

# Fiscal and Monetary Policy and its Effect on the Growth of Nigeria Economy

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## ABSTRACT

The study examined the empirical link on the effect of fiscal and monetary policy on the Economic Growth of Nigeria (1986-2010). The objectives were to determine factors of fiscal and monetary policy that contributed to the growth of Nigeria economy. It made use of secondary data, from Central Bank of Nigeria statistical Bulletin, Volume 21, 2010 and employed the ordinary least squares method of statistical analysis. It was found out that government revenue had a positive impact and statistical significant on gross domestic product. Also shown that government expenditure was positively significant on the growth of Nigeria Economy. The second model depicts that money supply had a positive impact on gross domestic product and it discovered that this variable was statistically significant. Exchange rate variable had a positive impact on the performance of Nigeria economy. The finding revealed that inflation had a positive impact but there was no significant relationship between inflation and gross domestic product. It therefore suggests that government should increase the number of fiscal policy instruments over and above the ones currently in use. The study recommended that measures should be adopted that would ensure income generation and government revenue generating ventures.

**Keywords:** Balance of payment, Economic growth, Exchange rate, Government expenditure, Inflation, Money supply,

## 1.0 INTRODUCTION

Monetary policy constitutes the major policy thrust of the government in the realization of various macro-economic objectives. Essentially, monetary policy refers to the combination of discretionary measures designed to regulate and control the money supply in an economy by the monetary authorities with a view of achieving stated or desired macro-economic goals. Another point of view posits that monetary policy refers to any conscious action undertaken by the monetary authorities to change or regulate the availability, quantity, cost or direction of credit in any economy, in order to attain stated economic objectives (Nwankwo, 2000).

Monetary policy is designed to influence the behaviour of the monetary sector, this is because changes in the behaviour of the monetary sector influence various monetary variables or aggregates. In effect, the monetary policy in force at any point in time, affects the level of money supply either by expanding it or through contraction of same. It also influences the level and structure of interest rates and thus the cost of funds in the market, depending on the prevailing economic conditions. The regulation and control of the volume and price of money is the discretionary control of money-discretionary in the sense that it is made at the instance of the money authorities. Monetary policy affects the non-bank public's holding of real and financial assets in the system. It can thus sustain a divergence between the non-bank public's desired portfolio holding (Ajaji, 2008).

Monetary policy as a tool of economic stabilization was given by Milton Friedman who held that only money matters, and as such, monetary policy is a more potent instrument of stabilization than fiscal policy (Nzotta, 2004).

Fiscal policy element affects the activities of economic operations in the private and public business domain, government influences economic and business activities by means of political and legal processes in the society. These political and legal influences include legislation and other policies established by the government through her regulatory agencies.

Parker (2005) sees fiscal policy as a statement of the goals and objectives of an organization in relation to a particular subject. Government uses fiscal policy measures to control the economy and it is pertinent to note that our concern focuses on fiscal policy which stabilizes the economy, when an economy is in a depressed state, it needs stimulation by government in the form of increased government spending, reduced taxes or both, when the economy is booming and inflation threatens (Jhingan, 2004).

Therefore, fiscal and monetary policies can unequivocally lead to the growth and development of an economy (Ayanwu, 2008).

Monetary policy since 1986 to 2010, the Structural Adjustment Programme (SAP) was adopted in July, 1986 against the crash in the international oil market and the resultant deteriorating economic conditions in the country. It was designed to achieve fiscal balance and balance of payments viability 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. Other aims were to rationalize the role of the public sector and accelerate the growth potentials of the private sector. The main strategies of the programme were the deregulation of external trade and

payments arrangements, the adoption of a market-determined exchange rate for the Naira, substantial reduction in complex price and administrative controls and more reliance on market forces as a major determinant of economic activity.

The objectives of monetary policy since 1986 have remained the same as in the earlier period. In line with the general philosophy of economic management under SAP, monetary policy was aimed at inducing the emergence of a market – oriented financial system for effective mobilization of financial savings and efficient resource allocation. The main instrument of the market based operations. This is complemented by reserve requirements and discount window operations. The adoption of a market-based framework, such as OMO in an economy that had been under direct control for long, required substantial improvement in the macroeconomic, legal and regulatory environment.

In order to improve macroeconomic stability, efforts were directed at the management of excess liquidity, thus a number of measures were introduced to reduce liquidity in the system. These included the reduction in the maximum ceiling on credit growth allowed for banks, the recall of the special deposits requirements against outstanding external payment arrears to CBN from banks, abolition of the use of foreign guarantees/currency deposits as collaterals for naira loans and the withdrawal of public sector deposits from banks to the CBN.

Also effective August, 1990, the use of stabilization securities for purposes of reducing the bulging size of excess liquidity in banks was re-introduced. Commercial banks' cash reserve requirements were increased in 1989, 1990, 1992, 1996 and 1999. The rising level of fiscal deficits was identified as a major source of macroeconomic instability.

Consequently, government agreed not only to reduce the size of its deficits but also to synchronize fiscal and monetary policies. By way of inducing efficiency and encouraging a good measure of flexibility in banks' credit operations, the regulatory environment was improved.

