PROJECT MUSE

Democracy And Stock Market Development: The Case Of Nigeria

Folorunsho M. Ajide



The Journal of Developing Areas, Volume 53, Number 3, Summer 2019, (Article)

Published by Tennessee State University College of Business
DOI: *https://doi.org/10.1353/jda.2019.0042*

For additional information about this article
https://muse.jhu.edu/article/715373

Access provided by Iowa State University (6 Feb 2019 03:19 GMT)

The Journal of Developing Areas
Volume 53 No. 3 Summer 2019

DEMOCRACY AND STOCK MARKET DEVELOPMENT: THE CASE OF NIGERIA

Folorunsho M. Ajide*
The Institute of Chartered Accountants of Nigeria, Nigeria

ABSTRACT

Institutional economics theories stress the importance of political dispensations as a determinant of financial market development. The Literature shows that political institutions can influence financial market system by imposing constrains on the discretion of political power. In addition, a more democratic system may encourage free market and increase the number of new entrants which helps existing firms to be more efficient and improves its performance in the stock market. Democracy can reduce the power of government to manage and control the financial market which in turn increases the level of competition and further improves participation. However, the empirical findings remain inconclusive. There is evidence of positive, negative and/or no direct effect of democracy on financial markets. This paper contributes to this debate by examining the dynamic non-linear effect of democracy on stock market development for the period of 1984-2015 within nonlinear ARDL framework. The results show an asymmetric response of stock market to democracy in Nigeria. In a more specific, it shows that stock market's response to democracy is negative both in the short run and long run. This finding serves as a confirmation that the stock market behaviors are related in a nonlinear way to the institutional fundamentals. The study therefore suggests that weaknesses in governance system, mismanagement of the economy and failure to grant independence to monetary authority are the key sources of challenges facing Nigerian stock exchange market. Efficiency of stock exchange is anchored largely on the efficient institutional environment. A good institutional framework remains the efficient ways of tackling corruption which has been one of the key factors most investors are afraid of in the context of Nigerian capital market. Sound regulation quality with adequate respect for the rule of law, avoid violence and political instability are very important to ensure efficient operation of Nigerian capital market.

JEL Classifications: G02; P26
Keywords: democracy, crisis, financial development, Nigeria
Contact author's email address: ajide2010@gmail.com

INTRODUCTION

A number of studies have made an attempt to provide answer to why there are variations across countries as regard to the levels of financial development. The bulk of these literatures single out two important explanations; namely: legal origin and political institution structure. The political theories of finance provide how democracy impacts financial market. In this view, democratic system decreases the tendency of elites to impose their will on citizens and therefore improves well being in a country (North 1990). A more democratic system may encourage free market and increase the number of new entrants which helps existing firms to be more efficient and improves its performance in the stock market. A stock market may as well witness growth in a democratic system of government because democratic setting can secure property and investors' rights, thus providing more incentives for investors (Olson, 1993). In the same way, democracy can reduce the power of government to manage and control the financial market which in turn increases the level

of competition and further improves participation. It is also capable of reducing rent seeking behavior and aligns the interests of the state to the preferences of the citizen, and thus increases efficiency of financial markets (Haber, 2008).

Furthermore, democracy may deter investment incentives in a stock market because it is associated with higher public pressure for instantaneous consumption behavior (Huntington, 1968). The willingness of policymakers to gain voting shares makes the government in democracy to dance to the tune of few interest groups to put up policy in favor of a particular sector in order to gain huge important voting blocs which may lead to inefficient distribution of resources (Comeau, 2003). It has also been documented that Democracy can influence banking crisis. This relies firmly on the institutional architecture that governs financial system maintains by a nation and the steps involved in the implementation of macroeconomic policies to address the calamities of financial crisis. Despite the accrued benefits derived from democracy, for instance, it may also improve the probability of financial instability and crisis (Lipscry, 2011). On a positive note, the relationship between political institutional structure of a country and banking crisis can be considered crucial bearing in mind that politicians determine the institutional architecture that governs financial systems, which may as well reduce the incidence of banking crises. Also, it has been confirmed that even when sound macroeconomic policies are pursued by governments, if they fail to establish adequate institutional structure in supervising and monitoring activities, particularly in the financial sectors, these institutional weaknesses become the basis of subsequent crises (Acemoğlu et al., 2003; Ganiolu, 2016). However, the literature on this topic still remains underdeveloped (Helleiner 2011; Cohen 2009).

Following this line of arguments, this study investigates the asymmetric effect of democracy on stock market development. The first motivation for this study relates to the use of Nigeria as a study ground. In this setting; it is the few political and industrial elites that control the major governmental and political decisions. In many cases these decisions obstruct and distort financial market. Consequently, it denies access to finance to new market participants making changes in patterns of the financial sector growth depend on changes in the relative power of these elites, therefore impaired by policy shocks which may not be captured in a linear estimation (Ghardallou, 2016). The second motivation for this study focuses on the use of asymmetric technique which is drawn from the work of Ghardallou and Boudriga (2014). They state that available evidences on the relationship between democracy and finance are mixed (Lehkonen & Heimonen, 2015). There is evidence of positive (Asongu, 2012; Ghardallou, 2016; Boadi & Amegbe, 2017), negative and/or no direct effect of democracy on financial markets (Wang & Lin, 2009). However, Ghardallou and Boudriga (2014) empirically suggest the role of nonlinearity approach in resolving this debate. They are of the opinion that non-linearity can arise from the disparities in the fundamental factors that determine the dynamics of stock markets. In this case, the study contributes to the existing literature being the first study to investigate the asymmetric relationship between democracy and stock market development using Non-linear ARDL approach in an African country. This paper is organized into five sections. The next section discusses the literature review. Section 3 discusses the data and the methodology for the study. In section 4, the study focuses on discussion of the results. The last section concludes the study.

