

## **Interest Rates and Return on Equity of Selected Deposit Money Banks In Nigeria (2008-2017)**

**Dr Abolade Francis AKINTOLA, Adepeju Adetumilara ADEDIRE**

*Department of Finance, Babcock University, Ilishan-Remo, Ogun State, Nigeria.*

*Postgraduate Candidate, Department of Finance, Babcock University, Ilishan-Remo, Ogun State, Nigeria.*

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### **ABSTRACT**

*The paper investigated relationship between interest rate and return on equity of selected deposit money banks in Nigeria from 2008-2017. Data considered for the study were obtained from secondary source while ten(10) deposit money banks were selected for the study.*

*Data gathered were analyzed using regression estimate while panel data analysis was utilized to examine magnitude and significance of the relationship and the research variables. Panel unit root test and pedroni residual co-integration test were also applied in the study.*

*The study concluded that interest rate exerts positive and significant effect on return on equity of deposit money banks in Nigeria.*

*The study therefore recommends that there is need to strengthen bank lending rate and deposit rate policy through effective and efficient regulation and supervisory framework.*

**KEYWORDS:** *Interest rate, Treasury bills, prime lending rate, maximum lending rate.*

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### **I. INTRODUCTION**

Banking is an economic activity which deals with the intermediation of funds between the surplus units and the deficit units of an economy and channelling of such resources to profitable investments. In Nigeria, banks were considered as a dominant financial institution thus their stability is important to the growth of the economy. Profitability of deposit money banks in Nigeria is not only important but essential in maintaining economic stability.

Uchendu (2009) defined monetary policy as the use of the instrument at the disposal of the monetary authorities to influence the availability and cost of credit/money with the ultimate objective of achieving price stability. In another way, monetary policy has to do with financial markets and constitutes measures taken by government and monetary authorities to control money supply to achieve certain objectives. It involves the control of price and availability of credit. One of the monetary policy instruments is the interest rate. Interest rate has a significant impact on real economic activities such as the level of savings, spending, investment and orchestrating temporary economic booms or recessions. Wright(2012) defined interest rate as the price of borrowing money, and is a crucial determinant of the price of assets, especially financial instruments like stocks and bonds and general economic conditions, including economic growth. Ezeugoh(1987) defined interest rate as the price of capital and constitutes a return on capital for the lender or saver, and can therefore be used for several purposes including the reduction of inflation, promotion of capital inflow and discouragement of capital flight.

In the Nigerian economy, the minimum rediscount rate(MPR) now monetary policy rate (MPR) is the official interest rate of the central bank of Nigeria(CBN) which anchors all other interest rates in the money market and the economy. Historically, the interest rate regime in Nigeria has been very stochastic. In August 1987, the CBN liberalized the interest rate regime and adopted the policy of fixing only its minimum rediscount rate to indicate the desired direction of interest rate. This was modified in 1989 when the CBN issued further directives on the required spreads between deposit and lending rates. In 1991, the government prescribed a maximum margin between each bank's average cost of funds and its maximum lending rates.

The MPR is expected to communicate the stance of monetary policy and acts as a guide for all other market interest rates. Also, the MPR is the benchmark against which other lending rates in the economy are pegged. An increase in the monetary policy rate will result in a rise in the prime lending rate and other lending rates by the deposit money banks (DMBs) to the public (CBN,2016).

It is usually set with the corridor in which the upper bound represents the CBN lending rate to DMBs under standing lending facility (SLF), and the lower bound represents the deposit rates at which CBN accepts deposit from DMBs under the Standing Deposit Facility (SDF). The interest rate as determined by the Central Bank of Nigeria from time to time has a significant impact on the operations of the deposit money banks

especially in terms of their overall performance, balance sheet position and the general health of the banks. Deposit money banks (DMBs) are important channels for the transmission of CBN interest rate policy in Nigeria. This is because of the intermediation role which banks play in resource mobilization and allocation. Banks pay interest on deposit on one hand and on the other hand, they charge interest on loans and advances lent to borrowers. The difference between these two interest rate defines the interest spread which constitutes a significant proportion of the profits of deposit money banks. Thus, interest rates unavoidably are an important factor in the survival of DMBs especially as it concerns their profitability .

