



FINANCIAL DEEPENING AND STOCK MARKET DEVELOPMENT IN NIGERIA

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Abstract

This study examines the relationship between financial deepening and stock market development in Nigeria. Annual data for stock market capitalization, money supply\GDP ratio, domestic real credit, trade openness, and foreign direct investment for the period 1981-2020 were analysed using Time series analytical techniques. The study employed the Augmented Dickey fuller unit root test. Findings from the analysis conclude that financial deepening has positive effect on stock market development in the long run in Nigeria. However financial deepening does not have significant effect on stock market development in Nigeria in the short run. The study therefore recommends that effort should be made to enhance financial deepening which will make more funds available to the private sector. Furthermore, rate on short term loans and advances should also be reduced for stock purchased purposes

Keywords: Financial deepening and stock markets development, market capitalization, broad money supply

1. Introduction

The importance of finance as a major driver of economic growth cannot be overemphasized. This is because the more liquid money is available in an economy the more opportunities exist for continued growth. To this end, the primary role of the Nigerian Financial System (NFS) is to promote and foster economic growth and development. According to Gisaor (2018), the financial sector is critical for mobilizing and allocating savings for productive purposes, as well as providing a framework for monetary management and a basis for regulating liquidity in an economy. It also contributes to the reduction of financial risk that enterprises and organizations face throughout the course of their operations. An effective financial system promotes portfolio diversification and protects the economy from a variety of global economic shocks.

As a result of the growing availability of a broader range of financial institutions and products, the financial system is expected to deepen. As a result, among other measures, financial deepening is largely quantified using the ratio of broad money supply (M2) growth to GDP, total bank lending to the private sector, gross saving in the economy, gross domestic investment, and interest rate spread (Andohol and Gisaor, 2018). This means that liabilities of non-bank financial intermediaries, treasury bills, the value of stock market shares, stocks, and bonds, as well as money market funds, must all be included in the financial deepening measure. Because various financial markets experience varying degrees of financial deepening, financial deepening indicators fluctuate by nation. Financial deepening ratios are greater in countries with efficient financial systems than in countries with undeveloped financial systems, such as Nigeria and other African and Asian countries. If the

financial system is inefficient, investors may experience difficulties, which may not augur well for the country's growth and development through its stock market. One method that has been identified as having the potential to expedite stock market growth is financial deepening.

However, the outcomes of this method must be evaluated and analyzed on a regular basis, especially in most third-world economies such as Nigeria. One of the primary aims of financial deepening is to place a higher focus on the process of financial intermediation in order to encourage stock market expansion and, hence, economic growth. Financial markets manage the intermediation process by directing funds from surplus units (lenders/savers) to deficit units (borrowers/investors). When a country's financial intermediation process is effective and efficient, with little repression, the consequence is generally a well-developed and functioning financial sector, which may enhance stock market development and hence economic growth and development (Karimo & Ogbonna, 2017).

According to Boca (2016), many people regard the stock market as a "gambling market" due to the high amount of volatility in the Nigerian stock market, rather than as a driving factor for economic progress. One way, the stock exchange can positively affect the economy enterprise is through an increased cash flow. Many profitable investment opportunities require a long dedication and continuous flow of funds. Without high level liquidity, the stock market or other similar arrangements may experience weaker investment and economic growth may be adversely affected. There is no financial institution that can provide investment other than the stock market, which requires large amounts of short and long term capital. As such, without the capital market many investments, that require a large sum of money, may not survive (Umar et al., 2015).

