

MONETARY POLICY AND INCLUSIVE GROWTH IN NIGERIA

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ABSTRACT: *The objective of the study is to determine the impact of monetary policy on inclusive growth. The study employed multivariate regression model to establish the effect. Data was collected on PCI as proxy for inclusive growth, and exchange rate, interest rate and money supply as monetary policy tools. The OLS technique revealed a significant variation between money supply and inclusive growth which implies that it will be in the best interest of the populace if monetary policy measures are employed to effect changes in the economy.*

KEYWORDS: monetary policy, inclusive, growth, Nigeria

INTRODUCTION

Achieving sustainable growth has been the pressing targets of the economies of the world. Various policies as a result have been formulated by policy makers in view to achieving growth. However, in recent times, macro-economic objectives have gone beyond increasing growth but also how the growth is enjoyed by individuals and recipients of the policy changes that is, inclusive growth. One the important policy direction of policy makers is the monetary policy. Monetary policy is a tool to achieving price stability, maintenance of balance of payments equilibrium, promotion of employment and output growth, and sustainable development. (Adediran, Mathew, Olopade, & Adegboye, 2017) sees Monetary policy as growth catalyst which creates an enabling environment with appropriate incentives to empower innovative entrepreneurs to drive inclusive growth. Monetary policy can be used as a tool to stabilize the economy and also can be used to stimulate growth (Busari, Omoke, & Adesoye , 2002; Adefeso & Mobolaji, 2010; Ajisafe & Folorunsho, 2002).

Various monetary policies have been formulated in Nigeria over the years to address the macro-economic challenges, and despite being seen as a growth catalyst, Nigeria is still being challenged by various macro-economic problems like poverty, inequality, inflation, price instability, unemployment, balance of payment disequilibrium and so on. Various researches have focused on monetary policy and its impact on economic growth; however, it is expedient to note that economic growth is ineffective without impacting on the recipients of the policy which are the economic

agents in the economy. And this has made focus in this research area very imperative to determine the impact of monetary policies over the years on inclusive growth. While the (World Bank, 2013) ranked Nigeria as one of the fastest growing economies of the world with GDP growth rates of 7.8%(2010), 7.4%(2011), 7.5%(2012) and 7.6%(2013), Growth in Nigeria in the last decade therefore has not been adequate to be accompanied by reduction in widespread poverty and unemployment. This clearly shows that the present economic growth is not inclusive enough and needs to be addressed, this stance is supported by (Gideon, 2015).

Growth experienced in the past years has not led to improvement in the welfare of the economic agents. While the economy had grown by an average of over 6% per annum between 2005 and 2014 (World Bank, 2015), poverty and inequality have actually risen. In addition, the unemployment rate has also increased from about 11.9% in 2005 to about 24% in 2014 (National Bureau of Statistics, 2015). This paper therefore seeks to examine empirically, the use of monetary policy as a tool among other government policies to achieving inclusive growth.

LITERATURE REVIEW

Conceptual Review

Monetary policy is the use of monetary variables (Money Supply, Interest Rate, Exchange rate etc.) to fine tune the economy. The sole responsibility of formulating and implementing monetary policy is saddled with the Central Bank. (CBN, 2011) sees monetary policy as a deliberate action of the monetary authorities to influence the quantity, cost and availability of money credit in order to achieve desired macroeconomic objectives of internal and external balances. The focus of every economy's monetary policy is to improve the welfare of the citizens by promoting the economic activities through monetary policy variables. The contention in the literature is as to establish the best policy that will bring about stabilization and growth. This has resulted into division into various schools of thought: Classical, Keynesian and Monetary schools. However, the contention has become inconclusive, and the research continues.

Monetary Policy Objectives

Various government policies are set to meet certain macroeconomic goals, it is however imperative to not that monetary policies of any government will be ineffective if these goals are not achieved. The goals are as follows:

- **Full Employment** - this is an important macroeconomic objective for any economy tending towards economic growth. That is, an economy which desires to accelerate its growth rate must make policies towards achieving full employment. One of the economic challenges of developing economies is unemployment. It is a situation where various employable resources both physical and human capital are lying fallow and used. There are various definitions of full employment in the literature, however, full employment is when about 95 to 97 percent of employment is reached and 3 to 5 percent of unemployment. Hence, full employment can be achieved using expansionary monetary policy.
- **Price Stability** – price instability is an important feature of an underdeveloped economy. An economy gearing towards growth should make policies that would bring about price stability.

