Emergence of the New Monetary Policy Mandates and Macroeconomic Shocks in Nigeria: A VAR framework

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Abstract

Macroeconomists and policymakers worldwide have given critical attention to the introduction of new monetary policy mandates to envisage and address the economic shock perceived in most developed and developing nation. Part of the reason for this attention is to incorporate unemployment and poverty reduction in the core mandate of the monetary authority. While many scholars have contended that this approach to monetary policy is inappropriate, since the major obligation is to maintain financial stability and bank supervision among other objectives, others have welcomed the proposition as an option to use credit allocation, capital management and interest rate as yardstick for achieving this new role. This study examined the emergence of this new mandate, with specific focus on the Nigerian economy between 1971 and 2014, using the vector autoregressive approach to estimate the interaction and feedback mechanism to check the connection between monetary policy instrument and the new mandate of unemployment and poverty reduction. Based on the findings, it recommended the use of conventional and unconventional monetary policies as options for reducing unemployment and poverty in Nigeria.

Keywords: Monetary policy, policy mandate, macroeconomic shock, Nigeria

JEL: E58, N17, O23, O42

1. Introduction

Economists have put forward numbers of theories and research efforts to discuss the effectiveness of monetary policies in addressing issues of financial stabilization and economic shocks that have become difficult to manage, particularly, in developing countries like Nigeria. This recent warning signal, however, calls for a revisit to the operationalization and capability of existing knowledge on monetary policy. In Nigeria, this is particularly important as a response to the current increase in youth unemployment, erosion of the purchasing power of the naira, inequitable distribution of income, loss of social welfare due to reduction in saving and investments, as well as the recent 70.0%

incidental in poverty rate in the country. More obvious is the ineffectiveness of sectoral credit allocation, fluctuation in foreign asset, unfavourable balance of payment, and increase in market interest rate at nominal term while interest rates remained volatile. It is even more worrisome that the current exchange rate management strategy by the monetary authority has failed to match the consumption and production pattern of the economy. This, therefore, questioned the extent to which micro-prudential policy or monetary policy should respond to financial weaknesses (Shobande, 2015; Adeoye and Saibu, 2014; Adeoye and Sangosanya, 2015; Adeoye, 2015).

Given the current scenario, the need to use monetary policy as catalyst for resolving the current economic crisis becomes crucial, since it provides an avenue for resource mobilization and credit allocation that can help to stimulate the economy. According to Anyawu (2006), monetary policy serves as a measure to regulate and control the volume, cost, availability and direction of money and credit in an economy in order to achieve some specific macroeconomic objectives. Adeleke (2015) indicated that conventional and unconventional monetary policies are a new direction for resolving the current unemployment challenges in Nigeria. This study is unique and different from existing knowledge in several ways. First, it provides the current picture of the economic situation in Nigeria and provides adequate knowledge and proper understanding of how monetary policy can serve as a catalyst for stimulating the economy. Second, most studies on monetary policy are based on financial stability; hence, they are not concerned with job creation or poverty reduction — but the current study takes these factors into consideration. Third, the methodological approach of this study is based on the knowledge of VAR to conduct causality test among variables and facilitate the computation of impulse-response function, as well as help assess the potency of monetary policy and other macroeconomic policies in determining the direction of shocks. Fourth, the study contributes to the ongoing debate concerning the inclusion of job creation in monetary policy objectives.

Concisely, the study is made up of five sections. Section two focuses on the theoretical underpinnings, as well as a review of previous studies, while section three provides a robust description of the research methodology. Section four

contains the analysis and empirical results of the study, while discussion and possible policy recommendation s are the focus of section five.

2. Literature Review and Theoretical Issues

The question of monetary policy and job creation has been widely acknowledged in the literature by both scholars and policymakers. But despite the growing literature, effectiveness of monetary policy still remains unsettled both theoretically and empirically. Two contending sets of literature have, however, emerged. The first maintained that job creation is not a legislative function of monetary policy. For instance, Bhattacharyya (2012) noted that despite the success of employment objective documented in Australia, Korea, United States and Japan by monetary policy, it still appears inappropriate for monetary authorities to assume this role. In the same manner, Orphanides (2013) claimed that overburdening monetary policy may eventually weaken and compromise the independence and credibility of central banks, thereby reducing their effectiveness in maintaining price stability and managing monetary crisis situations.