LITERATURE REVIEW

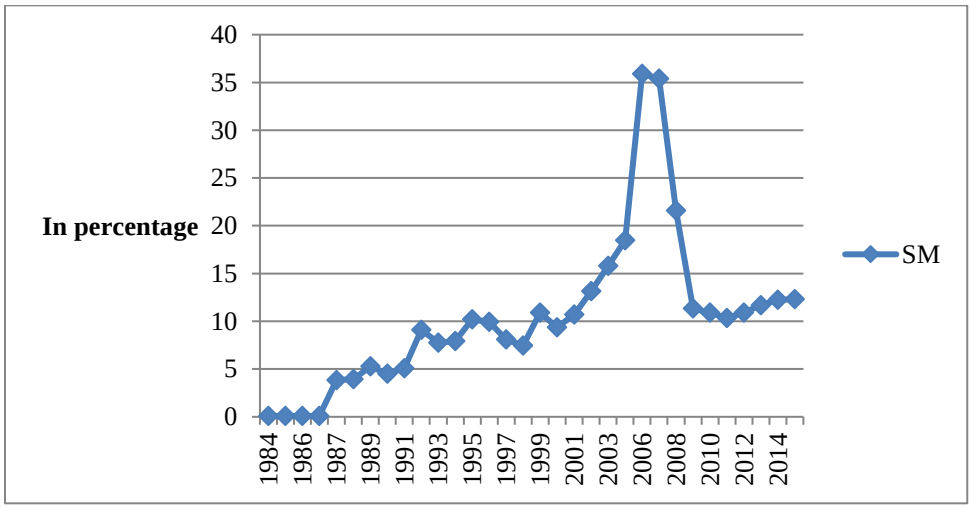
BRIEF HISTORICAL DEVELOPMENT OF NIGERIAN POLITICAL SYSTEM AND THE STOCK EXCHANGE

The structure of a country's political system and the power dynamics within the political class can create uncertainties for investors and actors in the financial market. In an environment of political uncertainty and non-democratic setting, policy formulation becomes difficult with the resultant negative impact on private investment (Rodrik, 1991). The implication of this is that reforms and initiatives are less likely to succeed. Consequently, stable political system is one of the indicators considered by actors in the financial market for decision making. Bernhard and Leblang (2006) argued that democratic systems and cabinet formations influence financial markets in a country. Based on this, this section discusses briefly how democratic and non-democratic systems in Nigeria have influenced the Nigerian stock market under the different political dispensations.

This review dates back to the late 1950s when it became obvious to the British Colonialists that they had to hand over power due to nationalist agitations. In 1960, power was eventually handed over and the country gained independence from colonial rule. Consequently, this change of power virtually influenced every institution and setting in Nigeria. Prior to Independence, the Nigerian Stock Exchange (NSE) was established on September 15, 1960. NSE was formally named the Lagos Stock Exchange and incorporated as a private limited liability company, limited by guarantee under the provisions of the Lagos Stock Exchange Act 1960. The Act conferred monopoly powers on its members to deal in securities granted quotation on the Exchange. It also allowed the Central Bank to deal directly in securities. Stock exchange was opened for business on June 5, 1961 with 19 listed securities made up of 3 equities, 6 Federal Government Bonds and 10 industrial loans (Osaze, 2007).

Nigerian democratic rule was attempted for the first time in 1960s and lasted only six months through the first military coup of January 15, 1966 based on claims of corruption and tribalism. In 1979, a more democratic setting was returned to Nigeria by swearing in Alhaji Shehu Shagari as the president. Alhaji Shagari's regime lasted for 4 years and the military took over power again in 1984 with General Muhammadu Buhari as the military ruler. During the military interregnum, a number of decrees in the Nigerian Stock Exchange were promulgated and a lot of new developments were witnessed amongst which were the creation of new trading floors in Kaduna (1978), Port Harcourt (1980), Kano (1989) and Onitsha (1990). On April 1, 1978, the Securities and Exchange Decree was promulgated to replace the Capital Issues Commission and expanded the scope of its activities following the recommendations of the Financial System Review Committee (Okigbo Committee) of 1976. This development is well indicated in Figures 1 & 2 with the trend line moving upward from left to the right. The level of Nigerian democratic accountability was about 50.6% as shown in Table 1.

FIGURE 1: STOCK MARKET CAPITALIZATION IN NIGERIA(SM)



Source: CBN (2016)

