FINANCIAL LIBERALIZATION AND STOCK MARKET DEVELOPMENT:
EVIDENCE FROM EMERGING EQUITY MARKET OF NIGERIA

OGBEBOR, Peter I.¹
ogbebor.peter@yahoo.com (08037737142)¹

OGUNTODU, James A.²
jamesjogas@yahoo.com (08032589294)

OLAYINKA, Ifayemi M.³
ifayemiolayinka@gmail.com (08032787492)

- Department of Banking and Finance, School of Management Sciences, Babcock University¹&²
- Department of Accounting, School of Management Sciences, Babcock University³

ABSTRACT
A huge portion of theory on financial liberalization has shown that market opening facilitates stock market development especially in the least developed countries. Using time series data and OLS estimation techniques, this study investigated the relationship between financial liberalization and stock market development in Nigeria. The study finds that financial liberalization has impacted stock market development in Nigeria. The conclusion drawn was that more efforts should be geared towards sustaining the tempo of financial liberalization in Nigeria and in fact, more opening of the financial markets should be encouraged. A more liberalized financial markets in Nigeria will not only deepen the
development of the stock market but will lead to greater macro-economic development of the country.

**Keywords:** Financial Markets, Structural Adjustment Programme, Foreign Direct Investment.

**INTRODUCTION**

The Structural Adjustment Programme (SAP) introduced in 1986 led to the opening up of the hitherto closed Nigerian economy whereby the divestment of government ownership of companies on the one hand and financial reforms on the other eventually led to the liberalization of Nigeria’s financial markets including the stock market that enabled foreign participation in the trading of equities and other securities locally. The general belief is that financial liberalization leads to economic growth and development, although, with certain variations.

Miles (2002) argues that the recent opening in emerging financial markets has generated a large literature with many commentators predicting that such liberalization will increase the inflow of foreign capital, leading to greater financial development and economic growth while Haider, Khan, Saddique and Hasmi (2017) emphasized the significance of liberalization to the sensational growth in global flow of foreign direct investment (FDI) and portfolio equity in the course of recent decades. Puryan (2017) states that nowadays financial development is introduced as an important factor for economic growth while the causality direction between these two variables is the bone of contention among economists.

In the same vein, Kawakatsu and Morey (1999) notes that over the last decade, most emerging market countries have changed their laws to allow foreigners to invest legally in their markets. They added that foreign investors can now directly invest in emerging stock market equity, buy closed-end country funds and even use American Depository Receipts to enter emerging stock markets; arguing further that this is in contrast to the early 1980s when there was no legal method for foreigners to invest in emerging market equity. On the policy front, Dermirguc-Kunt and Levine (1996) argue that many countries have reformed their laws and regulations and removed capital controls and other barriers to attract foreign portfolio flows.
Hassan, Babafemi and Jakada (2016) point out that the Nigerian financial market comprises the money market, capital market, stock market and foreign exchange market as well as the institutions and channels that facilitate the smooth intermediation of financial transactions in the economy. The argument of Njogo and Ogunlowore (2014) is that the development of the capital market is one of the key factors necessary for economic growth of a nation especially for an emerging economy like Nigeria.

One of the important ways of measuring effects of stock market performance on economic growth and development is stock market capitalization expressed as a percentage of gross domestic product which is generally regarded as a measure of the size of the market in relation to the whole economy. This informs the reason why stock market development was adopted as the dependent variable while financial liberalization index (proxy by percentage change in foreign investors’ ownership of traded shares) is the independent variable in this study. But the overriding question remains: how has the stock market in Nigeria performed following financial markets liberalization? In order to satisfactorily answer this question, this study seeks to empirically examine the impact of financial liberalization on stock market development in Nigeria.

Based on the foregoing, this study is important for many reasons. Firstly, a major reason justifying this study is the degree of development of the stock market following liberalization. With liberalization of the financial market, the stock market was expected to attain a higher degree of development such that when the equity culture is entrenched, the stock market will be a veritable source of national growth and development. This study will examine how liberalization has impacted the stock market development in Nigeria within the period: 1986 – 2016.

