The Composite Effects of Monetary Policy on Bank Lending and Nigeria Economic Performance: Further Empirical Evidence

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Abstract

The study investigates the composite effects of monetary policy on bank lending and Nigeria economic performance: Using the Unrestricted SVAR approach for the period of 35 years which cover 1986-2020 The study addressed broad money supply, monetary policy rate, aggregate lending to private and public sectors, exchange rate and inflation rate as monetary policy indicators while real gross domestic product was regressed as economic performance. This study adopts secondary data sourced from Central bank of Nigeria and National Bureau of statistics. The econometric approach was carried out on aforementioned Macroeconomic variables using descriptive analysis, correlation analysis and econometric modelling of structural VAR in evaluating and analysing the composite effects of monetary policy on banks' lending and its effects on Nigeria economic performance. The estimation techniques of Augmented Dickey Fuller (ADF) stationarity test was also applied on the macroeconomic variables. The result of findings from structural VAR discovered that monetary policies on banks' lending and economic performance were significantly correlated. Individually, the result revealed that money supply, monetary policy rate, exchange rate, and bank lending have positive and significant effect on economic performance while inflation had negative but insignificant effect on economic performance. The findings outcome reveals that MPR and BL are the major factors that permeate economic performance this implies that monetary policy rate and lending to private and public sectors exerts meaningful influence on economic performance in Nigeria. The negative trend of inflation is thereby sending bad signals to investors. Hitherto, the rate of inflation and exchange is always on the increase. Government is implored to put forward proactive measures and programmes that can significantly bring down the increasing exchange rate and inflation rate which has sent many investors away from doing business in Nigeria.

Keywords: Monetary policy, Bank lending, Economic performance, SVAR

1. INTRODUCTION

The objective of monetary policy on price stability is essential because it provides the basis for the nation's economic activity. In carrying out monetary policy, the Central Bank of Nigeria influences the formation of interest rates for the purpose of currency and monetary control, by means of its operational instruments, such as Treasury bill and money market operations. The Central Bank of Nigeria Act 1958 empowers the Bank to focus on monetary policy "aimed at achieving price stability, thereby contributing to the robust and healthy development of the national economy."

The formulation of monetary policy is decided by the Monetary Policy Committee (MPCs) at their quarterly meetings. At the Monetary Policy Committee (MPCs) meetings, committee discusses the economic and financial situations ravaging in the country decides the operandi for money market operations and the Central Bank's monetary policy stance. The financial instability is reflected in rising inflation on nearly all countries. Hence governments' task is to ensure economic and price stability through its monetary mechanism.

Price stability is important because it provides the basis for the nation's economic activity, "Price" here means the total level of prices of different goods and services. It is very crucial to present the Bank's basic view in carrying out monetary policy and assessing the developments of the economy and prices in a timely and clear manner, from the viewpoint of fulfilling the Bank's accountability to the public since the banks' act as the financial intermediaries and transmission mechanism of monetary policy in use (Bank of Japan, 2021). In addition, since monetary policy works through financial markets, the effects of monetary policy will influence more smoothly if market players gain a deeper understanding of the Bank's direction of economic target. Though one of the monetary policy issue that is difficult to deal with can be found in informal financial intermediaries, including: saving and loan associations, insurance companies, pension funds, cooperative societies etc, which deal in "near money", the highly liquid deposits of the public. These financial intermediaries cannot create money like commercial banks but can affect the money supply indirectly through their actions, over which the monetary authorities have little or no control (Adeusi, 2005). Money deposit banks act as a conduit for the transmission of monetary policy and monetary policy pronouncements affects the reserve basis of deposit money banks in lending capacity to investors or entrepreneur.

Statement of the Problem

The development of any nation's economy depends to a large extent on the strength of its banking sector (Driga, 2006) as cited by (Kolapo, 2019). In Nigeria, the objective and techniques of monetary policy have been changing over the years by the CBN via monetary policy committee. Each set of objectives has produced certain effects on banks' lending and the economic performance. Moreover, this mixed effects of concern needed clarification on the multi-target use of monetary policy instruments to money deposit banks. Since most of DMBs in Nigeria today operate under pressure to meet performance goals set by stakeholders while competition has increased dramatically in a complex, volatile and dynamic economic environment with many of them facing decline in performance.