The second set of literature is concerned with the transmission mechanism of the shock as a way of enhancing monetary policy effectiveness. Cheng (2006) examined the impact of a monetary policy shock on output, prices and nominal effective exchange rate for Kenya using data of 1997–2005 period. Based on techniques commonly used in vector autoregression literature, the results suggested that an exogenous increase in the short-term interest rate tends to be followed by a decline in prices and appreciation in the nominal exchange rate, but has insignificant impact on output. Moreover, Cheng (2006) found that variations in the short-term interest rate account for significant fluctuations in the nominal exchange rate and prices, while accounting little for output fluctuations.

Moreover, Tsangarides (2010) applied commonly used VAR techniques to investigate the transmission mechanism of monetary policy on output and prices for Mauritius, using data for 1999 –2009. The results showed that:

1. an unexpected monetary policy tightening—an increase in the Bank of Mauritius' policy interest rate—led to a decline in prices and output; but the effect on output was weaker;
2. an unexpected decrease in the money supply or an unexpected increase in the nominal effective exchange rate resulted in a decrease in prices; and
3. variations of the policy variables accounted for a small percentage of the fluctuations in output and prices.

Hai and Trang (2015) analysed monetary transmission mechanism in Vietnam by using VAR and focusing especially on how the economy dynamically responds to money demand, interest rate, exchange rate, and asset price shocks. The authors successfully identified the conditions for uncovering the dynamic effects of monetary policy shocks. The y questioned existing frameworks of monetary policy in Vietnam and call ed for a new direction in their operative mandate.

In Nigeria, Folawewo and Osinubi (2006) investigated how monetary policy objective of controlling inflation rate and intervention in the financing of fiscal deficits affect the variability of inflation and real exchange rate. The analysis was done using a rational expectation framework that incorporated the fiscal role of exchange rate. The study found that the efforts of monetary authority to influence the financing of government fiscal deficit s through the determination of inflation - tax rate affected both the rate of inflation and real exchange rate and, thereby, caused volatility in their rates.

Furthermore, Fasanya, Onakoya and Agboluaje (2013) examined the impact of monetary policy on economic growth using time series data covering the period 1975-2010.The effects of stochastic shocks of each of the endogenous variables were explored using Error Correction Model (ECM). The findings revealed a long-run relationship among the variables. The core finding of the study showed that inflation rate, exchange rate and external reserve are significant monetary policy instruments that drive growth in Nigeria.

Moreover, Adeoye and Saibu (2014) analysed the effects of monetary policy shocks using changes in various monetary policy instruments on exchange rate volatility in Nigeria. The results show ed that both real and nominal exchange rates in the country were unstable during the period under review. In the short-run, variation in the monetary policy variable explain ed the movement/behaviour of exchange rate through a self-correcting mechanism process with little or no intervention from the monetary authority (CBN). It was concluded that inflation rate, reserves, interest rate and money supply depreciate d and caused volatility in nominal exchange rate, and this further reinforce d other findings that monetary policy is crucial to exchange rate management in Nigeria.

In a related study, Adeoye an d Sangosanya (2015) investigated the relationship between monetary policy and inclusive growth in Nigeria. The study employed the VAR framework to analyze the linkage among monetary policy and inclusive growth in the economy. The results provided evidence that exchange rate and money supply have significant impact on growth through unemployment.

The findings revealed that the use of ineffective monetary policy to stem the volatility in exchange rate as well as macroeconomic shocks was responsible for the non-inclusive growth experienced in the economy over the years.