Consequently, the sector-specific credit allocation targets were compressed into four sectors in 1986, and to only two in 1987. From October, 1996, all mandatory credit allocation mechanisms were abolished. The commercial and merchant treatment since their operations was found to produce similar effects on the monetary process. Areas of perceived disadvantages to Merchant Banks were harmonized in line with the need to create a conducive environment for their operations. The liquidity effect of large deficits financed mainly by the Bank led to an acceleration of monetary and credit aggregate in 1998, relative to stipulated targets and the performance in the preceding year. Outflow of funds through the CBN weekly foreign exchange transaction at the Autonomous Foreign Exchange Market (AFEM) and, to a lesser extent, at Open Market Operation (OMO) exerted some moderating effect. The reintroduction of the (D.A.S) of foreign exchange management in July, 2002 engendered relative stability, and stemmed further depletion of reserves during the second half of 2002. However, the financial system was typically marked by rapid expansion in monetary aggregate, particularly during the second half of 2000, influenced by the monetization of enhanced oil receipts.

Consequently, monetary growth accelerated significantly, exceeding policy targets by substantial margins, savings rate and the inter-bank call rates fell generally due to the liquidity surfeit in the banking system through the spread between deposit and lending rates remained wide.

Specifically, 2003 policy measure were designed to promote a stable macroeconomic environment to achieve a non-inflationary output growth rate of 5 percent. In pursuit of its development effort, the Bank, in collaboration with the Banker's Committee, established the Small and Medium Industries Equity Investment Scheme (SMIEIS).

In 2003, credit delivery to real sector was encouraged through the SMIEIS and an incentive of lower Cash Reserve Requirement (CRR) regime was prescribed for those banks that increased their credit allocation to the real sector by 20 percent or more. Moreover, the Bank provided guarantees for agricultural loans under the Agricultural Credit Guarantee Scheme (A.C.G.S). In recognition of the fact that well-capitalized banks would strengthen the banking system for effective monetary authority increased the minimum paid-up capital of Commercial and Merchant banks in February 1990 to ₦50 and ₦40 million from ₦20 and ₦12 million, respectively.

Distressed banks whose capital fell below existing requirement were expected to comply by 31<sup>st</sup> March, 1997 or face liquidation. Twenty-six of such banks comprising 13 each of Commercial and Merchant Banks were liquidated in January, 1998. Minimum paid up capital of Merchant and Commercial Banks was raised to a uniform level of ₦500 million with effect from 1<sup>st</sup> February, 1997, and by December 1998, all existing banks were to recapitalize. The C.B.N brought into force the risk-weighted measure of capital adequacy recommended by the Basic Committee of the Bank for International Settlements in 1990. Before then, capital adequacy was measured by the ratio of adjusted capital to total loans and advances outstanding.

### 1.1 Statement of the problem

One of the major objectives of monetary policy in Nigeria is price stability. But despite the various monetary regimes that have been adopted by the central Bank of Nigeria over the years inflation still remains a major threat to Nigeria's economic growth. Nigeria has experienced high volatility in inflation rates.

The main thrust of this study shall be on the impact of fiscal and monetary policy instruments on the economic growth of Nigeria. This would go along way in assessing the extent to which the fiscal and monetary policies have impacted on the growth process of Nigeria using the major objectives of fiscal and monetary policies as yardstick.

### 1.2 Objectives of the study

The general objective of the study is impact of fiscal and monetary policy instruments on the economic growth of Nigeria;

The specific objectives are;

- 1) To examine the relationship between money supply and economic growth.
- 2) To examine the relationship between inflation and economic growth.
- 3) To examine the relationship between balance of payments and economic growth.
- 4) To examine the relationship between government expenditure and government revenue on economic growth.

### 1.3 Research questions

In order to investigate impact of fiscal and monetary policy instruments on the economic growth, the formulated research questions are:

- (i) What is the relationship between inflation and economic growth?
- (ii) What is the relationship between inflation and gross domestic product?
- (iii) What is the relationship between balance of payment and economic growth?
- (iv) What is the relationship between money supply and economic growth?
- (v) What is the relationship between government expenditure and government revenue on economic growth?

### 1.4 Research Hypotheses

- H<sub>0</sub>1: There is no significant relationship between inflation and gross domestic product.  
H<sub>0</sub>2: There is no significant relationship between balance of payment and gross domestic product.  
H<sub>0</sub>3: There is no significant relationship between money supply and gross domestic product.  
H<sub>0</sub>4: There is no significant relationship between government revenue and gross domestic product.  
H<sub>0</sub>5: There is no significant relationship between government expenditure and gross domestic product.

## 2.0 LITERATURE REVIEW

### 2.1 Determinants of economic growth

#### 2.1.1 The theories of monetary and fiscal policies

Historically, there has been a wide divergence of opinions about the effect of monetary and fiscal policies on the economy. These theories were developed basically on observed economic trend in both developed and developing countries. The main burden of macroeconomic policy fell on either monetary or fiscal policy or on the combination of both, there is a controversy about the two, known as monetarists and fiscalist debate.

In 1990, Milton Friedman and some economists in Chicago conducted a study to determine whether the Keynesian multipliers or the velocity variables of the quantity theory would serve as a forecasted of the movement of National Income. They did this by testing the stability of the two variables believing that, if the velocity of money is relatively stable changes in the money stock would support the monetarists view. If the investment (Government expenditure) multipliers were more stable, it would indicate that a change in aggregate demand imposed by Federal policy result in a more predictable changes in National Income.