At times, one is prompted to ask whether monetary policy dynamics is responsible for the distress syndrome as it was witnessed in the banking industry in Nigeria before banks' consolidation, since some banks cannot meet customers' demand on withdrawals cum lending to customers and firms to pursue plant expansion, and this distress syndrome is still signalling in the Nigeria banking industry with reference to the current Skye Bank Plc liquidation in September 2018 (NDIC, 2018). Hence, the effects of monetary policy on banks' lending and economic performance in Nigeria need to be examined and in the process, highlight its constraints and the measures put

in place to bring more positive impacts on banking operations and the economic performance as a whole in Nigeria. Though there were lots of studies mostly in Nigeria on the effects of monetary policy on bank lending but this study is driven by the urge to establish the composite effect or effects of monetary policy on bank lending and economic performance using unrestricted SVAR so that the macroeconomic variables in use can interact freely without any restrictions or shocks.

In the light of the above, the following fundamental research questions were raised to establish the composite effects of monetary policy on banks' lending and Nigeria's economic performance:

- i. to what extent has the composite effects of monetary policy on bank lending aided Nigeria economic performance?
- ii. to what are the effects of monetary policy on banks' lending in Nigeria?

The objective of this study is to:

- i. investigate the composite effects of monetary policy on bank lending and Nigeria's economic performance and
- ii. investigate the effects of monetary policy on banks' lending in Nigeria from 1986 – 2020.

For the purpose of this research, the following hypotheses were formulated and tested in line with the stated objectives. Which were formulated thus:

- i. the composite effects of monetary policy on banks' lending have no significant effects on Nigeria's economic performance.
- ii. monetary policy instruments do not have significant effects on banks' lending in Nigeria

Review of related concepts and empirical studies

Concept of Monetary Policy

The beginning of monetary policy dated back to late 19th century, when it was used to maintain the gold standards. Monetary policy by definition refers to the important action taken by the Central Bank to control the value, supply and cost of money in the economy with a view to achieving government's macroeconomic objectives. In order to maintain price stability and an improved balance of payment position, monetary management depends on the use of monetary instruments such as credit ceilings, selective credit controls, administered interest and exchange rates, as well as the prescription of cash reserve requirements and special deposits. (Olofinlade et al, 2021). According to Nnanna (2004), macroeconomics policies in developing countries are designed to stabilise the economy, stimulate growth and reduce poverty. Over the years, these major economic goals have been the focus of the CBN. The use of market-based instrument was not visible at that point because of the infant nature of the financial market and the intentional restraint of interest rate by the Central Bank. The economic environment that piloted monetary policy before 1986 was characterised by the dominance of oil sector and the expanding functions of public sector in the economy is over-dependence on the external sector.

The most important and useful instrument of monetary policy was issuance of credit rationing guidelines, which primarily set the rate of change for the components and aggregate of commercial banks' loan and advance to the private sector and the sectorial allocation of bank credit according to CBN's guidelines (CBN, 2019). This was to facilitate the productive sector and thereby curtailing inflation pressures towards economic growth. The fixing of interest rates at relatively low level was done primarily to encourage investment and growth. Occasionally, special deposits were introduced to reduce the amount of free reserves and crediting capacity of commercial banks. These objectives are necessary for the achievement of internal and external balance and the promotion of long-run economic growth (CBN, 2006). Monetary policy is referred to as

contractionary if it reduces the size of money supply or increases it slowly, or if it raises the interest rate. An expansionary policy increases the size of the money supply more rapidly, or decreases the interest rate. Furthermore, monetary policies are described as follows: accommodative, if the interest rate set by the central monetary authority is intended to create economic growth; neutral, if it is intended neither to create growth nor combat inflation; or tight if intended to reduce inflation. There are more than two monetary policy tools available to achieve these ends: increasing interest rate by fiat; reducing the monetary base; and increasing reserve requirements. All have the effect of contracting the money supply; and, if reserved, expand the money supply. (Google Search and CBN, 2018) [Accessed Online] 17/2/2020.

