

# INFLATION MANAGEMENT AND THE USAGE OF MONETARY POLICY INSTRUMENTS IN NIGERIA (1975-2014)

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## Abstract

This paper empirically analyze the role of monetary policy instruments in the management of inflation in Nigeria between 1975--2014 periods. It applied multiple regression analyses technique in explaining the relationship of monetary variables and the dependent variable of inflation. The hypothesis was analyzed and the null was accepted based on the regression result. It was recommended that Nigeria shift from its import driven economy to production based and export economy for the impacts of these policies to come to realization.

**Key Words:** Monetary policy, inflation, credit reserve, liquidity rate.

## INTRODUCTION

Inflation as defined by Kanu (2002) refers to “a situation where there is a substantial sustained increase in price changes (of goods and services)”. Increases in price should be reasonable and also sustained for a long period of time before it could be regarded as inflation. Inflation as it exists in Nigeria is a national scourge which has plagued the economy over the years. It is a phenomenon that has defiled all known economic theories. According to Masha (1995), “Inflation in Nigeria is driven from both demand and supply side. The demand side pressures arise from charges in monetary aggregates while the supply side pressure arises from silent structural characteristics of the economy. Scholars agreed that increases in prices of goods and services, income levels, capital inflow, persistent deficit budgeting, increase money supply among others are some of the causes of inflation in Nigeria.

Traditional monetarist stresses the importance on the link between money supply and inflation and opined that inflation is “always and everywhere a monetary phenomena is”. Friedman (1983) argued “that inflation has a monetary character because it results from the rise in the Quantity of money although, a change in price may not show up at the same time as the rise in the quantity of money”. However the monetarist approach is in stark contrast to the structuralist school which sees financial factors as forces propagating inflation rather than causing it. The main structuralist point is that inflation can result from a number of special problems and not just from excessive money growth. It could also arise from the cost side such as increase in local earning power devaluation which could lead to the need for increase in wages and thus drive up production cost and increase final good prices.

As pointed out in 2016 Federal Budget, three types of inflation were identified as “the mother of Nigeria’s inflationary situation”. They are demand-pull inflation, cost push inflation and wage push inflation: Within the Nigeria economy, the effects of inflation includes expansion of ‘production capacity, increase in employment levels, benefits to

the borrower, high interest rates, low investment, low earnings, high cost of production, depreciation of the nation’s currency amongst others.

Monetary policy on the other hand refers to the combination of measures designed to regulate the value, supply and cost of money in an economy in consonance with the expected level of economic activities. According to Uchedu (2009:5) “Monetary policies refers to the use of instruments at the disposal of the central Bank to influence availability and cost of credit/money in other to achieve macroeconomic stability. It is a monetary management tool performed by the central bank on behalf of the government. Anyanwu (2003) states “monetary authorities must attempt to keep the money supply growing at an appropriate rate to ensure sustainable economic growth and maintain internal and external stability”. The direction of monetary policy is dictated by the prevailing economic situation and policy objective which have remained broadly the same over the years.

Over the years, authorities have enunciated and implemented a myriad of inflationary policies in an attempt to transcend desired economic growth. Till date, the achievement of these remains a subject of discussion in both public and private fora. This paper seeks to examine the role monetary policy plays in curbing persistent presence of inflation and its continuous growth despite effort to reduce it.

## Theoretical and Empirical Reviews

Inflation has been defined by scholars from countries based on antecedence occurrence on their economy. Okereke, (2005) defines inflations as “any general rise in price level which has the tendency of distorting the policy objective of government over a given period of time”. It is also defined as “a situation of rapid, persistent and unacceptable high rise in the general price level in an economy resulting in general loss of purchasing power” (Oluyemi 1995). Essentially, growing inflation affects the value of money by exerting a downward and upward pressure on it”. It is an economic phenomenon of consistent rising prices (Okereke, 2005).

Consequently, the 1950’s until the Late 1960’s, inflation rates were rare.