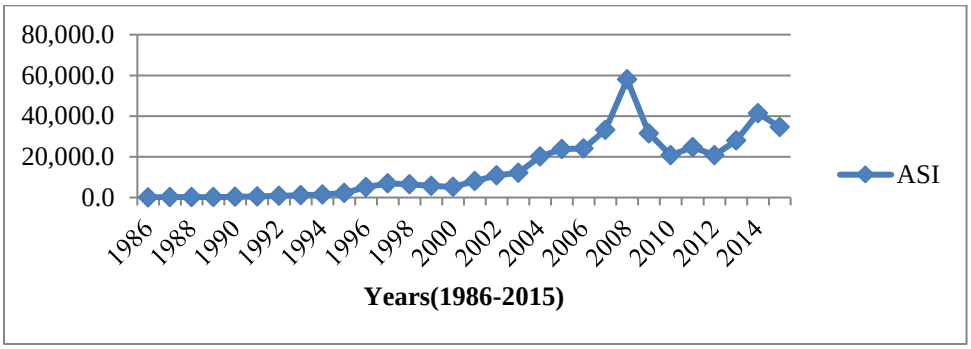
TABLE 1: DEMOCRACY AND MARKET CAPITALISATION

Year	Democratic accountability*(%)	Market capitalization (% of GDP)**
1984-1989	50.69	4.87
1990-1995	31.71	6.6
1996-2001	35.19	9.32
2002-2007	55.32	21.57
2008-2013	58.33	12.79

*Source: *ICRG(2016), **CBN(2016)*

Further development in the NSE occurred in 1980s when the ₦20 million 7% first Bendel State Loan was floated to finance the state's housing development programme. On April 5, 1985, the Second-Tier Securities Market (SSM) of the Nigerian Stock Exchange was established to cater for the requirements of Small-and-Medium Scale Enterprise (SMEs). Through the Privatization and Commercialization Decree 25 of 1988, the Federal Government of Nigeria privatized its equity interest and commercialized some of the Federal Government wholly-owned enterprises. This exercise further brought more companies to the Nigerian Stock Exchange whose shares are thus listed.

FIGURE 2: ALL-SHARE-INDEX (ASI)



Source: *CBN (2016)*

However, it can be seen in Figure 2 of All-share-index that the 1990s democratic accountability was below average and this reflected the level of government intervention in Nigerian Stock Exchange. Meanwhile, the demise of Sani Abacha returned a full fledge democracy to Nigeria in 1999 through the role played by General Abdulsalam Abubakar. By May 29, 1999, Olusegun Obasanjo was sworn in as the democratic President and Commander-in-Chief of the Nigerian Armed Forces. Within this period, the level of democratic accountability was above average which increased the market capitalization index by 21.5% on average. He was succeeded by late Umaru Yar'adua who was in office for less than two years and, after his demise, Goodluck Jonathan became the President. During Yar'adua-Jonathan's regime, the worst crisis hit the Nigerian stock market in the first half of 2008 – investors' wealth was reduced by a significant two-third of the market total value from about ₦13 trillion to a little over ₦4 trillion.

As shown in Figure 2, between 2008 to about 2011 the All-Share Index also dropped from about 66000 basis points to less than 22000 points in the same period. The stock prices experienced a downward movement regime with more than 60% slightly above 300 quoted securities on constant offer on a continuous basis. Consequently many of the quoted stocks lacked liquidity as their holders were trapped, not being able to convert them to cash to meet their domestic and other investment needs. The democratic government of the period made a statement that it would not intervene directly in the capital market perceived by the government as a purely private affair. This shows that the government lacked the will to examine the socio-economic implications and chain effects of a failed capital market. Hence, there was no bailout plan for the Nigerian stock market. The government outright refusal to intervene directly in the crisis depleted any hope of a possible market rebound leading to further loss of confidence among investors as shown on Figures 1 &2.

In year 2015, President Muhammadu Buhari took over power under a democratic rule. This change influenced the financial market settings in Nigeria ranging from Market reforms, policy formulation to changes in operations in the market. Some elements of transparency and accountability, fighting against corruption, rule of law and adherence to due process in the floor of the market were also observed. These elements of good governance systems were certainly not in their perfect state, but clear indicators of a return

from the profligate and reckless disposition of the past regimes to a government that is fairly accountable to the citizens. In spite of the progress that has been made so far, the present democratic arrangement in Nigeria is bedeviled with a number of challenges such as the absence of a purposeful, trusted, respected and focused political leadership which seem to have influence on stock market development in Nigeria.

THEORETICAL AND EMPIRICAL LITERATURE

The literature on the quality of democracy in influencing a country's financial market is scanty and growing in recent times. Firstly, the early empirical work of Acemoglu and Johnson (2005), Huang (2010) and Yang (2011), stress a strong positive effect of democratic system of government on financial development. However, Przeworski and Limongi (1993), Acemoglu and Robinson (2006) explain that it is possible for democracy to deter financial market development. This negative impact can occur from the redistribution requests in a democratic government. According to these authors, democracy leads to a massive redistribution of the property of capitalists, land owners and wealthy elites, toward the poor majority. Renewed pressure for redistributive policies leads to the destruction of the structure of property rights and undermines the free play of markets. Moreover, these requests weaken the incentives for investment with the adverse effects on financial development (Sah, 1991; Ghardallou, 2016). The recent work of Ghardallou and Boudriga (2014) examined non-linear relationship between democracy and financial development in 110 countries using the estimation of smooth models for panel data (PSTR). Their results showed that democracy impacts financial development. While the work of Ghardallou and Boudriga (2014) seems to be the only study that signifies the role of non-linearity in the relationship, Mandon and Mathonnat (2014) provides the evidence of positive and robust correlation between democracy and financial development in a panel of 140 countries for a period of 1984-2007. This submission corroborates the findings of Ghardallou (2016). This author finds that transition to a democratic system of government improves the level of financial development in a panel of 48 events of democratic transitions' countries. This effect does not occur in the short run. In the empirical work of Khafagy (2016), the estimated results show that democracy, political rights and civil liberties improve the level of financial cooperative development after using panel data of 65 developing countries.

