

Relative Effectiveness of Monetary Policy Instrument Used in Nigeria

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Abstract: Over the years there have been various efforts by the Central Bank of Nigeria to influence the overall performance of economy, this help the financial services sector to growth but the real sector has not grown robustly. This study therefore appraises the monetary policy regimes in Nigeria as it relates to the role of CBN policy objectives from 1986-2018, by examining the use MRR and MPR as policy instrument. The selected macroeconomic variables used are minimum rediscount rate (MRR), monetary policy rate (MPR), Output, inflation (INF), interest rate (IR), money supply (M1 &M2), and exchange rate (EXGR). The study employed the used of VAR. the result of impulse response functions shows that monetary policy has little impact during the pre central bank independence and is more effective in the post CBN independence period. Based on the empirical findings, the following recommendations were made: to successfully achieve macroeconomic objective the policy makers should continually assess the effect of policy on the economy, this will help in determining the monetary effect of policies on economy which in turn encourages growth. Moreover, money supply should also be given attention so as to assuasive inflation and improve output, above all achieve stable and sustainable growth in money aggregates. The channels of monetary policy transmission mechanisms should be monitored carefully in order to ensure that the interest rate effect prices and output in the economy.

Key Words: Monetary policy, Minimum Rediscount Rate (MRR), Monetary Policy Rate (MPR), Vector Autoregressive (VAR)

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I. Introduction

Monetary policy can be seen as an attempt to make objective variables of central bank on an acceptable and desirable path, where monetary conditions also follow a path that is consider more optimal to the society. The conviction here is, target variables (inflation and output) respond to monetary condition, thereby enhancing the effectiveness of monetary policy. In view of these therefore, central bank's monetary policy is considered as an important tool that is used to achieve the fundamental objective of price stability, economic growth and development (CBN, 2014).

However, in Nigeria it has been observed over the years that the financial service sector has grown robustly especially since the regime of economic liberalization, but the real sector has not grown correspondently (Apere and Karimo, 2014). This has been attributed to choice of policy instrument used by monetary authority. Because, empirical evidence shown that instrument particularly short term interest rates has been effective especially in developed countries, while less effective in developing countries due to weak institutions, shallow financial market, financial sector imperfections and persistence banking liquidly which has effect on transmission of monetary policy to key macroeconomic variables in most developing countries (Primus, 2016). In the light of these, there are arguments among scholars on whether monetary authorities should rely mainly on indirect instrument to conduct policy or not. Because, various study has shown that short term interest rate is limited in affecting monetary policy in countries with structural excess liquidity and credit market imperfection, While other studies shown that short term interest rate is required in transmitting monetary impulses to key macroeconomic variables (Primus, 2016).

From the above aforementioned reasons, we understand that to successfully conduct monetary policy, policy makers must have conducted accurate assessment of the effect of their policy on the economy. It based on the above differences that this study intends to evaluate the relative effectiveness of monetary policy instrument used before and after the granting of monetary policy independence to central bank.

II. Literature Review

2.1 Conceptual Literature

a. Monetary policy

Dwivedi (2005) opined that “monetary policy can be explicitly define as the deliberate use of monetary policy instruments (direct and indirect) at the disposal of monetary authorities such as central bank in other to achieve macroeconomic stability”. Likewise, Folawewo and Osinnubi (2006) “views monetary policy as a combination of measures designed to regulate the value, supply and cost of money in economic activity”. In another development, CBN, (2011) says “Monetary policy entails the carefully considerate use of direct and indirect instruments at the disposal of monetary authorities, manipulate the quantity, cost and availability of money/credit in other to carry out the macroeconomic objectives of internal and external balances”. More so, Monetary Policy is also sees as the deliberate action of the CBN/ monetary authorities to influence the quantity, and availability of credit in order to achieve desired macroeconomic objective. It usually involves the use of interest rate (Monetary Policy Rate) to influence economic activity. The target of monetary policy could be to achieve economic growth, exchange rate, balance of payment or price stability (CBN 2011). More succinctly, Imoughele (2014) opined that “monetary policy is one of the macroeconomic instruments with which monetary authority in a country employs in the management of their economy to attain desired objectives. It entails those actions initiated by the Central Bank which aim at influencing the cost and availability of credits”.

b. Monetary Policy Transmission Mechanism

The monetary policy transmission mechanism is the process by which changes made by the monetary authority (Central Bank), affects the general price level of goods and services in the economy”. CBN, (2011), says the term monetary policy transmission mechanism can be define “as various channels through which term nominal interest rate affect prices and output in the economy”. Also, CBN (2017), define monetary policy transmission “as a channel through which monetary policy influences the real economy, particularly output and inflation. In other word, it is a process through which changes in money supply or other monetary aggregates pass through some intermediate variables to effect prices (interest rate, exchange rate and inflation rate), output / employment and external balances”. Traditionally, it can be view as the linkage between monetary policy and aggregate demand. When the central bank make changes to transmits to the real sector of the economy. This reveals that, at the centre of discussion of monetary policy rules is the transmission mechanism for monetary policy, because. Understanding much provides greater insight into the conduct of monetary policy. So in understanding monetary policy, there is a need to understand the conventional wisdom concerning transmission mechanism (svensson, 1999). More specifically, monetary policy transmission mechanism could be approached from various dimensions, some of the channels of monetary policy transmission are; interest rate channels, exchange rate channel, asset price channel and credit channel.