Goshit (2015) offered a theoretical perspective on how monetary policy can enhance inclusive growth in the economy through the Central Bank of Nigeria (CBN). His study constructed a theoretical model for inclusive growth in Nigeria and provided the drivers of inclusive growth in the economy. It also identified and discussed major challenges to the conduct and implementation of monetary policy. The study, however, observed that monetary policy, when developed and conducted efficiently, has the capacity to influence the real sector of the economy, as well as positively influence all the key drivers of inclusive growth. To make monetary policy more effective and responsive to inclusive growth in Nigeria, the study recommended that the government should play a central role in coordinating banks and others to expand the efforts to support key industries

Clearly, many of these studies failed to address the possibility of monetary policy as a strategy for job creation in their respective analyses. Therefore, there is a need to reconcile existing theoretical positions with recent economic events in Nigeria, which is the main concern of this study. This study deviates from existing literature, as it provides a holistic picture on how monetary policy can facilitate job creation in the country.

Monetary policy is a key element of macroeconomic management; its effectiveness is crucial to sustainable macroeconomic stability, output growth and overall performance of the economy (Goshit, 2014; 2015). Thus, a monetary authority could affect output and employment through monetary and fiscal policies. The primary goal of monetary policy is the maintenance of domestic price and exchange rate stability as critical condition for the achievement of sustainable economic growth and external viability. Essentially, a stable macroeconomic environment would catalyze output and employment growth, such that the standard of living of the citizenry would improve. The question of whether an expansionary monetary policy or fiscal policy will help raise output starts with the basic Keynesian model.

In general, increase in either government expenditure or expansionary monetary policy, leading to an increase in investment via lower interest rate, will lead to an increase in output. One view of the transmission mechanism is that monetary policy actions affect the economy primarily through their impact on money supply (Goshit, 2014; 2015). Hence, monetary policy actions influence the economy through availability and price of credit. The first view implies that monetary policy actions affect the economy primarily by determining aggregate

spending which, in turn, directly affects the production of goo ds and services and, hence, unemployment and inflation rates. The second view elaborates the relationship further by postulating that monetary policy actions influence a wide range of financial and nonfinancial variables which, in turn, affect the spending and decisions of economic agents. In this context, the effects of monetary policy actions are reflected first on financial variables, such as the discount rate and monetary base, which are closely related to reserve positions of banks and are controllable with some precision by the central bank (Goshit, 2014; 2015).

The theoretical issues on the new mandate of CBN, however, have to do with the role of the bank in setting up monetary policy that moves away from the traditional role of price stability (conventional monetary policy) to the sue of monetary policy to reduce unemployment, poverty and inequality in the economy. Thus, a monetary policy is focused on stability rather than on efficiency and equity. This should be the starting point of any discussion on the role of monetary policy in addressing inequalities. Does this imply that inequalities are irrelevant to central bankers? Not at all; first, monetary policy may have an impact on inequalities and, second, stability is conducive to equity. To the extent that it stabilises economic activity, monetary policy can help shield the lowest income classes of society from poverty, especially during recessions.

Developments in labour participation, which also affect labour income, are more heterogeneous across countries. It is also difficult to find clear patterns in developments in capital income inequality, owing to measurement difficulties. How wages evolve over the business cycle depends both on the reasons growth moves up and down, and on the way the labour market is organized (Blanchard and Wolfer, 2000). At first, a rigid labour market may appear to shield the poorest from economic shocks, as wages will not easily adjust downwards in a recession. However, the lack of reaction of wages is a clear symptom of an ill - functioning labour market, leading to a costly and prolonged adjustment in employment. Taking into account fluctuations in wages and unemployment, a typical finding in several countries is that inequality in earnings at the bottom of the distribution tends to rise during recession (Guvenen, 2012). Moreover, households that do not receive labour income face higher hurdles when labour markets do not function well or protect insiders at the expense of outsiders. What this means is that the poor suffer most in relative terms during and after a recession. In fact, their pain does not fully disappear after the recession, owing to persistent unemployment and the malfunctioning of labour markets.

Is there evidence that monetary policy affects inequality? This could be seen from two perspectives: first, the immediate distributive effects of monetary policy and inflation and, second, the benefits of macroeconomic stability for the more vulnerable. Since monetary policy is transmitted through many channels (direct and indirect interest rates, both current and expected, credit extension, asset prices) and because households differ in many respects (with regard to socio-demographic factors, such as age and education, as well as economic variables , such as income, wealth, employment status and housing status), monetary policy does not affect all households in the same way. Therefore, it could be a rather daunting task to disentangle and quantify these channels empirically.

