

## Monetary Policy and Bank Lending Performance in Nigeria: A Long-Run Multivariate Analysis

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### Abstract

*In this paper, we evaluated the likely impact of CBN monetary policy variables – minimum rediscount rate (now, monetary policy rate (MPR), liquidity – reserve ratio (LQR) and broad money supply (MSP) on bank loans and advances. Historically, the conduct of monetary policy by CBN has been associated with changes in economic and financial variables. We used secondary data and employed regression models for the analysis. Tests for association and statistical significance at 5% level, including pair-wise granger causality were conducted. The findings show that CBN'S monetary policies of MPR and LQR are sensitive but statistically insignificant in affecting bank loans and advances. However, MSP is sensitive and statistically significant in influencing bank loans and advances. As a way out, the paper suggested and discussed some developments since the 1990s and 2000s that could be affecting the efficacy of monetary policy in the Nigerian economy.*

### 1.0 Introduction

The Nigerian banking industry has a long history or tradition of state regulations and reforms as measured by geographic and monopolistic market structure. This feature largely reflects the impact of regulatory policies towards bank mergers and acquisitions in the late 1990s and early 2000s. As a result of the policy of 2005, the banking industry ( Deposit Money Banks- DMBs) was reduced to twenty four comprising the big monopolistic four with sizeable braches and small ones that operate in relatively nationalized and localized structurally diverse markets. While the Nigerian banks have been consolidating their performances, it also appears that such performances are shrinking in recent time. Domestic financial and non-financial frauds grew substantially faster than the GDP share in the past two decades but the share of intermediated funds advanced by banks rose from 50% to 75% (see figure 4-1). The total deposit liquidity improved starting around 2002; and the profit before taxes that has marginal and sluggish growth between 1986 and 2009 made a sharp rise from 2010 and continues to fluctuate since then. Broad money supply that looked flat in the 1990s, made a gradual rise from 1996 and the rise continues, even to date. It was mixed feelings in the trends of other indices of monetary policy and bank performance. Through these years, the number of banks contracted by nearly 61% from more than 96 in 1997 to about 24 at the end of 2014. The years also witnessed a dramatic rise in bank failures and a spate of asset quality problems that translated into low industry real profitability.

In assessing these trends, analysts have devoted considerable attention to the nature of the Central Bank's monetary policy administration. Disparities in bank performance over the years have been widely attributed to differences in the Central Bank of Nigeria's (CBN) monetary policy and in national economic misfortunes. In recent time, the political setting, budget crisis and rising insecurity of lives and property across Nigeria and the continued fall in the international price of the country's main export – oil - have raised concerns that CBN's regulatory policy is encouraging excessive bank risk- taking . Consistent with its legal mandates, the objectives of the monetary policy of the CBN, since its inception, have been: (1) to achieve domestic price level and exchange rate stability, (2) to maintain a healthy balance of payments position, (3) to develop a sound financial system, and (4) to promote rapid and sustainable rate of economic growth and development.

Against this background, CBN's monetary policy can affect the costs at which banks produce financial services and their sales patterns. The market structure, measured by the relative size and number of banks, can influence the degree of local competition and, by extension, the quality, quantity, and price of financial services ultimately available to bank customers. This paper investigates how CBN's monetary policy is related to the banking industry's aggregate lending (credits) performance during the past two and half decades. According to Ayogu and Emunuga (2009) monetary policy is a measure designed to influence the availability, volume and direction of money and credits to achieve the desired economic objectives of the government and the authority is vested in the Central Bank of Nigeria through decrees 24 and 25 of 1991. These laws which replaced the previous legislations on the matter enjoin the CBN to promote monetary stability and a sound financial system. Moskow (2006) says that a monetary policy is the Central Bank's ability to influence interest rates by raising or lowering the borrowing rate offered to banks. Samolyk (1994) refers to bank performance as standard measures of banking conditions, including bank profitability, asset quality, capitalization and lending. The focus on the link between monetary policy and banking industry's lending performance, at the national level, is more macroeconomic than microeconomic in nature. Therefore, to the extent that monetary policy may impact on the banking industry's aggregate lending it may also affect economic activity.

