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# EVALUATING THE EFFECTS OF MONETARY POLICY ON NIGERIAN COMMERCIAL BANKS

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**Abstract:** Monetary policy remains a fundamental tool for regulating economic activities and maintaining financial stability in Nigeria. The Central Bank of Nigeria (CBN), mandated by the federal government, employs various monetary policy instruments to control money supply, stabilize prices, and influence the performance of commercial banks. Historically, direct monetary control measures (1960–1985) dominated the Nigerian financial system, with fixed interest rates and credit allocations designed to align with government economic plans. However, these measures limited market efficiency and hindered financial market development. The introduction of the Structural Adjustment Program (SAP) in 1986 marked a major shift towards indirect, market-based monetary policy instruments such as open market operations, reserve requirements, and discount window activities. These reforms were complemented by foreign exchange market interventions and the establishment of discount houses, thereby enhancing the link between monetary policy and bank performance. Despite these changes, monetary policy objectives often remain conflicting—for instance, the pursuit of price stability may run counter to goals of interest rate stability and short-term employment generation. This study examines the effects of monetary policy on the performance of commercial banks in Nigeria, with particular focus on how different instruments influence liquidity, profitability, and credit allocation. By analyzing both historical and contemporary policy frameworks, the study provides insights into the causal nexus between monetary policy and banking sector performance, highlighting the implications for financial sector stability and sustainable economic growth.

**Keywords:** Monetary Policy, Commercial Bank Performance, Central Bank of Nigeria, Financial Stability, Open Market Operations

## 1.0 Introduction

Central bank also determines certain targets on monetary variables. Although, some objectives are consistent with each other, others are not, for example, the objectives of price stability often conflict with the objective of interest rate stability and high short run employment (Felicia, 2011; Obidike, Ejeh & Ugwuegbe, 2015; & Victor &Eze, 2013). Monetary Policy is an instrument given to the Central Bank of Nigeria (CBN) by the federal government, that is, it is a function which is a documentary policy to control the aggregate demanded in the circulation. The

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policy is to see to the stability in wages and prices of goods and services. It is also necessary to control the volume of money in circulation and to give the domestic money a value via other controls (Akanbi & Ajagbe, 2012).
Kyari, 2015, Okonkwo, Godslove, and Mmaduabuchi (2015) posits that in supervising the conduct of monetary policy to pursue certain objectives Central banks in the world such as the Central Bank of Nigeria (CBN) often employ certain monetary policy instruments like bank rate, open market operations, changing reserve requirements and other selective credit control instruments to influence money in circulation.
In using the direct monetary policy measures, the monetary authorities ultimately influences items of the balance sheet of commercial banks. In such a system, interest rates are set and credits are allocated by monetary authorities in accordance with the government‟s economic plan. Ajayi & Atanda (2012) states that under this system, the financial system, and especially financial market conditions, play no role in the determination of financial prices or returns and allocation of credits. On the other hand, there is a causal nexus between indirect monetary policy and financial (banking performance) as both of them influence each other. The decontrol of interest rates and the use of indirect monetary policy 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.
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. Solomon (2013) believed that in trying 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.

**1.1 Statement of research problem**

Classical and monetarist theories have argued on monetary policy as an instrument of regulation tending to impact on banks return. It is the view of the CBN to ensure safely and returns of commercial banks using monetary policy but in what way do these instruments affect banks returns and what relationship do some of these instruments have on banks turnover ratio? 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. 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. The impact of monetary policy on banking performance in Nigeria has received divergent results. The use of monetary policy instruments such as cash reserve ratio, monetary policy rate, money supply, etc, by the Central Bank of Nigeria is to ensure stability in the banking sector and influence the soundness of their assets (Ogbulu & Torbira, 2012, & Solomon, 2013).

**1.3 Research objective**

The major objective of this study is to evaluate the impact of monetary policy instruments and their effects on turnover ratio of commercial banks. To examine the effects of monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio- on commercial banks turnover ratio. This thesis attempts

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to find out the true nature and the extent monetary policy instruments have been successful in impacting on banking performance in Nigeria.

**1.4 Research hypothesis**

The following hypothesis will be tested in this thesis:

 $H_0$: Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio- have no significant effect on commercial banks turnover ratio.

**2.0 Review of literature**

The review of literature takes three perspectives, one is the conceptual view point, the second is the theoretical perspective and the third is the empirical review of literature

**2.1 Conceptual literature review**

Tody (2008) believes that over the years nationally and globally the financial sector and indeed the banking industry in particular to a large extent have always been regarded by scholars and financial analysis as pivotal and special. This is because of its strategic systematic role in the transformation of a developing economy like Nigeria into a modern industrial society. This sector contributes immensely to economic growth and development of every nation by channeling financial surplus resources into productive investment. Hence, it is obvious that without these sectors a country‟s domestic economy would have been characterized and limited to a barter economy, which is clearly an ineffective and inefficient system because markets cannot develop nor can specialization take place, this position was shared by authors such as Onoh (2002).

This is also informed by the fact that the main aim of bank is to seek profit like any other institution. Its capacity to earn profit depends upon its investment policy, in turn, depends on the nature and manner in which it manages its investment portfolio.

Jhingan (2004) believes that commercial bank investment policy emerges from a straight forward application of the theory of portfolio management which refers to the prudent management of a bank‟s assets and liabilities in order to seek some optimum combination of profit, liquidity and safety. Of all assets of commercial banks, the loan portfolio appears to be the most important to the public, the government and the bank itself. When a bank operates, it acquires and disposes off income-earning assets. These assets plus the banks cash makes up what is known as its portfolio. Hence, these manipulations can have important effects on the monetary policy, on the borrowing and spending practices of household, businesses and on the economy as a whole. However, through the monetary policy guideline of the Central Bank of Nigeria (CBN) which are made public or available to banks annually or periodic gives a clear-cut directives on the extent to which commercial banks can create credit. The Central Bank of Nigeria (CBN) by law controls and supervises the activities of other banks (Deposit Money) with Open Market Operation (OMO), discount rate policy (DRP), reserve requirement rate (RRR), minimum rediscount rate (MRR), minimum liquidity ratio (MLR) and even Loan to Deposit Ratio (LDR). To ensure a stable domestic monetary environment, CBN exercise control over the deposit of banks and tendency to increase size as well as the level of money supply. This chapter thus reviews relevant literatures as pertaining monetary policy, monetary policy theories, commercial banks and the relationship between monetary policy and commercial banks performance.