2.0 Theoretical Literature

2.1 Neutrality and Non-Neutrality of Money

(i) Classical View

Monetary policy relations could be approached from various dimensions, some of these are; short term, medium term and long-term relations. This reveals that, at the centre of discussion of monetary policy there exist short run relationship between money and other policy variables. According to Hicks (1967), therefore, the classical monetary theory has two main strands; one represented by Ricardo and currency school who believed in relying at all times (including deflation and unemployment) the quantity of money. According to this strand of classical system, money is neutral in the economy because it has no effect in the determination of income, employment or output. The other stand of the classical system is that represented by Thompton, Tooke and Friedman who favoured a permissive monetary instability as the price of sustaining the level of economic activity and insulating the domestic economy from fluctuations in the balance of payments. This school of thought, posit that income, employment and output are determined by other factors such as capital stock, technology, available resources etc. however, the second strand believes that “money matters”. They believed that a monetary economy is governed by uncertainty: in a monetary affair, discretion is preferable to rule since the economy is hardly ever in full equilibrium and the equilibrating forces of market mechanism are slow or ineffective. This view is summarized by the neoclassical restatement of the quantity theory of money which admits the short-run non-neutrality of money (Maria and Annalisa 1994).

(ii) Keynesian View

In the Keynesian system, the effectiveness of policy centered on the level of economy, that is the policy under full employment level of output economy and the policy of below full employment level of output economy. This means that the neutrality or non-neutrality of money dependent on the “state of the economy” (full employment level or below full employment level). According to this school, Money is only neutral at full

employment level of output or in a situation of liquidity trap. Growth in money supply at full employment level of output can only lead to a higher price level in the economy while during a situation of liquidity trap; an expansionary monetary policy will not lead to more investment because interest rate cannot fall beyond that level. On the other hand, once the economy is under full employment level of output, an increase in money supply has a non-neutral effect because it will lead to a fall in interest rate, increase in investment and hence output (Jinghan 2010).

(iii) Tobin's Asset Theory

This theory provides a mechanism by which monetary policy affects the economy through its effects on the valuation of equities. Thereby reveals that there is a highly significant effect of monetary policy on equity prices. According to Mishkin, (1996) Monetary policy affect equity price because when money supply rises, the public finds that it has more money than it wants and so it tries to reduce the holdings of money by increasing their spending. One of the ways to do this is through the stock market, increasing their demand for equities and therefore raising their prices. For instance Tobin defines q as the market value of firms divided by the replacement cost of capital. If q is high, the market price of firms is high relative to the replacement cost of capital and new plant and equipment capital is cheap relative to the market value of business firms. Companies can then issue equity and get a high price for it relative to the cost of plant and equipment they are buying. Thus investment spending will rise because firms can buy a lot of new investment goods with only a small issue of equity. On the other hand, when q is low, firms will not purchase new investment goods because market value of firms is low relative to the cost

2.2 Empirical Review

Primus (2016) examines the effectiveness of the use of indirect and direct monetary policy instruments in Barbados, Jamaica and Trinidad and Tobacco, using restricted vector autoregressive variable (VARX). The study assumes that central bank conducts monetary policy using a Taylor rule and evaluates the effect of reserve requirement policy. He found that positive shock to the policy interest rate has direct effect on central banks' interest rate, there is also a weak transmission to real variables, moreover, and an increase in the requirement reserve ratio is successful in reducing private sector credit and excess reserve and thereby alleviating pressures on exchange rate. This shows that small open economy should consider using required reserve as complement to interest rate policy in order to achieve macroeconomic objectives.

Adegoriolo (2018) study the effectiveness of monetary and fiscal policy institutions in stabilizing Nigerian Economy from 1981 to 2018, using CBN, NBS and World Bank index (WDI), by study employ ECM for empirical analysis. The study found that, there is long-run equilibrium relationship between monetary policy and fiscal policy instruments and economy in Nigeria. This reveal the need for effective use of money supply and government expenditure as key instrument as key for policy in Nigeria.

Apere and Karimo (2014) examine the effectiveness of monetary policy on economic growth in Nigeria, using period of 1970 to 2011, by employing VAR (I) model. The study found that at short run, output and inflation are the variables that derive monetary growth; in the long run, monetary policy variables may not have instantaneous impact on output. Moreover, in the short run, it is the level of production that is important in controlling inflation but in the long run, it's the monetary policy variables that matters.