## 1.0 Literature Review

### 2.1 The Concepts of Monetary Policy

According to Wikipedia ([www.https://en.wikipedia.org](http://www.https://en.wikipedia.org)), a monetary policy is the process by which the monetary authority of a country controls the supply of money, often targeting an inflation rate or interest rate to ensure price stability and general trust in the economy. Further goals of a monetary policy are usually to contribute to economic growth and stability, to lower unemployment and to maintain predictable exchange rates with other currencies. Monetary policy can be either expansionary or contractionary. Whereas an expansionary policy increases the total supply of money in the economy more rapidly than usual, a contractionary policy expands the money supply more slowly than usual or even shrinks it. Expansionary policy is traditionally used to try to combat unemployment in a recession by lowering interest rates in the hope that easy credit will entice businesses into expanding. Contractionary policy is intended to slow inflation in order to avoid the result distortions and deterioration of asset values.

Moskow (2006) argues that monetary policy cannot permanently alter the rate of growth of the economy. Remo (2016), a former deputy governor of the CBN, in one of his interviews with the Channels Television, tells the viewers that monetary policy is not meant to drive economic growth rate but to provide enabling environment upon which macroeconomic performance indices can grow or shrink. Therefore, monetary policy can be said to be a control measure that leads to a rise or fall of pressure on rates of economic fundamentals that will return such rates to their equilibrium level (or the natural rates) in order to stabilize the economy.

### 2.2 What are the Instruments of Monetary Policy?

Monetary policy guides the Central Bank's supply of money in order to achieve the objectives of price stability (or low inflation rate), full employment, and growth in aggregate income. This is necessary because money is a medium of exchange and changes in its demand relative to supply, necessitate spending adjustments. To conduct monetary policy, some monetary variables which the Central Bank controls are adjusted—a monetary aggregate, an interest rate or the exchange rate—in order to affect the goals which it does not control. The instruments of monetary policy used by the Central Bank depend on the level of development of the economy, especially its financial sector. The commonly used instruments are discussed below:

**Reserve Requirement:** The Central Bank may require Deposit Money Banks to hold a fraction (or a combination) of their deposit liabilities (reserves) as vault cash and or deposits with it. Fractional reserve limits the amount of loans banks can make to the domestic economy and thus limit the supply of money. The assumption is that Deposit Money Banks generally maintain a stable relationship between their reserve holdings and the amount of credit they extend to the public.

**Open Market Operations:** The Central Bank buys or sells (on behalf of the Fiscal Authorities (the Treasury) securities to the banking and non-banking public (that is in the open market). One such security is Treasury Bills. When the Central Bank sells securities, it reduces the supply of reserves and when it buys (back) securities—by redeeming them—it increases the supply of reserves to the Deposit Money Banks, thus affecting the supply of money.

**Lending by the Central Bank:** The Central Bank sometimes provide credit to Deposit Money Banks, thus affecting the level of reserves and hence the monetary base.

**Interest Rate:** The Central Bank lends to financially sound Deposit Money Banks at a most favourable rate of interest, called the minimum rediscount rate (MRR) or the monetary Policy rate (MPR). MPR sets the floor for the interest rate regime in the money market (the nominal anchor rate) and thereby affects the supply of credit, the supply of savings (which affects the supply of reserves and monetary aggregate) and the supply of investment (which affects full employment and GDP).

**Direct Credit Control:** The Central Bank can direct Deposit Money Banks on the maximum percentage or amount of loans (credit ceilings) to different economic sectors or activities, interest rate caps, liquid asset ratio and issue credit guarantee to preferred loans. In this way the available savings is allocated and investment directed in particular directions.

