CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Framework

In Nigeria, the key macroeconomic policies are monetary, fiscal, exchange rate and income policies. According to Anyanwu, (1993) monetary policy involves measures designed to regulate and control the volume, cost, availability and direction of money and credit in an economy to achieve some specified macroeconomic policy objectives. That is, it is a deliberate effort by the monetary authorities (the Central Bank) to control the money supply and credit conditions for the purpose of achieving certain broad economic objectives.

Akatu (1993), defined monetary policy in Nigerian context encompasses action of the Central Bank of Nigeria that affects the availability and the cost of Commercial and Merchant Banks' reserve balances and thereby the overall monetary and credit conditions in the economy. The main objective of such actions is to ensure that over time, the expansion of money and credit will be adequate for the long-run needs of the growing economy at stable prices.

A closer look at the above definitions given by Ataku shows some degree of ambiguity because it fails to consider government influences. Nnanna (2002), in his discussion of monetary policy in Nigeria emphasized that, Nigeria's experience over the years revealed that the efficacy of monetary policy in Nigeria has been constrained by the fiscal operation of the government. In the same vein, Tunde Lemo, (2004) expressed that monetary policy is to a panacea for jump starting economic growth, rather than the issues of monetary policy is quite limited in the presence of fiscal dominance.

Dikko (2004), in his published article understands monetary authority and federal government contribution to monetary policy. He opined that monetary policy refers to those measures that the federal government and central bank employ to control monetary aggregates. He further stated that monetary policy tries to accomplish economic objectives which revolve around the attainment of price stability, low inflation, stable exchange rate, favourable balance of payment, output growth and employment.

Monetary policy variable instrument in Nigeria are aggregate credit ceiling, deposit ceilings, exchange controls, special deposits stabilization securities (direct monetary tools). On the other hand, indirect tools include Open Market Operation (OMO) cash reserve requirement, liquidity radio, minimum rediscount rate, selective credit policies etc. In consonance with this assertion, Anyanwu and Oyefusi (1997), summed up the ultimate target of monetary policy in Nigeria thus: "Due to conflicts in the attainment of these objectives, priorities are usually set and the ultimate targets of monetary policy are summed up as economic stabilization (growing, price stability and full employment) and external balance (sustainable balance of payment and stable exchange rates)".

According to Jimoh, (1994), to attain these ultimate goals, policy makers identify variables that have stable, certain and strong relationship with the ultimate goals, which are referred to as proximate targets/goals. The conventional wisdom is that the term of liquidity (or terms of credit and some measures of the quantity of liquidity) are possible proximate target variables which are:

(i) Interest rate

(ii) Money supply

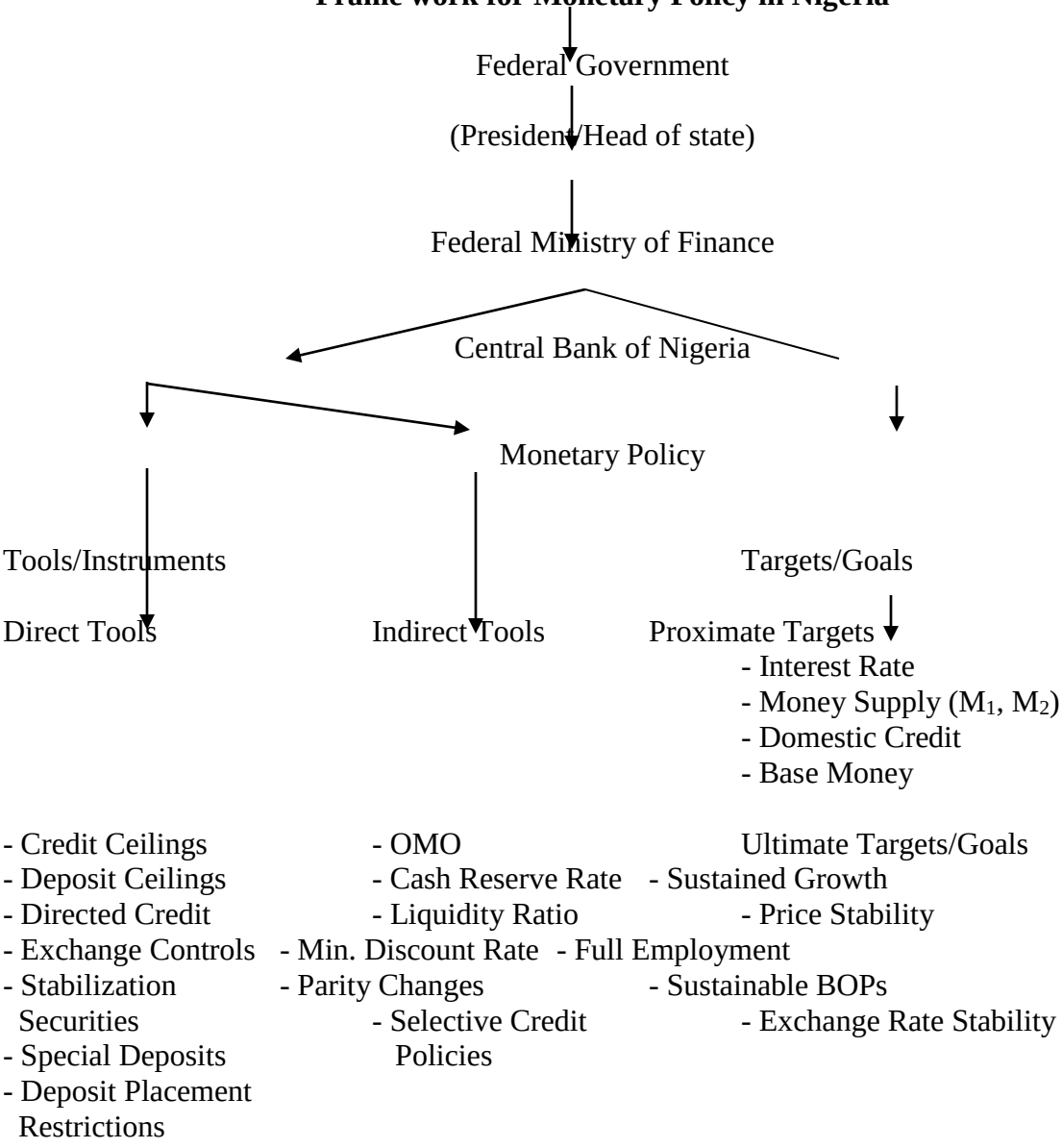
(iii) Narrow money supply (M_1)-Currency plus demand deposits

(iv) Broad money supply (M_2)-M_1 plus-quasi-money (time and savings deposit)

(v) Domestic credit

(vi) High-powered money or Monetary Base/Reserve money.

