Bank Asset Quality Performance among Nigerian Banks - The Role of Monetary Policy

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Abstract

This research investigated the role of monetary policy in bank asset quality performance of Nigerian banks. There have been mixed results as to the role of monetary policy on many performance indicators in the past by different scholars. Those indicators could be profitability, asset growth and returns on investments. So the research goal was to find out the impact of monetary policy instruments-money supply, liquidity ratio, monetary policy rate, and cash reserve ratio- on commercial banks asset performance. The literature review extensively looked at the work done by past scholars on the different transmission channels through which monetary policy affects banking and economic activities and these channels of transmissions have been broadly examined under the monetarist and Keynesian schools of thought. In the research methodology used secondary while employing multiple regression method/model as econometric technique in estimating the relationship between monetary policy and bank performance proxy by loans and advances, assets and turnover ratio. The study also used the ordinary least square (OLS) and unit root (Augmented Dickey Fuller) test to determine the stationarity or otherwise of the variables. Studies such as Apere and Karimo (2015); & Ndugbu and Okere (2015) have shown that the use of OLS with non-stationary variables may result in spurious regression results. The empirical results emanating from the analysis indicates that monetary policy had some level of effect on bank performance proxied by Turnover rate (TOR), Bank Assets (BAS) and Loan and Advances (LADV). It is equally indicative of the fact that the relationship is instrument sensitive, i.e, some monetary policy tools work better on some bank performance indexes while such may not work on some other ones. The strength of monetary policy was found to lie on the combination of the various instruments. The findings thus, support the monetarist theory that monetary policy when effectively utilized can have effect on banks activities and portfolio especially their portfolio performance. It was evident that monetary and fiscal policies employed by the CBN and ministry of finance are not harmonized adequately. The co-intergration tests which show a disquilibrium by 41% which suggests that much. Recommendations of study include that banks assets net loan losses should not exceed the provision made by banks in anticipating loan losses. The CBN supervision units can ensure the compliance by adequately monitoring compliance to policy on loan loss limits in relation to provisions. A well managed banking sector must be one where operating banks should be able to provide for unanticipated loan

loss internal profits. The Central Bank of Nigeria (CBN) should adjust the monetary policy rate by reducing the cash reserve ratio which will increase liquidity to enable the commercial banks to discharge their lending and investment duties effectively to the public.

Keywords: *Bank, asset quality, performance and Nigerian banks*

1.0 Introduction

Since the end of the Second World War two there have been arguments as to what standards are suitable in evaluating asset quality of banks in many developed nations. Given the fact that the solvency of banks is determined by the quality of their assets but that the right quality can only be sustained by the right type of monetary policy. For instance banks holding relatively safe and highly liquid interest bearing assets often have the monetary authorities reducing their capital-deposit ratio. But if the assets held were of high risk monetary policies usually favour an increase in the capital – deposit ratio to reflect the degree of risk. In assessing the earning's capacity and liquidity position of banks the quality of assets held in the portfolio of banks in the economy is fundamentally essential.

Because of their ability to mobilize funds from the savings to the deficit sector of the economy the banking industries in any economy in the world are the most important sector. According to Onoh (2002), it is their ability to accept deposits of any kind from the public, that they mobilize the largest amount of funds. Government and its agencies as well as create credit through granting of loans, overdraft and project financing which are all factors for enhancing economic performance for growth and development.

Commercial banks invest customer deposits in various short term and long term investment outlets; however core of such deposits are used for loans to generate profits. Hence, the more loans and advances they extend to borrowers, the more the profit they make (Solomon, 2012). Okpara (2009) opined that banks in most economies are the principal depositories of the public's financial savings, the nerve centre of the payment system, the vessel endowed with the ability of money creation and allocation of financial resources and conduit through which monetary and credit policies are implemented. From Okpara's perspective, the success of monetary policy, to a large extent, depends on the health of the banking institutions through which the policies are implemented. As a result of this central role of banks in the economy, their activities have to be kept under surveillance to ensure that they operate within the law in line with safe and sound banking practices so that the economy will not be jeopardized. Hence, governments generally legislate to influence and/or directly control banks' activities to suit the developmental objectives of the economy. In Nigeria, the authority to carryout monetary policy is vested in the Central Bank of Nigeria (CBN) through decrees 24 and 25, 1991. These laws, which replaced previous legislation on the matter, enjoin the CBN, under the guidance of the federal government to promote monetary stability and a sound financial system. CBN initiates monetary and banking policies and sends the proposal to the government for amendment, approval or rejection as noted by Ayogu and Emunuga (2009).

Direct monetary instruments such as selective credit controls, administered interest and exchange rates, credit ceilings, cash reserve requirements and special deposits to regulate the banking system were employed before the financial reforms of 1986. The fixing of interest rates at relatively low levels was done with the promotion of investment and growth in mind. Sometimes the monetary authorities would impose special deposits to reduce the amount of excess reserves and credit creating capacity of the banks (Uchendu, 2009 & Okafor 2009). In the words of Ologunde, Elumilade, & Asaolu (2006), interest rate along with monetary

aggregates formed targets of monetary policy in Nigeria.

The monetary authorities directly influence items of the balance sheet of commercial banks using the direct monetary policy measures. A common feature here is that interest rates are set and credits are allocated by monetary authorities in compliance with the government's economic objective. In this economic arrangement,, the financial system plays no role in the determination of financial prices or returns and allocation of credits (Ajayi & Atanda, 2012). On the other hand, there are sufficient evidence proving a direct relationship between indirect monetary policy and financial (banking performance) as both of them influence each other. The Nigerian monetary authorities since the mid 1980s recognized the role of free markets by liberalizing of interest rates and the use of indirect monetary policy which are crucial steps towards the development of financial markets. The use of market – based instrument was not feasible at that point (direct monetary policy era 1960-1985) because of the underdeveloped nature of the financial market and the deliberate restraint of interest rate as posited by Ajayi & Atanda (2012).

Amassoma, Wosa & Olaiya (2012), see the adoption of Structural Adjustment Program (SAP) in Nigeria as offering a sea of policy change in monetary policy development in Nigeria. To these authors, the deregulation exercise in the financial system, led to the adoption of indirect monetary policy with the open market operation as the primary tool which was complemented by reserve requirements, discount window operations, foreign exchange market intervention and injection/withdrawal of public sector deposits in and out of the Deposit Money Banks. Thus, to strengthen the policy, the discount houses were established which served as the intermediary between the CBN and the banks in the sale and purchases of OMO instruments (Solomon, 2013).

The major objectives of monetary policy since 2002 till 2014 have been to subdue inflation to a single-digit level and maintain a stable exchange rate of the naira (CBN, 2014). Attention has also been focused on the need for a more competitive financial sector geared towards improving the payments system. The CBN has also continued to ensure banking soundness and financial sector stability, not only to ensure the effective transmission of monetary policy actions to the real sector but also to enhance the efficiency of the payments system. The measures taken to strengthen the banking sector and consolidate the gains of monetary policy included the introduction of a 13-point reform agenda in the banking sector in July 2004 (the key point of which was the 25 billion naira minimum capital base for Deposit Money Banks (Ibeabuchi, 2007).

In recent times Nigeria monetary policy has been based on a medium-term perspective framework. The shift was to free monetary policy implementation from the problem of time inconsistency and minimize over-reaction due to temporary shocks. Several authors (Okoro, 2013; & Uchendu 2009) documented that policies have ranged from targeting monetary aggregates to monitoring and manipulating policy rates to steer the interbank rates and by extension other market rates in the desired direction.

This thesis thus aims to further examine monetary policy implementation in Nigeria and its impact on banking performance in Nigeria.

1.1 Statement of research problem

Ogbulu and Torbira (2012) said that the CBN's use of monetary policy instruments is to ensure stability in the banking sector and influence the soundness of assets. Ajayi and Atanda (2012) found insignificant impact of monetary policy instruments while others such as

Akanbi and Ajagbe (2012) noticed that the effect of the policies had minimal effect. This according to Okpara (2010) was as a result of banks manipulation of their financial report and statement of account. However, while banks continue to witness poor asset quality, the level of banks with high toxic assets remains high thus questioning the effect of monetary policy on banks asset quality and returns.

Another problem observed is the poor credit creation of banks. According to Sansui (2011), banks have deviated from their traditional banking function of providing loans and advances to small and medium scale industries to delving into investment in blue chip companies, stocks trading, foreign exchange trading and oil trading which are speculative in nature thus raising the high level of their non-performing loans. The essence of monetary policy rate, reserve ratio and money supply control is to influence banks credit creation which in all ramifications has shown insignificant impact as noted by past studies (Mishra & Pradhan, 2008). The problem of ineffective credit delivery to the productive sectors remains an issue and thus raises doubt on the potency of monetary policy instruments in influencing the direction of bank credit to the Nigeria economy.

1.2 Research objective
To find out the impact of monetary policy instruments-money supply, liquidity ratio, monetary policy rate and cash reserve ratio- on commercial banks asset performance.

1.3 Research hypothesis
H_0: Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio- have no significant impact on commercial banks asset performance.

