it shows that FDI is statistically significant in Model 1 and 4 while MRKCAP is also significant in model 2 but not significant in model 3. GDP, EXDEBT, INF, ECHR, DOP, EXTR are not significant enough to explain FDIfin in model 3.The test for the overall reliability and significance of the model are done with the use of the F-Test which is considered at 95% confidence level. The results show that the Models are statistically significant and reliable in the study. Hence the alternative hypothesis (H_1) is accepted and the Null hypothesis (H_0) is rejected.

Unit Root Test
The table below shows the summary of the unit test at various levels of stationarities by using augmented dickey Fuller (ADF) statistics or Phillip Perron (PP).

Table 4.2. Summary of Stationarity test

VARTIABLE	ORDER OF STATIONARITY (ADF)	ORDER OF STATIONARY
FDI	1(1)	1(1)
GDPfin	1(1)	1(1)
FDIfin	1(1)	1(1)
MRKCAP	1(1)	1(1)
EXDEBT	1(1)	1(1)
INF	1(0)	1(0)
ECHR	1(1)	1(1)
DOP	1(1)	1(0)
EXTR	1(1)	1(1)
ECM	1(1)	1(0)

Source: computer output (E-view 4.1)

The above table shows the various levels in which the variables are stationary.

Cointegration Test
The Cointegration test results for the model are presented below:
Table 4.3: Result of Cointegration Test for Model 1 - 4

Hypothesis	Eigen Value	Likelihood ratio	5% critical value	1% Critical Value
MODEL 1				
None	0.253922	8.210517	15.41	20.04
At most 1	0.000308	0.008614	3.76	6.65
MODEL 2				
None	0.239795	9.151212	15.41	20.04
At most 1	0.051300	1.474540	3.76	6.65
MODEL 3				
None**	0.959084	289.2361	156.00	168.36
At most 1**	0.943755	199.7412	124.24	133.57
At most 2**	0.774880	119.1562	94.15	103.18
At most 3**	0.668036	77.40483	68.52	76.07
At most 4	0.535316	46.52839	47.21	54.46
At most 5	0.412603	25.06924	29.68	35.65
At most 6	0.241124	10.17169	15.41	20.04
At most 7	0.083651	2.446027	3.76	6.65
MODEL 4				
None	0.282481	9.902618	15.41	20.04
At most 1	0.021475	0.607850	3.76	6.65

Cointegration Equations
Model 1
GDPfin = 1.702118 – 1.086677FDI
(0.12746)
Model 2
FDIfin = -6.782515 – 0.415285MRKCAP
(0.06550)
Model 3
FDIfin=613.84 + 41.08376MRKCAP - 61.97230GDP + 4.219351EXDEBT
(24.5883) (36.9645) (2.29506)
+9.220814INF+5.451759ECHR+20.95609DOP - 2.100082EXTR (5.39251)
(3.76779) (12.2535) (1.37408)
Model 4
MRKCAP = 15.51360 – 1.859552FD
(0.15451)

From the tables above, it shows that there exist no long-run equilibrium relationship in Model 1, 2 and 4 because the likelihood ratios are greater than their respective 5 percent critical value at none hypothesized No of ECs (None). However, Cointegration result of model 3 shows that there exists a long run equilibrium relationship among the variables in the model.

The long run Cointegration equations differ from short run situation as FDI shows a negative relationship to GDPfin and MRKCAP in models 1 and 4 while MRKCAP is negatively related to FDIfin in model 2. By combining major macroeconomic variables in model 3, MRKCAP shows a positive sign while EXDEBT and INF shows a positive sign in contrast to the apriori expectation. GDP and EXTR remain negative while ECHR and DOP stand positive in the
long run.

Error Correction Mechanism
The error correction model measures the speed of adjustment to equilibrium. The error correction model (ECM) is significant if it has a negative sign in either over parameterized or parsimonious ECM. This implies that the present value of the dependent variable adjust rapidly to changes in the independent variable. A higher percentage of ECM indicates a feedback of that value or an adjustment of that value from the previous period disequilibrium of the present level of depend variable and the present and past level of the independent variables. Only the ECM 1 and 2 of model 3

will be analysed as the variables in the remaining models does not cointegrate in the long run.The tables below show the over parameterized and parsimonious ECM for model 3.