Secondly, this study equally extends the dating pattern of liberalization adopted by Bekaert, Harvey and Lundblad (2003) in which they argue that dating is a critical exercise and that only when dates are established can research begin to measure the impact of liberalization. Kawakatsu and Morey (1999) also argue that identification of liberalization date has been the most significant part of the study of financial markets liberalization. This study addresses the short-comings identified by Kawakatsu and Morey (1999) regarding the liberalization index in Nigeria. In fact, they excluded Nigeria from their empirical analysis due to what they described as absence of valid liberalization index. However, a host of studies
has been able to address this short-coming: Bekaert, Harvey and Lundblad (2003) identified August, 1995 as date of financial liberalization and May 1998 as first country American Depository Receipts introduction; Miles 2002 identified August, 1998 as official liberalization date and Jefferris and Smith (1995) argue that official restriction on foreign participation were removed in 1995.

Thirdly, this work will add to the growing literature on the effects of financial liberalization on stock market development especially within the context of an emerging market. Harvey (1995) informs that the World Bank considers the Nigerian stock market emerging on account of the market being in a developing country. The stock market in Nigeria prior to financial market liberalization was characterized by paucity of financial instruments, low turnover ratio, and the dominance of government securities. Other features of the market include: poor infrastructure, illiquidity, inactive bond market, non-automation of trading system and large unclaimed instruments, among others. It was generally believed that these problems will be ameliorated by financial market liberalization. Liberalization was expected to lead to stock market development which would enable domestic financial institutions duplicate innovations from their more advanced counterparts by offering options and other derivative instruments that are important for shaping the direction and pace of economic growth and development.

Although, the market has witnessed growth in key market indicators such as all-share index and market capitalization in recent years but it could not withstand the debilitating effects of the last global economic meltdown. Investments worth billions of dollars were wiped off despite the long-held belief that financial market liberalization will lead to market stability. Does this, therefore, mean that after several years of so-called stock market liberalization, most of the expected benefits have eluded Nigeria?

With the foregoing, the basic issue that requires investigation is whether financial liberalization has improved stock market development in Nigeria. The study contributes to the literature apart from reasons already adduced above by specifically relating the development of the stock market to financial liberalization of the economy. The hypothesis tested is that there is no significant relation between financial liberalization and stock market development in Nigeria.
REVIEW OF RELATED LITERATURE

Theories justifying the importance of financial liberalization abound. Henry (2000) notes that a stock market liberalization is a decision by a country’s government to allow foreigners to purchase shares in that country’s stock market. Puryan (2017) states that financial development is defined as a process that leads to development in quality, quantity, and efficiency of financial intermediaries’ services. Odo, Anoke, Onyeisi and Chukwu (2017) explain that capital market is the market for buying and selling of medium/long term investment or financial instruments (equities and debt) in form of stocks and bonds of more than one year.

Ferson and Harvey (1993) point out that the national equity markets are assumed to be perfectly integrated in a global economy with no barriers to extra national equity investments, no taxes, no transactions or information costs. However, they were quick to point out that this line of argument is extreme, that is to say, it is a baseline case.

Levine and Zervos (1998) imply that lowering international investment barriers will promote economic development. They point out that if policy makers have the patience to weather some short-run volatility, liberalizing restrictions on international portfolio flows and the repatriation of dividends and principal offers expanded opportunities for economic development.

It therefore presupposes that the capital market has become a critical pedestal on which a modern economy revolves and the argument of Njogo and Ogunlowore (2014) in this direction is that a well-developed capital market portrays one of the common features of a modern economy and it is reputed to perform some necessary functions which promote economic growth in any nation. Azmeh, Al Samman and Mouselli (2017) contend that financial systems contribute to the process of economic development.

The argument of Ngongang (2015) is that the theory of the relationship between financial development and growth has witnessed a renewal of interest during the 1990s. Auzairy, Ahmad and Ho (2011) state that based on the theoretical prediction of standard International Asset Pricing Model (IAPM), the liberalization of foreign ownership of local equities would increase the equity price index of emerging markets and these result in an increase in equity market returns.
Segmentation being a barrier to benefits derivable from liberalization, Hunter (2006) justifies liberalization by stating that in the 1980s, several developing economies liberalized their stock markets in order to precipitate their integration into the world capital market and Abida, Sghaier and Zghidi (2015) explain that efficiency of financial markets matter to economic growth.

A well-developed stock market will among other things enhance resource allocation. Arestis, Demetriades and Luintel (2001) argue that less-risky assets and easy access to capital markets improve the allocation of capital, an important channel of economic growth.

