



AN ECONOMIC ANALYSIS OF MONETARY POLICY AND DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

This study seek to examine how change in government monetary policy affect bank performance in Nigeria. Some pragmatic monetary policy indices which includes liquidity ratio, cash reserve ratio, monetary policy rate and total money supply were considered. The study employed a preliminary analysis of descriptive statistics while granger causality test was used in testing the formulated hypothesis. Findings reveals the existence of unidirectional relationship between cash reserve ratio and bank loan and advances with causality flowing from cash reserve ratio to bank loan and advances. This therefore suggest that rise in cash reserve ratio is capable of stimulating bank loan and advances. Secondly, the study report the existence of unidirectional association between bank loan and advances and monetary policy rate with causality flowing from bank loan and advances to monetary policy rate. Hence, this study conclude that bank credit is more responsive to cash reserve ratio and monetary policy rate while liquidity ratio and total money supply seems to be repulsive to bank credit. The study therefore recommend that monetary policy committees are advice to review her policies to ensure a symbiotic relationship between her policy and commercial bank performance in Nigeria.

Key Words: policy, deposit money , performance, commercial bank performance

Introduction

Monetary policy controls money supply due to the effects it has on the intermediation activities of bank, controls the activities of banks as well as those of other financial sectors in the economy since it occupies a key controlling position in the economy. Government from year to year sets targets for monetary policy which can be viewed in the central bank of Nigeria conduct of monetary policy and these targets are usually not met or met haphazardly because the fluctuating

trends of events in the economy have not been carefully investigated to be able to come up with the most appropriate parameters for the policy (Monogbe and Davies, 2016).

Monetary policy is a superior economic stability weapon targeted at regulating or controlling the supply of money. It is often directed at inflation rate and interest rate to guarantee price stability and reliance on the currency which is a deliberate attempt by the central bank of Nigeria. It can either be expansionary or contractionary. The expansionary policy during a time of recession is aimed at fighting unemployment by lowering interest rate to entice businesses to expand since the total supply of money in an economy is increased while the contractionary policy slows down inflation so as to duck the alterations and deteriorations of the value of assets (Jinghan 2009).

The banking system was regulated prior to 1986 with certain direct monetary instruments and they include cash reserve requirement, credit controls, credit ceiling, exchange rates and administered interest and special deposits. Attainment of internal and external balance of payments has been the main objective of monetary policy for years now. But the techniques and instruments used to achieve this are always changed yearly. Two major phases are available for tracking down monetary policy in Nigeria which are pre 1986 and post 1988. The pre phase focused on direct monetary controls, and the post relied on market mechanisms.

CBN adopted the Structural Adjustment Programme (SAP) in July 1986 sequel to the collapse in the global oil market which brought about the decline of economic conditions in the country. It was directed to achieve fiscal balance and balance of payments feasibility by changing and restructuring the method of production and consumption in the economy. The central plan of SAP was to deregulate the external trade and payments arrangement, to adopt the market-determined exchange rate for the Naira, combat complex price decrease. This placed controls and additional confidence on market forces as the most essential element of fiscal activity. The objectives of monetary policy were the same for pre and post eras of 1986; they are stimulation of output and employment, and the promotion of domestic and external stability.

In 2006, a new monetary policy framework came into existence designed to attain a constant value of home currency (Naira). The MPR replaced the MRR and it was transformed into a lower limit and an upper limit of 7 per cent and 13 per cent respectively. Monetary Policy Rate (MPR) is similarly branded as the Operating Target rate, which supports in inter-bank money market dealings alongside connections in other Deposit Money Banks (DMBs) interest rate. It is useful in controlling the supply of settlement balances of banks; guarantee zero balances at the CBN for the banking systems which goes through the inter-bank trading while in 2007, monetary policy management framework was to ensure monetary targeting. Monetary policy between the periods of 2008 – 2011 was intended to control the growth of money supply which is dependent on the needed aggregate Gross Domestic Product (GDP) growth rate, for financial stability, maintain a definite and aggressive exchange rate of the naira by attaining positive real interest rates. In 2012, monetary policy was surrounded by systematic demands of inflation combined with the conditions of dwindling output growth. Hence the Banks sustained the tighten monetary policy position from the third quarter of 2010 and employed the Monetary Policy Rate as the interest rate to influence money supply and contain inflation expectations. Monetary policy in 2013 and 2014 was designed to sustain the rate of inflation that was previously moderated and was realized in the first six months of 2013 and to attain price and exchange rate stability. It was also anticipated at restraining pressure on the exchange rate; improve the external reserves