According to Werigbelegba and Nwamaka (2015), the debate surrounding financial deepening has been whether it is only a response impulse to economic development or a cause of it. This claim is based on the demand following and supply leading hypotheses,

which are the two primary fundamental ideas regarding the influence of financial deepening on economic trends. These ideas also serve as the foundation for this research, which aims to determine if financial deepening stimulates the growth of the Nigerian stock market or the other way around. The Central Bank of Nigeria (CBN) issues monetary policy recommendations on a regular basis with the ultimate objective of regulating monetary policy variables in order to affect the cost, direction, and volume of credit in the economy. These measures are designed to promote greater financial depth, which is projected to enhance macroeconomic indicators such as stock market capitalisation. The volume of money in circulation, lending to the private sector, enhanced financial sector performance, and banking system liquidity are all goals of such policies (CBN 2017). Aside from conceptually diverse perspectives on the relationship between financial depth and capital market development, empirical research has been largely equivocal on the subject. Again, greater emphasis has been placed on financial depth rather than economic expansion in the real sector. The extent to which the Central Bank of Nigeria's financial deepening initiatives impact the growth of the stock market is the subject of this research. First, the study attempts to validate or contradict prior results regarding the nature of the influence of financial depth on the growth of the Nigerian stock market in the long and short term. Second, the study attempts to establish the causal relationship between financial deepening and capital market development factors in order to determine which of the underlying theories on financial deepening and economic growth is more appropriate to the Nigerian scenario. The main objective of the study is to examine the relationship between financial deepening and the stock market development in Nigeria. The specific objectives are to:

2. Literature Review

The Nigerian Financial System (NFS) has been a catalyst in the development process of the Nigerian economy constituting the Nigerian Stock Exchange

(NSE) market, through its numerous monetary and fiscal policy strategies of channelling funds from the surplus units to the deficit units. This is because development economists have established that the stock market constitutes and plays a pivotal role in development, by mobilizing and making funds available for investment. Through financial deepening, appropriate monetary and fiscal policies are strategized to influence the behaviour of the economy in order to achieve some macroeconomic objectives. The Nigerian economy witnessed some major financial reforms from 2004 to 2007. The recapitalization exercise reduced the total number of banks in Nigeria from 89 to 25 (Nkoro and Uko, 2013). Prior to 2004, the then Central Bank of Nigeria Governor, Prof. Chukwuma Charles Soludo saw the need that the 89 existing commercial banks were grossly under-capitalized (capitalization of less than 10 million USD). This exercise revamped the financial sector including the stock market and the whole economy at large.

Financial Deepening and Reforms in Nigeria

Scholars all over the world have place more emphasis on the term ‘financial deepening’ given the relative importance of the financial sector towards achieving the macroeconomic goals of a country. As such so many definitions have been put forward to capture the true concept of financial deepening. According to Shaw (1973), financial deepening refers to the accumulation of financial wealth faster than the accumulation of non-financial wealth and output. Popiel (1990) pointed out five relevant indicators of a deep financial market to include: offer to savers and investor on wider financial services, amalgamation of domestic and international instruments, and diversification of sub-markets, proper linkage between the market intermediaries and market makers and organized domestic linkage.

According to Levine (2005), financial deepening results when financial instruments, financial markets, instruments, and stakeholders including banks, individuals, firms and non-bank financial institutions, interact to reduce the costs of transaction, information and contract enforcement in order to achieve the goods

and services exchange, pool of savings, information for proper allocation of public savings, corporate governance and diversification of risk. In a nutshell, financial deepening is conceptualized more efficient in a huge financial system that offers a lot of options in terms of quality financial services and the number of institutions that carry out these financial services to a vast majority of investors in the most cost effective, efficient and low-risk manner as much as possible. Past administrations in Nigeria have enacted several administrative, legislative, operational and regulatory transformations, to further stabilize the nation's financial framework but only very little have yielded its purpose due to frequent change of power, policies summersault, inappropriate policies and to mention a few. Most of these reforms were evident in the banking sector, insurance market reforms, stock market reforms, pension market reforms and the capital and money market reforms.

2.1 Theoretical Review

The theoretical roots for the financial deepening and economic growth nexus may be traced back to Patrick's (2015) paper, which proposed that the link between economic development and financial deepening can be supply leading or demand follows. The demand following hypothesis, according to the theory, describes a situation in which economic expansion and development leads to financial development. From the rise of the financial sector to economic growth, there is a unidirectional causality.

