

# **EFFECTIVE MANAGEMENT OF THE NIGERIAN ECONOMY THROUGH THE MONETARY POLICY INSTRUMENT**

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## **Abstract**

The cloudy controversy over the effectiveness in the use of monetary policy in achieving broad macro economic objective of full employment, price stability, acceptable and sustainable rate of economic growth and balance of payment equilibrium. The paper broadly attempts, using a multi variant regression model through the analysis of the economic data to show the effectiveness of monetary policy instrument performance measure.

## **Introduction**

To begin with, it is important to bear in mind that the Central Bank of Nigeria (CBN) is directly responsible for formulating monetary policies in Nigeria. Since monetary policies are designed to control the quantity of money supply in accordance with national economic goals, no other institution is better placed than the CBN to carry out the function.

The monetary policy in Nigeria has been conducted under wide ranging economic environment since the establishment of the CBN to conduct monetary and fiscal policies derived from the CBN Act of 1959 amended in several decrees and consolidated in Decrees 24 and 25 of 1991.

To achieve desired policy objectives the CBN is empowered to use any of the instruments of monetary control. The CBN carries out these assignments by direct controls and also issues the monetary policy circular at the beginning of each fiscal year to institutions in the financial system for instance the monetary policy circular was formulated with the following objectives.

- (a) Attaining substantial improvement in balance of payment.
- (b) Accelerating the rate of domestic production so as to restrain price inflation.
- (c) Mobilizing domestic savings.
- (d) Attracting foreign capital into more productive activities.

Since monetary policy is bank based, the enhancement of bank performance through monetary policy is not fully realized. This, coupled with other problems in the banking industry has led to distress, which in turn affects monetary management adversely. Apart from the problems in the banking industry, conflicting policy objectives and instruments, policy harmonization and implication constraint are others.

Some key issues in the objectives spelt out for monetary policy are further examined below:

## **Full Employment**

This simply implies that people who are qualified to work and who seek jobs at the prevailing salary or wage rates find the job in productive activities without delay. However, this does not mean that unemployment is ever zero.

The implementation of full employment policy is fraught with many problems in Nigeria: Oboh (1983) raised an important point as regards the effects of the NYSC scheme on the employment of graduates in Nigeria. He discovered that many firms, companies and institutions rely on regular annual cycle of the supply of youth corpsers, which cost them very little. They therefore, have no need to employ graduates into full employment because the jobs are being done by youth corpsers.

You will find that a company will refuse to employ an ex-corper, who a

moment ago was serving with them, on the pretext that there is no job or vacancy. But in the next allocation, this same company will struggle hard to have some allocation again and so on. One is not condemning the scheme but rather making an observation that it is one scheme that will not make full employment attainable in Nigeria.

### **Price Level Stability**

Price stability means the absence of any market trend or sharp-run movement in general level of prices. This does not mean stability in individual prices. We have had problems in trying to achieve this objective. We had for instance in Lagos and River States where the government tried to control rent when she doesn't own houses to let. We also had in the past the price control of cars when Peugeot Automobile Nigeria (PAN) and other cars assembly plants were grounded. Recall the salt and wheat problem we had in the late 1970s and early 1980s when government banned the importation of these commodities to protect the local salt and flour industries. However, the local industries could not meet the local demand, which led to scarcity of the commodities. The government later intervened after many had reaped millions of Naira by engaging in indirect importation/smuggling to meet the demand. The lesson is that unguarded control might result in more serious problems, such as scarcity, smuggling and inflation.

### **Enhancement of Rapid Economic Growth and Development**

It is not uncommon for the government in this country, while pursuing economic growth and development, to the mid stream, put in place a contradictory policy working against such policy. The IMF programmes appear to some to be primarily directed at making the developing countries perform better in their client relationship with the West. In practice however, the IMF's policies do not appear to achieve the stated objective in the short run (which is the duration of IMF programmes), whereas the ultimate objective is "the provision and maintenance of high levels of employment and real income", the IMF policy seems to produce the opposite results.

