DEREGULATION OF INTEREST RATE IN NIGERIA AND DEPOSIT MONEY BANK'S PERFORMANCE (1996 – 2018)

ABSTRACT

This paper investigated the relationship between interest rate deregulation and performance of Nigerian deposit money banks for the period 1996-2018. Interest rate deregulation was disaggregated into prime lending rate, maximum lending rate, 3-months deposit rate and over 12-months deposit rate while return on assets (ROA) was used as a proxy for deposit money banks' performance. Date on the above variables were sourced from the Central Bank of Nigeria Statistical Bulletin (2018 edition) and the World Bank data base. The data were tested for stationarity using the Dickey-Fuller(D-F) test, for long-run relationship using Bound's co-integration test, and for reliability of ARDL results using serial correlation, heteroscedasticity and normality tests. The results of the tests revealed that all the variables were integrated of order zero or one, and that a long-run relationship exists between the variables. Consequently, ARDL model for parameter estimation process revealed that only prime lending rate was positively related to ROA of banks while none of the explanatory variables was statistically significant. The researcher then submitted that there is no significant relationship between interest rate deregulation and the performance of Nigerian deposit money banks for the period considered. Hence, deposit money banks should strive to mobilize adequate savings from surplus unit by offering them deposit rates that are capable of inducing savers to increase their savings and boost the availability of loanable funds.

INTRODUCTION

In an effort to curtail government involvement in the Nigerian economy, a set of structural adjustment initiatives were undertaken in 1986 by the Nigerian government. These initiatives were tagged the Nigerian Structural Adjustment Programme (SAP). The major policy measures under the Sap covered the second-tier foreign exchange market (SFEM), privatization and commercialization withdrawal of petroleum subsidy, trade liberalization, debt conversion scheme/programme, bureau de change, and interest rate deregulation. Prior to 31 July, 1987, interest rates in the country were directly managed by the Central Bank of Nigeria (CBN). It was because of this that lending rates

to agriculture, small-scale industries, and residential buildings construction were lower than the rates for other borrowers (Ugwuanyi, 2012).

The CBN, on 31 July, 1987 announced the abolition of all controls of interest rates by the Nigerian government. In effect, deregulation of interest rates commenced on the 1st day of August 1987. By implication, lending and deposit rates were to be determined by the forces of demand and supply. This explains why there is no uniform lending rate among deposit money banks today. Also, customers of the same bank are charged different rates. High creditworthy customers (borrowers) are charged prime lending rate while others are charged the normal lending rate which is a function of the customer's credit rating. The interest rate deregulation policy on the other hand also afforded banks the ability to have deposit rate portfolio. Today, different deposit rates exist in the system. The annual deposit rate depends on the amount and duration of deposit. According to CBN (2018), the classifications on this front are: 3 months deposit rate, 3-6 months deposit rate, 6-12 months deposit rate and over 12 month deposit rate.

However, the likes of Onoh (2019) argued that interest rate in Nigeria is still indirectly regulated. He opined that "The monetary policy rate (MPR) which the Central Bank uses to control interest rate still determines the direction of interest rate flow in deposit money banks in Nigeria. A higher MPR means interest rate will be high and vice versa. The cash reserve ratio and liquidity ratio which the central bank uses mainly to ensure stability and reduction of risk in the banking sector also exerts high influence on how interest rate are determined by the deposit money banks in Nigeria".

Nevertheless, Ozigbu (2018) opined that "the main source of investable funds remains bank deposits, and loans and investments". While other sources exists, the main source of income and profitability of banking remains the interest spread. As such, banks in the deregulated environment borrow at the least possible rate and lend at the highest possible rate. The difference between both rates is a pointer to how efficient the management of a bank is. All financial performance indicators of a bank like return on assets, return on equity, net interest margin etc. are tied to the difference between lending and deposit rates of a bank.