**Moral Suasion:** The Central Bank issues licenses or operating permit to Deposit Money Banks and also regulates the operation of the banking system. It can, from this advantage, persuade banks to follow certain paths such as credit restraint or expansion, increased savings mobilization and promotion of exports through financial support, which otherwise they may not do, on the basis of their risk/return assessment.

**Prudential Guidelines:** The Central Bank may in writing require the Deposit Money Banks to exercise particular care in their operations in order that specified outcomes are realized. Key elements of prudential guidelines remove some discretion from bank management and replace it with rules in decision making.

**Exchange Rate:** The balance of payments can be in deficit or in surplus and each of these affect the monetary base, and hence the money supply in one direction or the other. By selling or buying foreign exchange, the Central Bank ensures that the exchange rate is at levels that do not affect domestic money supply in undesired direction, through the balance of payments and the real exchange rate. The real exchange rate when misaligned affects the current account balance because of its impact on external competitiveness.

Moral suasion and prudential guidelines are direct supervision or qualitative instruments. The others are quantitative instruments because they have numerical benchmarks.

### 2.3 Theoretical Implications

Monetary policy got its root from the work of Irving Fisher who laid the foundation of the quantity theory of money through his equation exchanges. In his proposition money has no effect on economic aggregates but price (Diamond, 2003). Changes in monetary policy can be transmitted to the real economy through various channels. In the “credit channel”, bank loans and deposits play a central role and interest rate changes are transmitted to aggregate spending through the balance sheets of banks and non-financial firms (Bernanke and Blinder, 1992). Under a contractionary monetary policy, the central bank raises the target MPR and reduces the supply of reserves in the banking system (Edwards, 1997). Because certain deposit liabilities of banks are subject to reserve requirements, a higher MPR and a smaller supply of reserves can slow down growth of bank deposits. The liquidity-reserve ratio (LQR) is an instrument of last resort. According to Onoh (1982), if varied, liquidity-reserve ratio can be a very effective instrument of control, but it is rarely operated unless other monetary instruments have failed to bring about desired stability in the economy. The objectives of the ratio are many. It ensures that DMBs are liquid at all times to satisfy the fund requirements of depositors. It controls lending and ensures that customers confidence in the banking system is not eroded.

In the words of Ologunde (2006), CBN’s MPR along with broad money supply (MSP) form targets of monetary policy in Nigeria. Using these policy measures, CBN directly influences items of the balance sheets of DMBs. In such a system, MPR is either set to pull the bank’s loanable interest rate with it, as heavy discounting suggests a shortage of loanable funds with DMBs; or it is reduced to go with bank rates as lower discounting suggests availability of funds with DMBs. According to Onoh (1982), MPR is effective in developed economies where the demand for bank credit is elastic, ie where borrowers respond by reducing the demand for credit when the bank interest rate is raised and vice versa. In developing economies, MPR is not an effective instrument of monetary policy because borrowers are usually indifferent to a rise or fall in the rate. The CBN uses the purchase and sale of government securities through the open market operations (OMO) to control broad money supply (MSP). In a period of inflation, CBN mops up excess liquidity and in the period of deflation, it provides the economy with additional funds through the banks. A policy of money supply expansion or contraction is carried out by altering the reserve base of DMBs, thereby enhancing or limiting their credit creating capacities.

The monetarists postulation that changes in the money supply channels leads directly to a change in the real magnitude of money describes the monetary transmission mechanism of Friedman and Schwartz (1963). In the views of Tobin (1978) who examines transmission effects in terms of assets portfolio choice, monetary policy triggers asset switching between equity, bonds commercial papers and bank deposits. In this case tight monetary policy affects liquidity and banks’ ability to lend which therefore restricts loans to prime borrowers and business firms to the exclusion of mortgages and consumption spending, thereby contracting effective demand and investment. Taylor (2003) argues that feasible and desirable “trinity” of monetary policy establishes specific instruments for targeting specific goals (such as low inflation, currency and exchange rate) that ensure economic and financial stability. Taylor agrees that the severity and frequency of problems of dramatic decline in capital flows to developing countries and high real interest rates now confronting these countries, starting in the 1990s and extending to the 2000s could be solved through the countries getting their monetary and fiscal policy right and seeking assistance from international financial institutions such as the IMF and World Bank.