The policy of Trade Liberalization/Globalization should not be encouraged. If USA can pass an anti dumping law against exports from Asia (for threat of Japan wizardry in the electronic technology) then it is enough to know that liberalization is not good for Nigeria.

Privatization also needs to be re-examined. All parastatals that provide welfare amenities should be left with the government for meaningful economic development while corruption that commonly bedevils them should be adequately checkmated with anti corruption policies and legislation,

### **Analysis Of Money Supply**

Throughout the period under review the Total Money stock ( $M_2$ ) in the economy remained on the increase from year to year. The Quasi-money ( $Q_m$ ) basically played a dominant role in the increase of total money supply between 1980 and 1988. This ( $Q_m$ ) however recorded a negative growth rate of about 5.4 percent (5.4%) in 1989 - but attained its peak growth rate of about 81.3%, in 1993. Currency outside banks plus privately held demand deposits with the commercial banks and Central Bank ( $M_1$ ) during the study period (1980-1994) fluctuated between 1.2 percent in 1986 and 80.2 percent in 1993.

The period between 1986 and 1988 were the preliminary years of the Structural Adjustment Programme and it thus witnessed the introduction of major monetary instruments for the achievement of the basic objectives of the programme, Structural Adjustment Programme (SAP). From 1988 ( $M_1$ ) virtually took

the lead over quasi-money ( $Q_m$ ) in the build up of the total money stock ( $M_2$ ) in the economy. Statistical records show that M1 rose from 17.7 percent in 1989 to a peak of about 80.2 percent in 1983.

However, between the period of 1985 and 1987, M1 grew at a moderate pace, though for the first time in the period M1 growth exceeded the targeted rate by a relatively wide margin. The worst years in terms of policy slippages were 1988, 1990 and 1992 when the divergences between the targeted M1 growth rate and actual performance were 26.9, 31.9 and 42.1 percentage points respectively. Akatu (1993) states that, "in two of those years 1988 and 1992, Central Bank credit to government comprises the main driving force, pushing M1, growth by 50.1 and 105.1 percentage points respectively. In the third year (1990), the main source of M1 growth was not foreign assets whose monetization by the government, pushed the growth of M1 by 83.8 percentage points".

The aforementioned two factors (Central Bank credit to government and foreign assets monetization) were jointly responsible for the high growth of M1 above target in 1991. And these factors especially monetization of foreign assets dominantly constituted the major expansionary factors behind the upward rise in M1 until 1994.

### **Impact of Consumers Price Index**

Statistical records show that price between 1980 and 1982 the level all through the period of study was generally on the increase. Between 1980 and 1982 the figure which stood at 42.30 has risen through 51.20, 51.30 to 55.10 respectively. In 1983, the Consumer Price Index (CPI) rested at 67.90.

The sharp rise in 1983 was attributed to (CBN Annual Report 1983:9), the general scarcity of consumer goods which was made worse by hoarding and sharp increase in money stock  $M_2$ -from N16,894m in 1982 to 1419,368.90m in 1983. This gives an increase of about N2,474.90m. After 1984, there was an astronomical rise in consumer price from 117.30 in 1987 to 181.20 in 1988, this trend continued into 1990 with a consumer price index of about 272.70.

The inflationary pressure which stood at 9.9 percent in 1980, rose to 20.8 percent in 1981. Though it subsided in 1982 (7.6%) but it again rose in 1983 (23%) and climaxed at 29.5% in 1984. This later pressure was however reduced to an average of 6.93 between 1985 and 1987 in spite of the price adjustments that accompanied the take-off of the Structural Adjustment Programme (SAP). In 1990, the inflation rate was also at single digit of 7.4 percent with a consumer price index of 292.80. This is a reasonable price change (20.1) considering the difference in total money stock between 1990 and the preceding year (1989). The fall is possibly due to liquidity squeeze witnessed towards the end of 1989 as a result of transfer of the public sector deposits in Commercial and Merchant Banks to the Central Bank. This, however, pressure again rose to 13% in 1991. In all, throughout the study period (1980-1994), inflation rate remained unabated. It averaged 7.8 percent between 1986 and 1987, 30.8 percent between 1988 and 1992 and rose to 54.5 percent in 1993. In 1994, it attained the peak of 57%.