Concept of bank lending

Conceptually, bank lending is the collection of money from the lender to the borrower. Spencer (1977) noted that lending refers to a promise by one party to pay another for borrowed money or goods and services received. Lending is undoubtedly the heart of banking business. Therefore, its administration requires considerable skill and dexterity on the part of the bank management. Credit cannot be separated from the banking sector as banks serve as the medium for funds to be received by those who need funds for productive purpose. Banks are, therefore, debtors to the depositors of funds and creditors to the borrower of funds. Bank credit is the borrowing capacity provided to an individual, governments, firms or organisation by the banking system in form of loans and overdraft. According to the CBN (2006), the amount of loans and advances given by the banking sector to economic agents constitute bank credit. Bank credit is often accompanied with some collateral that helps to ensure the repayment of loan in the event of default.

Moreover, credit diverts savings into productive investment thereby encouraging economic activities to be carried out, which is important for the growth of the economy. The total domestic bank credit can be divided into two: credit to the private sector and credit to the public sector.

Lending which may be short, medium or long term basis is one of the services that banks do render to their customers. In other words, banks do grant loans and advances to individuals, business organisations as well as government in order to enable them embark on investment and developmental activities as a means of aiding their growth in particular or contributing towards the economic development of a country in general.

Lending practices in the world could be traced to the period of industrial revolution which increased the pace of commercial and production activities thereby bringing about the need for large capital outlays for projects. Many captains of industry at this period were unable to meet up with the sudden upturn in the financial requirements and therefore turn to the banks for assistance (Nwankwo, 1991).

Economic Performance

Economic performance is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. The performance of an economy is usually estimated in terms of the achievement of economic objectives. These goals can be long term, such as sustainable growth and development, or short term, such as the stabilisation of the economy in respect of sudden and unpredictable events, called economic shocks.

The business dictionary viewed economic performance as an assessment of an organisation of its success in areas related to its assets, liabilities and overall market strength. Many business operators take regular stock on either a formal or less formal basis of the general economic performance of their company to make sure that it remains on the right track financially. Performance, according to Okwu, et al (2011) is the willingness of an organisation to achieve

objectives such as high profit, quality product; large market share, good financial results and survival at pre-determined time using relevant strategy of action.

One of the early studies on emerging market economies is the work of Olofinlade ,Oloyede and Oke (2020) that examined the effects of monetary policy on bank lending and economic performance in Nigeria applying econometric technique of Augmented Dickey Fuller, and ordinary least regression on some macroeconomic variables, the result outcome revealed that there is a meaningful effect of some variables on bank lending and the study concluded that monetary policy meaningfully permeates the economic performance in Nigeria.

Chaiporn, Markus and Matthias (2017) in their study examined the chain of causality from macroeconomic financial policy to the microeconomic investment function. Precisely, the study objective is an in-depth analysis of the nexus between the monetary policy of Central Banks, the loan policy of commercial banks, and the investment pattern of firms. The study aimed on countries that carried out monetary policy under the inflation-targeting framework i.e US, Switzerland, Germany and Thailand. First, after controlling for the US monetary policy, the monetary policy in Germany and Thailand appears to permeate the banks' lending rate in the short run (i.e. within two months), however, the monetary policy in Switzerland seems to be ineffective at permeating the banks' lending rate in the short run. Second, the outcome results revealed that the banks' lending rate has a reverse effect on their loans and that this reverse effect is weakened by their growth chances. Third, the result outcome revealed that the supply of bank loans plays a more effective function in establishing firms' investment than the lending rate. Last but not least, the result document revealed that neither the lending rate nor the loan-to-assets ratio moderates the fragility of the firms' investment to growth chances.

Olaoluwa and Shomade (2017) examined and carried out the performance of monetary policies on commercial banks' lending behaviour in Nigeria banking industry from 1980-2014, Ordinary least square method (OLS), augmented dickey fuller test (ADF), co-integration test and Error correction model (ECM) were used as estimation techniques. Pre-estimation findings outcome revealed that some variables did not arrive to their long run equilibrium until they were at first differenced. The empirical finding established that there was a long run relationship between monetary policy and commercial banks' lending behaviour in Nigeria. From the findings, the lesson to be learnt is that the credit openness of commercial banks depends on the economic stand at a particular point in time and should strive to create a convenient environment for sound macroeconomic decision making for a smooth working in the economy. The findings also revealed that banks' lending behaviour is determined by interest rate, exchange rate, deposit rate and reserve requirement for the time under investigation. It was also revealed in the findings that only interest rate and reserve requirement has a reverse and meaningful effect on commercial banks' lending rate while other variables have a positive nexus.