The second theory of supply leading hypothesis proposed that financial sector development causes economic growth and development. This suggests that in Nigeria, there is a one-way causation between financial development and economic growth. Goldsmith (1969), Hicks (1969), McKinnon (1973), and Shaw (1973) found that the financial sector grew in tandem with the economy. Similarly, Gurley and Shaw (1955), Jung (1986), and Goldsmith (1989) all supported the demand following hypothesis (1969). In an attempt to recognize possibilities, Patrick (1966) proposed that these two linkages may occur at the same time because

financial sector expansion can trigger real sector growth, making the financial sector reliant on the real sector for its own growth.

Shaw's Financial Liberalization Hypothesis

The study of Shaw (1973) developed further the financial liberalization theory attempt to explain the correlation that exists between financial deepening and deregulation of the financial sector. Financial liberation increases the private domestic savings ratio to gross domestic product. This is because financial liberalization makes loans and credit readily available for various economic units for investment and other development purposes. This will ultimately translate to growth in financial institutions because investors are encouraged to save idle funds due to low interest rates.

The foreign sector will be triggered by this financial deepening-induced expansion via net capital inflows, allowing for straightforward assessment of international capital markets. One of the main purposes of liberalization is to eliminate price distortions in capital by allowing the market to respond to the true value of capital. If interest rates are to be liberalized, there must be attractive investment possibilities to compete with the existing pool of savings. In the market, surplus economic units have a variety of portfolio and other options to pick from. The financial markets have a large size of operation, maturity, and hazards (Shaw, 1973). Furthermore, financial liberalization may lead to the amalgam of foreign and local capital markets which in turn improves the opportunities open for pooling of quality investment opportunities and savings. The only criteria for evaluating investment opportunities are through the investment products and prices of loan able funds from savings.

Shaw (1973) established that as a precursor for competitive and innovative allocation of savings flows to investment opportunities hence suitable and relevant policies bring a more equitable distribution of income. Financial liberalization policies have been criticized in many grounds but however it can be argued that the efficient and effective markets paradigm that leads to

equitable distribution of income may be sometimes misleading when applied to capital flows. Furthermore, it has been criticized that the welfare of the various economic units are not improved by removing one market distortion with other distortions still present (Evans, 2017). For example if the monetary authorities liberalized the capital markets through the elimination of distortions while protecting the import market in cases of inflexible real wage nose-diving, capital flows may suffer from associated comparative disadvantage which means a reduced welfare of the various economic units in the country (Okpe, 2018). The study of Stiglitz (2000) opined that underdeveloped countries have weak states of corporate governance and weak regulations and weak private property laws hence, these may be the reason why financial liberalization in the capital market may not improve the welfare of its citizens even when financial liberalization is practiced at either international or domestic level (Stiglitz, 2000).

2.2 Empirical Review

Empirical studies on financial deepening and economic development in Nigeria have focused on the impact of financial deepening factors on real sector growth. There appears to be a scarcity of contemporary studies on the link between financial depth and stock market development, particularly when market capitalization is employed as a stock market development indicator. Alenoghena, Enakali-Osoba, and Mesagan (2014) investigated the link between financial depth and the performance of Nigerian capital using the vector error correction method. The authors discovered a favorable relationship between financial depth and stock market development in Nigeria.

Nnanna (2014) examines the link between financial deepening and stock market returns in Nigeria by utilizing the value of traded equities as a percentage of GDP and market capitalization as a ratio of GDP. According to the researcher, there is a positive link between market capitalization to GDP and stock market returns, and a substantial relationship between the value of traded stocks to GDP and stock market returns.

Earlier, Nnenna (2012) had studied the nexus between financial deepening and stock market development in Nigeria employing the GARCH model. While assessing the inconsistencies between financial deepening and stock market variables, the author observes that a significant association between stock market returns and financial deepening exists.