Ezenduyi (1994) defines monetary policy as the policy which involve the adjustment of money stock (through different means) interest rate exchange rate as well as expectation to influence the level of economic activities and inflation in desired direction, targeting as the mapping up of excess liquidity armed at ensuring a non-

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inflationary macro-economic environment. Monetary policy can be defined as the instruments at the disposal of the monetary authorities to influence the availability and cost of credit/money with the ultimate objective of achieving price stability as demonstrated by Ibeabuchi, (2007). Onouorah, et al (2011) defined monetary policy as a rule and regulation imposed by the monetary authority into controlling the money supply inflation and achieves economic growth. Onyeiwu (2012) defines monetary policy as a technique of economic management to bring about Sustainable economic growth and development has been the pursuit of nations and formal articulation of how money affects economic aggregate. Chigbu & Okonkwo (2014) held that monetary policy generally refers to the deliberate efforts of the government to use changes in money supply, cost of credit, size of credit and direction of credit to influence the level of economic activities to achieve desired macroeconomic stability in an economy.

Richard (1979) stated that the instrument tools of monetary policy have been classified broadly in two categories traditional and non-traditional quantitative instrument. Monetary policies, as adopted in Nigeria, have four broad objectives.

- **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.
- **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) 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

**Monetary Policy Instruments**

The instruments of monetary policy can be categorized into two namely:

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.

- **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

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is that Deposit Money Banks generally maintain a stable relationship between their reserve holdings and the amount of credit they extend to the public.

- **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.
- **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. 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.
- **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.
- **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.

**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. 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 provide credit to Deposit Money Banks, thus affecting the level of reserves and hence the monetary base (CBN, 2013).

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- **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) according to Obidike, Ejeh, & Ugwuegbe (2015)
- **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. 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**

Taylor (2004) mentions that monetary Policy is a key component of any pro-growth economic system and much so in developing economies such as the Nigerian Economy. 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. 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.

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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 crisisridden 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

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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).

**2.2 Theoretical literature review**

Onyeiwu (2012) holds that 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.

**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. Diamond (2003) states in his proposition that money has no effect on economic aggregates but price. 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 as posited by Amacher & UIbrich (1986).

Onouorah, Shaib, Oyathelemi, & Friday (2011) mentions that 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

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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. 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. Solomon (2013) acknowledges that 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. The economic depression of the 1930s, according to Onyemaechi (2005) 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.

If the quantity of money is doubled, the price level will also double and the value of money will be one half. Fisher"s theory also known as equation of exchange is stated thus, MV=PT ……..... (1) Where:

M= actual money stock or money supply

V= the transaction velocity of circulation of money.

P= the average price level

T= the real volume of all market transactions made during a period of time.

Fisher posited that the quantity of money (M) times the velocity (V), must equal average price level (P) times the aggregate transaction (T). The equation equates the demand for money (PT) to the supply of money (MV).

In the equation, T is better replaced with Q "quantity of goods involved" hence the Fisherian equation can be written as MV = PQ..... (2)

Fisher further stated that the average price in the economy (P) multiplied by the amount of transaction (T) when divided by the money stock (M) gives us a volitional element called the average turnover of money or money velocity (V). i.e. PT/M = V.

Doubling the money stock will lead to a doubling of the price level since T and V do not change. Velocity is seen as constant because factors that would necessitate a faster movement in the velocity of money evolve slowly. Such factors include among others, population density, mode of payment (weekly/monthly), availability of credit sources, nearness of stores to individuals etc. Thus it is seen that there exists a direct and proportional relationship between money stock and price level. The theory is based on the assumption of neutrality of money according to Ajudua, Davis, & Osmond (2015).

**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 as contained in the works of Amacher & Ulbrich (1989) and 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 such as Friedman (1956), Modigliani (1963) & Richard (1979) 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.

In simple terms, the monetary mechanism of Keynesians emphasizes the role of money, but involves an indirect linkage of money with aggregate demand via the interest rate as symbolically shown below:

↓OMO→↓ R→↑MS→↓r → I→↓GNP

Where, OMO = Open Market Operation

R = Commercial Bank Reserve MS = Stock of Money r = Interest Rate

I = Investment

GNP = Gross National Product

On a more analytical note, if the economy is initially at equilibrium and there is open market purchase of government securities by the Central Bank of Nigeria (CBN), this open Market Operation (OMO) will increase the commercial banks reserve (R) and raise the bank reserves. The bank then operates to restore their desired ratio by extending new loans or by expanding bank credit in other ways. Such new loans create new demand deposits, thus increasing the money supply (MS). A rising money supply causes the general level of interest rate (r) to fall. The falling interest rates affects commercial bank performance and in turn stimulate investment given businessmen expected profit. The induced investment expenditure causes successive rounds of final demand spending by GNP to rise by a multiple of the initial change in investment. On the other hand, a fall in money supply according to Jhingan (2005).causes the general level of interest rate (R) to rise or increase thereby increasing the commercial banks profitability

**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 recognises 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

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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 as stated in the works of Onouorah et al (2011).

Symbolically, the monetarist conception of money transmission mechanism can be summarized below:

↑OMO →↑MS→ Spending→↑ GNP

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 such as Amacher & Ulbrich (1989) Gertler & Gilchrist (1991). Also Onoh & Nwachukwu (2017) studied the effect of monetary policy on credit delivery of banks. 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.

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### 2.3 Empirical literature review

As a front runner, Odufalu (1994) bases his study mainly on the effect of monetary policy on banks profitability in Nigeria. He developed a model of bank profitability, which had profit before interest and tax as the dependent variables. While the independent variables include, average interest rate on savings and time deposits, prime lending rate for loans and advances, treasury bills rate, total deposit, liquidity ratio, cash and income. He also used pooled data for only twelve commercial banks from 1986 to 1990 periods and estimated the model using the ordinary least square (OLS) estimation method.