The tables (4.4 and 4.5) below show the over parameterized and parsimonious ECM for model

Table 4.4: Overparameterized Ecm

Variable	Coefficient	Std. Error	T-Statistics	Probability
D(Fdifin(-1),2)	-0.600652	0.218691	-2.746574	0.0190
D(MRKCAP,2)	0.185375	0.302934	0.611932	0.5530
D(MRKCAP(-1)2)	-0.175460	0.253800	-0.691334	0.5037
D(GDP,2)	-0.199082	0.644400	-0.308942	0.7631
D(GDP(-1)2)	-0.031303	0.536507	-0.058346	0.9545
D(EXDEBT,2)	-0.111665	0.103273	-1.081259	0.3027
D(EXDEBT(-1,)2)	-0.007499	0.116286	-0.064488	0.9497
D(INF,2)	0.054905	0.100986	0.543687	0.5975
D(INF(-1),2)	0.122142	0.113231	1.078698	0.3038
D(ECHR,2)	-0.294039	0.252731	-1.163445	0.2693
D(ECHR(-1)2)	-0.180376	0.218249	-0.826470	0.4261
D(DOP,2)	0.039067	0.145683	0.268168	0.7935
D(DOP(-1)2)	-0.016784	0.140762	-0.119234	0.9072
D(EXTR,2)	0.024122	0.114876	0.209987	0.8375
D(EXTR(1),2)	0.001835	0.132997	0.013794	0.9892
ECM (-1)	-0.404471	0.177866	-2.274022	0.0440

$R^2 = 0.712395$ DW = 2.213641

Table-4.5: Parsimonous Ecm

Variable	Coefficient	Std. Error	T-statistics	Probability
D(MRKCAP,2)	0.112701	0.226581	0.497398	0.6246
D(GDP(1),2)	-0.140672	0.441282	-0.318781	0.7534
D(EXDEBT(-1),2)	-0.047973	0.094489	-0.507709	0.6175
D(INF,2)	-0.115160	0.101055	-1.139585	0.2686
D(ECHR (1),2)	0.026949	0.215527	0.125036	0.9018
D(DOP(-1)2)	0.176934	0.144359	1.225657	0.2353
D(EXTR(-1),2)	-0.038444	0.084699	-0.453889	0.6551
ECM(-1)	-0.145776	0.208237	-0.700046	0.4924

$R^2 = 0.181805$ DW = 2.975829

The table above shows the overparameterised ECM (ECM1) and parsimonious ECM (ECM2) for model 3. The negative sign in the ECM value in both model (ECM 1 and 2) shows that the ECM is significant. This implies that the present value of FDIfin adjust rapidly to change in MRKCAP, GDP, EXDEBT, INF, ECHR, DOP, and EXTR. The ECM value of -0.404771 in ECM 1 shows a feedback of the value from the previous period disequilibrium of the present level of FDIfin in the determination of causality between the past level of FDIfin and the present and past level of MRKCAP, GDP,

EXDEBT, INF, ECHR, DOP, and EXTR. The coefficient of multiple determinations denoted as R^2 shows that about 71.24% variation in FDIfin can be explained by MRKCAP, GDP, EXDEBT, INF, ECHR, DOP, and EXTR while the remaining 28.76% is being handled by stochastic error term.The Durbin Watson statistics of 2.21 shows that the presence of autocorrelation in model 4 is inconclusive as the Durbin Watson statistics falls under the negative side of the inconclusive region.

Tests for the Long-Run Significance of the Parameters in the Models

The test for the significant of the parameters is being done using the standard error test.

Table-4.6: Result of standard error test conducted on the parameter.

