

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

Abstract

This study looked at the relationship between interest rate deregulation and performance of Nigerian deposit money banks for the period 1996-2018. Interest rate deregulation was broken down into prime lending rate, maximum lending rate, 3-month deposit rate, and over 12-month deposit rate, with return on assets (ROA) serving as a proxy for deposit money bank performance. Dates for the variables listed above were obtained from the Central Bank of Nigeria Statistical Bulletin (2018 edition) and the World Bank data base. The data were assessed for stationarity with the Dickey-Fuller (D-F) test, long-run relationship with the Bound's co-integration test, and ARDL reliability with serial correlation, heteroscedasticity, and normality tests. The results of the tests revealed that all of the variables were integrated of order zero or one, and that the variables have a long-run relationship. As a result, the ARDL model for parameter estimation revealed that only prime lending rate was positively connected to bank ROA, whereas none of the explanatory factors were statistically significant. The researcher then claimed that there is no meaningful association between interest rate deregulation and the performance of Nigerian deposit money banks during the study period. As a result, deposit money institutions should attempt to mobilise appropriate savings from surplus units by offering deposit rates capable of enticing savers to grow their savings and increasing the availability of loanable funds.

Keywords: Interest Rate; Deregulation; Deposit Money Banks; Performance; Return on Assets.

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 Sap's primary policy initiatives included the second-tier foreign exchange market (SFEM), privatization and commercialization of petroleum subsidies, trade liberalization, debt conversion scheme/program, bureau de change, and interest rate deregulation. Prior to July 31, 1987, the Central Bank of Nigeria was directly in charge of the country's interest rates (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, according to Onoh (2019), interest rates in Nigeria are 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".

Nonetheless, according to Ozigbu (2018), "the main source of investable funds remains bank deposits, loans, and investments." While there are other sources of income and profitability in banking, the interest spread remains the primary source of income and profitability. 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

Many research have been conducted in order to determine the relationship between interest rate deregulation and the performance of deposit money banks. Different variables for interest rate deregulation and bank performance were used in this research. Onoh (2019), for example, used total bank assets as a proxy for bank performance, while interest rate deregulation was broken down into prime lending rate, inflation rate, and loans and advances. Afza, Raja, Imran, and Saima (2018) used return on assets, return on equity, and earnings per share as bank performance indicators, with interest rate changes, deposits with other banks, advances and loans, and investment as interest rate components. In their study, Alhassan, Anokye, and Gakpetor (2018) employed interest rate spread and net interest margin as independent variables. The dependent variables (profitability) were return on assets and return on equity. Omowunmi (2018) used banks' investment to total assets as a proxy for bank performance, whereas the money supply growth rate, maximum lending rate, liquidity ratio, loan-deposit ratio, and monetary policy rates were subsets of interest rate deregulation. Obagunwa and Akinwale (2018) divided interest rate deregulation into interest rate, lending rate, and deposit rate, with loan and advances serving as a proxy for bank performance in another study.

Among the several studies on interest rate deregulation and bank performance that were reviewed, none disaggregated deposit rate. The obvious question is: what are the effects 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

- H₀₁: Lending rate has not significantly affected the return on assets of Nigerian banks.
- H₀₂: Maximum lending rate does not have a significant impact on deposit money banks' return on assets in Nigeria.
- H₀₃: 3-months deposit rate does not have a significant effect on Nigerian deposit money banks' return on assets.
- H₀₄: Over 12-months deposit rate has not significantly impacted on the return on assets of deposit money banks in Nigeria.

Interest Rate Deregulation

The term "interest rate" has been defined and described in a number of ways. It is a percentage that is usually charged on a sum of money given to a borrower with the promise of repaying it at a later date. This rate is calculated as the difference between borrowers' rental payments for using credit and lenders' return for parting with cash.

However, it can also be classified along lending and deposit rates lines. For banks, prime and maximum lending rates exist. The prime lending rate is the interest rate that deposit money banks charge their most creditworthy clients, such as major businesses, whereas the maximum lending

rate is the amount that all other customers are charged. In recent times, banks have come up with a wide range of products in order 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 advice and directives from such authorities. The reverse is the case for the latter. Interest rate deregulation, according to Obute, Adryorogh, and Itodo (2012), is a condition in which the rate of interest is decided 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. The rates are not fixed as controllable and uncontrollable factors play significant roles.