Fluctuations of prices results to unprecedented losses which is bad for growing business and the economy. To achieve price stability, an economy must pursue stable value of money and increase in production.

- Economic growth is an important macroeconomic objective which every economy wants to achieve by making different policies. Economic growth is the increase in production of goods and services of an economy over a period of time. However, economic growth is not as important as its effect on individual lives in the economy in terms of their living standards and welfare. Monetary policies should be such that encourages savings and investment as this will raise the employment and consequently increase production, cost of living will reduce and growth can be achieved.

Monetary Policy Tools:

These are the instruments that the government through the central bank use to make changes in the financial sector of the economy. Some of them are:

Reserve Requirement: This is a directive to the commercial banks to hold a percentage of their deposits as cash. This limits the amount of loans the banks can give out thereby limiting the money supply. If the central bank wishes to employ an expansionary monetary policy, they can reduce the reserve requirement and increase it if they want to employ retractionary monetary policy.

Open Market Operations (OMO): this is a system of buying and selling from/to banking and non-banking entities in the open market. Selling securities reduces money supply while buying it increases money supply.

Interest Rate: This is a charge on lending from the central bank to deposit money banks at a most favourable rate, called the minimum rediscount rate (MRR).

Direct Credit Control: this is a direct instruction to Deposit Money Banks on the maximum percentage or amount of loans (credit ceilings) to different economic sectors or activities, interest rate caps, liquid asset ratio and issue credit guarantee to preferred loans. In this way the available savings is allocated and investment directed in particular directions.

Empirical Review

Monetary policy and Inclusive growth in Nigeria

Inclusive growth is growth that not only creates new economic opportunities but also one that ensures equal access to the opportunities created for all segments of society including the disadvantaged and the marginalized (Ali & Zhaung, 2007). (Ianchovichina & Lundstrom, 2009). Therefore concludes that, inclusive growth is about raising the pace of growth and enlarging the size of the economy, while leveling the playing field for investment and increasing productive employment opportunities

Over the years, a greater majority of the country's poor had been excluded from the economic opportunities associated with economic growth process. This implies that, inclusive growth had eluded the Nigeria's economic growth process over the recent past. Well-being indicators suggest that the growth experienced by the economy has not led to improving the welfare of the citizens (Adediran, Mathew, Olopade, & Adegboye, 2017). It has also been suggested in the literature that macroeconomic stability and low inflation rates through a sound monetary policy have positive

effects on growth and reduction of inequality (Asongu, 2013). Thus, inclusive growth is important, because it is a necessary condition for sustaining equitable growth.

While, effective monetary policy initiatives can contribute to job creation both directly and indirectly by allocating more financial resources to consumers and firms that have limited access to such resources. This analysis indicates that well-fashioned monetary policy initiatives towards inclusive growth have the capacity to provide financial services that cater for the most vulnerable with a view to raising their standard of living.

Monetary Policy and the Nigerian Experience

This argument particularly reflects the experiences in many emerging economies, where despite high economic growth rates, unemployment and poverty have been a major policy challenge. Hence, they often argue that price and financial stability do not necessarily imply macroeconomic stability that can lead to growth and generate employment creation (Williams, 2004; Epstein, 2014; Chang & Jaffar, 2014; Saheed & Abassi, 2014; Adeleke & Shobande, 2015). This strand of the literature therefore advocate for central banks to explicitly incorporate employment as part of their main mandates, where monetary policy can primarily be focused on employment creation just like some developed countries in Europe, United States and Australia.

In Nigeria, (Fasanya , Onakoya , & 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). Findings of the study reveal a long run relationship among the variables. Also, the core finding of the study shows that inflation rate, exchange rate and external reserve are significant monetary policy instruments that drive growth in the economy. In a related study, (Adeoye & Saibu, 2014) analysed the effects of monetary policy shocks using changes in various monetary policy instruments on exchange rate volatility in Nigeria. The results from the paper show that both real and nominal exchange rates in Nigeria have been unstable during the period under review. In the short, the variation in the monetary policy variable explains 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 and cause volatility in nominal exchange rate which further reinforce other findings that monetary policy is crucial to exchange rate management in Nigeria. (Adefeso & Mobolaji, 2010) employed Jahansen maximum likelihood co-integration procedure to show that there is a long run relationship between economic growth, degree of openness, government expenditure and M2. (Ajisafe and Folunso, 2002) observe that that monetary policy exerts significant impact on economic activity in Nigeria.