Variable	Coefficient	Std. Error	Coefficient/2	Remarks
MODEL 1				
FDI	1.086677	0.12746	0.5433385	Significant
MODEL 2				
MRKCAP	0.415285	0.06550	0.2076425	Significant
MODEL 3				
MRKCAP	41.08376	24.5883	20.54188	Insignificant
GDP	61.97230	36.9645	30.98615	Insignificant
EXDEBT	4.219351	2.29506	2.1096755	Insignificant
INF	9.220814	5.39251	4.1610407	Insignificant
ECHR	5.451759	3.76779	2.7258795	Insignificant
DOP	20.95609	12.2535	10.478045	Insignificant
EXTR	2.100082	1.37408	1.050041	Insignificant
MODEL 4				
FDI	1.859552	0.15451	0.929776	Significant

The table above shows that FDI is significant in Models 1 and 4 while MRKCAP is also significant in Model 2. However, the macroeconomic parameters in model 3 are not significant enough in the long run.

Granger Causality Test

Since the data of the variables under study are time series data, it becomes imperative to carry out the causality test between MRKCAP, GDP and FDI. The summary results of the causality test are contained in table below.

Table 4.7: Summary of Causality

Null Hypothesis	F-Statistics	Probability	Decision
FDI does not Granger Cause MRKCAP	0.57826	0.56882	Accept
MRKCAP does not granger cause FDI	3.88185	0.03527	Reject
GDP does not Granger cause MRKCAP	7.25197	0.00361	Reject
MRKCAP does not Granger cause GDP	0.81635	0.45444	Accept
GDP does not Granger cause FDI	3.66488	0.04153	Reject
FDI does not Granger cause GDP	0.17140	0.84355	Accept

The above table shows the result of the Pairwise Granger causality test conducted on FDI, MRKCAP and GDP. The result shows a direction of causality from FDI to MRKCAP and FDI to GDP. Furthermore, the result shows a direction of influence from MRKCAP to GDP. It is noteworthy that the outcome of granger causality test is sensitive to number of lags introduced in the model.

Implication of Findings and Conclcussion

The short run results of Model 1and 4 shows that there exists a positive relationship between Foreign Direct Investment (FDI), contribution of financial sector to Gross Domestic Product (GDPfin) and Market Capitalisation (MRKCAP) respectively. This brings out the immediate contribution of Foreign Direct Investment (FDI) to the Nigeria Financial sector, Nigeria capital market and the overall Economic Growth and development. The short run result of Model 2 shows a positive relationship between FDIfin and MRKCAP.

This implies that the Foreign Direct Investment to the financial sector improves the output of the Nigeria capital market. Furthermore, the OLS results of model 3 also shows a positive relationship among FDIfin, MRKCAP and EXTR while it shows a negative relationship among FDIfin, GDP, EXDEBT, INF, ECHR and DOP. This shows that macroeconomic variables like Inflation and External debt negatively affects the inflow of Foreign Direct Investment to Nigeria Financial sector in the short run.

However, the long run Cointegration results of model 1 and 4 moves in the opposite direction with their respective short run results. This implies that the inflow of FDI only contributed to the Nigeria Financial sector in the short run while it doesn't transform into rapid financial sector, economic growth and development in the long run. These results go in line with the conclusions of Adelegan (2000) and Akinlo (2004). Furthermore, the cointegration result of model 2 shows that there exists a negative relationship between FDIfin and MRKCAP. This implies that the inflow of FDI to the Nigeria Financial sector does not transform the Nigeria capital market in the long run. The long run cointegration results of Models 1, 2 and 4 also shows that there exists no long run equilibrium relationship between the variables in the models.

The long run equilibrium results of model 3 shows that MRKCAP still stands positive in the long run in conformity with its short run result while DOP and ECHR is positive in deviation to their short run results while GDP and EXTR stands negatively related to FDIfin. EXDEBT and INF are positively related to FDIfin. However, the variables in the long run model stands insignificant because an increase in External debt and inflation means that the hub of Nigeria's revenue is being used in servicing external debt which makes it impossible for a rapid infrastructural development in Nigeria. This is why GDP and EXTR are both negative in long run model of model 3.