Inflation has a direct effect on income inequality through changes in the rea l (i.e., consumer price-adjusted) valuation of financial and non -financial assets. Clearly, an unexpected fall in interest rates and an increase in inflation tend to hurt savers and benefit borrowers—the mechanism that Keynes (1936) referred to as the 'euthanasia of the rentier'. Studies based on US data demonstrated that inflation hits in particular richer and older households, which hold the bulk of the economy's wealth and whose asset holdings are typically imperfectly insured against surprise inflation (Doepke and Schneider, 2006).

Can this evidence be interpreted as suggesting that the higher the inflation, the lower the income inequality? Or that higher inflation should be pursued so as to reduce income inequality? This is not a proper policy, since inflation is also particularly harmful to the poorest segment of the population. First, poor households tend to hold large fractions of their financial wealth in cash, which implies that both expected and unexpected increases in inflation would make them even poorer. Also, monetary policy shocks and surprise inflation can have impact on inequality through other sources of income. Income from labour and the unemployment of less-skilled workers tend to be adversely affected to a disproportionate degree during recessions. In all, a recent study suggests that higher inflation rate is accompanied by greater income inequality (Albanesi, 2007). Also, research using US data found that contractionary monetary policy actions would increase inequality in earnings and total income. A stability - oriented monetary policy, which aims to smoothen the cycle and reduce its amplitude, ought to cushion the negative impact of shocks on poor households.

However, it is not only the extent of income and wealth shocks that affects consumers' welfare, but also the fluctuation in their consumption expenditure. All households are not equal in this respect. Some are able to insure against wealth shocks and can thus mitigate the adverse consequences of such shocks for their wellbeing. But poorer households have limited or no access to the financial

system (let alone to financial markets) and do not have adequate buffers in the form of precautionary savings. Consequently, their consumption and welfare are particularly vulnerable to adverse shocks. Even if all households were hit by negative shocks to the same extent, poor, less-insured households would suffer from more volatile consumption and lower welfare.

Social equality is better served by economic stability. A large body of theoretical and applied academic literature, as well as experience of the past decades indicated that monetary policy's best contribution to economic stability the maintenance of price stability. Moreover, credible central banks have a comparative advantage in this area, as the return to price stability becomes possible at lower costs in terms of output volatility (Clarida et al., 1999).

Empirical evidence supports the view of complementarity between price and economic stability at the aggregate level. Price stability appears to be conducive to economic growth, low unemployment and subdued income volatility. Recent developments in the main advanced economies, in terms of volatility of inflation and GDP growth, confirm this insight and show that there has been no trade-off between the two variables (Fahr et al., 2011). Volatility has been low in both variables in the euro area by comparison with other major economies.