Of recent, some authors focus their investigations to the relationship between political regimes/events (autocracy vs democracy) and stock market development. Among this group of authors are Chien, Mayer, and Wang (2014) who use data from 1900-2008 for 27 separate presidential administrations in the United States (U.S) and Nazir, Younus, Kaleem and Anwar (2014) who study political events in Pakistan and its effect on Karachi Stock Exchange performance. Their main submission is that political events have impact on the stock market performance but according to Nazir et al (2014) the impact is more profound in autocratic system. Wang and Lin (2009) examined the congressional effect, between the pre- and post democratization on the stock market using the asymmetric Generalized Autoregressive Conditional Heteroscedesticity (GARCH) model for the period of 1984–2004. The results found that the congressional effect is negative on stock returns. Asongu(2012) investigated the impact of democracy on Stock Market Performance in African Countries using a Two-Stage-Least Squares Instrumental Variable

methodology. He demonstrates that democracy improves stock market performance. Lehkonen and Heimonen (2015) examined the effects of democracy and political risk on stock market. Using annualized panel data for 49 emerging markets for 2000-2012. They find that democracy and political risk have impact on stock market returns. Hartwall (2014) found that stock exchanges appear to correlate with lower levels of democracy on average, he further stressed that the most successful democracies had the largest stock markets.

Lipscy (2011) empirically showed that democracy increases the incidence of banking crises. The work of Ganioğlu(2016) challenged this submission by further inquire whether the probability of crisis depends on the political institutional structure (such as democratic polity). It was documented that an effective and prudent supervision in the financial sector could lower the probability of banking crises especially in a more democratized country. Based on the above, democracy significantly influence stock market performance, however, only few academic work have explored the relationship stock market behavior and democracy in Africa. In a more specific, we find it difficult to trace any study that examines the asymmetric impact of democracy on financial market in an African country; hence, this study.

DATA AND ECONOMETRIC STRATEGY

The study made use of secondary data to examine the effect of democracy on stock market development using Non-linear ARDL methodology for the period of 1984-2015. Data were sourced from Central Bank of Nigeria statistic bulletin, World Bank Development Indicators, and International Country Risk Guide.

NON-LINEAR/ ASYMMETRIC ARDL MODEL

Non-linear/ asymmetric ARDL model is a new technique for detecting nonlinearities which relates to the long-and short-run asymmetries among financial or/ economic variables. The technique was proposed by Shin et al. (2011) and is an asymmetric form of the linear ARDL model.

The effect of democracy on stock market development was investigated using Non-linear ARDL. Following Pesaran and Shin (1999), Pesaran et al. (2001), and Shin et al. (2011), and the empirical work of Yang (2011), Ghardallou and Boudriga (2014) and Ghardelou (2016), the study considers the following nonlinear asymmetric cointegrating regression:

$$SM_t = \delta_0 + \delta_1 DA_t^+ + \delta_2 DA_t^+ + \delta_3 GDP_t + e_t \qquad (1)$$

Where δ_i is the vector of long run coefficients, the asymmetric impact of democracy is accounted for by including the positive changes, DA_t^+ and negative changes, DA_t^- , in addition, $DA_t^+ \; and DA_t^-$ are the partial sum of the positive and negative in DA_t respectively:

$$DA_t^+ = \sum_{i=1}^{t} \Delta DA_t^+ = \sum_{i=1}^{t} \max(DA_i, 0) \qquad (2)$$

$$DA_t^- = \sum_{i=1}^{t} \Delta DA_t^- = \sum_{i=1}^{t} \min(DA_i, 0) \quad (3)$$

Based on (1)(2) & (3), the long run relation between democracy and stock market development increases is δ_1, which is expected to be positive. However, $\delta_2$captures the long run impact of democracy reduction on stock market development. In view of the fact that they are expected to move in the same direction, δ_2 is expected to be positive. The study further posits that a more democratize financial system would result in higher long run changes in the stock market development as compared to the stock market impact of democracy reduction of the same magnitude, i.e. $\delta_1 > \delta_2$. Thus, the long run relation as represented by (1) reflects asymmetric effect of democracy on stock market development in the long run. By linking (1) to the case of ARDL, the study obtains the following asymmetric error correction model (AECM):

$$\begin{aligned}\Delta SM_t = \beta_0 + \sum_{i=1}^{k} \prod_i \Delta SM_{t-i} \\ + \sum_{i=0}^{k} \gamma_i \Delta \mathrm{DA}_{\mathrm{t-1}}^{+} + \sum_{\mathrm{i=0}}^{\mathrm{k}} \theta_{\mathrm{i}} \Delta \mathrm{DA}_{\mathrm{t-1}}^{-} + \sum_{\mathrm{i=0}}^{\mathrm{k}} \theta_{\mathrm{i}} \Delta \mathrm{GDP}_{\mathrm{t-i}} + \beta_1 SM_{t-1} \\ + \beta_2 DA_{t-1}^{+} + \beta_3 DA_{t-1}^{-} \\ + \beta_4 GDP_{t-1} + e_t \quad (4)\end{aligned}$$

While SM stands for stock market development, DA stands for democracy, GDP stand for Growth rate of GDP per capita, k is lag order, $\delta_1 = -\frac{\beta_2}{\beta_1}$ and $\delta_2 = -\frac{\beta_3}{\beta_1}$ are the aforementioned long run impacts of respectively more and less democratize polity of financial system on the stock market development. In the nonlinear ARDL approach both short run and long run asymmetric effects are captured. The first steps in the ARDL approach to cointegration is to confirm that no variable is more than I(1) order. This is important since the presence of an I(2) variable renders the computed F-statistics for testing cointegration invalid. To this end, we apply the widely used ADF and PP unit root tests for establishing the variables' orders of integration.

