

# **Determinants of Dividend Policy: Controlling for Political Stability in Pre-crisis, Crisis and Post-Crisis Periods**

Yusuf Olatunji Oyedeko<sup>1,\*</sup>, Yusuf Babatunde Adeneye<sup>2</sup>

<sup>1</sup>Department of Business Administration, Ahmadu Bello University, Zaria, Nigeria

<sup>2</sup>Department of Finance, University of Leicester, Leicester, United Kingdom

## **Email address**

oyedekoyusuf@gmail.com (Y. O. Oyedeko), yba2@le.ac.uk (Y. B. Adeneye)

\*Corresponding author

## **To cite this article**

Yusuf Olatunji Oyedeko, Yusuf Babatunde Adeneye. Determinants of Dividend Policy: Controlling for Political Stability in Pre-crisis, Crisis and Post-Crisis Periods. *American Journal of Business, Economics and Management*. Vol. 5, No. 5, 2017, pp. 58-67.

**Received:** May 21, 2017; **Accepted:** July 6, 2017; **Published:** September 25, 2017

## **Abstract**

The paper examines the factors that influence the dividend policy of Nigerian Deposit Money Banks in the presence of political violence that affects the business environment for the period 2006 to 2015. Correlational research design was adopted. The population of the study comprises all the Deposit Money Banks functioning in Nigeria as at 31 December, 2015 with sample size of 15 Deposit Money Banks listed at the Nigerian Stock Exchange as at 31st December 2015. The data were extracted from the audited financial reports of the banks and the World Bank Development Indicator within the period of the study. The data were analysed through panel data regression. We found that board independence, board size, earnings per share, and non-executive director do not significantly affect dividend per share (DPS) in pre-crisis, crisis and post-crisis periods. The study however revealed that both firm size and political stability significantly affect dividend per share in both pre-crisis and crisis periods but not in the post-crisis period. Political stability has positive effect on DPS in crisis period while a negative effect in pre-crisis period. We also document that the contributing effect of firm size on DPS is higher in crisis period than pre-crisis period. The study documents the dividend policy pattern in the presence of political stability during crisis and non-crisis periods. The study recommended that the management team needs to strive for higher profitability, larger firm size, higher risk premium to satisfy the shareholders' goal of wealth maximization in the form of higher dividends.

## **Keywords**

Dividend Policy, Political Stability, Crisis, Deposit Money Banks

## **1. Introduction**

The decision of the firm regarding how much earnings could be paid out as dividend and how much could be retained by the firm is the concern of dividend policy. It determines what proportion of earnings is paid out to shareholders by way of dividends and what proportion is ploughed back in the firm itself for reinvestment purposes. The development of such a policy will be greatly influenced by investment opportunities available to the firm and the value of dividends as against capital gains to the shareholders. Firms can retain its free cash flow, either investing or

accumulating it, or pay it out through a dividend or share repurchase. The level of equity retained in the company is affected by the amount of earnings paid out to shareholders, financial managers need to make this decision with caution as it is one of the critical decisions in financial management. Dividend policy has remained one of the most controversial issues in corporate finance since the introduction of irrelevance of dividend policy theory by Modigliani and Miller (MM) in the 1960's when they believed in the world of efficient market where dividend policy does not affect the

shareholder's wealth. Over the years, series of academic research has been carried out on firms' dividend policy and these have led to a number of competing theoretical explanations for dividend policy. Despite the various studies covering outstanding issues on dividend payments and policies as well as their relevance to investors within developed markets, and the emerging markets consensus are yet to reach on what factors constitute determinants with a definite magnitude. Moreover, very few studies only examined the influence of external factors on the dividend policy components ([2], [25], [27])

The critical issue here is that other dimensions have emerged in extending the frontier of knowledge on dividend policy. The underlying and propelling force of this study is to unfold the determinants of dividend policy beyond firm's specific factors by introducing political stability and avoidance of violence and terrorism as control variable. Based on this, the main objective of the study is to examine factors that influence dividend policy in pre-crisis period (2006-2007), crisis period (2008-2009) and post-crisis period (2010-2015) for all listed deposit money bank in Nigeria with focus on political stability. The fundamental questions in this study are: What impact do firms' specific factors have on the dividend policy in pre-crisis, crisis and post-crisis periods? What is the impact of political factor on dividend policy in pre-crisis, crisis and post-crisis periods? In line with these research questions, we hypothesized that; Firm's specific factors have no significant impact on the dividend policy of Nigerian deposit money banks in pre-crisis, crisis and post-crisis periods and that political factor does not affect dividend policy in pre-crisis, crisis and post-crisis periods.

To answer these questions, we adopted a panel data regression analysis. This study contributed in two major ways; we established that financial crisis does not influence how firms' specific factor and board structure influence dividend per share since firm size positively influence DPS in both pre-crisis and crisis period. We established that firm size contributes more to DPS even in financial crisis period. Secondly, we established that political stability has positive significant influence on DPS in crisis period but negative in pre-crisis period. This has practical implication that firms and investors benefits from crisis period than non-crisis period. The risk premium in the capital asset pricing model is to compensate investors for market or unsystematic risk. This management of deposit money banks may serve as a tool to influence dividend payment.

The remaining part is structured thus: section two reviewed literature on determinants of dividend policy, section three outlines the methodology adopted for the study. Data analysis and discussion were presented in section four while section five concludes the paper and proffer recommendations.