### 2.4 Empirical Evidence

A number of studies compare the sensitivity of bank loans growth to changes in monetary policy instruments in the USA. These studies, conducted by Kashyap and Stein (1995), which used data through the mid-1980s and 1990s, show that either a 1% increase in interest rates or a 1% decline in deposit growth is associated with a greater decline in growth rates of loans at banks in the USA. Genay and Halcomb (2004) replicated the type of response documented in the studies of Kashyap and Stein (1995), using the same methodology and sort banks according to their sizes under

“large” and “small” banks between 1976 and 1993 to establish the relationship between bank deposits, loans and Fed’s interest rate changes. They found that rising Fed interest rates were associated with slower growth of deposits in both large and small banks. A 1% increase in the Fed funds rate over the years was associated with a 2.96% decline in the growth of deposits at small banks and a 3.66% decline at large banks. However, loan growth rates at both large and small banks responded differently to rising interest rates. At small banks, a 1% rise in the Fed funds rate over the years was associated with a 2.32% decline in total loan growth. These sensitivities were statistically significant. In contrast, rising interest rates were associated with positive, but statistically insignificant, changes in loan growth rates at large banks.

On deposits, Genay and Halcomb (2004) found that over the same period, 1% increase in Fed’s interest rate was still associated with decline in the growth rate of deposits at large and small banks, but they were not statistically significant. Onyeiwu,(2012) and Adefeso and Mobolaji (2010) employed Johansen maximum likelihood co-integration procedure to show that there was a long-run relationship between economic growth and broad money supply. Studies by Nnanna (2001), Busari, et al (2002) and Batini (2004) found that the effectiveness of monetary policy in Nigeria had been undermined by the effects of fiscal dominance, political interference, direct stimulation of growth, fiscal indiscipline and general weakness of the policy in its ability to impact on economic and financial variables.

**3.0 Methodology**

A multiple regression is used to analyze the effects of monetary policy on the total loans and advances which the banking sector granted to the Nigerian economy in the last twenty eight years (1986-2014).

**3.1 Model Specifications**

The functional relationship between monetary policy (provide by the liquidity-reserve ratio, the Central Bank monetary policy rate and the broad money supply) and aggregate DMBs lending performance (Provide by the banking sector performance on loans and advances granted to the economy) is specified as shown below:

$$Y = f (X_1, X_2, X_3) \text{-----Equation 1}$$

In this case:

Y = the banking sector loans and advances to the economy (a dependent variable a proxy for the banking system’s lending to the economy)

f = a function

X<sub>1</sub>= banking sector total liquidity-reserve ratios (LQR) impacting on bank loans and advances.

X<sub>2</sub>= the Central Bank monetary policy rate-MPR (formerly called CBN minimum rediscount rate-MRR), impacting on bank lending .

X<sub>3</sub>= the Central Bank broad money supply(MSP), which is also impacting on the banking system’s loans and advances to the economy.

Rewriting the above, we have a linear relationship as shown:

$$\text{Log TLA} = B_0 + B_1 \text{Log LQR} + B_2 \text{MPR} + B_3 \text{MSP} + u \text{-----Equation 2}$$

Where;

TLA= Total Loans and Advances

LQR= Total Liquidity Ratio

MPR= Monetary Policy Rate

MSP= Broad Money Supply

B<sub>0</sub>= Autonomous TLA when LQR, MPR and MSP are held constant.

B<sub>1</sub>, B<sub>2</sub>, and B<sub>3</sub> = Coefficients

Log= logarithm to establish a long-term equilibrium relationship.

The analysis of the above is done using E- View computer packages.