Frame work for Monetary Policy in Nigeria



It was not feasible to use the market-based tools because of the narrowness and underdeveloped nature of the financial markets, the inadequate supply of the relevant debt instruments and the deliberate restrain on interest rates. The most popular instrument of monetary policy was the issuance of credit rationing guidelines, mostly in the form of setting the rates of change for the components and aggregate commercial bank loans and advances to the private sector. The control of interest rates at relatively low levels was done to promote investment and growth.

2.1.1 Money Supply: Definition and Determinants

The problem of defining money supply is still associated with a lot of controversy. According to Anyanwu (1993), money supply is the total amount of money (e.g. currency and demand deposits) in circulation in a country at any given time. Currency in circulation is made up of coins and notes, while demand deposits or checking current account are those obligations which are not related with any interest payment and accepted by the public as a means of exchange drawn without notice by means of cheque.

The stock of money can be measured in any given time in an economy. There are two concepts employed in measuring money supply. The first defined as the stock of narrow money (usually designated by M_1) consists of paper currencies and coins in circulation in the hands of the non-banking public and the demand deposit (of the non-banking public) with commercial bank. This first concept can be synonymous with that given by Anyanwu (1993). The second concept is defined, since the M_1 is viewed as narrow in the sense that it does not contain commodities that are near monies. The concept defined money stock (designated by M_2) as M_1 plus time and savings (fixed) deposit. Thus, economists use the stock money to mean narrow money, since savings and time deposit are not usually a medium of exchange. The component of narrow money is usually called the stock of high-powered money. See Iyoha etal (1998).

Money supply in Nigeria can be defined as the total amount of currencies outside the shore of banks, demand deposits with the central bank, less Federal, State and Local Governments' demand deposits at commercial banks (see Ajayi and Ojo, 1981).

However, for the purpose of this study, money supply shall be defined as a stock at a particular point in time, it conveys the idea of a flow over time. Thus, money supply at any moment is the total amount of money in the economy.

Determinants

According to Jhingan (1986), there are two theories of the determination of the money supply. Which one is exogenous determinant, while the other is endogenous determinant? This can be described broadly as:

(i) Required reserve ration.

(ii) Level of bank reserve

(iii) The desire of the people to hold currency relative to deposits.

In other words, money supply is determined by the following factors:

(i) Central bank behaviour.

(ii) Behaviour of non-bank public.

(iii) Behaviour of commercial banks.

(iv) Reserve requirement.

(v) Demand for currency.

(vi) Demand for excess reserve.

(vii) Interest rate.

(viii) Bank rate.

2.1.2 Monetary Policy Instruments

According to Iyoha (2002), the instruments of monetary policy include the following

(i) Open Market Operation.

(ii) Discount rate.

(iii) Reserve requirement.

(iv) Moral suasion.

(v) Direct control of banking system credit, and

(vi) Direct regulation of interest rate.

Open Market Operation:- Involves the sales or purchase of government securities to/from commercial banks and non-bank public with the view to regulate the cost and availability of credit. The open market sale of securities by the Central Bank is contractionary while purchase depends on the existence of a well-developed securities market, i.e., expansionary which in responsive to market forces and one which has a large amount of easily marketable government securities. OMO has remained a major tool of monetary policy in Nigeria with its effective use in moderating the system's liquidity.

Discount Rate:- The rate of which Central Bank lends to its commercial banks. The interest rate charged by central bank is known as discount or rediscount rate. By varying discount rate central

bank can influence the credit availability, as lender of last resort to commercial banks. Its direct impact is on credit cost, unlike OMO, that has direct impact on reserve of commercial banks.

Reserve Requirement:- Set a minimum balance on the liquidity of commercial banks vis-à-vis their liabilities. Reserve requirement is to ensure the solvency of banking system, and control the expansion of credit as an objective of monetary policy.

Moral Suasion:- A process by which central bank make known to commercial banks officials through informal (oral or written) discussion the direction in which they wish monetary policy to proceed and the contribution, which is expected of the commercial banks. Unlike the formal compliance is not legally enforceable.

Direct Control of Banking System:- Involves the imposition of quantitative ceilings on the overall and/or sectoral distribution of credit by central bank. This tool is selective, not general, it is direct. This can be used as a weapon for economic development.

2.1.3 Conduct of Monetary Policy to achieve Macroeconomic Stability

Giving the bank's mandate to promote macroeconomics stability through the conduct of monetary policy, it is pertinent to examine how monetary policy has faired vis-à-vis the attainment of its stated objectives to achieve domestic price stability as a necessary condition for promoting high output and employment growth and a healthy balance of payments position. However, maintenance of price stability is often difficult to attain, at least in the short-run because of its apparent conflicts with other macroeconomic objectives, such as output and employment growth. Consequently, monetary management invariably involves some trade-offs with other national economic policy objectives.

The conduct of monetary policy solely relied on direct control measures, which involves imposition of selective sectoral control and credit ceiling, interest rate control, cash reserve requirement, exchange rate control and call for special deposits. The use of market-based instrument was not successful due to the under-development of the financial market in the early part of period under review.

The focus of sectoral bank credit allocation was to energize activities in the real sector of the economy, while interest rate ceilings imposed were to promote investment and output growth.

Imposition of call for advance deposits, compulsory deposits on bank on import and issuances of stabilization securities were introduced to reduce banks' ability to expand credits in order to reduce domestic price pressure, balance of payment 's position.

The overall economic environment under which monetary policy was conducted deteriorated in the 1980s as the oil boom of the 1970s came to an unexpected end. The spot oil price from Bonny light fell from US$38.82 per barrel in 1980 to US$30.00 per barrel in1983, as the recession continued spot oil price fell further to US$14.16 per barrel in 1986, while export earnings from oil fell from ₦13,306.93 million to ₦10,993 million in 1986. Thus, government developmental strategies changed the direct control measures aimed at reducing aggregate demand and restore external equilibrium were tightened up.