In this direction, Quixima and Almeida (2014) postulate that the basic argument points to the fact that financial development may promote economic growth through resource allocation efficiency, but economic growth also leads to increased demand for credit that should support the development of the financial sector. This line of reasoning was followed by Maduka and Onwuka (2013) when they drew attention to the type of relationship between economic growth and financial sector. They noted that such a relationship is dynamic, such that the latter, at one stage influences the former, while at another stage, the former may influence the latter.

It is pertinent to point out that the enthusiasm to open up may lead to some unexpected consequences. One of which is the over borrowing syndrome as pointed out by Mckinnon and Pill (1996) while expositing on credible liberalization and international capital flows with particular attention to banks. They point out that one of the main features of an over borrowing episode include the culmination of a financial crisis, capital flight, and recession, often forcing an uncontrolled, deep devaluation of the currency, with a resurgence of inflation. This is true as uncontrolled capital flows may lead to the influx of speculative “hot money” that may become hurting to the recipient economy in a boom-bust-cycle. In fact, there is pessimism concerning the overall benefits of financial liberalization.

This was expressed by Akinsola and Odhiambo (2017) when they assert that the belief that financial liberalization will bring the desired connection between economic growth and financial systems has not been substantiated in reality. Furthermore, they draw attention to the fact that various other authors have
criticized financial liberalization policies and claimed that past financial crises are in fact linked with such policies.

On their part, Aigbovo and Izekor (2015) are of the opinion that the relationship between stock market development and economic growth has been a debatable issue in finance and economics. They identify proponents of both the positive and negative schools of thought. The negative school of thought, according to them says that the alleged positive linkage between stock market development and economic growth is not proven and at best is ambiguous. It is pertinent to draw attention to what can be regarded as the origin of financial liberalization. Orji, Ogbuabor and Anthony-Orji (2015) point out that financial liberalization became a useful and important monetary policy in many countries following the directive from the “Washington Consensus” or “Bretton Woods”.

Financial liberalization on a wider dimension is a conscious effort on the part of the liberalizing government to lessen control of economic regulation and reasonably by creating a legal framework to achieve such a purpose. The process is quite unlike the view: “where enterprise leads finance follows” which was noted by Levine (1997) that presupposes that economic development creates demands for particular types of financial arrangements and the financial system responds automatically to these demands. He asserted that some economists just do not believe that the finance growth relationship is important.

Inevitably, financial liberalization propels channels of financial transmission towards greater efficiency. It leads to the deepening of financial markets such that the evolution of financial markets following liberalization compliments the legal and regulatory systems hitherto in place. For instance, Levine, Loayza and Beck (2000) show that countries which efficiently impose compliance with laws tend to have better developed financial intermediaries than countries where enforcement is more lax.

More importantly, a tightly coupled financial system impedes the competitiveness and efficiency of the financial system of such an economy. This explains the reason why nations especially emerging ones contend for financial liberalization to enable a free flow of foreign capital which remain scarce to their economies. Financial markets reforms impact banks and the equities markets in various ways; but mainly through institutional development and enhancement of liquidity respectively. For example, Levine and Zervos (1998) show that banking
development and stock market liquidity are both good predictors of economic growth. While the overall benefits of financial markets liberalization are immense, the endogenous growth theory on the other hand supports the idea of the adoption of better domestic theories and type of financial structure as also contributing to the differences in the growth rate of countries. Greenwood and Smith (1997) postulates that market formation is an endogenous process. This, perhaps, informs the opinion of Klenow and Rodriguez-Clare (1997) when they state (inter-alia): Faster-than-average growth could be explained as the result of adoption of better policies and an improvement of institutions that permit those countries to benefit more from frontier technology.

It must, however, be stressed that while the benefits of liberalization can be acknowledged generally especially with regards to emerging economies; there are some pitfalls that are too glaring to ignore. In fact, the success of liberalization makes emerging markets to be gullible with respect to their appetite for foreign flow of capital. Arguing along this line, McKinnon and Pill (1996) enthuse “because banks fail as efficient information conduits between depositors and borrowers, excessively optimistic expectations about the success of the reform are created among domestic residents, international investors, and the policy authorities.” Continuing, they state that initially, improved economic performance and large inflows of foreign capital justify such optimism; explaining that only later do the sustainability conditions bind so that the economy collapses into a recession, financial crisis, and capital flight.