Statement of the Problem

In establishing the relationship between interest rate deregulation and performance of deposit money banks, a whole lot of studies have been carried out. These studies have adopted different variables for interest rate deregulation and bank performance. For instance, Onoh (2019) used total assets of banks as a proxy for bank performance while interest rate deregulation was disaggregated into prime lending rate, inflation rate,and loans and advances. Afza, Raja,Imran and Saima (2018) adopted return on assets, return on equity and earnings per share as bank performance indicators, while interest rate changes, deposit with other banks, advances and loans, and investment were components of interest rate. Alhassan, Anokye and Gakpetor (2018) in their study used interest rate spread and net interest margin as the independent variables. While return on assets and return on equity were the dependent variables (profitability) used. Omowunmi (2018) adopted banks' investment to total assets as a proxy for bank performance while money supply growth rate, maximum lending rate, liquidity ratio, loan-deposit ratio and monetary policy rates were subsets of interest rate deregulation. In another study, Obagunwa and Akinwale (2018) broke down interest rate deregulation into interest rate, lending rate and deposit rate, while loan and advances was used as a proxy for bank performance.

Among the several studies on interest rate deregulation and bank performance that were reviewed, none disaggregated deposit rate. The question that readily calls to mind is: what are the impacts of the various existing deposit rates on the performance of deposit money banks? This paper is designed to fill the gap arising from the above question and other related issues bordering on the relationship between interest rate deregulation and bank performance in Nigeria.

Objectives of the Study

The major objective of this study is to investigate the relationship between interest rate deregulation and performance of Nigerian deposit money banks. The specific objectives on the other hand are to:

a) Determine the extent to which prime lending rate has affected the return on assets of Nigerian banks.

b) Ascertain the impact of maximum lending rate on deposit money banks return on assets in Nigeria;

c) Examine the effects of 3-month deposit rate on Nigerian deposit money banks return on assets; and

d) Ascertain the extent to which over 12-months deposit rate has impacted on the return on assets of deposit money banks in Nigeria.

Research Questions

i) To what extent has prime lending rate affected the return on assets of Nigerian banks?

ii) What is the impact of maximum lending rate on deposit money banks' return on assets in Nigeria?

iii) What are the effects of 3-months deposit rate on Nigerian deposit money banks' return on assets?

iv) To what extent has over 12-months deposit rate impacted on the return on assets of deposit money banks in Nigeria.

Research Hypotheses

H_{01}: Lending rate has not significantly affected the return on assets of Nigerian banks.

H_{02}: Maximum lending rate does not have a significant impact on deposit money banks' return on assets in Nigeria.

H_{03}: 3-months deposit rate does not have a significant effect on Nigerian deposit money banks' return on assets.

H_{04}: Over12-months deposit rate has not significantly impacted on the return on assets of deposit money banks in Nigeria.

Interest Rate Deregulation

Interest rate is a term that has been variously defined and described. It represents a percentage that is usually charged on a sum that is given to a borrower for the usage of

such money with the promise to pay back on a future date. This rate is defined as the rental payments for the use of credit by borrowers or the return for parting with liquidity by lenders.

However, it can also be classified along lending and deposit rates lines. For banks, prime and maximum lending rates exist. The interest rate that deposit money banks charge their most creditworthy borrowers, such as large corporations is referred to as prime lending rate, whereas the general rate all other customers are charged is referred to as maximum lending rate. In recent times, banks have come up with a wide range of products in other to outsmart one another. This has led to the existence of different deposit rates. In Nigeria, the Central bank has classified these deposit rates based on time duration to include: 3-month, 3-6 months, 6-12 months and over 12-months deposit rates (CBN, 2018). In other words, four major types of deposit rates exist in Nigeria and the longer the time a customer's deposit stays with the bank, the higher the interest rate the said customer is entitled to.

These rates can be regulated or deregulated. The former is a practice where such rates are directly managed by the monetary authorities. That is, an arrangement whereby the management of lending and deposit rates are based on expert advices and directives from such authorities. The reverse is the case for the later. According to Obute, Adryorough and Itodo (2012), interest rate deregulation is a situation whereby interest rate is determined by the forces of demand and supply. The point of emphasis in a deregulated practice is that the central bank does not directly determine what the prevailing lending and deposit rates would be. In as much as interest rates are tied to rates like monetary policy rate, cash reserve ratio and liquidity ratio, the uniqueness of a deregulated regime is that the banks and customers have a say in determining what the rate for a transaction will be at all times. Te rates are not fixed as controllable and uncontrollable factors play significant roles.