Sanusi (2011) examines the two separate set of CBN communiqué that MPC provides as a set of information to the financial market, and each of which have separate effects on the overall policy outcome. These are the cost-of-funds effect of monetary policy and the signaling effect of MPC. The former is likely expected to affect the rates in the market because it represents a change in the cost of funds to the banks while the later is likely to affect market expectation and thereby affect the term structure of interest rates. Using data for the period of 2009-2011, the study found that the cost-of-money effect on the open buy back rate is larger than that of call rate. While, the effect of monetary policy signal on both rates is quite significant. He therefore reveals that central bank communication is potentially a viable tool of monetary policy design and important for Nigeria. So CBN should be proactive in designing an optimal communication strategy.

Guizani (2015) examine the effectiveness of monetary policy in Tunisia during using monthly data of several macroeconomic variables for the period of 2000-2010, and 2011-2013. By employing Vector Error Correction (ECM) model for estimation. The result shows that short term interest rates, has become increasingly more effective in real output and prices during post revolution period (2011-2013) than the pervasive (2000-2010). Variance decomposition not only confirms the findings but also points out an increasing role to the real output in price variation during the political transparency period.

Petraxex (2017) examine the effectiveness monetary policy and size of the fiscal multiplier for UK, US Germany, Czech and Swiss economies, using data for the bond yields, macroeconomic announcements, system stress and others. By employing OLS method to estimate the sensitivity of the bond yields to those supervise component over the period from 1990 to 2006 and compare it with the sensitivity of bonds yield from the period

where most policy rates were at near zero, the effect of lower bound (usually period of between 2008 to 2016). The finding shows that, the sensitivity of the shorter maturity interest rate to surprise component of macroeconomic news is likely to be attenuated by the pressure of the zero low bound. But with increase maturity, the yield becomes less and less constrained with levels by increasing maturity the yields become less constrained.

Gimba, (2015) assessed the effect of monetary policy variables on savings, national income, and investment as proxies to real sector economy in Nigeria using Vector Autoregressive (VAR) Model. The result shown that money supply exerts a significance impact on real sector economy. This reveals the importance of monetary policy channel in regulating real sector economy in Nigeria. However, money supply shocks on real sector variables are significant too. The study concludes that monetary policy regulations should used money supply regularly as a mechanism to improve real sector economy in Nigeria.

III. Methodology

This study used Vector Autoregressive Modeling framework. In order to capture the effectiveness of monetary policy in Nigeria, Then went further to look at the Impulse response function (IRF). The data used for the study is Quarterly time series data of Minimum rediscount rate (MRR), Monetary Policy Rate (MPR), Output (GDP), Inflation (INF), Interest Rate (IR), Money supply (M1 and M2), and Exchange rate (EXGR) from 1986 to 2005 for pre Central Bank Independence and 2006 to 2018 for post Central Bank Independence, The study depends mainly on secondary source of data which is gotten from CBN statistical bulletin via it's official website www.cenbank.org, Monthly Journal, Financial reviews, Annual reports Statistical Bulletins various issued, as well as Communiqué of Central Bank.

3.1 Model Specification

In order to look at how effective monetary policy is before and after the constitution of monetary policy committee in 2007, two set of models were developed.

Model One: this model was developed in order to look at how effective monetary policy is before the constitution of monetary policy committee in 2007.

$$MRR = \alpha_1 + \alpha_1 Ms_t + \alpha_2 i_t + \alpha_3 \pi_t + \alpha_4 y_t + \alpha_5 E_t + e_{1t} \dots \dots \dots (3.1)$$

Where we will assume we have a Y_t^1 vector as;

$$Y_t^1 = [MRR, Ms, i, \pi, y_t, E] \dots \dots \dots (3.2)$$

Where Y_t^1 column vector of the variables, MRR is minimum rediscount rate, Ms is money supply, i interest rate, π is inflation, y_t , is output, E is exchange rate. Moreover, each variable is expressed as a linear combination of lagged values of itself and lagged values of all variables in the group.

The vector autoregressive model (VAR) representation of Y_t can be as follows;

$$Y_t = \alpha_1 + \alpha_2 y_{t-1} + \alpha_3 y_{t-2} + \dots + \alpha_n y_{t-p} + e_t \dots \dots \dots (3.3)$$

Where, Y_t is equal to MRR, Ms, i, π, y_t, E , α_{nm} is the matrix coefficients, y_{t-1} is vector of the endogenous variables and e_t is the vector of error term.

Model Two: the second Model was developed in order to look at how effective monetary policy is since the constitution of monetary policy committee in 2007.

$$MPR = \gamma_1 + \gamma_1 Ms_t + \gamma_2 i_t + \gamma_3 \pi_t + \gamma_4 y_t + \gamma_5 E_t + e_{2t} \dots \dots \dots (3.4)$$

Where we will assume we have a Y_t^1 vector as;

$$Y_t^1 = [MPR, Ms, i, \pi, y_t, E] \dots \dots \dots (3.5)$$

Where Y_t^1 column vector of the variables, MPR is monetary policy rate, Ms is money supply, i interest rate, π is inflation, y_t , is output, E is exchange rate. Moreover, each variable is expressed as a linear combination of lagged values of itself and lagged values of all variables in the group.