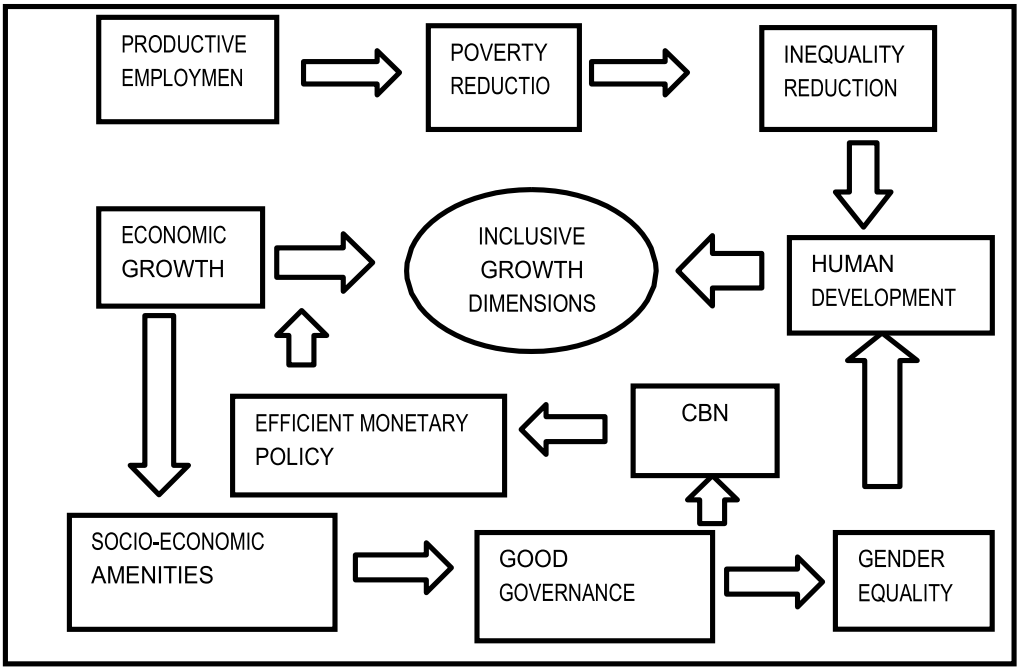

Figure 1: Transmission channel of monetary policy to growth, employment & poverty

The theoretical transmission of monetary policy to growth, employment and poverty reduction is presented in figure 1. The theoretical model depicted encompasses the whole macroeconomic management, which attempts to reduce unemployment and poverty. However, it ensures economic growth, human development and gender equity. Therefore, it is important to enhance human capacity building, which is indeed the main objective of inclusive economic growth, unlike the pro-poor growth which ensured only the transfer of benefits to the poor through subsidies and other means.

The theoretical model in figure 1 exhibits the link between monetary policy and such macroeconomic variables as growth, employment and poverty. The model shows that government would guarantee gender equity and trickledown effects of growth by first achieving administrative efficiency. Good governance and gender equity will enhance human capabilities; it would also influence the activities of the Central Bank of Nigeria (CBN) positively (laws, autonomy, fiscal discipline, etc), CBN will, in turn, efficiently conduct monetary policy, leading to increased economic growth.

Followed by economic growth, productive employment is the key driver of inclusive economic growth, since jobless growth is as dangerous as stagnation (Vellala, Madala and Utpal, 2014). Productive employment can increase labour productivity. Employment is an important outcome of inclusiveness; and it is naturally capable of poverty reduction

3. Econometric Framework and Modelling

This study employed the VAR framework to analyse the linkage among monetary policy and new mandate in the Nigerian economy. A VAR framework is convenient for assessing the interrelationships within a system of variables when the imposition of strong a-priori restrictive assumptions cannot be derived by economic theory. The model was formulated based on reviewed empirical and theoretical studies. The study employed quantitative and descriptive analyses. The model framework and specification employed were similar to those used by Cheng (2006), Tsangarides (2010) and Hai and Trang (2015). The model in the form of VAR function employed to replicate the scenario of the connections among money supply to GDP growth (MS), exchange rate (EXCR), per capita income growth (PCI), unemployment rate (UEM), bank rate proxy by minimum rediscount rate (BR) and external reserves (EXRS) in the Nigerian economy is stated as thus:

$$\Delta Y_t = \tau(L)\Delta Y + \varepsilon_t \qquad (1)$$

Where

Vector $Y_{it} = (MS_t, EXCR_t, PCI_t, UEM_t, BR_t, EXRS_t)$

L = the lag operator,

$\gamma(L)$ = matrix of estimated parameters,

t = years, and

ε_t = the error term assumed to be serially uncorrelated

The variables denoting vector y_t are money supply to the percentage of GDP (MS), exchange rate (EXCR), per capita income growth (PCI), unemployment rate (UEM), bank rate proxy by minimum rediscount rate (BR) and external reserves (EXRS). The VAR system for these individual variables is as follows:

$$\begin{bmatrix} MS_t \\ EXCR_t \\ PCI_t \\ UEM_t \\ BR_t \\ EXRS_t \end{bmatrix} = \begin{bmatrix} C_1 \\ C_2 \\ C_3 \\ C_4 \\ C_5 \\ C_6 \end{bmatrix} + \sum_{i-1}^{P} \begin{bmatrix} \pi_{11} & \pi_{12} & \ldots & \pi_{16} \\ \pi_{21} & \pi_{22} & \ldots & \pi_{26} \\ . & . & \ldots & . \\ . & . & \ldots & . \\ . & . & \ldots & . \\ \pi_{61} & \pi_{62} & \ldots & \pi_{66} \end{bmatrix} \times \begin{bmatrix} MS_{t-i} \\ EXCR_{t-i} \\ PCI_{t-i} \\ UEM_{t-i} \\ BR_{t-i} \\ EXRS_{t-i} \end{bmatrix} + \begin{bmatrix} \mu_{1,t} \\ \mu_{2,t} \\ \mu_{3,t} \\ \mu_{4,t} \\ \mu_{5,t} \\ \mu_{6,t} \end{bmatrix} \quad (2)$$