Profitability can be measured in several ways, one of such ways is the return on equity(ROE). It is on this note that this study aims at assessing the impact of interest rates on return on equity (ROE) of selected deposit money banks in Nigeria.

## **II. LITERATURE REVIEW**

This section presents reviews of literatures relating to the study.

### **2.1 Conceptual Review**

#### **2.1.1 Concept of Interest Rate**

Chimaobi (2015) opined that interest rate can be regarded as prices of loanable funds and these prices affect decisions on the allocation of financial resources in the economy. Persistent fluctuation of interest rate due to the oscillation of international and domestic financial market has continued to generate much research interest as this significantly affects the profitability of deposit money banks in Nigeria. Interest rate has a significant impact on real economic activities such as the level of saving, spending, investments and orchestrating temporary economic booms or recessions. Interest rate is therefore a key monetary policy instruments used by the central bank of Nigeria (CBN) to influence the circular flow of money and also to curtail the money in circulation and total or aggregate expenditures through the determination of the lending and borrowing rates. However, from the public perspective, the concern is whether the concept of interest rate as a monetary policy tool actually creates any developmental impact on the economy or whether it causes short term prosperity with longer lasting damaging consequences.

The concept of interest rate has objectives which cut across all strata of the economy such that its objectives are always in tandem with that of the overall monetary policy which includes maintaining price stability, ensuring effective credit control and generating rapid economic growth.

#### **2.1.2 Types of Interest Rate**

According to CBN (2016), interest rate can be categorized into: policy, deposit and lending rates. Policy rates are the rates used by Central Bank or monetary authorities to determine the cost, availability and quantity of money in the economy so as to achieve desired macroeconomic objectives. Deposit rates are paid on savings and time deposit of different maturities such as one-month and fixed deposits in financial institutions. Lending rates on the other hand are interests charged by money lenders and banks for meeting short and medium term needs of borrowers. This rate is usually differentiated according to credit worthiness of borrowers and objectives of financing.

##### **2.1.2.1 Deposit Rate**

This is the interest rate a bank or financial institution pays on cash deposit. Deposit rates are paid on savings and other investments accounts. It is the interest rate that banks pay to depositors for the use of their savings for the time period of the deposit. Deposit interest rates can either be fixed with a minimum amount for a certain period of time or it can be variable. This implies that it changes often and it is not often subjected to early withdrawal penalties. Cash paid into savings and investments accounts are compensated with a deposit rate. Savings accounts usually receive low interest rates, however, money deposited into other account types are also compensated with a deposit rate by banks and other financial institutions.

##### **2.1.2.2 Treasury Bills Rate**

Treasury bills are basically government owned and guaranteed debt instruments issued by the monetary authority or Central Bank of a country to control money supply. Treasury bills rate is the interest rate paid by government to investors who purchase government bills. Since treasury bills are discount instruments, rather than making interest, they are issued at a discount to the face value and mature at face value. The interest is a function of the purchase price, the face value, and the time remaining till maturity.

### **2.1.2.3 Savings Account Rates**

These are rates paid to savings account holders by banks based on the balances in the account at the due date. They tend to be higher as banks are willing to pay higher interest rates because they are less likely to have frequent deposit withdrawals

### **2.1.2.4 Mortgage Rate**

These are rate charged by banks on mortgage loans. They are lower than rates on personal loans but closer to Central Bank Rate. They are seen as very safe to the borrowers since the title deeds to the landed properties are tendered as securities.

