



## The Effect of Monetary Policy on Inflationary Pressure in Nigeria

Chukwu, Grace Fidelis, Ibrahim Umar Zwall  
Department of General Education,  
School of Education,  
Adamu Tafawa Balewa College of Education, Kangere, Bauchi, Bauchi State.

### ABSTRACT

This research work entitled "The Effect of Monetary Policy on Inflationary Pressure in Nigeria" investigated the effectiveness of selected monetary policy tools in the control of inflation in Nigeria. Data used were mainly sourced from the World Bank covering the period 1980 to 2017. The study estimated the Augmented Dickey-Fuller (ADF) unit root test, Johansen Cointegration test and the Error Correction Model (ECM). The result of the ADF showed that all the variables are integrated of order 1 (1), except for the Error Correction Term (ECT) which is stationary of order 1 (0). The Johansen cointegration test result revealed the presence of a long-run relationship between the inflation rate and the selected monetary policy variables. The ECM result revealed that the estimated model has a self-equilibrating mechanism of 12%. The paper concludes that Treasury Bill Rate (TBR) is an effective tool in controlling inflation both in the short and long run. While Exchange Rate (EXR) and Money Supply (MS) are very effective monetary policy tools in the control of inflation in the short run. The Monetary Policy Rate (MPR) is effective in the long run. Therefore, it is recommended that the monetary authority in Nigeria should regulate EXR and MS in controlling inflation to achieve a short-term result. TBR should be used to control the rate of inflation both in the short and long-run, while MPR should be used to control inflation for a long-term result.

### ARTICLE INFO

Article History  
Received: July, 2021  
Received in revised form: July, 2021  
Accepted: August, 2021  
Published online: September, 2022

### KEYWORDS

Effect, Monetary Policy, Inflationary Pressure

### INTRODUCTION

The monetary policy entails the government policies aimed at changing the quantity of money or credit condition, for example, open market operation or changes in required reserved ration etc. Monetary policies involve changes in the quantity of money held by the public. In our economy, there are two types of money most obviously- the naira bills and coins which you have in your pocket money. In every economy, after fiscal policy, the next most powerful macroeconomic stabilization is monetary policy. Monetary and fiscal policies are expected to work together as complements to achieve one goal of sound macroeconomic management that includes amongst other domestic price stability external sector viability as well as enhanced efficiency in resource allocation, distribution and utilization. Monetary

policy is therefore measure designed to regulate and control the volume, cost, availability and direction of money and credit in an economy to achieve some specifically macro-economic objectives. It is one policy that seeks to influence economic activities using the tools available to the central bank i.e. money supply (MS) interest rates and exchange rates. It can also mean the deliberate attempt by the authorities to either control the supply of money or control interest rates or ration the amount of credit granted by banks.

The objectives of monetary policy may vary according to the level of development of the economy involved, but invariably they include the attainment of price stability, maintenance of external payments equilibrium as well as promotion of employment and support growth and sustainable economic development



irrespective of the type of economy, these objectives are critical for the attainment of internal and external balance and ultimately the promotion of long-run economic growth. Where the stability of the financial system is threatened, these short and long-term objectives could be subordinated to the overriding objectives of achieving financial stability.

The history of economic growth shows that economic transformation started in England in the late eighteenth century and gradually spread to other parts of Europe and North America. Economic transformations did not get to other parts of the world until the 1950s when Japan transformed to become one of the world's major industrial giants. This economic transformation has spread far and wide in recent times but its spread is highly limited in Africa. It is only South Africa that has experienced it so far. This is demonstrated by the World Bank report (2001) which states that out of the 46 poorest countries in the World, 35 of them are in Africa. Nigeria with its vast resources of both human and material nature is not left out of the club of poverty-stricken countries. This poverty is illustrated by the recent World Bank report (2005), which says that more than 70% of Nigerians are living below the poverty line. It is against this background that this study is being undertaken. Poverty can be tackled using both fiscal and monetary policies to help solve this problem and growing poverty, removing the country from the poverty trap that seems almost impossible to be solved.