position and so on. Monetary policy rate in 2015 stood at 13% and there was a nose-diving in the first quarter of 2016 where the rate drops to 11% and between the second quarter and the last quarter of the year 2016, there was a movement from 11% to 14%. The first and second quarter of 2017 experience policy rate unchanged as the central bank of Nigeria monetary policy committee leaves the monetary policy rate at 14.00%. The policy intention was to combat inflation. Their emphasis that raising the rate will portray that banks are not sensitive to growth and thus undermine the banking sector's financial stability (Nigeria monetary policy report, 2015, 2016 and 2017)

The interplay between monetary policy of the government and deposit money bank was made to manifest through the window of multiple deposit development process. Whenever the federal government buys government bonds, the reserves of the banking sector increase, and through the multiple deposit development process, money supply increases. While when federal government trades on some of its stock (government bonds), it results in a decrease in money supply. If bank reserve requirements are increased by the federal government, it will reduce the banking sector's surplus reserves, which will cause a reduction in the supply of money; a drop in reserve requirements makes for a rise in the supply of money.

The worry of this study centers on the fact that series of monetary policy regime has been experienced in the time past and the level of economic stability aimed at is far from being achieved. This therefore poses a question as to whether the central bank monetary policies are effective in moderating economic stability or not. It is based on this observation that this study seeks to investigate the role monetary policy has played in boosting the operation of deposit money banks in Nigeria.

Basically, the main objective of this study is to examine if change in federal government monetary policy affects performance of deposit monetary banks in Nigeria which is proxied with total loans and advances. Hence the following monetary policy indices will be considered, money supply, monetary policy rate, cash reserve rate and liquidity ratio. The rest of the study will be conceptualized into five sections.

Theoretical Framework

Monetary theory

In the 19th century, the British classical economists had a well-developed argument amid the Banking and the Currency School. This brought about new deliberations concerning followers of the theory of endogenous money, such as Nicholas Kaldor, and monetarists such as Milton Friedman. Monetarists and members of the currency school argued that banks can and should control the supply of money. According to their theories, inflation is caused by banks issuing excessive supply of money. The supporters of the theory of endogenous money posit, that the supply of money adjusts spontaneously to the demand and banks can simply control the terms (e.g. the rate of interest) by which loans are made.

Schumpeter (1952) Theory

Schumpeter (1952) mentioned that, the financial market, particularly the banks, play a significant role in the growth of the real economy. The central figure in this analysis of development process is the entrepreneur who undertakes new combinations of the factors of production that in turn leads to innovations and overall economic development. Nevertheless, He maintained that, it is not the savings of the entrepreneur from his personal income that gives him the needed leap but

the funds secured from the credit-creating banking system controlled by monetary authorities that gives him the leap as oppose to the classical and neo- classical theorist that assumes that money plays no significant, independent part in determining the real variables in the system, banks mobilize and channel funds efficiently which, provide the needed credit to entrepreneurs to finance investment in physical capital, purchase new production systems, in so doing, stimulating technological innovation and setting the stage for an innovative production process which agrees with the process of capital formation as stipulated by Jhingan(2008).

Empirical Review

Ifionu, Monogbe and Boufini (2017) examined the relationship between monetary policy and gross fixed capital formation in Nigeria. The study employed a cross sectional data covering the periods 1986 to 2016. Findings reveals that cash reserve ratio and monetary policy ratio exhibit a negative and significant relationship to capital formation in Nigeria as expected while, savings rate turn out to respond in a positive manner to capital formation in Nigeria. The study therefore concluded monetary policy measures has impacted significantly on Nigeria's level of capital formation, this reveals the vital potential of monetary policy in accumulating capital formation in Nigeria. On this premises, the study recommended that since expansionary monetary policy is effective in achieving significant capital formation through credit supply channel, expansionary monetary policy should be promoted in Nigeria