## 2. Literature Review

This section is based on review of related studies on the determinants of dividend policy and the various theories

proposed to offer explanation on dividend policy.

### 2.1. Empirical Evidences

[36] analysed the impact of the recent financial crisis on US firm's dividend payout policy, using variables like size, liquidity, investor composition and spread of bid/ask. Overall his findings showed that the financial crisis did not affect dividend payout ratios, despite the evidence that dividend payout increases during crisis for larger firms with higher percentage of institutional owners. The findings showed that the crisis did not affect dividend payout ratios or dividends. However, there is evidence that dividends increase during the crisis for larger firms and those with a higher percentage of institutional owners. There are several possible explanations for this may be the firms might want to communicate to their shareholders that the crisis does not affect the firm as it does others.

[15] investigated whether corporate payout policy changed during the financial crisis in the US between 2006 to 2009. The study used a life-cycle model to predict the probability that a firm pays a dividend. The data sample for this research follows that of [11] and [8], for the time period of 2006-2009. The panel logistic regression analysis considers the firm cluster effects and the autoregressive correlation of the firm clusters. The study found that the probability that a firm paid a dividend declined in 2008 and 2009, even after taking the firm's financial condition into account. Furthermore, the analysis also showed that dividend policy did shift during the financial crisis.

[38] explored the determinants of dividend policy of companies listed on the Stock Exchange of Mauritius. The study used a sample size of 30 companies selected from the Stock Exchange of Mauritius using the regression analysis. The study employed panel data regression analysis to determine the effects of earnings per share, net income, retained earnings, cash and debt to equity on the dividend policy of the listed companies operating in the Mauritian Stock Exchange for the period 2009-2013. The findings showed that there is a significant negative relationship between companies' dividend policy and their retained earnings. Furthermore, the results indicated that there is no meaningful connection between the dividend policy and a company's cash and debt to equity ratio.

[44] investigated the determinants of the dividend policy of public listed companies in Malaysia. The factors examined in this study include earnings, cash flows, free cash flows, debt level, growth, investment, size, largest shareholders, risk and lagged dividend. Data were obtained from the relevant databases and annual reports of the sampled companies. The study examined a total of 147 listed companies. The study employed panel data regression analysis. The results revealed that five factors; earnings, debt, size, investment and largest shareholder have a significant influence on dividend policy, with earnings, firm size and investment revealed to have a positive significant effect, while debt and large shareholders have a negative significant effect.

[27] examined the determinants of dividend policy among

public-listed firms in Malaysia. Secondary data was hand-collected from the annual reports of the listed firms for a period of five years. This study employed multiple regression to estimate the relationship between the determinants and dividend payout decisions. The results indicated that investment opportunity, liquidity and firm size significantly influence the dividend payout of Malaysian listed firms.

[9] investigated the determinants of dividend payout among the Tunisian listed companies and particularly to inspect the influence of the Jasmine revolution on firms' dividend policies. The study employed panel data models using pooled data from the companies listed on the Tunisian Stock Exchange from 2003 to 2012. The findings indicated that net cash flow and market to book value have significant influence on the dividend payout, while the Jasmine revolution had no significant impact on the dividend payout among the Tunisian listed companies. Hence, the study provides insights on the factors which would assist policy makers, regulators, as well as investors in elaborating strategies and policies for an optimal use of the dividend policy tools.

[21] examined determinants of dividend Policy Turkish Listed Firms using Panel Data Analysis for eight-year for the period from 2006 to 2013 from the Turkish stock market. The results showed that financial leverage, size, growth rate, age, profitability, ownership structure and P/E ratio are statistically significant. The relationship of leverage, growth rate, profitability and family control with dividends is negative, whereas the relationship of size, age and P/E ratio is positive. The study concluded that firms with higher debt ratios or growth rates or higher earnings are likely to retain more of their earnings. The study therefore recommended that, as a firm matures, the availability of profitable projects reduces and earnings decrease.

[5] examined determinants of dividend distribution are on Information Technology (IT) companies in India. In this research paper top four Information Technology (IT) companies in India were analysed over a span of 5 financial years. Three factors namely Leverage, PE Ratio, and Return on Equity are found to be statistically significant, as far as Dividend Distribution Decisions are concerned.

[23] examined the relationship between dividend policies and financial performance of selected listed firms in Morocco. Data were sourced from the annual reports of the sampled quoted firms and was analyzed using panel data regression model. Two models were developed in an attempt to provide a theoretical explanation on the birds-in-hand dividend relevance theory and the Modigliani and Miller's (MM) dividend irrelevance theory. The findings indicated that dividend policy is an important factor affecting firm performance. The study concluded that dividend policy is relevant and that managers should devote adequate time in designing a dividend policy that will enhance firm performance and shareholder value. The recommendation was that Management of companies should invest in projects that give positive Net Present Values, which can be partly used to pay dividends to their equity shareholders.