#### 2.1.2 The Keynesian

The basic proportion of this school of thought is that money does not matter in the short-run. Money supply transmission mechanism, they argue that an indirect process working through the cost of capital channel via rate of interest hence supply and income level affects change in money supply appears to be compatible.

Keynesian is essentially based on the short period consideration when money flow rather than stock becomes a crucial variables. Here, the concept of the short-run is similar to the one applicable to the theory of the firm.

To the Keynesians, budgetary policy has significant effect on income, employment and output in the short-run, even if there is no new money supply. Infact, public debt is as crucial as the stock of money. An increase in the growth of interest bearing debt would result in an increase in the equilibrium growth of minimal income, without a corresponding increase in the rate of money expansion. The balanced budget multiplier can give the economy substantial leeway for growth while government deficit is expansionary.

### 2.1.3 Monetary viewpoint

Monetarism's essence can be stated in the form of a few central propositions where the over-whelming influence of money is the center piece. Monetarists assign causal role to money, and since money is treated by them as exogenous, it is possible to control disturbance or disequilibrium in the economy by controlling the money supply, and hence money matters.

To them, fiscal policy is very complicated and difficult to execute in timely manner and given the constancy of the rate of interest over a long period, suggesting horizontal is curve (indicating infinitely elastic demand for new investment) and constant money supply, an increase in government investment will correspondingly reduce private investment, and this crowding out' will reduce the efficacy of fiscal policy. As a result of this crowding out, the effect of fiscal policy on normal income will be zero, provided the LM curve is vertical. An increase in taxation and 'crowding out' will raise the rate of interest to decrease the investment.

Thus, to them, fiscal policy may change income, velocity, interest rate and so on but its expansionary effect is likely to be minor and transitory (temporary) on aggregate income and price levels. Thus, a pure fiscal policy does not matter for aggregate demand, nominal income price level. The St-Louis multiplier has been used to show-that pure fiscal policy has no effect on nominal income. Fiscal policy impact depends on how the government deficit is financed. Finance by money creation (a monetary action) is seen to be more expansionary than what is possible by the manipulation of fiscal tools. Thus, according to monetarism, what matters is the quantity of money created and not how it is created.

Monetarists are of the view that money and income are directly correlated. Monetary change affects long-run stock of real capital and hence output- Fluctuation in money, national income is attributed largely on monetary policy whose effect is transmitted to national income both through the bond field and other channels. Thus, the long-run economic activity and nominal income are essentially the function of the stock of money and flows themselves adjust to the stock. The adjustment to change in money involves substitution between money and different types of asset, thus, while wealth effect of a change in money is not of any empirical importance, the substitution effect appears to be given the tendency to assume that money is the only asset, the real balance effect and the wealth effect are also assumed to be tantamount. The monetarists concede a direct nexus between money supply and price level, which is proportional in the long-run. In effect, in long-run, proper growth rate of money stock is crucial for stable growth path of output and prices. The monetarists argue that the long-run is the time period when all expectations are realized while the short-run is marked by unanticipated changes. Thus, in the short-run money supply affects the output within five to ten years and in the long-run it changes mainly prices within a time period of more than ten years. Changes in money stock modify relative prices and initiate a process of substitution. The economic system, especially the private sector, is assumed to be stable and the cumulative movement of prices and output results mainly from the decisions or actions of the government. This is, cyclical instability is the outcome of inappropriate government policies imposed on stabilizing the private sectors. It is the general believed of monetarists that an increase in money supply brings about, through liquidity effect, a reduction in the rate of interest. But it comes back to equilibrium after some time.

Thus, the real rate of interest can be taken to be constant. The monetarists also have monetary theory of price level. According to them, output is taken as a fixed datum and price level is regarded as variable to be determined by the economic system. Inflation, therefore, is a purely monetary phenomenon, and market mechanism or the price system operates as an efficient allocative mechanism in the economy.

However, monetary policy cannot predict the exact division of a change in aggregate demand between price level component and real output component. Money is basically neutral in the long-run in the sense that it does not disturb the real equilibrium of the system and also maintains the real rate of interest. Monetary policy is effective in controlling inflation by restricting money supply.

In the monetarists parlance, money price is the inverse of the price level. Also, the quality theory is looked at basically as a theory of demand for money and emphasis is laid on the analysis of money income ration. There is observed low interest elasticity of demand hence a zero interest elasticity of the demand for money is seen neither as the necessary nor as the sufficient condition for the monetarists' proposition.

Therefore, a monetarists conclusion can be reached without a vertical LM curve since in fact, the LM curve continuously moves and affects income and activities in the long-run unlike the IS-curve which shifts in a

once-for all form in the short-run. Thus, to the monetaries, the demand for money is stable than the Keynesian consumption function.

The monetarist transmission mechanism recognizes that money is not just a close substitute for a small class of financial assets but rather a substitute for a large spectrum of financial and real assets. There are three ways assets choice: holding money, holding financial assets, holding real assets.

This allows money to have direct effect on consumption as well as giving it the possibility of operating through the Keynesian investment income consumption mechanism. Thus, given an equilibrium position, an increase in money supply raises the actual proportion of money relative to the desired proportion.

People react by getting rid of the excess balances. Therefore, the monetarists view money supply as the strategic variable affecting income directly.

## 2.2 Money supply and economic growth

Money supply can be defined narrowly or broadly. Narrow money can be defined as those assets which represent immediate purchasing power in the economy, and hence function as a medium of exchange.