Increase external borrowing is expected to induce domestic investors to retain a greater proportion of their wealth within the economy, but in a situation where increase debt results in greater proportion of private wealth to be held outside the country, the domestic economy cannot be developed. Although, Lee and Chang (2009) provide evidence that the relationship between FDI and growth is endogenously influenced by the development of the domestic financial sector, but there exist no cointegration relationship between FDI, GDPfin, FDIfin and MRKCAP. Therefore, the development of the Nigeria financial sector is in slow pace as it is evidenced from the recent global financial crisis which hit the Nigeria capital market. The result of the pairwise granger causality test shows that FDI influences GDP and MRKCAP. Judging from the size of Nigeria economy, the rate of FDI inflow is relatively enough in transforming the fortune of the country, but the hub of FDI inflow goes to the Oil and Gas and the manufacturing sector while very little goes to the financial sector. Although, the result shows that FDI drives MRKCAP, but the inflow of FDI to the Nigeria Financial sector and the Nigeria capital market is relatively low and not enough for playing the intermediation role.

Recommendation

Arising from the above findings and conclusions, the following recommendations are made:

(1) Government should encourage and formulate policies that will increase the volume and magnitude of Foreign Direct Investment going into the financial sector.

(2) More and serious effort to effect a change in attitude on the part of public office holders who employs the use of public offices in diverting economic funds to personal accounts abroad should be put in place. This involve a serious commitment by the government who should ensure that the public service rule are strictly adhere to. This will enable the economy to have abundant fund that can boost economic growth and development through provision of infrastructural facilities.

(3) Provision of an enabling environment for domestic business and foreign investors.

(4) The monetary policy measures of the government should be well

implemented to reduce inflation rate in Nigeria.

(5) External Borrowings /debt for the purpose of providing basic infarstructural facilities that boost economic growth and development of a nation should be well utilised.

(6) Finally, ensuring policy consistency is essential if the country is to derive long-term benefits from FDI.

References

Adam and Tweneboah (2009) "Foreign direct investment and stock market development: Ghana's Evidence", international research journal of finance and economics Vol.26, pp. 1450-2887

Adelegan, J.O. (2000) Foreign direct investment and Economic Growth in Nigeria: A Seemingly unrelated model African Review of Money, Finance and Banking, supplementary issue of "Savings and Development. 5-25 Milan, Italy.

Ali Raza, Nasir Iqbal, Zeshan Ahmed, Mohammad Ahmed, Tanvir Ahmed. (2012) "The Role of FDI on Stock Market Development" The Case of Pakistan, Journal of Economics and Behavioral Studies Vol.4, No.1, pp.26-33.

4**Alfaro, L.; Sebnem Kalemli-Ozcan, S.; and Volosovych, V. (2008)** "Why Doesn't Capital Flow from Rich to Poor Countries? An Empirical Investigation", The Review of Economics and Statistics, Vol.90, No.2, pp.347-368.

Al Nasser, O. M. and Gomez, X. G. (2009) Do Well-Functioning Financial Systems Affect the FDI: Economical Vol.41 (Vol.162, Pp176-193).

Akinlo, B.E. (2004) "Foreign direct investment and growth in Nigeria": An empirical investigation". Journal of policy modeling, Vol.26, pp.627-39.

Ang, J. B. (2008) "Determinants of Foreign Direct Investment in Malaysia", Journal of Policy Modeling, Vol.30, No1, pp.185-189

Asiedu, E. (2002) "On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different"? World Development, Vol.30, No.1, pp.107–119.

Bauer, P.T. (1954) West African Trade, London: Routledge and K. Paul.

Buckley, P.J. and M. Casson, (1991) "A Long-Run Theory of the Multinational Enterprise. InP.J. Buckley, and M.C. Casson, eds.The Future of Multinational Enterprise. London": Macmillan: pp.32-65

Casson, M. (1990) "The Theory of Foreign Direct Investment." In P. Buckley, ed., International Investment. Aldershot, England": Edward Elgar Publishing Ltd.: pp.244-73

Claessens, S., and Laeven, L. (2003) "Financial Development, Property Rights and Growth"Journal of Finance, Vol.58, No.6, pp.2401–2436.