Monogbe and Davies (2016) also investigated the contribution of the stabilization policies (monetary and fiscal policy) on performance of the Nigeria economy between the periods 1981 to 2014. The study considered total money supply and total government expenditure as proxies for stabilization policies. Findings reveals that the proxy for fiscal policy (total government expenditure seems to spur economic growth in Nigeria as it report a positive and significant relationship with gross domestic product while total money supply which is a proxy for monetary policy exhibit a negative and significant influence on the economy. The study thereby concluded that fiscal policy seems to be more coherent in promoting economic growth in Nigeria.

Ndugbu and Okere (2015) examined the interplay between monetary policy and the performance and deposit money bank in Nigeria between the periods 1986 to 2014 suing time series data sourced from the statistical bulletin the Nigerian central bank. The study employ, unit root test, johansen co-integration test and multiple regression of the ordinary least square. The study considered some monetary policy indices which suit the purpose of the study and there includes bank deposit rate, bank lending rate, liquidity ratio and cash reserve ratio. Study report a fair interplay among the employed variables and thus recommended that the deposit rate should be moderated by the central bank of Nigeria (CBN) as an instrument for regulating the operations of deposit money banks.

Omankhanlen, Okorie and Taiwo (2015) observed the effects of Monetary Policy on Loan Risk Exposure in Nigeria Commercial Banks. The rationale behind the study was that deposit money banks over time seems to have relented in allocating funds to the proactive sector of the economy which include the agricultural sector, small and medium scale enterprises due to apparent risk inherent with lending to such businesses. This has barred finances from reaching the businesses that are able to help the growth of the economy. The study analysis the relationship between monetary policy and performance of deposit money bank in Nigeria using multiple regression and error correction model having confirm the existence of co-integration The findings exposed

that the rate of lending do not play a major role in support of loans and advances but monetary policy rate shows the most important effect on commercial banks loans and advance established by its efficient estimate. It further reveals that monetary policy rate is a proficient parameter in measuring bank rate as it connects to the allocation of their credit facilities. Hence, study recommended that the monetary authorities should make available opportunities for the full relationship of the market forces of supply and demand in the credit allocation. Finally, they proposed that the relationship discussed above should be closely supervised to hinder the creating of false scarcity of funds by banks to hike their lending rate.

Borio, Gambacorta and Hofmann (2015) scrutinized exactly how monetary policy impacts bank profitability. The data used was that of 109 big global banks headquartered in 14 major developed economies from 1995-2012. The study reported that a positive relationship existed between the level of short-term rates and the slope of the yield curve (the interest rate composition) and bank profitability return on assets. It proposes that the positive shock of the interest rate composition on net interest income rules the adverse one on loan loss requirements and where there is no interest income. It was also deduced that the upshot is robust when the interest rate level is lesser as well as when the slope is not so steep, which means no linearity exists. They therefore imply that, on the long run, abnormally low interest rates and an extraordinarily flat term composition eat into bank profitability.

According to Giudici, Gianfrancesco, Gilberto and Parisi(2015) whether monetary policies are actual or perceived, they modify monetary interest rates. These modification impacts on the economy via financial institutions and they react to changes in the monetary rates and changes in its administered rates, both on deposits and lending. The activeness of administered bank interest rate in connection to alterations in the money market rates is necessary to scrutinize the impact of monetary policies on the economy. Giudici, et al (2015) anticipated an error correction model to learn about the impact, and previous data on recent financial crisis was used. They inspected the soundness of the model in the current period, which was characterized by extremely low monetary rates. The present state of close-to-zero interest rates is of great significance, since it has never been considered before. Their key contribution is new, which introduced more parsimonious model and an analytical performance appraisal methodology that permits comparison with the error correction model. Furthermore, they added to the literature on interest rate risk modeling which proposes a forward glance method to allocate on-demand deposits to non-zero time development bands, according to the visualized bank rates.