## **2.1.3 Concept of Return on Equity**

Equity refers to owners (shareholders) financing of a company. This reflects the claims of owners on the net assets of the company. Holders of the equity securities are subordinates to creditors (payables). Return on equity (ROE) is a financial ratio that shows the user the percentage of return a company has during a time period, often a fiscal year, in relation to the company's shareholders equity. This financial ratio reveals how the company has converted the shareholders equity into profit (Sturesson & Kalum, 2017). ROE is the return on the investments of shareholders since shareholder's fund represents net investment of shareholders in the company. Olowe (2009) stated that ROE ratio is calculated thus:

$$\text{ROE} = \frac{\text{Profit after tax}}{\text{Ordinary Shareholders Fund}} \times 100$$

Shareholders fund = Ordinary Share Issued Capital + Retained earnings + Share premium + Capital reserve.

According to Arbucle (2016), ROE allows a company to benchmark the performance of companies against each other. ROE is used to gauge the performance of a company's manager, a higher return on equity indicates that the managers are more efficient at creating profits from their investment while the converse holds; it is used in a trend analysis, a trend analysis of ROE involves plotting a company's ROE over the years to reveal its consistency. This way as investor you can avoid stocks that have declining or inconsistent return on equity.

## **2.2 Theoretical Review**

### **2.2.1 Schumpeter Economic Cycle Theory**

The theory was propounded by Schumpeter (1939). The theory assumes that recessions and periods of economic growth are efficient response to exogenous changes in the real economic environment and that decline in profitability result in fall of asset prices, non-performing loans, low borrowers financial capacity, fall in employment levels, and depresses the value of collaterals as secondary means of servicing debts. Banks risk exposure increases, and consequently raises the need for larger loan provisions and higher levels of capital, exactly when it is more expensive or simply not available. This may lead to banks reacting by reducing the amount of lending, especially if they have low capital buffers, thus increasing the effects of the economic downturn as well as increasing the lending rates.

Critics of the theory state that it is a common misconception that macroeconomic is purely based on shocks on demand, and this leads to the common criticism of Schumpeter economic cycle theory by ignoring the demand side of the economy. However, in real business cycle situation, consumers will change their consumption and savings decisions based on the real interest rate available to them which is a shift in demand.

In relation to this study, the theory views interest rates as being mainly driven by economic occurrences which will affect deposit money banks profitability. Hence, according to the theory, interest rates will keep on changing according to the prevailing macro-economic conditions.

### **2.2.2 Loanable Fund Theory**

The loanable fund theory has been put forward as the long run theory of rate of interest determination and is most applicable for explaining long term rates of interest. The theory gives an attempt at trying to identify the approximate causes of the rate of interest variations by analyzing the demand for and supply of credit. The theory comes from the belief that those who save decide between consumption in the future or now. Accordingly, in this theory the factors determining the rate of interest are real savings and real investment demand (Froyen, 1996).

According to Evans and Marshall (2006), the demand for loanable funds on the part of the consumers is the purchase of durable consumers goods, lower rate of interest will induce them to borrow more. Hence, demand curve for loanable funds for consumption purposes is also downward sloping. Funds are also demanded for the purpose of hoarding them in liquid or idle cash balances. This is to satisfy their desire for liquidity preference.

The loanable fund model is a comparative statics equilibrium model which uses demand and supply curves to get the equilibrium prices, this price is the credit cost which is the interest rate represented by the variable ‘*r*’. The theory also takes into account bank credit on the supply side and recognizes the role of hoarding of funds in liquid form as idle cash balances as a factor influencing the demand for funds.

### **2.2.3 Macroeconomic Theory**

The theory was proposed by Friedman, the theory views rates as a monetary phenomenon (Friedman, 1958). Further, macroeconomic theory assumes that growth in money supply in excess of real growth causes interest rates to rise. Interest rates volatility in open economics result from different disequilibrium in many markets specifically the domestic market, external/foreign markets and the labour market. Thus, increase in interest rates emanate from three main sources that include excess money supply, foreign prices and cost push factors (Were & Wambua, 2014). The theory is related to Keynesian liquidity preference theory but recognizes additional sources of interest rates not only demand for money but also foreign prices and cost push factors. According to Henry, Olekalns and Suardi (2005), the Central bank chooses a target for the short term interest rate as a function of economic conditions. To attain that rate, the central bank adjusts the money supply to meet the quantity of money demanded at the target interest rate. Under monetary targeting, this instability would translate into interest rate volatility that could harm the real economy.