2. METHODOLOGICAL FRAMEWORK

Model was formulated to detect the underlying long term economic correlation and estimate their relative importance coupled with their effects. The basic structural VAR model in the study contained seven variables which are real gross domestic product used as dependent variables while aggregate lending to private and public sector (BL), monetary policy rate, prime lending rate, exchange rate, money supply and inflation rate were used as independent variables that form the matrix model for the investigation in the study. The model is presented below as:

$$AY_t = \sum^k \beta_i Y_{t-1} + E_t \dots \dots \dots 1$$

Where:

Y = is the vector containing the six endogenous variables,

A = is a square matrix of coefficients to be estimated,

β = is the coefficients of other variables in the SVAR

ϵ = is a vector of shocks or innovations,

i = is the observatory period and

k = is the number of delays while

$t, t-1$ = are the information on time and time lagged

ϵ_t = is the error term

Reduced the model when summing over 1 is expressed as follows

$$\begin{bmatrix} \text{RGDP} \\ \text{MS2} \\ \text{PLR} \\ \text{MPR} \\ \text{INF} \\ \text{EXG} \\ \text{BL} \end{bmatrix} = A(L) \times \begin{bmatrix} \text{£1} \\ \text{£2} \\ \text{£3} \\ \text{£4} \\ \text{£5} \\ \text{£6} \\ \text{£7} \end{bmatrix}$$

Where the left hand side of the equation contains endogenous variables $A(L)$ is a squared matrices of coefficients associated with lagged variables and structural shocks through the Column vector (£). The identification of structural shocks is required by Blanchard and Quah (1989) as well as the imposition of long term economic constraints which are presented in the matrix denoted by $A(L)$. Following the method of Blanchard and Quah (1989), the identification of the system requires the imposition $n(n-1)/2$ constraints. In this model, the study imposes 21 constraints, given that $n=7$, then, the constraints of normalisation and independence of structural innovations were twenty one.

The matrix $A(l)$ of long term constraints are presented as follows based on the outcome of correlation test:

$$\begin{bmatrix} 1 & \text{NA} & 0 & 0 & 0 & 0 \\ 0 & 1 & \text{NA} & 0 & 0 & 0 \\ 0 & 0 & 1 & \text{NA} & 0 & 0 \\ 0 & 0 & 0 & 1 & \text{NA} & 0 \\ 0 & 0 & 0 & 0 & 1 & \text{NA} \\ 0 & 0 & 0 & 0 & 0 & 1 \end{bmatrix}$$

Estimation technique variables, samples and data source

This study adopts descriptive analysis, correlation analysis, Augmented Dickey- Fuller (ADF) unit root test and econometric modelling using structural VAR in evaluating and analyzing the composite effects of monetary policy on banks' lending and its effect on economic performance in Nigeria. The study made use of secondary data obtained from the Central Bank of Nigeria statistical bulletin and National Bureau of Statistics. All the annual series data were sourced from the download facility of the Central Bank of Nigeria and National Bureau of Statistics on real gross domestic product (RGDP), aggregate lending to private and public sector (BL), monetary

policy rate (MPR), prime lending rate (PLR), exchange rate(EXG), money supply(MS) and inflation rate (INF) from 1986 – 2020.

A priori expectation is determined by the principles of economic theory and it refers to the expected relationship between the explained variable and the explanatory variable(s). It is expected that changes in monetary policy pronouncements will affect the deposit money banks positively or negatively depending on the direction the Central bank takes regarding the economy.

$$\beta_0 \neq 0; \beta_1 \geq 0; \beta_2 \geq 0; \beta_3 \geq 0; \beta_4 \geq 0 \quad \beta_5 \leq 0 \quad \beta_6 \geq 0$$

3. PRESENTATION OF RESULTS AND DISCUSSION

The results of the findings from the study are presented sequentially and discussed as follows:

Stationarity Test or Unit Root Test

The study performed the Augmented Dickey–Fuller (ADF) unit root test to ascertain the stationarity of the time series variables in order to avoid spurious result from modelling non stationary variables. The result of the test is presented in Table 1.