According to Zaman, Arslan, Sohail and Malik (2014) interest rate as a vital pointer of monetary policy constantly has primary effect on financial sector efficiency. The study notifies the monetary policy result on banking sector stability and efficiency by exploring the casual link among interest rate levied by state bank of Pakistan and bank financial efficiency taken as ROA and ROE. Stressing on the importance of monetary policy in banking sector, this work emphasized the deepness athwart the shock on performance of banking industry of Pakistan through the study of monetary transmission for five years (2007 - 2011), interest rate was used as a measure. The estimation tools used were the correction analysis and the ordinary least square regression. The control variable was the firm size which showed a major impact on financial performance of banks. They found out that interest rate proxied as a measure for monetary policy has significant and opposite link on firm financial performance which is proxied by ROA and ROE.

According to Roberto and Anders (2014) the depth of the current economic crisis in many economies has necessitated policymakers and academics to think again carefully the link between monetary policy and financial stability. A lot of bickering about central banks is that as they play a key role in the financial system, they ought to also assume a greater task in putting a stop to financial crises. Prior to the current financial crisis, a common opinion in central banking is that they should be positive after financial crises, instead of intentionally leaning against impending financial imbalances. Financial inequalities are caused by excess bore welcomed by borrowing hence the rise of a collection of micro and macro prudential procedures to limit borrowing are welcomed by many. They concluded that new policies and monetary policy cannot rule out the possibility of financial crises completely.

Ball, Mankiw and Ricardo (2013) scrutinized the existing literatures and they argued that most of the work done stand on vibrant models of inflation output that are doubtful. This means that some current behavioral models can be used to solve the problems at hand which points to the fact that it is possible that price setters are slow to include macroeconomic information into the set prices. A model is developed used to derive optimal policy which is price level targeting in response to shocks to aggregate demand and productivity. In their work, base draft in price level is unpleasant in the model. They found out that optimal policy is a flexible goal of the price level when the shocks to required mark-ups are included. Hence, the central bank ought to permit the deviation of price level from target for a while to respond to the shocks of supply but the price level should be ultimate return to the target path optimal policy can be used to explain an elastic price standard. Central banks when they suspect that output would deviate from the natural rate allow price levels to deviate.

Thanabalasingam (2013) examined the monetary policy indicator that elucidates the monetary policy transmission instrument of Sri Lankan. They also investigated on how domestic macroeconomic variables are affected by the shocks from foreign monetary policy and oil price. A seven variable structured VAR model was employed and a monthly time series data from January 1978 to December 2011 was used. The estimation tools employed were the impulse response functions and variance decompositions. It also revealed that the movement of economic variables is better explained by the interest rate shocks because of their significant role than the monetary aggregate shocks or exchange rate shocks. Also that the best strategy for the economy of Sri Lankan is aiming at the reserve money than focusing on contracted or broad money. Furthermore, they found out that the domestic economy is not affected by foreign monetary policy shocks or oil price shocks. In conclusion, the oil price included in the SVAR model has prevailed over the problem associated with the literatures of monetary economics.

Agbonkhese and Asekome (2013) tried to evaluate the influence of monetary policy on bank credit formation in Nigeria. The ordinary least square (OLS) estimation technique was used on a 30 years data from 1980 to 2010. The outcomes of the analysis revealed that a positive linear relationship exists between total credit formation and the independent variables comprising of total deposits and treasury bills rate whereas the reserve requirement ratio and interest rate had an adverse relationship with total credit formation. Since banks can afford to raise and maintain large deposits as reserve opposing to the actions of the monetary authority any monetary policy adopted by the monetary authority which aims at controlling credit and emphasizes on reserve needs would not be effective. They recommended that reserve requirement should not be relied on by the Central Bank of Nigeria (CBN) as a monetary policy on credit formation however they need to emphasis more on the monetary policy rate (MPR) that can affect the lending rate as well

as the open market procedures even as commercial banks can enhance credit creation by reducing lending rates through additional cost effective policy for sourcing of deposits to fund their credit pattern as high lending rates would show to reduce the demand for credit in Nigeria.