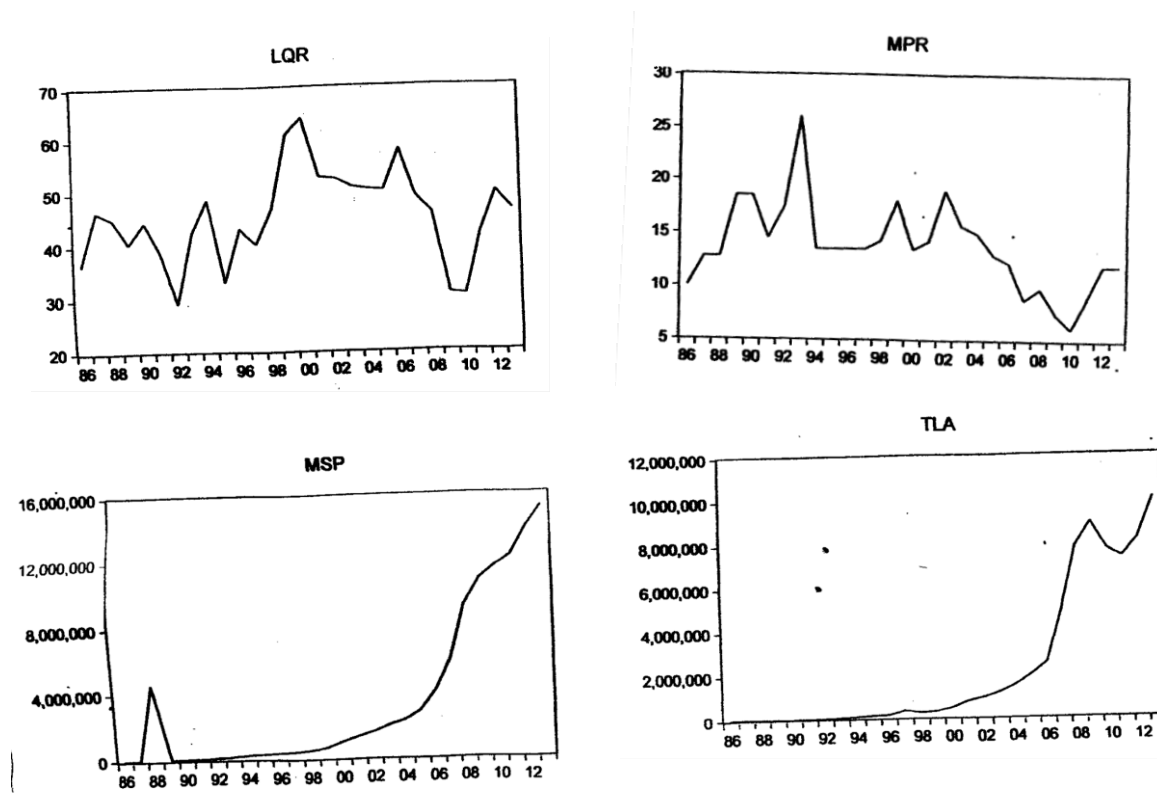
#### 4.0 Data Presentation, Analysis and Interpretation