Ogunleye (1995) in his own submission criticized and questioned Odufalu‟s use of certain variables in his model, for example, lending rate is one aspect of interest rate and thus, making its inclusion among the explanatory variables questionable.

Uchendu (1995) criticizes Odufalu‟s use of twelve banks as sample size out of a total of one hundred and twenty banks on the basis that the sample size was small to make any meaningful conclusion. Using data ranging from 1970 to 1993 and a sample size of a total of sixty commercial banks, he investigated the impact of monetary policy on the performance of commercial banking sector in Nigeria. He developed a profit function employing three different measures of profitability namely: interest earning rate, rate of return on assets and rate of return on capital as the dependent variables and six independent variables which include: interest rate (saving or lending), exchange rate, concentration ratio (a variable measuring efficiency unit labour cost). Estimating using OLS method, his result showed that variations in interest rates are a major source of changes in commercial banks performance. Other factors include bank reserves; oligopolistic market power of the three big commercial banks and staff remuneration exhibited a positive impact on commercial bank profitability. Viability variations in exchange rate showed negative effects, which managerial efficiency had no clear influence.

Nyong (1996) undertook a very outstanding study different from all other previous studies earlier reviewed. He used two-ways causality test between profitability and capital investment in banks. It was hypothesized that an increase in lending rate as well as the spread between the lending rate and deposit rate leads to increase in profit. However, an increase in excess liquidity may or may not lead to increase in bank profitability. An increase in excess reserve may lead to increase in profit in a condition of strong demand for loanable funds. It may lead to a fall in profit in a condition of weak demand and hence constrain the ability of banks to make profits. Rising labour costs could increase profit only if matched with productivity in line with the marginal productivity theory because generally increase in labour cost should decrease bank profit as it is a cost to the banking sector. This implies that profit is dependent on capital, investment, which provides the means for the purchase of equipment and machinery and the adoption of modern technology for improve performance, thus a resultant increase in profit.

Ahmed, Takeda & Shawn (1998) in their study found that loan loss provision has a significant positive influence on non-performing loans. Therefore, an increase in loan loss provision indicates an increase in credit risk and deterioration in the quality of loans consequently affecting bank performance adversely.

Ajisafe & Folorunso (2002) examine the relative effectiveness of monetary and fiscal policy on economic activity in Nigeria using co-integration and error correction modelling techniques and annual series for the period 1970 to 1998. The study revealed that monetary rather than fiscal policy exerts a greater impact on economic activity in Nigeria and concluded that emphasis on fiscal action by the government has led to greater distortion in the Nigerian economy.

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Gambacorta & Lannoti (2005) investigate the velocity and asymmetry in response of bank interest rates (lending, deposit, and inter-bank) to monetary policy changes from 1985-2002 using an Auto-regressive Vector Correction Model (AVECM) that allows for different behaviours in both the short-run and longrun. The study shows that the speed of adjustment of bank interest rate to monetary policy changes increased significantly after the introduction of the 1993 Banking Law, interest rate adjustment in response to positive and negative shocks is asymmetric in the short run, with the idea that in the long- run the equilibrium is restored. They also found that banks adjust their loan (deposit) prices at a faster rate during period of monetary tightening in Italy.

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

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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

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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.

Olokoyo (2012) analyzes the areas that have been deregulated in the banking sector and how it has affected bank performance. To realize these objectives, the study analyzed secondary data collected from CBN statistical bulletin by employing the Ordinary Least Square (OLS) technique. This study found out that the deregulation of the banking sector has positive and significant effect on bank performance. It recommended that bank management should embark on effective intermediation drive that will bring all the small savers to the purview of the banks, banks should improve their total asset turnover.

Olweny & Chiluwe (2012) explore the relationship between monetary policy and private sector investment in Kenya by tracing the effects of monetary policy through the transmission mechanism to explain how investment responded to changes in monetary. the study utilize quarterly macroeconomic data from 1996 to 2009 and the methodology draws upon unit roots and co-integration testing using a vector error correction model to explore the dynamic relationship of short-run and long-run effects of the variables due to an exogenous shock. The study showed that monetary policy variables of government domestic debt and Treasury bill rate are inversely related to private sector investment, while money supply and domestic savings have positive relationship with private sector investment consistent with the IS-LM model. Based on the empirical results the study suggests that tightening of monetary policy by 1% has the effect of reducing investment by 2.63% while the opposite loose monetary policy tends to increase investment by 2.63%.

Onyeiwu (2012) examines the impact of monetary policy on the Nigerian economy using the Ordinary Least Squares Method (OLS) to analyse data between 1981 and 2008. The result of the analysis shows that monetary policy presented by money supply exerts a positive impact on GDP growth and Balance of Payment but negative impact on rate of inflation. Furthermore, the findings of the study support the money-prices-output hypothesis for Nigerian economy. Obviously, the empirical studies on monetary policy and real output growth in Nigeria is still scanty.

The study of Ong Tze San & Ng Phing Phing (2012) took another dimension by examining the impact of merger and acquisition of Malaysian bank by using capital structure. This paper focuses on seven pairs of anchor banks which merged and acquired other minor banks in Malaysia from year 1999 until 2006. This paper uses descriptive

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statistic to compare the capital ratios and profitability ratios of 5 years before and after merger and acquisition to identify the impact. Besides, regression analysis used to determine the relationship of independents variables and dependent variables. The overall result of this study proved that merger and acquisition in Malaysian anchor banks do not significant increment the capital structure of bank. However, the result of ROA and ROE indicate performance of banks will improve after merger and acquisition. On the other hand, EPS indicate the shareholder‟s value will slightly diminished after the merger and acquisition. Moreover, the result in more attentive view (changes of capital structure and performance of each pair of bank) indicates not all bidders and targets will had better performance after the consolidation. This proved that merger and acquisition do not solely brought benefit to the bank and country‟s economy. The impact of merger and acquisition will affect by the bidder and target condition, economic condition and other external factors.

