



IMPACT OF MONETARY POLICY ON IMPORTATION IN NIGERIA (1990-2020)

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ABSTRACT: *This study ascertained the effect of monetary policy on importation in Nigeria covering the period 1990 – 2020. Data for the study were extracted from the Central Bank of Nigeria (CBN) statistical bulletin. The method of data analysis used is the linear regression method with the application of the Error Correction Model (ECM). The major findings of the study reveal that interest rate has a negative and insignificant effect on importation in Nigeria, exchange rate has a positive and insignificant effect on importation in Nigeria, broad money supply has a positive and significant effect on importation in Nigeria and there is a causal relationship between importation, trade openness and broad money supply. It is therefore the recommendation of the study that there is need for boosting domestic production so as to contend high level of import that may have a detrimental effect on our external reserves. Secondly; the Nigerian authorities should carry out reforms that would enhance the role of interest rate in order to mobilize funds for trade purposes.*



INTRODUCTION

The rate of external trade in a country is an indication of the degree of openness of a nation to external businesses. In this way, importation and exportation are stimulated across borders. As noted by Anderson (2018), these foreign trade transactions are crucial for a nation's economic development and thus prompted the development of the two-gap model by economic scholars. Imports being a component of international trade transactions, can boost economic progress when it is carried out on productive commodities (Gbenga (2017).

Nigeria being an import-dependent economy is faced with stagnated growth, unstable business cycles, and economic fluctuation. This usually results in unemployment, inflation, unproductivity, and balance of payment disequilibrium. Government has in one way or the other regulated and controlled the economy to maximize the welfare of the citizens by way of ensuring that the resources are efficiently allocated and used.

Like any other developing country, the Nigerian government adopts three types of public policies to carry out the objective of income distribution and allocation of resources. These tools of public policy include monetary policy, fiscal policy and income policy tools. In Nigeria, the government has always relied on monetary policy as a way of achieving certain economic objectives in the economy. Such macroeconomic objectives include employment, economic growth and development, balance of payment equilibrium and relatively stable general price level. The reason for choosing monetary policy is the fact that monetary policy has very serious implications for both fiscal and income policy measures. Monetary policy refers to the combination of measures designed to regulate the value, supply and cost of money in an economy in consonant with the level of economic activities. It can be described as the art of controlling the direction and movement of monetary and credit facilities in pursuance of stable price and economic growth in the economy (Central Bank of Nigeria, 1992).

The importance of importation in an economy cannot be overemphasized. However, when imports consistently exceed exports, the economy is said to be suffering from a deficit balance of payment. A deficit balance of payment is not healthy for a developing economy like Nigeria. One of the macroeconomic goals of a developing country like Nigeria is to attain consistent levels of favorable balance of payments through fiscal and monetary policies. Nigeria is import-dependent and this has adversely affected the country's balance of payments and external reserves. Even with the existence of monetary policies, Nigeria is still importing massively which has negatively affected the health of the economy. This is because the excessive importation of non-productive commodities can generate an undesired effect on the domestic economy as long as such commodities can be locally produced. However, most studies have been practically focused on analyzing the impact of monetary policy on economic growth and there is a paucity of studies in estimating the impact of monetary policy on importation in a developing country like Nigeria.



LITERATURE REVIEW

Conceptual Reviews

The Concept of Importation

Lately, import-led growth has been more in focus, and faster growing developing countries have experienced much activity emerging from importing. Import-led growth emphasizes the process of modernization and transfer of advanced technology through acquisition of much needed sophisticated capital and material. In addition, many studies provided empirical evidence in support of the export-led growth hypothesis by showing that exports had a significant positive effect on productivity and economic growth. In *The East Asian Miracle*, the World Bank (2013) was of the view that it was the export-promoting policies of East Asia at that point in time that was responsible for accelerated economic growth through the adoption of modern technologies, which enhanced the productivity of exporting firms and economies in general.

The theoretical relationship between imports and productivity tends to be more complicated than that between exports and productivity. Increased imports of consumer products encourage domestic import-substituting firms to innovate and restructure themselves in order to compete with foreign rivals; therefore, imports enhance productive efficiency. Under perfect competition in the neoclassical model, an industry reduces factor usage in the short run when trade barriers are removed and the market is opened up to imports. In the long run, however, the industry becomes more productive and competitive, and expands its investments in new technology, resulting in a rightward shift of the industry supply curve (Haddad, 2017).

International trade through the medium of import and export of goods and services has become an increasingly important and prominent economic activity amongst countries particularly in this volatile economy. The exchange of goods and services across borders is an avenue through which countries are able to achieve and promote economic self-sustainability as well as a platform for transforming a country's natural resources such as crude oil, gold, diamond and etcetera into economic wealth. The wealth acquired in this regard is used by the government to provide basic infrastructural facilities, which of course, enhances the living standards of the populace and consequently leading to economic growth and development.