[1] examined the impact of dividend policy on the profitability of selected quoted manufacturing firms in Nigeria from 1981 to 2014. Time series data were computed from financial statements of the selected quoted manufacturing firms. Return on Investment (ROI) and Net Profit Margin (NPM) were modelled as our dependent variables while Dividend Payout Ratio (DPR), Retention Ratio (RR), Dividend Yield (DY) and Earnings per Share (EPS) were proxied as our independent variables. Multiple regression as a tool of analysis. Multi co-linearity, co-linearity, Durbin Watson, F-statistics and regression coefficient were used to determine the dynamic relationship between the variables. Findings revealed that all the independent variables have positive relationship with the dependent variables except dividend yield. The recommendation was that operational efficiency of Nigerian financial market should be deepened and management should strengthen its effort for effective dividend policy that will increase the firm profitability.

[10] investigated four theories which are dividend relevance theory, dividend irrelevance theory, free cash flows hypothesis and signalling theory. Descriptive research design was applied with the population of the study covering ten commercial and services firms listed in the NSE as at 31st December 2015. Data were collected from the audited financial statements of the commercial and services firms, NSE and the using a questionnaire survey for ten years from 2005 to 2014. The study applied descriptive statistics and panel data analysis. The study found that profitability was an insignificant factor in determining dividend payout. The study recommended that profitability may not hurt the ability of the firm to pay dividends in the short term but continued poor performance will definitely affect payout negatively.

[19] investigated the factors that determine the dividend payout ratio and to examine the relationship between these factors and dividend payout ratio. The results indicated that there is a high significant negative relationship between profitability and dividend payout ratio. Also, the study found that there is the high significant negative relationship between leverage and dividend payout ratio but firm Size and P/E ratio does not have any impact on the dividend payout ratio.

[39] examined the effect of board characteristic on dividend policy for Standard & Poor (S&P) 500 firms between the period of 2008 and 2011. The board characteristic comprises of board size, percentage of insider directors, percentage of women directors, ownership structure and directors tenure are measure against dividend policy. The study used ordinary least square (OLS) and fixed effect test to analyse the cross sectional and test the robustness of the model. Finding showed that board size has positive significant relationship with dividend policy while board independence show negative significant relationship with dividend policy. The study also revealed that the percentage of share held by the directors is inconclusive. However the result of the fixed effect test shows that all the independence variables except the board size are not significant.

[32] analysed the determinants of dividend policy (DP) of FMCG (Fast Moving Consumer Goods) sector in India. FMCG companies included in the sectoral index for NSE are fifteen and twelve companies have been taken for the study. The period covered ten years from 2003 to 2012. For this purpose, various factors affecting DP such as dividend payout ratio (DPR), debt equity ratio (DER), earnings (ERN), corporate tax (CT), earnings per share (EPS) and firm size (FS) are considered for analysis. The study revealed that DPR, DER, ERN, CT has significant impact on EPS and also good predictors of dividend payout in FMCG sector. The DP of overall FMCG sector is strongly influenced by DPR, DER, EPS, and CT, which reveals that the DP of FMCG sector is significantly influenced by the selected financial variables during the period of the study. The overall regression analysis showed that the determinants of DP are significantly and positively influenced by the DPR, DER and EPS.

[24] examined the determinants of the dividend policies of public listed firms in Malaysia for the period 2005 to 2009 covering eight different industries. – Technology, Industrial, Consumer Noncyclical, Basic Material, Communication, Consumer Cyclical, Diversified and Energy. A panel regression estimation model is adopted. The study found that firm size, leverage position, and profitability are significantly but inversely related to the dividend policy of firms in Malaysia. The results indicated that agency cost is positively related to dividend policy for the Basic Material industry. In addition, size and leverage play an important role in determining dividend payout for firms in the Technology and Consumer Noncyclical industries. For the Industrial sector, the size and profitability significantly affect the dividend policy of firms. However, the results failed to display any significant results for the Energy and Consumer Cyclical industries.

## 2.2. Theory of Dividend Policy

The theory of dividend policy comprises of irrelevant dividend policy developed by [25]. They argued that dividend policy is independent of shareholder wealth. Relevant dividend policy suggested that dividend policy significantly influence shareholders wealth. On the strength of relevant dividend policy, different arguments emerged such as information content of dividend policy which contends that dividend policy signals the performance of the firm [42], birds in the hand argument noted by Linter [22] and [13], posit that dividend is more certain than future

capital gain. Agency cost of dividend policy emphasis on the conflict of interest between the principal and the agent but suggests reduction of free cash flows in the hands of the agent through payment of cash dividend ([35]; [37]). Clientele effect noted that portfolio choice is influenced by investor's decision between dividend and capital gain ([25]; [6]; [34]). Hence there is no one theory that explains the factors that influence dividend policy. Thus, the study is underpinned by all these theories as the study is looking at various factors that determine the dividend policy.

## 3. Methodology

This section discusses the method and procedures used to examine the determinants of dividend policy. Correlational research design is used for the study because it describes the statistical association between two or more variables. The population the study comprises all the Deposit Money Banks as at 31 December, 2015. The sample of the study was arrived at through census sampling technique. Thus, the sample of the study comprises of all 15 Deposit Money Banks listed on Nigerian Stock Exchange as at 31 December 2015. The study covers the period of ten years spanning from 2006 to 2015. We identified the pre-crisis period as 2006-2007, crisis period as 2008-2009 and post crisis period as 2010-2015.

### 3.1. Source of Data and Method of Analysis

The data used for the study were extracted from secondary source. The data were extracted from the audited financial reports of the banks within the period of the study. Data on political stability were extracted from the World Bank Development Indicator. This source of data also has the advantage of being relatively more reliable since the financial statements have been audited by an independent audit firm. Panel data regression analysis was used in the study via EViews statistical Package software.