As far as Nigeria is concerned regarding inflationary effects it has experienced the worst consequences reflected by poverty, food crises, price hike etc. Mahmood, Hafeez and Rasheed (2009) concluded that inflation causes poverty. Day-to-day increases in prices of commodities especially of non-food items like oil and gas snatch money from the savings of consumers and uncertainty of prices, both food and non-food items, generate enthusiasm among people towards earning more and more, therefore, people prefer to work over recreation underestimating their health. This study will evaluate the influence of monetary policy in the control of inflation in Nigeria to reduce the

various negative effects of inflation in the Nigerian economy.

### **Objectives of the Study**

The main purpose of this study is to evaluate the monetary policy in control of inflation in Nigeria. Specifically, the study intends:

1. To examine the influence of the Exchange Rate on inflation in Nigeria.
2. To evaluate the effect of Central Bank Loans on inflation in Nigeria.
3. To investigate the influence of Interest Rates on inflation in Nigeria.

### **Research Questions**

The research questions for this study are as follows:

1. What is the influence of the exchange rate on inflation in Nigeria?
2. What is the effect of Central Bank loans on inflation in Nigeria?
3. What is the influence of interest rates on inflation in Nigeria?

### **Research Hypothesis**

For the successful completion of this study, the following research hypotheses were formulated by the researcher:

- H<sub>0</sub>:** There is no influence of the Exchange Rate on inflation in Nigeria.  
**H<sub>1</sub>:** There is an influence of the Exchange Rate on inflation in Nigeria.  
**H<sub>0</sub>:** There is no significant effect of Central Bank Loans on inflation in Nigeria.  
**H<sub>1</sub>:** There is a significant effect of Central Bank Loans on inflation in Nigeria.  
**H<sub>0</sub>:** There is no influence of Interest Rates on inflation in Nigeria.  
**H<sub>1</sub>:** There is an influence of Interest Rates on inflation in Nigeria.

### **Scope of the Study**

The empirical analysis and estimation covered the period from 1998 to 2018. This restriction is unavoidable because of the non-availability of some data. The data for this study would be obtained mainly from secondary sources; particularly from Central Bank of Nigeria (CBN) publications such as the CBN Statistical Bulletin, CBN Annual Reports and Statements of



Accounts, and National Bureau of Statistics publications. This study shall be divided into five chapters. The first chapter provides the background of the subject matter justifying the need for the study. Chapter two presents related literature concerning inflation and government expenditure. The research methodology, which includes the theoretical framework, sources of data, model formulation, estimation techniques etc, is stated in chapter three while data presentation, analysis and interpretation of regression results were made in chapter four. Concluding comments in chapter five reflects on the summary, conclusion, recommendations and suggestion for further studies based on the findings of the study. This research work will evaluate the monetary policy in control of inflation in Nigeria through the use of various contractionary monetary policy instruments such as exchange rates, open market operation, moral suasion, minimum requirement, interest rate, cash reserve requirement, liquidity ratio etc. in the control of inflation.

## RESEARCH METHODOLOGY

The analysis made in this study was based on macroeconomic data in Nigeria's economy. The main purpose of this study is to evaluate the monetary policy in control of inflation in Nigeria. Due to the nature of the research work Time series analysis of at least 30 years of data from the World Bank will be employed in obtaining the information to be used in this research work. The information shall seek to investigate the effect of monetary policy on the control of inflation in Nigeria's economy. This is a follow-up to the objectives of the study stated earlier. Relationships between the variables; dependent and independent are to be specified in this model. The variables included in this model are based on data collected for a period of years (1980 – 2017) through which the effect of monetary policy on inflationary pressure in Nigeria was examined. The necessary information needed to explore this economic phenomenon can be illustrated in a functional relationship. This specification of econometric form is always based on economic theory which does not indicate the precise mathematical forms of stated variables would be stated in linear or

non-linear form. But for simplicity, they shall be stated in the simplest possible mathematical form. That is, we will assume a linear relationship between the dependent and explanatory variables in the model. Economic relationships are not however assumed to be exact the variables apart from the ones stated exist which can influence economic growth but are omitted in the model. These factors omitted in the model are considered by introducing the error-term or random variables (disturbance term) in the model to capture all kinds of disturbances that might distort the structure of the model. This thus makes the model stochastic. To evaluate the regression results in this research model, it should be based on the economic apriority expectations of the parameters, the statistical test and the econometric test.