Critics of this theory base their argument on the grounds that governments would in practice be unlikely to implement theoretically optimal policies. According to them, the implicit assumption underlying the macroeconomic revolution was that economic policy would be made by wise men acting without regard to political pressures or opportunities and guided by disinterested economic technocrats. They argued that this was an unrealistic assumption about political bureaucratic and electoral behaviour.

### **2.2.4 Financial Intermediation Theory**

The theory regarding financial intermediation was developed in 1960 by Gurley and Shaw in order to solve the short comings that were observed in direct financing method. It explains the importance of intermediation process of financial intermediaries in the economy as a whole. The financial intermediation theory is based on the theory of informational asymmetry and the agency theory. In principle, the existence of financial intermediaries is explained by the existence of the following categories of factors: high cost of transaction, lack of complete information in useful time; and the method of regulation. Based on this theory, financial intermediaries are regarded as commercial companies that produce different types of loaning products for the individuals who wish to borrow. The main finished products of financial intermediaries are the loans granted to clients, and the main variable inputs are the deposits attracted from the depositors. Further more, financial intermediaries are regarded as companies that have as sole purpose the maximization of profit, profit that occurs as a result of the difference between the interest charged on loans and the interest paid on deposits. The maximization of profit is made when the difference between the total incomes minus the total cost is maximum.

## **2.3 Empirical Review**

This section reviewed some of the past studies, their methodology and findings. Henry, Olekalns and Suardi (2005) carried out a study on level effects and asymmetric dynamics of equity return on short-term interest rate volatility in Australia. The main purpose of the study was to investigate the relationship between equity returns and short-term interest rates. Evidence from the findings confirm that short-term interest rate volatility peaks with the level of short rates. While equity volatility responds asymmetrically to positive and negative shocks. The study also established that there is strong evidence of a level effect and asymmetric response in the relationship between index returns and 3-month US Treasury Bills. However, the conditional covariance depends on the level of the short rate which has implications for hedging equity returns against short term interest rate movements.

Yuqi (2008) examined the determinants of 123 United Kingdom (UK) banks profitability and its implication on risk management from 1999 to 2006. The study utilized multiple regression models and panel data estimation. The econometric results indicate that capital adequacy has significant positive impact on profitability but inflation has insignificant positive impact on profitability. Liquidity and credit risk had significant negative impacts on profitability and interest rates have insignificant negative impacts on the profitability of banks in UK.

Gul, Irshad and Zaman (2011) studied the factors affecting samples of 15 commercial banks profitability from 2005 to 2009 in Pakistan. The investigation utilized a regression model, panel data estimation and Pooled Ordinary Least Square (POLS) method of computation with the aid of an econometric package. The econometric result indicated both internal and external factors such as bank size, loan, deposit, GDP, inflation and market capitalization have significant positive influence on bank profitability measured by return on assets (ROA).

Langat (2013) while studying the effects of interest rate spread on the performance of the banking industry in Kenya found that interest rates spread, to a large extent affect the performance of commercial banks in Kenya. The major factors that influenced the extent of interest rates spread and eventually banks performance were central banks regulation and macro-economic variables (inflation, exchange rates, credit risk and competition). The study also concludes that credit risk have an impact on interest rate spread and in the long run, the commercial banks performance.

Ogunbiyi and Iherjika (2014) studied the impact of interest rates on profitability of deposit money banks in Nigeria using a multivariate regression analysis covering the period 1999 to 2012. The study arrived at a conclusion that maximum lending rate, real interest rate and savings deposit rate have a negative and significant relationship with the return on equity of the selected deposit money banks in Nigeria.