In Nigeria, the narrow money supply (M1) is defined as currency outside banks plus demand deposits of commercial banks plus domestic deposits with the Central Bank, less Federal Government deposits at Commercial Banks.

Broad money, on the other hand, includes narrow money assets but in addition; include these assets which have the quality of liquidity. They can be quickly and readily converted to cash and the conversion is achieved with little or no loss in terms of either interest penalty or capital loss through force sale. In the Nigerian context, broad money (M2) is defined as M1 plus quasi-money. Quasi-money as used here is defined as the sum of saving and time deposits with the commercial banks.

It is normally assumed that the nominal money supply is exogenously determined, i.e it is supplied by the monetary authority or the central banks. But the real money supply is endogenous determined since the price level variation cannot be fixed. In other words, it is determined by the following factors: the central bank behaviour, the behaviour of the non-bank public and the behaviour of the commercial banks specifically money supply is influenced by the following factors.

- (a) The Bank Rate: if the rate at which commercial banks borrow from the central bank or discount bills rises money supply falls.
- (b) Interest rate: there is a positive relationship between money supply and interest rate. That is, higher the interest rate, the higher the money supply.
- (c) Reserve Requirement: if the percentage of the reserve requirement is high, money supply will be low.
- (d) Demand for currency: if the non-bank public increases its demand for currency, money supply will increase.
- (e) Demand for time deposit: if the non-bank public increases its demand for time deposits, money supply increases.
- (f) Demand for excess reserves: if commercial banks demand for excess reserve increase, money supply increases.
- (g) Total reserve supplied by the Central Bank: if the total reserves supplied by central bank is high, money supply will be high. Thus, we recapitulate that money supply is determined jointly by the behaviour of the non-bank public, the central banking authority, and the commercial banking system, which made up the economy.

## 2.3 Inflation and economic growth

Inflation is generally and conveniently defined as a sustained rising trend in the general price level.

The literature identifies a number of theories of inflation, viz: demand-pull, cost-pull, structural, monetary and imported inflation. The demand-pull inflation occurs when aggregate supply such that the resultant excess demand cannot be satisfied by running down on existing stocks, divesting supplies from the export market to the domestic market, increasing import or postponing demand. The cost-push school opines that inflations arise from the increase in the cost of the factors of production, especially rising wages emanating from trade union activities.

The following could be said to be the cause of inflation:

- (1) Excessive money supply: excessive money supply through poor monetary policy or other methods invariably lead to inflation. In Nigeria, the 1974 Udoji salary awards and the 1981 minimum wage. Act injected a lot of money in the economy in the economy thus causing inflation.

- (2) Fall in the supply of goods and services, especially, agricultural products: Agriculture is virtually abandoned in Nigeria. It is only left to the aged in the remote villages who practice subsistence farming using out-dated or archaic methods. The shortage of commodities has been one of the most influential causes of inflation in Nigeria today.
- (3) Budget deficit or government expenditure programme: almost all the government of West African countries have been experiencing budget deficits since the 1970s. There is also enormous increase in the government expenditure on development programmes and other capital projects or expenditures. These have contributed greatly to inflationary trends.
- (4) Imported Inflation: almost all our manufactured goods in Nigeria are imported from the advanced nations of the world who are currently experiencing inflation. These mean a direct importation of these higher prices to west African nations.
- (5) Rural-urban drift/migration: the mass drift to urban areas has left the agricultural sector unattended to. Moreover, the little goods and services in urban areas have now many more mouths for them hence inflation results.

Inflation can also be control with the following measures.

- (1) Price control measure: this involves the setting up of a price control board by the government which fixes maximum prices charged for certain commodities experiencing inflation.
- (2) Wages control or wages freeze: most governments place freezes on wages increases as a measure to not work or is effective since workers have diverse methods of making the government or employers of labour dance to their tunes.
- (3) Monetary policy: This involves the use of traditional monetary instruments to reduce the quantity of money in circulation. These include: increase of bank or discount rate, use of open market operation, sectoral allocations or special directions or special directives, etc.
- (4) Fiscal policy: this is a combination of increase in personal income tax and reduction in government expenditure may prove effective when inflation is demand-pull in nature. These reduce the purchasing power of consumers thus reducing price of commodities.
- (5) Total ban on importation of certain items: especially when inflation is imported, the government is strongly tempted to place total ban on the importation of certain non-essential items. However, retaliation by other nations and political pressure lead to the lift of the ban no sooner that it was placed hence the ineffectiveness of such a policy.
- (6) Over-hauling of the entire distributors' network: Only genuine distributors should be appointed and any one found hoarding and profiteering should be prosecuted to serve as a deterrent to others. The beginning of inflation in Nigeria can be said to be a direct result of the policies of the country's government to stimulate a fast rate of economic growth and development since 1951 when ministerial government was introduced. Inflation has continued recently to be a leading topic in Nigerian families and press as its effects penetrate more deeply into the nation's life. It has become something of a platitude to say that sharp, continuous increases in prices are among the most serious economic problems of our time.

#### **2.4 Balance of payment and economic growth**

A country's balance of payment refers to a systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries during a given period of time, usually one year. An economic transaction, as used here, is an exchange of value, typically an act in which there is transfer of services or the transfer of title to assets from one country's resident to another.