The estimation commences with a unit root test to confirm the stationarity states of the variables that entered the model. To test for stationarity, the Augmented–Dickey–Fuller (ADF) test was used. The first step is to test for stationarity at level, without constant and trend. If the variables are not stationary, then the next step is to differentiate and test for the stationarity of the differenced variables. If the variables are stationary after first differencing, then the variables are integrated of order one i.e. the economic technique employed in the study is the Error Correction Model (ECM). This is because the ECM Computational procedure is fairly simple the best linear unbiased estimator among all unbiased estimators, is efficient and has shown to have the smallest (minimum) variance. Thus, it becomes the Best Linear Unbiased Estimator (BLUE) in the Classical Linear Regression (CLR) model. The test is set by the theory of econometrics and aims at investigating whether the assumption of the econometric method employed is satisfied or not. Among the tests are the Normality test, Heteroscedastic test. Multicollinearity test and auto-correlation test. Secondary data were employed in this analysis as it suits the economic research nature of the work. The source of the data is the World Bank database. E views econometric software shall be used for this analysis.



## RESULTS AND DISCUSSION

The major concern of this chapter is to present analytical discussions on the topic, of the effect of monetary policy on inflationary pressure in Nigeria. An effort was made in this chapter to establish a result for the research questions contained in the research topic and at the same time justify the authenticity of the statement analysis and interpretations of the data.

### *Presentation and Analysis of Results of Stationary Tests*

If the calculated Augmented Dickey-Fuller (ADF) Test statistic is greater than the MacKinnon critical values, reject the null hypothesis of non-stationarity and accept the alternative of stationarity, otherwise accept the null hypothesis of non-stationarity.

**Table 1:** Summary of Unit Roots Test Using the ADF Test

Variables	Level		First Difference	
	Constant	Constant and Trend	Constant	Constant and Trend
LINF	-4.311*** (0.001)	-4.980*** (0.001)	-10.391*** (0.000)	-10.309*** (0.000)
LER	-1.740 (0.403)	-1.211 (0.893)	-5.179 (0.000)	-5.409*** (0.000)
LINT	-4.463*** (0.001)	-5.526*** (0.000)	-12.349*** (0.000)	-12.507*** (0.000)
LCBL	-0.831 (0.797)	-1.211 (0.893)	-3.447* (0.015)	-3.404* (0.067)

Note. \*Significant at 10% level. \*\*Significant at 5% level. \*\*\*Significant at 1% level

The result of the test presented in Table 1 below revealed that inflation and interest rate are stationary at a level I(0), while exchange rate and central bank loans are stationary after the first difference, I(1). The mixed nature of the order of integration of the variables justifies the

fitness of the Error Correction Model approach to this estimation.

### *Johansen Juselius Cointegration test*

Johansen Juselius Cointegration test is used to identify if a long-run relationship exists among variables in the model.

**Table 2:** Johansen-Juselius (JJ) Cointegration Test Results

Null Hypothesis	Test Statistics		Critical values (5%)	
	Trace	Max-Eigen	Trace	Max-Eigen
None*	69.200	32.178	47.856	27.584
At most 1*	37.301	21.451	29.797	21.131
At most 2*	15.570	11.613	15.494	14.264
At most 3*	3.956	3.956	3.841	3.841

Source: Author's computation using E views 9

From table 2, the co-integrating test result of the model indicates the existence of a unique co-integrating vector for both the maximum eigenvalue test and the trace test. It can be seen that there is evidence of a long-run relationship between the dependent and the independent variables, this is evident by the

presence of four cointegration equations in the JJ test.