2.0 Literature review
There are different transmission channels through which monetary policy affects banking and economic activities and these channels of transmissions have been broadly examined under the monetarist and Keynesian schools of thought (Onyeiwu, 2012).

Classical Theory
The widely accepted approach to monetary economics was known as the ***quantity theory of money,*** used as part of a broader approach to micro and macro issues referred to as ***classical economics*** from the works of Irving fisher who lay the foundation of the quantity theory of money through his equation of exchange. In his proposition money has no effect on economic aggregates but price (Diamond, 2003). The classical school evolved through concerted efforts and contribution of economists like Jean Baptist Say, Adam Smith, David Richardo, Pigu and others who shared the same beliefs. The classical economists decided upon the quantity theory of money as the determinant of the general price level. Most were of the opinion that the quantity of money determines the aggregate demand which in term determine the price level (Amacher & UIbrich, 1986). The quantity theory of money was not only a theory about the influence of money on the economy and how a Central Bank should manage the economy's money supply, but it represented a specific view of the private market economy and the role of government. The private market such as banks provided the best framework for achieving socially and economically desired outcomes (Onouorah, Shaib, Oyathelemi, & Friday, 2011). According to the theory, the role of government was providing a system of laws and security to protect private property, as well as providing a stable financial and monetary framework (Onouorah, Shaib, Oyathelemi, & Friday, 2011). Theory posit that money affects the economy which is the reason why Central banks adopt monetary policy to control the flow of money in the economy through banks that are regarded as the private

market industry that mobilizes the largest volume of money in any economy (Solomon, 2013). The economic depression of the 1930s drastically changed attitudes about the role of money and monetary policy as a tool of economic stabilization. Monetary policy was then viewed as an ineffective method of fighting depressions, and the belief in a self-regulating market that reached socially desirable results was destroyed (Onyemaechi, 2005).

Keynesian Theory
In 1936, John Maynard Keynes published his "General Theory of Employment, Interest and Money" and initiated the *Keynesian Revolution.* However, the role of money in an economy got further elucidation from (Keynes, 1930 P. 90) and other Cambridge economists who proposed that money has indirect effect on other economic variables by influencing the interest rate which affects investment and cash holding of economic agents. Keynes maintained that monetary policy alone is ineffective in stimulating economic activity because it works through indirect interest rate mechanism. From the Keynesian mechanism, monetary policy works by influencing interest rate which influences investment decisions of financial institutions such as banks and the public and consequently, output and income via the multiplies process (Amacher & Ulbrich, 1989; Gertler & Gilchrist, 1991; Okpara, 2010; & Solomon, 2013). Keynes posits that government had the responsibility to undertake actions to stabilize the economy and maintain full employment and economic growth, using fiscal policies. He therefore recommends a proper blend of monetary and fiscal policies as at some occasions, monetary policy could fail to achieve its objective (Onyemaechi, 2005).
The original Keynesian view that emerged from the Great Depression was challenged on two fronts. First, the early view that money and monetary policy were relatively unimportant was judged incorrect. Second, the basic premise of the Keynesian model was the inherent instability of the market system and the right and responsibility of the government to conduct an active stabilization policy. Some economists questioned this premise and argued that efforts to stabilize the economy through active monetary and fiscal policies were not likely to generate long-run improvement in the real performance of the economy, but were more likely to generate instability (Friedman, 1956, 1963; Modigliani, 1963; & Richard, 1979).

Monetarism/Neo-Classical Theory
Owing to the criticism that bedeviled the Keynesian theory, the monetarist theory was propounded by Milton Friedman in 1956. The role of monetary policy which is of course influencing the volume, cost and direction of money supply was effectively conversed by Friedman (1968: 1-17), whose position is that inflation is always and everywhere a monetary phenomenon. He recognizes that in the short run increase in money supply can reduce unemployment but can also create inflation and so the monetary authorities should increase money supply with caution (Onyemaechi, 2005). The monetarist essentially the quantity theorist adopted Fisher's equation of exchange to illustrate their theory, as a theory of demand for money and not a theory of output, price and money income, by making a functional relationship between the quantities of real balances demanded a limited number of variables (Essia, 1997). Monetarists like Friedman (1956, 1963) emphasized money supply as the key factor affecting the wellbeing of the economy. Thus, in order to promote steady of growth rate, the money supply should grow at a fixed rate, instead of being regulated and altered by the monetary authority (ies). Friedman equally argued that since money supply is substitutive not just for bonds but also for many goods and services, changes in money supply will therefore have both direct and indirect effects on spending and investment respectively. The monetarist introduces an additional factor in the determination of interest rate, which is price expectation; an increase in supply of money has a liquidity effect on income effect and price effect. Also in the monetarist thinking, is that they felt it more important of money in

explaining macro-economic behaviour monetarist important of money and therefore monetary policy was given attention in the neoclassical school (Onouorah, Shaib, Oyathelemi, & Friday, 2011).

The monetarist argument centres on the old quantity theory of money. If velocity of money in circulation is constant, variation in money supply will directly affect prices and output or income (GNP), (M. L. Jhingan, Monetary Economics 6th Edition, P. 418 – 419).

The monetarist postulates that change in the money supply leads directly to a change in the real magnitude of money. Describing this transmission mechanism, Friedman & Schwartz (1963) say an expansive open market operation by the Central Bank, increases stock of money, which also leads to an increase in commercial bank reserves and ability to create credit and hence increase money supply through the multiplier effect. In order to reduce the quantity of money in their portfolios, the bank and non-bank organisations purchase securities with characteristics of the type sold by the Central Bank, thus stimulating activities in the real sector. This view is supported by Tobin (1978) who examines transmission effect in terms of assets portfolio choice in that monetary policy triggers asset switching between equity, bonds, commercial paper and bank deposits. He says that tight monetary policy affects liquidity and banks ability to lend which therefore restricts loan to prime borrowers and business firms to the exclusion of mortgages and consumption spending thereby contracting effective demand and investment.

Conversely, the Keynesians posit that change in money stock facilitates activities in the financial market affecting interest rate, investment, output and employment (Keynes, 1930, p.90). Modigliani (1963) supports this view but introduced the concept of capital rationing and said willingness of banks to lend affects monetary policy transmission. In their analysis of use of bank and non bank funds in response to tight monetary policy, Oliner &Rudebush (1995) observe that there is no significant change in the use of either but rather larger firms crowd out small firms in such times and in like manner. Gertler & Gilchrist (1991) supports the view that small businesses experience decline in loan facilities during tight monetary policy and they are affected more adversely by changes in bank related aggregates like broad money supply. Further investigation by Borio (1995) who investigated the structure of credit to non government borrowers in fourteen industrialised countries observe that it has been influenced by factors such as terms of loan as interest rates, collateral requirement and willingness to lend.

Researchers found varying results on the effect of monetary policy on banks performance using banks assets portfolio and credit creation (Amacher &Ulbrich 1989; Gertler & Gilchrist, 1991; Okpara, 2010; & Ogbulu & Torbira, 2012; & Solomon, 2013). Thus, adopting the monetarist theory on the use of monetary policy in influencing the performance of banks, this study takes further steps to support or reject the assertion of this theory.

The instrument tools of monetary policy have been classified broadly in two categories. Quantitative instrument: Traditional and non-traditional quantitative instrument (Richard, 1979). Monetary policies, as adopted in Nigeria, have four broad objectives, they are: (Ibeabuchi, 2007):

- **To maintain a high level of employment (full employment):** Full employment means employment of labour, plant and capital at a tolerable capacity to achieve the set goals of national economic policy aimed at combating recession and economic depression (Ibeabuchi, 2007).
- **To maintain stable price level:** Price level stability goal is related in an important sense to the control of inflation refers to a situation of sustained and rapid increase in

the general level of prices, however, generated (Nnanna, 2001). According to Ibeabuchi (2007), inflation reduces real disposable income and consequently the purchasing power of money.

- **To maintain the highest sustainable rate of economic growth:** This means both quantitative and qualitative increase in the total quantity of goods and services produced in the economy annually (Nnanna, 2001). Nnanna opined that economic growth is said to be achieved in a country in a situation where there is an increase in the income position of the citizens of the country and also a corresponding increase in the amount of goods and services which a given quantity of money can buy.

- **To maintain the highest equilibrium in the balance of payments:** A country's balance of payment may be in total equilibrium of there exists between total payments and total receipts, that is, the avoidance of larger or chronic deficit or surplus in the balance of payments (Imoisi, Olatunji, & Ekpenyong, 2013; & Nnanna, 2001).

- **Monetary Policy Instruments**

The instruments of monetary policy can be categorized into two namely: (Ibeabuchi, 2007)
1. Direct or quantitative instruments
2. Indirect of qualitative instruments

Direct Instruments or Qualitative Instruments of Monetary Policy Tools
Though there is an avalanche of instruments available for money and credit control, the instrument mix to be employed at any time depends on the goals to be achieved and the effectiveness of such instrument to a large extent hinges on the economic fortunes of the country (Nnanna, 2001; & Ojo, 1993).