Karimo and Ogbona (2017) use the Toda– Yamamoto Augmented Granger test to determine whether Nigeria's financial deepening and economic development followed the demand following or supply leading theory. The authors discovered that the supply leading hypothesis describes a more suitable link between financial deepening and economic development in Nigeria. Nkoro and Uko (2013) are two other researches that demonstrate a favorable link between financial depth and economic development Audu and Okumoko (2013); Osuji and Chigbu (2012); Olofin and Afangideh (2009), to name a few. Maduka and Onwuka (2012), on the other hand, discovered that financial deepening had a statistically significant influence on Nigerian economic development. Furthermore, Okafor, Onwumere, and Chijindu (2016) discovered a mixed bag of substantial positive and negative effects of financial deepening on Nigerian economic development.

$$MCGDP = g(DRC, FDI, RIR, RER, TOP) \dots\dots\dots 1$$

$$MCGDP = f(M2, FDI, TOP, RIR, RER) \dots\dots\dots 2$$

Linear transformation of the models in equations (1) to (2) is further expressed as:

$$MCGDP = \beta_0 + \beta_1 DRC + \beta_2 FDI + \beta_3 RIR + \beta_4 RER + \beta_5 RER + \mu_t \dots\dots\dots 3$$

$$MCGDP = \beta_0 + \beta_1 M2_Y + \beta_2 FDI + \beta_3 TOP + \beta_4 RIR + \beta_5 RER + \mu_t \dots\dots\dots 4$$

A priori Expectations: $\beta_0 > 0$; $\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 > 0$; $\beta_4 > 0$.

where:

MCGDP: Market Capitalization to GDP ratio is a ratio used to determine whether an overall market is

3. Methodology

This section analysed the technique used in examining the relationship between financial deepening and stock market development in Nigeria. In analysing the data, Ordinary Least Squares (OLS) was employed using Co integration technique and Error Correction Mechanism. This study adopts the ex-post facto method of research because the study utilised secondary data obtained from Central Bank of Nigeria Statistical Bulletin (various issues), World Bank Indicators for Nigeria. The data used covered the period 1981 to 2019. The variables of interest are Market Capitalization to GDP ratio, broad money supply to GDP ratio, foreign direct investment, real interest rate, trade openness.

3.1 Theoretical framework/Model Specification

This study adopts the Shaw's Financial Liberalization theory, which bests explains the correlation that exists between financial deepening and deregulation of the financial sector. Financial liberation increases the private domestic savings ratio to gross domestic product. This is because financial liberalization makes loans and credit readily available for various economic units for investment and other development purposes

undervalued or overvalued compared to a historical average.

DRC: Domestic Real Credit is the product of the nominal domestic credit to the private sector, non-

financial sector and other accounts by the government and private sector of a country multiplied by the ratio of prices of the countries involved.

FDI: Foreign direct investment is the net inflows percentage of GDP

RIR: Real Interest Rate is an interest rate that has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower and the real yield to the lender or to an investor.

RER: Real exchange rate is the value of a country's currency vs. that of another country or economic zone

4. Results and Discussion

This section focuses on the presentation, analysis, interpretation and discussion of findings. The empirical results based on the specified models in the previous section are presented, while the interpretation and discussion of each result is related to the justification of the stated objectives.

Co integration Tests

The auto regressive distributed lag (ARDL) bounds test was employed to check for co integration owing to the existence of $I(0)$ and $I(1)$ order of variables, as indicated in the preceding section. The ARDL bounds test was

Table 4.3a: ARDL Bounds Test for model 1z

Dependent Variable: D(MCAP_Y)		
ARDL Bounds Test		
Test Statistics	Value	K
F-Statistics	4.569976	5
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
5%	2.39	3.38

Source: E-view 10

The bounds test for the first equation in this study is shown in Table 4.3a. The F-statistic was 4.569976, which was bigger than both the lower limit [$I(0)$] and the upper limit [$I(1)$] at the 5% significance level. The null

performed to examine the presence of a long-run connection among the variables before the ARDL error correction representation technique was used to estimate the relationship in the study.