Thus, the balance of payments is a statistical record which summarizes all transactions which take place between the residents of a country and the rest of the world. It is a statement of a country's economic transactions with other countries and it shows for that accounting period, usually a year, total income (receipt) and total expenditure (payment) and the balance of income over expenditure. The transactions include buying, selling, borrowing and lending, investment and disinvestments, income from investment and repatriation of profits and dividends, in addition of gifts and grants etc. All transactions which entail inflow of payment are taken as credit plus entries while debit or minus entries are those transactions which generate an outflow of payment.

A balance of growths account refers to a classified summary of the money value of all international transaction of an economy. In some form of aggregation, pertaining to a given period of time, usually a year.

Balance of payment account is used;

- To inform government authorities of the international position of the country.
- To aid governmental authorities in reaching decisions on monetary and fiscal policy on one hand and trade and payment questions on the other hand.
- They are used to measure the resource flows between one country and another.
- Information of payments and receipts in foreign exchange, constituting a foreign exchange budget, helps to assure monetary authorities that the country could go on budgeting foreign goods and meeting payments in foreign currency when they became due.
- To measure the inflation of foreign transactions on national income.

## **2.5 Government expenditure and economic growth**

In general terms, the government maintains public services, influences attitudes, shapes economic institutions, influences the use of resources, influences the distribution of income, controls the quantity of money controls fluctuations, ensures full employment and influences the level of investment.

Government expenditure helps in assessing its role in economic growth, public expenditure maintains a rate of growth which is a smooth one. In an underdeveloped country, government expenditure has an active role to play in reducing regional disparities, developing social overheads, creation of infrastructure of economic growth in the form of transport and communication facilities, education, and training.

One way in which government expenditure is expected to affect the peace of economic growth is the will and capacity of the people to work, saves, and invests. In this connection, the exact effect depends largely upon the precise form and magnitude of government expenditure.

## **2.6 Overview of fiscal policy in Nigeria economy**

Between 1970 and 1989, fiscal policy objectives included:

Making available for financing economic development the maximum flow of material resources consistent with minimum consumption requirements containing inflationary pressure; raising additional revenue; minimizing existing inequalities in wealth, income and consumption standards which may tends to undermine .production efficiency, offer a sense of social justice and endanger political stability; encouraging domestic production and substantially reduce government budget deficit. Other are lessening the continual heavy dependence on the oil sector as the internal generation of employment; the reduction of overstressed economic and social infrastructures; and the correction of distorted patterns of both domestic consumption and production.

The main fiscal policy instruments in Nigeria include changes in taxation rates, government expenditure and public debt.

On all the fiscal policy tools, it is the tariff measures that have most often changed. Such fluctuation reflects the fluctuating trend in the nation's external earnings. Infact when prospective earnings are high a liberalization approach is adopted but restrictive measures are taken when induced import demand exceeds the import capacity.

## **2.7 Overview of monetary policy in Nigeria economy**

The period, 1970 to 1988, corresponds to the period of the second, third and fourth nation development plants, and two years of the operation of the structural adjustment programme in Nigeria.

Specific monetary policy objectives within these periods include:

Maintenance of confidence in the Nigeria currency through measures to stabilize domestic wages and prices, effective arrangements for supplementing current government revenue and for providing development finance, control of inflation, correction of maladjustment in the monetary sector, and promotion of production capital. Others are of reduction of high unemployment rate, acceleration of National output, stimulation of financial saving and capital formation and restoration of healthy balance of payments position. With respect to monetary instruments, the nation used reserved requirements, rediscount rate and interest rate policy, moral suasion and credit guidelines. There has been heavy reliance on the use of credit guidelines in order to achieve desired policy goals and development plants and especially to combat inflationary pressures. Between 1970 and 1972, the policy took the form of credit ceiling which were set for each broad sector. In 1972 this approach was abandoned (later to the re-introduced in 1976) in favour of new guidelines, which indicated the proportions of total credit to be made available to the various economic sectors.

### 2.7.1 The effects monetary policy

Now suppose there was equilibrium between  $M_s/p$  and  $KL$ ; the question is how would monetary policy be used to correct the disequilibrium? That is, how would monetary policy be used to correct the disequilibrium between output demanded and output produced?

The classical theory would suggest that prices should be allowed to adjust itself to restore equilibrium between the output available and output that would be demanded.

The monetarist would want money stock adjusted by reducing it in order to equate the demand with supply.

Thus, with  $MS$  reduced, there would be reduction in the real aggregate demand, with the nominal demand ( $MS$ ) affected price also be affected, since  $P=MS/Y/V$  so that the demand price will fall as demand falls.

However, this change in money supply would have effects on interest rate and investment if interest rate is affected (rise) price may rise given the fact that  $P=F(r)$  among other things the rise in price due to change in interest rate might equal to greater than or less than the change in  $r$  as equal to the change in  $P$  due to change in  $MS$  than the  $P$  in the above equation would remain the same, so that the final effect would be a smaller  $MS$  that is unchanged or constant. So that the output demanded  $MS/P$  would reduce. This implies that the policy of reduction in  $MS$  might help to restore equality between output and demand that is  $MS/P$  and  $KL$  on the other hand, if  $P$  in the above equation is smaller after the change in  $MS$  that is  $P < P_0$ , the changes in  $MS$  might have a limited effect on the ratio  $MS/P$ . And if the decrease in  $P$  completely offset the decrease in  $MS$  than the change in  $MS$  would considerably reduce the imbalance between  $MS/P$  and  $KL$  that is change in  $MS$  would be an effective stabilizer or equilibrating factor for output.