So the vector autoregressive model (VAR) representation of Y_t can be as follows;

$$Y_t = \gamma_1 + \gamma_2 y_{t-1} + \gamma_3 y_{t-2} + \dots + \gamma_n y_{t-p} + e_t \dots \dots \dots (3.6)$$

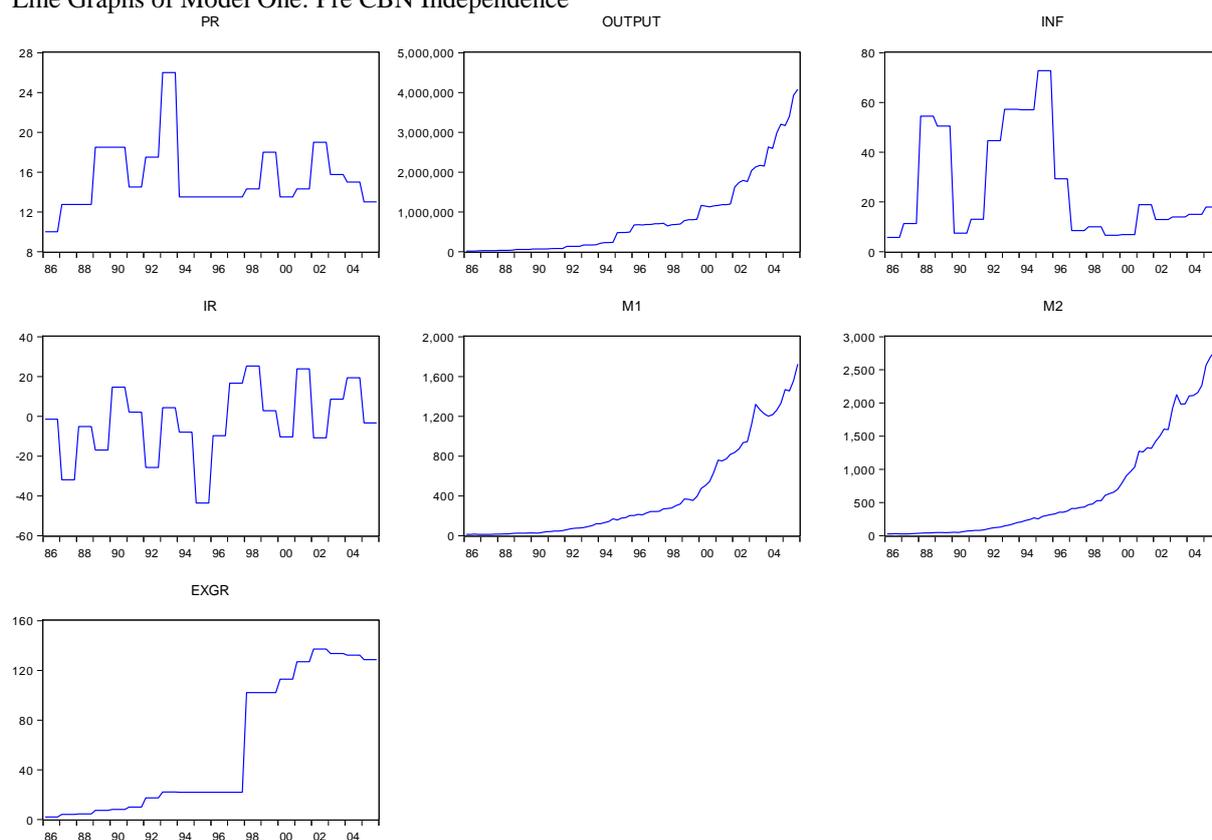
Where, Y_t is equal to MPR, Ms, i, π, y_t, E , α_n is matrix coefficients, y_{t-1} is vector of the endogenous variables and e_t is the vector of error term.