A. ARDL Bounds Test

The ARDL bounds test tests for a co integrating relationship among variables. The hypotheses for the ARDL bounds test are stated below.

H_0 : No levels relationship.

H_1 : H_0 is not true.

If the F-statistic is larger than the crucial value for the upper bound $I(1)$ at a 5% level of significance, we reject the null hypothesis and infer that there is a co integrating connection, or a levels relationship. We also find that the test is inconclusive if the estimated F-statistic falls between the critical values of the lower bound $I(0)$ and the upper bound $I(1)$. Finally, if the estimated F-statistic is smaller than the critical value for the lower bound $I(0)$, the null hypothesis is not rejected, and we infer that there is no co integrating connection, that is, no levels relationship. The tables below provide the results of the bounds tests for the two equations in this research.

hypothesis, that there is no level link, is rejected as a result of the findings. As a result, the long-term connection is estimated.

Table 4.3b: ARDL Bounds Test for model 2

Dependent Variable: D(MCAP_Y)		
ARDL Bounds Test		
Test Statistics	Value	K
F-Statistics	10.11360	5
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
5%	2.39	3.38

Source: Computed by Researcher in EViews 10

The bounds test for the second equation in this study is shown in Table 4.3b. The F-statistic was 10.11360, which is larger than both the lower limit [I(0)] and the upper limit [I(1)] at the 5% significance level. The null hypothesis, that there is no level link, would be rejected as a result of the findings. As a result, the long-term connection is calculated.

B. The ARDL and Error Correction Model

The ARDL bounds test result revealed that the variables in the two equations had a long run or co integrating connection. The ARDL method of co integration was

employed to provide long run estimations of the parameters in the two equations in this investigation, while the ECM was employed to assess the speed of adjustment. The tables below illustrate the findings derived using the ARDL long run model. The significance of the independent variables is shown using t-statistics and the p-value. If the computed t-statistics of a variable is greater than or equal to 2, the variable is said to be significant and if otherwise, it would be insignificant. As for the p-value, if its estimate is less than 0.05, the variable is said to be significant and if otherwise, it is assumed to be insignificant.

Table 4.4a: ARDL Long-Run Model for model 1

Dependent Variable: D(MCAP_Y)				
Case 3: Unrestricted Constant and No Trend				
Estimated Long-Run Coefficient of ARDL (4, 4, 4, 4, 3, 4)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DCRDT	9.20E-15	3.05E-15	3.022046	0.0233
RIR	-0.002266	0.001358	-1.669006	0.1462
RER	0.000485	0.000312	1.554527	0.1711
FDI	3.48E-11	2.39E-11	1.456782	0.1954
TO	1.09E-11	5.13E-12	2.128473	0.0774
C	-0.011363	0.007442	-1.526862	0.1776

Source: Computed by Researcher in EViews 10

The coefficient of domestic credit is statistically significant. A one percent increase in domestic credit

(DCRDT) holding other variables constant, would make stock market capitalisation ratio (MCAP_Y) respond by

0.0000000000000092%, that is, if domestic credit increases by 1%, stock market capitalisation ratio would increase by 0.0000000000000092% in Nigeria. Since domestic credit is statistically significant, it is therefore an essential determinant in stock market development in Nigeria.

The real interest rate coefficient is statistically insignificant. Stock market capitalisation ratio (MCAP_Y) would respond by -0.002266% if real interest rate (RIR) increased by 1% if all other variables remained constant. In other words, if real interest rate increased by 1%, stock market capitalisation ratio would grow by -0.002266% in Nigeria. Because real interest rate is statistically insignificant, it is therefore not important for banking sector development in Nigeria.