Following the collapse of the Brenton Woods fixed exchange rate system in the early 1970's, inflation became a worldwide phenomenon. Since the early 1990's, inflation has however declined. In advanced economics for instance, the median inflation rate has fallen from 7% in the 1980's to 2% in the current decade. In emerging markets, the median inflation rate has fallen from 9% to 4% over the same period. Indeed as seen in the latest issue of the international monetary fund's world economic outlook, average inflation in recent years are at their lowest levels since early 1970's. Some of the inflationary theories known are the (a) Cost Push theory (b) Demand Pull Theories (c) Structural Rigidity Theories (d) Open and Suppressed Theory

**Inflationary Trend In Nigeria**

The rising trend in the inflationary rate in Nigeria has become a source of concern to both the government and members of the public. It is therefore obvious to state that the tide of rising inflation trend can only be controlled if certain policies and actions by both government and public authorities are religiously executed (Philip, 1999). Okereke, (2005) said it has become one of the perennial problem that has plagued the nation especially in the late 80's and 90's. The trend shows four (4) major episodes of high inflation in excess of 30percent (especially during the SAP era) with wage increase which create& cost-push effect.

Some of the factors often adduced for this inflation is the drought in the northern Nigeria which destroyed agricultural produces and pushed up the cost of agricultural food items, a significant proportion of the average consumers' budget worsening terms of external trade among others. The experience indicates an' excess monetization of oil exports revenue which might have given the inflation monetary character reaching the peak at 40 percent in 1984. At that time, the government was under pressure to devalue her currency from debtor groups like the IMF. The expectation that devaluation was imminent fuelled inflation as price adjusted to the parallel rate of exchange. Over the same period, excess money growth was about 43 percent and credit to government had increased by over the one percent. (Okereke, 2005; Asogu,1991 and Fakiyesi,1996).

The third high inflation episode started in the last quarter of 1987 and accelerate through 1988 and 1989. This episode is related to the fiscal expansion that accompanied the 1988 budget. Though, initially, the expansion was to finance credit from the CBN, it was later sustained by increasing oil revenue that was t sterilized. In addition, with the debt conversion exercise, through which "debt ft equity" swaps took place, external debt was repurchased with new local currency obligations. However, with the drastic monetary contraction initiated by the authorities in the middle of theperiod, inflation fell reaching its lowest point in 1991.

The fourth inflationary episode occurred in 1983 and persisted through the end of 1995. Though inflation gathered momentum towards the tail end of 1992, it reached. 80% by the end of 1993, the highest rate since the 1980s and by the end of 1995, it was 70%. As with the third inflation period; it coincided with a period of expansionary fiscal deficit and money supply growth. The authorities found it too difficult to contain the growth of the private sector domestic credit and bank liquidity and by the end of 1992, money supply growth was 70%. The trend continues on a swinging note up to 1999

when Nigeria became a democratic nation and the rate currently stood at 11.1 percent in Feb, 2011.

**Monetary Policy And The Nigerian Financial Institutions**

The sole regulatory authority of the institution is the CBN saddled with Such regulations as monetary policy.

Consequently, Monetary Policy (MP) is a policy used by the government of any nation through her central bank authority and some of her agencies in controlling the liquidity in the economy also to influence government revenue and expenditure pattern with the ultimate aim of achieving (a) Price stability (b) Balance of payment disequilibrium (c) Full employment and (d) Economic growth.

The CBN monetary policy tries to influence the performance of the economy as reflected in key macroeconomic indicators (evidenced from the literature) like inflation, GDP and employment.

**Workings of The Management of Monetary Policy By The Cbn**

When the Central Bank of Nigeria changes the level of money supply, it does so through changing the control of the base money. Base money is made up of currency and coins outside the banking system plus the deposits of banks with the Central Bank. If the Central Bank perceives that there is too much money in circulation and prices are rising (or there is potential pressure for prices to rise, it may reduce money supply by reducing the base money. To reduce the base money, the Central Bank sells financial securities to the banks and the non-bank public so s to reduce the ability of deposit money banks to create new money. The Central Bank can reduce the money supply by also raising the cash reserve balances in a bank balance sheets. Central bank monetary policy, therefore, targets the growth in those deposit balances so as to control the expansion in money supply which could precipitate price distortion.