**Table 4.1: Original Data for the Regression Analysis**

Year	LQR	MPR	MSP	TLA
1986	36.40000	10.00000	27389.80	15701.60
1987	46.50000	12.75000	33667.40	17531.90
1988	45.00000	12.75000	4544690.	19561.20
1989	40.30000	18.50000	47055.00	22008.00
1990	44.30000	18.50000	68662.50	26000.10
1991	38.60000	14.50000	87499.80	31306.20
1992	29.10000	17.50000	129085.5	42736.80
1993	42.20000	26.00000	198479.2	65665.30
1994	48.50000	13.50000	266944.9	94183.90
1995	33.10000	13.50000	318763.5	144569.6
1996	43.10000	13.50000	370333.5	169437.1
1997	40.20000	13.50000	429731.3	385550.5
1998	46.80000	14.31000	525637.8	272895.5
1999	61.00000	18.00000	699733.7	322764.9
2000	64.10000	13.50000	1036080.	508302.2
2001	52.90000	14.31000	1315869.	796164.8
2002	52.50000	19.00000	1599495.	954628.8
2003	50.90000	15.75000	1985192.	1210033.
2004	50.50000	15.00000	2263588.	1519243.
2005	50.20000	13.00000	2814846.	1976711.
2006	57.90000	12.25000	4027902.	2524298.
2007	48.80000	8.750000	5832489.	4813489.
2008	45.60000	9.820000	9208463.	7799400.
2009	30.70000	7.440000	10780627	8912143.
2010	30.40000	6.080000	11525430	7706431.
2011	42.00000	8.900000	12172490	7312726.
2012	49.70000	12.00000	13895390	8150030.
2013	46.20000	12.00000	15158620	10005600

**Source:** CBN Statistical Bulletins (various Years.)

Figure 4.1



The trend of movements showcasing monetary policy and bank loans and advances in Nigeria over 27 years are shown in Fig. 4.1 . The trend in LQR shows that it is possible to turn the series into something that looks much more likely to be stationary in level differencing . MPR is also of first differencing. MSP has been linearly growing since the 2000s. There is evidence of significant time trend in TLA suggesting that the rate of change of the variable is lifting upwards.

Table 4.2: E-View

Dependent Variable: LOG (TLA)				
Method: Least Squares				
Date: 03/28/16 Time: 21:22				
Sample: 1986 2013				
Included observation: 28				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.012078	3.910892	0.003088	0.9976
LOG (LQR)	0.595688	1.119528	0.532089	0.5996
LOG (MPR)	-0.856957	0.861714	-0.994480	0.3299
LOG (MSP)	0.939256	0.128032	7.336080	0.0000
R-Squared	0.824078	Mean dependent var		12.99833
Adjusted R-Squared	0.802088	S.D dependent var		2.238765
S.E. of regression	0.995966	Akaike info criterion		2.961355
Sum squared resid	23.80674	Schwarz criterion		3.151670
Log likelihood	-37.45898	Hannan- Quinn criter.		3.019537
F-statistic	37.47482	Durbin-Watson stat		1.899759
Prob (F-statistic)	0.000000			



The estimated values of equation 2 are shown below:

$$\begin{aligned} \text{TLA} = & 0.0121 + 0.5967\text{LQR} - 0.8570\text{MPR} + 0.9393\text{MSP} \\ & (3.9109) \quad (1.1195) (0.8617) (0.1280) \\ & [0.0031] \quad [0.5321] [-0.9945] [7.3361] \\ & \text{p-value } 0.9976 \quad 0.5996 \quad 0.3299 \quad 0.0000 \\ & R^2 = 0.824078 \end{aligned}$$

**Note:** The standard errors and t-statistics are shown in parentheses- ( ) and [ ] respectively; and p-value stands for a probability value of a variable.

The intercept, a constant (C) value represents what total loans/advances should be when LQR, MPR and MSP are zero. The total liquidity-reserve ratio coefficient of 0.5967 implies that a unit increase in liquidity ratio leads to a about 60% increase in the banking system's total loans and advances to the economy. However, since the elasticity which is a more importance measure is involved, the above implies that LQR increases by 1% leading to 60% increase in TLA. MPR decreases by 1% leading to about 86% decrease in TLA, while MSP increases by 1% leading to about 94% in TLA. Since the error term,  $\sigma^2u$  is unknown and  $n < 30$ , we apply t-statistic. The fact that  $t^*$ , i. e t-stats estimated, are less than t - tables ( $t_{0.025}$ ) = 2.060, at 5% significance level, with respect to the relationships between TLA and LQR on one hand, and TLA and MPR on the other hand, we accept the null hypotheses that the banking sector total liquidity-reserve ratios and MPR are not statistically significant in influencing the sector's aggregate loans and advances to the Nigerian economy over the past 27 years. However, the  $t^*$  of broad money supply (MSP) is greater than the t-table (2.060), we reject the  $H_0$  and conclude that MSP is statistically significant at 5% level in influencing the Nigerian financial system's aggregate loans and advances to the economy over the past 27 years.