Therefore, it is worthy to note that, the era of oil boom left the economy with unacceptable development that stigmatized the macroeconomic management. Thus, heavy dependence on the oil sector as the major source of government revenue and foreign exchange earnings and government expenditure. Also, banks' compliance with credit guidelines was less than expected. Macroeconomic environment was engulfed by pressure, as the growth of domestic liquidity increased further, M1 rose form 50.1% in1980 to 62.2% in 2000. The expansion was attributed to the rapid increase in banks credit to the domestic economy. As recession persisted, oil receipts were no longer adequate to meeting increasing levels of demands and since expenditures were not rationalized, government restored to borrowing from CBN to finance its huge deficits. Thus, making monetary instability (1986-2000).

Thus, the Structural Adjustment Programme (SAP) was adopted in July, 1986 against the collapsed of world oil market and the ugly nature of the economy. It was designed to achieve internal and external balances by altering and restructuring the production and consumption patterns of the economy, eliminating price distortions, reducing the heavy dependence on crude oil exports and consumer goods imports, enhancing the non-oil export base and achieving sustainable growth (see Sanusi, 2002).

The objectives of monetary policy since 1986 have remained the same as earlier stated. In accordance with SAP, monetary policy was aimed at introducing market-oriented financial

system for effective mobilization of financial savings and efficient resource allocation. The main instrument of the market-based is the Open Market Operation, (OMO). This is complemented by reserve requirements and discount window operations. The introduction of OMO in an economy that had been under direct control for long, needed substantial improvement in the macroeconomic, legal and infrastructural environment for effective operation.

In combination with monetary policy, a number of important and far-reaching financial policies were formulated and executed during this period. A major financial policy was financial deregulation, which involves essentially interest rate and exchange rate deregulation (Udegbunam, 2003).

To ensure successive take-off of market-oriented policy, thus, improve macroeconomic stability. The following measures were taken:

(a) Reduction in the minimum ceiling on credit growth allowed for banks.

(b) The recall of the special deposits requirements against outstanding external payment arrears to CBN from banks.

(c) Abolition of the use of foreign guarantee/currency deposits as collaterals for naira loans.

(d) Withdrawal of public sector deposits from banks to the CBN

(e) The use of stabilization securities for the purposes of reducing the size of excess liquidity in banks was re-introduced.

(f) Commercial banks' cash reserve was increased.

(g) The minimum paid-up capital was increased to ₦20million and ₦12million for commercial and merchant banks respectively, in 1992, it was also increased to ₦ 50million and ₦ 40million for commercial and merchant banks respectively further, it was also increased in 1997, to ₦ 500million for both banks also increased to ₦ 25billion with effect from 2005.

(h) The Nigeria Deposit Insurance Corporation (NDIC) was established in 1988 as an additional regulatory body to help in ensuring safety, soundness and confidence in the deregulated banking sector, and

(i) Two important decrees were promulgated to enhance the operation of CBN, they are CBN decree No24 of 1991 and Banks and Other Financial Institutions Decree (BODFID) No25 of

1991 these decrees widened further the powers of CBN in the area of monetary policy, bank supervision and examination, and prudential regulation (Udegbunam, 2003).

Nevertheless, excess liquidity, money growth and inflation problems intensified. Thus, had adverse implications for monetary management, except in 1986 and 1990, inflation rate had been consistently two-digit, between 1986-1999. This was attributed to persistent government deficits. Liquidity ratio increasingly exceeded 30% except in 1992, while M_1 growth had been higher than the targeted growth over this period, this also was attributed to rapid increase in banks' credit to the economy.

In September 1, 1992, there was a major change in monetary operating techniques, from the use of direct control to indirect control operating techniques. The CBN, lifted credit ceiling imposition on individual banks that met CBN requirements on selective basis in respect of minimum capital base, capital adequacy ratio, cash reserve and liquidity ratio requirement, prudential guidelines, sectoral credit allocation and sound management. On June 30, 1993, CBN commenced OMO in treasury securities with banks through discount houses on a weekly basis.

With the introduction of indirect monetary control instrument, CBN now controls the stock of money (from banks and non-bank public) through manipulating the monetary base or reserve aggregates. This was expected to move the interest rates to the desirable position, so that through their influence on monetary aggregates and market interest rates, the ultimate goals of monetary policy may be achieved.

However, the role of discount houses is to serve as intermediaries between CBN and the banks that met CBN requirements. As intermediaries, they underwrite new issues of treasure securities and provide discount facilities to banks in need of funds. They also provide banks an avenue to invest their idle cash balances (see Udegbunam, 2003).

2.2 Fiscal policy

2.2.1 Government Expenditure and Taxation

However, fiscal policy on the other hand is described as changing the taxing and spending of the federal government for purposes of expanding or contracting the level of aggregate demand; these are designed to increase short-run economic growth. In a recession, an expansionary fiscal

policy involves lowering taxes and increasing government spending. By cutting taxes, increasing government spending programs, and increasing transfer payments, more money is in the economy, more income, and more spending. This can be done through the federal budget process; however, the problem with fiscal policy is lag time. This process can take so long (as long as a year or more) that Discretionary Fiscal Policy is very rarely used in the federal government; still, the lag between a change in fiscal policy and its effect on output tends to be shorter than the lag for monetary policy. Instead, the government uses Nondiscretionary Fiscal Policy (Automatic Stabilizers). This fiscal policy is built into the structure of federal taxes and spending. Some examples of this are the progressive income tax (tax major source of federal revenue) and the welfare systems, which both act to increase Aggregate demand in recessions.

The three possible stances of fiscal policy are neutral, expansionary and contractionary. The simplest definitions of these stances are as follows:

- A neutral stance of fiscal policy implies a balanced economy. This results in a large tax revenue. Government spending is fully funded by tax revenue and overall the budget outcome has a neutral effect on the level of economic activity.
- An expansionary stance of fiscal policy involves government spending exceeding tax revenue.
- A contractionary fiscal policy occurs when government spending is lower than tax revenue.