Fasanya, Onakoya & Agboluaje (2013) examine the impact of monetary policy on economic growth in Nigeria. The study uses time-series data covering the range of 1975 to 2010.The effects of stochastic shocks of each of the endogenous variables are explored using Error Correction Model (ECM). The study shows that Long run relationship exists among the variables. Also, the core finding of this study shows that inflation rate, exchange rate and external reserve are significant monetary policy instruments that drive growth in Nigeria. It is therefore recommended that the establishment of primary and secondary government bond markets that can also increase the efficiency of monetary policy and reduce the government‟s need to rely on the central bank for direct financing.

Imoisi, Olatunji, & Ekpenyong (2013) examine the efficacy of monetary policy in achieving Balance of Payments stability in Nigeria. The research was conducted using an Ordinary Least Squares (OLS) technique of multiple regression models using statistical time series data from 1980-2010. The estimated result shows a positive relationship between the dependent variable (Balance of Payments) and the Independent variables (Money Supply, Exchange Rate and Interest Rate). Specifically, Money Supply and Interest Rate had significant relationship with Balance of Payments, whereas Exchange Rate was not statistically significant. It recommended that the government should promote the exportation of Nigerian products especially the Non oil products.

Okoye & Eze (2013) examine the impact of bank lending rate on the performance of Nigerian Deposit Money Banks between 2000 and 2010. It specifically determined the effects of lending rate and monetary policy rate on the performance of Nigerian Deposit Money Banks and analyzed how bank lending rate policy affects the performance of Nigerian deposit money banks. The result confirmed that the lending rate and monetary policy rate have significant and positive effects on the performance of Nigerian deposit money banks. The implication of this is that lending rate and monetary policy rate are true parameter of measuring bank performance.

Olokoyo (2013) further assesses the effects of the reforms on the performance of banks in Nigeria. The data was gathered through the instrument of questionnaire with eighty (80) copies were collated and analysed using Analysis of Variance (ANOVA) method was used to test the hypothesis using the statistical package for social sciences (SPSS). The study shows that the recapitalization and consolidation process has had significant effect on the manufacturing sector of the economy and thus on the Nigerian economy at large. The study further reveals that despite the reforms, post consolidation challenges like challenges of increased return on investment still exist. According to study, some sections of the Nigerian populace, the reforms are seen to have come too soon and thus, rendering sections of the economy such as the lower class, illiterates and the economically active poor, incapable of banking transactions. The reforms however is very necessary for our banks to imbibe best corporate governance

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practice, improve on self-regulation, institute IT-driven culture and seek to be competitive in today‟s globalizing world.

Okoro (2013) examine the impact of monetary policy on Nigerian economic growth from 1970 - 2010. Using a time series data the study employed Augmented Dickey-Fuller (ADF) test, Philips-Person Unit Test, Co-integration test and error correction model (ECM) techniques in the analysis of the data collected. The study result shows that there exists a long-run equilibrium relationship between monetary policy instruments and economic growth in Nigeria. From the result interest rate and inflation rate were negatively correlated with gross domestic product (GDP), while Exchange rate, money supply and Credit to the Economy were positively related to GDP, based on the long-run test. It suggests that there is need for a suitable monetary supply policy through inflation targeting.

Pastory & Mutaju (2013) analyzed the relationship between the capital adequacy and asset quality of commercial the banks in Tanzania. The study employed Panel secondary data from 33 banks in the period (2006-2011) and the linear Regression model was used to test for the relationship between the two variables. The findings indicate that capital adequacy has a great influence on the asset quality. The increase in capital ratios has sometimes reduced the asset quality productivity and in most cases the levels of non-performing loans and non-performing asset have been increased with the increase in capital ratios. CAEL analysis indicated the banks financial position to be stable and meet the regulatory requirements. It has been recommended that the bank of Tanzania (BOT) should foster their strength in supervision as the two categories have been viewed to be very crucial and do increase the stability of the banking system.

De Bandt, Camara, Pessarossi & Rose (2014) study the effect of banks‟ capitalization on banks‟ Return on Equity (ROE). They brought empirical evidence on this issue by analyzing the effect of different capitalization measures on banks‟ ROE on a sample of large French banks over the period 1993-2012, controlling for risk-taking as well as a range of variables including the business model. They also found that an increase in capital leads to a significant increase in ROE, albeit the economic effect is modest. Furthermore, the method chosen by a bank to increase capitalization (i.e. raising equity) does not alter the result. Over the period, we found some evidence of a negative relationship between the share of credit activities and ROE, which is driven by the 2002-2007 sub-period, characterized by a significant increase in other business line activities. Looking at revenue and cost components, they found that the positive effect of capital on the ROE appears to be driven by an increase in efficiency.

Ajudua, Davis & Osmond (2015) examine the impact of monetary policy variables on the agricultural sector in Nigeria from 1986 – 2013. Employing the ordinary least square (OLS) regression method, a multiple regression equation to check the economic relationship between agricultural output with Agriculture Gross Domestic Product (AGDP) as the dependent variable, and Money Supply (MS), Interest Rate (INT), Monetary Policy Rate (MPR) and Inflation Rate (INF) as explanatory variables was carried out. The unit root test to check for stationarity of variables and the Johansen Co-integration test to establish long run equilibrium relationship between the dependent and explanatory variables were employed. The study revealed that there exist a relationship between monetary policy and agricultural sector performance in Nigeria with an increase in the budgetary allocation to agricultural sector, and the effective utilization of these allocated funds, an effective and prudent management of monetary policies with concessionary low interest rate to encourage investment in the sector all proffered as recommendations to improve the agricultural sector. Akomolafe, Danladi, Babalola & Abah (2015) carried out to

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examine the impact of monetary policy on commercial banks‟ performance in Nigeria in a micro-panel analysis. Interest rate and money supply were used as proxies for monetary policy, while profit before tax (PBT) was used to represent commercial banks‟ performance. Pooled regression, fixed effect regression, and random effect regression were all carried out in the analysis. However, Hausman test revealed that fixed effect regression is the most appropriate. The results show that there is a positive relationship between banks‟ profits and monetary policies as proxied by money supply and interest rate. However, interest rate was not statistically significant at 1% and 5% levels. This study therefore recommends that interest rate policy should be looked into by the monetary authority in a way that is friendly to loan advancement in the country.