- **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 (Ibeabuchi, 2007).

- **Special Deposits:** The central bank has the power to issue directories from time to time requiring all banks to maintain with it as 'special deposit an amount equal to the percentages of the institution's deposits liabilities or the absolute increase in its deposit liabilities over an amount outstanding at a certain date (Ibeabuchi, 2007; & Ojo, 1993).

- **Moral Suasion:** Moral suasion simply means the employment by the monetary authority of friendly persuasive statement, public pronouncement outright appeal the monetary authority sometimes uses the less tangible technique to influence the lending policies of commercial banks (Ibeabuchi, 2007). Consequences to the banking system and the economy as a whole, the Central Bank of Nigeria holds periodic meetings with the bankers committees and on other occasion meets formally or informally with the leaders in the banking community (CBN, 2013). With the leaders in the banking community – such contracts are geared towards the development of confidence between the central bank and other banks. It affords the central bank opportunity to discuss the improvement in standards and conducts in the banking industry.

- **Selective Credit Control:** According to Nnanna (2001), this instrument is used to distinguish among the sectors of the economy into preferred and less preferred sectors. This is usually designed to influence the direction of credits in the economy so as to ensure that credits go to those sectors designed "preferred". It is very useful where a country operates development plans like Nigeria. When plans are drawn up these credit

controls will be integrated in the budget. In course of the government's programme to revitalize agricultural production which is the most favoured sector, credits to the favoured sector is at lower interest rate while the least favoured sectors pay the highest rate of interest (Ibeabuchi, 2007).

- **Direct Credit Control:** According to CBN (2013), 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 (Ibeabuchi, 2007).
- **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 (CBN, 2013). Key elements of prudential guidelines remove some discretion from bank management and replace it with rules in decision making (Ibeabuchi, 2007).

Indirect Instruments or Quantitative Instruments of Monetary Policy
Fiduciary or paper money is issued by the Central Bank on the basis of computation of estimated demand for cash (CBN, 2013). 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 banking sector. The commonly used instruments are discussed below (CBN, 2011):

- **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 (CBN, 2013; Ibeabuchi, 2007; Ojo, 1993; & Solomon, 2013).
- **Lending by the Central Bank:** The Central Bank sometimes provides credit to Deposit Money Banks, thus affecting the level of reserves and hence the monetary base (CBN, 2013).
- **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). The MRR 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) (Obidike, Ejeh, & Ugwuegbe, 2015; Solomon, 2013; & Victor & Eze, 2013).
- **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 (Akpan, 2008: Imoisi, Olatunji &Ekpenyong, 2013; Ibeabuchi, 2007; & Sanusi, 2004).
- **Rediscount Rate:** The rediscount rate is the rate at which the central bank stands really to provide loan accommodation to commercial banks (CBN, 2013). As a lender of last resort, such lending by the central bank is usually at panel rates. By making appropriate changes in the rate, the central bank controls the volume of total credits indirectly. This

has the purpose of influencing the lending capacity of the commercial banks. During the periods of inflation, the central bank may raise the rediscount rate making obtaining of funds from the central bank more expensive. In this way, credit is made tighter (Nnanna, 2001). Similarly, in depression, when it is necessary to encourage commercial banks to create more credits, the central bank will lower the rediscount rate.

- **Cash Reserve Requirements:** Ojo (1993) posit that the reserve requirement can be manipulated by the central bank to reduce the ability of commercial banks to make loans to the public by simply increasing the ratio or enhancing their lending position by decrease in the ratio. Reserve requirement is loan of the most powerful instruments of monetary control (CBN, 2013). A change in the required reserve ratio changes the ratio by which the banking system can expand deposit through the multiplier effect. If the required reserve ratio increases, the multiplier decreases and thereby reduces the liquidity position of the banking system.

- **Monetary Policy and Economic Growth**

Monetary Policy is a key component of any pro-growth economic system and much so in developing economies such as the Nigerian Economy (Taylor, 2004). In general terms, monetary policy refers to a combination of measures designed to regulate the value, supply and cost of money in an economy in consonance with the expected level of economic activity (Nnanna, 2001). For most economies, Nigerian economy inclusive, the objectives of monetary policy includes price stability, maintenance of Balance of Payments equilibrium, promotion of employment and output growth.

Gbosi (2002), posits that monetary policy aims at controlling money supply so as to counteract all undesirable trends in the economy, these undesirable trends may include; unemployment, inflation, sluggish economic growth or disequilibrium in the Balance of Payments. Monetary policy may either be expansionary or restrictive. An expansionary monetary policy is designed to stimulate the growth of aggregate demand through increase in the rate of money supply thereby making credit more available and interest rates lower. An expansionary monetary policy is more appropriate when aggregate demand is low in relation to the capacity of the economy to produce goods and services.

On the contrary, if the quantity of money is reduced or restricted, money income will rise slowly so that consumers spend less and funds for investment are difficult to acquire thereby decreasing aggregate investment (restrictive monetary policy) (Imoisi, Olatunji, & Ekpenyong, 2013).

Nnanna (2001) observed that the pursuit of price stability invariably implies the indirect pursuit of objectives such as Balance of Payments (BOP) equilibrium. Anyanwu (1993) posits that an excess supply of money in the economy will result to excess demand for goods and services and in turn causes rise in prices and also, affect the Balance of Payments position. With the achievement of price stability, the uncertainties of general price level will not materially affect consumption and investment decisions. Rather, economic agents will take long-term decision without much reservation about price change in the macro-economy. The condition in the financial markets and institutions would create a high degree of confidence, such that the financial infrastructure of the economy is able to meet the requirements of market participants (Nkoro, 2003). In other words, an unstable and crisis-ridden financial system will render the transmission mechanism of monetary policy less effective, making the achievement and maintenance of strong macroeconomic fundamentals difficulty.

Akomolafe, Danladi, Babalola & Abah (2015) noted that as a stabilization policy, monetary policy involves the use of monetary instruments to regulate or control the volume, cost, availability and the direction of money and credit in an economy to achieve some specific macroeconomic policy objective. According to Onouorah, Shaib, Oyathelemi, &d Friday (2011), it is a deliberate attempt by the monetary authority (Central Bank) to control the money supply and credit condition in the economy so as to achieve certain economic objective. Some of the macroeconomic objectives include price stability, full employment, sustainable economic growth, balance of payment equilibrium. The monetary instruments include bank rate, open market operation, reserve requirements etc. Economic activities are not directly affected by monetary policy instruments; they work through their effects on the financial markets. It affects economic activities through its effects on available resources in the banking sector (Akomolafe, Danladi, Babalola & Abah, 2015).

- **Banks and Financial Intermediation Role**

The role of the banking sector in the economic development of a nation cannot be overstressed. It is the channels through which idle funds are made available to the productive sector, thereby facilitating the use of surpluses in the economy to generate employment and promote economic welfare. The banking sector provides strong confidence for depositors, thereby motivating and encouraging saving in the economy. A strong financial sector also helps to sustain an economy against external shock that may arise from fall in external capital flow. A strong and well-developed financial sector is needed to achieve a sustained growth (Aurangzeb, 2012). Also, Akomolafe (2014) opined that sustainable economic growth is often associated with countries with strong financial sector. The recent incidence of banking and financial crises in the world, and its aftermath on the world economies gives credence on the importance of the sector on the performances of an economy. More importantly, the banking sector also serves as the avenue through which the monetary policies of the government are carried out.

Capital accumulation in any economy depends on the roles of the banks which include the following (Oyetayo & Oladipe 2010):

- **Offering Liquidit**y: Liquidity in banking refers to assets that can easily be converted into cash. Money in the form of cash is regarded as the most liquid asset in the banking industry. Historically, the existence of banks is credited to this unique function of providing liquidity to people and comparative bodies to carry out their daily business activities. In order to perform this role banks offer saving, deposit and current account facilities to the public. When a customer decides to operate an account, and pay a minimum amount deposited on the various account is held by the banks, the liability, in addition to thus, banks help in keeping other convertible equities, like certificate of occupancy, share certificates, deeds of conveyance, etc. The bank is therefore requested by low to make a certain percentage of their deposit liabilities and capital funds capital to the general public to meet customer demand.

- **Payment Service:** A bank is under obligation to pay back to the customer any amount as specified by the customer according to the value of the account held. A bank customer may also want this cheque cashed up to a stated amount and within a specified period, at another branch of the bank or another bank. Conversely, the customer can also receive money through the bank when a debtor has decided to pay from a distance with crossed or open cheque.

- **Lending Function:** The deposit kept in banks nerd not be left idle because from experience banks are aware that depositors at a time. It is therefore prudent of the banker lend such money to investors at a higher note which brings some revenues to

them. They achieve this through overdraft loan, bills discounting or through direct investment.