Furthermore, impulse response function and forecast error variance decomposition (FEVD) were used in analyzing the interrelationships among the variables chosen in the system equation. The impulse response functions were responses of all variables in the model to a one-unit structural shock to one variable in the model. The impulse responses were plotted on the Y-axis with the period from the initial shock on the X-axis. The FEVD measured the proportion of movement in a sequence attributed to its own shock to distinguish it from movements attributable to shocks to another variable. For this study, all the time series were sourced from world development indicators (WDI) of World Bank (2014).

4. Empirical Results and Discussions

a. Unit root test results

This section reports the conventional ways of computing unit root and stationarity test. For this study, the conventional method employed was the Augmented Dickey Fuller (ADF). Table 1 shows the two methods used for the study. The

unit root tests result using the Augmented Dickey Fuller (ADF) confirmed that all the series were stationary at first difference (i.e. I(1)) at 1.0% significance level. It should be noted that the lag length for ascertaining this stationarity level of the variables as well as unit-root test was automatic and optimally chosen using the Schwarz Bayesian Information Criterion (SBC).

Table 1: Unit root test results

Variables	*Augmented Dickey Fuller test (ADF)*		*Remarks*
	Levels	*First Difference*	
BR	-3.0015 (0) [-3.2096]	-6.2682 (1) [-4.2846]*	I(1)
EXCR	-2.1451 (0) [-3.2096]	-5.3169 (0) [-4.2733]*	I(1)
MS	-3.3672 (1) [-3.2124]***	-5.1381 (0) [-4.2733]*	I(1)
PCI	-3.3597 (1) [-3.2096]***	-5.0057 (0) [-4.2733]*	I(1)
UEM	-2.1447 (0) [-3.2096]	-6.8900 (0) [-4.2733]*	I(1)
EXRS	-2.3719 (0) [-3.2096]	-6.3304 (0) [-4.2627]*	I(1)

Note: * significant at 1.0%; ** significant at 5.0%; *** significant at 10.0% Mackinnon critical values and are shown in parenthesis. The lagged numbers shown in brackets are selected using the minimum Schwarz and Akaike Information criteria.
Source: Authors' computation.

b. Impulse responses and variance decomposition analysis

Figure 2 presents the contemporaneous response of macroeconomic policy variables to Cholesky one-square variance shocks on inclusive growth. The response of unemployment was positive for the first five periods due to shocks on money supply, while the rest periods were almost flat. The response of per capita income to shocks on money supply was, however, negative for the first two periods, increasing in the third period and moving in a cyclical manner for the rest of the periods. The response of per capita income to shocks on bank rate had its peak period in the fifth period. Similarly, the response of per capita income to shocks on exchange rate followed the same direction but differed in magnitude. The results revealed that both bank rate and exchange rate affect per capita income almost in the same pattern.

In addition, the response of per capita income was positive from the first to fifth period and declined in the sixth period due to shocks from exchange rate. This witnessed its peak period in the fifth period. Thereafter, per capita income growth was positive for the remaining periods approximately at a constant rate. The response of unemployment rate to shocks on exchange rate was similar to its counterpart, only that the peak was recorded in the second period.