## PRESENTATION OF REGRESSION RESULTS

**Table 3:** Long-run Relations

Estimate	Constant	ER	CBL	INT
JJ	5.787	0.422 *** (2.412)	0.169 (1.246)	-0.122*** (11.640)

**Source:** Author's computation using E views 9  
 Note numbers in brackets are t-statistics.  
 Note \*\*\*, \*\*, \* denotes significance at 1%, 5% and 10% respectively.

**Table 4:** The Error-Correction Model (ECM)

$\Delta \text{INF}_T = 3.414 + 0.358\Delta \text{ER}_{t-1} + 0.059\Delta \text{CBL}_{t-1} - 0.620\Delta \text{INT}_{t-1} - 0.496\text{ECT}_{t-1} + \mu$				
(0.631)	(0.006)	(0.726)	(0.000)	(0.001)
Adj-R <sup>2</sup> = 0.652		DW stat= 1.795		ARCH=0.055
F-stat: 42.900		JB=6.240		(0.815)
(0.000)		(0.044)		LM=0.039
N=38		RESET=0.966		(0.961)
		(0.340)		R-squared =0.672

**Source:** Author's computation using E views 9

Table 4 shows the long-run relationship between gross Inflation and the other macroeconomic variables. On the other hand, table 4 of the error correction model represents the short-run relationship among the variables.

### DISCUSSION OF FINDINGS

The long-run estimates of the model are shown in Table 3. The results indicate that inflation has a positive relationship with the exchange rate in Nigeria. The relationship is statistically significant at 1%, this is according to the rule of thumb which states that if the t-statistics is greater than 2 then the coefficient is statistically significant. To be specific a per cent increase in the exchange rate will increase inflation growth by 0.422 %. This shows that a unit decrease in the exchange rate will decrease the inflation rate by 0.422 %.

This is because the increase in the foreign exchange rate leads to cheaper domestic goods for foreign consumers, increasing exports and total demands and prices. The increase in the foreign exchange price raises the inflation rate and vice versa. Thus, these findings are consistent with the findings of other researchers in Nigeria such as Onyeiwu (2012). In the short run exchange rate maintains a positive

relationship with inflation at a 1% level of significance. This shows that the exchange rate has an immediate impact on inflationary pressure in Nigeria.

Our long result for the central bank loan variable shows an insignificant positive impact on inflation because t- statistics is less than 2. A percentage increase in central bank loans will increase gross inflation growth by 0.169 %. In the short run, central bank loan maintains a positive and insignificant relationship with inflation. In the long run, inflation is sensitive to interest rates, and the coefficient of interest rate has a negative relationship with inflation, significant at a 1% level. A percentage increase in interest rate will decrease inflation growth by 0.112 %. This is because in general, as interest rates are lowered; more people can borrow more money. The result is that consumers have more money to spend, causing the economy to grow and inflation to increase. The opposite holds for rising interest rates. With less spending, the economy slows and inflation decreases. In the short run, interest rate affects inflation negatively, a percentage increase in interest rate will decrease inflation by 0.620 %, which is statistically significant at 1%.

The ECT coefficient of (-0.496) which is significant at 1% sustains the long-run relationship among the variables and denotes that the speed of adjustment of variables convergence to equilibrium is 49.6%. The coefficient of determination ( $R^2$ ) when was adjusted for the degree of freedom and an adjusted coefficient of determination ( $R^2$ ) of 0.652 was derived. This means that about 65% of the systematic mean variations of the dependent variable (INF) are explained by the explanatory variables (ER, CBL and INT). This means that the estimated regression model line is a good fit, hence the regression result command a high predicting value. The remaining 35% variation of INF that was not explained by the explanatory variables used in specifying the model is accounted for by the stochastic error term ( $\mu$ ). The F-statistic result (42.900) reveals that the

estimated regression model passed the overall significant test (F-test) at an acceptable 1% level of significance. This is an indication that there is a linear relationship between the dependent variable (INF) and the explanatory variables (ER, CBL, and INT) hence none of the estimated coefficients are equal to zero.