- **International Trade Services**: Banks help to provide the link through which payments for goods and services brought or sold by importers and exporters can be settled. In addition to this, they provide guarantee to exporters which need such guarantees before they can release them.
- **Currency Transaction**: Banks trade on foreign currencies; especially U.S. dollars are pound sterling. They engage competitively in foreign currency transaction as it provides them a significant source of revenue. However, foreign exchange transaction loans in every country are very stringent.
- **Performance Bond Services**: A performance bond is used on behalf of customers in the real sector of the economy where they are required to supply the bond before they can tender for contract. The bond guarantees that the company has adequate financial resources to execute the contract successfully. When a bank gives such a guarantee it usually takes an indemnity from the customer so that it can claim against him in case of default (Oyetayo & Oladipe 2010).

- **Monetary Policy and Banks Financial Intermediation**

Liquidity is essential for the banking sectors. Liquidity as opined by According to Nwankwo (1991:12), is what keeps the doors of a bank open. To Nwankwo, adequate liquidity enables the bank to find new funds to honour maturity obligations and enables the bank generate and sustain public confidence in the solvency of the banks. Adequate liquidity helps a bank avoid forced sales of assets and prevent a bank from involuntarily borrowing from the Central Bank.

Sources of bank liquidity can be in form of stored liquidity, which consists of assets in form of values and balance at Central Bank. As increase in the required liquidity ratio necessarily reduces the profitability rate of banks since they would have to hold some of their assets in treasury bills and certificates, the return which are quite below those of other money markets instruments, loans and advances (Ekpung, Udude & Uwalaka, 2015). Emphasizing liquidity, Soyode & Oyejide (1986:125) said a banks' portfolio must contain enough cash and assets so that the bank will be able to meet all possible vast demands that the depositors might make for cash payment. A potential source of liquidity is the ability of bank to borrow. By all standards, banks liquidity is very essential. As Efoagui (1985:7) as cited by Ekpung, Udude & Uwalaka (2015) puts it, "the whole edifice of banking is built upon confidence in the liquidity of banks".

Apere & Karimo (2015) in their contribution opined that the banking sector constitutes the money market and it is responsible for the mobilization of short to medium term financial resources. To generate funds for investment and foster economic growth the financial sector mobilizes financial resources from surplus units (lenders/savers) to deficit units (borrowers/investors). They stressed further that to be able to perform this function effectively both the surplus and deficit units need to know that their resources are being entrusted in reliable hands – the financial system, this underscores the need to regulate the activities of the market operators which is achieved through policy pronouncement and implementation which include monetary policy.

Generally, Ahumada & Fuentes (2004) identified two important channels through which monetary policy affect the functioning of the banking sector: the traditional interest rate

channel and the credit channel. Market imperfections, such as asymmetric information, that induce a contraction of the quantity of credit when the central bank imposes a restrictive monetary policy. The effectiveness of monetary policies in achieving its targeted objectives however depends on the level of compliance with the policy directives by the banks. This is because the policies sometimes go against their profit interests. The existence, growth and survival of a business organization mostly depend upon the profit which an organization is able to earn. Profitability increases the value of shareholders to a considerable extent. The term profitability refers to the ability of the business organization to maintain its profit year after year. The profitability of the organization will definitely contribute to the economic development of the nation by way of providing additional employment and tax revenue to government. Moreover, it will contribute the income of the investors by having a higher dividend, and thereby improve the standard of living of the people. In order to make profit for instance, commercial banks invest customers' deposits in various short term and long term investment outlet, however core of such deposits are used for loans. Hence, the more loans and advances they extend to borrowers, the more the profit they make (Solomon, 2012). When government embarks on contractionary monetary policies, it reduces the available resources with the banks. This consequently reduces their ability to make profits. On the other hand, expansionary monetary policies would have an opposite effect.

The purchase of treasury bills through open market operation by the monetary authority would increase the available resources, and consequently, the profits of the banks. Given the impacts of the financial sectors on the overall economic activities in the economy, it is therefore important to analyse the impacts of monetary policies have on the banking sectors' performance. Correctly identifying the effects of monetary policy is necessary for good policy making (Akomolafe, Danladi, Babalola & Abah, 2015).

- **Monetary Policy Implementation and Banks Performance in Nigeria**

In Nigeria, the Central Bank of Nigeria (CBN) is the sole monetary authority. Its core mandate is to promote monetary and price stability and evolve an efficient and reliable financial system through the application of appropriate monetary policy instruments and systemic surveillance (Ibeabuchi, 2007). The 1958 Act establishing the Central Bank of Nigeria gave it the following specific functions (which have endured in the 2007 CBN Act):

- issuance of legal tender currency notes and coins in Nigeria;
- maintenance of Nigeria's external reserves;
- safeguarding the international value of the currency;
- promotion and maintenance of monetary stability and a sound and efficient financial system in Nigeria; and
- Acting as banker and financial adviser to the Federal Government.

Embedded in these objectives are two separate but highly related roles: A developmental role and financial surveillance (stability) role. The roles demand, among others, that the CBN focuses on both price stability and growth. In order to ensure the realization of the goals of price stability and economic growth, the CBN deploys its monetary policy instruments in such a way as to ensure optimality in inflation and growth outcomes.

It follows, therefore, that the efficient conduct of monetary policy is a major responsibility of the Central Bank of Nigeria. Ajayi and Atanda (2012) assert that the Central Bank of Nigeria (CBN) over the years, have instituted various monetary policies to regulate and develop the banking system in order to achieve major macroeconomic objectives which often conflict and result to distortion in the economy; although, some monetary policy like cash reserve and

capital requirements have been used to buffer the liquidity creation process of commercial banks through deposit base and credit facilities to the public. According to Ibeabuchi (2007), the conduct of monetary policy in Nigeria has undergone several phases. These changes are discussed below:

Era of Direct Control (Pre-SAP Period)
In 1892, there was a new dimension in credit delivery as the first commercial bank came into operation (Nnanna, 2001). However due to discrimination of the early banks mainly foreign owned (First Bank and Union Bank then known as British Bank of West Africa and Barclays bank (Nigeria Limited respectively) against Nigerian customers who they considered as high credit risk, indigenous banks sprang up in 1929. The first was industrial and commercial bank followed by the Nigeria mercantile bank in 1931. Others include the Nigerian Penny Bank, the Nigeria farmers and Commercial banks, Merchant banks, Pan Nigerian bank among others. The purpose of their establishment was to grant credit to indigenous borrowers since then various banks have emerged in Nigeria (Solomon, 2013). The monetary policy framework placed emphasis on direct monetary control (Ibeabuchi, 2007; & Nnanna, 2001). This was essentially due to the relatively underdeveloped nature of money and capital markets in the country then. According to Nnanna (2001), the framework relied heavily on sectoral credit allocation; credit ceilings and cash reserve requirements; administrative fixing of interest and exchange rates; as well as imposition of special deposits. During this period the set monetary targets were hardly realized. Instead, the strategy created a lot of distortions and bottlenecks in resource allocation, resulting in wide spread inefficiencies in resource allocation and utilization.
Folawewo & Osinubi (2006) posit that during the first half of 1980s, CBN's reserves relative to domestic credit witnessed continual decline, it however started to increase from 1986 up till 1990.

Period of Indirect or Market Approach (Post-SAP Era)
In line with the economic deregulation embodied in the SAP, there was a paradigm shift from the hitherto repressive direct monetary control method to an indirect approach anchored on the use of market instruments in monetary management (Nnanna, 2001). According to CBN report (2001), this was borne out of the desire to eliminate the distortions and inefficiencies in the financial system caused by the prolonged use of administrative controls and the need to engender competition among banks and other operators in the financial system.
Two major policy regimes of short- and medium-term frameworks can be identified.

Regime of Short-Term Monetary Policy Framework (1986-2001)
Consistent with the broad objectives of monetary policy, a number of monetary targets and instruments were adopted during the short-term (one-year) monetary policy framework (1986-2001) (CBN, 1993; Ibeabuchi, 2007; & Ojo, 1993). OMO, conducted wholly using the Nigerian Treasury Bills (NTBs), continued to be the primary instrument of monetary policy. This was complemented by the cash reserve requirement (CRR) and the liquidity ratio (LR). Other policy instruments employed included the discount window operations, mandatory sales of special NTBs to banks and a requirement of 200 percent treasury instrument to cover for banks' foreign exchange demand at the Autonomous Foreign Exchange Market (AFEM). Interest rate policy was deregulated through the proactive adjustment of minimum rediscount rate (MRR) to signal policy direction consistent with liquidity conditions. Surveillance activities of the CBN focused mainly on ensuring sound management and maintenance of a healthy balance sheet position on the part of deposit money banks (DMBs). On the external front, the official and inter-bank exchange rates were unified in 1999 (Ibeabuchi, 2007;

Ngugi, 2001; & Obidike, Ejeh and Ugwuegbe, 2015).

Amassoma, Wosa & Olaiya (2012) opine that the adoption of Structural Adjustment Program (SAP) in Nigeria, offered a sea of policy change in monetary policy development in Nigeria. The deregulation exercise in the financial system, led to the establishment of two foreign exchange markets in 1986. In 1987 Interest rate controls completely removed, bank licensing liberalized and the foreign exchange markets unified.