Money supply expansion ( $M_2$ ), consistently out of line with the desired stances of monetary policy, appeared to have played a major role in 1988, 1992 and even up to 1994 as per the rising inflation rate. It should be noted that after 1990 consumer price index experienced a galloping rise up till 1994 attaining a peak of 1180.70 from 330.00 in 1991. The average change per year of consumer price index between 1991 and 1994 rested at 685.25. The inflation moderation experienced in 1990 and first half of 1991 was attributed to improved food supply and continued light monetary policy pursued during the year (CBN) Annual Report 1990:10).

### **Impact of Interest Rates**

The interest rate for a greater part of this period of study was government regulated. In 1980 the maximum lending rate was sealed at 11.5 percent and this was adjusted to 12 percent and 14 percent in 1981 and 1982 respectively. Between 1983 and 1985 a constant interest rate of 13% was maintained as maximum lending rate by the government. It was adjusted to 14%, 15% and 17.3% in 1986, 1987 and 1988 respectively. This was done to achieve the objective of the Structural Adjustment Programme.

The government thus conscious of the fact that ideal interest rates should be maintained at levels that ensure the full utilisation of resources at reasonably stable prices, attempted a policy of deregulation of interest rate. This was basically aimed at guaranteeing optimal mobilization of savings and efficient allocation of investment resources to stabilize price through increased production. This led to a sharp increase in the market interest rates in 1989 (25.7%) in the wake of series of measures taken by the Federal Government to squeeze the liquidity in the banking system during the year and climaxed at 27.3% in 1990. One of such monetary measures taken by the government was the transfer of public sector deposits from Commercial and Merchant Banks to the Central Bank. In 1991, the rate was forced down to 21.0% as Banks sought to comply with the Central Bank mandatory 21.0% ceiling on lending rate which was policy determined.

The upward trend in lending rate resumed in 1992 recording an interest rate of about 31.2% following the lifting of the ceiling of 21%, imposed in 1991, from January 1992. This continued up-till 1993 with an optimal of 43.7%. To check this galloping interest rate government in 1994 fixed the maximum lending rate at 21%. This development did not go down well with the various financial institutions in the economy. Thus there were various underground moves to beat the stipulated regulations. This resulted in negative interest rate during the year. The fixed interest rate of 1994 was not realistic as it eroded every incentive to save giving inflation rate of about 57% and deposit rate fixed at between 12-15%. The end result of it was that the negative real interest rate may have encouraged what is termed as FLIGHT OF CAPITAL TO SAFETY. This pegged interest rate may have also induced the moving away of domestic deposit from the Banking system into inflation hedges such as hard currency, real estate, etc.

However, real interest rates were generally positive between 1985 and 1987 but became negative in 1988 and 1989. As inflation dropped to relatively, low levels in 1990 and 1991, interest rates again became positive. With the increasing rate of inflation through 1992 to 1994, most interest rates once again became negative and this was a matter of serious concern to the economy.

### **Impact on Economic Growth**

In this study, Gross Domestic Product is used as a proxy for economic growth. According to Kindleberger (1995), economic growth can be defined as sustained increase in a country per capita income accompanied by expansion in its labour force, consumption, capital and volume trade. Thus the performance of real output, as measured by the Gross Domestic Product (GDP), appeared to have been the bright spot in the macro-economy. The Grass Domestic Product (GDP) at current factor cost was on the increase during the period under review from mere 49,073.07m in 1980 to a peak of 891,789.8m in 1994. The real growth rate in 1980 was 4.1%. This dropped to 2.8% in 1981, although rose to GDP 50,476.7m. A negative growth of 0.3% was recorded in 1982 with a gross domestic product of 51,570,40m. This negative growth rate of real GDP continued in 1983 and 1994 with a 5.4% and -5.1% respectively. The trend

repeated in 1987 when real gross domestic product was 0.6%. In 1985 and 1986 the GDP were 71,368.1m and 72,128.3m and the real growth rate of GDP was positive with a peak of 10% in 1988 followed by 8.3% in 1990 and has since then declined through the years to a minimum of 1.3% recorded for 1994. The total average growth rate of real gross domestic product for the entire period under review was 3% per year.