From the above one can see that the nature of the impact of change in  $MS$  and output can only be ascertained empirically.

On the other hand, it should be noted if investment is affected as a result of change in resulting from change in  $r$  resulting from change in  $MS$  and output is affected (negatively) the  $KL$  would become all the more smaller and in this case monetary policy might prove all the more ineffective as it reduces output instead of increasing it.

### 2.7.2 The impact of fiscal policy

Fiscal policy plays important activities at its increase per capital income of individual in the economy. It plays a vital role in reducing regional disparities by the government shifting more expenditure to areas that have less development and less to regions with high level of development.

This can take the form of development social overheads, creation of infrastructure in the form of transportation, education, communication facilities growth in capital goods etc.

In developing economy, capacities are still below the full employment level and generally characterized by low level of savings and investment activities, the deficiency in demand and production may easily be remedied by stimulating private saving and or both. Since in the developing economies there is shortage of social overheads, skilled labour, capital equipment and machinery, fiscal policy can be used to achieve increased capacities through expending both private and public sector.

Fiscal policy is also a built-in stabilizer in the sense that taxes and government expenditure can be varied at any time the government deems it necessary, so as to suit the economic climate of the country since fiscal policy is goal oriented, it is usually geared towards achieving price stability, full employment, economic growth, income redistribution, fixed and stable exchange rate, favorable balance of payment and aid to friendly countries. On the whole, fiscal policy is an instrument for drawing resources from the private sector of the economy for public sector used.

## 2.8 Instrument of monetary policy

The Central Bank of Nigeria like other Central bank in the possesses an armory of instrument or tools with which to regulate and control the economy. Conventionally, these tools of control are classified under two broad categories.

Firstly, quantitative and general or indirect and secondly, qualitative or selective direct monetary policy.

The first class includes: Open Market Operation (OMO), special deposit, stabilization securities, cash and variable reserve requirements and bank rate. These are meant to control or regulate the cost, direction and level of credit in the economy.

The second-class termed selective credit control tools are inclusive of selective credit guidelines and moral suasion. They are aimed at controlling specific types of credit.

(i) Open Market Operation (OMO):

This is to be undertaken as a deliberate policy and at the initiative of the Central Bank with the primary objective of influencing the cash base and lending power of commercial banks and the rest of the financial system (which is what OMO really means), have never been undertaken in the country until June 30, 1993 when



the Central bank introduced the use of OMO as a final step in the process of movement to the indirect approach of monetary and credit control.

The major instrument for trading in the Open Market were to be government securities while the banks are expected to participate in OMO transaction through the discount house, one of which had become fully operational at the introduction of the new technique of monetary control. The reason given for the part of refusal of the use of OMO was that the exercise of the instrument will be inoperative in developing country without developed money and capital market Nwankwo (1980) said the argument was fallacious, since he believe in the contrary that it is government brokers and not the market as such which crucial to the success of the use of Open Market Operation.

In developed countries of the world, like United State of America, where the financial market is highly developed, the role of the Federal reserve system in helping to stabilize, cyclical fluctuation is carried on primary through the use of Open Market Operations (OMO).

(ii) Reserve requirement

This is the monetary policy instrument that oblige's banks to hold a specified proportion of their deposit liabilities as cash deposit with the Central Bank. The higher the percentage of bank reserves that is stipulated as legal cash reserve requirement, the lower the proportion of the banks fund that is available as backing for credit expansion. Thus, reducing the capacity to create money, on the other hand, a reduction in the reserve requirement increase the capacity of the banks to create credit.

(iii) Discount rate

This is the rate or the cost at which the Central bank lends money to banks and other financial institutes, unlike the reserve requirement and OMO, the discount rate does not directly affect the reserves of the banks, it has a direct impact only on the cost of the banks.

An increase in the bank rate will mean that banks will also have to raise their own lending rate to the public, which increase the cost of credit and causes a decrease in borrowing and therefore discourage investment. The instrument cannot be effective where the bank have excess reserves or do not depend on the monetary authorities for their reserves. Discount rate arises from the Central Bank services to the banks as lender of last resort and it is the oldest instrument used by bank for controlling money supply.

(vi) Special deposit and stabilization security

Special deposit is one of the modern tools of monetary policy designed to supplement the traditional techniques. It operates like the reserve tools controlling credit level of banks, it thus put pressure on the reserve position of the bank in terms of excess liquidity. The interest paid on such account by Central Bank is usually lower than that in which the banks would have lend such money to the public.

Stabilization securities is the power the Central Bank of Nigeria acquired in 1968 and implemented, first eight years after (1976) to control the embarrassing high inflationary period then like the one that now exists. The Central Bank issues is to specify institutions to mop up the excess liquidity of such institution which affect their cash reserve and reduces their credit expansion and therefore the money supply.

(vii) Credit control

Selective credit control is a device that enable the Central Bank to set a permissible maximum on credit to be given to a certain economic sector or the whole economy within a given period. The purpose of selective credit control is not only money supply, but to influence the growth of the economy among desired directions. It has been used extensively in Nigeria to encourage indigenous businesses, small-scale enterprises and the rural areas. For example, stipulated minimum proportion of loans and advances that Commercial Bank was required to grant indigenous borrowers increased from 70 percent in 1980 to 80 and 90 percent in 1982 and 1984 respectively.