In 1988, foreign exchange bureaus established, bank portfolio restrictions relaxed and the Nigerian Deposit Insurance Corporation was established. In 1989, banks were permitted to pay interest on demand deposits, the auction markets for government securities was introduced, the capital adequacy standards were reviewed upward and the extension of credit based on foreign exchange deposits was banned (Nnanna, 2001).
In 1990, the risk-weighted capital standard was introduced and banks' required paid-up capital increased. Also in 1990, a uniform accounting standards was introduced for banks while a stabilization security to mop up excess liquidity was also introduced (Nnanna, 2001). In 1991, there was an embargo on bank licensing while the administration of interest rate was introduced. Also the Central Bank was empowered to regulate and supervise all financial institutions in the economy (Ibeabuchi, 2007).

In 1992, the interest rate controls removed once again while the privatization of government-owned banks commenced. More so, capital market deregulation commenced, credit control was dismantled while the foreign exchange market was reorganized. In 1993, indirect monetary instruments were introduced while in 1994 the interest and exchange rate controls were re-imposed (Guseh & Oritsejafor, 2007; & Ikhide & Alawode, 1993).
In 1996, all mandatory credit allocations on banks by the CBN guidelines were abolished while in 1997 the minimum paid up capital of merchant and commercial banks was further raised to a uniform level of N500 million. In addition, the operational environment for banks was further liberalized in 2001 with the introduction of universal banking system (Ibeabuchi, 2007).

Regime of Medium-Term Monetary Policy Framework (2002-2005)
Ibeabuchi (2007) noted that in 2002, the CBN commenced a two-year medium-term monetary policy framework, aimed at freeing monetary policy from the problem of time inconsistency and minimizing over-reaction due to temporary shocks. The new monetary policy framework, still in operation, is based on the evidence that monetary policy actions affect the ultimate objectives with a substantial lag. According to CBN (2010) publication, under the framework, monetary policy guidelines are open to half-yearly review in the light of developments in monetary and financial market in order to achieve medium- to long-term goals.

The major objectives of monetary policy since 2002/2003 have been to subdue inflation to a single-digit level and maintain a stable exchange rate of the naira (CBN, 2010). CBN report shows that attention was also focused on the need for a more competitive financial sector geared towards improving the payments system. The OMO continued to be the primary tool of monetary policy, and is complemented by reserve requirements, discount window operations, foreign exchange market intervention and injection/withdrawal of public sector deposits in and out of the DMBs (CBN, 2010). The CBN has also continued to ensure banking soundness and financial sector stability, not only to ensure the effective transmission of monetary policy actions to the real sector but also to enhance the efficiency of the

payments system. The measures taken to strengthen the banking sector and consolidate the gains of monetary policy included the introduction of a 13-point reform agenda in the banking sector in July 2004 (the key point of which was the 25 billion minimum capital bases for DMBs) (CBN, 2010).

The 2004/2005 monetary policy and credit guidelines were fine-tuned in 2005 in the light of changing environment (Soludo, 2004). New policy measures introduced included maintenance of a tight exchange rate band of plus/minus 3 per cent, two week maintenance period of cash reserve requirement and the injection/withdrawal of public sector deposits from the DMBs. The various measures put in place, complemented by improved fiscal discipline at the federal government level, impacted positively on the monetary aggregates in 2004 and 2005, resulting in the achievement of set targets during the period. The growth rate of real GDP also increased substantially, exceeding set targets in 2003-2005 (Ibeabuchi, 2007).

In 2005, the minimum paid up capital was further raised to ₦25 billion naira for all commercial banks in accordance with the recapitalization exercise (Soludo, 2006). In 2006, the Central Bank of Nigeria introduced a new monetary policy implementation framework (Monetary Policy Rate {MPR}) to replace the Minimum Rediscounted Rate (MRR). Specifically, this is done to dampen the volatility of interest rate in money market and stimulate a transaction rate that would improve the transmission of monetary policy actions (CBN, 2010).

Monetary Policy Implementation Post-Consolidation (2006-date)
The key feature of the monetary conditions during the period according to CBN (2013) document on monetary policy implementation shows that 2006/07 policies include:
- Zero tolerance on ways and means advances;
- Gradual run-down of CBN holding of TBs;
- Aggressive liquidity mop-up operations-frequent OMO sales supported by discount window operations;
- Unremunerated reserve requirements;
- Increased coordination between the Bank and the fiscal authorities;
- Restructuring of debt instruments into longer tenor debts;
- Increased deregulation of forex market; and
- Occasional forex swap.

According to Ajayi & Atanda (2012), monetary management was challenging in 2008 as a result of the liquidity surfeit experienced in the second quarter and the tight liquidity condition occasioned by the impact of the global financial crisis on the domestic economy in the third and fourth quarters of the year. The major sources of the excess liquidity in the second quarter included the monetization of part of the excess crude oil receipts and the enhanced statutory allocations to the three-tiers of government, arising from the favourable crude oil price in the international market, as well as the payment of matured treasury bills.
The financial markets, particularly the inter-bank segment, experienced relatively tight liquidity from end-August 2008, owing to the outflow of portfolio investment, occasioned by the global credit crunch. In order to ensure the stability of the financial system, the Central Bank of Nigeria undertook a number of monetary policy measures in mid-September 2008 to ensure adequate liquidity in the banking system (Ajayi & Atanda, 2012).

Post Financial Crisis

During the 2009 global financial crisis and owing to the high level of toxic assets recorded in banks assets, CBN adopted measures to regulate banks balance sheets, credit creation and means of reporting financial statement. Monetary policy adopted during this period includes securitization, *credit guideline, liquidity ratio, open market operation, reserve ratio, monetary policy rate, amongst others.*

On the reasons for the adoption of the monetary policies above, Alford (2011) noted that aggregate percentage of nonperforming loans of the five banks was 40.81 with chronic borrowing at the Expanded Discount Window (EDW) of the CBN, indicating that they had little cash on hand). On August 14, 2009, the CBN declared the five banks as insolvent.

The erstwhile CBN Governor, Sanusi Lamido argued that eight factors caused the Nigerian financial crisis: "macroeconomic instability caused by large and sudden capital inflows, major failures in corporate governance at banks, lack of investor and consumer sophistication, inadequate disclosure and transparency about the financial position of banks, critical gap in regulatory frameworks and regulations, uneven supervision and enforcement, unstructured governance and management processes at the CBN/weaknesses within the CBN, and weaknesses in the business environment" (Alford, 2011) .

According to Sanusi (2020), the monetary policy for its regime was to check indiscriminate loan creation by banks, high level of non-performing loans, beautification of banks balance sheet, control inflation, control high volume of money supply, instill confidence of customers on banks, increase bank credit creation and make them more responsive to the financial needs of small and medium scale industries, make the banks more competitive globally, increase banks capacity to handle international transactions and huge investment amongst others.

To achieve this, CBN established asset management corporation (ASCOM) to constantly review banks balance sheet and limit the exposure of banks to non-performing loans (Sanusi, 2011; & Solomon, 2013). The Central Bank of Nigeria (CBN) also issued know your customer (KYC) policy, anti-money laundering, counter financing of terrorism, loan loss provisioning, peculiarities of different loan types and financing different sectors of the economy, among others. In the new risk management guidelines, the CBN directed banks to prepare comprehensive credit policy duly approved by their Board of Directors, and that the policy should among others cover loan administration, disbursement and appropriate monitoring mechanism and should be reviewed at least every three years. The new guideline stipulated that the tenure of external auditors in a given bank shall be for a maximum period of 10 years from date of appointment after, which the audit firm shall not be reappointed in the bank until after a period of another 10 years (Sanusi, 2010).

The total outstanding exposure by a bank to any single person or a group of related borrowers was fixed at a maximum of 20 per cent of the bank's shareholders' fund unimpaired by losses while aggregate large exposures in any bank should not exceed eight times the Shareholders' fund unimpaired by losses. "The top 50 exposures should not be more than 50 per cent of the total loan portfolio and must be in at least 10 different sectors or industries. All banks were to ensure that they have policies in place to address portfolio concentration and the policies must be strictly adhered to," the guideline stated (CBN, 2013).

It further stipulated that the "Specialised loans" exposure of a bank shall not exceed 20 per cent of total loan portfolio net of provision of the bank - including off balance sheet engagement, adding that any excess over 20 per cent prescribed limit without the CBN approval shall be subject to full provision and should be part of general provisions on a quarterly basis (CBN, 2013).

Abata (2015) contributing observed that at the end of 2011 financial year, it was obvious that the banks were neck deep in measures to come out clean in the 2012 performance an excuse given by a number of banks that posted not so encouraging results for their 2011 operations. This development was confirmed by the International Financial Advisory Firm, Renaissance Capital Limited, in its recent report on the big five banks in Nigeria, noting that with the exception of Access bank Plc., the NPLs ratios for the banks are now below the 5 per cent CBN guideline (This Day Newspaper, 2012). The big five banks are First Bank Plc., Guaranty Trust Bank Plc., Zenith Bank Plc., Access Bank Plc. and the United Bank for Africa Plc (This Day Newspaper, 2012).