The next step is to confirm the presence of cointegration. The approach uses *F-statistic* with value that should be above the *upper* bound critical values, in this case, it could be confirmed that there is evidence of a long-run relation among the variables (Pesaran et al. 2001; Shin et al. 2011). The final step is to examine the long-run and short-run asymmetric effects of key independent variable in relation to stock market development and inferences would be drawn. In this step as well it is possible to drive the non-linear cumulative dynamic multiplier effects of a one percent change in DA_{t-1}^{+} and DA_{t-1}^{-} as defined in equation (4) and (5) respectively.

$$dm_l^{+} = \sum_{i=0}^{l} \partial \frac{SM_{t+i}}{\partial DA_{t-i}^{+}} \quad (4)$$

$$dm_l^- = \sum_{i=0}^{l} \partial \frac{SM_{t+i}}{\partial DA_{t-i}^-} \quad (5)$$

$$l = 0,1,2 \ldots \ldots$$

Note that as $l \to \infty, dm_l^+ \to \delta_1 \; and \; dm_l^- \to \delta_2$

VARIABLE MEASUREMENTS

For dependent variable, the study proxied stock market development (SM) as stock market capitalization (% of GDP) measured as the share price times the number of shares outstanding. The study used a number of independent variables. Firstly, democracy (***DA***) was proxied as democratic accountability sourced from International Country Risk Guide (ICRG). It measures how responsive government is to its people, on the basis that the less responsive it is, the more likely it is that the government will fall, peacefully in a democratic society, but possibly violently in a non-democratic one. The points in this component are awarded on the basis of the type of governance enjoyed by the country. For this purpose, ICRG defined the following types of governance: Alternating Democracy, Dominated Democracy, De Facto One-Party State, De Jure One-Party State and Autarchy. The maximum point is six. The highest number of risk points (lowest risk) is assigned to Alternating Democracies, while the lowest number of risk points (highest risk) is assigned to Autarchies. Hartwall (2014), among others have employed the data in their studies. In addition, ***GDP*** per capita growth is used to control for economic condition which may have effect on stock market behavior.

RESULTS AND DISCUSSION

PRELIMINARY ANALYSIS

One of the prerequisites of using ARDL technique is to ensure that none of the variables is I(2) variable otherwise, the technique may not be appropriate. For this purpose, we conduct unit root test for the main variables to be included in the estimation of ARDL/bound test approach to cointegration in our analysis which include stock market development (SM), democracy (DA) and growth rate of GDP per capita (GDP) as reported in Table 2.

TABLE 2: UNIT ROOT TEST RESULTS

Variables	ADF		PP		Order
	Intercept	Intercept and Trend	Intercept	Intercept and Trend	
SM	-4.569221**	-4.582211**	-4.049448**	-4.558593**	I(1)
	{0.0011}	{0.0053}	{0.0039}	{0.0054}	
DA	-5.345493**	-5.279175**	-8.412478**	-9.508335**	I(1)
	{0.0001}	{0.0009}	{0.0000}	{0.0000}	
GDP	-4.345493**	-4.982948**	-4.799916**	-5.008408**	I(0)
	{0.0005}	{0.0018}	{0.0005}	{0.0017}	

Source: Author's computation
*** Significant at 1%, figures in { } are MacKinnon (1996) one-sided p-values.*

Using Augmented Dicky-Fuller (ADF) Test and Phillips-Perron (PP) Test to assess the stationarity of the variables, we discover that SM and DA are stationary at first difference while GDP is stationary at level. Based on this result, we proceed to examine the long run relationship among the variables using Bound test approach to cointegration.

TABLE 3: BOUND TEST APPROACH TO COINTEGRATION

Form of ARDL	F-statistic Value	Selected Model	Cointegration
Linear	F=8.049377, K=2 *Upper bound=3.79, *Lower bound= 4.85	ARDL(3, 4, 4)	Yes
Non-Linear	F=6.805556, K=3 *Upper bound=3.23, *Lower bound= 4.35	ARDL(4, 4, 0, 4)	Yes

*Source: Author's computation, *at 5% upper and lower bounds*

Table 3 documents the bound test conducted on the variables. The optimal lag structure is allowed to be chosen automatically based on the Akaike Information Criterion. From the results. It can be seen that in both the linear and non-linear ARDL technique, all the variables are cointegrated. This means that there is a basis to conduct both short and long run estimation in linear and non-linear ARDL environment.

EMPIRICAL RESULTS AND DISCUSSION

Table 4 presents the empirical results of linear ARDL model on the effect of democracy on stock market development in Nigeria after controlling for economic condition. We discover that democracy variable is negative but not significant in the short run and long

run. This confirms the submission of Ghardallou (2016) and Yang (2011) who reveal the same results in the short-run and panel estimations respectively. This linear relationship does not agree with submission of Asongu(2012) who confirms that democracy improves stock market development using Two-Stage-Least Squares estimation technique. Furthermore, the coefficient of error correction shows that 29.8% speed of adjustment is necessary for the variables to be in equilibrium while R-square provides the evidence of good-fit of the model. F-statistic shows that the model passes overall significance. In a nutshell, the results show that there is no significant, linear relationship between democracy and stock market development in Nigeria. In this case, we proceed to estimate non-linear relationship between democracy and stock market development using Nigerian data.