It is also worthy of note that following the stagnation of output in 1987, Gross Domestic Product (GDP) grew at a brisk pace during 1988, 1989 and 1990 recording 142,678.4m, 222,457.7m and 257,873m respectively. As intimated earlier growth has since then been sustained although at much more moderate pace. These observations according to Akatu (1993): could be attributed to the following reasons: First the surge in Gross Domestic Product in 1988 and 1989 were probably more a reflection of the depressive levels to which production had reached in nearly a decade of decline. The Gross Domestic Product probably regained its long-run growths trend, thereby ending several years of recession in 1989. Second, has so far not been accompanied by any perceptible recovery of investment. In other words, the investment performance has nevertheless been dismal. Thus the slow down in the growth rate since 1991 may be already be a reflection of the slow pace growth investment all through the period.

#### Model Specification/Analysis.

This is a multiple regression to show the relationship between money stock, Government expenditure and Government revenues as independent variables, and Gross Domestic Product as the dependent variable. Gross Domestic Product is in this model use as a proxy for economic growth.

The model is specified as:

$$GDP = b_0 + b_1 R_t + b_2 G + b_3 M_2 + U_t'$$

Note that GDP is represented by  $Y_t$   
Therefore the equation is written as:

$$Y_t = b_0 + b_1 R_t + b_2 E_t + b_3 M_2 + U_t'$$

In other word  $Y_t$  is defined as a function of both fiscal and monetary policies.

$$Y_t = F(R_t, E_t, M_2).$$

Summary table of the regressed data result are shown below:

#### Model Summary

Model	Variables		R	R. Square	Adjusted R. Square	Std. Error of the Estimate
	Entered	Removed				
1	TOTREV, MONEY SP <sup>nd</sup> FEDEXPEN <sup>nd</sup>		997	994	992	33.4537

- a. Dependent Variable: GDP
- b. Method: Enter
- c. Independent Variable (Constant), TOTREV, MONEY SP, ZFEDEXPEN
- d. All request variables entered

Coefficients<sup>3</sup>

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	48.205	12.480	b <sub>3</sub> 512	3.863	033
	MONEYSP	166	024	b <sub>2</sub> 229	6.884	000
	FEDEXPEN	-157	076	b <sub>1</sub> 771	-2.050	065
		587	050		11.803	000

$$Y_t = (48.205) - + (0.771Rt) + (0.229Et) +(0.512M2)$$

$$S.E: (12.480) (0.050) (0.076) (0.024)$$

$$t - \text{Values: } 3.863, 11,803, -2.050, 6,884$$

$$R = 0.997 \quad R^2 = 0.994$$

$$b_0 = 48.205, b_1 = 0.771, b_2 = 0.229, b_3 = 0.512$$

$$\text{and } S_{b_0} = 12.480, S_{b_1} = 0.050, S_{b_2} = 0.076, S_{b_3} = 0.024$$

$$F = 572.467$$

Testing the hypothesis that no significant relationship exists between the rate of growth in the economy and money stock. Our  $R^2$  is 99.4%. This means that the explanatory variable (Money Stock, Expenditure and Revenue) could account for about 99.4% of the rate of growth in the economy over the period of study. F-computed was 572,467 showing a regression line of good fit. The F-tabulated at 5% and 1% degree of freedom are 3.59 and 6.22. It is thus clear that in both cases F-computed is greater than the critical value of F. i.e.  $F^* > F - \text{tabulated}$

$$572,467 > 3.59 \text{ and}$$

$$572,467 > 6.22$$

Given these results we reject the Null hypothesis and conclude that the variables in the regression are statistically significant. This shows that the regression line is capable of explaining the economic model.