Table 1 Summary of Unit Root Test

Variables	ADF test statistic	Critical value 5%	Integration	Remark
RGDP	-3.161318	-2.957110	1(1)	Stationary
MS ₂	-3.492146	-2.957110	1(1)	Stationary
PLR	-5.739094	-2.957110	1(1)	Stationary
MPR	-6.964028	-2.957110	1(1)	Stationary
EXR	-6.042668	-2.957110	I(1)	Stationary
INF	-3.994322	-2.957110	I(1)	Stationary
BL	-4.979052	-2.957110	I(1)	Stationary

Source: E view 9 Statistical, (2020)

The unit root test in Table 1 showed that all the monetary policy variables used were stationary at first difference. The real gross domestic product, money supply, prime lending rate, monetary policy rate, exchange rate and inflation rate failed stationary test at level but all became stationary at first difference. The reason behind this is that the Augmented Dickey Fuller (ADF) test statistics of each of the monetary policy variable was greater than 5 percent critical value of each of the monetary policy variables in absolute terms. This result implies that there is a short run equilibrium relationship among the economic variables under investigation. The dynamic nature of the monetary policy variables as revealed by the unit root test led to the adoption of descriptive, correlation and fitted structural vector autoregressive test as an appropriate models to determine the composite effects among the monetary policy, banks' lending and economic performance in Nigeria.

Descriptive Analysis

The descriptive analysis made use of time series data spanning between 1986 through 2020. It was used because it presented the result in a more meaningful way for simpler interpretation of data result and simpler summary of results to helps determine the normalcy of the distribution.

Table 2 Descriptive Statistics

	RGDP	MS ₂	PLR	MPR	INF	EXR	BL
Obs.	35	35	35	35	35	35	35
Mean	4.474286	2.942480	1.252015	1.113766	1.135092	1.686913	2.961251
Median	4.388548	3.023646	1.249611	1.130334	1.066856	2.028076	2.988216
Maximum	4.839000	4.349538	1.474216	1.414973	1.862131	2.485324	4.431060
Minimum	4.139226	1.303324	0.966142	0.778151	0.695482	0.294907	1.293792
Std. Dev.	0.232557	1.026142	0.100883	0.129231	0.315843	0.670057	1.095880
Skewness	0.302351	-0.166034	-0.516920	-0.446124	0.843271	-0.951585	-0.103401
Kurtosis	1.637071	1.672696	4.469874	4.021347	2.783442	2.471347	1.598209
Jarque-Bera	3.149592	2.652006	4.574915	2.605613	4.096039	5.527171	2.928019
Probability	0.207050	0.265536	0.101524	0.271768	0.128990	0.063065	0.231307
Notes: RGDP-Real gross domestic product, PLR-Prime lending rate, INF-Inflation, MPR-Monetary policy rate, MS ₂ -Money supply, EXR- Exchange rate, BL- Aggregate lending to public and private sector							

Source: E view 9 Statistical Package, (2020)

Table 2 showed the descriptive analysis results of all the variables involved in the analysis of monetary policy on bank lending and Nigeria's economic performance for the period of 1986 to 2020. The result reveals that on average, RGDP, MS₂, PLR, MPR, INF, EXR and BL varies from 4.47, 2.94, 1.25, 1.11, 1.13, 1.68 and 2.96 respectively to minimum of 4.13, 1.30, 0.96, 0.77, 0.70, 0.29 and 1.29. The maximum of the variables were recorded as 4.83, 4.34, 1.47, 1.41, 1.86, 2.49 and 4.43. Also, the standard deviation values 0.23, 1.03, 0.10, 0.13, 0.32, 0.67 and 1.09 indicated that the variables in the study were being deviated from their respective average or expected value. More so, it was discovered that RGDP and INF variables were positively skewed with the skewness coefficient of 0.30 and 0.84 respectively which implied that the distribution of RGDP and INF under the study had a long tail to the right while MS₂, PLR, MPR, EXR and BL variables were negatively skewed with the skewness coefficient of -0.17, -0.52, -0.45 and -0.10 respectively under the study consideration which implied that the variables had a long tail to the left. Kurtosis measures the peakedness or flatness of the distribution of the series. If the kurtosis is above three, the distribution is peaked or leptokurtic relative to the normal and if the kurtosis is less than three, the distribution is flat or platykurtic relative to normal. From Table 2, RGDP, MS₂, INF, EXR and BL with coefficient of 1.64, 1.67, 2.78, 2.47 and 1.59 were less than three which implies

flat or platykurtic, that is, flatter than a normal distribution with wide peak while only PLR and MPR with coefficient of 4.67 and 4.02 were more than three therefore it implied peaked or leptokurtic distribution that is sharper than a normal distribution for extreme value. The Jarque - Bera and probability values revealed that all the variables, that is, RGDP, MS₂, PLR, MPR, INF, EXR and BL were statistically significant in examining the relationship between the monetary policy on banks' lending and economic performance in Nigeria.