Bank Performance

The term performance simply means the achievement of predetermined goals. As such, bank performance may be described as the reflection of the way in which the resources

of a bank are used in a form which enables it to achieve its objectives. In essence, it means the adoption of a set of indicators which are indicative of the bank's current status and the extent of its ability to achieve the desired objectives. According to the European Central Bank (ECB), a distinction can be made between traditional, economic and market based measures of performance. The traditional performance measures consist of ratios like return on assets (ROA), return on equity (ROE), cost-to-income ratio and the likes. Return on asset is a performance indicator which depicts how profitable a bank is relative to its total assets to generating earning. Return on assets is a profitability ratio which expresses the relationship between net income and total assets (Ene, Atong and Ene, 2015).

In addition, ROA as said earlier is an indicator of how well a bank utilizes its assets, by determining how profitable a bank is relative to its assets. This ratio is best used when comparing similar banks or comparing a bank to its previous performance. As such, ROA takes into account a bank's debt, unlike other metrics, such as ROE.

Theoretical Review

In the area of interest rate, a whole lot of theories exist. Nevertheless, only the classical, Keynesian and neo-classical theories of interest rate determination were covered in this work.

The Classical Theory of Interest Rate

This theory is associated with the name of David Ricardo, Marshall, Piggon, Cassels, Walras, Tansing and Knight. According to the classical theory, rate of interest is determined by the interaction of demand and supply of capital or to be more accurate, by the intersection of the investment demand schedule and the savings schedule. It could also be stated that the interest rate is determined by the equality of savings and investment under the condition of perfect competition. The rate of interest is construed to be the balancing factor, which equates the volume of savings with the volume ofinvestment.

The classical economists believe that the rate of interest must be high enough to induce the saver to forego consumption. If the public saves less, the total supply of capital will fall short of the total demand and intimately the rate of interest will have to rise high enough to compensate the saver (Ugwuanyi, 2012).

The Neo-Classical or Loanable Funds Theory

The neo-classical or the loanable funds theory of interest rate was first propounded by the Swedish economist Wicksell and later developed and supported by several leading American and Swedish economists including Professor Robertson, Bertil, Lindhal and Mydal (Ene, Agok and Ene, 2015). However, the theory in its present form is associated with Professor Robertson. The theory stated that interest rate is determined by the forces of demand and supply of loanable funds. The theory further explained the purpose of demand for loanable funds which are investment, hoarding and dissaving. For investment, the theory explained the inverse relationship between demand for loanable funds and interest rate. An investor desires for funds to invest in making of new capital goods, but such demand can only be actualized if the interest rate is less than the expected return on investment. If the interest rate is less, the demand will be high and if the interest rate is high, the demand will be low. For hoarding, the theory explained that the desire for liquidity triggers hoarding by some people which has inverse relationship with interest rate. Same inverse relationship still exists indissaving.

For supply of loanable funds, the theory explained it under savings, disinvestment and bank credit. For savings, the theory explains that people will save more with high interest rate and less with low interest rate. Such positive relationship was also utilized to explain dishoarding and disinvestment. Bank credits were also explained as it affects loanable funds. Since the banks also creates credit when they lend money out. The theory concluded that interest rate is determined by the point of equilibrium between demand for and supply of loanable funds (Onoh, 2019).

However, this work revolved around the Classical theory of interest rate determination. This is because interest rate according to the theory is determined by the interaction between demand and supply of capital. In other words, the forces of demand and supply

actually determine interest rate (the lending and deposit rates). This as such, provided the bases for our argument and methodologies.

Empirical Review

Onoh (2019) examined the impact of interest rate deregulation on the performance of deposit money banks in Nigeria for the period of 1989-2017. He also examined the causality relationship between interest rate deregulation and performance of deposit money banks in Nigeria. The ordinary least square method was adopted for data analysis. The entire test was conducted at 5% level of significance. The tests conducted were unit root, co-integration, ECM and granger causality tests. The results of the study revealed a long and short run relationship between the dependent variable (total assets) and the independent variables (interest rate, inflation rate, loans and advances). The result also shows unidirectional causality between total Assets and Loans and Advances.

