Effect of Financial System Deregulation on the Performance of Banking Sector in Nigeria

[1]Essien Anyanime Ibanga, [2]Ikenna Jude Ezeudu, Ph.D & [3]Odili Okwuchukwu, Ph.D
Department of Banking and Finance,
College of Management Sciences,
Michael Okpara University of Agriculture,
Umudike, P. M. B. 7267,
Umuahia, Abia State.,
Nigeria
[1]anyanime2006@yahoo.com, [2]ikennaezeudu2014@yahoo.com, [3] palmereck@gmail.com

Abstract
The study investigated the effect of deregulation of financial system on the performance of the banking sector in Nigeria from 1980 to 2014. Time series data collected were analyzed using descriptive statistics and the Ordinary Least Squares (OLS) regression technique. Empirical findings revealed that bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), real exchange rate (RER), and the dummy variable significantly influenced commercial bank's total assets within the study period. The findings further revealed that, while exchange rate had a significant negative effect on banks total assets, inflation rate, liquidity rate, monetary policy rate, and money supply growth rate failed to make any contribution to the performance of commercial banks in Nigeria in terms of its total assets. The study recommends that the monetary authority should pursue policies that would ensure that inflation rate, liquidity ratio, money supply growth rate are monitored to enhance effective financial intermediation and contribute to banks performance in Nigeria.

Keywords: *Financial System, Deregulation, Bank Assets, Savings, investment*

Introduction

Financial deregulation describes the elimination of credit controls, regulating interest rate and removal of entry barriers into the financial services industry, development of capital markets and liberalization of international capital flows (Ofoegbu, 2013). Financial deregulation is therefore a government programme of moving the economy towards a free market economy. It is a policy in which market forces determine the allocation of credit rather than government controls. This normally includes the elimination of direct control on both internal and international transactions and a move toward relying on the price mechanism to coordinate economic activities. According to Abogan, Olajide, and Oloba, (2014), financial deregulation is a process of reduction or elimination of laws and regulation that hinders free competition in supply of goods and services, thus allowing market forces to drive the economy.

The deregulation policy of government can be traced to the structural adjustment programme (SAP) of the 1986. The distortions in the economy and inadequate funds for financing government projects necessitated seeking for external finance from international financial organisations like the World Bank and International monetary fund (IMF) in which structural adjustment programme (SAP) was one of the conditions for such financial aids. The main objective of the structural adjustment programme (SAP) was the adoption of appropriate pricing policies in all sectors of the economy, improve foreign investment, boost foreign exchange inflows, encourage savings and general economic deregulation through the elimination of some regulations to create free market economy. The major policies of Nigerian financial system deregulation includes; The deregulation of interest rate (lending and deposit rate), deregulation of exchange rate and entry deregulation for banks which brought many banks into existence. These,

generally was to enhance effective financial intermediation in the economy. Other policies of deregulation according to Ekong and Udonwa (2015), includes the introduction of second-tier foreign exchange market (SFEM), abrogation of sectorial credit allocation, creation of deposit Insurance scheme (NDIC), Review of minimum paid-up capital for commercial banks, reform of regulatory bodies by introducing Banks and other financial institution Act (BOFID) No. 25 of 1991, introduction of prudential guidelines, removal of credit ceiling, the Bank consolidation programme and the introduction of Asset management corporation of Nigeria.

The economic justification of financial deregulation is based on the assumption that deregulation fosters bank competition due to increased number of commercial banks in the country which in turn may engender banks efficiency (Olokoyo, 2012). In Nigeria, the policy was designed among other things to restructure and diversify the productivity of the economy in order to stimulate domestic production for economic growth and profitability of commercial banks (Abogon, Olajide, and Oloba, 2014). Deregulation was also aimed at increasing competitive efficiency, improve allocation efficiency, reduce cost of financial intermediation and improve financial services and to rationalize the use of scarce resources.

Among the several policies of deregulation stated above, interest rate deregulation performs outstanding function by allocating limited supply of credit in the economy and savings mobilization. Interest rate regulates the flow of business and industrial behavior in an economy by influencing the supply of and demand for loanable fund. Interest rate is the rental payment for the use of credit by borrowers and return for parting with liquidity by lenders and depositors. Akpan (2009) opined that interest rate deregulation involves the establishment of interest rate that equate the demand for supply of savings and lending. Commercial banks being the major instruments through which government executes financial policies need to be appropriately repositioned to cope with the gains and challenges of deregulation. The ability of commercial banks to cope with these challenges which will come in form of competitive lending rate, liquidity management, effective management of credit risk, adequate money supply, level of expertise in investment banking and corporate finance activities will all be the important determinants of the performance of commercial banks.

According to Ofoegbu and Adegele (2013), deregulation of Nigerian financial system brings about consumers satisfaction, efficiency, innovations and competition which provide customers the opportunity to bargain due to the existence of many banks.

Despite all these, the Nigerian financial system was still characterized with high interest rate and efforts to narrow the spread between lending and deposit rate shows no positive result. Some unresolved questions remain; how effective, reliable, efficient and healthy were these commercial banks? Were they able to meet the country's saving mobilization needs and improve the financial sector performance through saving mobilization?