The coefficient of multiple determination,  $R^2$ , which tells us about the proportion or 1% of variation in TLA, explained by unit changes in LQR, MPR and MSP is 0.8241 (about 82%). This is very significant. However, if we include more explanatory variables to the regression equation, the value of  $R^2$  will continue to increase. To correct this defect, we adjust the  $R^2$ , which is 0.8021 (about 80%). The fact that our observation (n) is large, the difference between  $R^2$  and adjusted  $R^2$  tend to be insignificant. The test that none of the independent and parameters included in the regression model helps to explain the variations in the dependent variable about its means, the F-stat. (a test of the overall significance of the regression model) is large that we conclude that the included parameters explain a significant part of the dependent variable. The p-value of the F-stat of 0.0000 is very significant. The efficiency, linearity, unbiasedness and the size (too small or too large) of the coefficients, standard-errors and the reliability of the t and F-stats depend on the assumption of no autocorrelation and spuriousity of the test results. The Durbin Watson (DW) test is the most common test for autocorrelation and is based on the assumption that the structure of the autocorrelation is of first order. The DW of 1.8998 which is near 2 is close to non- autocorrelation. The consequences are that the OLS estimators (i. e. the slope coefficients) are linear, unbiased and consistent; hence  $R^2$ , t-stat and F tests are close to be reliable. Therefore, there is less evidence of first order auto-correlation.

In summary, we conclude that:

1. There is no significant relationship between the aggregate loans and advances and the banking liquidity ratio over the years.
2. There is no significant relationship between the aggregate loans and advances and the central banks monetary policy rates over the years, and
3. There is a significant relationship between the aggregate loans and advances and the broad money supply to the economy over the years.

To further confirm the long-run equilibrium state of the relations between changes in the lagged independent variables and of the dependent variable, we tested the null hypothesis that X does not cause Y and the reverse alternative hypothesis that Y does not cause X at 5% significant level, relying on the p-values (see the Pairwise Granger causality tests table 4-3)

The six (1) relevant relationships are :

1. MPR does not granger cause LPR at p-value :0.0788
2. MPS does not granger cause LPR at p-value :0.3644
3. LQR does not granger cause LPR at p-value :0.0583
4. MSP does not granger cause MPR at p-value :0.2195
5. TLA does not granger cause MPR at p-value :0.0223
6. TLA does not granger cause MSP at p-value :0.0180

Among the six relationships, only numbers 5 and 6 are the most significant at 5% level. The two showed that the long-run equilibrium changes in MSP and MPR granger cause long-run equilibrium changes in TLA. However, changes in MSP most significantly granger cause changes in TLA at p-value of 0.0180.

**Table 4.3**

Pairwise Granger Causality Tests			
Date: 03/28/16 Time: 21:23			
Sample: 1986 2013			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
MPR does not Granger Cause LQR	26	2.88701	0.0780
LQR does not Granger Cause MPR		1.48304	0.2498
MSP does not Granger Cause LQR	26	1.05972	0.3644
LQR does not Granger Cause MSP		0.64445	0.5350
TLA does not Granger Cause LQR	26	2.23878	0.1314
LQR does not Granger Cause TLA		3.26443	0.0583
MSP does not Granger Cause MPR	26	1.63160	0.2195
MPR does not Granger Cause MSP		1.20671	0.3191
TLA does not Granger Cause MPR	26	4.58061	0.0223
MPR does not Granger Cause TLA		0.09624	0.9086
TLA does not Granger Cause MSP	26	4.89542	0.0180
MSP does not Granger Cause TLA		3.29138	0.0571