Froze (2013) tried to recognize the power of Monetary Policy on the efficiency of Dhaka Stock Exchange. Selected pointers for money supply measurement were used as a vital instrument for effecting Monetary Policy. Furthermore, pointers for evaluating the performance of Dhaka Stock Exchange Limited were used for 5 years (2006 - 2010). The empirical results showed a statistically significant correlation between the pointers for measuring money supply and those for measuring performance of Dhaka Stock Exchange Limited and finally, there exists a statistically significant impact of Monetary Policy on the performance pointers of DSE.

METHODOLOGY

To actualize the objective of this study, time series data were sourced from the central bank of Nigeria statistical bulletin. The study period covers from 1981 to 2016 where cash reserve ratio, liquidity ratio, total money supply and monetary policy rate were proxies for monetary policy while bank performance is proxy with total loan and advances of the 23 deposit money bank listed in the Nigeria stock exchange market as at the time of this study. All variables will be converted and measure in ratio to ensure uniformity in scaling. This study adopts descriptive research design. This is because the study is both analytical and empirical in nature and utilizes secondary data. The choice of this design is to enable measurability.

Model Estimation

In alignment with the classical linear regression model assumption, and the empirical study of Jegede (2014) we formulate our model in the functional form thus

$$BLAA = f(TMS, MPR, CRR, LQR).....(1)$$

From the functional form, we convert the model into an econometrics form thus

$$BLAA = b_0 + b_1TMS_t + b_2MPR_t + b_3CRR_t + b_4LQR_t + \lambda(2)$$

Since this study will dwell more on the causal effect of monetary policy on performance of deposit money banks in Nigeria, a causality model is designed for clarity of purpose thus;

Granger Causality in VAR Model

According to (Omoke and ugwuanyi 2010 as cited in monogbe 2017), “Granger causality tests are conducted to determine whether the current and lagged values of one variable affect another”. Grange theory also establish that “when two variables, Y_t and Z_t are co-integrated and each is stationary, then either Y_t must Granger-cause Z_t or Z_t must Granger-cause Y_t ”. the model is designed thus

$$\Delta BLAA_t = \sum_{i=1}^n b_{2t} \Delta TMS_{t-1} + \sum_{i=1}^n c_{2t} MPR_{t-1} + \sum_{i=1}^n d_{2t} CRR_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (3)$$

$$\Delta TMS_t = \sum_{i=1}^n b_{2t} \Delta BLAA_{t-1} + \sum_{i=1}^n c_{2t} MPR_{t-1} + \sum_{i=1}^n d_{2t} CRR_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (4)$$

$$\Delta MPR_t = \sum_{i=1}^n b_{2t} \Delta TMS_{t-1} + \sum_{i=1}^n c_{2t} BLAA_{t-1} + \sum_{i=1}^n d_{2t} CRR_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (5)$$

$$\Delta CRR_t = \sum_{i=1}^n b_{2t} \Delta MPR_{t-1} + \sum_{i=1}^n c_{2t} TMS_{t-1} + \sum_{i=1}^n d_{2t} BLAA_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (6)$$

$$\Delta LQR_t = \sum_{i=1}^n b_{2t} \Delta CRR_{t-1} + \sum_{i=1}^n c_{2t} MPR_{t-1} + \sum_{i=1}^n d_{2t} TMS_{t-1} + \sum_{i=1}^n d_{1t} BLAA_{t-1} e_{2t} \quad (7)$$

On a priori, we expect a diverse response from all of the monetary policy proxies and bank performance indicator. Theoretically, the following expectation is hypothesis
 $b_1, b_2 > 0$ $b_3, b_4 < 0$

Presentation of Result

Table 1. Presentation of Descriptive Statistics Result

	BLAA	CRR	LQR	MPR	TMS
Mean	22.92069	1.607963	2.154247	4.971378	24.77140
Median	18.98828	-0.400000	-0.594059	0.000000	19.49556
Maximum	90.90568	41.95804	45.01718	47.04000	56.18448
Minimum	-92.95695	-26.61290	-44.00000	-48.07692	6.758787
Std. Dev.	32.18351	15.41696	20.88144	23.13971	14.03837
Skewness	-0.853694	0.669222	0.001195	0.048708	0.640961
Kurtosis	6.966703	3.360528	2.589771	2.568661	2.120834
Jarque-Bera	25.64362	2.641941	0.231403	0.268872	3.322353
Probability	0.000003	0.266876	0.890741	0.874209	0.189915
Sum	756.3827	53.06278	71.09016	164.0555	817.4561
Sum Sq. Dev.	33144.91	7605.848	13953.10	17134.28	6306.423
Observations	33	33	33	33	33