However, these definitions can be misleading because, even with no changes in spending or tax laws at all, cyclical fluctuations of the economy cause cyclical fluctuations of tax revenues and of some types of government spending, altering the deficit situation; these are not considered to be policy changes. Therefore, for purposes of the above definitions, “government spending” and “tax revenue” are normally replaced by “cyclically adjusted government spending” and “cyclically adjusted tax revenue”. Thus, for example, a government budget that is balanced over the course of the business cycle is considered to represent a neutral fiscal policy stance.

Government spend money on a wide variety of things, such as military and police to services like education and healthcare, as well as transfer payments such as welfare benefits. These expenditure are funded in a number which include:

- Taxation.
- Seignior age, the benefit from printing money.
- Borrowing money from the population or from abroad.
- Consumption of fiscal reserves.
- Sale of fixed assets (e.g., land). All of these except taxation are forms of deficit financing.

2.2.2 Borrowing

A fiscal deficit is often funded by issuing bonds, like treasury bills or consols and gilt-edged securities. These pay interest, either for a fixed period or indefinitely. If the interest and capital repayments are too large, a nation may default on its debts, usually to foreign creditors.

2.2.3 Consuming Prior Surpluses

A fiscal surplus is often saved for further use, and may be invested in local (same currency) financial instruments, until needed. When income from taxation or other sources falls, as during an economic slump, reserve allow spending to continue at the same rate, without incurring additional debt.

2.2.4 Effects of Fiscal Policy

Government uses fiscal policy to influence the level of aggregate demand in the economy. In an effort to achieve economic objectives of price stability, full employment, and economic growth, Keynesian economics suggests that increasing government spending and decreasing tax rates are the best ways to stimulate aggregate demand. This can be used in times of recession or low economic activity as an essential tool for building the framework for strong economic growth and working towards full employment. In theory, the resulting deficits would be paid for by expanding economy during the boom that would follow; the reasoning behind the New Deal.

Government can use a budget surplus to do two things: to slow the pace of strong economic growth, and to stabilize prices when inflation is too high. Keynesian theory posits that removing

spending from the economy will reduce levels of aggregate demand and contract the economy, thus stability prices.

Economists debate the effectiveness of fiscal stimulus. The argument mostly centered on crowding out, a phenomena where government borrowing leads to higher interest rates that offset the stimulative impact of spending. When the government runs a budget deficit, funds will need to come from public borrowing (the issue of government bonds), overseas borrowing, or monetizing the debt. When governments fund a deficit with the issuing of government bonds, interest rates can increase across the market, because government borrowing creates higher demand for credit in the financial market. This causes a lower aggregate demand for goods and services, contrary to the objective of a fiscal stimulus. Neoclassical economists generally emphasize crowding out while Keynesians argue that fiscal policy can still be effective especially in a liquidity trap where, they argue, crowding out is minimal.

Some classical and neoclassical economists argue that crowding out completely negates any fiscal stimulus; this is known as the Treasury View, which Keynesian economics rejects. The Treasury View refers to the theoretical positions of classical economists in the British Treasury, who opposed Keynes' call in the 1930s for fiscal stimulus. The same general argument has been repeated by some neoclassical economists up to the present.

In the classical view, the expansionary fiscal policy also decreases net exports, which has a mitigating effect on national output and income. When government borrowing increases interest rates it attracts foreign capital from foreign investors. This is because, all other things being equal, the bonds issued from a country executing expansionary fiscal policy now offer a higher rate of return. In order words, companies wanting to finance projects must compete with their government for capital so they offer higher rates of return. To purchase bonds originating from a certain country, foreign investors must obtain that country's currency. Therefore, when foreign capital flows into the country undergoing fiscal expansion, demand for that country's currency increase. The increases demand causes that country's currency to appreciate. Once the currency appreciates, goods originating from that country now cost more to foreigners than they did

before and foreign goods now cost less than they did before. Consequently, exports decrease and imports increase.

Other possible problems with fiscal stimulus include the time lag between the implementation of the policy and detectable effects in the economy, and inflationary effects driven by increased demand. In theory, fiscal stimulus does not cause inflation when it uses resources that would have otherwise been idle. For instance, if a fiscal stimulus employs a worker who otherwise would have been unemployed, there is no inflationary effect; however, if the stimulus employs a worker who otherwise would have had a hob, the stimulus is increasing labor demand while labor supply remains fixed, leading to wage inflation and therefore price inflation.

2.2.5 Crowding Out and Fiscal Policy

The term crowding out refers to the reduction in private expenditure (or investment) caused by an increase in government expenditure through deficit budget via a tax cut or increased money supply or bond issue. An increase in government expenditure raises aggregate demand, national income and interest rates thereby reducing private investment. This is called the crowding effect of fiscal policy.

2.3 Theoretical Framework

The question of whether an expansionary Monetary Policy (MP) or Fiscal Policy (FP) will help to raise output starts from the basic Keynesian model. In general, either an increase in government expenditure or an expansionary Monetary Policy (MP), leading to an increase in investment via lower interest rate, will lead to an increase in output. Nevertheless, for many years, and to some extent and even now, there is the view that Keynesians ascribe that only Fiscal Policy (FP) can affect income and output, while monetarist believe that only monetary policy can have such an effect. It turns out, therefore, that in certain special cases, only fiscal policy works and in another special case, only monetary policy works.

It has, however, been observed that only fiscal policy will work, and monetary policy will not have any effect, if one of the links between changes in money supply and changes in investment is broken. The accounts of Keynesian theory concentrate on the liquidity trap as the extreme Keynesian special case.

The important implication of the liquidity trap is that once the rate of interest has fallen to the level at which the liquidity trap occurs, an increase in the money supply will not reduce the interest rate any further. Therefore if the level of investment which could occur at this minimum rate of interest is still not great enough to provide expenditure equal to full employment output, then monetary policy will not be able to increase investment and thereby restore full employment and income by this route.

However, in a liquidity trap, an increase in government expenditure will still increase output. In fact, as long as we remain in liquidity trap, an increase in government expenditure will have the full effect on income predicted by the multiplier because interest rates do not rise at all and there is no crowding out of private investment to offset any of the effects of the increase in government expenditure. Hence, the support for the fiscal action of the government to boost output.