Oladele, Amos and Adedeji (2017) carried out a study on the effect of interest rate on the profitability of deposit money banks in Nigeria. The main objective of the study was to determine the effect of interest rate regime on profitability of deposit money banks in Nigeria. The population of the study was the deposit money banks in Nigeria using a sample of 21 deposit money banks covering the period of 2005 to 2014. The data was analyzed using the regression analysis to determine the relationship interest rate and profitability of deposit money banks. The result of the findings showed that there was a positive relationship between Treasury Bills rate and bank profitability and finally, monetary policy rate showed positive significant relationship with banks profitability.

### III. METHODOLOGY

The research design adopted in this study was *ex-post facto*. Data considered for the study were selected mainly from secondary sources obtained from annual reports of selected ten (10) banks covering the period between 2008 and 2017. Based on the population of the study, that is 21 deposit money banks listed on Nigerian stock exchange as at 31<sup>st</sup> December, 2017. Five (5) banks were selected from the national authorization banks and five (5) banks from international authorization banks.

Data gathered were analyzed using regression estimation techniques while panel data analysis was utilized to examine the magnitude and significance of the relationship among the research variables.

#### Model Specification

The model in this study followed the work of Ogunbiyi and Ihejirika (2014) where they examined the nexus between interest rates and deposit money banks profitability in Nigeria. The model for this study was derived and modified in respect to the objective of the study that is interest rates and return on equity (ROE) of selected deposit money banks in Nigeria from 2008 to 2017.

$$ROE=f(PLR, MLR, SDR, LTD, TB)$$

Where:

ROE-Return on equity

PLR-Prime lending Rate

MLR-Maximum Lending Rate

SDR-Savings Deposit Rate

LTD-Loan to Deposit Rate

TB-Treasury Bill

Mathematically:

$$ROE=\beta_0 + \beta_1PLR + \beta_2MLR + \beta_3SDR + \beta_4LTD + \beta_5TB + \mu$$

To reduce some variables a tenfold difference between two values to a two fold difference, some variables were log transform while others were not log transformed because they are already in their rates. The model was re-structured into:

$$ROE=\beta_0 + \beta_1PLR + \beta_2MLR + \beta_3SDR + \beta_4LTD + \beta_5LOGTB + \mu$$

### IV. METHOD OF DATA ANALYSIS

This chapter presents the results and interpretations of the study. Some pre-estimation tests were carried out to ascertain the existence of the conditions necessary for the analyses. In this chapter, the data analyzed were tabularized and interpreted. The outputs from the analysis were taking to the appendix along with the data used.

#### Pre-Estimation Test

**Table 1: Descriptive Statistics**

	ROE	LOGTB	SDR	PLR	LTD	MLR
Mean	0.0570	15.927	3.9203	56.14907	0.7246	26.6167
Median	0.0607	16.827	3.6000	1.1378	0.6915	26.000
Maximum	0.1295	20.664	33.000	900.00	8.4823	40.000

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Minimum	1.8000	8.319	2.1000	0.0000	0.0959	14.000
Std.Dev	0.0366	3.7328	2.990832	173.7422	0.8055	5.1736
Skewness	-0.1986	-0.8691	9.4131	3.3959	9.1423	-0.0897
Kurtosis	1.8909	2.4463	92.132	14.13426	88.699	3.1258
Jarque-Bera	5.7251	13.311	34232.89	701.6582	31674.3	0.1979
Probability	0.0571	0.0013	0.000	0.000	0.000	0.9058
Sum	5.6442	1528.96	388.11	5558.76	71.731	2635.0
Sum Sq-Dev	0.1315	1323.7	876.62	2958261.	63.585	2623.1
Observ	99	99	99	99	99	99

**Source: Authors computation (2019) using E-views 9**

Where ROE is Return on Equity, TB is Treasury Bills, SDR is Saving Deposit Rate, PLR is Prime Lending Rate, LTD is loan to Deposit Ratio and MLR is Maximum Lending Rate. Table 1 presents the descriptive statistics result of the interest rates and return on equity (ROE) on selected deposit money banks in Nigeria. The table shows that their mean is within the minimum and maximum, this invariably shows that their mean is consistent.