(Kogar, 1995) examinee the relationship between financial innovations and monetary control and concludes that in a changing financial structure, Central Banks cannot realize efficient monetary policy without setting new procedures and instruments in the long-run, because profit seeking financial institutions change or create new instruments in order to evade regulations or respond to the economic conditions in the economy. Examining the evolution of monetary policy in Nigeria in the past four decades, (Nanna, 2001) observe that though, the Monetary management in Nigeria

has been relatively more successful during the period of financial sector reform which is characterized by the use of indirect rather than direct monetary policy tools yet, the effectiveness of monetary policy has been undermined by the effects of fiscal dominance, political interference and the legal environment in which the Central Bank operates. (Busari, Omoke, & Adesoye , 2002) state that monetary policy stabilizes the economy better under a flexible exchange rate system than a fixed exchange rate system and it stimulates growth better under a flexible rate regime but is accompanied by severe depreciation, which could destabilize the economy meaning that monetary policy would better stabilize the economy if it is used to target inflation directly than be used to directly stimulate growth.

(Owolabi & Adegbite, 2014) examined the impact of monetary policy on industrial growth in Nigerian economy using multiple regression analysis. They analyzed the relationship between manufacturing output, treasury bills, deposit and lending, and rediscount rate and industrial growth, and found that the variables have significant effects on the industrial growth.

(Chuku, 2009), analyzed the effect of monetary policy innovations in Nigeria. The study used a Structural Vector Auto-Regression (SVAR) approach to trace the effects monetary policy stocks on output and prices in Nigeria. The study also analyzed three alternative policy instrument, that is, broad money (M2), minimum rediscount rate (MRR), and the real effective exchange rate (REER). The study found evidence that monetary policy innovations have both real and nominal effect on economic parameter depending on the policy variable selected.

(Michael & Ebibai, 2014), examined the impact of monetary policy on selected macroeconomic variables such as gross domestic product, inflation and balance of payment in Nigeria using OLS regression analysis. The result shows that the provision of investment friendly environment in Nigeria will increase the growth rate of GDP. (Akujobi, 2012), investigated the impact of monetary policy instrument on economic development of Nigeria using multiple regression technique and found that treasury bill, minimum rediscount rate and liquidity rate have significant impact on economic development of Nigeria.

(Okwo, Eze, & Nwoha, 2012) examined the effect of monetary policy outcomes on macroeconomic stability in Nigeria. The study analyzed gross domestic product, credit to the private sector, net credit to the government and inflation using OLS technique. None of the variables were significant, which suggested that monetary policy as a policy option may have been inactive in influencing price stability.

SOURCE OF DATA AND METHODOLOGY

For the purpose of the study a multivariate econometric model is specified and estimated. The model examines the relationship between the monetary policy tools and inclusive economic growth using selected monetary policy variables such as Money supply, Exchange Rate, Interest Rate (MPR). The data are sourced from the Central Bank of Nigerian Statistical Bulletin In examining this on Nigeria's data, the neoclassical growth model is used, otherwise referred to as the growth accounting framework, to explain the source of growth in an economy. The Neo-

Classical growth model as specified by Harrod-Domar sets output as a linear function of Labour (L), Capital (K) and the index of technology (A), expressed as:

$$Y = F(K, L, T) \dots \dots \dots (1)$$

Where: Y is output, K is capital, L is labour and T is an index of technology or efficiency. The application of this method, however, has been extended and augmented to incorporate per capita income, money supply, monetary policy rate and exchange rate. The model in its functional form is presented as follows:

$$PCI = f(MS, MPR, EXR) \dots \dots \dots (2)$$

$$PCI = \alpha_0 + \alpha_1 MS + \alpha_2 MPR + \alpha_3 EXR + \mu \dots \dots \dots (3)$$

The a priori expectation

$$\alpha_0, \alpha_1, \alpha_2, \alpha_3, \alpha_4, > 0$$

Where:

PCI – GDP Per Capital Income

MS - Money Supply

EXR – Exchange Rate

MPR – Monetary Policy Rate

μ - Stochastic Variable

REXR - Real effective exchange rate index (2010 = 100)

MS – M1 (Currency Outside Banks: Currency in Circulation, Vault cash: currency held by commercial banks, Vault cash: currency held by merchant banks) + Demand Deposits (Private Sector Deposits at CBN, Private Sector Deposits at Commercial Banks) + QUASI MONEY (Time, Savings & Foreign Currency Deposits of commercial banks, merchant banks and other private sector deposits at merchant banks)

A Prior Expectation

As earlier stated the variables include Gross Domestic Product per Capita, which is taken as the dependent variable, MS, EXR and MPR which are the independent variables. It is expected that Money Supply and Monetary Policy Rate will have a direct relationship and EXR will have an inverse relationship with the dependent variable.