On the other hand, those who accuse Keynesian believe that only fiscal policy can work, and that monetary policy cannot, then point out the extreme unlikelihood of liquidity trap, and the lack of evidence that it has ever occurred. It seems to us, however, that most of those Keynesians who claim that monetary policy cannot raise income did not have liquidity trap in mind. Instead they usually based their view on the other link between monetary policy and investment. If investment is completely insensitive to the rate of interest, then monetary policy will have no effect even if it does to a fall in the interest rate accept that investment is sensitive to interest rate. By now, virtually all economists accept that investment is sensitive to interest rate. It follows therefore that the general theoretical framework accepted by Keynesians indicated that provided that the economy was not in a liquidity trap and provided that there was some sensitivity of investment to interest rates, monetary policy would affect output.

This view is now accepted as the empirically relevant case. The converse case, in which monetary policy can affect income while fiscal policy is powerless, will also not occur in the general Keynesian model. This view referred to as the monetarists' view is expressed by making reference to the "Quantity Theory of Money" as in equation (4) below:

MV = PY (4) where M stands for money stock; V, velocity of circulation; P, an index of the price level and Y, the income. The right-hand side of equation (4) is the value of nominal national income. If V is constant then equation (4) tells us that there is a one-to-one relationship between changes in the stock of money and changes in the value of national income.

M = KPY (5) If, in addition, as in the present context of our discussion of monetary and fiscal policy, we keep the price level (P) fixed, then the only way that y can change is if M changes. The implication is that any other change, such as a change in government expenditure will not affect the level of real income. Hence, fiscal policy must be powerless while monetary policy will affect real output.

Considering equation (5) as a demand for money which is not dependent at all on interest rates, one has the idea that there is one, and only one, level of national income which would lead to a demand for money balances which is equal to the exogenously given money supply. This suggests that if there is an increase in one of the components of desired expenditure, such as government expenditure, what will happen is that there will be an excess demand for funds which will drive up the interest rate in the financial markets. The only stop when enough investment has been crowded out by the rise interest rates so as to leave total expenditure back to its old level.

The end result of the dynamic process is however clear from the model in equation (6) below: Y = C + I + G (6), an increase in government expenditure will lead to a drop in private investment of exactly the same magnitude leaving total expenditure and output unchanged. In terms of equation (6), the increase in G will be matched by a fall in I, and there is full crowding out. Hence, fiscal policy cannot have any effect in the special case where the demand for money is completely insensitive to interest rate. Given the above discussion, the tendency now is for the monetarists to say that Keynesians believe only in fiscal policy and for Keynesians to accuse monetarists of believing only monetary policy. The issue now is to determine which view is more relevant to the Nigerian economy.

The Keynesians and monetarists differ on the effects of budget deficit on the crowding out effect. The main difference between the two arises from the fact that the Keynesians emphasize on

"first-round" (short-run) effect which show "once-for-all shift" of the IS curve, whereas the monetarists emphasize the "ultimate" (long-run) effects.

The Keynesian crowding out theory states that when the government resorts to deficits financing by issuing new bonds, its spending increases. National income rises. If the money supply is held constant people will need more money for business which will raise the rate of interest. A higher rate of interest will crowd out (reduce) private investment spending. (See M.L. Jhingan Pg. 651-652 (2004).

2.3.1 Keynesian- Theory of Liquidity Trap

Keynes visualized conditions in which the speculative demand for money would be highly or even totally elastic so that changes in the quantity of money would be fully absorbed into speculative balances. This is the famous Keynesian liquidity trap. In this case, changes in the quantity of money have no effects at all on prices or income. According to Keynes, this is likely to happen when the market interest rate is very low so that the yields on bond, equities and other securities will also be low.

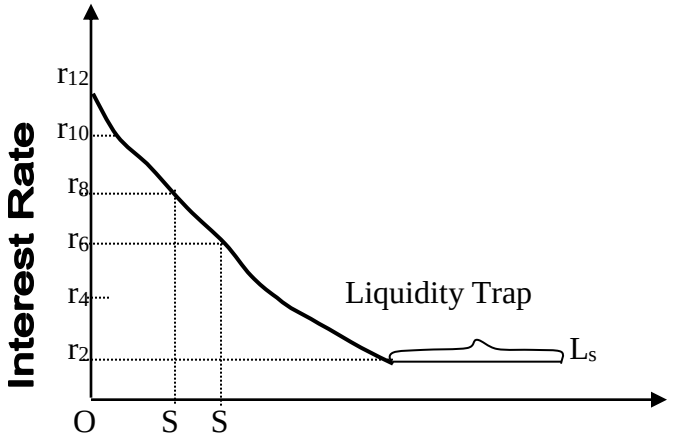


Fig. 1: Speculative Demand for money

At a very low rate of interest, such as r_2, the L_S curve becomes perfectly elastic and the speculative demand for money is infinitely elastic. This portion of the L_S curve is known as the liquidity trap. At such a low rate, people prefer to keep money in cash rather than invest in bonds because purchasing bonds will mean a definite loss. People will not buy bonds so long as the

interest rate remains at the low level and they will be waiting for the rate of interest to return to the "normal" level and bond prices to fall.

According to Keynes (2004), as the rate of interest approaches zero, the risk of loss in holding bonds becomes greater. "When the price of bonds has been bid up so high that the rate of interest is, say, only 2 per cent or less, a very small decline in the price of bonds will wipe out the yield entirely and a slight further decline would result in loss of the part of the principal". Thus the lower the interest rate, the smaller the earnings from bonds. Therefore, the greater the demand for cash holdings. Consequently, the L_S curve will become perfectly elastic.

Further, according to Keynes (2004), "a long-term rate of interest of 2 per cent leaves more to fear than to hope, and offers, at the same time, a running yield which is only sufficient to offset a very small measure of fear". This makes the L_s curve "virtually absolute in the sense that almost everybody prefers cash to holding a debt which yields so low a rate of interest'.

The phenomenon of liquidity trap possesses certain important implications. First, the monetary authority cannot influence the rate of interest even by following a cheap money policy. An increase in the quantity of money cannot lead to a further decline in the rate of interest in a liquidity-trap situation. Second, the rate of interest cannot fall to zero. Third, the policy of a general wage cut cannot be efficacious in the face of a perfectly elastic liquidity preference curve, such as L_s in Figure 1. No doubt, a policy of general wage cut would lower wages and prices, thus released money from transactions to speculative purpose, the rate of interest would remain unaffected because people would hold money due to the prevalent uncertainly in the money market. Last, if new money is created, it instantly goes into speculative balances and thus bank into vaults or cash boxes instead of being invested, thereby leading to no effect on income. Income can change without any change in the quantity of money. Thus, monetary changes have a weak effect on economic activities under conditions of absolute liquidity preference.