In diagnostic and stability tests null hypothesis will be rejected when P-value is significant at 5% otherwise we fail to reject the null hypothesis. The LM test and Durbin Watson stat. shows that there is no presence of serial correlation in the model. The Jarque Bera test shows that the data in the model is not normally distributed. The Heteroskedasticity ARCH shows no sign of heteroskedasticity in the model. The RESET test shows that the model has been correctly specified. The results for CUSUM and CUSUMQ can be presented as figures below.

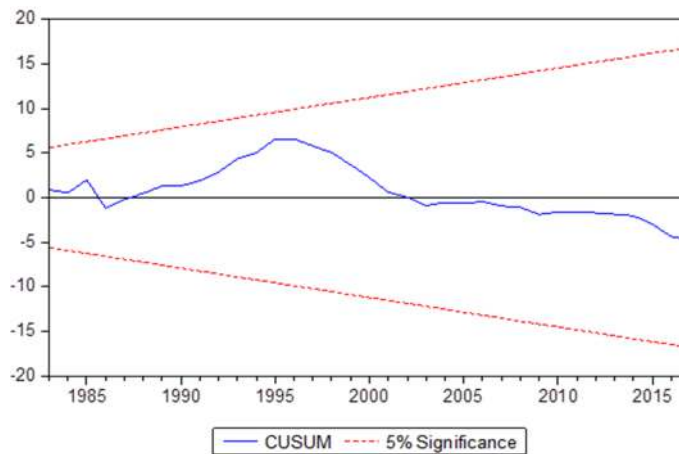


Figure 4.1: CUSUM

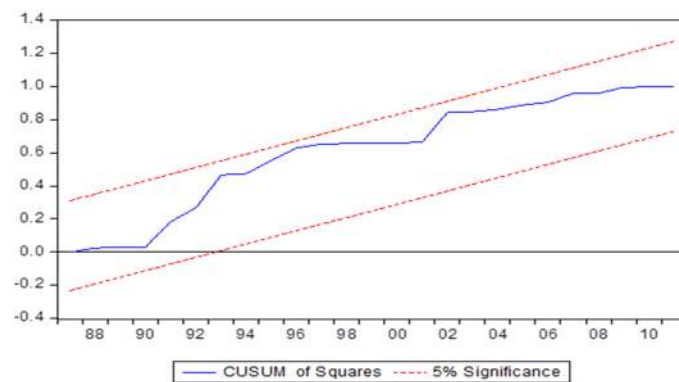


Figure 4.2: QUSUMQ



As suggested by Pesaran, Shin and Smith (2001), we have conducted a stability test for the model based on CUSUM and CUSUM Q tests. It is suggested that for a model to be stable along the sample period, the residuals must be within the straight lines of the critical bounds at a 5% level of significance. The result shows the model to be stable.

### **Hypothesis Testing**

Given the rule of thumb that whenever the F-Statistic value is at least 2 the null hypothesis that the variables are not significant is rejected and therefore, the variables of the model are significantly and jointly affecting inflationary pressure in Nigeria. The hypotheses are as follows:

- H<sub>0</sub>:** There is no influence of the Exchange Rate on inflation in Nigeria.
- H<sub>1</sub>:** There is an influence of the Exchange Rate on inflation in Nigeria.
- H<sub>0</sub>:** There is no significant effect of Central Bank Loans on inflation in Nigeria.
- H<sub>1</sub>:** There is a significant effect of Central Bank Loans on inflation in Nigeria.
- H<sub>0</sub>:** There is no influence of Interest Rates on inflation in Nigeria.
- H<sub>1</sub>:** There is an influence of Interest Rates on inflation in Nigeria.

Given the F-Statistic value of 42.900 in Table 4.4 as indicated by the F-Statistic probability value of 0.000 we can generally say, there exist a significant relationship between monetary policy and inflationary pressure in the Nigerian economy.