Empirical evidences from the Nigerian economy show that despite the adoption of financial deregulation, the domestic economy has not experienced any impressive performance as envisaged (Bakare, 2011). This study is undertaken to determine the effect of financial system deregulation on commercial banks total assets in Nigeria. The following research question was used to assist in achieving the objectives of this study: *To what extent does Nigerian financial system deregulation influenced commercial banks total assets?*
In answering the research question the following hypothesis was formulated and tested. *Nigerian financial system deregulation policies do not have positive and significant effect on commercial banks total assets Nigeria.*

Providing answers to this question could help the regulatory authorities and bank management in charting the future course of action to be pursued as they seek to balance the need for competition and stability.

The rest of the study is structured as follows: First literature review is presented, which is followed by methodology of the research. Then an explanation of the research result and discussions are presented. Finally, summary, conclusion and recommendations are offered.

2.0 Literature Review

2.1 Conceptual Framework Deregulation of the financial system comes in as a result of financial depression in the economy. Depression is said to be a period when there is severe and prolonged down turn in the economy, prices fall and constant reduction in purchasing power. It also results in high unemployment, lower productivity, shrinking wages and generally low savings. According to Adekanye (2002), deregulation was adopted in 1987 against a crash in the international oil market and the reactant deteriorating economic condition in the country due to stringent policies in the financial sector making savings and investment unrealizable.

The savings/investment process in capitalist economies is organized around financial intermediation, making financial intermediaries a central institution of economic growth. Financial intermediaries are institutions usually banks or other similar firms that borrow money from consumer/savers and lend to companies that need resources for investment.

Efficient financial intermediation in any economy confers two important benefits. One, it raises the level of investment and savings. Two, it increases the efficiency in the allocation of financial funds in the economic system. The combine effect of these benefits is improvement in banks efficiency and hence economic growth. The basic concept in this study is that deregulation will foster competitiveness and efficiency in the banking industry which will lead reduction in operating costs of banks and enhance their total assets performance. It is also expected that financial sector deregulation is will narrow the spread between deposit and lending rates as a result of competition following the inflow of new entry and market determined interest rates. The contrast is the case in Nigeria since interest rate spread (lending-deposit rate margins) has been dramatically wide.

2.2 Theoretical Underpinnings

The theoretical underpinning of this research is anchored on the nexus that subsist between financial intermediation and the financial system. Expanded financial intermediation between savers and investors under ideal situations, increases incentives to save as well as investors, and equally raises the average efficiency of investment. More so, it also raises real returns to savers while also lower real cost to investors by accommodating liquidity preferences (Shaw 1973). It could also lead to reducing risk through diversification, giving room to the benefit of economies of scale in lending, increasing operational efficiency and lowering information costs both to savers and lenders through specialization and division of labour. The following theories are therefore imperative in estimating the effect of financial system deregulation on the performance of banking sector in Nigeria.

Bank Liquidity Theories: The amount of money available to commercial banks and their ability to generate savings through deposits determines their money creating power and performance. Liquidity is defined by Nwankwo (1992), as being able to meet every financial need as at when due, whether it is withdrawal from current accounts, savings account, maturing or a maturing issue of commercial paper. Adequate liquidity is a *Sine qua non* for banking, thus the need for liquid planning for the operation of all financial institutions. Nwaezeaku (2006) defined liquidity as the degree of convertibility to cash or the ease with which any asset can be converted to cash.

Liquidity management therefore involves the strategic supply or withdrawal from the market or circulation the amount of liquidity consistent with a desired level of short-term reserve money without distorting the profit making ability and operations of the bank (Ibe, 2013). It relies on the daily assessment of the liquidity conditions in the banking system, so as to determine its liquidity needs and thus the volume of

liquidity to allot or withdraw from the market. The liquidity needs of the banking system are usually defined by the sum of reserve requirement imposed on banks by a monetary authority (CBN, 2012).

Nwankwo (1991) identifies five theories of Bank liquidity: namely the liquid assets theory, the commercial bills theory, the shiftability theory, the anticipated income and liability management theories.

a). The Liquid Assets Theory: This is the first and oldest liquidity theory practiced since the London goldsmith era, Anyanwu, (1993). It holds that for a bank to remain adequately liquid, large proportion of its assets must consist of liquid assets as a cushion against customers demand for payment. This implies that as long as the bank is able to hold liquid and meets the customers daily withdrawal demands, it's said to be liquid.

b). Commercial Loan Theory: According to Nzotta (2004), and Nwankwo (1991), this theory is also known as the real bills doctrine. It states that bank funds should principally be invested in short term, self-liquidation loans for working capital purposes, usually confined to financing the movement of goods through the successive states of production, cycle production, transportation, storage, distribution and consumption. This theory encourages a bank to grant only commercial loans or production cycle loans if it wants to remain liquid. This implies that the banks must desists from granting long-term loans and such loans as agricultural, real estate and consumer loans because they are not self-liquidating. A self-liquidity loan is one that the purpose for which it is granted has the ability to generate enough income to repay the loan. Thus, the loan can repay itself. If deposit decreased, maturing loans could be used to generate liquid to meet deposit withdrawals and other needs of the bank.