### 3.2. Model Specification

The panel data regression model is used in this study and the model specification for this study incorporates variables that influence dividend policy. The model specification will draw a relationship between Firms specific factors, board structure, political factor and dividend policy. The model is specified below:

$$dps_{it} = \pi_0 + \lambda_1 eps_{it} + \lambda_2 bs_{it} + \lambda_3 bind + \lambda_4 ned_{it} + \lambda_5 fs_{it} + \lambda_6 pf_{it} + \varepsilon_{it} \dots\dots\dots 3.1$$

Where: DPS represents dividend per share (a measure of dividend policy), EPS represents the earnings per share, BS represents the board size, BIND represents the board independence, NED represents non-executive directors, FS represents the firms size, and PF represents political stability and absence of violence and terrorism,  $\lambda_1$ - $\lambda_6$  represent the coefficient of the variables,  $\varepsilon$  represent the error term,  $\pi$  represent the constant,  $i$  represent the firms and  $t$  is the time.

### 3.3. Measurement of Variables and a Priori

Table 1. Variables of Measurement.

Variables	Variable	Measurement	Authors	A Priori
Dividend per share (DPS)	Dependent variable	Gross dividend divided by number of shareholders ranking for dividend	[40]	
Earnings per share (EPS)	Independent variable 1	EPS: profit after tax divide by no. of ordinary shares.	[19]	(+)
Board size (BS)	Independent variable 2	Board size is the total number of directors present in the board	[39]	(+)
Board independence (BIND)	Independent variable 3	Ratio of external directors or non-executive directors present in the board	[39]	(+)
Non-Executive Directors (NED)	Independent variable 4	Number of non-executive directors in the board	[29]	(+)
Firm size (FS)	Independent variable 5	Log of total asset	[19]	(+)
Political factor (PF)	Control variable	Estimate of Political Stability and Absence of Violence/Terrorism	World Dev. indicator	(-)

Source: Researchers' compilation (2017)

### 3.4. Model Estimation Techniques

The panel data econometric techniques to be adopted in this study would be balanced panel data regression techniques. The use of panel data regression is based on the fundamental justification: the data is subject to time and cross sectional attributes and this will enable us to study innovation and performance of firms over time and as well as across the sampled quoted companies; panel regression provides better results since it increases sample size and reduce problem of degree of freedom; and the use of panel regression avoid the problem of multicollinearity, aggregation bias and endogeneity problems [14]. Also, In order to improve the reliability and

validity of the statistical inferences of the result, the following the robustness tests were conducted. Multicollinearity test to check whether there is a high correlation among the independent variables which may mislead the result of the study. [17] noted that correlation coefficient of 0.8 and above denotes the presence of multicollinearity. Heteroscedasticity test to check if the variability of error terms is constant or not. The presence of heteroscedasticity signifies that the variation of the residuals or error term is not constant which could affect the inferences in respect of beta coefficient, coefficient of determination (R<sup>2</sup>) and F-statistic of the study.

## 4. Data Presentation and Discussion of Findings

Table 2. Descriptive statistics.

Variables	Pre-Crisis Period			Crisis Period			Post-Crisis Period		
	Mean	SDV	PJB	Mean	SDV	PJB	Mean	SDV	PJB
DPS	0.416	0.444	0.136	0.425	0.478	0.097	0.315	0.467	0.000
EPS	4.624	14.295	0.000	6.612	3.061	0.000	2.279	12.084	0.000
BS	13.366	2.484	0.098	14.266	0.098	0.500	14.215	2.735	0.018
BIND	0.619	0.0785	0.392	0.575	0.312	0.000	0.621	0.104	0.000
FS	5.444	0.316	0.287	5.763	2.306	0.611	5.9786	0.386	0.023
NED	8.300	1.950	0.908	8.300	2.306	0.049	8.670	1.514	0.447
PF	-2.020	0.011	0.082	1.905	0.048	0.082	2.078	0.076	0.221

Source: Researchers' computation from Eview output, (2017).

Table 2 shows that mean values of the variables under pre-crisis period are positive except the value of the political factor while the mean value under the crisis period and post-crisis period are positive for all the variables. This implies that all the variables have the increasing tendency throughout the study sample period. Also, the dividend per share and earnings per share value are higher during the crisis period, compared to pre-crisis and post-crisis period. Thus, bank management declares and pays higher value as earnings per share and dividend to investors during the crisis than during non-crisis periods. From the result above, earnings per share has the highest standard deviation under the pre-crisis period, crisis period and post-crisis period, which implies that the earnings per share is the most volatile variable among the variables. The result shows that the value of board independence is very high during the post crisis period

compared to pre-crisis and crisis period. The value of firm size increases across the sub-period which indicates expansion of deposit money banks. The highest mean value was reported during the post-crisis period

#### 4.1. Correlation Coefficients, Multicollinearity and Heteroskedasticity

Pearson correlation coefficients are used to study the extent of association among the variables for the period between 2006 and 2015. The interpretation of the Pearson correlation would follow Guilford rule of thumb which is < 0.2 is a negligible correlation, 0.2 to 0.4 is low correlation, 0.4 to 0.7 is a moderate correlation, 0.7 to 0.9 is a high correlation, > 0.9 is a very high correlation. The result shows that the correlation between the independent variables and

dependent variable used in the model is generally small. The largest correlation coefficients exist between the size and dividend per share (45.45%). The result shows that dividend per share is positively correlated to non-executive directors, firm size, earnings per share and board size. However the board independence and political factor are inversely correlated to dividend policy (see Appendix for the Result).