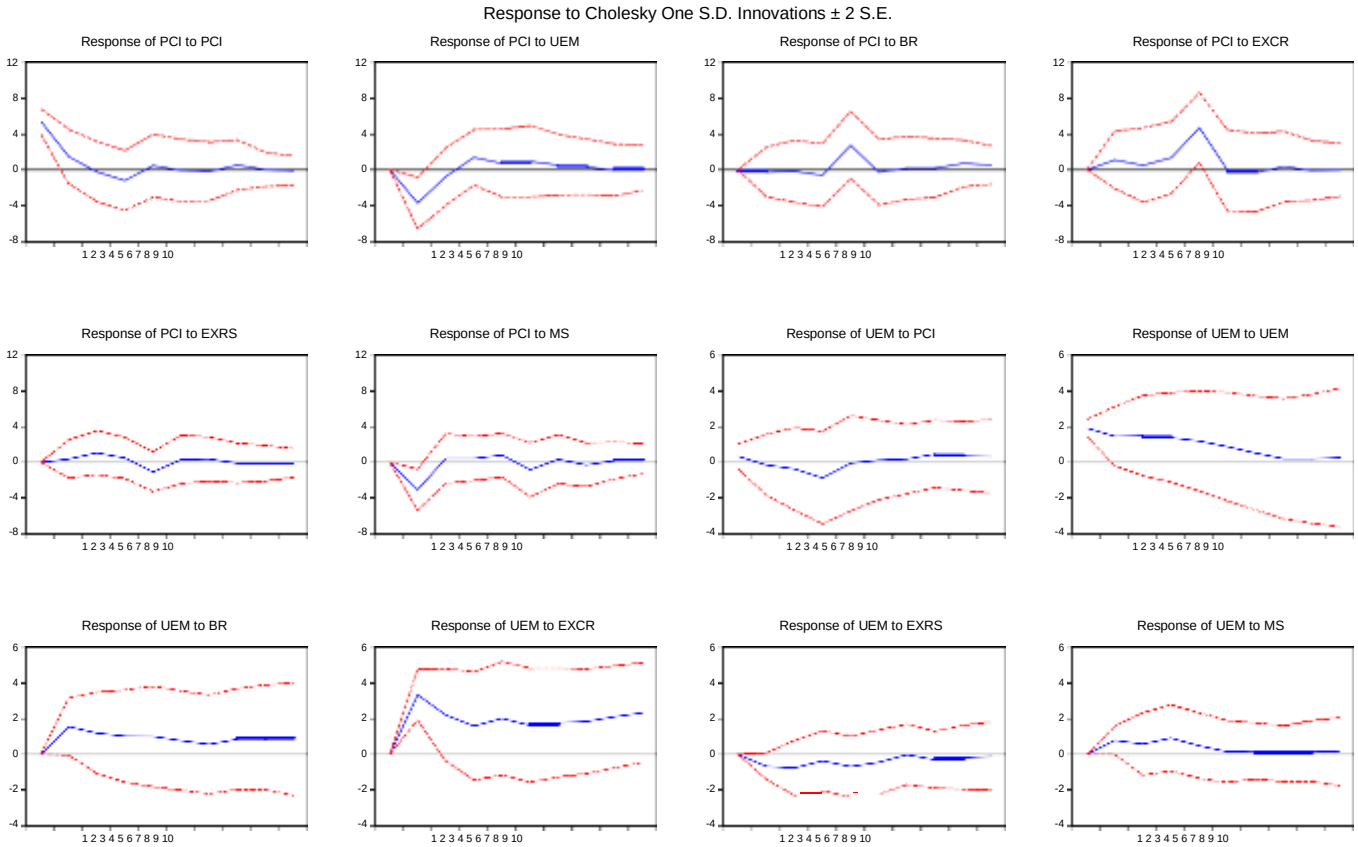

Figure 2: Impulse Response Plot of Macroeconomic Policy Shocks

As shocks in per capita income rose, the response of unemployment rate was negative for the first three periods; this later reacted positively in the latter periods at a slow rate. The response of per capita income to shocks in unemployment rate had a negative slope for the first two periods, rising slightly in the third period and later sloping approximately at a constant rate. More so, the response of per capita income was negative for the first three periods due to its own shocks, rising in the fourth period, sloping through the fifth and sixth periods and at a level rate for the remaining periods. On the contrary, the shocks of unemployment rate on itself were negative, at varying magnitude, throughout the periods.