Apere & Karimo (2015) examine the impact of monetary policy on bank credits to the Nigerian economy from 1981-2013. Data were obtained from the Central Bank of Nigeria records. A three variable unrestricted VAR(1) model involving banks‟ total credit to the economy, money supply and monetary policy rate was estimated. Pre-estimation results show all the variables to be integrated at first difference, I(1) but were not co-integrated. Further results show that money supply has an instantaneous influence on both monetary policy rate and banks‟ credit to the economy. Other results show that the direction of the reaction of money supply to a standard deviation structural monetary policy shock is not certain; money supply and banks‟ credit to the economy responded negatively to structural shocks in monetary policy rate; banks‟ credit to the economy responded positively to nominal structural shocks and; whereas money supply and banks credit to the economy responds positively to banking sector‟s reforms monetary policy rate‟s response is negative. The study concluded that short-run monetary policy in Nigeria is important in controlling interest rates and credit to the economy. It recommended that efforts should be geared towards strong banking sector reforms.

Ekpung, Udude & Uwalaka (2015) investigate the effect of monetary policy on banking sector performance in Nigeria. The study period covers 36 years from 1970 to 2006, using selected indicator and employing the OLS regression technique. Results showed that overall; monetary policy has a significant effect on the banks deposit liabilities. Main while, on individual basis, we discovered that Deposit Rate (DR) and Minimum Discount Rate (MDR) had a negative influence on the banks deposit liabilities in Nigeria, whereas Exchange Rate (EXR) had a positive and significant influence on the banks deposit liabilities in Nigeria. They conclude therefore that monetary policy plays a vital role in determining the volume of bank‟s deposit liabilities in Nigeria. The study recommends that government and its monetary authorities should strive to create a conducive environment for banking sectors to grow in the country by packaging appropriate monetary policies that would guarantee and enhance growth and development of the banking sectors in Nigeria.

Kyari (2015) assesses the effect monetary policy variables on savings, national income and investment as proxies to the real sector economy in Nigeria. The paper explores the significance of this channel using VAR model, as tests suggest the null hypothesis of no significant effect was rejected and a conclusion was drawn that one of the monetary variables such as money supply exert a significant impact on the real sector economy. The main implication to be drawn from these results seems to be the importance of monetary policy channel in regulating real sector economy in Nigeria. The effect of money supply shocks on real sector variables are similar and seem to be significant too. Thus with respect to this result, monetary policy regulators should use money supply regularly as a mechanism to improve real sector economy in Nigeria.

In other related studies, Aminzadeh & Irani (2015) research work targets to scrutinize the effect of using monetary policy related tools on the return of private banks stocks admitted in stock exchange with stress on the volume of

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liquidity, the rate of interest, and the amount of partnership bonds. Using panel data, testing the research hypotheses was been carried out through an analysis of multiple-regression. The result shows that there was a weak significant correlation between volume of liquidity and the amount of published partnership bonds and the return of the stocks of private banks admitted in stock market; meanwhile, the interest rate at an assurance level of 95% had a negative and significant correlation with the return of the stocks of private banks admitted in stock exchange.

Abata (2015) empirically examines the impact of AMCON, proxying a securisation, on the performance of Nigerian Banks. The study adopted a combination of descriptive and explanatory survey research designs. These instruments were administered on fifty one (51) respondents drawn from relevant departments of the twenty one (21) Deposit Money Banks (DMBs) in Nigeria, while hypothesis one was tested using ordinary least square (OLS) regression analysis, hypothesis two was tested using chi-square non- parametric test. The findings revealed that AMCON has positively impacted on the asset quality and liquidity of these banks. In contrast, not much of the impact of AMCON has been felt on the capital adequacy of these banks. The findings also revealed that AMCON has contributed to the stability of the Nigerian Banking Industry. On the strength of these findings, this study concluded that AMCON, a financial crisis resolution vehicle, has positively impacted on the performance of the Nigerian Banks and by extension, has contributed to the industry‟s stability.

Obidike, Ejeh & Ugwuegbe (2015) examine the impact of interest rate spread on the performance of Nigerian banking industry for the period of 1986-2012. The study used OLS method of estimation to analyze the data generated from CBN statistical Bulletin and World Bank online data base. Testing for the properties of time-series, ADF test indicates that all the variables are integrated of same order I (1). The Co-integration test reveals that there exists a long-run relationship among the variables under consideration. The result shows that interest rate spread, negatively and significantly impact on bank performance in the long-run. Exchange rate and GDP was found to be positively and significantly affecting bank performance in Nigeria at the long-run. The result of the ECM indicates that 23.37 percent of the disequilibrium in the model will be corrected annually. Moreover at the short-run interest rate spread also negatively but insignificantly affect bank performance in Nigeria.

Ndugbu & Okere (2015) investigate the impact of monetary policy on the performance of deposit money banks – the Nigerian Experience(1993-2013).Data for this study were collected from the Central Bank of Nigeria (CBN) statistical bulletin, annual reports and statement of accounts. Ordinary Least Square and co integration were used to evaluate the impact of monetary policy on the performance of deposit money banks. The Augmented Dicker Fuller (ADF) unit root test and co integration proved that the variables are stationary and a long-run relationship exist among the variables The OLS revealed that amongst all the monetary policy variables (bank deposit rate, bank lending rate, cash reserve ratio and liquidity ration) considered in the model, only bank deposit rate has significant relationship though inverse relationship. On this premise, the study recommends among others, that the Central Bank of Nigeria (CBN) should moderate the deposit rate as a tool for regulating deposit money banks operation. Again there is need to modify the monetary policy instruments to reflect and respond more rapidly and easily to local economic conditions**.**

Okonkwo, Godslove & Mmaduabuchi (2015) examine the impact of monetary policy variables on manufacturing in Nigeria from 1981 – 2012. The theoretical relationship between monetary policy variables and manufacturing sector (that is, the real sector) was critically examined and established in this study. Hence, the researcher specified four explanatory variables for this study based on theoretical underpinnings. The Johansen cointegration

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test was employed in order to establish long run equilibrium relationship between the explained and the explanatory variables. The error correction model (ECM) was employed to estimate the model. The study revealed that money supply and credit to private sector exert tremendous influence on manufacturing in Nigeria.