**Table 2: Correlation Matrix**

	SDR	PLR	LTD	MLR	ROE	LTB
SDR	1					
PLR	-0.0243	1				
LTD	0.0312	-0.0543	1			
MLR	-0.0462	-0.0525	-0.0390	1		
ROE	-0.0941	0.0522	-0.0089	-0.0219	1	
LTB	-0.0096	-0.0106	0.6584	-0.1221	-0.0523	1

**Source: Authors computation (2019) using E-views 9**

Table 2 presents the correlation coefficient of Saving Deposit Rate (SDR), Prime Lending Rate (PLR), Loan to Deposit Ratio (LTD), Maximum Lending Rate (MLR), Return on Equity (ROE), and Log of Treasury Bills (LOGTB). The result shows that the correlation between the variables was low, this shows that none of the independent variables has a tendency of causing multicollinearity in the model since none of the correlation values is close to 1.00.

**Table 3 Panel Unit Root Test**

The time series behaviour of each of the panel series was presented in Table 3, using the Fisher Chi-square Unit root Augmented Dickey Fuller test and Phillip – Peron test at both level and first differences of the series.

**Table 3: PP-Fisher Chi-square Unit Roots Test Result**

Var	Level & (P-value)	First Diff (P-value)	Order of Integration	Max. No Lags
ROE	28.6679 (0.0945)	55.3125 (0.0000)***	1(1)	2
LOGTB	0.84864 (0.8020)	-5.64899 (0.0000)***	1(1)	2
PLR	-5.12664 (0.0000)***	-3.47159 (0.0003)	1(1)	2
MLR	41.2726 (0.0014)*	80.2646 (0.0000)***	1(1)	2
SDR	29.6610 (0.0755)	78.5447 (0.0000)	1(1)	2
LTD	11.2388 (0.9398)***	41.2726 (0.0014)***	1(1)	2

**Source: Authors computation (2019) using E-views 9**

Table 3 reports the outcome for the Phillips-perron panel unit root tests. The results show that the null hypothesis of the unit roots for the panel data for log of Treasury Bills (LOGTB), return on equity (ROE), Savings Deposit Rate (SDR), Prime Lending Rate (PLR), Loan to Deposit Ratio (LTD) and Maximum Lending Rate cannot be rejected in the level. However, this hypothesis was rejected when the series are in their first differences. The result strongly indicates that the series were not stationary at their level but became stationary at their first differences.

**Panel Co-integration Test**

The pedroni's cointegration test was applied to ascertain the long run convergency. Pedronis (1999) takes account of the heterogeneity by using specific parameters which are allowed to vary across individual members of the samples.

**Table 4: Pedroni Residual Cointegration Test**

Series: ROE PLR MLR SDR LTD LTB				
	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	-2.536035	0.9944	-1.852057	0.9680
Panel rho-Statistic	4.442121	1.0000	4.265993	1.0000
Panel PP-Statistic	-11.39053	0.0000	-9.848568	0.0000
Panel ADF-Statistic	-1.527337	0.0633	-2.647983	0.0040

**Source: Authors computation (2019) using E-views 9**

Table 4 also depicts the co-integration using Pedroni Residual Co-integration test. The result was adjudged based on the Panel ADF statistics and Philip-Perron statistics test, the result shows that there exists a long run relationship between the variables giving the probability value of ADF and PP statistics to be less than 5% significance inference.