A reduction in money supply affects the ability of banks to create new money through giving loans to their customers. In this way, the Central Bank could be said to be pursuing a contra inflationary monetary policy. When investors cannot get new loans to expand their investments, it reduces the level of total output in the economy. A reduction in output affects the level of employment and prices as less money is available for purchasing goods. In this way prices remain stable or fall. The Central Bank can also pursue an expansionary monetary policy when it reduces the cash reserve ratio and buy securities from the open market. In this case, the reverse of our analysis above holds.

**METHODOLOGY**

The operational methodology adopted is the multiple regression analysis. Our model is presented thus;

$$INF_r = F (INT_r, LIQ_r, CR_r, MPR) \dots \dots \dots \text{eqn (1)}$$

- Where INF = Inflationary rate
- INT<sub>r</sub> = Interest rates
- LIQ<sub>r</sub> = Liquidity rates
- CR<sub>r</sub> = Credit reserve rates
- MPR = Monetary Policy rate

For the purpose of estimation, we therefore, re-write equation (1) as;

$$\text{INFr} = \beta_0 + \beta_1 \text{INT}_t + \beta_2 \text{LIQ}_t + \beta_3 \text{CR}_t + \beta_4 \text{MPR}_t + e_t \dots \text{eqn (2)}$$

$$X_1, X_4 > 0$$

Where: INFr = inflationary rate

$\beta_0$  = Constant term

$\beta_1, \beta_2, \beta_3, \beta_4$  = the regression coefficient of interest rate, liquidity rate, credit reserve rate

MPR = monetary policy rate

$e_t$  = error or stochastic term. -

$X_1, X_4 > 0$  the apriori expectation is positive

**Estimation of Results And Analysis**

Variables	Coefficients	Standard Error	t-Statistics	Sig t-Value
INT <sub>t</sub>	-0.062	0.469	-237	0.814
LIQ <sub>t</sub>	-0.175	0.210	-0.983	0.332
CR <sub>t</sub>	0.075	0.468	0.437	0.665
MPR	0.344	0.824	1.280	0.209
R = 0.387, R <sup>2</sup> = 0.149, Adj R <sup>2</sup> = 0.049, F = 1.493, Sig f = 0.226				

Source: E-view data output

**PRESENTATION OF RESULTS**

Following Maddala (2007) and Norusis (2000), the beta values are adopted for the variables since they are not measured in the same units. The results indicate a positive relationship between credit reserve rate (CR<sub>t</sub>), monetary policy rate (MPR) and inflation rate which leaves more to desire in the theoretical sense. In the same vein, the negative relationship observed between interest rate (INT<sub>t</sub>), liquidity rate (LIQ<sub>t</sub>) and inflation rate indicate a mutually exclusive characteristics. On the whole, the strength of the combined relationship between all the employed explanatory variables and inflation as indicated by the coefficient of the multiple correlations R is 0.387 i.e. a 38 percent, while the extent to which changes in inflation are explained by changes in the combined variables as portrayed by the values of the coefficient of determination R<sup>2</sup> is as low as 0.149 which is 14 percent.

The combined relationship between the independent and dependent variables as given by the value of the coefficient of multiple regression R, is evaluated. The significance of R is verified by means of F- test at 0.05 level of significance as a decision rule, given its degree of freedom. Consequently, the associated result of F-value = 1.493 with corresponding level of significance of 0.226 equivalent to 77 percent confidence level. As a decision rule, since the level of significance of 0.226 and or 77 percent confidence level are below the acceptable 0.05 level of significance, we accept the null hypothesis and reject the alternative that there is a significance relationship between inflation and a combination of interest rate, liquidity rate, cash reserve rate and monetary policy. On the other hand, examining if changes in the explanatory variable are relevant in predicting changes in inflation, the beta t-values by means of a t-test at 0.05 level of significance was employed. The result reviews a 0.814, 0.332, 0.665 and 0.209 for interest rate, liquidity rate; cash reserve rate and monetary policy rate respectively. Being below our 0.05 level of significance, we accept the null hypothesis and reject the alternative that changes in none of them are important in predicting changes in the inflationary rate.

**DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATION**

The resultant evidence from this study indicates that;

1. Inflationary trend and or growth is not significantly related to the combined primary causants-interest rate, liquidity rate, cash reserve rate and the monetary policy rate.
2. That, changes in the primary causants also are not a measure in determining changes in the rate of inflation.