Udeh (2015) examines the impact of monetary policy instruments on profitability of commercial banks in Nigeria using the Zenith Bank Plc experience. The paper used descriptive research design. It utilized time series data collected from published financial statements of Zenith Bank Plc as well as Central Bank of Nigeria Bulletin from 2005 to 2012. Four research questions and four hypotheses were raised for the study. Pearson Product moment correlation technique was used to analyze the data collected while t-test statistic was employed in testing the hypotheses. The study discovered that cash reserve ratio, liquidity ratio and interest rate did not have significant impact on the profit before tax of Zenith Bank Plc. However, minimum rediscount rate was found to have significant effect on the profit before tax of the bank. The paper concluded that a good number of monetary policy instruments do not impact significantly on profitability of commercial banks in Nigeria. The paper recommended that management of commercial banks in Nigeria should look beyond monetary policy instruments to enhance their profits.

**2.4 Summary of Literature**

By manipulating monetary policy instruments, Central banks affect the rate of growth of the money supply, the level of interest rate, security prices, credit availability and liquidity creation from the commercial bank. These factors, in turn can exert monetary imbalance or shocks on the economy by influencing the level of investment, consumption, imports, exports, government spending, total output, income and price level in the economy. Based on the literatures reviewed monetary policy as an instrument of the CBN is targeted at guiding banks towards a direction the monetary authority in conjunction with the federal executive position for themselves. Most of the literatures reviewed have focuses their attention on monetary policy as it affects banks loans and advances, with insignificant literatures on banks returns hence, a gap this thesis seeks to fill. Moreover, there are few or insignificant literatures on the relationship between monetary policy and banks assets/return on assets, an area this study seeks to further investigate, thus making this study of high importance.

**3.0 Research methodology**

The core of any research lies on its methodology since the acceptability and reliability of the findings depends on the appropriateness of the models specified and the analytical tools employed.

- **Research Design**

Research design refers to the overall strategy chosen by a researcher to integrate the different components of the study in a coherent and logical way, thereby, ensuring it effectively addresses the research problem (De Vaus, 2001). 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.

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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).

**Model Specification in Hypothesis**

**$H_0$:** Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio- have no significant effect on commercial banks turnover ratio.

Banks turnover ratio =F (money supply, liquidity ratio, monetary policy rate, cash reserve ratio $\mu$) ..... i

Where; Y= Banks turnover ratio (TOR)

$X_1$= Monetary Policy Rate (MPR)

$X_2$= Broad Money Supply (MSP)

$X_3$= Liquidity Ratio (LQR) $X_4$= Cash Reserve Ratio (CRR) $\mu$ =unexplained variable (MSP, LQR, MPR, CRR)>0

A negative relationship is expected between MPR, LQR, CRR and bank ratio as the increase in this ratios hampers banks ability to create more loans. However, money supply is expected to impact positively on bank ratio. This is in accordance with studies of Ibeabuchi (2007); 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-

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stationary variables may result in suspiciuos regressions, 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 Analysis and Discussions of findings**

**Presentation of Data**

For arriving at a dependable and unbiased analysis, we employed a secondary data obtained from the CBN statistical bulletin from 1980-2015. Co-integration, Augmented Dickey Fuller, Error correction model and regression analysis were done on the data using e-view software.

**Table 4.1: Turnover ratio, bank assets, loans and advances, monetary policy rate, money supply, liquidity ratio, cash reserve ratio**