**Estimation of the Effect of Interest Rates on Return on Equity**

**Table 5: Estimation Result of The Effect of interest rates on Return on Equity**

Dependent Variable:ROE				
Method: Panel Fully Modified Least Squares (FMOLS)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDR	0.014917	0.003224	4.627217	0.0000
PLR	-2.1600	7.0500	-0.306368	0.7602
TB	-5.1300	1.06	-0.483916	0.6299
LTD	-0.001941	0.001567	-1.239185	0.2192
MLR	0.000873	0.000397	2.197571	0.0312
R-squared	0.651987	F-statistic		6.201438***
Adjusted R-squared	0.585244	Chi-square		24.80575***
Long-run variance	0.000114			

**Source: Authors' computation (2019) using E-view 9**

Note: \*\*\* implies 5% significance level

The result shown in Table 5 depicts the effect of interest rates on return on equity. Interest rate was proxied by different interest rate like Prime Lending Rate (PLR), Savings Deposits Rate (SDR), maximum lending rate (MLR), while the control variable are ratio of loan to deposit (LTD) and treasury bills (TB). The observed sign of each of the SDR and MLR conform to the theoretical expectation as both show a positive effect while PLR, LTD and TB do not conform to the theoretical expectation as they show an inverse effect on the return on equity respectively.

This explain that a unit increase in SDR and MLR brings about an increase of 0.015 and 0.0009 percent in the ROE respectively. Also a unit increase in PLR, TB and LTD brings about a decrease of -2.16, -5.13 and -0.001941 respectively. Though both SDR and MLR are statistically significant to explain ROE at 5% significant level, while the PLR, TB and LTD are not statistical significant at 5% significant level respectively.

The model shows a good goodness of fit with the explanatory power of 58.6% of the total variation in the dependent variable. This explains that PLR, TB, LTD, SDR and MLR only account for 58.6% of the variations that occur in ROE. The value of the F-statistic using Wald-test was statistically significant at 5% significant level which indicated that variable jointly are significant to ROE.

**V. DISCUSSION OF FINDING**

The study sought to determine the impact of interest rate on return on equity of selected deposit money banks in Nigeria. The result showed that savings deposit rate and maximum lending rate have positive relationship with return on equity while prime lending rate, ratio of loan to deposits and treasury bill depict an inverse effect on return on equity, saving deposit rate and maximum lending rate are statistically significant to explain return on equity at 5% statistical significant influence. Savings deposit rate has a positive effect on profitability which implies that any increase in the savings deposit rate would lead to an increase in profitability.

The findings of this study contradict the result of Ogunbiyi and Iherijika (2014) which found that maximum lending rate, real interest rate and savings deposit rate have a negative and significant relationship with the return on equity of the selected deposit money banks in Nigeria.

## VI. CONCLUSION AND RECOMMENDATIONS

The study examined relationship between interest rate and return on equity of selected deposit money banks in Nigeria from 2008 to 2017. The finding of the study on the effect of interest rates on profitability of selected deposit money banks in Nigeria shows that prime lending rate, ratio of loan to deposit and treasury bill do not significantly affect return on equity, however, savings deposit rate and maximum lending rate have positive and significant effect on return on equity at 5% statistical significant level.

Profitability is considered as a crucial objective in conducting a business without which deposit money banks will not be in business. With good profit figures, banks are able to enhance the confidence of their shareholders, maximize shareholders wealth as well as being able to stay competitive in the financial market.

### Recommendations

Based on the research findings, the study recommends the following:

- 1) There is a need to strengthen bank lending rate and deposit rate policy through effective and efficient regulation and supervisory framework.
- 2) Banks should try as much as possible to strike a balance in their loan pricing decisions. This will help them to cover cost associated with lending and at the same time, maintain good banking relationship with their borrowers.
- 3) The managers of deposit money banks need to create conditions for an efficient banking system devoid of information asymmetry to adapt to changes in interest rate.

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### LIST OF BANKS USED FOR THE STUDY

National Authorization Banks

- 1) WEMA Bank of Nigeria PLC
- 2) Unity Bank of Nigeria PLC
- 3) Eco Bank PLC
- 4) Sterling Bank PLC
- 5) Stanbic- IBTC Bank

International Authorization Banks

- 1) Access Bank PLC
- 2) Guarantee Trust Bank PLC
- 3) Skye Bank (Now Polaris Bank)
- 4) Zenith Bank PLC
- 5) United Bank for Africa (UBA) PLC