The stock market is the avenue through which the capital market function properly since it is the platform for trade facilitation in the capital market. It is the centre-point of activities in the capital market. Ezeoha, Ogamba and Onyiuke (2009) state that all over the world the capital market has played significant roles in national economic growth and development; pointing out that one intermediary in the market that operates as a rallying point for the overall activities is the stock exchange.

Stock market development provides a platform that helps in improving the allocation of capital and thus enhancing the prospects of long-term economic growth (Adigwe, Nwanna&Amala, 2015). King and Levine (1993) find that higher levels of financial development are positively associated with faster rates of economic growth. On their part, Josiah, Samson and Akpeti (2012) explain that
the capital market is the prime motor that drives any economy on its part to growth and development because it is responsible for long-term growth (capital formation); arguing further that the money market only complements the capital market by providing the necessary working capital to support gross fixed capital formation. Olokoyo and Ogunaike (2011) opined that the stock market is the aspect of the financial system which mobilizes and channels long term funds for economic growth. Thus, the overall development of the economy is a function of how well the stock market performs (Lawal&Okunola, 2012).

**METHODOLOGY**

This study focuses on the effects of financial liberalization on stock market development of Nigeria from 1986 to 2016. This is the period of financial market liberalization in Nigeria beginning from the policy pronouncement by the government till the period regarded as immediate post major liberalization period in Nigeria. The research adopted the ratio of stock market capitalization to gross domestic product as proxy for stock market development. Yartey (2008) points out that a key indicator of stock market development is the market capitalization ratio (market capitalization as a proportion of GDP). The model tested is:

Impact of financial market liberalization on stock market development (SMD) where:

\[
SMD = a + \beta_{Lib} + \epsilon_i
\]

Where \( \beta_1 \) = the co-efficient effect; \( SMD \) = Stock Market Development, \( Lib= \) Financial Liberalization, and \( i \) = the \( i \)th observation since the data is time serial.

In order to measure stock market developments surrounding the stock market liberalization events, end of year data (total market capitalization, the real gross domestic product and value of foreign ownership of shares traded on the Nigerian Stock Exchange) covering the period: 1986 – 2016 were employed. Stock market capitalization and data on foreign ownership of shares on the local bourse were obtained from the Nigerian Stock Exchange being the only stock exchange in Nigeria. Also, financial liberalization is proxied by the percentage change in foreign ownership of listed equities on the Nigeria Stock Exchange using percentage change of the value of transactions. Data on the gross domestic product were obtained from the statistical bulletin of the CBN (various issues).
ANALYSIS AND DISCUSSION

Graphical representation of the variables of interest
Researcher’s output, E-views 2018

Table 4.1: Regression Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>T</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2.672239</td>
<td>2.470037</td>
<td>1.081862</td>
<td>0.2885</td>
</tr>
<tr>
<td>FL</td>
<td>0.009997</td>
<td>6.25E-06</td>
<td>1599.913</td>
<td>0.0000</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Researcher’s output, Eviews 2018
Dependent Variable: SMD

\[ SMD_t = \alpha_1 + \beta_1 FL_t + \mu_1 \ldots \text{equation (1)} \]

The regression estimate of model shows that FL has an effect on SMD. This is indicated by the signs of the coefficients, that is \( \beta_1 \) is 0.009 which is more than 0. This \( (\beta_1) \) result is consistent with a-priori expectations that FL will have a positive effect on SMD. From Table above, the size of the coefficient of the independent variable \( (\beta_1) \) shows that a 1 billion naira increase in the FL will lead to a 0.009 billion naira increase in SMD. Also, the overall R-square of the model showed that 99% variations in SMD can be attributed to FL used in this study, while the remaining 1% variations in SMD is caused by other factors not included in this model. This shows a good explanatory power of the model. However, the
F-test showed a probability value of 0.000 which indicates that the explanatory variables are statistically significant because this is less than 5%, the level of significance adopted for this study. Therefore, the model is statistically significant. Thus, the null hypothesis that FL has no significant effect on SMD is rejected.