TABLE 4: LINEAR ARDL RESULTS OF DEMOCRACY AND STOCK MARKET

Dependent variable: SM

Short-Run Regression: Selected Model: ARDL(3, 4, 4)

Variable	Coefficient	T-statistic	Prob.
D(SM(-1))	0.345886**	2.261402	0.0415
D(SM(-2))	-0.335979*	-1.972503	0.0702
D(DA)	-0.026438	-0.377414	0.712
D(DA(-1))	0.152559	1.77275	0.0997
D(DA(-2))	-0.120977	-1.186758	0.2566
D(DA(-3))	0.143001	1.618684	0.1295
D(EC)	0.069955	0.413274	0.6861
D(GDP(-1))	-0.133475	-1.036061	0.3191
D(GDP(-2))	-0.219191	-1.651968	0.1225
D(GDP(-3))	-0.56624***	-4.284609	0.0009
CointEq(-1)	-0.298947	-2.603083	0.0219
Long Run Regression			
DA	-0.538299	-1.113159	0.2858
GDP	3.949290*	1.945873	0.0736
C	13.199269	1.047232	0.3141
Diagnostic Indicators			
R-squared	0.913365	F-statistic	10.54267
Adjusted R-squared	0.82673	Prob(F-statistic)	0.000072
Jarq. Bera (J-B)	0.844932	Durbin-Watson	1.776784
Prob.(J-B)	0.655428		

Breusch-Godfrey Serial Correlation LM Test:

Obs*R-squared 4.498007(P-Value , 0.3428)

Heteroskedasticity Test: Breusch-Pagan-Godfrey:

Obs*R-squared 13.25652(P-Value, 0.4282)

*Source: Author's computation, *,**,*** means significance at 10%, 5% and 1%*

Table 5 shows the results of asymmetric effect of democracy on stock market development in Nigeria. This is done to follow the recent submission of Ghardallou and Boudriga (2014)

who propose the use of non-linear estimation for the relationship between democracy and financial development so as to clarify disagreement in the literature using estimation of smooth models for panel data. In this study, we use non-linear ARDL methodology to estimate the asymmetric effect of democracy on stock market development in Nigeria as shown Table 5.

TABLE 5: NON-LINEAR ARDL RESULTS OF DEMOCRACY AND STOCK MARKET

Dependent variable: SM

Short-Run Regression: Selected Model: ARDL(4, 4, 0, 4)

Variable	Coefficient	T-statistic	Prob
D(SM(-1))	0.663084***	4.073975	0.0022
D(SM(-2))	-0.191255	-1.2013	0.2573
D(SM(-3))	0.235572	1.539542	0.1547
D(DA_POS)	-0.049837	-0.642238	0.5352
D(DA_POS(-1))	0.157223	1.872677	0.0906
D(DA_POS(-2))	-0.266688**	-2.37672	0.0388
D(DA_POS(-3))	0.161214	1.691042	0.1217
D(DA_NEG)	-0.210650**	-2.312793	0.0433
D(GDP)	-0.091839	-0.640771	0.5361
D(GDP(-1))	-0.037474	-0.356443	0.7289
D(GDP(-2))	-0.161337	-1.454309	0.1765
D(GDP(-3))	-0.634892***	-5.480511	0.0003
CointEq(-1)	-0.676756***	-4.242431	0.0017
	Long Run Regression		
DA_POS	-0.064137	-0.596935	0.5638
DA_NEG	-0.311265*	-2.05755	0.0667
GDP	1.235347**	2.272368	0.0464
C	-14.05401***	-1.926997	0.0828

Diagnostic Indicators

R-squared	0.951597	F-statistic	13.10666
Adjusted R-squared	0.878993	Prob(F-statistic)	0.000124
Jarque Bera (J-B)	0.420778	Durbin-Watson	1.5316613
Prob.(J-B)	0.810269		

Breusch-Godfrey Serial Correlation LM Test:
Obs*R-squared 3.798595(P-Value , 0.4339)
Heteroskedasticity Test: Breusch-Pagan-Godfrey:
Obs*R-squared 13.54964(P-Value, 0.5599)

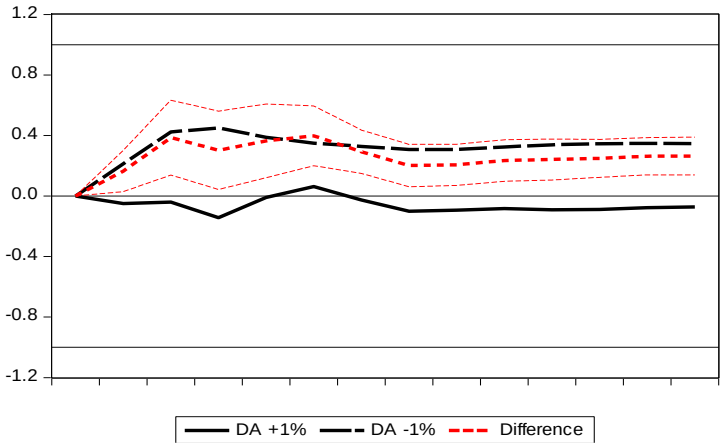
*Source: Author's computation, *,**,*** means significance at 10%, 5% and 1%,*