However, this theory was said to be an illusion as it suffered from a number of serious draw backs such as viewpoints of the economy as a whole, the practice of commercial loan theory intended to accentuate economic collapse by breaking the cash flow cycle to commerce and industry. The major limitation is that the theory is inconsistent with the demands of economic development especially for developing countries since it excludes long term loans which are the engine of growth.

c). Shiftability Theory

Shiftability theory was propounded to overcome some of the shortening of commercial loan theory, especially its inability to meet the long term credit needs of the customers. The main proponents of this theory maintains that a bank will remain adequately liquid as long as it holds assets that could be shifted, sold or transferred to other investors or lenders to obtain immediate cash.

d). Anticipated Income Theory

This theory holds that a bank's liquidity can be managed through the proper phasing and structuring of the loan commitments made by a bank to the customers. Here the liquidity can be planned if the scheduled loan payments by a customer are based on the future of the borrower. Thus, the theory recognizes the influence of the maturity structure of the loan and investment portfolio on liquidity position of banks. According to Nzotta (2004), the theory emphasizes the earning potential and the credit worthiness of a borrower as the ultimate guarantee for ensuring adequate liquidity. Nwankwo (1991), posits that the anticipated income approach point to the movement towards self-amortizing commitments by banks and stressed that systematic repayments scheduled on many types of loans and serial maturing debts could provide an automatic liquidity schedule out of the repayment capabilities of the borrowers.

e). Liability Management Theory

While the liquidity theories discussed so far are based on the assets side of the balance sheet, the liability management theory acknowledges that liquidity could also be got from the liability side of the balance sheet. The theory argues that since large banks can buy all the funds they need, there is no need to store

liquidity on the assets side of the balance sheet. Liability management introduced the concepts that a banker may control the level of liabilities compared to previous theories which assure a given level of assets and liabilities. In a broader sense apart from borrowing from Central Bank or by bidding higher in the money market, this approach will also include getting funds from depositors and other creditors and sale of certificates of deposits to meet liquidity requirements.

Theory of Financial Intermediation:

Shaw (1973), proposed a debt intermediation hypothesis, whereby expanded financial intermediation between the savers and investors resulting from financial liberalization (higher real interest rates) and development increase the incentive to save and invest, stimulates investments due to an increased supply of credit, and raises the average efficiency of investment. This view stresses the importance of free entry into and competition within the financial markets as prerequisites for successful financial intermediation. Shaw (1973) argued that policies leading to the repression of financial markets reduce the incentive to save. They described the key elements of financial repression as:

High reserve requirements on deposits, Legal ceilings on bank lending and deposit rates, Direct credit to banks, Restriction on foreign currency capital transactions, Restriction on entry into banking activities.

Though the McKennon-Shaw framework informed the design of financial sectors reforms in many developing countries, country experiences later showed that while the framework explains some of the quantitative changes in savings and investment at the aggregate level, it glosses over the micro-level interactions in the financial markets and among financial institutions which affects the supply of savings and the demand for credit by economic agents and the subsequent effect on economic growth.

This shortcoming later formed the spring board for the development of agency theories of financial intermediation. One of the earliest attempts to interpret the experience of developing countries within this framework can be found in Stiglitz and Weiss (1981) which stressed the importance of imperfect information in financial markets and its effect on the overall allocation of resources and economic growth. They showed that credit rationings for example, may arise from imperfect information about the quality of potential borrowers.

2.3 Review of Related Empirical Literature

Varied results had been found on the effect of financial system deregulation on the performance of banking sector in Nigeria. Some studies found a positive effect of financial system deregulation on the performance of banking sector, while some studies show no effect and others found a negative effect.

According to Opeyemi, Egbewole, and Olusola, (2014), in their work titled "The impact of deregulation of the economy on Nigeria commercial banks" they have it that deregulation was designed to restructure and diversify the productivity of the economy in order to reduce dependency on the oil sector and also to achieve fiscal and balance of payment viability. Deregulating the economy through the banking sector will go a long way in developing an efficient money market thereby improving the payment system in the economy. The deregulation policy has improved the level of awareness of activities of banks among Nigerians. The Nigerian banking industry experienced tremendous growth during the period of deregulation in Nigeria economy from 1986.

Olokoyo (2012), the important aim of monetary stability in Nigeria has not been attained after deregulation. Monetary growth was far in excess of targets and persistent inflationary pressures. Federal Government fiscal deficit, interbank rates climbed to an alarming rate which in turn affected other rates. Because the expected monetary stability failed to materialize, government resorted to issuing stabilization securities in 1990 and transferred government account from the banks to Central Bank of Nigeria. On the other hand, the massive sets of regulations introduced by the regulatory bodies led to several introductions

as bank and other financial institution came out with several new products. These innovations have been largely responsible for the crashed financial institutions and banks.

Okwo, *et al,* (2012), investigated the effect of deposit money bank credit on the Nigeria economy growth, using gross domestic product (GDP) as an indicator of economic growth, while bank credit to private sector, interest and inflation rates as the independent variables. They reported that commercial banks performance and healthy financial sector affects the growth of the entire economy. That the major function of commercial banks as financial intermediation involves channeling funds from the surplus units to the deficit unit of the economy, thus transforming deposit into loans or credits. The role of commercial bank credit in economic development has been recognized as credits are obtained by the various economic agents to enable them meet investment operating expenses. The commercial banks also help to make these credits available by mobilizing surplus funds from savers who have no immediate needs for such funds and channel such funds in form of credit to investors who have brilliant ideas on how to create additional wealth in the economy but lack the necessary capital to execute the ideas.

Iganiga (2010), evaluated the Nigerian Financial Sector Reforms Using Behavioural Models. This study support the view that financial system deregulation promotes the efficiency of the financial intermediation process. The study found that the adoption of financial deregulation has triggered a significant realignment of financial depth, width and savings mobilization. That financial liberalization promotes the efficiency of the intermediation process.The Table 2.1 below shows a summary of the literature reviewed.