The real exchange rate coefficient is statistically insignificant. With all other factors held constant, a 1% rise in real exchange rate (RER) would market capitalisation ratio (MCAP_Y) respond by 0.000485%, that is, real exchange rate (RER) grows by 1%, market capitalisation ratio will increase by 0.000485% in

Nigeria. Because real exchange rate is statistically insignificant, it is therefore not important for banking sector development in Nigeria.

Foreign direct investment coefficient is statistically non-significant. Holding all other factors equal, a 1% rise in the foreign direct investment (FDI) would make stock market capitalisation ratio (MCAP_Y) to respond by 0.0000000000348%, i.e., if foreign direct investment increases by one percent, stock market development will increase by 0.0000000000348% in Nigeria. Because foreign direct investment is statistically insignificant, it is therefore not important for stock market development in Nigeria.

Trade openness coefficient is statistically insignificant. If trade openness (TRAD) rises by 1% while all other variables remain constant, stock market capitalisation ratio (MCAP_Y) will respond by 0.000000000109%, i.e., if trade volume as a proportion of GDP increases by 1%, stock market capitalisation would increase by 0.000000000109% in Nigeria. Because trade openness is statistically insignificant, it is irrelevant to the development of Nigeria's stock market.

Table 4.4b: ECM Regression for model 1

Dependent Variable: D(MCAP_Y) Case 3: Unrestricted Constant and No Trend ECM Regression of ARDL (4, 4, 4, 4, 3, 4)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CointEq(-1)*	-1.650372	0.206329	-7.998729	0.0002
R-squared				0.958847
Adjusted R-squared				0.883401
Durbin-Watson Statistic				2.553363

Source: Computed by Researcher in EViews 10

The first equation of the model has a goodness of fit represented by the R^2 of 95.8% and an adjusted R^2 , which accounts for the degree of freedom 88.3%. The R^2 indicates that explanatory variables account for 95.8% of the systemic variation in stock market development (MCAP_Y).

The error correction term is statistically significant and with a negative coefficient. The error correction term is estimated to be quite big (-1.650372), that the speed of adjustment from the short run to the long run is very fast, that is, if there is a disequilibrium in this system, it takes an average speed of around 165.03 percent to adjust back from the short to the long run. The coefficient of the lagged error correction term is

somewhat below -1, but it is not below -2, thus it is within the dynamically stable range (Pesaran, Shin, and Smith, 2001; Loayza and Romain, 2006). The ECM regression also displays the short run coefficient for the

variables in the first equation. The findings indicate a positive link between domestic credit and stock market development in Nigeria, as measured by stock market capitalisation ratio.

Table 4.4c: ARDL Long-Run Model for model 2

Dependent Variable: D(MCAP_Y) Case 4: Unrestricted Constant and Restricted Trend Estimated Long-Run Coefficients of ARDL (4, 4, 4, 4, 4, 3)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
M2_Y	44943468	20296465	2.214350	0.0687
RIR	-4296620	3380565.	-1.270977	0.2508
RER	1104926	728915.2	1.515850	0.1803
FDI	0.086489	0.061935	1.396459	0.2121
TO	0.015539	0.012047	1.289858	0.2446
C	-5.53E+08	2.48E+08	-2.229348	0.0673

Source: Computed by Researcher in EViews 10

The coefficient of financial deepening financial deepening (proxied by ratio of broad money supply to GDP) is statistically insignificant. A one unit increase in financial deepening (M2_Y) holding other variables constant, would make stock market capitalisation ratio (MCAP_Y) respond by 44,943,468 units that is, if domestic credit increases by 1 unit, stock market capitalisation ratio would increase by 44943468 units in Nigeria. Since financial deepening is statistically insignificant, it is therefore irrelevant in determining stock market development in Nigeria.