2.3.2 Economic implication of fiscal and monetary policy in Nigeria

(1) Monetary and fiscal policies help in the achievement of general economic stability because they are tools used by the government in shaping the economic activities in order to achieve general economic stability.

(2) Monetary and fiscal policies help in controlling inflation and in the attainment level of full employment in the economy.

(3) Monetary and fiscal policies help in bridging balance of payment deficit and this is peculiar to the growing economy because of high demand for imported goods which makes import higher than export resulting to deficit balance of payment.

(4) Monetary policy in particular is an important instrument for achieving price stability.

(5) Fiscal policy in particular is used to redistribute income among people. This is done through the progressive tax of Pay As You Earn (PAYE) system.

(6) Monetary and fiscal policies are used to source fund for the government.

2.3.3 Effectiveness of Monetary and Fiscal Policies

Monetary and fiscal policies are generally referred to as demand management polices. The purposes of monetary and fiscal policies are;

(a) To maintain output near full employment in the economy and

(b) To maintain or ensure price stability

Recall that the presence of excess demand will probably cause inflation while an insufficiency of demand will lead to temporary unemployment and deflation. In the statistic model, monetary policy affects the economy by shifting the LM and economy's demand curve on the other hand, fiscal policy works by shifting the IS and demand curve.

The relative effectiveness of monetary and fiscal policies has been the subject of controversy among economists. While the monetarists believe that monetary policy is more effective for economic stabilization. The Keynesian believe that fiscal policy is more effective for economic stabilization.

The monetarists believed that increase in money supply leads to increase in aggregate demand in the economy which consequently leads to increased in economic activities and national income. Thus, they believe that money supply has direct relationship with the National Income. In order to reconcile the extremes of the Keynesians and monetarists (or classical views) economists have explained the effectiveness of monetary and fiscal policies in three ranges.

Interest rate Is_6 LM

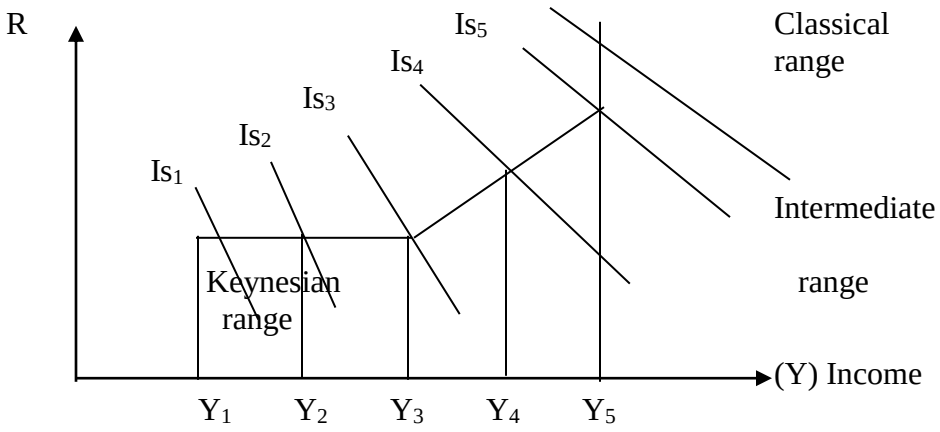


Fig. 2

The Keynesian liquidity trap (Keynesian range) is when the LM curve is perfectly elastic and interest rate cannot fall below the existing level. An increase in money supply (in the case of expansionary policy) will not affect the rate of interest. Even if interest rate falls, investment demand would not rise because of depressed expectations. Thus, monetary policy is in effect along the Keynesian trap (Keynesian range). Consequently, fiscal policy is best suited in controlling economic activities along the Keynesian range.

The second range is the classical range where the LM curve is perfectly inelastic. Increase in government expenditure will merely shift the IS curve upward along LM curve while interest rate increases, the level of National Income remains thus, fiscal policy is ineffective along that range (classical range).

For the intermediate range, the IS schedule cuts the LM curve: The increase in money supply succeeds in increasing the level of income but not by as much as in the Keynesian case. Thus, both monetary and fiscal policies are effective along the intermediate range.

2.3.4 The Monetarist View

Monetarists (followers of Milton Friedman,) holds that “only money matters and as such monetary policy is a more potent instrument than fiscal policy in economic stabilization”. On the

other hand, Keynes believes that "money does not matter" for economic stabilization, fiscal policy is a powerful tool compared with monetary policy.

The monetarist argues that only money matter and that economic recessions and expansions are caused by the decrease and increase of the money supply respectively. They emphasized that the growth rate of money is the principal determinant of the behaviour of national income. This view is based on a number of historical studies carried out by Friedman and Schwartz, Friedman and Mailman Anderson and Jordan of the Federal Reserve Bank of St Louis. These studies reveal that there is a very close relationship between money supply and national income and any of the Keynesian variables like aggregate expenditure.

Though the monetarists have tried to enforce their position on the basis of empirical studies yet they are skeptical about the success of monetary policy in contrast of fiscal policy. They agreed that as an economic stabilizer, monetary policy may do more harm than good because of the operational lag. Friedman himself admits that the time lag involved is so large that contact cyclical monetary policy might actually have destabilizing effect in the economy. The monetarists therefore hold that the economy is basically stable and when disturbed by some changes in basic condition will quickly revert to its long run growth path.

It is on this basis, that the monetarists advocate an annual fixed percentage growth rate in the money supply and put an end to discretionary in monetary policy. Friedman therefore, believes that fiscal policy may not have any potent influence except on the economy that it affects the behaviour of money.

The weakness of monetary policy instrument in Nigeria and environment of expansionary fiscal operation have clearly demonstrate the virtual loss of monetary control by the authorities and the emergence of adverse side effects system as inefficient thereby proving more difficult to monitor

by the day. When fiscal profligacy was added to the existing monetary control problems, it becomes extremely difficult to enforce the direct controls as bank were easily tempted to exceed the ceiling when they had a lot of reserve balances.

During the phase movement from the use of direct controls to the market based instruments, the situation was indeed worse as credit to federal government assumed a sharp upward movement.