Table 2.1 Summary of Related Empirical Literature

	NAME	TITLE	METHODOLOGY	FINDINGS
1	Olokoyo, Felicia Omowunmi(2012)	The effect of bank deregulation on bank performance in Nigeria.	Ordinary least squares single equation technique. model IAR = F(M2R, MLR, LR, LOR, MPR, U)	The overall empirical evidence suggests that there is a significant relationship between the regulation of banks and bank performance and hence does not support the position that deregulation brings about improvement in bank performance, that deregulation should be combined with other regulatory policies for better performance.
2	Uduak, M. Ekong and Ubong E. Udonwa(2015)	Banking sector reforms and the performance of commercial banks in Nigeria.	Made use of co-integration analysis to highlight the short and long term relationship between banking sector reforms and commercial banks performance. Model = π_t =F (NPL$_t$, PR$_t$, CR$_t$, n^{c}t, Rl$_2$DP$_t$).	Banking sector reforms lead to improvement in the level of profit of commercial banks. The study also found that, reforms in the banking sector increases the efficiency (profitability) of commercial banks due to high interest rate spread. The increase in such

			spreads following reforms therefore suggests that the sector is still in need of policies to encourage more competition. A review of banking sector cost is necessary in order to reduce them.
3	Donald Ikenna Ofoegbu and Adeyele Titilope Iyewumi(2013)	Bank consolidation and deregulation effects on the level of competition in the Nigerian banking industry.	Ordinary least squares regression technique with Augmented Dickey fuller test and Johenson co-integration test.	Bank recapitalization and other consolidation catalysis did improve efficiency and economics of scale in the banking industry. The study therefore infers that consolidation and deregulation are efficient tools to intensify competition that leads to reduction in interest rate spread and increasing efficiency in the Nigerian banking industry. Consistency in the implementation of reforms polices.
4	Ofoegbu Donald Ikenna (2013)	Financial Deregulation Bounding to Credit Mobilization in Nigeria: A case for the Real Sectors and SMEs.	Uses a Fitting co-integration technique for empirical analysis. With Bounds testing approach to co-integration employed within a frame work of Auto regressive Distributed lay model (ARDL).	That financial liberalization improved growth through financial depending which implies not only higher productivity of capital but also higher savings which leads to higher volume of investments credit. Also that liberalization of Nigeria financial system had an adverse boomerang effect on the credit allocated to the real sector, financial liberalization was in all insignificant and negative.
5	B. O. Iganiga (2010)	Evaluation of the Nigerian Financial Sector Reforms Using Behavioural Models.	Used ordinary least squares technique with straight line trend models.	The study found that the adoption of Financial deregulation has triggered a significant realignment of financial depth, width and savings mobilization. That financial liberalization promotes the

				efficiency of the intermediation process.
6	Abogan O. P., Olajide E., Oloba O.(2014)	The impact of deregulation of the economy on Nigerian commercial banks; A case study of some selected commercial banks in Ilesa, Osun State.	The researcher used correlation, regression analysis as well as analysis of variance (ANOVA). With both primary and secondary data.	The study reveals that with deregulation of the economy came high technology information which actually reduced incidence of fraud in banking industry and increased the number of commercial banks as a result of competitive environment, with increase in skilled manpower.

Source: Researcher's compilation.

3.0 Research Methodology
Model specification

To test the hypothesis already stated in chapter one, this study adopted the model specification by Olokoyo, (2012). In the model specified by Olokoyo, (2012), performance of commercial banks in Nigeria was measured using bank investment to total assets ratio (IAR). In the study, the performance of commercial banks in Nigeria was modeled as;

$IAR = f$ (M2R, MLR, LR, LDR, MPR, U)   Eqn.3.1.

where, IAR is Bank investment to total assets ratios, M2R is Money supply growth rate (%), MLR is Bank's maximum lending rate (%), LR is Liquidity ratio (%), MPR is Monetary policy rate (%), LDR is Loan-to-deposit ratio (%), U is Error term.

This study modified the model employed by Olokoyo, (2012) for estimating the performance of commercial banks in Nigeria by considering current macroeconomic realities in the Nigerian economy. It included variables that will impinge on the financial system's performance such as real exchange rate (RER), Inflation rate (INF), Financial Deepening (FND) and Banks deposit rate (BDR). Dummy variable was introduced to indicate the Nigerian financial system pre-deregulation and deregulation period. Performance of commercial banks was measured by bank total assets growth rate (BTA). The modifications of the model employed by Olokoyo (2012) gives room to accommodate other financial deregulation policies of the Central Bank of Nigeria that has not been considered in the previous studies.

In this study, the model for estimating the impact of financial deregulation policy on bank's total assets performance is specified as;

$BTA = f$ (MSG, FND, RER, INF, MLR, LQR, BDR, MPR, Dum, u_t)   Eqn. (3.2)

The Linear approximation of the functional form of the model expressed in natural logarithm is of the form.
$LogBTA = \alpha_0 + \alpha_1 logMSG + \alpha_2 logFND + \alpha_3 logRER + \alpha_4 logINF + \alpha_5 logMLR + \alpha_6 logLQR + \alpha_7 logBDR + \alpha_8 logMPR + \alpha_9 Dum + u_t$ Eqn. (3.3)

Where, BTA is Bank's total assets (₦) (Proxy for commercial banks performance in Nigeria), MSG is Money supply growth rate (%), RER is Real Exchange Rate (₦/$), INF is Inflation Rate (%), FND is Financial

Deepening (M$_2$/GDP), MLR is Bank's maximum lending rate (%), LQR is Liquidity ratio (%), BDR is Banks deposit rate (%), MPR is Monetary policy rate (%), Dum is Dummy variable that stance for financial system deregulation policy (Regulation policy periods = 0; deregulation policy periods = 1), f is functional relationship, Log is natural logarithm α$_1$-α$_9$ is parameters to be estimated, u$_t$ is error term.