IV. Results and Discussion

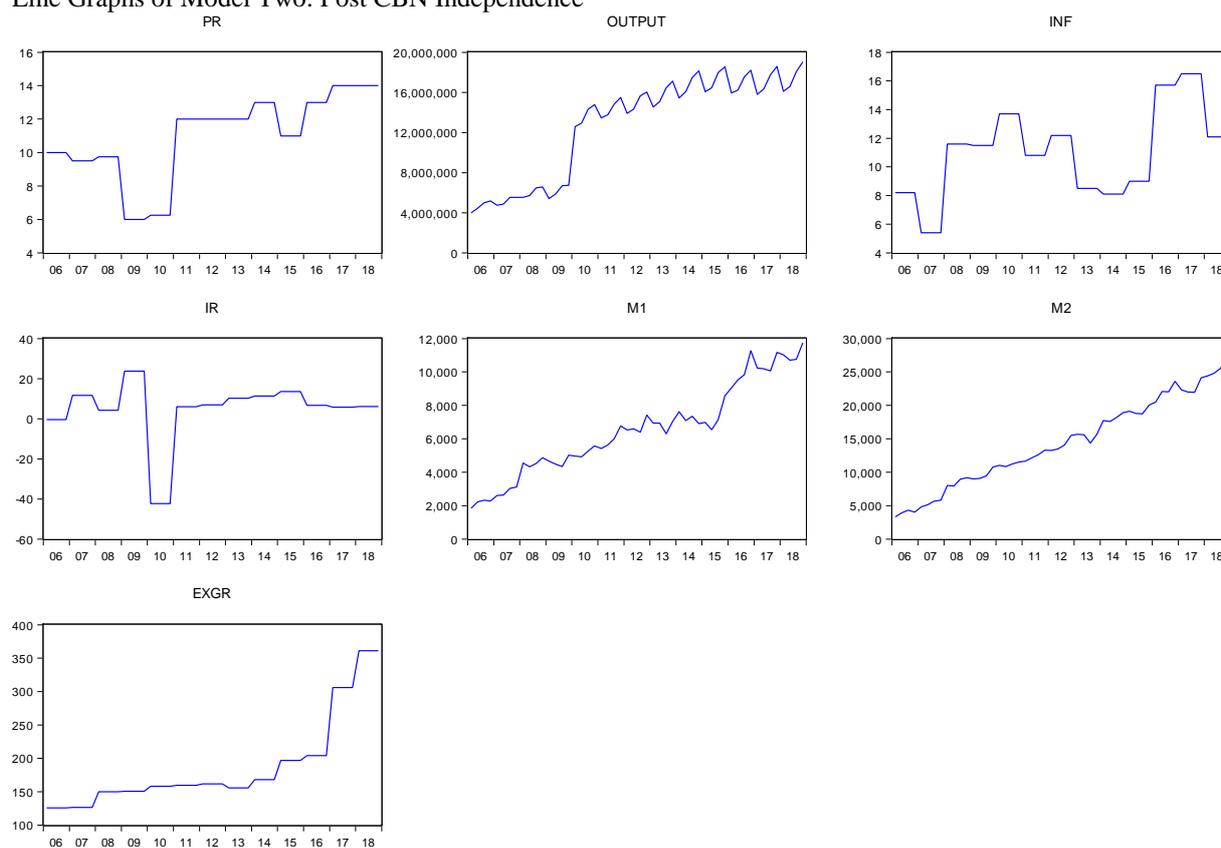
4.1 Stochastic Properties of the Data

In other to examine whether the series have trend, we plot a line graph of the series. The graph evidence reveals that there are linear trends and intercept in the series. This shows that the series is not stationary because the trends do not reverse to their mean. The graphical plots are as follow;

Line Graphs of Model One: Pre CBN Independence



Line Graphs of Model Two: Post CBN Independence



4.2 Descriptive Statistics of the Series

Descriptive statistics was conducted in other to feel up the data so as to know what information is entering the sample and to see whether the samples are normally distributed or there are outliers in the data. It will as well help in knowing the measure of central tendencies that is the (mean, median, mode), measure of dispersion (range, variance, standard deviation), and measure of normality (kurtosis, skewness).

Pre CBN Independence

	PR	OUTPUT	INF	IR	M1	M2	EXGR
Mean	0.462936	-0.700570	0.319733	-0.169267	-0.696477	-0.683308	-0.584849
Median	0.180204	-0.740661	-0.299624	-0.166082	-0.753664	-0.728489	-0.986426
Maximum	3.298073	-0.219338	2.924352	1.453108	-0.313998	-0.414406	0.335768
Minimum	-0.968622	-0.823165	-0.786262	-2.571483	-0.808563	-0.766014	-1.214224
Std. Dev.	0.902437	0.149830	1.173344	1.047870	0.136470	0.101545	0.624158
Skewness	1.445439	1.523428	0.879585	-0.427460	1.224901	1.248185	0.438478
Kurtosis	5.563675	4.594654	2.244367	2.727156	3.210282	3.295590	1.328679
Jarque-Bera	49.76533	39.42083	12.21886	2.684437	20.15248	21.06413	11.87456
Probability	0.000000	0.000000	0.002222	0.261265	0.000042	0.000027	0.002639
Sum	37.03490	-56.04560	25.57866	-13.54139	-55.71818	-54.66467	-46.78793
Sum Sq. Dev.	64.33708	1.773469	108.7621	86.74443	1.471292	0.814602	30.77630
Observations	80	80	80	80	80	80	80