Apart from cash reserve requirement and liquidity ratio, the major instrument used during the transitional period was the issuance and allocation of stabilization security to map up the excess liquidity of the banking system.

The expense in the use of this instrument was seen as the securities were allocated to banks, the reserve balance fell almost immediately as government persisted on expansionary operations. The bank reserves were quickly replenished as new incomes created by the providers of government services found their way back to the banks.

Thus, one can see that, of all the determinant of money stock, the only one that has been subjected to some from of effectiveness is the private sector credit expansion. The credit to the government has not been effectively controlled over the years. The reason for this is that the flow of foreign assets is an important source of money creation, which the Central Bank of Nigeria (CBN) had sought to sterilize without success. Here again, since the bulk of foreign exchange inflows belongs to the government, it has proved difficult to restrain the government from monetizing foreign exchange receipts.

2.4 Empirical Framework

Literature abounds on the relative effectiveness of monetary and fiscal policy in developed and developing countries of the world. However, there has been contrasting opinions on which of the two policies exert greater influence on economic activity. This section hereby critically reviews previous studies in this area.

Ajayi (1974), emphasized that in developing economy in which Nigeria is a typical example, the emphasis is always on fiscal policy rather than monetary policy. In his work, he estimated the variables of monetary and fiscal policies using Ordinary Least Square (OLS) technique and found out that monetary influences are much larger and more predictable than fiscal influences. This result was confirmed with the use of beta coefficients that changes in monetary action were greater than that of fiscal action. In essence, greater reliance should be placed on monetary actions.

Elliot (1975), examined the relative importance of money supply changes compared to government expenditure changes in explaining fluctuations in nominal GNP. He was of the opinion that this area of study had continuing capacity to provide debate among economists. He estimated St. Louis equation with the use of OLS technique. The equation is of the form: $\Delta Yt = c + \Sigma mi\Delta Mt\text{-}i + \Sigma ei\Delta Et\text{-}i + ut$ (1) where ΔY represents the change in nominal GNP, ΔM represents the change in money supply while ΔE represents the change in high employment federal government expenditures. After estimating the equation above the result of his evaluation clearly support the conclusion that fluctuations in nominal GNP more importantly attach to monetary movements than to movements in federal government expenditure.

Batten and Hafer (1983), also discussed the relative effectiveness of the two stabilization policies in some developed countries. In their study, they found out that monetary action rather than fiscal action had a greater influence on the nominal GNP. However, the results from this study cannot be generalized for the developing countries since they have significantly different economic and political structures. The above study however confirms the work of Marchon (1978). Contrary to these results is the work of Andersen and Jordan (1986). They tested empirically the relationships between the measures of fiscal and monetary actions and total spending for United States. These relationships were developed by regressing quarter to quarter changes in Gross National Product (GNP) on quarter to quarter changes in the Money Stock (MS) and the various measures of fiscal actions namely; high employment budget surplus (R-E), high employment expenditure (E) and high employment receipt (R). The analysis of their results

was that the influence of fiscal action on economic activity occurred faster than that of monetary actions.

Chowdhury (1986), in his study of monetary and fiscal impacts on economic activity in Bangladesh was also of the opinion that fiscal rather than monetary action had greater influence on economic activities. He also made use of the Ordinary Least Square (OLS) technique in his empirical investigation. He adopted St. Louis equation in estimating the monetary and fiscal variables. The modified model estimated here is of the form: $Yt = Co + \Sigma miMt\text{-}i + \Sigma fiFt\text{-}i + \Sigma eiEt\text{-}i + ut$ (2). Where Y, M, F and E represent the growth rate of nominal income, money supply, government expenditures and exports respectively. In analyzing his results he confirmed the result of some authors and concluded that fiscal actions exert greater impact on economic activity in Bangladesh than monetary actions. This result was confirmed with the t-statistics of the summed coefficients, which is significantly larger than the corresponding value for the monetary summed coefficients. It follows form this study that fiscal policy impacts on nominal income are more predictable than the monetary impact.

Olaloye and Ikhide (2005), in their article entitled "Economic Sustainability" and the Role of Fiscal and Monetary Policies in A Depressed Economy: The Case Study of Nigeria estimated a slightly modified form of the basic St. Louis equation of the form: $Yt = go + \Sigma miMt\text{-}i + \Sigma fiFt\text{-}i + \Sigma xiXt\text{-}i + ut$ (3). In estimating the above equation, monthly data for the period 1986-1991 was employed. The analysis of their results showed that fiscal policy exerts more influence on the economy than monetary policy. The result, therefore, that fiscal policies have been more effective in Nigeria at least in the period of depression. They are, however, of the opinion that government expenditure will be an appropriate measure of fiscal policy.

In Nigeria, there have been very few empirical studies regarding the relative efficacy of the stabilization tools. The purpose of this study is, therefore, to test empirically the comparative effectiveness of the two policy variables in the case of developing economy like Nigeria taking due advantage of longer time series. Not only this, most studies, if not all applied the Ordinary

Least Square (OLS) technique in their model estimation. We are, however, of the opinion that the result may be spurious given the non-stationary property of time series data.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

In analyzing the data collected with specific reference to the effectiveness of monetary and fiscal policies of commercial banks in Nigeria, Ordinary Least Square (OLS) regression analysis is employed. Since the variables are more than two, the multiple regression analysis is used. The statistical inferences such as standard error test of the parameter estimate,

t-test and F-test are used in testing the model and hypothesis.

3.2 Research Design

This chapter deals with the methodology adopted in carrying out this research work.

This research work is intended to examine the impacta of monetary and fiscal policies on commercial banks in Nigeria. In order to ensure the validity of this research work necessary data that will suit the research purpose will be generated. Details about model specification, a-prior expectation, data presentation among others are focused on this chapter.

3.3 Population of the Study

The target population for this study comprises all **staff of G.T Con Bank Plc, Ilorin**, including management, finance/account officers, and operational staff. Based on internal records and consultation with HR, the total population is **200 employees** as at 2025.