The *a priori* expectations of results are: The *a priori* expectations of result are: The *a priori* expectations of result are: α$_1$>0, α$_2$>0, α$_3$<0, α$_4$<0, α$_5$>0, α$_6$>0, α$_7$>0, α$_8$>0, α$_9$>0

The study made use of secondary time series data collected from the publications of the development finance and research department of the Central Bank of Nigeria, its annual report, Nigerian Deposit Insurance Corporation Statistical Bulletin and their annual report, Nigeria bureau of statistics. Secondary data utilized by the researcher covers the year 1980– 2014, the choice of this period is to enable the researcher capture the pre-deregulation period as well as the deregulation period.
The hypothesis stated in this study will be tested using t-statistic after running a simple regression analysis of the impact of Nigerian financial system deregulation policy on commercial banks total assets within the study period.

4.0 Results and Discussion

4.1 Stationary Properties of the Variable used in the Analysis

Estimation of the economic models specified in this study was preceded by examination of the statistical properties of the series, including tests of stationarity state of the individual series. The Augmented Dickey Fuller (ADF) unit root test results of variables used in the analysis are presented in Tables 4.1.

Table 4.1: Result of unit root tests for the explained and explanatory variables.

	Augmented Dickey-Fuller with constant		Augmented Dickey-Fuller with constant and trend		Order of integration
Variables	1(0) Level	1(1) FD	1(0) level	1(1) FD	
Bank's deposit rate(BDR)	-2.344318	-6.178287***	-2.597145	-6.23399***	I(1)
Bank's total assets (BTA)	-0.805758	-3.120346***	-2.171491	-5.01493***	I(1)
Inflation rate	-3.378823**	-	-3.584526**	-	I(0)
Liquidity ratio(LR)	-3.583961**	-	-3.501398	-6.04589***	I(1)
FND(Financial deepening)	-1.803228	-5.232966***	-2.198718	-5.15388***	I(1)
Maximum lending rate(MLR)	-2.514052	-7.437663***	-2.581343	-5.99675***	I(1)
Monetary policy rate (MPR)	-2.625755	-6.591982***	-2.520239	-6.72565***	I(1)
Money supply growth rate (MSGR)	-3.635913**	-	-3.312812	-7.13610***	I(1)
Real Exchange rate (RER)	-1.753485	-4.918815***	-0.749142	-5.32032***	I(1)
Test critical values: 1% level	-3.639407	-3.646342	-4.252879	-4.262735	
5% level	-2.951125	-2.954021	-3.548490	-3.552973	
10% level	-2.614300	-2.615817	-3.207094	-3.209642	

Source: Researcher's compilation from E-view 8.0 wind processed (FD-first difference). ** and *** represents 5% and 1% levels of significance.

The result of the unit root test using Augmented Dickey-Fuller with constant and trend in Table 4.1 showed that inflation rate was found to be stationary at level, I(0). All the other variables were found to be stationary at first difference, I(1). The difference- stationary values for the variables found to be stationary at order one, I(1) were generated and used for further analysis in this study.

4.2 Descriptive Statistics

The descriptive statistic of the variables used in the analysis is presented in Table 4.2

Table 4.2: Descriptive Statistic of the Variables used in the Analysis

	BTA (₦M)	MSGR (%)	RER (N/$1)	Inflation Rate (%)	FND (%)	MLR (%)	Liquidity ratio (%)	BDR (%)	MPR (%)
Mean	5166.46	17.94971	66.03286	19.32857	17.12000	20.72829	46.29143	11.90857	12.71257
Maximum	25778.60	35.97000	158.5500	72.80000	38.00000	36.09000	65.10000	23.99000	26.00000
Minimum	19.20	1.870000	0.610000	5.400000	8.600000	10.00000	29.10000	4.700000	6.000000
Std. Dev.	8021.38	9.263153	63.84606	17.20538	5.837092	6.071065	9.856750	5.105552	4.290571
Skewness	1.398783	0.269867	0.267713	1.623857	1.736811	0.087224	0.317727	0.856424	0.702193
Kurtosis	3.398340	2.037607	1.263988	4.651883	7.090834	3.062299	2.449460	2.911465	3.998454
Sum	180826.2	628.2400	2311.150	676.5000	599.2000	725.4900	1620.200	416.8000	444.9400
Periods	35	35	35	35	35	35	35	35	35

Source: computed by the author using E-view 8 econometric and statistical package.