#### 4.1 Discussion Of Findings

In this section, we discuss some previous studies that used entirely different methodologies, but reach conclusions regarding the impact of monetary policy on long-run rates which are qualitatively and quantitatively similar to those reported in this paper. The studies by Bernanke and Blinder (1992) examined how changes in monetary policy can be transmitted to the real economy through various channels. Ben Bernanke, a former US Federal Reserve Bank President, a world class practical monetarist and his associates, repositioned the US monetary policy management for nearly 100% effectiveness in curtailing inflation to a lower single digit and stabilizing US economy. What needs to be noted is that whatever methodology and experience employed by Bernanke and associates, show that the fed interest rate changes are transmitted to aggregated spending through bank loan assets. Again Genay and Halcomb (2004), who replicated the works of Kashyap and Stein (1995), established Fed interest rate sensitivity to bank loans. Using panel systems of A (1976-1993) and B (1976-2003), they categorized banks into “large” and “small” in the top first percentile and in the bottom 75<sup>th</sup> percentile respectively regarding loan assets distribution in each quarter. They used regression model that included lags of annualized quarterly growth rates of variables at 5% significance level. Their results showed that the Fed rates are sensitive to monetary policy rates; the Fed rates are positively associated with but statistically significant, changes in loan growth at small banks, and however, the Fed rates are positively associated with, but statistically insignificant, changes in loan growth at large banks.

The studies on the relationships between the financial systems performance and CBN’s monetary policy by Nigerian researchers showed mixed results. From our reviewed empirical studies, MPR, LQR and MSP were recognized as being sensitive to economic and financial growth of Nigeria. Generally, the results showed weak monetary policy impacting on the economy. However, in the stud of Adefeso and Mobolaji (2010) and Onyeiwu (2012) MSP significantly affected economic growth. The results of Genay and Halcomb (2004) were consistent with our finding on MPR-bank loan association. Although we did not differentiate between “large” and “small” banks, the rising CBN MPR were sensitive, but statistically insignificant with TLA of the banking system in the short-run.

Generally, most monetary policy indices are poor and less sensitive to the banking system’s loans and advances in Nigeria. Why? Some developments since the mid-1990s, extending to the 2000s, have played a great role in the insignificant effects of most CBN’s monetary policy indices on the banking system’s loans and advances to the economy. One of the distinguishing features of these periods has been the weakness and instability of the Nigerian economy. Nigeria is yet to emerge from the 1986 Structural Adjustment Programmes (SAP) and the unstable oil economy to enjoy robust business cycle expansion. Under democratic governance in the 2000s, economic growth has been relatively weak and unstable. Nigerians have not enjoyed a relatively low and stable inflationary environment, accompanied by similarly high and unstable short-run bank interest rates and there are more.



### **5.0 Concluding Remarks**

In this paper, the researcher evaluated the impact of the CBN's monetary policy indices on the total loans and advances of the banking system over the past 28 years. From the findings, it is becomes obvious that monetary policy variables of liquidity ratio, and monetary policy rates are not effective in influencing the bank loans/advances to the economy, rather it is the broad money supply that influenced bank loans. The general lesson that emerges from the study is that monetary policy and implementations in the midst of unstable economy double-digit inflationary environment, accompanied by similarly high and unstable bank loan interest rates, narrow financing options available to banks and a highly unbanked public, can be sensitive but insignificant in influencing the banking system's loans and advances to the macroeconomy. Firms are not finding it easy meeting their funding needs from conventional financial instruments and institutions. Stable economy, accompanied by low inflationary environment, low and stable short term bank interest rates can encourage the manufacturing sector to meet their funding needs from the banking system, and the unbanked public will be reduced significantly. Governments in Nigeria should continue to encourage deregulation and technological innovation to impact positively on bank interest rates or as restore public confidence in banks. The new developments may help alter how CBN's MPR and other monetary variable affect bank loans.

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