3.4 Sample Size and Sampling Techniques

Using **Taro Yamane's formula** for determining sample size:

n=N1+N(e)2n = \frac{N}{1 + N(e)^2}n=1+N(e)2N

Where:

- **n** = sample size
- **N** = total population (200)
- **e** = margin of error (0.05)

  n=2001+200(0.05)2=2001+0.5=2001.5=133.33≈133n = \frac{200}{1 + 200(0.05)^2} = \frac{200}{1 + 0.5} = \frac{200}{1.5} = 133.33 \approx

133n=1+200(0.05)2200=1+0.5200=1.5200=133.33≈133

However, **80 correctly filled questionnaires** were returned and used for analysis.

Sampling Technique: A **simple random sampling** method was used to give all staff equal opportunity of being selected, eliminating bias and enhancing the generalizability of the findings.

3.1 Sources of Data

Two major sources of data were used:

- **Primary Data**: Collected through structured questionnaires administered to the staff of G.T Con Bank Plc.
- **Secondary Data**: Sourced from textbooks, journal articles, CBN reports, NDIC publications, and previous related studies.

The sources of data are basically secondary from various commercial banks in Nigeria statistical bulletins of various issues. The variables adopted in carrying out this research work are commercial banks which are chosen as a proxy to economic development fiscal and monetary policy instruments.

3.2 Instrument and Techniques for Data Collection

The main instrument used in collecting data was a **self-administered questionnaire.** The questionnaire was divided into two sections:

Section A: Demographic information of respondents.

Section B: Questions related to the research objectives and hypotheses on fiscal and monetary policy and bank performance.

The questionnaire consisted of **close-ended questions** using a **Likert scale** format (Strongly Agree to Strongly Disagree). All responses were coded and analyzed using frequency, percentage, and chi-square tests.

3.8 Model Specification

The multiple regression analysis will be adopted to show the relationship between variables of monetary and fiscal policies such as narrow money supply (M_1), abroad money supply (M_2) and

Government Expenditure (G_e) as the independent variables, but only M_2 will be used in the mode since M_1 is included in the formulation of M_2 while commercial banks is taken as the dependent variable. Thus, in a normal form, the model could be formulated as:

$$CB = f(M_2, G_e, U)$$

And in an explicit form expressed as:

$$CB = \beta_o + B_1M_2 + \beta_2G_e + U$$

Where: CB = Commercial Banks

β_o = Constant or Intercept

β_1 and β_2 = Parameter Estimates

M_2 = Broad Money Supply

G_e = Government Expenditure

U = Stochastic Error Term

Evaluation Techniques

To get the coefficient of parameter estimates the formula below shall be used

Let Y = CB

$X_1 = M_2$

$X_2 = G_e$

Therefore, the model specification is transformed as:

$$Y = \beta_o + \beta_1\overline{X}_1 + \beta_2\overline{X}_2$$

$$\beta_o = Y - \beta_1\overline{X}_1 + \beta_2\overline{X}_2$$

Assuming β_1 and β_2 are given, the following formula will be read thus;

$$\widehat{\beta_1} = \frac{(\Sigma X_1 y)(\Sigma X_2^2) - (\Sigma X_2 y)(\Sigma X_1 X_2)}{(\Sigma X_1^2)(\Sigma X_2^2) - (\Sigma X_1 X_2)^2}$$

$$\widehat{\beta_2} = \frac{(\Sigma X_2 y)(\Sigma X_1^2) - (\Sigma X_1 y)(\Sigma X_1 X_2)}{(\Sigma X_1^2)(\Sigma X_2^2) - (\Sigma X_1 X_2)^2}$$

R^2 is the square of correlation co-efficient which measures the goodness of fit of the model. It determines the proportion of the variation in the dependent variable (Y) i.e. commercial banks which is explained by variations in explanatory variables (X_1, X_2) i.e. M_2 and G_e.

Formula for Statistical Test

T-Test

This is the test for the individual significance of the parameter estimates in the model. It is denoted by

$$t^*c = \frac{\text{Coefficient of parameter estimate}}{\text{Standard error of the parameter estimate}}$$

Therefore, for the constant parameter the t-formula is

$$t^*c = \frac{\beta_1}{S.E\ (\beta_1)}$$

The same step is used for β_2.

The formula for the standard error (S.E) used above is the square root of variance i.e.

$S.E\ (\beta_o) = Var\ (\beta_o)$

Where:

$Var\ (\beta_o) = S^2\ \mu\Sigma X_1^2$ $\quad Var\ (\beta_o) = S^2\ \mu\ \Sigma X_1^2$

$X_1^2\Sigma X_2^2 - (\Sigma X/X_2)^2$ $Var\ (\beta_o) = X_1^2\Sigma X_2^2\ (\Sigma X/X_2)^2$

Procedure for T-Test

$H_0 : \beta = 0$

$H_1 : \beta \neq 0$

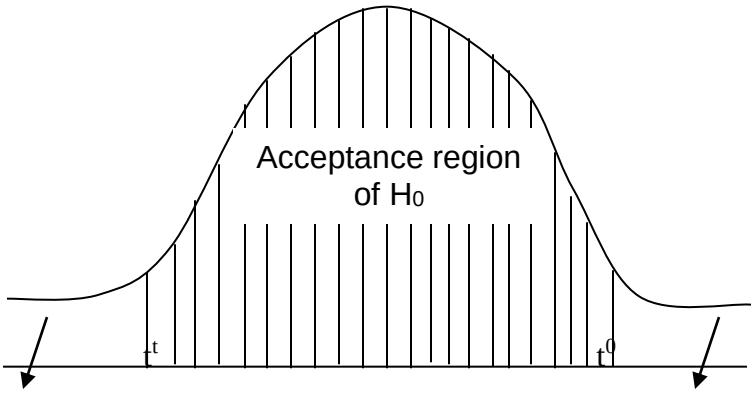
Compare the t*c obtained with the theoretical value of t (t*) or t-tabulated from the t-table with a given degree of freedom (n – k).

Where:

N = Number of Observations

K = Number of Parameters

The t*t (at the chosen level of significance) i.e. 5% determines the critical values that defined the critical region of a two tailed test



Critical region Critical region

Decision Rule:

i. If t*c falls in the acceptance region i.e. t*c < tt, we accept the null hypothesis (H_0) and conclude that the parameter estimate is not statistically significant at the given level of significance.

ii. If t*c falls in the region (outside the acceptance region) i.e. t*c $>t^t$, we reject the null hypothesis and accept the alternative and conclude that the parameter estimate is statistically significant.