Post CBN Independence

	PR	OUTPUT	INF	IR	M1	M2	EXGR
Mean	-0.712210	1.077800	-0.491897	0.260411	1.071504	1.051244	0.899768
Median	-0.435285	1.397709	-0.465523	0.366439	1.073757	0.967363	0.589935
Maximum	0.098052	2.004601	-0.189025	1.361334	2.580628	2.643544	2.901280
Minimum	-2.035295	-0.233044	-0.802852	-2.497831	-0.281645	-0.352270	0.205188
Std. Dev.	0.673613	0.761278	0.170205	0.868141	0.779895	0.832745	0.776638
Skewness	-0.767053	-0.627008	0.106825	-2.347778	0.220031	0.069776	1.633524
Kurtosis	2.582478	1.713524	2.340585	8.374043	2.212400	1.945233	4.427475
Jarque-Bera	5.476918	6.993080	1.041029	110.3453	1.763597	2.452684	27.54111
Probability	0.064670	0.030302	0.594215	0.000000	0.414038	0.293364	0.000001
Sum	-37.03490	56.04560	-25.57866	13.54139	55.71818	54.66467	46.78793
Sum Sq. Dev.	23.14150	29.55672	1.477450	38.43712	31.02003	35.36669	30.76153
Observations	52	52	52	52	52	52	52

4.3 Unit Root Test

The empirical analysis of this work started with the testing of stationarity of the variable in other to obtain a more reliable result, in this research stationarity test was carried out using both the Argumentative Dickey Fuller (ADF) and Philip Peron (PP) approach for unit root test. The importance of this is to know the order among the variables before entered into the VAR. The results are reported in tables below;

Pre CBN independence Unit Root Estimate using Argumentative Dickey Fuller (ADF) and Philip Peron (PP) Test

Variables	ADF				PP				Decision
	Level		Difference		Level		Difference		
	Test stat	Prob.	Test stat	Prob.	Test stat	Prob.	Test stat	Prob.	
PR	-3.1687	0.0257	-3.3287	0.0168	-8.7205	0.0000	-8.7205	0.0000	I(0)
Output	4.0599	1.0000	-14.6875	1.0000	-9.8927	0.0000	-8.1056	0.0000	I(1)
Inflation	-2.2056	0.2060	-2.2908	0.1774	-8.7199	0.0000	-8.7199	0.0000	I(1)
Int rate	-3.2138	0.0228	-3.5090	0.0102	-8.7178	0.0000	-8.7178	0.0000	I(0)
M1	-4.6927	0.0000	5.4386	1.0000	-5.3713	0.0000	-4.6927	0.0000	I(0)
M2	0.6874	0.9911	-0.3319	0.9144	0.3894	0.9812	-6.7920	0.0000	I(1)
Exgr	-0.5149	0.8818	-0.4905	0.8867	-8.9866	0.0000	-8.9892	0.0000	I(1)

Source: Authors Computation with E-vies 10⁺

Post CBN independence Unit Root Results using Argumentative Dickey Fuller (ADF) and Philip Peron (PP) Test

Variables	ADF				PP				Decision
	Level	Prob.	Difference	Prob.	Level	Prob.	Difference	Prob.	
PR	-3.1674	0.0257	-3.3287	0.0168	-8.7205	0.0000	-8.7205	0.0000	I(0)
Output	4.0599	1.0000	-14.6875	1.0000	-9.8927	0.0000	-8.1056	0.0000	I(1)
Inflation	-2.0696	0.2060	-2.2908	0.1774	-8.7199	0.0000	-8.7199	0.0000	I(1)
Int rate	-3.2138	0.0228	-3.5090	0.0102	-8.7178	0.0000	-8.7178	0.0000	I(0)
M1	-4.6927	1.0000	-5.4386	1.0000	-5.3713	0.0000	-5.2488	0.0000	I(1)
M2	0.6874	0.9911	-6.6921	1.0000	-0.3894	0.9812	-6.7920	0.0000	I(1)
Exgr	0.5149	0.8818	-0.4905	0.8867	-8.9866	0.0000	-8.9892	0.0000	I(1)

Source: Authors Computation with E-vies 10⁺

The above tables shows the results of the ADF and PP test, the results shows that policy rates, interest rates, Excg ratr and M1 are level stationary using ADF and PP tests. However, all the variables are level non stationary using both ADF and PP, we therefore accept the null hypothesis and conclude that there is presence of unit root in the variables at level. As a result of this we differentiate all the series in both ADF and PP test, after taking the first difference all the variables become stationery. Therefore we conclude that the variable are integrated of order one, (I) at all level of significance.

4.4 Impulse Responses of the Variable

The study employed Impulse Response Function (IRF) In order to traces the effect of one shock to one of the shock on the present and future value of endogenous variables, in order to eliminate the difficulties associated with individual coefficient in the VAR estimate. Policy rates (MRR and MPR) was assumed to be exogenous and consider being a function of output, inflation, interest rate, M1, M2 and exchange rate, using cholesky one standard deviation approach the result of the IRF within the period of ten quarters is shown below.

Impulse Response Functions (IRFs) of Model One: Pre Central Bank Independence

Response to Cholesky One S.D. (d.f. adjusted) Innovations ± 2 S.E.