In a study on interest rate and financial Performance of banks in Pakistan, Afza, Raja, Imran and Saima (2018) employed correlation and regression analysis in regressing return on assets, return on equity and earnings per share on interest rate changes, deposits with other banks, advances and loans and investment. The result shows that deposits with other banks and interest rate are negatively affecting the profitability of banks, while advances and loans and investment are having positive influence over profitability of banks.

Alhassan, Anokye and Gakpetor (2018) carried our an empirical study on the effect of interest rate spread on the profitability of commercial banks in Ghana. The research was based on a sample of 24 banks over a ten-year period using panel data. Augmented Dickey Fuller criterion was adopted for unit root test while the Johansen technique was employed for co-integration analysis. The study revealed that there is a positive and statistically significant association between interest rate spread and bank profitability in Ghana.

Obagunwa and Akinwale (2018) carried out a study on the effect of interest rate deregulation on Nigerian banking system. The study adopted Augmented Dickey- Fuller

(ADF) and Autoregressive Distributed Lag (ARDL) tests. The result of the ARDL indicated that interest rate had significant effect on loan and advances while lending rate and deposit rate had an insignificant effect on loan and advances.

Ene, Agok and Ene (2015) empirically examined the effect of interest rates deregulation on the performance of deposit money banks in Nigeria between 1986 and2014 using OLS regression method. Unit root test was employed to ascertain the stationary levels of the variables before conducting the regression analysis. Findings from the study revealed that deregulated interest rates have positive and significant impact on the ROA of deposit money banks.

Eke, Eke and Inyang (2015) used the classical least squares method to empirically examine interest rate deregulation effects on the lending operations of Nigerian commercial banks for the period 1970 to 2013. The period was divided into two policy regime periods: the regulated interest rate era spanning 1970-1986 and the deregulated period 1987-2013. The Chow test was applied toexamine if there was any significant difference in the relationship between interest rate and commercial banks' lending for the two periods. The empirical result obtained for interest rate regulation era showed that interest rate spread and statutory liquidity ratio had negative and significant effect on the volume of commercial banks' loan, while fixed exchange rate had negative and insignificant impact on banks' loans and advances. The chow test result however confirmed the impact of deregulation on volume of commercial banks loans and advances due to the deregulation of interest rate.

Method of Data Analysis

The Autoregressive Distributed Lag (ARDL) model developed by Pesaran and Shin (1999) in analyzing the long-term impacts of explanatory variables on a dependent variable was adopted in this work. One of the reasons for utilizing the ARDL model among others is based on its robustness for estimating models with small and relatively large observations. More importantly, the ARDL is applied not withstanding whether the variables are integrated of the same order or fractionally integrated. Thus, the variables

under investigation could be I(0), I(1) or a combination of I(0) and I(1) variables. Again, by allowing for the inclusion of the lagged variables including the lag value of the response variable as independent variable, the ARDL is adjudged to provide opportunity for overcoming the problem of endogeneity often associated with time series data. Hence, the entire process involved the following tests:

Stationarity Test

The stationarity process of each of the economic time series utilized in this work was captured using the Augmented Dickey Fuller (ADF) approach to unit root test as proposed by Dickey and Fuller (1981). This stationarity approach was applied intesting the null hypotheses of a unit root against the alternative hypotheses of no unit root at the conventional 5 percent level. For each of the variables included in the unit root model, it is expected to be I(0) or I(1), but not I(2). The specification of the unit root model is provided as:

$$\Delta Q_i = P_0 + P_i Q_{i-1} + \sum_{i=1}^{m} h_i \Delta Q_{i-1} + \mu_i$$

Where;

Q_t	=	Variable being investigated
P_1 and h_i	=	Coefficients of the variable
n	=	Lag length
Δ	=	First Difference Operator
μ_t	=	White noise

Co-integration Test

Bounds test approach to co-integration was adopted to examine if long run relationship exists among the underlying variables. In this procedure, the null hypotheses of no co-integration was tested against the alternative hypotheses of co-integration with the application of Wald test or F-test. The formalization of the model for the bounds test is as follows:

$$y_i = \alpha + \sum_{}^{m} \beta_i \chi_i + E_i$$

$_{i=1}$

Where;