The CBN subsequently declared nine banks as being dangerously below minimum capital requirements with corporate governance concerns, thereby forcing drastic measures to save the banks from bankruptcy. Nine banks failed to meet the minimum 10 per cent capital adequacy ratio and 25 per cent minimum liquidity ratio (Alawiye, 2013). According to Alawiye (2013), apart from accumulating high non-performing loans, the banks were exposed to the oil and gas sector as well as the capital markets. Poor risk management practices in the form of absence of necessary controls measures were prevalent as the board and management had failed to observe established controls.

Governmental approach towards resolving these threats to banking industry performance and economic stability led to the establishment of Assets Management Corporation of Nigeria (AMCON) following the passage into law the Assets Management Corporation of Nigeria Bill on July 19, 2010. The rationale behind the establishment of AMCON is for the corporation to purchase the toxic assets from the banks and after the purchase the banks will have "clean" balance sheet (Abata, 2015).

According to CBN (2014), MPR between 2012 and 2014 remains at 12 per cent +/- 200 basis points and liquidity ratio (LR) at 30 per cent, public sector CRR increased from 50 per cent to 75 per cent, and private sector CRR retained at 12 per cent. Broad money supply (M2) contracted by 4.82 per cent in December 2013 over the level at end-December 2012, in contrast to the growth of 16.39 per cent in the corresponding period of 2012. M2 was also below the growth benchmark of 15.20 per cent for 2013. Aggregate domestic credit (net) grew by 11.11 per cent in December 2013, over the end- December 2012 level. The aggregate domestic credit (net) at end- December 2013 was, however, below the provisional benchmark of 22.98 per cent for 2013. The decline in M2 was due mainly to the decrease in Net Foreign Assets by 5.86 per cent.

Interest rates in all segments of the money market reflected the liquidity conditions in the banking system. At the MPC meeting of November 18- 19, 2013, the Monetary Policy Rate (MPR) was retained at 12.00 per cent with a symmetric corridor of +/- 200 basis points, thus effectively maintaining the SLF and SDF rates at 14.00 and 10.00 per cent, respectively. Alongside the existing Cash Reserve requirement (CRR) of 12.0 per cent, the 50.0 per cent CRR on public sector deposits was retained to address excess liquidity in the banking system. Consequently, both the weighted average inter-bank call and OBB rates opened at 11.73 per cent in December 2014 (CBN, 2014).

Banking system deposits at the CBN deposit facility was consistently been high. Even with OMO operations, Interbank and OBB rate still traded below the standing deposit facility rate at 10.54 per cent and 10.23 per cent respectively as at December, 2014. However, lending rates remained high at over 23 per cent, suggesting that care must be taken to manage the structural liquidity and the structural impediments to credit growth. In addition, pressure on

the exchange rate window is impacting the foreign exchange reserves negatively (CBN, 2014). Therefore, a balance between defending the naira and saving the reserve must be struck for economic stability.

Heuvel (2005) argues that monetary policy affects bank lending through two channels. They argued that by lowering bank reserves, contractionary monetary policy reduces the extent to which banks can accept receivable deposits, if reserve requirements are binding. The decrease in reservable liabilities will, in turn, lead banks to reduce lending, if they cannot easily switch to alternative forms of finance or liquidate assets other than loans.

Folawewo & Osinubi (2006) examine the efficacy of monetary policy in controlling inflation rate and exchange instability. The analysis performed was based on a rational expectation framework that incorporates the fiscal role of exchange rate. Using quarterly data spanning over 1980:1 to 2000:4 and applying times series test on the data used, the study showed that the effects of monetary policy at influencing the finance of government fiscal deficit through the determination of the inflation-tax rate affects both the rate of inflation and exchange rate, thereby causing volatility in their rates. The study revealed that inflation affects volatility in its own rate, as well as the rate of real exchange.

Punita & Somaiya (2006) investigate the impact of monetary policy on the profitability of banks in India between 1995 and 2000. The monetary variables are bank rate, lending rates, cash reserve ratio and statutory ratio, and each regressed on banks profitability independently. Lending rate was found to exact positive and significant influence on banks profitability, which indicates a fall in lending rates will reduce the profitability of the banks. Also bank cash reserve ratio and statutory ratio were found to have significantly affected profitability of banks negatively. Their findings were the same when lending rate, bank cash reserve ratio, and statutory ratio were pooled to explain the relationship between bank profitability and monetary policy instrument in the private sector.

Amidu & Wolfe (2008) examine the constrained implication of monetary policy on bank lending in Ghana between 1998 and 2004. Their study revealed that Ghanaian banks' lending behaviour is affected significantly by the country's economic support and change in money supply. Their findings also support the finding of previous studies that the Central Bank prime rate and inflation rate negatively affect bank lending. Prime rate was found statistically significant while inflation was insignificant. Based on the firm level characteristics, their study revealed that bank size and liquidity significantly influence bank's ability to extend credit when demanded.

Ben-Naceur & Omran (2008) examine the influence of bank regulations, concentration, financial and institutional development on commercial banks' margin and profitability in Middle East and North Africa (MENA) countries from 1989-2005 found that bank capitalization and credit risk have positive and significant impact on banks' net interest margin, cost efficiency and profitability. Felix & Claudine (2008) on their part investigate the relationship between bank performance and credit risk management. It could be inferred from their findings that return on equity (ROE) and return on assets (ROA) both measuring profitability were inversely related to the ratio of non-performing loan to total loan of financial institutions thereby leading to a decline in profitability.

Okoye & Udeh (2009) examine the effect of monetary policy on corporate profitability in the banking sector with a reflection on the Nigerian economy. The study employed regression

analysis to carry out the investigations. The data for the study were secondary data. The study developed four models which are expected to serve the purpose of forecasting the future profit of the banks examined. The result of the findings indicated that monetary policy has constrained corporate profitability of banks in Nigeria. Owing to this, it recommended, among others, that the monetary authorities should adopt strict adherence to deregulation.

Younus and Akhta (2009) examine the significance of Statutory Liquidity Requirement (SLR) as a monetary policy instrument in Bangladesh. Using descriptive analysis techniques, they found that statutory liquidity requirement has experienced infrequent changes and past evidence showed that reduction in SLR produced positive impact on bank credit and investment especially prior to the 1990s. SLR and Cash Reserve Requirement (CRR) were found to be significant tools of reducing inflation and both are used only in situation of drastic imbalance resulting from major shocks. They posited that Bangladesh Bank has used open market operations (OMO) more frequently rather than changes in the Bank Rate and SLR as instruments of monetary policy in line with its market oriented approach.

Abdurrahman (2010) empirically examines the role of monetary policy on economic activity in Sudan for the period which spanned between 1990 and 2004 found that monetary policy had little impact on economic activity during the period under consideration.

The study of Chimobi & Uche (2010) focuses on the relationship between Money, Inflation and Output in Nigeria. The study adopted co-integration and granger-causality test analysis. The co-integrating result of the study showed that the variables used in the model exhibited no long run relationship among each other. Nevertheless money supply was seen to granger cause both output and inflation. The result of the study suggested that monetary stability can contribute towards price stability in the Nigerian economy since the variation in price level is mainly caused by money supply and concluded that inflation in Nigeria is to an extent a monetary phenomenon.

The Error Correction Mechanism and Cointegration technique was employed by Adefeso & Mobolaji (2010) estimate the relative effectiveness of fiscal and monetary policy on economic growth in Nigeria using annual data from 1970-2007. The empirical result showed that the effect of monetary policy is stronger than fiscal policy and the exclusion of the degree of openness did not weak this conclusion.

Iganiga (2010) assesses the effects of these reforms on the effectiveness and efficiency of the Nigerian financial institutions with emphasis on the banking sub-sector. The results show that the performance of the financial sector has been greatly influenced over time by these reforms that began in 1986. The adoption of market determined cash reserve requirement caused cash intensity and domestic savings to increase by 5.54 and 5.00 percent respectively. The gradual increase in the capital base of these firms has rekindled the public confidence in the sector by increasing savings by 3.6, percent. Also, as government reduce her ownership of financial institutions, most financial development indicators perform better including; financial deepening. However, interest rate deregulation in Nigeria has been accompanied with decline banks credits due to negative (or very high) lending rate with its attendant crowding out effect. The policy implication therefore, is that, monetary authority should direct their efforts towards achieving a positive interest rate regime, increase the scope of financial reforms and these reforms should be seen as a process rather than event to consolidate the emerging confidence in these institutions.

Amassoma, Wosa & Olaiya (2011) appraise monetary policy development in Nigeria and also examined the effect of monetary policy on macroeconomic variables in Nigeria for the period 1986 to 2009. Using the simplified Ordinary Least Squared technique conducted with

the unit root and co-integration tests, they found that monetary policy have witnessed the implementation of various policy initiatives and has therefore experienced sustained improvement over the years. They also showed that monetary policy had a significant effect on exchange rate and money supply while monetary policy was observed to have an insignificant influence on price instability. They concluded that for monetary policy to achieve its other macroeconomic objective such as economy growth; there was the need to reduce the excessive expenditure of the government and align fiscal policy along with monetary policy measure.