Source: Extraction From E-views 9

The essence of descriptive statistics is to examine the trend of association amongst the variable linkages. The result above shows a similar trend between bank loans and advances and total money supply. This shows that monetary policy decision could affect the flow of fund into circulation and thus causes bank loans and advances. Monetary policy rate stood at 4.971378 while cash reserve ratio maintains the last coefficient of 1.6079. Bank loan and advances is highly volatile as it maintains a high coefficient of 32.1835 followed by monetary policy rate and liquidity ratio. Bank loan and advances alongside cash reserve ratio are leptokurtic in nation as its coefficient is higher than 3 following the postulation of Boman and Shalton (2009). Liquidity ratio, total money supply and monetary policy rate are playokurtic due to the fact that there exhibit values between 0 and 3. The jarquebera alongside it corresponding probability shows that the residual of all variables under investigation are normally distributed except for Bank loan and advances whose coefficient seems to be significant at 0.000003.

Having ascertain the underlying trends amongst the data set under investigation, we opines that the residual of all the time series under investigation are averagely distributed thus suggesting that the times series are fit for further analysis.

Table 2 Stationarity Test

We subject our time series under investigation to reliability test using Augmented Dickey Fuller unit root test thus

Variable	ADF Test Statistics	Critical Value (5%)	Order of Integration	Test Equation specification
D(BLAA)	-6.706261	-3.653730 -2.957110 -2.617434	I(1)	Intercept
D(TMS)	-4.240120	-3.670170 -2.963972 -2.621007	I(1)	Intercept
D(MPR)	-3.033773	-3.752946 -2.998064 -2.638752	I(1)	Intercept
D(CRR)	-6.818772	-3.653730 -2.957110 -2.617434	I(1)	Intercept
D(LQR)	-5.395196	-3.679322 -2.967767 -2.622989	I(1)	Intercept

Source: Extraction from E-views Output

To ascertain the reliability of the data set, empirical evidence suggest that it should be subjected to stationarity test accordingly. The result above shows that all the time series exhibit stationarity after first differencing in the order of I(1) integration thereby showing the reliability of the data set. Hence, we reject the null hypothesis and thus conclude that all the time series has no unit root as the case may be.

Table 3 Presentation of Granger causality Test

$$\Delta BLAA_t = \sum_{i=1}^n b_{2t} \Delta TMS_{t-1} + \sum_{i=1}^n c_{2t} MPR_{t-1} + \sum_{i=1}^n d_{2t} CRR_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (3)$$

$$\Delta TMS_t = \sum_{i=1}^n b_{2t} \Delta BLAA_{t-1} + \sum_{i=1}^n c_{2t} MPR_{t-1} + \sum_{i=1}^n d_{2t} CRR_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (4)$$

$$\Delta MPR_t = \sum_{i=1}^n b_{2t} \Delta TMS_{t-1} + \sum_{i=1}^n c_{2t} BLAA_{t-1} + \sum_{i=1}^n d_{2t} CRR_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (5)$$

$$\Delta CRR_t = \sum_{i=1}^n b_{2t} \Delta MPR_{t-1} + \sum_{i=1}^n c_{2t} TMS_{t-1} + \sum_{i=1}^n d_{2t} BLAA_{t-1} + \sum_{i=1}^n d_{1t} LQR_{t-1} e_{2t} \quad (6)$$

$$\Delta LQR_t = \sum_{i=1}^n b_{2t} \Delta CRR_{t-1} + \sum_{i=1}^n c_{2t} MPR_{t-1} + \sum_{i=1}^n d_{2t} TMS_{t-1} + \sum_{i=1}^n d_{1t} BLAA_{t-1} e_{2t} \quad (7)$$

Since this study is anchored on casual analysis, we model its relationship above and present the result below.