α_0 = The intercept

χ_{i1} = The vector of the regressors

k = Optimal length

E_i = White noise

Model Specification

As said earlier, this paper employed an Autoregressive Distributed Lag (ARDL) model with the disaggregation of interest rate deregulation into prime lending rate (PLR), maximum lending rate (MLR), three months deposit rate (TDR) and over 12-months deposit rate (ADR) as explanatory variables. On the other hand, banks' return on assets (BRA) served as the response variable. The model is expressed in a functional form as;

BRA = f(PLR, MLR, TDR, ADR)

The ARDL model of the above functional equation is formalized as;

$BRA_1 = P_o + \Pi_1 BRA_{i-1} + \Pi_2 PLR_{i-1} + \Pi_3 MLR_{i-1} + \Pi_4 TDR_{i-1} + \Pi_5 ADR_{i-}$

$\sum_{i=1}^{m} Z_1 \Delta BRA_{i-1} + \sum_{i=1}^{m} Z_2 \Delta PLR_{i-1} + \sum_{i=1}^{m} Z_3 \Delta MLR_{i-1} + \sum_{i=1}^{m} Z_4 \Delta TDR_{i-1} + \sum_{i=1}^{m} Z_5 ADR_{i-1} + e_{ii}$

P_o = Constant Parameter

Π_1-Π_5 = Long run multipliers

Z_1-Z_5 = Short run dynamic parameters of the regressors

e_{ii} = Random disturbance

m = Optimal lag length

Δ = First difference operator

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

Presentation of Data

Table 1 Data on Prime and Maximum Lending Rates, Three and Over 12-Months Deposit Rates, and Deposit Money Banks' Return on Assets (1996 – 2018)

Year	BRA (%)	PLR (%)	MLR (%)	TDR (%)	ADR (%)
1996	0.95	19.74	20.86	12.94	13.55
1997	0.96	13.54	23.32	7.04	7.43
1998	2.69	18.29	21.34	10.20	10.09

1999	0.95	21.32	27.19	12.68	14.30
2000	2.56	17.98	21.55	10.60	10.44
2001	3.26	18.29	21.34	10.20	10.09
2002	2.44	24.85	30.19	16.31	15.57
2003	1.84	20.71	22.88	14.31	11.88
2004	2.03	19.18	20.82	13.69	12.21
2005	2.10	17.95	19.49	10.53	12.21
2006	1.75	17.26	18.70	9.75	8.26
2007	2.97	16.94	18.36	10.29	9.49
2008	2.52	15.14	18.70	11.95	11.95
2009	-12.83	18.99	22.62	12.96	12.63
2010	2.92	17.59	22.51	6.52	7.19
2011	0.22	16.02	22.42	5.69	6.30
2012	3.00	16.79	23.79	8.40	7.63
2013	2.04	16.72	24.69	7.94	6.72
2014	2.09	16.55	25.74	9.34	9.89
2015	1.47	16.85	26.71	9.15	8.26
2016	1.53	16.87	27.29	7.50	5.46
2017	2.44	17.58	30.68	9.55	7.73
2018	-	16.91	31.09	9.70	8.85

Source: Researcher's Desk

Results and Discussion

Stationarity Test

The outcome of the Augmented Dickey-Fuller test for unit root for each of the variables is shown in the table below;

Table 2 Augmented Dickey-Fuller (ADF) Stationarity Test Result

Variables	ADF Statistics	Prob. Value	Order of Integration
BRA	-5.055603	0.0006	I(0)
PLR	-3.557159	0.0159	I(0)
MLR	-6.555940	0.0000	I(1)
TDR	-5.858445	0.0001	I(1)
ADR	-3.362348	0.0240	I(0)

Source: Researcher's Computations from E-Views 9 Result

The stationarity test result summarized above reveals that deposit money banks' return on assets (BRA), prime lending rate (PLR) and over 12-months deposit rate (ADR) are stationary at levels or integrated of order zero [I(0)]; while maximum lending rate (MLR) and three months deposit rate (TDR) are stationary at first difference (difference stationary) or integrated of order one [I(1)]. However, none of the variables is integrated

of order two [I(2)], thus indicating that they satisfy the requirement to be included in the ARDL model as suggested by Pesaran and Shin (1999).