Standard error test for the verification of the parameters was carried out as follows:

$$\begin{aligned} \text{Constant } b_0 &= 48.205 \\ S_{b_0} &= (12.480) \end{aligned}$$

Test

$$\begin{aligned} S_{b_0} &< 1/2 b_0 \text{ or } S_{b_0} > 1/2 b_0 \\ 12.480 &< 1/2 (48.205) \text{ or } 12.480 > 1/2 (48.205) \\ 12.480 &< 24.103 \end{aligned}$$

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$$\text{i.e. } 12.480 < 24.103$$

Thus we say the intercept line could not have passed through the origin.

Independent Variables Coefficients

$$(A) \quad b_1 = 0.771$$

$$\begin{aligned}
 &Sb_1 = 0.050 \\
 \text{Test:} & \\
 &Sb_1 < \frac{1}{2} b_1 \\
 &0.050 < \frac{0.771}{2} \text{ or } 0.386 \\
 &* 0.050 < 0.386 \\
 &\text{or } Sb_1 < \frac{1}{2} b_1
 \end{aligned}$$

Therefore we concluded that the estimate of  $b_1$  is statistically significant.

(B)

$$\begin{aligned}
 &B_2 = -0.229 \\
 &Sb_2 = (0.076) \\
 \text{Test:} & \\
 &Sb_2 < \frac{1}{2} b_2 \\
 \text{i.e.} & \\
 &Sb_2 < \frac{-0.229}{2} \text{ or } -0.115 \\
 \\
 \text{Thus} & \\
 &\text{i.e. } 0.76 > -0.115 \\
 &\text{OR } Sb_2 > \frac{1}{2} b_2 \\
 &\text{We conclude that 'b}_2\text{' is not significantly different from zero.} \\
 \\
 \text{(C)} & \\
 &b_3 = 0.512 \\
 &Sb_3 = (0.24) \\
 \text{Test:} & \\
 &Sb_3 < \frac{1}{2} b_3 \\
 \text{i.e.} & \\
 &0.024 < \frac{0.512}{2} \text{ or } 0.256 \\
 &* 0.024 < 0.256 \\
 &\text{OR} \\
 &Sb_3 < \frac{1}{2} b_3
 \end{aligned}$$

### ***Instrument***

Thus  $b_3$  is statistically significant.

The results of this model evaluation gave rise to the following conclusions.

1. The three explanatory variables were able to account for about 99.4% changes in Gross Domestic products over the period of study.
2. The  $t^*$ -value computed for money stock ( $M_2$ ) is greater than  $t$ -value tabulated.

i.e.  $t = \text{value computed} = 6.884$   
 $t = \text{value tabulated} = 2.160$  at 5% level of significance.

$t\text{-computed} > t\text{-tabulated}$   
 i.e.  $6.884 > 2.160$

Thus we reject the Null hypothesis and accept the alternative hypothesis. In other words, there is a significant relationship between money stock and Gross Domestic Product.

**TABLE 1.0**  
**Currency In Circulation**  
**(million)**

Year/Quarter	Notes	Coins	Total Currency in Circulation	Cash Held by Banks in Vault	Total Currency outside Banks
1970	322.6	47.8	370.4	28.1	342.3
1971	335.3	51.1	386.4	31.9	342.5
1972	363.4	50.6	414.0	28.8	385.2
1973	450.3	36.0	486.3	50.4	435.9
1974	597.9	40.8	638.7	68.8	569.9
1975	1,196.9	48.5	1,155.4	124.8	1,030.6
1976	1,488.3	51.7	1,540.0	188.8	1,351.2
1977	2,105.7	56.9	2,162.6	221.8	1,940.8
1978	2,317.9	63.7	2,381.6	224.4	2,157.2
1979	2,638.7	65.2	2,703.9	352.6	2,351.3
1980	3,521.4	68.1	3,589.5	403.6	3,185.9
1981	4,275.5	72.2	4,347.7	485.8	3,861.9
1982	4,652.4	76.4	4,728.8	506.4	4,222.4
1983	5,219.3	80.0	5,299.3	456.5	4,842.8
1984	5,260.9	86.2	5,347.1	463.6	4,883.5
1985	5,288.6	86.4	5,375.0	465.1	4,909.9
1986	5,594.0	102.3	5,696.3	514.3	5,182.0
1987	6,742.6	112.3	6,854.9	556.3	6,298.6
1988	10,091.0	119.5	10,210.5	798.2	9,412.3
1989	12,972.4	137.9	10,722.5	965.9	11,688.3
1990	14,940.6	147.3	16,212.5	1,271.9	14,940.6
1991	23,108.2	209.0	25,331.2	2,223.0	23,108.2
1992	36,765.9	2187.5	39,735.4	2,969.5	36,765.9
1993	56,260.8	865.1	60,980.4	4,719.6	56,260.8
1994	90,492.0	1,180.7	96,057.5	5,565.5	90,492.0
1995					
1 <sup>st</sup> Quarter	39,516.9		91,099.5	4,752.1	86,347.4
2 <sup>nd</sup> Quarter	87,139.5	141.6	92,117.6	4,978.1	87,139.5
	60,115.3	1,155.1			
	94,876.8				
	90,957.9				
	90,962.5				