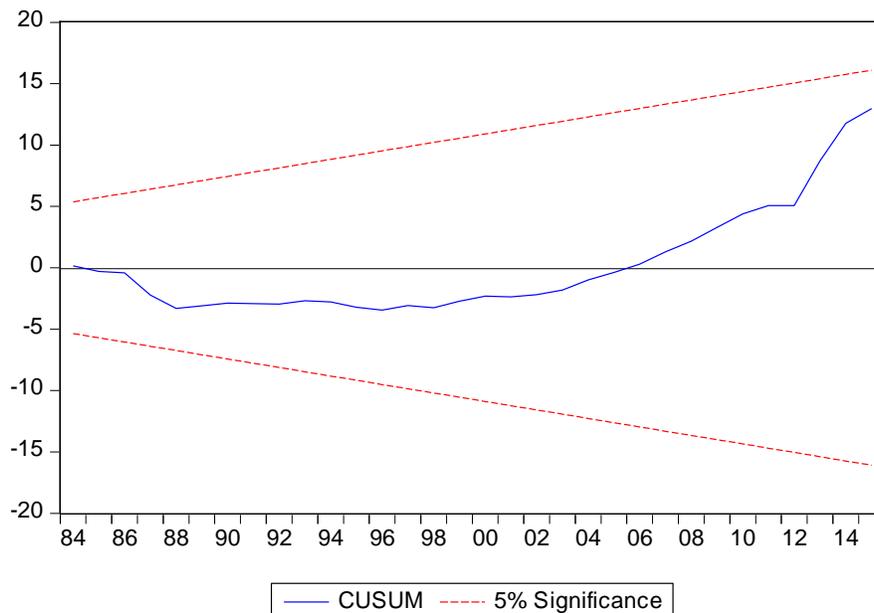
Pairwise Granger Causality Tests			
Date: 10/05/17 Time: 09:25			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
CRR does not Granger Cause BLAA	33	3.23406	0.0445
BLAA does not Granger Cause CRR		1.96647	0.1588
LQR does not Granger Cause BLAA	33	1.74278	0.1935
BLAA does not Granger Cause LQR		0.56525	0.5746
MPR does not Granger Cause BLAA	31	1.91646	0.1673
BLAA does not Granger Cause MPR		4.84646	0.0163
TMS does not Granger Cause BLAA	33	0.60552	0.5528
BLAA does not Granger Cause TMS		0.24212	0.7866

Source: extraction from E-views 9 Output

The objective of this study is to examine the effect of government monetary policy on deposit money bank performance in Nigeria. That is, how changes in government monetary policy effect the bank performance either positively or negatively. Series on monetary policy indices were considered such as cash reserve ratio, liquidity ratio, monetary policy rate and total money supply while bank loan and advances were proxy for bank performance. From the result above, there comes two instances. First, there is a report of unidirectional relationship between cash reserve ratio and bank loan and advances with causality flowing from CRR to BLAA. This therefore suggest that rise in cash reserve ratio is capable of stimulating bank loan and advances which is against all odds.

Secondly, the study report the existence of unidirectional association between bank loan and advances and monetary policy rate with causality flowing from BLAA and MPR. This suggest that the quantum of bank loans and advances causes monetary policy rate in the Nigeria system. In summary, the report here suggest that bank credit is more responsive to cash reserve ratio and monetary policy rate while liquidity ratio and total money supply seems to be repulsive to bank credit. The conclusion of this study is in alignment with the empirical study of Ajayi and Atanda (2012) whose study report the existence of direct association between cash reserve ratio and bank credit in Nigeria.

Table 4 Presentation of Model Stability Test



Source: EViews 9

The CUSUM tests is used in this study to test for parameter stability, our graph shows that the plots of the residuals remain within the 5% critical bounds, therefore, we can accept that the parameters of the model are stable thus showing the fitness of the model.

Conclusion and Recommendation.

This study seek to examine how change in government monetary policy affect bank performance in Nigeria. Some fundlamental monetary policy indices which includes liquidity ratio, cash reserve ratio, monetary policy rate and total money supply were considered.