The result of the non-linear estimation shows that the coefficients of positive and negative change of democracy on stock market development are negative. The coefficients are significant in both short run and long run. The implication is that Nigerian democratic environment reduces returns to shareholders because it increases the transaction and agency costs. This follows the submission of Hartwall (2014) who finds that stock exchanges appear to correlate with lower levels of democracy. The corporate governance

channels are very weak in terms of degrees of enforceability. This makes the level of investor protection deteriorates in the face of these structurally flawed governance provisions; thus creating disincentives to investors. Our results fail to confirm the empirical findings of Ghardallou and Boudriga (2014) who state that there is threshold at which negative effect of democracy on financial development becomes positive since our results show that the coefficients of negative and positive changes are negative in relation to stock market development (see also Mandon & Mathonnat, 2014). Another reasons accredited to our results is the failure of a democratic government to implement a good financial policy because of its negative effect on the elites and the government fear of losing power could be a source of this negative effect on stock market development (Acemoglu & Robinson, 2006). Similarly, weak economic institutions may be used as instruments to reduce the economic autonomy of new political actors by making them more reliant on ruling elites and hence keeping control over politics.

Figures 3 plots the dynamic cumulative multiplier effects of positive and negative changes in democracy. Based on this, an asymmetric response of stock market development to positive and negative changes in democracy is detected with a rapid reaction. In this case, we see a significant reaction to negative changes and an infinitesimal, positive reaction to positive changes. The responses to decreases are obviously gradual, with tendency towards a smooth equilibrium correction. The reaction of stock market to positive changes in democracy is cumulative over time.

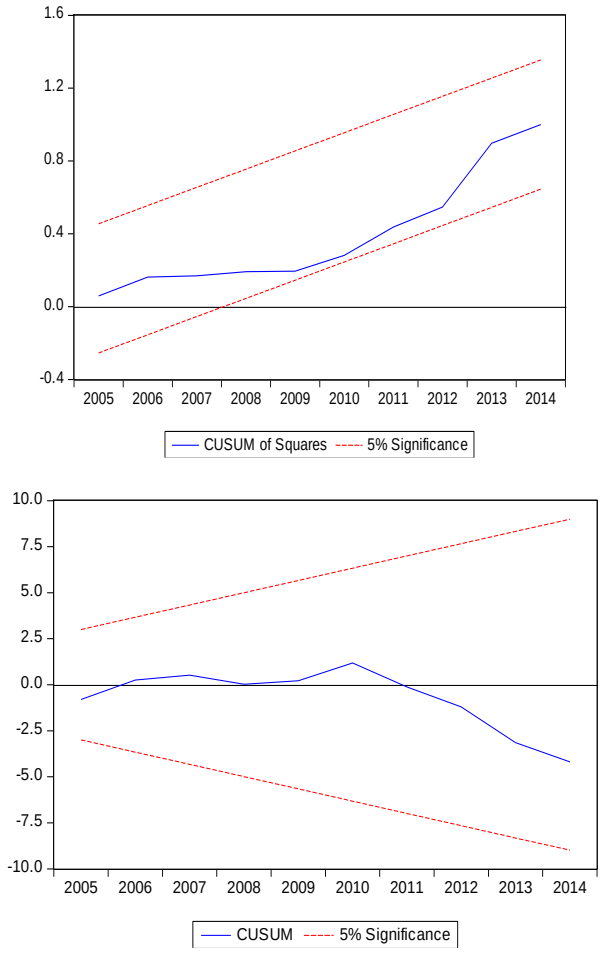
FIGURE 3: ASYMMETRIC CUMULATIVE DYNAMIC MULTIPLIER EFFECTS



Source: Author's computation

We also judge the reliability of the two estimations (linear and non-linear ARDL) using various diagnostic indicators. The diagnostic indicators show that the estimation is free from serial correlation as confirmed by Breusch-Godfrey Serial Correlation LM Test and the Heteroskedasticity Test: Breusch-Pagan-Godfrey also show that there is no evidence of Heteroskedasticity. In addition, CUSUM and CUSUM-SQ shows that our coefficients are stable (see Figure 4).The Durbin–Watson statistics shows no presence of autocorrelation.

FIGURE 4: STABILITY OF NON-LINEAR COEFFICIENTS



Source: Author's computation

CONCLUSIONS AND POLICY IMPLICATIONS

This paper examines the dynamic non-linear effect of democracy on stock market development in Nigeria using non-linear ARDL. The results show an asymmetric response of stock market to democracy in Nigeria. In specific, it shows that stock market response to democracy is negative both in the short run and long run. This finding serves as confirmation that the stock market behaviors are related in a nonlinear way to institutional fundamentals, such as democracy. The response is not highly sensitive to whether the changes in institutional variable (democracy) are positive or negative. In the same sense, the response speed required to reach a new equilibrium state is sensitive to the direction of the changes in the democracy. This finding can help stock market participants to adjust their investment strategies to these changes, and makes them to be more efficient in their

decision making. The study therefore suggests that weaknesses in governance system, mismanagement of the economy and failure to grant independence to relevant authority are the key sources of frequent challenges facing stock market development in Nigeria.

The study offers a number of policy implications. It reveals that the kind of political system practiced in a country and the governance quality matters for stock market behaviors. In addition, changes to the political leader can affect financial market activities. This is because it can distort the investors' participations in the market due to the uncertainty surrounding the future policy. The findings of the study reveal the inconsistency of the political dimensions and weak political structure of the country. Improvement of the Nigerian political environment could be necessary due to its significant influence on the market capitalization. This means that efficiency of stock exchange is anchored largely on the efficient institutional environment. A good institutional framework remains the efficient ways of tackling corruption which has been the key factors most investors are afraid of in the context of Nigerian capital market. Sound regulation quality with adequate respect for the rule of law, avoid violence and political instability are very important to ensure efficient operation of Nigerian capital market.