Also, the correlation matrices does not reveals that two explanatory variable are perfectly correlated. This means there is absence of multicollinearity problem in our model.

More so, the heteroskedasticity was tested using a Breusch–Pagan test was used to detect the heteroskedasticity but the result found that there is no heteroskedasticity since the P-value is 0.00 which is less than 5%.

## 4.2. Regression Result and Interpretation

Regression analysis was carried out using three models under the panel approach which include fixed effect model and random effect model on but the explained and explanatory variable. The term “Fixed Effect” is due to the fact that although the intercept may differ across individuals (that is, the fifteen banks), each individual’s intercept does not vary over time. That is, it is time invariant. This is the major assumption under this model. That is, while the intercept are cross-sectional variant, they are time invariant while the random effect model have common mean for the intercept. After the analysis a hausman test was carried out to determine which model is appropriate. The test is with a null hypothesis that Random effect model is appropriate and the alternate hypothesis is that fixed effect model is appropriate. Since the p-value < 5% we can reject the null hypothesis and accept the alternate hypothesis using the Hausman test. Hence, the result of random effect model is presented is appropriate for this study.

The estimation results of the empirical model of this study were presented in table 3. The probabilities of the F-statistics are 0.000, 0.000 and 0.000 significant at 1%. This implies that the models for pre-crisis, crisis and post-crisis periods are fit. The Durbin Watson values for all the sub-periods are within the acceptable region of DW. [31] noted that a DW value between 1.5 and 2.5 implies that there is no presence of autocorrelation problem. The total number of observations is 148. The pre-crisis and crisis periods have 30 observations each and the post-crisis period has 88 observations.

### 4.2.1. Dividend Policy in Pre-crisis Period

Table 3 revealed that firm size and political factor were

significant in determining dividend policy in pre-crisis period. The findings revealed that higher firm size is required for higher dividend per share. This buttressed the bird-in-the hand theory that investors are particular about dividend paid now rather than being used for capital appreciation. Investors believe that as firms increase in their total capital via equity for firms’ expansion and increase productivity, they in turn want immediate dividend on their capital contribution. Political factor exerts negative effect on dividend per share. As political instability and presence of violence and terrorism increased in the Niger Delta region of Nigeria, this crisis has spilled over to other regions of the country and has affected banking performance. Due to this crisis, banking firms would not be willing to pay much dividend since profits have been affected and the tendency that the crisis might linger into the future. These banks would want to retain earnings for capital appreciation and possibly provide and mitigate the risks of political instability in the future. [40], supported that the Niger Delta crisis that was in existence before the global financial crisis has yielded low dividends for firms in the region and the causes of the violent conflicts were not addressed.

Earnings per share (EPS), board size, board independence, and non-executive directors were not significant in determining dividend per share in pre-crisis period. The board size, board independence and non-executive directors are important variables of corporate governance. The 2003 code of governance issued by the SEC in Nigeria have many loopholes and were not corrected until the 2011 code of governance was issued. This implies that before the 2011 code of governance issued in the country, corporate governance practices were ineffective and thus did not determine dividend policy. Equally, it implies that irrespective of the earnings per share of banking firms, dividends per share remains stagnant and does not move in EPS growing pattern. It also implies that managers are more concern about their personal goals and not the goals of the shareholders as managers in the pre-crisis period have the culture of declaring low dividends and would want funds for capital appreciation. [30], [33] and [3] stated that banks failed to recover quickly from the banking consolidation of 2005 as merger firms took time to settle debts owed to failed banks and creditors. The authors also buttressed that subsequent periods was characterized by banking firms meeting the 25 billion annual capitalization and profitability.

Table 3. Regression Results.

Regression Model of the study			
Dependent Variable: DPS			
Explanatory Variables	Pre-Crisis (2006-2007)	Crisis (2008-2009)	Post-Crisis (2010-2015)
Constant	-16.419 (0.016)**	0.296 (0.922)	0.217 (0.871)
EPS	-0.001 (0.678)	-0.000 (0.865)	-0.009 (0.969)
BS	0.025 (0.863)	-0.023 (0.874)	-0.091 (0.175)
BIND	-1.459 (0.675)	0.299 (0.914)	-0.872 (0.491)
FS	0.988 (0.000)*	1.190 (0.002)*	0.216 (0.186)
NED	0.010 (0.966)	-0.004 (0.984)	0.120 (0.218)
PF	-5.907 (0.037)**	3.424 (0.021)**	0.190 (0.591)
R Squared	0.762	0.604	0.783
Prob. (F-statist)	0.000	0.000	0.000

Regression Model of the study			
Dependent Variable: DPS			
Explanatory Variables	Pre-Crisis (2006-2007)	Crisis (2008-2009)	Post-Crisis (2010-2015)
Durbin-Watson	2.114	2.308	1.614
No. of Observation	30	30	88

\*significant at  $p < 0.01$ ; \*\*significant at  $p < 0.05$

Source: Researchers' computation from Eview output, (2017).