Some preliminary analysis such as descriptive statistics and model stability test were conducted. The report shows that all-time series under investigation passes the test of stationary while the residual for the time series were normally distributed accordingly. The result of the causality testreport a unidirectional relationship between cash reserve ratio and bank loan and advances with causality flowing from CRR to BLAA. This therefore suggest that rise in cash reserve ratio is capable of stimulating bank loan and advances which is against all odds.

Secondly, the study report the existence of unidirectional association between bank loan and advances and monetary policy rate with causality flowing from BLAA and MPR. This suggest that the quantum of bank loans and advances causes monetary policy rate in the Nigeria system.

In summary, the report here suggest that bank credit is more responsive to cash reserve ratio and monetary policy rate while liquidity ratio and total money supply seems to be repulsive to bank credit. The conclusion of this study is in alignment with the empirical study of Ajayi and Atanda (2012) whose study report the existence of direct association between cash reserve ratio and bank credit in Nigeria. Hence, this study recommends that Monetary authorities should adjust minimum policy rate since it is the measure through which the operation of the deposit money banks were regulated in other to promote more investment chances in the economy.Finally, monetary policy committees are advice to review their policies to ensure a symbiotic relationship between her policy and commercial bank performance in Nigeria.

References

- Agbonkhese, A. O & Asekome, M.O. (2013) The impact of monetary policy on bank credit creation in Nigeria: (1980 - 2010) *International Journal of Business and Social Science*, (4)
- Ajayi, F. O & Atanda, A. A (2012) Monetary policy and bank performance in Nigeria: a Two – Step co integration approach, *African journal of scientific research* 9(1)
- Ball L, Mankiw G. N & Reis R (2013) Monetary policy for Inattentive Economies <http://scholar.harvard.edu/mankiw/fibes/monpolpdf>
- Borio, C., Gambacorta, L., & Hofmann, B. (2015). The influence of monetary policy on bank performance: BIS working paper, Oct 2015
- Ebele, P. Ifionu, Monogbe, G. Tunde & Boufini T. (2017). Causal Relationship between Monetary Policy and Capital Formation in Nigeria. Unpublished research paper in the Department of finance and banking, university of Port Harcourt.
- Froze, A. (2013) Impact of monetary policy of Bangladesh bank on the performance of Dhaka stock. www.asuab.edu.bd.
- Giudici, P., Gianfrancesco, I., Gilberto, C., & Parisi. L. (2015). Monetary transmission model for bank interest rates. DEM Working paper series from university of pavia, department of economics and management, no 101.
- Jhinngan, M .L(2009) The economics of development and planning, Delhi, Vrinda publications
- Monogbe T. G., & Davies N. L. (2016). Monetary and Fiscal Policy, Tools for Economic Growth. (Test of the Keynesian and Monetarist Preposition): Nigerian Experience. *International Journal of Finance and Banking Research*. 2(3), 2016, 63-71. doi: 10.11648/j.ijfbr.20160203.12
- Ndugdu M. O & Okere P. A (2015) monetary policy and the performance of deposit money bank- the Nigerian experience *European Journal of Business and Management*. ISSN 2222-2839 (online) 7(17).
- Oman Khanlen, A.E, Okorie U.E & Taiwo J. N (2015) A dynamic analysis of the relationship between monetary policies and loan risk exposures in Nigerian deposit money banks *Mediterranean Journal of Social Sciences MCSER Publishing, Rome- Italy* 6(6) November 2015 247
- Omoke, P.C. & C.U. Ugwuanyi, (2010). Export, Domestic demand and Economic growth in Nigeria: Granger analysis. *European journal of social sciences* 13(2)
- Roberto R and Brian P. S (2001) Measuring the reaction of monetary policy to the stock market, *Finance and economics discussion series working paper no. 2001- 14*
- Schumpeter, J.A. (1911): The theory of economic development, Harvard University press, Cambridge.

Thanabalasingam V (2013) Monetary policy and the real economy: A structural VAR approach for Sri Lanka, *National graduate institutes for policy studies GRIPS discussion paper* 13-13

Zaman, R., Arslan, M., Sohail, M., & Malik, R. (2014). The impact of monetary policy on financial performance: evidence from banking sector of Pakistan. *Journal of basic and Applied scientific research*. 4(8), 119-124