Bank Performance

The term "performance" simply refers to achieving predetermined objectives. As a result, bank performance can be defined as the reflection of how a bank's resources are employed in a way that allows it to fulfil its goals. In essence, it entails the adoption of a set of indicators that reflect the bank's current state and the extent to which it is capable of achieving the targeted goals. Traditional, economic, and market-based performance metrics can be distinguished, according to the European Central Bank (ECB). Traditional performance indicators include ratios like as return on assets (ROA), cost-to-income ratio, return on equity (ROE), and so on. Return on asset (ROA) is a metric that shows how lucrative a bank is in terms of its total assets when it comes to making money. The link between net income and total assets is expressed by the return on assets, which is a profitability ratio (Ene, Atong and Ene, 2015).

Furthermore, as previously said, ROA is a measure of how successfully a bank uses its assets by calculating how profitable a bank is in relation 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 involves David Ricardo, Marshall, Piggon, Cassels, Walras, Tansing, and Knight. As according classical theory, the rate of interest is determined by the interaction of capital demand and supply, or, to be more specific, the intersection of the investment demand schedule and the savings schedule. It's also conceivable to state that the interest rate is set by the perfect rivalry between savings and investment. The rate of interest is regarded as a balancing factor, bringing the volume of savings and investment into balance.

The rate of interest, according to traditional economists, must be high enough to tempt the saver to forego consumption. If the general population saves less, total capital supply will fall short of total demand, requiring interest rates to rise to compensate savers (Ugwuanyi, 2012).

The Neo-Classical or Loanable Funds Theory

Wicksell, a Swedish economist, proposed the neo-classical or loanable funds theory of interest rate, which was later expanded and supported by other well-known American and Swedish economists such as Professor Robertson, Bertil, Lindhal, and Mydal (Ene, Agok and Ene, 2015). Despite this, Professor Robertson is associated with the concept in its current form. The interest rate is influenced by the factors of demand and supply of loanable money, according to the theory. The three purposes of loanable money demand were then described: investment, hoarding, and dissaving. The idea described the inverse link between demand for loanable funds and interest rate in terms of investment. An investor wants money to put into the production of new capital goods, but that demand can only be met if the interest rate is lower than the expected return on investment. Demand will be high if the interest rate is low, and demand will be low if

the interest rate is high. The idea claimed that the demand for liquidity causes some people to hoard, and that hoarding has an inverse connection with interest rates. In dissaving, the same inverse relationship exists.

Savings, disinvestment, and bank credit were all used to explain the availability of loanable money. According to the hypothesis, people will save more with a high interest rate and less with a low interest rate. This favourable link was also used to explain dishoarding and disinvestment. The effects of bank credits on loanable money were also explored. When a bank lends money, it is also creating credit. According to the idea, the interest rate is determined by the point of equilibrium between demand for and supply of loanable funds (Onoh, 2019).

The focus of this research, on the other hand, was on the Classical theory of interest rate determination. This is because interest rates are governed by a combination of capital demand and supply, according to the idea. In other words, interest rates are influenced by supply and demand dynamics (the lending and deposit rates). As a result, this was the foundation around which our argument and technique were formed.

Empirical Review

For the period 1989-2017, Onoh (2019) looked at the influence of interest rate deregulation on the performance of Nigerian deposit money banks. He also looked into the relationship between interest rate deregulation and deposit money bank performance in Nigeria. For data analysis, the ordinary least square method was used. The entire test was carried out at a significance level of 5%. Unit root, co-integration, ECM, and granger causality tests were performed. The study's findings demonstrated that the dependent variable (total assets) and the independent factors have a long and short run relationship (interest rate, inflation rate, loans and advances). The research also reveals a one-way causal relationship between total assets and loans and advances.

Afza, Raja, Imran, and Saima (2018) used correlation and regression analysis to regress return on assets, return on equity, and earnings per share on interest rate changes, deposits with other banks, advances and loans, and investment in a study on interest rates and financial performance of banks in Pakistan. The results reveal that deposits with other banks and interest rates have a negative impact on bank profitability, but advances, loans, and investment have a favourable impact on bank profitability.