1. Currency in circulation is made up of notes and coins.
2. Currency outside banks is total currency in circulation less banks' vault cash.
3. Provisional.

Source: Central Bank of Nigeria Statistical Bulletin (1996).

Table 2.0: Money Supply (N'' million)

Year/Quarter	Currency outside Banks 1	Demand Deposits	Money Supply (M1)2	Demand Deposits as % of Money	Quasi Money3	Money Supply (M2)4
1970	342.3	266.0	608.3	43.7	341.6	949.9
1971	354.5	274.4	628.9	43.6	376.4	1005.3
1972	385.2	314.9	700.1	45.0	461.2	1161.3
1973	435.9	391.2	827.1	47.3	586.9	11414.0
1974	569.8	608.5	1178.3	51.6	977.9	2156.2
1975	1030.7	1013.3	2044.0	49.6	1578.4	3622.4
1976	1540.0	1941.8	3293.0	59.0	1985.9	5278.9
1977	1940.0	2853.6	4794.4	59.5	2263.1	7057.5
1978	2157.2	2932.5	5089.7	57.6	2609.8	7699.5

1979	2350.8	3795.8	6146.8	61.8	3710.6	9857.4
1980	3185.9	6040.9	9226.8	65.5	5170.6	14397.4
1981	3861.9	5883.0	9744.9	60.4	5803.2	15548.1
1982	4222.4	5826.2	10048.	58.0	6845.4	1694.0
1983	4842.8	6439.6	11282.	57.1	8086.5	19368.9
1984	4883.5	7320.6	12204.	60.0	9396.4	21600.5
1985	4909.9	8357.9	13267.	63.0	10550.8	23818.6
1986	5177.9	7927.1	13105.	60.5	11487.7	24592.7
1987	6298.6	8607.3	14905.	57.7	15088.7	29944.6
1988	9412.3	11736.3	21148.	55.5	21631.7	42780.3
1989	11688.4	14009.2	25697.	54.5	20525.3	46222.9
1990	14940.6	22293.1	37233.	59.9	27699.0	64902.7
1991	23108.2	26256.3	49364.	53.2	36788.0	86152.5
1992	90492.0	38406.6	75172.	60.0	53111.2	128283.7
1993	86347.4	60129.9	116390	51.7	76067.9	192458.6
1994	87139.5	81512.7	172004	47.4	95755.1	267759.8
1995						
1 <sup>st</sup>		69910.9	156258	44.7	92806.5	249064.9
Quarter		91264.8	17807	51.2	94954.	273362
Quarter						
5						

1. Currency outside banks is defined as currency in circulation less vault cash in commercial and merchant banks.
2. Money Supply (M1) is defined as currency outside banks plus privately held demand deposits with the commercial banks and the Central Bank.
3. Quasi-Money (QM) is defined as savings and time deposits with commercial banks plus total deposit liabilities of merchant banks. Prior to 1988, quasi money did not include the deposit liabilities of merchant banks.
4. Money Supply (M2) is composed of M1 and quasi money as defined above and constitute total monetary liabilities.
5. Provisional.

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