Mangani (2011) assesses the effects of monetary policy in Malawi by tracing the channels of its transmission mechanism, while recognizing several factors that characterize the economy such as market imperfections, fiscal dominance and vulnerability to external shocks. Using vector autoregressive modeling, Granger-causality, and innovation accounting analyses to describe the dynamic interrelationship among monetary policy, financial variables and prices. The study established the lack of unequivocal evidence in support of a conventional channel of the monetary policy transmission mechanism, and found that the exchange rate was the most important variable in predicting prices.

Okpara (2011) examines the effectiveness of banking reforms on the performance of the sector and found that of all reforms adopted so far since 1959, only the financial liberalization (of 1987-1993) impacted much on most of the banking sector variables and the financial deepening. The reform era 1999-2003 which saw the return to liberalization of financial sector accompanied with the adoption of distress resolution program and universal banking impacted significantly on few variables like cash reserve ratio and loan to deposit ratio. The rest of the reforms made little or no significant impacts on the performance variables but could however impact significantly on financial deepening. Particularly, the recapitalization exercise of 2004 besides exercising a significant decreasing effect on return on equity did not impact significantly on any other banks performance indicator. The reform as well exerted insignificant influence on the financial deepening.

Ajayi & Atanda (2012) examine the effect of monetary policy instruments on banks performance with the view to determine the existence of long-run relation between 1978 and 2008. Using the Engle-granger two step cointegration approach their empirical estimates indicated that bank rate, inflation rate and exchange rate are total credit enhancing, while liquidity ratio and cash reserves ratio exert negative effect on banks total credit. Although, it is only cash reserve ratio and exchange rate found to be significant at 5% critical value. However, the cointegration test indicated that the null hypothesis of no cointegration was accepted. They concluded that monetary policy instruments are not effective to stimulate credit in the long-run, while banks total credit is more responsive to cash reserve ratio and thus proffered that the monetary authority should moderate the minimum policy rate as a tool for regulating commercial banks operations and facilitating investment in the economy.

Akanbi & Ajagbe (2012) investigate analysis of monetary policy on commercial banks in Nigeria. The employed data run through 1992 to 1999 and this was collected through various issues of central bank of Nigeria statistical bulletin and analysed with the use of regression model. The results showed net profit, liquidity ratio, cash ratio and interest rate on savings which confirms to the prior expectation. This could be further explained with the regression estimate whereby an increase in interest rate will leads to a decrease in the lending rate while liquidity ratio and cash ratio were statistically significant to the profit of the selected banks.

Ogbulu & Torbira (2012) investigate the empirical relationship between measures of monetary policy and the bank asset (BKA) channel of the monetary transmission mechanism

as well as the direction of causality between them. Using data for the period 1970-2010 and employing co-integration, error correction mechanism and variance decomposition techniques, the study found a positive and significant long run relationship between BKA, money supply (MNS), cash reserve ration (CRR) and Minimum Rediscount Rate (MRR) as well as uni-directional Granger causality from BKA and CRR to MNS respectively. The results of the variance decomposition of BKA to shock emanating from CRR, MRR and MNS show that own shocks remain the dominants source of total variations in the forecast error of variables. The authors recommend that monetary policies should be properly fashioned to accomplish their target objectives in the economy.

Okwo, Mbajiaku & Ugwunta (2012) examine the effect of bank credit to the private sector on economic growth in Nigeria using data on Gross Domestic Product (GDP) and bank credit to private sector (BCPS). Inflation and interest rates were included in the study as control variables. All data were obtained from Central Bank of Nigeria (CBN) statistical bulletin and span across 1981 to 2010. Data stationarity were ensured using the Augmented Dickey Fuller (ADF) statistic, while the OLS were applied to ascertain the impact of bank credit to the private sector on economic growth. Results of the analysis showed that bank credit to private sectors has a statistical strong positive relationship with GDP and that as expected, bank credit to the private sector has statistically significant effect on economic growth. The paper recommends that the CBN should lower its minimum rediscount rate to a moderate level that will enable banks fix low interest rates on their loanable funds.

3.0 Research methodology

This study made use of quasi-experimental survey which involves observation of the variable without intentional manipulation. This was used because the study focused on time series of events and correlation between two or more economic variables.

- **Sources of Data**

According to Burns & Grove (2005), data can be collected in several ways depending on the study and can include a variety of methods in as much as the research objectives are met. The secondary source was mainly be used in this study. Secondary sources used include previous works such as journals, newspaper, textbooks, CBN Journals and statement of account varying issues, magazines, unpublished materials etc. The time series data covered the period of 1980 to 2015.

The data used include the following:

- **Turnover ratio:** Turnover ratio is a measure of a company's ability to use its assets or capital to generate sales or revenue, and is a calculation of the amount of sales or revenue generated per naira of assets/capital.
- **Cash Reserve Ratio (CRR):** It is the ratio of cash reserve requirement to total current liabilities. This is the reserve requirement by the central bank to reduce the ability of commercial banks to make loans to the public by simply increasing or decreasing the ratio of cash in enhancing their lending position.
- **Liquidity Rate (LR):** Liquidity ratio is the ratio of total specified liquid assets to total current liability.
- **Monetary Policy Rate (MPR):** This is the rate at which the central bank stands ready to provide loan accommodation to commercial banks. As a lender of last resort, such lending by the central bank is usually at panel rates. It determines the cost of lending rate of commercial banks. It is also an indicator of current development in the

economy. The bank rate acts as a barometer of the economic situation in the country.

- **Money Supply (MSP):** This is the total volume of money in circulation measured by M2.
- **Bank Assets (BAS):** While a bank commonly owns physical property (buildings, land, furniture, equipment), the bulk of a bank's assets are financial--legal claims on the property or the wealth of others. The two most notable asset categories are loans (which generate interest revenue) and reserves (which keep deposits safe).
- **Loans and Advances (TLA):** Loan- Is an amount given for a specified period and is recoverable with a particular interest rate. Advance- means it is given for a temporary basis to meet out cause (say) purchases, Travel expenses etc., Interest is not charged on this advance amount.
- **Model Specification**

To specify monetary policy and bank performance model, the researcher first identified the variables and explained their roles in the models. The model specifications indentified in hypotheses are:

Model Specification in the Hypothesis

H_0: Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio- have no significant impact on commercial banks asset performance.

Banks asset = F (money supply, liquidity ratio, monetary policy rate, and cash reserve ratio μ) ……… ii

Where; Y= Banks assets (BAS)

X_1= Monetary Policy Rate   (MPR)

X_2= Broad Money Supply (MSP)

X_3= Liquidity Ratio   (LQR)

X_4= Cash Reserve Ratio (CRR)

μ =unexplained variable

(MSP, LQR, MPR, CRR)>0

Thus, a negative relationship is expected between MPR, LQR, CRR and banks assets as the increase in this ratio hampers banks assets growth. However, money supply is expected to impact positively on banks assets. This is in line with studies of Obidike, Ejeh, & Ugwuegbe (2015); Okoye & Eze (2013), Udeh (2015); & Victor & Eze (2013).

- **Method of Data Analysis**

This study employed secondary data obtainable from the Central Bank of Nigeria (CBN) Statistical Bulletin. Furthermore, this research work employed multiple regression method/model as econometric technique in estimating the relationship between monetary policy and bank performance proxy by loans and advances, assets and turnover ratio. The study also used the ordinary least square (OLS) since it enabled the researcher to capture the essence of the work effectively in addition to its high level of simplicity and global acceptability. Moreover, a 5% confidence level is adopted for the study.

OLS became imperative for use in this work as the theoretical foundation for this procedure is well highlighted in many articles of Akanbi & Ajagbe (2012), Amassoma, Wosa & Olaiya (2011); Ekpung, Udude & Uwalaka (2015); Okoye & Udeh (2009), & Olokoyo (2012).

The study also employed the unit root (Augmented Dickey Fuller) test to determine the stationarity or otherwise of the variables as well as error correction model. Studies such as Apere and Karimo (2015); & Ndugbu and Okere (2015) have shown that the use of OLS with non-stationary variables may result in spurious regression results, thus the need for the unit root test. The choice of ADF was informed by its popularity, recommendations and use by

various authors including Ndugbu & Okere (2015).

4.0 Data analysis and discussions of findings
Test of Hypothesis

H_0:   Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio- have no significant impact on commercial banks asset performance.

H_a: Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio- have significant impact on commercial banks asset performance.