Co-Integration Test

For co-integration test, bounds test technique was adopted. The table below shows the outcome of this test;

Table2:1 Result of ARDL Bounds Test

ARDL Bounds Test
Date: 04/18/20 Time: 04:04
Sample: 1996 2018
Included observations: 21
Null Hypotheses: No long-run relationships exist

Test Statistics	Value	k
F-Statistic	6.532217	4

Critical Value Bounds

Significance	**10 Bound**	**11 Bound**
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Table 3 Test Equation:
Dependent Variable: D(BRA)
Method: Least Squares
Date: 04/18/20 Time: 04:04
Sample: 1996 2018
Included observations: 21

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(PLR)	-0.326184	0.589401	-0.553417	0.5894
D(TDR)	0.324855	0.642558	0.505565	0.6216
C	-8.298820	7.997678	-1.037654	0.3183

PLR(-1)	1.172224	0.751346	1.560166	0.1427
MLR(-1)	-0.019845	0.269897	-0.073527	0.9425
TDR(-1)	-0.327859	0.803865	-0.407853	0.6900
ADR(-1)	-0.711685	0.695147	-1.023791	0.3246
BRA(-1)	-1.361323	0.290461	-4.686763	0.0004

R-squared	0.756152	Mean dependent var	0.070952
Adjusted R-Squared	0.624850	S.D. dependent var	5.063237
S.E of regression	3.101207	Akaike info criterion	5.383792
Sum squared Resid	125.0273	Schwarz criterion	5.781705
Log likelihood	-48.52981	Hannan-Quinn criter.	5.470149
F-statistic	5.758856	Durbin-Watson stat	1.948095
Prob(F-statistic)	0.003354		

Source: E-Views 9 Result

Table 3 shows the bounds test result of long run relationships among the underlying variables. The result shows that the calculated F-statistics (6.532217) exceeds the upper bounds critical value (4.01) at five percent level. This implies that long run relationships exist among the variables. Hence, the null hypotheses that no long run relationship exists is rejected. Sequel to the outcome of the bounds test, the long run parameters of the exogenous variables is estimated.

Estimation of the ARDL Model

Owing to the stationarity process and evidenced long run relationship captured above this paper employed the Akaike Information Criterion (AIC) for estimating the ARDL process (1, 1, 0, 1, 0). The long run parameters of the exogenous variables are reported in table 4 below;

Table 4: Long Run Coefficients of the Exogenous Variables
Dependent Variable: BRA
Selected Model: ARDL (1, 1, 0, 1, 0)
Date: 04/18/20 Time: 04:20
Sample: 1996 2018
Included observations: 21

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PLR)	-0.250937	0.637067	-0.393895	0.7000
D(MLR)	-0.174516	0.247031	-0.706453	0.4924
D(TDR)	0.911799	0.978122	0.932193	0.3682
D(ADR)	-0.527450	0.717570	-0.735050	0.4754
CoinEq(-1)	-1.412518	0.300625	-4.698605	0.0004

Cointeq = BRA – (0.8731*PLR -0.1235*MLR -0.4022*TDR – 0.3734*ADR
-3.5994)

Long Run Coefficents

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PLR	0.873127	0.575290	1.517715	0.1530
MLR	-0.123550	0.177985	-0.694158	0.4998
TDR	-0.402205	0.659042	-0.610288	0.5522
ADR	-0.373411	0.494932	-0.754469	0.4640
C	-3.599418	6.037081	-0.596218	0.5613

Source: E-Views 9 Result

Diagnostics Tests

The reliability of the estimated ARDL model is examined through the diagnostics tests. Specifically, higher order serial correlation and autoregressive conditional heteroscedasticity tests were applied to determine if the errors are serially correlated and have a constant variance. In addition to these, the model was subjected to normally test to check whether the errors are normally distributed. The results of these tests are reported in the tables below;