More importantly, the history and political features of the country needs be analysed to improve policy formulations for financial market development. By ignoring institutional factors in the policy planning, may reduce the effective workability of the policy due to non- recognition of the economic and sociological reality of the country. In this case, policy formulation packages may be inadequate and inefficient to address the issue in the financial market. Therefore, democratic organizations and its architects should be strengthened to accommodate competition, political wills of the people, rights and efficient political principles to suite efficient development of Nigerian financial system in general.

ACKNOWLEDGEMENT

Author remains grateful to the editor of the journal and the reviewer for their valuable comments and suggestions which have improved the quality of the paper.

REFERENCES

Acemoglu, D., & Robinson, J. (2006). *Economic origins of dictatorship and democracy*. UK: Cambridge University Press.

Asongu, S. A. (2012). Democracy and stock market performance in African countries. Available online at http://mpra.ub.uni-muenchen.de/38168/MPRA Paper No. 38168,

Bernhard, W., &David L. (2006). *Democratic processes and financial markets: Pricing politics*. Cambridge: Cambridge University Press.

Boadi, I. & Amegbe, H. (2017). The link between quality of governance and stock market performance: International level evidence. *European Journal of Government and Economics 6(1),* 78-101.

Central Bank of Nigeria (CBN, 2016). *Statistical bulletin*: Abuja: CBN Publication

Chen, W., Mayer, R.,& Wang,Z (2014). Stock market, economic performance, and presidential elections. *Journal of Business & Economics Research 12(2),*159-170**.**

Comeau, L. (2003). Democracy and growth: a relationship revisited", *Eastern EconomicJournal*, 29(1), 1-21.

Ghardallou ,W., & Boudriga , A. (2014). *Financial development and democracy: Is the relationship non-linear?* Working paper series 884, Egypt: Economic Research Forum.

Ghardallou, W. (2016), Does democratic transition spur financial development? Journal of *Financial Economic Policy*, *8(4*), 499 – 513.

Ganioğlu, A. (2016). Financial and political institutional problems as instigators of banking crises. *The Developing Economies 54(4),* 292–312

Haber, S. (2008). Political institutions and financial development: Evidence from the political economy of bank regulation in Mexico and the United States. In *Political Institutions and Financial Development*, edited by S. Haber, D. North & B. Weingast. Stanford: Stanford University Press.

Hartwell, C. A. (2014) Capitalism and (versus?) democracy: Stock markets and democratization in transition, *Applied Economics Letters, 21(14),* 979-983, DOI: 10.1080 /13504851.2014.902018

Huntington, S. (1968). *Political order in changing societies*. New Heaven and London: Yale University Press.

Huang, Y. (2010). Political institutions and financial development: An empirical study. *World Development, 38(12),* 1667–1677,

Khafagy, A. (2016). Political institutions and financial cooperative development. *Journal of Institutional Economics:* doi:10.1017/S174413741600031X

Laeven, L., & Fabián V. (2008). *Systemic banking crises: A new database*.IMF Working Paper no. 08/224. Washington, DC: International Monetary Fund.

Lehkonen, H., & Heimonen, K. (2015). Democracy, political risks and stock market performance, *Journal of International Money and Finance,* http://dx.doi.org /doi:10.1016/j.jimonfin.2015.06.002.

Lipscy, Phillip Y. (2011). Democracy and financial crisis." http://web.stanford. edu/n ~plipscy/democracycrisis.pdf (accessed August 20, 2017).

Mandon, P., & Mathonnat, C. (2014). Forms of Democracies and Financial Development. <halshs-01084679> Avalaible at https://halshs.archives-ouvertes.fr /h alshs-01084679

Nazir , S., Younus, H., Kaleem,A., & Anwar, Z. (2014). Impact of political events on stock market returns: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences, 30(1),* 61-78.

North, DC. (1990). *Institutions, institutional change, and economic performance*. In Cambridge and London: Cambridge University Press.

Olson, M. (1993). Dictatorship, democracy and development. *American Political Science Review 87(3),* 567–676.

Osaze, E. B. (2007). *Capital markets – African & global*. Lagos: The Book House Company Pesaran, M. H., & Shin, Y. (1999). *An autoregressive distributed lag modeling approach to cointegration analysis.* Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium in (ed) S Strom, chapter 11, Cambridge University Press, Cambridge.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics, 16*(3), 289-326.

Przeworski, A., & Limongi, F. (1993). Political regimes and economic growth, *Journal of Economic Perspectives*, 7 (3), 51-69.

Rodrik, D. (1991). Policy uncertainty and private investment in developing countries. *Journal of Development Economics* 36(2): 229–42.

The International Country Risk Guide (ICRG, 2016). Country and political risk analysis.www.prsgroup.com/explore-our-products/international-country-risk-guide/

Sah, R.K. (1991), Fallibility in human organisations and political systems, *Journal of Economic Perspectives*, 5 (2), 67-88.

Shin, Y., Yu, B., & Greenwood-Nimmo, M. (2011). Modelling asymmetric cointegration and dynamic multipliers in a nonlinear ARDL framework. *Mimeo*.

World Bank (2017). World Bank Development Indicator

Yang, B. (2011), Does democracy foster financial development? An empirical analysis, *Economics Letters*, 112(3), 262-265.