| Year | Turnover ratio (%) | Bank assets (₦'m) | Loans advandces (₦'m) | MPR (%) | Money supply (₦'m) | Liquidity ratio % | Cash reserve ratio % |
|---|---|---|---|---|---|---|---|
| 1980 | .0552 | 16340.40 | 7856.60 | 6.00 | 11856.60 | 47.60 | 10.60 |
| 1981 | .0578 | 19477.50 | 8570.05 | 6.00 | 14471.17 | 38.50 | 9.50 |
| 1982 | .0660 | 22661.90 | 10668.34 | 8.00 | 15786.74 | 40.50 | 10.70 |
| 1983 | .0303 | 26701.50 | 11668.04 | 8.00 | 17687.93 | 54.70 | 7.10 |
| 1984 | .0188 | 30066.70 | 12462.93 | 10.00 | 20105.94 | 65.10 | 4.70 |
| 1985 | .0106 | 31997.90 | 13070.34 | 10.00 | 22299.24 | 65.00 | 1.80 |
| 1986 | .0118 | 39678.80 | 15247.45 | 10.00 | 23806.40 | 36.40 | 1.70 |
| 1987 | .0329 | 49828.40 | 21082.99 | 12.75 | 27573.58 | 46.50 | 1.40 |
| 1988 | .0234 | 58027.20 | 27326.42 | 12.75 | 38356.80 | 45.00 | 2.10 |
| 1989 | .0172 | 64874.00 | 30403.22 | 18.00 | 45902.88 | 40.30 | 2.90 |
| 1990 | .0298 | 82957.80 | 33547.70 | 18.00 | 52857.02 | 44.30 | 2.90 |
| 1991 | .0188 | 117511.90 | 41352.46 | 14.50 | 75401.18 | 38.60 | 2.90 |
| 1992 | .1520 | 159190.80 | 58122.95 | 17.50 | 111112.30 | 29.10 | 4.40 |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1993 | .1570 | 226162.80 | 127117.71 | 26.00 | 165338.70 | 42.20 | 6.00 |
| 1994 | .1410 | 295033.20 | 143424.21 | 13.50 | 230292.60 | 48.50 | 5.70 |
| 1995 | .1221 | 385141.80 | 180004.76 | 13.50 | 289091.10 | 33.10 | 5.80 |
| 1996 | .1151 | 458777.50 | 238596.56 | 13.50 | 3458554.00 | 43.10 | 7.50 |
| 1997 | .0863 | 584375.00 | 316207.08 | 13.50 | 413280.10 | 40.20 | 7.80 |
| 1998 | .0679 | 694615.10 | 351956.19 | 14.30 | 488145.80 | 46.80 | 8.30 |
| 1999 | .0903 | 1070019.80 | 431168.36 | 18.00 | 628952.20 | 61.00 | 11.70 |
| 2000 | .0846 | 1568838.70 | 530373.30 | 13.50 | 878457.30 | 64.10 | 9.80 |
| 2001 | .1131 | 2247039.90 | 764961.52 | 14.31 | 1269322.00 | 52.90 | 10.80 |
| 2002 | .0887 | 2766880.30 | 930493.93 | 19.00 | 1505964.00 | 52.50 | 10.60 |
| 2003 | .0893 | 3047856.30 | 1096535.57 | 15.75 | 1952921.00 | 50.90 | 10.00 |
| 2004 | .0497 | 3753277.80 | 1421664.03 | 15.00 | 2131819.00 | 50.50 | 8.60 |
| 2005 | .0267 | 4515117.60 | 1838389.93 | 13.00 | 2637913.00 | 50.20 | 9.70 |
| 2006 | .0124 | 7172932.10 | 2290617.76 | 12.25 | 3797909.00 | 55.70 | 2.60 |
| 2007 | .0170 | 10981693.60 | 3668657.82 | 8.75 | 5127401.00 | 49.70 | 2.80 |
| 2008 | .0130 | 15919559.80 | 6920498.75 | 9.81 | 8008204.00 | 43.70 | 2.30 |
| 2009 | -.0784 | 17522858.20 | 9102049.11 | 7.44 | 9411112.00 | 31.00 | 1.10 |
| 2010 | .0350 | 17331559.00 | 10157021.18 | 6.13 | 11034940.93 | 29.60 | 5.60 |
| 2011 | -.0003 | 19396633.80 | 10660071.84 | 9.19 | 12172490.28 | 25.50 | 8.00 |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2012 | .0216 | 21288144.40 | 14649276.46 | 12.00 | 13895389.13 | 49.70 | 12.00 |
| 2013 | .0222 | 24301213.88 | 15778305.23 | 12.00 | 15158622.26 | 46.20 | 12.00 |
| 2014 | .0219 | 27481532.60 | 17680520.00 | 13.00 | 16818486.70 | 30.00 | 20.00 |
| 2015 | .0209 | 28117616.22 | 18719263.00 | 11.00 | 20029831.10 | 30.00 | 20.00 |

**Source: CBN Statistical Bulletin Various Issues**

- Analysis of Data Test of Hypothesis

**$H_{01}$:** Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio - have no significant effect on commercial banks turnover ratio.

**$H_{a1}$:** Monetary policy instruments-money supply, liquidity ratio, monetary policy rate, cash reserve ratio - have significant effect on commercial banks turnover ratio.

**Table 4.1.1 Summary of Regression for Hypothesis One**

Dependent Variable: TOR
Method: Least Squares
Date: 10/11/17 Time: 11:09
Sample: 1980 2015
Included observations: 36

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.017302 | 0.035629 | 0.485616 | 0.6307 |
| MPR | 0.004588 | 0.001462 | 3.137935 | 0.0037 |
| MSP | -5.88E-09 | 1.42E-09 | -4.151960 | 0.0002 |
| CRR | 0.005460 | 0.001506 | 3.625411 | 0.0010 |
| LQR | -0.000942 | 0.000625 | -1.506472 | 0.1421 |

| | | | |
|---|---|---|---|
| R-squared | 0.574687 | Mean dependent var | 0.051157 |
| Adjusted R-squared | 0.519808 | S.D. dependent var | 0.049582 |
| S.E. of regression | 0.034358 | Akaike info criterion | -3.775693 |
| Sum squared resid | 0.036596 | Schwarz criterion | -3.555760 |
| Log likelihood | 72.96247 | Hannan-Quinn criter. | -3.698930 |

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| | | | |
|---|---|---|---|
| F-statistic | 10.47186 | Durbin-Watson stat | 1.419557 |
| Prob(F-statistic) | 0.000017 | | |

**Source: E-view software**

Table 4.1.1 above shows that MPR and CRR have positive relationship with TOR. That is the higher the MPR and CRR, the higher the turnover ratio. MSP and LQR have negative relationship with turnover ratio.

The $R^2$ at 57.5% indicates that the variables are fairly fitted which was also confirmed by the adjusted $R^{-2}$ found to be 51.98%. The standard error test shows that MPR, MSP and LQR are statistically significant on TOR while LQR is statistically insignificant on TOR.

The t-test shows that t-cal for MPR is 3.137935 with a prob.value of 0.0037 while CRR has a t-cal value of 3.625411 with a prob value of 0.0010. This shows that MPR and CRR have significant relationship with turnover ratio. The result also shows that MSP has prob.value of 0.0002 which is insignificant at 5% confidence level indicating that there is significant relationship between MSP and turnover ratio. The prob-value of LQR is 0.1421 which is significant at 5% confidence level implying that there is no significant relationship between LQR and turnover ratio. The F-test indicates that F-cal is 10.47186 implying that the overall regression is statistically significant and all the variables jointly impact on the turnover ratio. However, the D-W statistic is approximately 1.419557 which shows the presence of positive auto-correlation, this means that our parameter estimate must be accepted with caution because of the possibility of spurious regression results and therefore the need for examining further, the time-dependent characteristics of the model.

**Table 4.1.2 Summary of Augmented Dickey Fuller for the hypothesis**

| **Variables** | **ADF Unit Root Statistics at 1st difference** | **Order of integration** |
|---|---|---|
| **TOR** | -7.736801 | 1 (1) |
| **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 4.1.2 above presents the summary results of the ADF Unit root tests carried out on all the variables of our models. Non of variables was stationary at level, at 1st difference, TUR, LRR and MPR became stationary while MSP and CRR became stationary at 2nd difference. The result shows an evidence of cointegration (long-run relationship) between TUR, LRR and MPR. Based on the observed result, we now test for cointegration among the three (3) variables and the result is presented below.