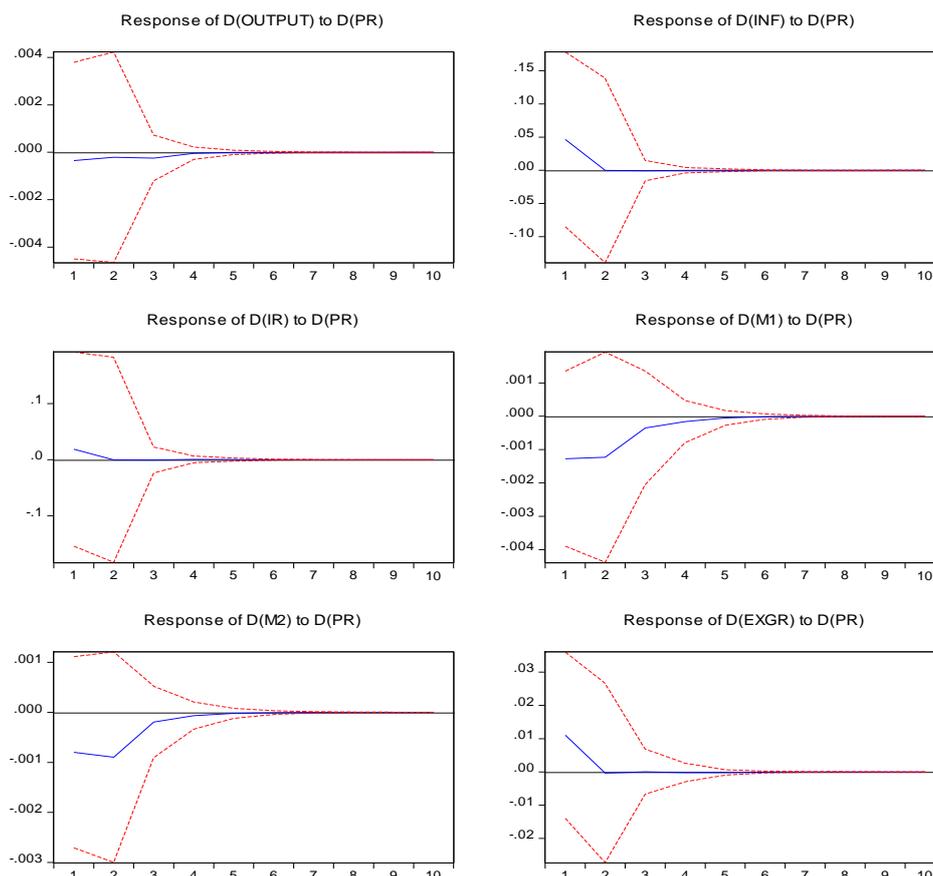


Figure 4.1 above shows a one standard deviation shocks to policy rate. The IRF shows that change in policy rate contract output insignificantly, which moves back the output to its long run trend immediately and thereby maintain the trend. This violates the rules of market base policy which says a monetary policy shocks leads to persistence volatility in output. Moreover INF also falls marginally before it move to long run trend and maintain it, this reveals that policy changes has little effect on prices. Additionally, change in policy rate leads to a positive fall in IR and move to its long run trend immediately this reveals that banks hold excess liquidity, they are likely less incline to increase loan rates. Furthermore, this increases the demand for local currency note and coins and thereby depreciates EXGR, though the effect is not persistence as the EXGR return to its long run equilibrium after second quarter.

Impulse Response Functions (IRFs) of Model One: Post Central Bank Independence
Response to Cholesky One S.D. (d.f. adjusted) Innovations ± 2 S.E.