#### 4.2.2. Dividend Policy in Crisis Period

The global financial crisis seems not to make much difference on the dividend per share of deposit money banks in Nigeria. The main difference was the contribution effect of firm size and political factor on DPS. There was a significant increase in the coefficient of FS in the crisis period as firms expand more. The unit contribution of FS is 1.190 to DPS in the crisis period as against 0.988 in the pre-crisis period. The political stability of the country was more affected and thus increases in the presence of terrorism, violence and insurgency. While PF negatively affect DPS in the pre-crisis period, it however positively affects DPS in the crisis period. This indicates that the higher the global financial crisis affecting political stability in the country, the more the tendency of banking firms increases the DPS. This is the case of a market crisis where investors need to be compensated for the global crisis affect stock markets shocks and share prices. This risk premium is also taken into consideration by banking firms in Nigeria when declaring DPS. The financial crisis tends to spill over the political crisis in the country and firms must compensate investors for global market risk faced.

Moreover, the variables that were not significant in the pre-crisis period were also insignificant in the crisis-period. This indicates that EPS, BS, BIND and NED do not affect DPS irrespective of the crisis existence. Importantly, both firm size and political factor positively and significantly affect DPS in the crisis period than in the pre-crisis period. The DW value was 2.308 and the probability value of F-statistics was 0.000 which means the model fit in well. This implies that firm size and political factor in crisis period positively and significantly affect DPS in crisis period as against the prior expectation that crisis and political factor negatively affect DPS. This further indicates management of deposit money banks compensate for financial crisis effect on

owners' capital and the resultant effect is compensation for risk premium in dividend policy and declaration.

The R squared helps to analyse the extent to which EPS, BS, BIND, FS, NED and PF affect DPS. In period of pre-crisis, we found these variables accounting for only 76.2% variations in DPS. This percentage reduces in the global crisis period that the R square value was 60.4%. This implies that there was a decline in the R square value due to the global financial crisis. A difference between the R square values in both pre and crisis periods is 15.8%. This implies that the crisis period accounts for a significant 15.8% reduction in DPS of deposit money banks in Nigeria.

#### 4.2.3. Dividend Policy in Post-Crisis Period

The post-crisis period has different entire findings in factors determining dividend per share. All the variables were found not to significantly affect DPS in post-crisis period. EPS, Board size and board independence were found to have negative effect on DPS. This implies that as banking firms decided to retain earnings as against paying dividend, the increase in board size and board independence may negatively affect the decision to pay dividends. Firm size, non-executive directors and political factor were found to positively affect DPS in the post-crisis period. The extent to which these variables also determine DPS also increase in post-crisis period as against the crisis period. The unit contribution to DPS by political factor reduced from 3.424 in crisis period to 0.190 in post-crisis period. [4], [7], [20] and [43] responded to the post-crisis period has been good for firms and countries that have adopted many measures such as countercyclical fiscal measures, acknowledging financial risk as constant and addressing market failures using regulation reforms. Deposit money banks may have adopted strong supervision policy and regulation reforms in the industry to tackle the presumed constant financial crisis.

Table 4. Diagnostic Test.

Test	Pre-crisis Period		Pre-crisis Period		Pre-crisis Period	
	Statistics	Prob.	Statistics	Prob.	Statistics	Prob.
Breusch-Pagan LM	210.0000	0.0000	210.0000	0.0000	148.3011	0.0035
Pesaran scaled LM	6.210590	0.0000	6.210590	0.0000	1.952964	0.0508

Source: Researchers' computation from Eview output, (2017)

Table 4 shows the diagnostic test for the models for pre-crisis, crisis and post-crisis periods were fit and appropriate as their probabilities of Breusch-Pagan LM and Pesaran scaled LM are significant at 1%.

#### 4.3. Discussion of Results

The result shows that firm size has a positive impact on the

dividend policy in both pre-crisis and crisis periods. This conforms to the finding of [44]. The bigger the size of firm the bigger the dividend payout ratio verse versa. This means that the size of firm determines the dividend policy of the firm. From the result, it shows that there is insignificant relationship between earnings per share and DPS periods (pre-crisis, crisis and post-crisis). This does not conform with

the finding of [44] that the increase in company profits leads to payment of higher dividend to shareholders. The study revealed that board independence has negative impact on the dividend policy in pre-crisis period. This conforms to the finding of [39] as he claim that board independence reduced cost of monitoring agent.

The study found a negative relationship between the board size and the dividend policy in both crisis and post-crisis periods. This was in contrary to the findings of [12] who affirmed positive relationship between board size and dividend policy. The study found negative impact of political factor on the dividend policy of Nigerian deposits money banks in pre-crisis period but positive effects in both crisis and post-crisis periods. This implicates that investors are compensated for with higher DPS in crisis and crisis recovery periods as the political factor is an example of market risk that cannot be diversified. This conforms to the finding of [15]. The argument was that the decrease on dividend payout is because of the financial crisis effects.