An empirical study was conducted by Alhassan, Anokye, and Gakpetor (2018) on the effect of interest rate spread on the profitability of commercial banks in Ghana. The study used panel data to examine a sample of 24 banks during a ten-year period. For unit root testing, the enhanced Dickey Fuller criterion was used, and for co-integration analysis, the Johansen technique was used. In Ghana, the study found a positive and statistically significant relationship between interest rate spread and bank profitability.

The influence of interest rate deregulation on Nigerian banks was researched by Obagunwa and Akinwale (2018). In this study, the Augmented Dickey- Fuller (ADF) and Autoregressive Distributed Lag (ARDL) tests were applied. Interest rates had a significant impact on loan and advance amounts, according to the ARDL, whereas lending rates and deposit rates had a small impact.

Using the OLS regression method, Ene, Agok, and Ene (2015) empirically studied the influence of interest rate deregulation on the performance of deposit money banks in Nigeria between 1986 and 2014. Before doing the regression analysis, the unit root test was used to determine the stationary values of the variables. Deregulated interest rates have a beneficial and considerable impact on deposit money banks' ROA, according to the study's findings.

For the period 1970 to 2013, Eke, Eke, and Inyang (2015) employed the classical least squares method to empirically assess the effects of interest rate deregulation on the lending operations of Nigerian commercial banks. The period was separated into two policy regimes: the regulated interest rate era, which lasted from 1970 to 1986, and the deregulated period, which lasted from 1987 to 2013. The Chow test was used to see if the link between interest rates and commercial bank lending differed significantly between the two periods. The empirical findings during the interest rate regulation era revealed that interest rate spread and statutory liquidity ratio had a negative and significant impact on the volume of commercial bank loans, whereas fixed exchange rate had a negative and small impact on bank loans and advances. The second test result, on the other hand, confirmed the influence of interest rate deregulation on the volume of commercial bank loans and advances.

Method of Data Analysis

In this study, the Autoregressive Distributed Lag (ARDL) model established by Pesaran and Shin (1999) was used to examine the long-term effects of explanatory variables on a dependent variable. 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 notwithstanding 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 in testing 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:

m

$$\Delta Q_t = P_0 + P_1 Q_{t-1} + \sum_{i=1}^n h_i \Delta Q_{t-i} + \mu_t$$

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:

$$y_i = \alpha + \sum_{i=1}^m \beta_i \chi_i + E_i$$

Where;

- α_0 = The intercept
- χ_{i1} = The vector of the regressors
- k = Optimal length
- E_i = White noise

Model Specification

As previously stated, this study used an Autoregressive Distributed Lag (ARDL) model to disaggregate interest rate deregulation into prime lending rate (PLR), maximum lending rate (MLR), three-month deposit rate (TDR), and over 12-month deposit rate (ADR). 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;

$$BRA_1 = P_0 + \Pi_1 BRA_{i-1} + \Pi_2 PLR_{i-1} + \Pi_3 MLR_{i-1} + \Pi_4 TDR_{i-1} + \Pi_5 ADR_{i-1}$$

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

- P_0 = Constant Parameter
- $\Pi_1 - \Pi_5$ = 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;

Table 3: 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 4: 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

The bounds test result of long run relationships among the underlying variables is shown in Table 4. At a five percent level, the estimated F-statistics (6.532217) surpasses the upper bounds critical value (4.01). This implies that the variables have long-term relationships. 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 5 below.

Table 5: Long Run Coefficients of the Exogenous Variables

Dependent Variable: BRA
Selected Model: ARDL (1, 1, 0, 1, 0)
Date: 04/18/20Time: 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 Coefficients				
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 6: 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 7: 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: RESID²

Method: :Least Squares

Date: 04/19/20Time: 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 goal of this study is to empirically evaluate the relationship between interest rate deregulation and deposit money bank performance in Nigeria from 1996 to 2018, using data from the Central Bank of Nigeria (CBN) Statistical Bulletin and a World Bank publication. The prime lending rate, the maximum lending rate, the 3-month deposit rate, and the over 12-month deposit rate were all statistically significant. Only the prime lending rate, however, had a positive influence. In general, the study finds that interest rate deregulation had no substantial impact on

the performance of Nigerian deposit money banks over the study period. Our findings appear to back with the positions taken by Afza et al. (2018), Obagunwa and Akinwale (2018), and Ogunbiyi and Ihejirika (2014), who all recorded the negative association between interest rate deregulation and several deposit money bank performance metrics utilizing related factors.

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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