Result of correlation analysis

Correlation test indicates the degree of association among the studied variables in the model.

Table 3 Correlation Matrix

	RGDP	MS ₂	PLR	MPR	INF	EXR	BL
RGDP	1.000000	0.971780	0.006291	0.344275	0.160670	0.830167	0.978134
MS ₂	0.971780	1.000000	0.042254	0.299429	0.124153	0.927640	0.997980
PLR	0.006291	0.042254	1.000000	0.486888	0.515421	0.234884	0.004768
MPR	0.344275	0.299429	0.486888	1.000000	0.398564	0.093378	0.302507
INF	0.160670	0.124153	0.515421	0.398564	1.000000	0.001474	0.160697
EXR	0.830167	0.927640	0.234884	0.093378	0.001474	1.000000	0.913617
BL	0.978134	0.997980	0.004768	0.302507	0.160697	0.913617	1.000000

Source: E view 9 Statistical Package, (2020)

Tables 3 revealed the correlation results among the variables of real gross domestic product, money supply, prime lending rate, monetary policy rate, inflation, exchange rate and aggregate banks' lending rate respectively. Table 3 explicitly revealed that there is a positive correlation between real gross domestic product (RGDP) and money supply (MS₂), real gross domestic product (RGDP) and prime lending rate (PLR), real gross domestic product (RGDP) and monetary policy rate (MPR), real gross domestic product (RGDP) and inflation (INF), real gross domestic product (RGDP) and exchange rate (EXR) real gross domestic product (RGDP) and aggregate banks' lending (BL) with the correlation coefficient of 0.97, 0.01, 0.34, 0.16, 0.83 and 0.97 respectively. Thus, it can be established based on the result of the correlation matrix that monetary policy variables contributed significantly and serve as an engine device to drive the banks' lending and economic performance in Nigeria.

Fitted Structural Vector Autoregressive (SVAR)

Lag Order Selection

To start with, the vector autoregressive lag orders were determined to choose the appropriate lag for the autoregressive model. To determine the vector autoregressive lag order selection, Akaike information criterion, Schwarz information criterion and Hannan-Quinn information criterion were used. The result is presented in Table 4.

Table 4 Result for VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-15.8492	NA	2.03e-07	1.61846	1.90642	1.70408
1	138.0949	228.0653	3.51e-11	-7.11814	-5.10240	-6.51876
2	188.8048	52.5880	1.85e-11	-8.20776	-4.46423	-7.09462
3	306.2120	69.57466*	2.05e-13*	-14.23793*	-8.766616*	-12.61102*

Source: E view 9 Statistical Package, (2019)

Table 4 showed the result of the vector autoregressive lag order to be selected for this research. From the result, vector autoregressive lag order of three (3) is selected based on the statistical significance of Akaike information criterion, Schwarz information criterion and Hannan -Quinn information criterion values of -14.2379, -8.7666 and -12.6110 respectively at 5 percent significance level. Thus, a vector autoregressive model of lag order three (3) is required for the analysis of structural VAR.

Moreover, it should be recalled in the research question, objectives and hypotheses raised in the study to investigate the composite effects of monetary policy on banks' lending and Nigerian's economic performance. The SVAR test used is to allow the macroeconomic variables used to interact freely with each other without any restrictions to enable them present their results without subjecting it to shocks. The estimated result is presented in Table 5

Table 5 Structural VAR Estimate

Model: $Ae = Bu$ where $E[uu'] = I$					
Restriction Type: short-run pattern matrix					
A =					
1	0	0	0	0	0
0	1	0	0	0	0
0	0	1	0	0	0
0	0	0	1	0	0
0	0	0	0	1	0
0	0	0	0	0	1
B =					
1	0	0	0	0	0
C(1)	1	0	0	0	0
C(2)	0	1	0	0	0
C(3)	0	0	1	0	0
C(4)	C(6)	0	0	1	0
C(5)	0	0	0	0	1