Based on our findings for the first hypothesis we can reject the null hypothesis as we found a significant relationship between the exchange rate and inflation in Nigeria in both the long run and short run. However, in the second hypothesis, the null hypothesis failed to be rejected because the relationship between Central Bank loans and inflation is found to be statistically insignificant for the period under study. Lastly, in the third hypothesis, we reject the null as well as the result of the findings which shows a strong significant relationship between interest rate and inflationary pressure in Nigeria.

### **CONCLUSION**

The monetary policy of a country is an important aspect of its overall economic policy. Appropriate money supply instrument, therefore, contributes to economic growth by adjusting money supply to the need of growth by directing the flow of funds in the required channels and by providing institutional facilities for credit in specific fields of economic activities. In this way, the healthy growth of the economy could be masterminded. Therefore, a proper monetary policy utilizing appropriate instruments is not a sufficient condition but a necessary condition for stimulating economic growth. In the final analysis, the operation of monetary policy instruments depends on the intention of the regulating authorities and the degree of the operation and response from banks. They should endeavour to respond wholeheartedly in carrying out the gigantic work of planned development.

Economic development is a joint venture between the government and various financial institutions. As it may be difficult to separate the spheres of operation of the different components making up general economic policy, there is a need for continuous close coordination in the relationship between the various monetary authorities. As monetary policy is an important aspect of intervention in the economic process, it must there be tuned to the larger economic objectives of the state. The choice of an alternative policy instrument depends upon the economic environment, administrative ability and political situation. From a broad economic viewpoint, monetary policy instruments can be regarded as mere catalysts that accentuate the pace of economic development. Their efficiency can largely depend on the economic will of the people to implement genuine decisions of the government, especially concerning inflation control.

### **RECOMMENDATIONS**

Based on the findings of this research which have been above stated and implications emanating there from, we, therefore, proffer the following matching recommendations:

1. Firstly, the monetary authorities should use more important monetary instruments than hitherto adopted. For



example, special deposit and credit guidelines (selective credit control) should be imposed on commercial banks whenever the need arises.

2. Secondly, loans and advances should be given to productive sectors of the economy to increase productivity. Policymakers should adopt monetary incentives or measures that would pave the way for an increase in the number of financial institutions in the country. Since commercial banks are inadequate and inefficient in their service to the public, most people are discouraged from saving with the banks. If the whole economy becomes adequately monetized through an adequate banking system, the incidence of outside money will be minimized.
3. Thirdly, Nigeria should be encouraged to have confidence in the banks and the use of cheques in transacting business. If this is done, the genuine effort of the central bank to control inflation through money supply is easier in developed countries because the bulk of business transactions are done with cheques which are controlled by their monetary authorities.
4. Fourthly, there is a need for a thorough reappraised of our tariff structure a switch from our foreign-dominated consumption pattern to the consumption of home goods should be encouraged. The importation of machinery and production of capital equipment should be favoured over consumables or luxuries.
5. Moreover, there is a need for a price control board to critically examine and monitor the cost structure and profit margin of producers and distributors. This involves fixing prices, to avoid the excessive profit. If this is done; there is no doubt that the prices of goods produced will be stable.
6. Furthermore, the most appropriate solution to inflation is supply management, which entails an

increase in the domestic production of consumer goods to meet the ever-increasing consumer-effective demand. Hence, for a complete realization of this objective, there is a need for a rapid transformation of the economic system, especially in rural areas. One such way is to improve agricultural strategy, effective adoption of integrated rural development and the basis need approach application.

7. Finally, firms and industries located in the country should be persuaded further to source a greater proportion of their raw material requirement locally than is being done. This will reduce the effect of imported inflation on economic activities, conserve foreign exchange and generate employment.