**Table 4.1.3 Summary of Johansen Co-integration Test**

Date: 10/11/17 Time: 13:40

Sample (adjusted): 1982 2015

Included observations: 34 after adjustments

Trend assumption: Linear deterministic trend

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Series: TUR LRR MPR
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 * | 0.382100 | 33.38990 | 29.79707 | 0.0185 |
| At most 1 * | 0.318207 | 17.02133 | 15.49471 | 0.0292 |
| At most 2 * | 0.110947 | 3.998351 | 3.841466 | 0.0455 |

Trace test indicates 3 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 above shows there is 3 co-integrating equations among the variables which indicate that there is long-run relationship among the variables.

**Table 4.1.4:**

**Parsimonious Error Correction Model (Ecm) (Model One)**

Dependent Variable: D(TUR)
Method: Least Squares
Date: 10/11/17 Time: 15:23
Sample (adjusted): 1987 2015
Included observations: 29 after adjustments

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| D(TUR(-1)) | -0.050736 | 0.201823 | -0.251387 | 0.8041 |
| D(MPR(-3)) | 0.000500 | 0.002264 | 0.220988 | 0.8273 |
| D(MPR(-4)) | 0.003743 | 0.002406 | 1.555544 | 0.1355 |

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|---|---|---|---|---|
| D(MPR(-5)) | -0.001729 | 0.002275 | -0.760050 | 0.4561 |
| D(LRR(-2)) | 0.000914 | 0.000911 | 1.003803 | 0.3275 |
| D(LRR(-5)) | 0.001325 | 0.000862 | 1.536568 | 0.1401 |
| D(LRR(-6)) | -0.001691 | 0.000792 | -2.135107 | 0.0453 |
| ECT1(-1) | -0.417118 | 0.190318 | -2.191695 | 0.0404 |
| C | -0.001154 | 0.006699 | -0.172237 | 0.8650 |

| | | | |
|---|---|---|---|
| R-squared | 0.466010 | Mean dep endent var | 0.000314 |
| Adjusted R-squared | 0.252415 | S.D. dependent var | 0.041261 |
| S.E. of regression | 0.035676 | Akaike info criterion | -3.579562 |
| Sum squared resid | 0.025455 | Schwarz criterion | -3.155229 |
| Log likelihood | 60.90365 | Hannan-Quinn criter. | -3.446666 |
| F-statistic | 2.181739 | Durbin-Watson stat | 1.937353 |
| Prob(F-statistic) | 0.045155 | | |

**Computed by Author**

**E-view software**

The result of the error correction model shown in the table 4.1.4, indicates that ($R^2$) is 15.13% implying a weak relationship between the variables and turnover ratio. The Adjusted $R^{-2}$ is 25% and it shows a very weak goodness of fit bet the regressors and the regresand. This shows that the explanatory variables only explain 25% of total vitiations on the dependent variable (TUR) then; the other 75% is as a result of other variables outside the model but being taken care of by the error term. The Error-correction coefficient of -0.417118 shows the right sign and it imply that about 41% of deviations from equilibrium are corrected every year. The F-statistics with 0.045 probability shows that the overall regression is significant at 5% level of significance. Equally, there is absence of auto correlation as evident by DW statistic of 1.93.

On the basis of the size and magnitude of the coefficients, M2 at various lags has a positive relationship as expected, but not significant at various lags. The LRR shows an inverse relationship with TOR at lag six and it is equally significant. This is in line with the apriori expectation.

Therefore, we reject Ho1 and accept Ha1 and conclude that monetary policy instruments have an impact on commercial banks turnover rate but it 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.

To buttress our point, only LRR was negative and equally significant in relation with Bank Turnover Rate (TUR), while Money supply (M2) alone had a positive and significant in relation with Bank Assets (BNKAS), on the other hand, Cash Reserve Ratio (CRR) alone had a negative and significant impact on Bank Loan and Advances

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(LADV). The apriori expectation between the afore mentioned variables in relation to the dependent variables were met.

The negative relationship between liquidity ratio and turnover ratio also indicates that when CBN increases the ratio banks liquid assets reduces which hampers their ability to create more loans and engage in more investment thus reducing their turnover hence conforms to expectation.

**5.0 Conclusions**

On turnover ratio, we discovered that it was LRR that has a significant effect on it, while Money supply had a significant effect on Bank assets (BNKAS), on that of Loan and advances (LADV) it was CRR that has a significant effect on it.

The high level of forged and decorated balance sheet in the past could have made the monetary policy tools less effective and results unreliable. However, with the various reforms after the financial crises, the prudential guidelines and implementation of a uniform financial statement reporting, the monetary policies of the CBN have tend to yield better results. Banking sector is becoming competitive and market forces are creating an atmosphere where many banks simply cannot afford to have weak balance sheets and inadequate corporate governance.

The CBN is currently transiting to inflation targeting framework for conduct of monetary policy and market based instruments in the implementation of monetary policy. With the recent introduction of the Monetary Policy Rate (MPR) by the CBN as the major tool for signaling its monetary stance, the need for a monetary policy reaction function which clearly depicts the decision making intention of the Bank would assist economist and financial markets in predicting the future path of monetary policy.

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**

Based on the findings made in this study, the following recommendations have been made to address some of the problems discovered:

- 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 a disquilibrium 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 is 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.

**6.1 Contributions to knowledge**

Having examined the impact of monetary policy on bank performance in Nigeria the study has been able to amongst other things identify the effectiveness of some of the instruments studied.

- Our research revealed that monetary policy instrument can actually be effective on bank performance if concerted efforts are made by the monetary authorities to make all the instruments work as they are supposed to work.
- From the study, it could be deduced that monetary policy in Nigeria can only be effective when all the instruments are jointly used.
- Most importantly, the study presents up-to-date data analysis thus making its findings more recent than most other reviewed studies.

**6.2 Suggestions for further research**

Following the scope of this present study using instruments such as monetary policy rate, money supply, cash reserve ratio and liquidity ratio; there is need for further research on the instruments not reviewed in this study for better assessment of the effectiveness of monetary policy on bank performance. .

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