Variables	Coefficient	Std. Error	z-Statistic	Prob.
RGDP $\leftarrow$ MS	2.325220	0.192450	12.08220	0.0000
RGDP $\leftarrow$ PLR	3.263083	0.192450	16.95548	0.0000
RGDP $\leftarrow$ INF	-0.676698	0.195027	-3.469773	0.0005
RGDP $\leftarrow$ MPR	9.644291	0.246659	39.09962	0.0000

RGDP ← EXR	0.683676	0.192450	3.552483	0.0004
RGDP ← BL	0.801688	0.189908	4.221461	0.0000
Log likelihood	-153.0755			
LR test for over-identification:				
Chi-square(14)	721.5191		Probability	0.0000

Source: Eview Statistical Package (2020)

The result in Table 5 revealed the statistical and theoretical significance of the estimated parameters of the structural vector autoregressive (SVAR) model. The result's output showed that the structural vector autoregressive model was over-identified. This implied that sufficient information was made available from the collected data to estimate the structural vector autoregressive model and to assess the statistical significance of the estimated parameters of the model. Considering the result of the estimated parameters individually, it was discovered that there is an inverse relation between RGDP and INF while a positive relationship exists between MS, PLR, MPR, EXR, BL and RGDP. Hence, 1% change in MS, BL, MPR, EXR, BL and RGDP will cause the economy to grow at the rate of 2.33, 3.26, 9.64, 0.68 and 0.80 percent respectively. On the other hand, a change in the INF will hamper the RGDP by 0.68 percent. The probability value 0.000 revealed that the estimated parameters such as MS, BL, MPR, EXR, BL and INF are statistically significant at 5 percent level in determining RGDP. Lastly, inflation appeared to be negative and significant with the value of - 0.6766 on banks' lending in Nigeria. This implied that inflation rate has propensity to decrease the fortune of banks' lending by contributing about 67.6% decrease to the dependent variable. The Chi-square value and the probability of Chi-square value given as $721.5191 > \chi^2_{0.05}(14) = 24.996$ and $0.000 < 0.05$ respectively established the reliability of fitted structural vector autoregressive model. Overall, the theoretical implications of the study indicated that monetary policies and banks' lending contributed significantly to economic performance in Nigeria.

4. CONCLUSION

The research investigates the composite effects of monetary policy on banks' lending and economic performance in Nigeria and this is meaningful to existing literature particularly in Nigeria. However, establishing from empirical investigation all the variables were stationary after first differencing which implies that there is short run equilibrium nexus among the variables. Moreover, The Jarque - Bera and probability values revealed that all the variables, that is, RGDP, MS₂, PLR, MPR, INF, EXR and BL were statistically significant in examining the relationship between the monetary policy on banks' lending and economic performance in Nigeria. RGDP and INF variables were positively skewed with the skewness coefficient of 0.30 and 0.84 respectively which implied that the distribution of RGDP and INF under the study had a long tail to the right. Table 3 explicitly revealed that there is a positive correlation between real gross domestic product (RGDP) and macroeconomic variables used. The SVAR result reveals in the empirical findings that monetary policy and banks' lending co-jointly significantly impact economic performance in Nigeria. From the findings the outcome reveals that MPR and BL are the major factors that permeate economic performance this implies that monetary policy rate and lending to private and public sectors exerts meaningful influence on economic growth in Nigeria. The negative trend of inflation is thereby sending bad signals to investors. Hitherto, the rate of inflation and exchange is always on the increase. Government is implored to put forward proactive measures and programmes that can significantly bring down the increasing exchange rate and inflation rate which has sent many investors away from doing business in Nigeria. The study established that monetary policy play an important role in the continuous performance of

Nigeria economy with the continuous increase in aggregate bank lending to entrepreneurs as indicated in the research findings.

Recommendations

The following recommendations were put forward based on the findings

1. The design of monetary policy and its implementation should be made in such a way that the conflict of target is avoided.
2. The monetary policy proposals of the Central Bank of Nigeria must constitute an input into the overall budget of the federal government of Nigeria.
3. Loans and advances, if made available and are adequately utilised will go a long way in improving the economy of the country (Nigeria)
4. The CBN needs to supervise thoroughly the banks' activities to enable them comply with all the monetary regulations frameworks as issued.

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