Table 4.1 Summary of Regression for Hypothesis

Dependent Variable: BNKASSET
Method: Least Squares
Date: 11/10/17   Time: 12:23
Sample: 1980 2015
Included observations: 36

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	331863.6	1371751.	0.241927	0.8104
MPR	-30074.68	56291.79	-0.534264	0.5970
MSP	1.637321	0.054493	30.04651	0.0000
LQR	20822.58	24070.61	0.865062	0.3936
CRR	-138449.7	57979.44	-2.387910	0.0232

R-squared	0.980720	Mean dependent var		5884617.
Adjusted R-squared	0.978232	S.D. dependent var		8965865.
S.E. of regression	1322817.	Akaike info criterion		31.15667
Sum squared resid	5.42E+13	Schwarz criterion		31.37660
Log likelihood	-555.8201	Hannan-Quinn criter.		31.23343
F-statistic	394.2192	Durbin-Watson stat		1.709021
Prob(F-statistic)	0.000000			

Source: *E-view software*

Table 4.1 above shows that MPR and CRR have negative relationship with BNKASSET while MSP and LQR have positive relationship with BNKASSET. That is, the higher the MPR and CRR, the lower the bank asset. Also, the higher the MSP and LQR, the higher BNKASSET.

The R^2 at 98.07% indicates that the variables are strongly fitted. It implies that 98.07percent of the total variation found in bank assets is explained by the presence monetary policy rate, money supply, liquidity ratio and cash reserve ratio.

The t-test shows that t-cal for MPR is -0.534264 with a prob-value of 0.5970 that is significant at 5% confidence level which implies that there is no significant relationship between MPR and bank asset. T-cal for MSP is 30.04651 with a prob-value of 0.0000 that is

insignificant at 5% confidence level which implies that there is significant relationship between MSP and bank asset. The t-test shows that t-cal for LQR is 0.86502 with a prob-value of 0.3936 that is significant at 5% confidence level which implies that there is no significant relationship between liquidity ratio and bank asset. The t-test shows that t-cal for CRR is -2.387910 with a prob-value of 0.0232 that is significant at 5% confidence level which implies that there is no significant relationship between cash reserve ratio and bank asset.

However, the relationship between CRR and the dependent variable is not in line with our apriori expectation, we now explore more robust econometrics test to derive home our point.

Table 4.2 Summary of Augmented Dickey Fuller for Hypothesis

Variables	ADF Unit Root Statistics at 1st difference	Order of integration
BNKAST	-16.74217	1 (2)
MPR	-6.029711	1 (1)
MSP	-4.307443	1(2)
CRR	-2.004458	1 (2)
LQR	-6.380564	1 (1)
Critical values: 1%=-3.639407, 5%=-2.9511257, 10%=-2.614300		

Source: *Author's computation*

Table 4.2 above presents the summary results of the ADF Unit root tests carried out on all the variables of our models. From the table, it is evident none of the variables was stationary at level form, MPR and LQR achieved became stationary at 1st difference while BNKSST, MSP and CRR became stationary after 2nd difference. This suggest a long-run relationship existing between the dependent variable (BNKAST) and independent variables like (MSP and LQR), therefore we carried out a cointegration test to validate the above observation.

Table 4.3 Summary of Johansen Co-integration Test
Date: 11/10/17   Time: 19:31
Sample (adjusted): 1982 2015
Included observations: 34 after adjustments
Trend assumption: Linear deterministic trend
Series: BAS CRR M2
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.438662	37.44487	29.79707	0.0054
At most 1 *	0.401883	17.81217	15.49471	0.0220
At most 2	0.009870	0.337249	3.841466	0.5614

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values
Source: **E-view computation**

The result of the co-integration shows there is 2 co-integrating equation among the variables which indicates that there is long-run relationship among the variables in the model.
To establish the speed of adjustment from the lungrun relationship, we proceed with the VECM.

PASSIMONIOUS ERROR CORRECTION MODEL (ECM) (MODEL TWO)

Dependent Variable: D(BAS)
Method: Least Squares
Date: 11/10/17   Time: 20:17
Sample (adjusted): 1985 2015
Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BAS(-1))	0.527204	0.299240	1.761810	0.0934
D(CRR(-1))	-72542.28	83567.28	-0.868070	0.3957
D(CRR(-4))	82408.70	106966.0	0.770420	0.4501
D(LRR(-3))	-26310.92	21748.07	-1.209805	0.2405
D(LRR(-2))	-3352.200	22460.26	-0.149250	0.8829
D(M2(-1))	0.129343	0.331817	0.389801	0.7008
D(M2)	0.595287	0.262695	2.266079	0.0347
D(MPR(-4))	-27229.80	77029.20	-0.353500	0.7274
MPR(-5)	28005.52	50786.58	0.551435	0.5874
ECM1(-1)	-0.440013	0.264954	-1.660712	0.1124
C	-303253.8	742030.8	-0.408681	0.6871

R-squared	0.631375	Mean dependent var		906050.0
Adjusted R-squared	0.447062	S.D. dependent var		1327689.
S.E. of regression	987266.3	Akaike info criterion		30.71469
Sum squared resid	1.95E+13	Schwarz criterion		31.22352
Log likelihood	-465.0777	Hannan-Quinn criter.		30.88056
F-statistic	3.425566	Durbin-Watson stat		1.738195
Prob(F-statistic)	0.009184			

Source: *E-view software*

The result of the error correction model shown in the table above indicates that (R^2) is 63% relationship between the monetary policy variables and BNKAST. The Adjusted R^{-2} is 45%, this shows that the explanatory variables only explain 45% of total vitiations on the

dependent variable (BNKAST) then; the other 55% is as a result of other variables outside the model but being taken care of by the error term. The Error-correction coefficient of -0.440013 shows the right sign and it imply that about 44% of deviations from equilibrium are corrected every year. The F-statistics with 0.009 significant level shows that the overall regression is significant. Equally, there is absence of auto correlation as evident by DW statistic of 1.73.

On the basis of the size and magnitude of the coefficients, M2 has a positive and significant impact on Bank assets and it met the apriori expectation. The variables (LRR, LOR and CRR) shows the right sign (negative) as expected but none was significant at various lags.

Therefore, we reject Ho2 and accept Ha2 and conclude that monetary policy instruments have an impact on commercial banks assets performance, equally, the effect is instrument sensitive.

Discussion of Findings

The empirical results emanating from the analysis indicates that monetary policy had some level of effect on bank performance proxied by Turnover rate (TOR), Bank Assets (BAS) and Loan and Advances (LADV). It is equally indicative of the fact that the relationship is instrument sensitive, i.e, some monetary policy tools work better on some bank performance indexes while such may not work on some other ones.

The strength of monetary policy was found to lie on the combination of the various instruments. The findings thus, support the monetarist theory that monetary policy when effectively utilized can have effect on banks activities and portfolio especially their portfolio performance.

5.0 Conclusions

From the findings of this study, we conclude that monetary instruments can work better in the Nigerian banking industry if all the variables can be made to be effective as a combined effect of all the instruments of bank regulations will tend to give a better result. In our analysis, it was discovered that the observed impact of monetary policy instruments on bank performance was instrument sensitive. It is discovered that banks manipulates their financial report and statement of account to portray a healthy outlook. However, while banks continue to witness poor asset quality, the level of banks with high toxic assets remains high thus questioning the effect of monetary policy on banks asset quality and returns. Another problem observed is the poor credit creation of banks.

6.0 Recommendations

- For proper credit management in gauging the quality of banks assets net loan losses should not exceed the provision made by banks in anticipating loan losses. The CBN supervision units can ensure the compliance by adequately monitoring compliance to policy on loan loss limits in relation to provisions. A well managed banking sector must be one where operating banks should be able to provide for unanticipated loan loss internal profits and from unutilized loan losses provisions from preceding years without liquidating its minimum risk assets Findings emanating from the empirical analysis of this study proffered that monetary authority; the Central Bank of Nigeria (CBN) should adjust the monetary policy rate by reducing the cash reserve ratio which will increase liquidity to enable the commercial banks to discharge their lending and investment duties effectively to the public.
- It is important that monetary and fiscal policies be complimentary and not working at variance. The co-intergration tests which show disequilibrium by 41% which suggest

that the level of cohesion in harmonizing policies are not adequate. The CBN and the Ministry of finance should work more closely to objectively articulate policies in the same economic direction.

- The CRR should be complementing the Open Market Operations (OMO) in ensuring that excess liquidity or lack of it in the banking system is minimized, that way Money Supply (M2) will be more effective as a tool on measuring other performance indicators.
- From the findings, the Liquidity Reserve Ratio (LRR) tends to impact more on bank turnover ratio. Because monetary effects of CRR changes are hard to be isolated from those of other policy measures. It means that the constraint of higher reserve requirements on bank lending seems more binding when initial excess reserves shrink below some threshold, restraining the subsequent loan expansion while leading to higher, more volatile market interest rates. The CBN should carefully and thoroughly consider the turnover effect in deciding the LRR.
- The problem of inflation targeting remains the issue CBN should focus a lot of attention, therefore while trying to stabilize the economy, policies that may affect banks loans which are necessary for economic development should be checked.
- Government should also stimulate the productive capacity of the economy, especially the agricultural sector to increase aggregate supply of food products so that prices will come down and consequently reduce the rate of inflation.
- Effective monitoring of banks loans performance should be carried out while toxic assets should be followed up prompting to reduce cases of loss loans and assets.

The CBN should ensure that more regulations and supervision are carried out on the banks regularly so as to avoid the manipulated financial reports as noted in our findings.

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