Consequently, what primarily comes to mind is that, what then constitute the persistent rise or increase in the rate of inflation in the country? Evidenced from cm computation proved that unlike the developed countries where any alteration in either oi combination of our primary causants immediate gives the desired shift n macroeconomics balances expected (Onoh, 2007).

It is believed that the workings of these explanatory variables are complimented by the fact that the developed economies are producing economies while the emerging ones are not. This is evidence in Nigerian economy whereby virtually all her needs are imported, the essence why the trends persist. Until there is a shift from a consumption economy to a producing one, the trend is unlikely to continue.

**References**

Abel .E. and Chibuikwe, U.U. (2008) "Rethinking Monetary and Fiscal Policies in Nigeria"

Afolabi A and Olayemi S.A. (1.995) "Assessment of the Impact of Inflation on Financial International in the Nigerian Banking Sector" *NIDC Quarterly*, Vol. 5, No. 1, March.

Anyanwu, F.A. (2003) *Public Finance*, CREMD Publishers: Owerri

Central Bank of Nigeria (2006) "How Does the Monetary Policy Decisions of the Central Bank of Nigeria Affect You?" CBN, Monetary Policy Department.

Central Bank of Nigeria (2007) *Capital Market Dynamics in Nigeria: structure, transaction cost and efficiency 1980-2006*

Chuku .A..C. (2009) "Meaning the Effect of Monetary Policy Innovation in Nigeria, a Structuring Vector Autoregressive Approach" Vol. 5, No5, 112-128. *African Journal of Accounting Economics, Finance and Banking Research*.

Dale, E.B. (2006) "Introduction to Multiple Regression"

Ezeoha, A. and Uche C. (2006) "Rethinking Monetary Fiscal Policy in Nigeria" Retrieved January 15, 2011 <http://www.google.com>.

Friedman.M. (1970) "A Theoretical Framework of Monetary Analysis", *Journal of Political Economy* Vol. 78 No 2.

Iyabode M. (1995); "New Perspective in Inflation in Nigeria" CBN Economic and Financial Review, Vol 38 No 2 34-56.

Kanu, N.O.N. (2002) *Money and Banking - Principles, Concepts and Practice*, Bon Publications: Owerri.

LipseyR.G.. (1982), *An Introduction to Positions Economic* 5<sup>th</sup>ed) John Murry Publishers Ltd: London.

Maddala, M.L (2007) *Introduction to Econometrics*, (3 ed) Wiley- India: New Delhi

- Masha, J. (1999), "Now Perspective on Inflation in Nigeria" CBN Economic and Financial Review, Vol. 38 No 2.
- Mordi, C.N.O, Essien, E.A. *et al* (2007) *The Dynamics of Inflation in Nigeria* Research and Statistics. Central Bank of Nigeria.
- Nkemakolem E.O. (1995) *Designing and Conducting Research in Education* Barloz Publishers: Owerri.
- Nnanna, I.O. (2001), "Monetary Policy Framework in Africa: The Nigeria Expenses".
- Norusis, M.J (2000) *Statistical package for Social Science* (2<sup>nd</sup>ed), Illinois, SPSS Inc.
- Okediya, O.A. (2002): *A concise approach to Financial Management* OsogbaKollingtonLitho Printers.
- Okere, E.J. and Sanni T.A (2005) *Money and the Nigerian Financial System* Jeso International Publication: Owerri.
- Onon, J.K (2007) *Dimensions of Nigeria's Monetary and Fiscal Policies-Domestic and External*.Asra Meridian: Aba
- Philips, D. (1993), "The Nominalization of the Nigeria Economy III" *The Nigerian Institute of Bankers, Lagos, Institute of Banker Publications*.April-June.
- Sanusi, L.S. (2010) "Growth Prospects for the Nigeria Economy" Central Bank of Nigeria.
- Uche, R.U. (2006) *Business Communication and Research Methodology*, ICAN Study Pack Profession Economist II, VI Publishing Limited, Nigeria.
- Uchendu, O.A. (2004) "Monetary Policy Management in Nigeria in The Context of Uncertainty" Central Bank of Nigeria.
- Uchendu, O.A. (2009) "Monetary Policy Management in Nigeria in the Context of Uncertainty" Retrieved".

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