#### REFERENCES

- Abeng (2006) "Monetary Policy Surprises and Interest Rates: Evidence from the Fed Funds Futures Market." *Journal of Monetary Economics*.
- Adefeso and Mobolaji (2010), "Fiscal - Monetary Policy and Economic Growth in Nigerian".
- Ahortor, Adenekan and Ohemeng, (2011). "Money and the Nigerian Financial System, Jeso International Publication: Owerri.
- Akujobi (2012), "Monetary Policy Surprises and Interest Rates: Evidence from the Fed Fund Futures Market." *Journal of Monetary Economics* 47 (3): 523-44.
- Bernhard (2013) "Expectations and the neutrality of money. *Journal of Economic Theory* 4(2): 103-124.
- Chuku, A. C. (2009) Measuring the effect of monetary policy innovation in Nigeria: A Structuring Vector Autoregressive Approach, *African Journal of Accounting Economics, Finance and Banking Research*.
- Chukwu, J. O. et. al (2010). Cointegration and Structural Breaks in Nigerian Long-Run Money Demand Function. *International Research Journal of*





- Finance and Economics. ISSN 1450-2887 Issue 38.
- Danjuma et al (2012), Introduction to Econometrics, 3rd Edition, Wiley- India: New Delhi.
- Emerenini, F. M. and Eke, C. N. (2014) The impact of monetary policy rate on inflation in Nigeria, Journal of Economics and Sustainable Development, 5(28), 146 – 153.
- Er, Tugcu and Coban (2014) "Symposium on the monetary transmission mechanism. Journal of Economic Perspectives 9: 3-10.
- Friedman (1963) "Monetary policy strategy: Lessons from the crisis, National Bureau of Economic Research Working Paper Number 16755, 1 - 62.
- Friedman M. B. (1978), "Crowding Out or Crowding In? The Economic Consequences of Financing Government Deficits, Working paper, 286, National Bureau of Economic Research".
- Friedman, M. (1970) A Theoretical framework of monetary analysis, Journal of Political Economy, Vol. 78, No 2.
- Gbadebo, A. D. and Mohammed, N. (1995) monetary policy and inflation control in Nigeria, Journal of Economics and Sustainable Development, 6(8), 108 – 115. Pg 21
- Jhingan (2002), "Monetary Policy Management in Nigeria in the Context of Uncertainty" Retrieved".
- Jhingan, (2003). Monetary policies and the management of inflation in Nigeria, Nigerian Journal of Financial Research, Vol. 8, No. 1.
- Kisu et al (2012) 'Is there a bank lending channel for monetary policy?' Economic Review, Federal Reserve Bank of San Francisco, No. 2 pp.3-20.
- Koshy, (2012). "Monetary Policy Surprises and Interest Rates: Evidence from the Fed Funds Futures Market." Journal of Monetary Economics.
- Mahmoud (2015) The Impact of Monetary Policy on Economic Activity - Evidence from a Meta-Analysis Version: 21 April 2010.
- Mbongo et al (2014), from monetary policy targeting to inflation targeting: Lessons from the industrialized countries, Paper presented at the Bank of Mexico conference on Stabilization and Monetary Policy: The International Experience, Mexico City, November 14 - 15, 1 - 39.
- Michael and Ebibai (2014), Inflation, exchange rates and the role of monetary policy in Albania, European Bank for Reconstruction and Development, Working Paper Number 88, 1 – 17
- Nalzarro (2012), A Theoretical framework of monetary analysis, Journal of Political Economy, Vol. 78, No 2.
- Nwankwo (1991), Inflation targeting monetary policy inflation volatility and economic growth in South Africa, African Development Bank Group Working Paper No. 216, 1 – 33.
- Ogunjimi (1997) monetary policies and the management of inflation in Nigeria, Nigerian Journal of Financial Research, Vol. 8, No. 1
- Okoro (2013), Statistical Package for Social Science, 2nd Edition, Illinois, SPSS Inc.
- Okwo, et al (2012) "The Nominalization of the Nigeria Economy III" The Nigerian Institute of Bankers, Lagos, Institute of Banker Publications. April-June.
- Olorunfemi and Adeleke (2013) "Monetary Policy Surprises and Interest Rates: Evidence from the Fed Funds Futures Market." Journal of Monetary Economics.
- Omeke and Ugwuanyi (2010) An econometric analysis of the effect of changes in interest rates on inflation in Nigeria, International Journal of Economics, Commerce and Management, 11(10), 1 – 24.