## 5. Conclusion and Recommendations

The study examines the factors that influence the dividend policy of Nigerian Deposit Money Banks using panel data analysis for the period 2006 to 2015 with focus on political stability in crisis and non-crisis periods. Correlational research design was used for the study because it describes the statistical association between two or more variables. The population of the study comprises all the deposit money banks as at 31 December, 2015. The sample of the study comprises of all 15 Deposit Money Banks listed at the Nigerian Stock Exchange as at 31 December 2015. The data were extracted from the audited financial reports of the banks within the period of the study. The data were analysed by using panel data regression. The study concluded that the firm size and political factor influence the dividend policy of deposit money banks in pre-crisis and crisis periods. Also the study found that none of the variables were significant determinants of dividend policy in post-crisis period. The extent to which dividend policy determinants contribute to dividend policy is high in pre-crisis period, low in crisis period and higher in post-crisis period. Political factor is a key determinant of dividend policy in crisis period than in the

pre-crisis period. Political factor has positive significant effect on dividend policy in crisis period while negative significant effect on dividend policy in pre-crisis period. This implies that investors are compensated for market risk in form of risk premium and high dividends when crisis is present.

In view of this, the study therefore makes the following recommendations:

The board of directors should revise dividend policy in line with the factors that significantly influence dividend payment. In particular, if the board of directors is considering increasing the dividend payment to shareholders, the factors of board independence, board size, earnings per share, firm size and political factor need to be given careful attention. This is important, as the dividend policy is a crucial factor in retaining existing investors as well as attracting new investors. In addition, as high dividend payments attract investors, the management team needs to strive for higher profitability, larger firm size and higher risk premium to satisfy the shareholders' goal of wealth maximization in the form of higher dividends in crisis and non-crisis periods. Also the board size of the Nigerian deposit Money banks should consist of expertise that will contribute toward the growth of the firms and reduce the monitoring cost of the agent.

The implication of this study is that, investors will focus more on dividend policy during and post financial crisis period. Hence, further researches could address the effect of life cycle theory on dividend policy during and post financial crisis. Also, further study should employ panel vector autoregressive as a statistical tool of analysis which accounts for dynamic relationship between the dependent and independent variables. One of the limitations of the study is the limited sample size used, but further researchers could extend sample size beyond the listed deposits money banks to cover the manufacturing sector, pharmaceutical companies among others. More so, the study is limited to quantitative whereas, the use of combination of quantitative and qualitative methods may produce more comprehensive results because qualitative methods through interview among others may provide richer data on factors that affect the dividend policy of companies.

## Appendix

	Dps	bind	bs	Pf	ned	Fs	eps
dps	1.0000						
bind -0.1414	1.0000						
bs	0.0010	-0.2833	1.0000				
pf	-0.1720	0.0841	-0.2293	1.0000			
ned	-0.0792	-0.2192	-0.0868	0.0462	1.0000		
fs	0.4545	0.2147	0.0512	0.4325	0.0169	1.0000	
eps	0.0612	-0.0690	0.1832	-0.1089	-0.1341	-0.0110	1.0000

Source: Researchers' computation from Eview output, (2017).