Table 4.2 showed that for the 35years data used for the analysis of the study, the cumulative values of bank's total assets, money supply growth rate, real exchange rate, inflation rate, financial deepening, maximum lending rate, liquidity ratio, bank's deposit rate and monetary policy rate were ₦180,826.2 million; 703.92 million; 628.2%, ₦2311.15/$1; 676.5%, 599.2%, 725.49%, 1620.2%, 416.8% and 444.94% respectively. The mean values of bank's total assets, money supply growth rate, real exchange rate, inflation rate, financial deepening, maximum lending rate, liquidity ratio, bank's deposit rate and monetary policy rate were ₦5166.46 million; 17.95%, ₦66.03/$1; 19.33%, 17.12%, 20.73%, 46.29%, 11.91% and 12.71% respectively.

The maximum and minimum values of bank's total assets of ₦25778.60 million and ₦19.20 million were recorded in 2014 and 1980 respectively. The maximum and minimum growth rate in money supply of 35.97%and 1.87% were recorded in 2008 and 1981 respectively. The maximum and minimum growth rate in money supply of 35.97%and 1.87% were recorded in 2008 and 1981 respectively. The maximum and minimum value of real exchange rate of 35.97% and 1.87% were recorded in 2014 and 1980 respectively. The maximum and minimum value of inflation rate of 72.8% and 5.40% were recorded in 1995 and 1986 respectively. The maximum and minimum rate of financial deepening of 38% and 8.6% were recorded in 2009 and 1996 respectively. The maximum and minimum value of maximum lending rate of 36.09% and 10% were recorded in 1993 and 1980-1981 respectively. The maximum and minimum value of liquidity rate of 65.1% and 29.1% were recorded in 1984 and 1992 respectively. The maximum and minimum value of bank's deposit rate of 23.99% and 4.7% were recorded in 1993 and 2011 respectively. Lastly, the maximum and minimum value of monetary policy rate of 26% and 6% were recorded in 1993 and 1980-1981 respectively.

The skewness value of 1.398783, , 0.269867, 0.267713, 1.623857, 1.736811, 0.087224, 0.317727, 0.856424, and 0.702193 observed in the values of bank's total assets, money supply growth rate, real exchange rate, inflation rate, financial deepening, maximum lending rate, liquidity ratio, bank's deposit rate and monetary policy rate respectively showed positive distribution of the value curve for bank's total assets, money supply growth rate, real exchange rate, inflation rate, financial deepening, maximum lending rate, liquidity ratio, bank's deposit rate and monetary policy rate, an indication that the values tends to increase as the years increases. This may be due to financial deregulation policy. It is observed that, the standard deviation values of bank's total assets, money supply growth rate, real exchange rate, inflation rate, financial deepening, maximum lending rate, liquidity ratio, bank's deposit rate and monetary policy rate were N8021.378 million, 9.26%, ₦63.84/$1, 17.21%, 5.84%, 6.07%, 9.86%, 5.11% and 4.29% respectively, an indication of high degree of co-movement of values of bank's total assets, money supply growth rate, real exchange rate, inflation rate, financial deepening, maximum lending rate, liquidity ratio, bank's deposit rate and monetary policy rate in Nigeria overtime.

4.3 Effect of Nigerian Financial System Deregulation on Commercial Banks Total Assets.

The result of the multiple regression analysis of the effect of Nigerian financial system deregulation on commercial banks total assets using the ordinary least squares (OLS) approach is presented in Table 4.3 below.

Table 4.3 **Effect of Nigerian Financial System Deregulation on Commercial Banks Total Assets.**

Variable	Linear	Exponential	Double-log++	Semi-log
BDR	681.892(2.161)**	0.144(3.869)***	2.920(6.027)***	9094.306(3.680)***
INFLATION	36.140(0.620)	0.006(0.848)	-0.140(-0.564)	-1049.620(-0.832)
LIQUIDITY				
RATIO	-111.385(-1.144)	-0.007(-0.573)	0.853(1.188)	-3645.424(-0.808)
FND	469.079(2.126)**	0.050(1.921)*	3.228(6.417)***	13127.120(4.130)***
MLR	499.447(1.904)*	0.102(2.764)***	4.380(4.876)***	3468.020(0.462)
MPR	12.474(0.047)	-0.031(-0.994)	-0.527(-0.709)	5352.373(0.894)
MSGR	-160.750(-1.338)	0.013(0.906)	-0.038(-0.134)	501.677(0.282)
RER	46.025(1.451)	0.024(6.326)***	-1.202(-2.138)**	-4857.538(-1.435)
Dum	594.732(4.150)***	1.301(2.779)***	2.270(3.091)***	10143.500(3.745)***
Constant	-1222.13(-2.150)**	2.581(2.676)**	13.155(3.423)***	-3643.549(-0.179)
R^2	0.780	0.906	0.918	0.725
Adj. R^2	0.697	0.894	0.888	0.621
F-Statistic	9.431***	76.559***	30.022***	7.018***
DW-test	1.643	1.592	1.708	1.682

Source: Computed by the author from CBN (2014 ***, ** and * represent1%, 5% and 10% significance levels respectively. Figures in brackets are t- values. ++ represents lead equation

Based on the magnitude of the coefficient of multiple determinations (R^2), the signs of the regression coefficients as they conform to a priori expectations and the number of significant variables, the double-log model was selected as the lead model. The model showed that the explanatory variables included in the model explained about 91.8% of the observed variation in the value of banks total assets. The Durbin-Watson statistic test for the existence of serial autocorrelation showed that there was no positive first-order serial autocorrelation at 1% level given that, DW (1.708) > Du (1.623).

The result showed that bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), real exchange rate (RER), and the dummy variable were the significant variables that influenced commercial bank's total assets within the reference period.