(viii) Moral suasion

This is the most persuasive of all monetary tools in that it only involves more persuasion or appeal on the part of the monetary authorities to the banks, requesting them to operate in a particular direction for the realization of a specified government objective. For instance, in Nigeria, after the indigenization decree used several accessories to urge the banks to finance industries, agriculture and so lend money to Nigerians to enable them buy foreign business under the indigenization exercise.

According to Nwankwo (1980), the technique can only operate effectively where the banks management are "gentlemen" and the number of institution being persuaded are small. The tool has been found

to be less effective where the institutions are many and varied in size of capital resources and types of market situation they face. It has not been used at all in places like United States of America.

## 2.8 Instruments of fiscal policy in Nigeria

Some fiscal policy tools relating to economic growth and stability in Nigeria include: Tax incentives (capital allowance, income tax relief, the construction tax, exemption etc) relief from import duties, tariff measures and budgeting allowances.

### (i) Capital allowance

This is the amount granted to companies in lieu of depreciation of fixed assets for tax purpose. The initial and annual capital allowance granted to the companies enable them to write-off their asset for tax purposes. In the process, the companies found themselves in a situation of enhanced profitability, liquidity and reduced risk. According to Uduebo (1985), the pursuit of rapid industrialization and the need to encourage foreign investors to invest in the country led to the introduction of various types of tax and other incentives since 1985 and this had helped in the development to the economy.

### (ii) Income tax relief

The industrial development (income tax relief) act-1971 provides tax exemption for a given period, minimum of three and maximum of five years for an industry declared a pioneer industry and issued a pioneer certificate. Also, lenders to agriculture was granted graduate tax incentives (ranging from 100 percent exemption on loan maturing in less than 2 years), which would enable them get exemption from interest received on their lending.

### (iii) Company Income Tax

The Companies Income Tax Act of 1979 gives the Federal Board of Inland Revenue the powers to assess and collect taxes from all limited liability companies that operate from or within Nigeria. The rate of Company Income Tax has remained relatively stable, fluctuating between 40 and 50 percent.

In 1958, the rate was fixed at 45 percent, increases to 50 percent in 1978 but reduce to 45 percent the following year (1979) and has remained at that level till date.

### (iv) Tariff measures:

Tariff measures have been extensively used in Nigeria to achieve several objectives to stimulate, domestic production curtail inflationary pressure, correct balance of payment disequilibrium and raised revenue for the government, of all the fiscal policy tools, it is the one that has been most often changed to suits the peculiar need of each period.

### (v) Budgeting measures

Budgeting measures have also been used regularly to stimulate economic growth and stability in Nigeria. Ojo and Okunrounmy (1992) said effective fiscal management in many African countries could only be built on a viable and creditable budgetary and planning system. A-system does, exist in most if not, in all cases, but it is typically not efficient.

Some of the elements of an efficient budgetary system are consistency in public investment, adequate provision for asset maintenance and providing effective in-built revenue and expenditure controls.

## 3.0 RESEARCH METHOD

Based on the nature of this study, the research design adjusted as suitable for this study is the ex post facto research design. It is a systematic empirical study in which the researchers does not in any way control or manipulate independent variables because the situation for the study has already existed.

### 3.1 Model specification

In order to test the hypothesis, the variables shall be built into a functional relationship

$$GDP = F(\text{govrev}, \text{govexp})$$

Where;

GDP = Gross Domestic Product

Govrev = government revenue

Govexp= government expenditure

Therefore, the variables are incorporated into ordinary least square (OLS)

Model I

$$GDP = b_0 + b_1 \text{ govrev} + b_2 \text{ govexp} + e$$

Where

GDP = Dependent variable

Govrev, govexp = Independent variable

b<sub>0</sub> = Regression constant

b<sub>1</sub>-b<sub>2</sub> = Regression coefficient

e = Stochastic error term

Model II

$$GDP = F (MS_2, \text{exchr}, \text{Intl})$$

Into ordinary least square model (OLS)

$$GDP = b_0 + b_1 MS_2 + b_2 \text{ exchr} + b_3 \text{ Intl} + e$$

**4.0 Presentation of results and interpretation**

The regression results of monetary and fiscal policy and economic growth in Nigeria (1986-2010).

**Summary of the regression result**

$$GDP = b_0 + b_1 GOVREV + b_2 GOVEXP + e$$

$$GDP = 448965.415 + 12.819 + 4.811$$

TABLE 4.1  
 Regression result on model I

Variables	Coefficient	Std. Error	t-stat.	Sig.
C	-448965.415	355100.09	1.264	.219
GOVREV	12.819	3.660	3.503*	.002
GOVEXP	4.811	.433	11.115*	.000

\*Significant at 1% level

$$R^2 = 0.980$$

$$R^2(\text{adj}) = 0.978$$

$$SER = 1105178.3819$$

$$F\text{-Stat.} = 535.037$$

$$DW = 2.232$$

The economic growth model (GDP) has a coefficient of multiple determination ( $R^2$ ) of 0.980 and an adjusted  $R^2$  of 0.978.