JUSTIFICATION OF METHODS AND TECHNIQUES

The technique used for this study is based on the parametric tool. A multiple regression tool has been preferred because it assists the researcher in ascertaining the relationship between monetary policy and economic inclusive growth. The Gross Domestic Product (GDP) per Capita has been used as indices of inclusive growth in relation to other independent variables of monetary policy. Overall the technique is appropriate for achieving the set objectives of the study. One of the merits of the model is because it produces optimal results in predicting numeric output when properly structured.

EMPIRICAL ANALYSIS AND DISCUSSION OF FINDINGS**Testing for Stationarity****Table for ADF unit root test**

Variables		First Difference I(1)	Prob	Order of Integration	Remarks
PCI		-2.768176***	0.0767	I(1)	Stationary
MS		-3.238838**	0.0290	I(1)	Stationary
INTR		-4.866762*	0.0006	I(1)	Stationary
EXR		-4.407007*	0.0021	I(1)	Stationary
Critical Values	1%	-3.711457			
	5%	-2.981038			
	10%	-2.629906			

➤ * significant at 1% level, ** significant at 5% level and *** at 10% level.

In order to avoid the occurrence of spurious results, this study adopted the Augmented Dickey – Fuller (ADF) test for testing the stationarity of the time series data. The ADF test statistic outcome of the time series data for the period, 1991 – 2018 shows that all-time series data are stationary at first difference at 1%, 5% and 10% levels of significance.

Testing for Co-integration**Table for Co-integration test**

Date: 02/29/20 Time: 20:17

Sample (adjusted): 1993 2018

Included observations: 26 after adjustments

Trend assumption: Linear deterministic trend

Series: PCI MS EXR INTR

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.641298	62.20692	47.85613	0.0013
At most 1 *	0.558929	35.55006	29.79707	0.0097
At most 2	0.422112	14.26776	15.49471	0.0759
At most 3	0.000384	0.009992	3.841466	0.9201

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

The Co-integration test seeks to determine whether there exists long-run equilibrium relationship among the variables of study between the period under study. In doing so, the Johansen co-integration test was used. This test therefore identifies a number of long-run relationship that exists among the sets of integrated variables. The trace statistic tests the null hypothesis that there are at least 2 co-integrated equations. Therefore, an acceptance of the null hypothesis means that there are at least 2 co-integrating relationships. The trace statistic of 35.55006 clearly exceeds the critical value of 29.79707 at 5 percent confidence interval, hence, we accept the null hypothesis and conclude that there is at least two co-integrating relationships and therefore, a long run equilibrium relationship exists among the variables.

Table for Empirical result

Dependent Variable: LOG(PCI)

Method: Least Squares

Date: 02/29/20 Time: 14:47

Sample: 1991 2018

Included observations: 28

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.876659	0.339509	26.14560	0.0000
LOG(MS)	0.127251	0.011693	10.88295	0.0000
EXR	-0.000301	0.000345	-0.871158	0.3923
INTR	-0.001258	0.002049	-0.614065	0.5449
R-squared	0.874545	Mean dependent var	12.47614	
Adjusted R-squared	0.858864	S.D. dependent var	0.247310	
S.E. of regression	0.092910	Akaike info criterion	-1.782813	
Sum squared resid	0.207173	Schwarz criterion	-1.592498	
Log likelihood	28.95938	Hannan-Quinn criter.	-1.724632	
F-statistic	55.76814	Durbin-Watson stat	0.361039	
Prob(F-statistic)	0.000000			

Findings and Conclusion

The table above reveals the OLS test results of the impact of monetary policy variables on individual welfare (PCI). Data on per capita income, money supply, exchange rate and interest rate were collected and analyzed to examine the how monetary policy has affected inclusive growth in Nigeria over the period under study. The result revealed that money supply exerts a positive impact on per capita income, a 1% increase in money supply increases the welfare of individuals 12%. Exchange rate and interest rate exert insignificant negative impact on per capita income. It is therefore concluded that money supply has the capacity to influence inclusive growth if implemented appropriately (Ufoeze, Odimgbe, Ezeabalisi, & Alajekwu, 2018; Emmanuel & Ogochukwu, 2018; Nwoko, Ihemeje, & Anumadu, 2016). Therefore, we would recommend that the policy makers make the right monetary policies so as to improve the welfare of the citizens.

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