## References

- [1] Akani, H. W., & Sweneme, Y. (2016). Dividend policy and the profitability of selected quoted manufacturing firms in Nigeria: An empirical analysis. *Journal of Finance and Accounting*, 4(4), 212-224.
- [2] Anand, M. (2004). Factors influencing dividend policy decisions of corporate India. *ICFAI Journal of Applied Finance*, 10(2), 5-16.
- [3] Asekome, M. O., & Abieyuwa, A. J. (2014). Challenges of banking sector reforms in Nigeria: An appraisal. *International Journal of Business and Social Science*, 5(7), 224-230.
- [4] Baldacci, E., Gupta, S., & Mulas-Granados, C. (2012). *How effective is fiscal policy response in financial crises?* (Online). Available at: <https://www.imf.org/external/np/seminars/eng/2012/fincrisis/pdf/ch14.pdf> (Accessed: 10 March 2017).
- [5] Banerjee, S. (2016). Determinants of dividend policy for selected information technology companies in India: An empirical analysis. *Parikalpana - KIIT Journal of Management*, 12(1), 11-17..
- [6] Bishop, S. R., Harvey, R. C., Robert, W. F. & Garry, J. T. (2000). *Corporate finance*. Sydney: Prentice Hall Inc.
- [7] Claessens, S., & Kodres, L. E. (2014). *The regulatory responses to the global financial crisis: Some uncomfortable questions*. IMF Working Paper, IMF, Washington, D.C
- [8] DeAngelo, H., DeAngelo, L., & Stulz, R. (2006). Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory. *Journal of Financial Economics*, 81(2), 227-254.
- [9] Echchabi, A., & Azouzi, D. (2016) Determinants of dividend payout ratios in Tunisia: Insights in light of the Jasmine Revolution; *Journal of Accounting, Finance and Auditing Studies*, 2(1), 1-13.
- [10] Elmi M. A., & Muturi, W. M. (2016). Effects of profitability on dividend payout by commercial and services firms listed in the Nairobi securities exchange. *European Journal of Business and Social Sciences*, 5(2), 160-167.
- [11] Fama, E. F. & French, K. R. (2004). The capital asset pricing model: Theory and evidence. *Journal of Economic Perspectives*, 18(3), 25-46.
- [12] Gill, S., & Obradovich, D. J. (2012). Corporate governance, institutional ownership, and the decision to pay the amount of dividends: Evidence from USA. *International Research Journal of Finance and Economics*, 9(7), 60-71.
- [13] Gordon, M. J. (1963). Optimal investment and financing policy. *The Journal of Finance*, 18(2), 264-272.
- [14] Greene, W. H. (2003). *Econometric analysis*. India: Pearson Education.
- [15] Hauser, R. (2013). Did dividend policy change during the financial crisis? *Managerial Finance*, 39(6), 584-606.
- [16] Hillier, D., et al. (2010). *Corporate finance (European ed.)*. England: McGraw-Hill.
- [17] Idowu, K. A., & Adeneye, Y. B. (2017). Inequality and economic growth: An analysis of 8-Panels. *Journal of Economics and Public Finance*, 3(2), 173-187.
- [18] Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- [19] Khan, M. N., Naeem, M. U., Rizwan, M., & Salman, M. (2016). Factors affecting the firm dividend policy: An empirical evidence from textile sector of Pakistan. *International Journal of Advanced Scientific Research and Management*, 1(5), 144-149.
- [20] Kim, J. I. (2011). Global policy challenges in the post-crisis period. In *Federal Reserve Bank of San Francisco Proceedings* (No. Nov, pp. 353-359).
- [21] Kuzucu, N. (2015). Determinants of dividend policy: A panel data analysis for Turkish listed firms. *International Journal of Business and Management*, 10(11), 149-160.
- [22] Lintner, J. (1962). Dividends, earnings, leverage, stock prices and supply of capital to corporations. *The Review of Economics and Statistics*, 44(3), 243-269.
- [23] M'rabet R., & Boujjat, W. (2016). The relationship between dividend payments and firm performance: A study of listed companies in Morocco. *European Scientific Journal*, 12(4), 469-482.
- [24] Mahdzan, N. S. Zainudin R., & Shahri, N. K. (2016) Interindustry dividend policy determinants in the context of an emerging market. *Economic Research-Ekonomska Istraživanja*, 29(1), 250-262.
- [25] Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth and the valuation of shares. *Journal of Business*, 34(4), 411-433.
- [26] Moradi, M., Salehi, M., & Honarmand, S. (2010). Factors affecting dividend policy: Empirical evidence of Iran. *Poslovna izvrsnost*, 4(1), 45-61.
- [27] Mui, Y. T. & Mustapha M. (2016). Determinants of dividend payout ratio: Evidence from Malaysian public listed firms. *Journal of Applied Environmental and Biological Sciences*, 6(1S), 48-54.
- [28] Mundati, Z. W. (2013). *The effects of macroeconomic variables on the dividend payout of firms listed at the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).
- [29] Muravyev, A., Talavera, O., & Weir, C. (2016). Performance effects of appointing other firms' executive directors to corporate boards: an analysis of UK firms. *Review of Quantitative Finance and Accounting*, 46(1), 25-45.
- [30] Nworji, I. D., Adebayo, O., & David, A. O. (2011). Corporate governance and bank failure in Nigeria: Issues, challenges and opportunities. *Research Journal of Finance and Accounting*, 2(2), 1-19.
- [31] Pallant, J. (2013). *SPSS survival manual*. UK: McGraw-Hill Education.
- [32] Pandey N. S., & Ashvini. N (2016) A study on determinants of dividend policy: Empirical evidence from FMCG sector in India. *Pacific Business Review International*, 1(1), 135-141.
- [33] Pat, D., & James, O. (2011). Effects of the consolidation of the banking industry on the Nigerian capital market. *Journal of Economics*, 2(1), 57-65.

- [34] Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2002). *Corporate finance (6th ed.)*. Singapore: McGraw-Hill.
- [35] Rozeff, M. S. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of Financial Research*, 5(3), 249-259.
- [36] Smits, R. (2012). Effect of a financial crisis on the dividend payout policy of a firm. *Thesis submitted to Accounting Department Faculty of Economics and Business Studies, Tilburg University*.
- [37] Somoye, R. O. C. (2011). The role of financial intermediation in entrepreneurship finance in Nigeria. *Thesis in Partial Fulfillment of the Business School, Faculty of Business and Creative Industries, University of the West of Scotland, Scotland United Kingdom, for the Award of Doctor of Philosophy (Ph.D.)*.
- [38] Soondur. S. A. K., Maunick. D., & Sewak. S, (2016) Determinants of the Dividend Policy of Companies Listed on the Stock Exchange of Mauritius *Proceedings of the Fifth Asia-Pacific Conference on Global Business, Economics, Finance & Social Sciences, Ebene-Mauritius, 21-23*.
- [39] Thomas, V. P. (2013). The effect of board characteristics on dividend policy. *Department of Finance, Tilburg School of Economics and Management*. 1-62.
- [40] Ukiwo, U. (2011). *The Nigeria state, Oil and The Niger Delta*. In Obi, C. & Rustad S. A (Ed) London/New York: 2 Ed Books.
- [41] Ullah, H. Fida, A., & Khan, S. (2012). The impact of ownership structure on dividend policy: Evidence from emerging market KSE-100 Index Pakistan. *International Journal of Business and Social Sciences*, 3(9), 298-307.
- [42] Van Horne, J. C. (2002). *Financial management policy (12th ed.)*. New Delhi: Prentice-Hall of India.
- [43] Wilkin, S. (2017). Managing political risk in advanced economies. *Journal of Risk Management in Financial Institutions*, 10(1), 7-11.
- [44] Yusof, Y., & Ismail, S. (2016). Determinants of dividend policy of public listed companies in Malaysia. *Review of International Business and Strategy*, 26(1), 88-99.