The coefficient of bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), and the dummy variable were significant and positively influenced commercial banks total assets. This implies that increase in bank's deposit rate (BDR), financial deepening (FND) and maximum lending rate (MLR) leads to an increase in commercial banks total assets and vice versa. The dummy variable that had a positive relationship with bank's total assets implies that bank's total assets increases with financial deregulation policy. The relationship between bank's total assets and each of these variables bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), and the dummy variable conformed to *a priori* theoretical expectation of the relationship between bank's total assets and each of the variables. At high deposit rate, banks make more money from their customers which added to their total assets. More so, at favorable lending rate, more individuals and companies borrow loans from

commercial banks to enable them carryout their production, marketing or product distribution activities. This is in conformity with the research findings of Iganiga, 2010; Ibe, 2013; Eme, and Onwuka, 2011; Ekong, and Udonwa 2015); Dappa, and Daminabo, 2000; and Abogan, Olajide, and Oloba, 2014. Financial sector deregulation is expected to narrow the spread inflow of new entry and market determined interest rates. This finding support Ehinomen and Oladipo (2012) and contradicted that of Obamuyi *et al.,* (2012) who reported a positive relationship between lending rate and manufacturing output in Nigeria.

Similarly, financial deepening (FND) which shows the financial deepening position of the financial sector in relation to the economy positively influenced the bank's total assets which proxy the performance of the commercial banks in Nigeria. Commercial banks in Nigeria would take advantage of the financial stance of the economy to make more financial investments in the real sector of the economy that will translate to more assets to the banks.

The coefficients of bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), and the dummy variable deregulation were 2.920, 3.228, 4.380 and 2.270 respectively. This suggested that a unit increase in bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), and financial deregulation policy leads to about 2.920, 3.228, 4.380 and 2.270 increases in bank's total assets respectively.

The result further showed that a real exchange rate was significant and negatively related to banks total assets. This implies that increase in real exchange rate leads to a decrease in banks total assets. This result is in agreement with the *a priori* expectation of significant effect of real exchange rate on banks total assets. The situation could likely be as a result of improvement in foreign exchange transactions overtime and balances in the balance of payment. The negative relationship between real exchange rate and banks total assets is expected because a rise in the price of foreign currency against their domestic counterpart would reduce productivity by way of a rise in domestic prices of imported goods. This finding lend credence to the works of Ehinomen and Oladipo (2012) and Bassey *et al.,* (2014) who reported similar findings in the manufacturing and industrial sector of Nigeria respectively. Obamuji (2012) also reported similar result between exchange rate and manufacturing output in Nigeria. The findings conflicts with that of Yaqub (2010) who reported a positive but insignificant effect of exchange rate on agricultural and manufacturing outputs of Nigeria, respectively.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The key results obtained from the study are:

1. The study showed that bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), real exchange rate (RER), and the dummy variable (deregulation) were the variables that significantly influenced commercial bank's total assets within the reference period. The coefficient of bank's deposit rate (BDR), financial deepening (FND), maximum lending rate (MLR), and the dummy variable deregulation significantly and positively influenced commercial banks total assets while the coefficient of real exchange rate (RER) significantly and negatively influenced commercial banks total assets.
2. The hypotheses tested concluded that Nigerian financial system deregulation policy positively and significantly influenced the total assets of commercial banks in Nigeria within the period under review.
3. Such variables as inflation rate, liquidity rate, monetary policy rate, and money supply growth rate failed to make any contribution to the performance of commercial banks in Nigeria in terms of its total assets. This suggested that although these variables affected the performance of commercial banks

under deregulation policy, their influence was not significant enough to cause either an increase or a decrease in banks total assets used as proxy for the performance of the banking sector.

5.2 Conclusion

The study investigated the impact of deregulation of financial system on the performance of commercial banks in Nigeria from 1980 and 2014. The performance of commercial banks in Nigeria was measured in this study using banks total assets and banks' parameter. Time series data obtained from CBN Statistical Bulletin (various issues) and annual financial reports of various banks in Nigeria (various issues) covering the period 1980-2014 was used in the estimation. Unit root test was carried out on the variables in order to determine their stationarity using an Augmented Dickey Fuller (ADF) test. The result of the study revealed that the adoption of financial system deregulation policy in Nigeria has resulted in increase in the performance of commercial banks in Nigeria through increase in banks total assets. Bank's deposit rate (BDR), financial deepening (FND) and maximum lending rate (MLR), significantly and positively influenced commercial banks total assets while real exchange rate (RER) significantly and negatively influenced commercial banks total assets. Therefore, financial performance of commercial banks in Nigeria improved tremendously following financial system deregulation policy within the period under study.

5.3 Recommendations

Based on the findings of this study, the following recommendations were made:

1. Bank regulatory authority should ensure that monetary policy tools such as the money supply, liquidity ratio, maximum lending rate, monetary policy rate are effectively managed to enhance good corporate governance and better performance of the banking industry. Exchange rate policies should be vigorously pursued in such away as to ensure stability and improve productivity and efficiency.
2. Complete removal of entry barriers is necessary to encourage healthy competition and less monopoly by some 'big' banks, this will help in narrowing lending-deposit margin (interest rate spread).
3. Policies that would ensure that Bank's deposit rate (BDR), financial deepening (FND) and maximum lending rate (MLR) are used in such manner that they would continue to positively influenced commercial banks total assets should be pursued.