The later indicates that 98% of variations in the observed behaviour of GDP growth is jointly explained by the independent variable govrev and govexp. This shows that the model fits the data well and has a tight fit. Also, the s-statistic is used to test for the significance of such good or tight fit. The model reports on effectively high f-statistic value of 535.037 which when compared with the table value ( $F_{0.05}(3,25) = 3.05$ ) is significantly different from zero. This indicates that the high adjusted  $R^2$  value is better than would have occurred by chance; therefore, the model is statistically robust. The t-statistics are used to test for individual significance, importance and relevance of the variables of the model. Here, the table t-values were read as follows:

Where the degree of freedom,

$N - K = 25 - 3 = 22$  and using a two-tailed test;  $1\% = 2.819$ . The decision rule is that if the calculated statistic ( $t^c$ ) is greater than the table value ( $t_{c12}$ ), such a variable is statistically significant then such a variable whose estimate is significantly different from zero, is relevant in the model. Using this criterion, therefore, the constant term is insignificant and govrev and govexp are significant at 1% level. Specifically, a 1% increase in govrev will prop up economic growth by more than proportionate percentage point of 12.8%. But in the case of govexp, a 1% increase in government expenditure will lead to increase in economic growth by more than proportionate percentage point of 4.8%.

The DW statistic is used to test for the serial correlation in the residuals of the models. The calculated DW is 2.232.

The  $d_u$  is 1.66,  $4 - d_u = 2.34$ ,  $d_l = 1.05$ ,  $4 - d_l = 2.95$  at 5% level.

The decision rule is that if the calculated DW falls within  $d_u$  and  $4 - d_u$  (i.e. 1.66 and 2.34) then there is no serial correlation in the residuals. This shows that our calculated  $DW = 2.232$  falls within this, "no autocorrelation" region. This indicates that the estimates in our model are reliable and valid for prediction.

TABLE 4.2  
 Regression result on model II

**Dependent Variable: GDP**

Variable	Coefficient	Std Error	t-stat	Sig
C	-635474.717	802175.592	-.792	.437
MS2	37.433	2.305	16.240*	.000
Exchr	33498.273	8743.500	3.831*	.001
Infl	21082.371	17662.522	1.194	.246

\*Significant at 1% level

$R^2 = 0.982$

$R^2$  (adj) = 0.979

SER = 1465385.9360

F-stat = 373.024

DW = 0.813

The above regression shows the empirical relationship between MS<sub>2</sub>, exchr, Infl and gdp. The result gives a negative linear equation of the dependent and explanatory variables and if the independent variables are held constant, MS<sub>2</sub>, exchr and Infl will decrease by – 635474.717. The estimated coefficient of MS<sub>2</sub> is 37.433, this implies that a unit increase in money supply will increase GDP. The estimated coefficient of exchange rate (33498) will increase GDP and coefficient of Infl will increase the GDP.

The R-squared of the result is 0.982 and  $R^2$  (adj) is 0.979. This indicates that about 98% change in GDP is caused by the explanatory variables. The adjusted R-squared (0.979) shows that the model exhibits a goodness of fit and this further indicates that the model employed in explaining the relationship between the dependent and independent is quite good. The F-ratio of 373.024 is greater than the critical F ratio at 5% level of significant. It shows that the overall model is statistically significant at the level. The Durbin Watson statistic of 0.813 shows that there is a strong autocorrelation among the variables.

#### 4.1 Discussion of findings

Given the empirical results of the model, Keynesian is essentially based on the short period consideration when money flows rather than stock, the concept of the short-run is similar to the one applicable to the theory of the firm. Our study shows that gross domestic product is determined by GOVREV and GOVEXP, during the financial era in Nigeria. Our study confirms the works of Nzotta(2004), Jhingan(2005), Ajayi(2006), who found positive relationship between monetary and fiscal policies. The result refutes MCKinnon-show hypothesis supply leads to an increase in economic growth. The level of economic growth in Nigeria does not boost inflation. The high significant and insignificant relationship between monetary and fiscal policies refute Ajayi(2006) hypothesis that government rely on revenue respectively in Nigeria.

#### 5.0 CONCLUSION AND RECOMMENDATIONS

This study examines the effect of monetary and fiscal policies on economic growth in Nigeria. Based on the findings, the major sources of problems in monetary management were the nature of the monetary control framework, the interest rate regime and the non-harmonization of monetary and fiscal policy. The fact that money is very useful in predicting economic stabilization; monetary policy may still be useful in achieving other objectives of the Central Bank as maintenance of price stability, equilibrium in balance of payment, attainment of full employment and stability in exchange rate. It also shows that fiscal policy may be useful to complement monetary policy in stabilizing the economy.

Based on the findings, the following recommendations are made:

- (1) The Apex Bank must persistently remind the authorities of the need for significant reduction in fiscal deficits in order to overcome the high extra budgetary expenses associated with past budgets which often necessitated the seemingly irreversible and depreciation in the naira exchange rate at the unofficial market.
- (2) The nation would be better off if it pursues sound macro-economic policies and effectively adopt market based reforms, which are capable of stimulating the domestic market and boosting industrial production as well as improving the social and physical infrastructures.

- (3) Government should increase the number of fiscal policy instrument over and above the ones currently in use. This is so because the more policy instruments, the more target variables and more effective and successful it will be in economic growth and development.
- (4) While the government intends to increase its expenditure, it should as well adopt measures that would ensure income generation and government revenue generating ventures.

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