Table 5: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM

F-statistic	0.115653	Prob. F(2,11)	0.8919
Obs*R-squared	0.432489	Prob. Chi-Square(2)	0.8055

Test Equation:
Dependent Variable: RESID
Method: ARDL
Date: 04/19/20 Time: 23:21
Sample: 1996 2018

Included Observations: 21

Presample missing value lagged residuals set to zero

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BRA(-1)	0.064359	0.540555	0.119061	0.9074
PLR	0.107977	0.757876	0.142473	0.8893
PLR(-1)	-0.003323	0.577431	-0.005755	0.9955
MLR	-0.021311	0.271237	-0.078569	0.9388
TDR	-0.248524	1.246752	-0.199337	0.8456
TDR(-1)	-0.013861	0.632955	-0.021899	0.9829
ADR	0.073581	0.812321	0.090582	0.9295
C	0.518221	9.329933	0.055544	0.9567
RESID(-1)	0.028124	0.535233	0.052545	0.9590
RESID(-2)	0.188561	0.427720	0.440851	0.6679

R-squared	0.020595	Mean dependent var	-3.98E-15
Adjusted R-squared	-0.780737	S. D. dependent var	2.508551
S. E. of regression	3.347517	Akaike info criterion	5.560069
Sum squared resid	123.2646	Schwarz criterion	6.057460
Log likelihood	-48.38072	Hannan-Quinn criter.	5.668015
F-statistic	0.025701	Durbin-Watson stat	2.106429
Prob(F-statistic)	0.999997		

Source: E-Views 9 Result

The above table shows that the model is not serially correlated at 5 percent level of significance because the probability value (0.8055) of the Chi-Square (X^2) statistic of the Breusch-Godfrey Lagrange Multiplier (ML) test is greater than 0.05.

Table 6: Heteroscedasticity Test

Heteroscedasticity Test: ARCH

F-statistic	0.325281	Prob. F(1, 18)	0.5755
Obs*R-squared	0.355008	Prob. Chi-Square(1)	0.5513

Test Equation:
Dependent Variable: RESID^2
Method: :Least Squares
Date: 04/19/20 Time: 23:41
Sample (adjusted): 1996 2018
Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.050775	3.490918	2.019748	0.0586
RESID^2(-1)	-0.133450	0.233985	-0.570334	0.5755

R-squared	0.017750	Mean dependenetvar	6.213854
Adjusted R-squared	-0.036819	S.D. dependent var	13.91179
S.E. of regression	14.16558	Akaike info criterion	8.234147
Sum squared resid	3611.946	Schwarz criterion	8.333720
Log likelihood	-80.34147	Hannan-Quinn criter.	8.253584
Prob(F-statistic)	0.575502		

Source: E-Views 9 Result

CONCLUSION

The main aim of this paper is to empirically examine the relationship between interest rate deregulation and performance of Nigerian deposit money banks for the post deregulation period of 1996 – 2018 based on data collection from Central Bank of Nigeria (CBN) Statistical bulletin and a publication of the World Bank. In specifics,

prime lending rate, maximum lending rate, 3-months deposit rate and over 12-months deposit rate were statistically significant. However, only prime lending rate showed a positive impact. Generally, the study shows that interest rate deregulation does not have a significant relationship with the performance of Nigerian deposit money banks for the period under consideration. From all indications, our findings support the position expressed by Afza et al. (2018), Obagunwa and Akinwale (2018), and Ogunbiyi and Ihejirika (2014); who at different points captured the adverse relationship between interest rate deregulation using related variables and various performance indicators of deposit money banks.

RECOMMENDATIONS

i) Deposit Money Banks should strive to mobilize adequate savings from surplus units of the economy by offering them deposit rate capable of inducing the savers to increase their savings and boost the availability of loanable funds.

ii) There is urgent need to restructure the Nigerian Financial System whereby policies by the monetary authorities will achieve pre-determined goals. In essence, to make interest rate policies meaningful, there is need to curtail financial transactions that escape the banking system.

iii) Given the place of interest rate in monetary policy implementation, it is imperative that measures are put in place to drastically address the inconsistencies that often characterize the implementation of monetary policy in Nigeria.

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