References

Abogan, O.P., Olajide, E. and Oloba, O. (2014) The Impact of Deregulation of the Economy on Nigerian Commercial Banks. *Australian Journal of Business and Management Research,* Vol. 3, No.10

Adekanye, O.A. (2002). Interest Rate Policy in Nigeria. Comparative analysis, *CBN Bulletin*.Vol. 12. No. 11 pp 11-13.

Akpan, I. (2009). *Fundamental of Finance* (3rd Ed). Abaam publishing co: Uyo-Nigeria.

Anyanwu, J.C. (1993). *Monetary Economic*: Theory Policy and Institutions Benin city. Hybrid professional publishes ltd. Onitsha.

Bakare, A.S. (2011). Financial Liberalization and Economic Growth in Nigeria; An Empirical study. *Economic and Financial Review*. 1(4):8-16.

Bassey, N. E., Asinya, F.A., and Amba, E. A., (2014). Bank Lending, Macro-Policy Variables and the Growth of Small Scale Industries in Nigeria. *International Journal of Business and Social Science,* Vol. 5, No. 9(1);284 – 290.

Central Bank of Nigeria (2012). Economic and Financial Review. Comparative Analysis, *CBN Bulletin*, Vol. 21. No. 4 Oct/Dec.

Dappa, T. G. and Daminabo, D. (2000). Deregulation of the Nigerian economy. The Theoretical milieu. *Human Resource Management Academic Research Society*

Ehinomen, C. and Oladipo, T. I. (2012). Exchange rate Management and the Manufacturing Performance in the Nigerian Economy. *IOSR Journal of Humanities and Social Sciences,* 5(5):1-12.

Ekong, U. M. and Udonwa, U. E. (2015) Banking Sector Reforms and the Performance of Commercial Banks in Nigeria. *Journal of World Economic Research*.Vol.4(3).

Eme, O. I. and Onwuka, C. C. (2011) Political Economy of Deregulation Policy in Nigeria: The challenges ahead. *Journal of Business and Organizational Development*. Vol.2.

Ibe, O. S. (2013). The Impact of Liquidity Management on the Profitability of Banks in Nigeria: *Journal of Finance and Bank Management*. Vol. 1. (1) pp 37-48.

Iganiga, B.O. (2010). Evaluation of the Nigerian Financial Sector Reforms using Behavioral Models. *Journal of Economics*, Vol. 1(2): 65-75.

Ikpefan, O. A. (2012). Post-consolidation effect of mergers and acquisitions on Nigeria deposit money bank. *European Journal of Business and Management*. Vol.4,No.16.

McKinnon, R. (1993). *Money and Capital in Economic Developments*. Washington D.C: The bookings institution.

Nwaezeaku, N. C. (2006). *Theories and Practices of Financial Management.* Ever standard publishing. Owerri, Imo State, Nigeria.

Nwankwo, G.O. (1991). *Bank Management, Principles and Practice*: Malt house Press Ltd. Lagos-Nigeria.

Nwnakwo, U. (1992). *Economic Agenda for Nigeria*: Centralist Production Ltd. Lagos Nigeria

Nzotta, S.M. (2004). *Money, Banking and Finance*: Theory and Practice: Owerri –Nigeria.

Obamuji, T. M, Edun, A. T. and Kayode, O. F. (2012) Bank Lending, Economic Growth and the Performance of the Manufacturing Sector in Nigeria. *European Scientific Journal,* 8(3):19-36.

Odeleye, A. T. (2014). Pre-consolidation and Post-consolidation of Nigerian Banking Sector; A dynamic comparison. *International Journal of Economics and Financial Issues*.Vol.4, No.1.

Ofoegbu, D. I. (2013). Financial Deregulation Bounding to Credit Mobilization in Nigeria. *Journal of Humanities and Social Science*. Vol. 5, Issue 5.

Ofoegbu, O. A. and Iyewumi, A. T. (2013). Bank Consolidation and Deregulation Effects on the Level of Competition in the Nigerian Banking Industry. *International Journal of Economic Practices and Theories,* Vol.3, No.1.

Okwo, I., Mbajiaku, B., Ugwunta, D. (2012). Let The Science Be Your Passion. *International Journal of Current Research*. Vol. 4, Issue 12, pp 555 -559.

Olokoyo, F. O. (2012). The Effect of Bank Deregulation on Bank Performance in Nigeria: *International Journal of Advances in Management and Economics*. Vol. 1/Issue 5/31-36.

Opeyemi, P. A, Egbewole, O. and Olusola O. (2014). The Impact of Deregulation of the Economy on Nigeria Commercial Banks. *Australian Journal of Business & Management Research*. Vol. 3 No. 10 (19-27).

Shaw, E. (1973). *Financial Deepening in Economic Development*: Oxford University Press. New York, London.

Stiglitz, J. E. and Weiss A., (1981).Credit Rationing in Markets with Imperfect Information. *The American Economic Review*, Vol.71, Issue 3.

Timothy, C.O., Andy, T. O. and Ofoegbu, D. I. (2012) Deregulation, Savings, Credit to Private Sectors and Economics Growth in Nigeria: An ARDL-Bound Testing Approach. *European Scientific Journal*, Vol. 8, No. 19, pg 19-34.

Yaqub, J. O (2010). Exchange Rate Changes and Output Performance in Nigeria: A Sectoral Analysis. Pakistan Journal of Social Sciences, 7(5): 380-387.