Dufey, G. and I. Giddy (1981) "Innovation in the international financial markets", Journal of International Business Studies, Fall 1981, pp.33-51.

Dunning, J.H.(1979) Recent Research in the International of Business" Proceedings from the Annual Meeting of the European International Business Association, Uppsala, Sweden, December14-17, 1977, Stockholm

Engle, R. and C. Granger. (1987) "Cointegration and Error Correction: Representation, Estimation and Testing", Econometrical, Vol.55, pp.251-276.

Froot, K. and J. Stein (1991) "Exchange rates and foreign direct investment: an imperfect capital markets approach", Quarterly Journal of Economics, Vol.106, No.4, pp.1191-1217.

Granger, C.W.J. (1969) "Investigating Causal Relations by Econometric Model and Cross Spectral Methods", Econometrical, XXXVII No.4, pp.24 – 38.

Gray, Jean M. and Peter H. Gray (1981) "The multinational bank: A financial multinational corporation"? , Journal of Banking and Finance Vol.5, No.1, pp.33-63.

Haussmann A.H. and Fernandez-Arias B. (2000) "Foreign direct investment in Nigeria: Evidence How Much Difference do they make"? World Development Vol.26, No.7, pp.12-99

Helpman, E. (1987) "A simple theory of trade with multinational corporations", Journal of Political Economy, Vol.92, pp.451-471.

Hymer M and Zurawicki, L. (1969) "Corruption and foreign direct investment", Journal of International Business Studies Vol.33, No.2, pp.290–307.

Johansen, S., (1995) "Statistical Analysis of Cointegration Vectors". Journal of Economics and Dynamics and Control Vol.12, pp.571-584.

Kojima, K. (1978) Direct Foreign Investment: A Japanese Model, London: Croom Helm

Lee, C. and Chang C. (2009) "FDI, Financial Development, and Economic Growth": International Evidence, Journal of Applied Economics, Vol.12, No.2, pp.249-271

Marichal, C. (1997) Nation building and the origins of banking in Latin America, 1850-1930, in Alice Teichova, Ginette Kurgan-van Hentenryk and Dieter Ziegler (eds.), Banking, Trade and Industry: Europe, America and Asia from the thirteenth to the twentieth century. Cambridge: Cambridge University Press.

Markusen, J. and K. Maskus (2001) General-equilibrium approaches to the multinational firm: a review of the theory and evidence, NBER Working Paper 8334.

Méon, P. And Weill, L. (2010) "Does Financial Intermediation Matter for Macroeconomic Performance"? Economic Modelling, . Vol.27, No.3, pp.296-303

Ncube, M. (2007) "Financial Services and Economic Development in Africa", Journal of African Economies, Vol.16, No.1, pp. 13–57.

Sabi, M. (1988) An application of the theory of foreign direct investment to multinational banking in LDCs, Journal of International Business Studies, Vol.19, No.3

Tang, S. Selvanathan, E.A. and Selvanathan, S. (2008) Foreign Direct Investment, Domestic Investment and Economic Growth in China" UNU-WIDER Research Paper No. 2008/19

Terrell N. (1979) Determinants of FDI and its Impact on Nigeria economic, Thesis, University Of Liverpool.

Todaro, (1977) Economics for a Developing World, Longman Group Ltd, London.

Tschoegl, A. E. (1983) "Size, Growth, And Transnationality among the World's Largest Banks", Journal of Business, pp.187-201.

Ursacki O. and Vertinsky K. (1992) Capital Accumulation: The core Process, Programming Techniques for Economic Development in S.S. Tangri and P.Gray (eds.), Capital Accumulation and Economic Development, Boston: Healh.

Weeks, S.and Macy, L.K.(1957) Investment in Nigeria, Washington D.C. Government Press. Working paper 12275

Yartey, C. A. and Adjasi, C. K. (2007) The determinants of stock market development in emerging economics: Is South Africa Different, IMF Working paper 08/38. Washington DC International Monetary Fund.