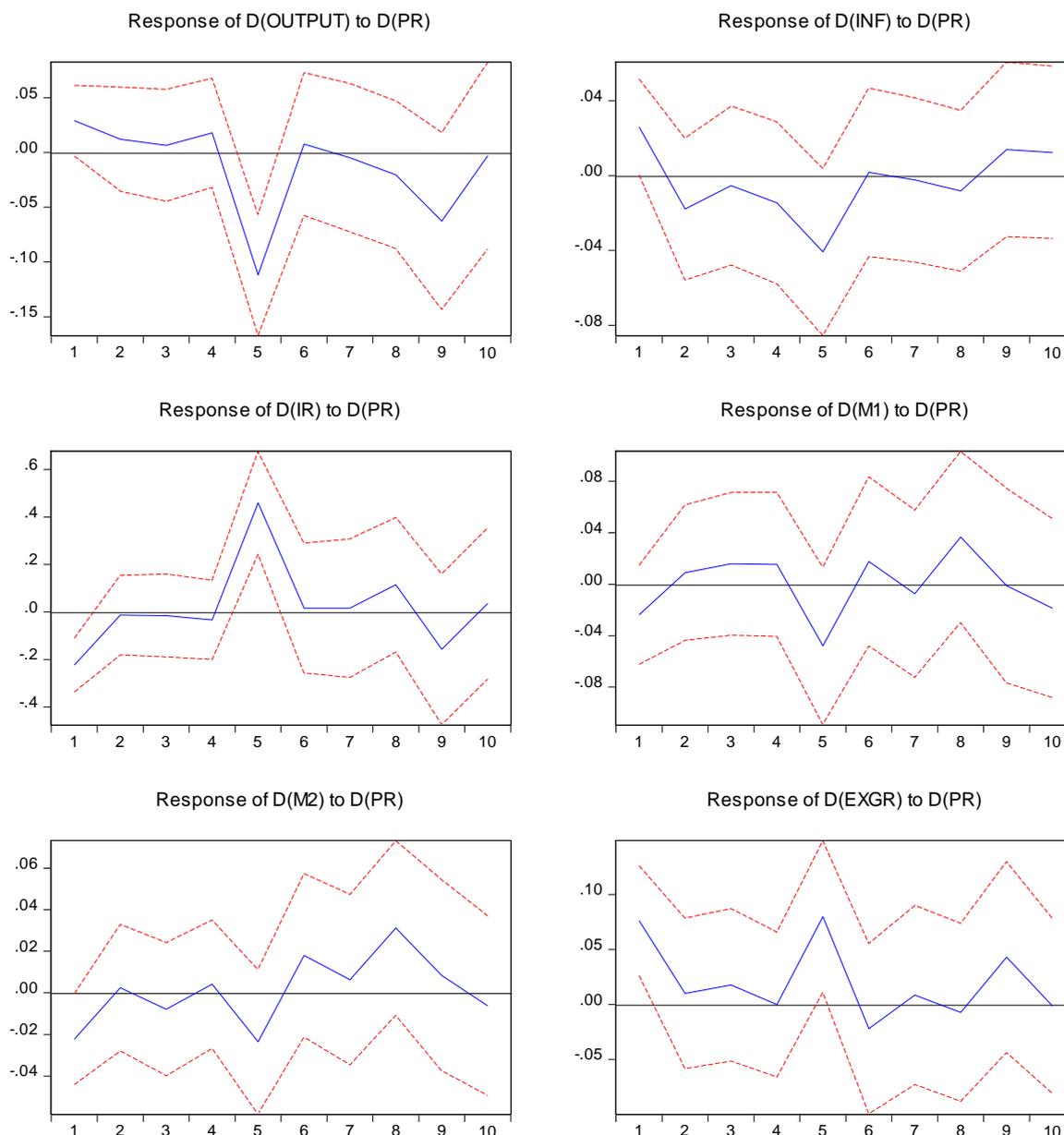


Figure 4.2 above shows the one standard deviation shocks of policy rate. From the result we can see that, an increase in policy rate leads to a marginal decline in output, inflation also decline significantly this effect is persistence. After 2nd quarter output increase, while inflation decreases persistently up to the 4th quarter, in the fifth quarter output decline but the decline is not persistence this movement only happen in that quarter. In the 6th quarter the movement in inflation and output continue in the same manner with inflation move a bit slower than output these movements continue up to the 10th quarter. This goes in line with market based

policy that says monetary policy shocks leads to persistence volatility in output. Moreover, change in policy rate leads to a contraction in interest rates persistently up to the 5th quarter where it raises and falls significantly in the 6th and raises in the 7th quarter, this persist up to the 9th quarter before it moves back to long run equilibrium in the 10th quarter. This goes in line with the increase in demand for local currency note and coin up to the 4th quarter while that of savings and time deposit decline up to the 5th quarter, this movement persist up to the 10th quarter. The exchange rate also depreciate significantly in the 4th quarter and appreciate in the 5th quarter becomes negative in the 6th quarter then appreciated back to its long run trend. This shows that policy rate is more effective during the post central bank independence this is because the macroeconomic policy variables respond to policy rates immediately and persistently as expected.

V. Conclusion and Recommendation

The impulse response functions (IRFs) shows that in the pre central bank independence output response to monetary policy is not persistence, this goes against the market based policy of monetary shocks to output, moreover, monetary policy has little effect on prices, interest rate, money supply and exchange rate. But during the post central bank independence monetary policy shocks leads to persistence volatility in output, this volatility was followed immediately by prices in the second quarter, thereafter interest rate contract, demand for local currency increases and exchange rate depreciate, all these movements remain persistence and later moves back to their long run trend. These findings are in accordance with empirical findings of primus (2016), Apere and Karimo (2014) and Primus (2016). Based on the empirical findings, the following recommendations were made: to successfully achieve macroeconomic objective the policy makers should continually assess the effect of policy on the economy, this will help in determining the monetary effect of policies on economy which in turn encourages growth. Moreover, money supply should also be given attention so as to assuasive inflation and improve output, above all achieve stable and sustainable growth in money aggregates. The channels of monetary policy transmission mechanisms should be monitored carefully in other to ensure that the interest rate effect prices and output in the economy. this will help in checking the change in commercial rates, lags in such changes, savings decision of consumer and ultimately overall output will be altered, it will as well smoothing the depreciation and appreciation of exchange rate, and stabilize prices.

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