**Post Estimation Tests**

Breusch-Godfrey Serial Correlation LM Test:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>0.002043</td>
<td>Prob. F(2,26)</td>
<td>0.9980</td>
</tr>
<tr>
<td>Obs*R-squared</td>
<td>0.004714</td>
<td>Prob. Chi-Square(2)</td>
<td>0.9976</td>
</tr>
</tbody>
</table>

Breusch-Godfrey Serial correlation LM test is a test of serial correlation for time series data. The null statement for this test is that the series has no serial correlation. The p-value of our observation and R-squared is 0.99 which is more than the statistical threshold of 5%, thus we may not reject the null. The series is then not having evidence of severe serial correlation. Meaning that, the figure of a particular year cannot be used to correctly predict that of other future years.

**Normality Test**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Series: Residuals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample 1986 2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations 30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean 6.06e-14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median -36.71943</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum 198.7872</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum -132.2383</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std. Dev. 103.8263</td>
<td>1.889587</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skewness 0.560407</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kurtosis 1.889587</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jarque-Bera 3.111549</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probability 0.211026</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the result above the probability value of Jarque-Bera is more than 0.05 thus we do not reject the null hypothesis (the null is that the residuals are normally distributed) because our P-value is 0.21. The guideline is that the residuals should be normally distributed which is the same as our result hence we are comfortable with our result because it shows that the residuals of our model is normally distributed.
FINANCIAL LIBERALIZATION AND STOCK MARKET DEVELOPMENT: EVIDENCE FROM EMERGING EQUITY MARKET OF NIGERIA

All the post estimation test results presented have helped prove that the models in this study meet the criteria for deriving a good regression model. Which is that; the series residuals must be normally distributed, there must not be serial correlation and that the model must be linear. All of these criterions had been reasonably satisfied meaning that the results/findings from the models are useful for decision making and they are reliable.

Discussion of Findings
Prior literature (Miles, 2002) opinion that financial liberalization play a pivotal role in increasing the inflow of foreign capital, Kawakatsu and Morey (1999) also argue that identification of liberalization date has been the most significant part of the study of financial markets liberalization. This study addresses the shortcomings identified by Kawakatsu and Morey (1999) regarding the liberalization index in Nigeria. Miles, (2002) assertion is consistent with the finding of the present study, where it was found out that financial liberalization have a significant (p-value of 0%) effect of 99% on stock market development.

This result and finding are in line with Adigwe, Nwanna and Amala, (2015) which examines the relationship between stock market development and liberalization in Nigeria. Ordinary least squares regression (OLS) was employed. The results indicated that there is a positive relationship between the variables used and suggested the pursuit of policies geared towards rapid development of the stock market.

Summary and Conclusion
Financial liberalization has been shown through the regression analysis to have effects on stock market development in Nigeria, hence, the null hypothesis that financial liberalization has no significant effect on stock market development has been overturned, therefore, should be jettisoned. The conclusion is that since financial liberalization has positively impacted stock market development, efforts should be geared by all stake-holders (policy makers, regulatory authorities, members of the legislative arm of government, the judiciary, among others) should ensure that the level of market opening is entrenched, contracts should be enforced and market discipline maintained so that the Nigerian stock market can attain the enviable status of world stock markets, for example, the New York Stock Exchange.
REFERENCES


FINANCIAL LIBERALIZATION AND STOCK MARKET DEVELOPMENT: EVIDENCE FROM EMERGING EQUITY MARKET OF NIGERIA


**Appendix**

Dependent Variable: SMD
FINANCIAL LIBERALIZATION AND STOCK MARKET DEVELOPMENT: EVIDENCE FROM EMERGING EQUITY MARKET OF NIGERIA

Method: Least Squares  
Date: 10/11/17  Time: 12:57  
Sample: 1986 2015  
Included observations: 30

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2.672239</td>
<td>2.470037</td>
<td>1.081862</td>
<td>0.2885</td>
</tr>
<tr>
<td>FL</td>
<td>0.009997</td>
<td>6.25E-06</td>
<td>1599.913</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared 0.999989  Mean dependent var 1628.394  
Adjusted R-squared 0.999989  S.D. dependent var 3663.554  
S.E. of regression 12.33113  Akaike info criterion 7.926471  
Sum squared resid 4257.589  Schwarz criterion 8.019884  
Log likelihood -116.8971  Hannan-Quinn criter. 7.956355  
F-statistic 255972.  Durbin-Watson stat 1.056191  
Prob(F-statistic) 0.000000