The real interest rate coefficient is statistically insignificant. Stock market capitalisation ratio (MCAP_Y) would respond by -4296620 units if real interest rate (RIR) increased by 1 unit if all other variables remained constant. In other words, if real interest rate increased by 1 unit, stock market capitalisation ratio would decrease by 4296620 units in Nigeria. Because real interest rate is statistically insignificant, it is therefore not important for banking sector development in Nigeria.

The real exchange rate coefficient is statistically insignificant. With all other factors held constant, a 1 unit rise in real exchange rate (RER) would market capitalisation ratio (MCAP_Y) respond by 1104926 units that is, real exchange rate (RER) grows by 1 unit, market capitalisation ratio will increase by 1104926 units in Nigeria. Because real exchange rate is statistically insignificant, it is therefore not important for banking sector development in Nigeria.

Foreign direct investment coefficient is statistically non-significant. Holding all other factors equal, a 1 unit rise in the foreign direct investment (FDI) would make stock market capitalisation ratio (MCAP_Y) to respond by 0.086489 units, i.e., if foreign direct investment increases by one percent, stock market development will increase by 0.086489 units in Nigeria. Because foreign direct investment is statistically insignificant, it is therefore not important for stock market development in Nigeria.

Trade openness coefficient is statistically insignificant. If trade openness (TRAD) rises by 1 unit while all other variables remain constant, stock market capitalisation

ratio (MCAP_Y) will respond by 0.015539 units, i.e., if trade volume as a proportion of GDP increases by 1 unit, stock market capitalisation would increase by

0.015539 units in Nigeria. Because trade openness is statistically insignificant, it is irrelevant to the development of Nigeria's stock market.

Table 4.4d: ECM Regression for model 2

Dependent Variable: D(MCAP_Y) Case 3: Unrestricted Constant and No Trend ECM Regression of ARDL (4, 4, 4, 4, 3, 4)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CointEq(-1)*	-0.632676	0.053170	-11.89918	0.0000
R-squared				0.981245
Adjusted R-squared				0.946860
Durbin-Watson Statistic				3.265766

Source: Compiled by Researcher in EViews 10

The second equation of the model has a goodness of fit represented by the R^2 of 98.1% and an adjusted R^2 , which accounts for the degree of freedom 94.6%. The R^2 indicates that the explanatory variables account for 98.1% of the systemic variation in stock market development (MCAP_Y).

The error correction term is statistically significant with a negative coefficient. The estimation of the error correction term reveals that after a shock in the explanatory variables, there is a rapid adjustment from the short to the long-run. If there is a disequilibrium in this system, the error correction mechanism will adapt back from the short to the long run at an average speed of around 63.2 percent. The short-run coefficients for the variables in the second equation in this model are also shown in the ECM regression. The findings reveal a positive link between financial deepening (proxy by ratio of broad money supply to GDP) and stock market development in Nigeria, as measured by stock market capitalisation ratio.

5. Conclusion and Recommendations

The scarce recent literatures on the relationship between financial depth and stock market development in Nigeria required this study, particularly in terms of whether the former causes the latter or vice versa. We infer from the outcomes of this study's analysis that

financial deepening has a major beneficial impact on stock market development in the long run but has no effect in the short run. We also come to the conclusion that, rather than financial depth driving stock market development, the opposite is true. These data backup Patrick's (1966) demand-following hypothesis on the relationship between financial development and economic growth. Some recommendations are chosen as a result of the study's results and conclusions, especially as expanded financial deepening activities are considered as essential for stock market expansion. As a result, this researcher suggests:

- i. There should be increased efforts tailored towards improving financial deepening and thus make more funds available to the private sector which is the main players in the stock exchange market. With increased funds available for trading in stocks, market capitalization will increase and the stock market will also propel growth in financial deepening variables.
- ii. The time lag between monetary policy announcements and its actual effects on targets should be strategically managed so as to militate against the negative effect of financial deepening on stock market development in the short run.

iii. Rates on short term loans and advances can also be reduced for stock purchase purposes since trading in

stocks is now done on both short and long term basis

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