The implication of this was that unemployment rate in Nigeria did not respond to the growth recorded over the years through the macroeconomic policies that were established by monetary authorities. In essence, it indicated that the growth recorded in the economy was not inclusive, as it failed to promote and propel employment opportunities in the economy. However, this might be as a result of the ineffective macroeconomic policies.

Table 2 presents the variance decomposition of inclusive growth proxy by per capita income and unemployment rate to innovation shocks from monetary policy instruments. The second column (SE) contains the forecast error of the variable at a given forecast horizon. The source of this forecast error is the variation in current and future values of the innovations to each endogenous variable in the VAR. The other columns for each of the monetary policy indicators give the percentage of the forecast variance due to each innovation, with each row adding up to 100.

Table 2: Variance decomposition analysis of macroeconomic policies and growth

Period	*SE*	*PCI*	*UEM*	*BR*	*EXCR*	*EXRS*	*MS*
1	5.4431	100.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	7.5241	56.2491	24.4090	0.1069	2.1591	0.2436	16.8323
3	7.6744	54.1412	24.4481	0.1409	2.5502	2.2223	16.4974
4	8.0625	51.2550	25.1954	0.6871	5.2462	2.3828	15.2335
5	9.8803	34.3590	17.3550	8.3084	26.4091	2.7604	10.8081
6	9.9704	33.7447	17.9447	8.2223	25.9389	2.8141	11.3353
7	10.0068	33.5317	18.1239	8.2068	25.8487	2.9243	11.3646
8	10.0414	33.5920	18.1138	8.1950	25.8152	2.9126	11.3713
9	10.0703	33.4025	18.0107	8.6613	25.6729	2.9095	11.3431
10	10.0978	33.2309	17.9758	8.9175	25.5332	2.9022	11.4403

Source: Authors' computation.

Table 2 also show the variation in inclusive growth due to shocks decomposed into related monetary policy instruments. The results of the percentage of share of inclusive growth changes accounted by various shocks in the macroeconomic policy instruments are presented in table 3. Table 3 revealed

that shocks within itself (i.e., new mandate shocks) and monetary policy instruments accounted for 65.5% and 35.5 % respectively. This means that monetary policy is a major macroeconomic policy instrument driving inclusive growth in Nigeria between 1981 and 2014.

Table 3: percentage of per capita income variation due to policy instrument shocks

Overall % share of policy instrument shocks			
New mandate shocks	Monetary policy shocks		Total shocks
64.2%	35.5%		100.0%
% Share of monetary policy shocks			
Bank rate shocks	Exchange rate shocks	External reserves Shocks	Money supply shocks
14.5%	46.5%	6.2%	32.6%

Source: Authors' computation.

Moreover, the result showed that bank rate (14.5%), exchange rate (46.5%), external reserves (6.2%) and money supply (32.8%) were among the monetary policy shocks that accounted for 35.5% of the total variation in unemployment and poverty reduction due to innovation disturbance. This means that, among the monetary policy indicators, exchange rate and money supply are the main shocks causing the variation in inclusive growth in Nigeria.

5. Conclusion and Recommendations

The paper examined the emergence of new monetary policy mandate with specific focus on the Nigerian economy between 1971 and 2014. It used the vector autoregressive approach to estimate the interaction and feedback mechanism to check the connection between monetary policy instrument and the new mandate of unemployment and poverty reduction. The study recommends the use of conventional and unconventional monetary policies as option s for normalizing these macroeconomic variables. Hence, the use of only conventional monetary policies cannot adequately reduce the level of unemployment and poverty. Unconventional monetary policies appear to exert more impacts than conventional monetary ones. In other words, both conventional and unconventional monetary policies acted as stimulus to economic growth, and they can be achieved in three complementary ways, which are:

1. Controlling the average to long-term interest rate expectations
2. Altering the structure of Central Bank's balance sheet, and
3. Increasing the size of Central Bank's balance sheet.

All these measures have one element in common: they are designed to improve financing conditions beyond the very short-term interbank interest rates. On a second thought, unconventional measures may be warranted even when the policy interest rate is above zero, if the monetary policy transmission process is significantly impaired. Under these conditions, CBN has to reduce the nominal interest rate at a short term than in normal conditions.

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