International Trade

With the world having evolved into a global village, it is a precept for a nation to be in alliance with other nation(s). One of the coherent ways to create such an alliance between or among nations is via international trade. International trade allows for the exchange of goods and services and fosters healthy relations among countries irrespective of their level of economic development. A country involved in international trade need not have fear of hegemony or loss of its sovereignty because it is a mutual agreement to engage in trade across their border. A nation not participating in international trade is at risk of a slow pace of economic development due to the cogent fact that a country cannot be fully endowed with all the resources essential to be utilized for sustainable economic development.

International trade can be interchangeably referred to as 'foreign trade' or 'global trade'. It encompasses the inflow (import) and outflow (export) of goods and services in a country. A country's imports and exports represent a significant share of her gross domestic product



(GDP); thus, international trade is correlated to economic growth. In an open economy, development of foreign trade greatly impacts GDP growth (Li, Chen & San, 2019). Countries would be limited to goods and services produced within their territories without international trade. International trade is directly related to globalization because increase in trade activities across borders is paramount to the globalization process. The globalized nature of an economy enhances its direct participation in the world market consequently leading to market expansion. According to Adam Smith, expansion of a country's market encourages productivity which inevitably leads to economic growth.

Government earns revenue through international trade activities. International trade, as a major factor of openness, has made an increasingly significant impact on economic growth (Sun & Heshmati, 2018). The openness of a nation influences a country's growth rate by impacting upon the level of economic activities and facilitating the transfer of resources across borders. Nigeria is basically an open economy with international transactions constituting a significant proportion of her output (Emeka, Frederick & Peter, 2018). Nigeria's trade openness has increased the participation of foreigners in the economy by allowing the inflow of foreign capital and expertise, thereby impacting on her economic growth.

There is no negation that Nigeria is an import-dependent nation. Her most important export commodity is oil. The discovery of oil has inflicted 'Dutch Disease' or resource curse on the economy. Prior to oil discovery, the agricultural sector has been the largest export sector for Nigeria. However, the oil boom which occurred in the 1970s made the relevance of Nigeria's agricultural sector in the global market whittle away. The focus of the government on crude oil exports led to the neglect of the agricultural sector; hence, reducing the overall productivity of the economy. According to Abebefe (2015), Nigeria's over-dependence on crude oil is dangerous because crude oil is a wasting asset with a proven reserve which would eventually become depleted and the vagaries of the oil market has resulted in a significant decline in the earnings because of the exogenously determined price of crude oil. The 21st century has witnessed a series of economic and trade reforms in Nigeria put in place by the government in order to diversify the export base and ensure that foreign trade serves as a driving force for the economic growth engine. In view of this, the study aims to provide evidence on the effect of international trade on Nigeria's economic growth.

The Concept of Monetary Policy

Monetary policy refers to the combination of measures designed to regulate the value, supply and cost of money in an economy in consonance with the level of economic activities. It can be described as the art of controlling the direction and movement of monetary and credit facilities in pursuance of stable price and economic growth in the economy (CBN, 2016). Nwankwo (2018) defines monetary policy as one of the macroeconomic instruments with which monetary authority of a country is employed in the management of their economy to attain desired objectives.

Wrightsmann (2018) opines that monetary policy entails those actions initiated by the central bank which aim at influencing the cost and availability of credits. Okwo (2020) asserts that monetary policy consists of a government formal effort to manage the money in its economy in order to realize specific economic goals. According to Ogunjimi (2017), three basic kinds of monetary policy decisions can be made - the amount of money in circulation; the level of interest rate; and the functions of credit markets and the banking system. The combination of



these measures is designed to regulate the value, supply and cost of money in an economy, in line with the level of economic activity.

Folawewo and Osinubi (2016) describe monetary policy as a combination of measures designed to regulate the value, supply and cost of money in an economy, in consonance with the expected level of economic activity. For most economies, the objectives of monetary policy include price stability, maintenance of balance of payments equilibrium, promotion of employment and output growth, and sustainable development. These objectives are necessary for the attainment of internal and external balance, and the promotion of long-run economic growth. Monetary policy is a deliberate action of the monetary authorities to influence the quantity, cost, and availability of money and credit to achieve desired macroeconomic objectives of internal and external balances (CBN, 2019). Sani (2018) defined monetary policy as the combination of measures taken by monetary authorities (e.g. the CBN and the Ministry of Finance) to influence directly or indirectly both the supply of money and credit to the economy and the structure of interest rate for economic growth, price stability and balance of payments equilibrium.

Monetary policy is the macroeconomic policy laid down by the central bank. It involves the management of money supply and interest rate and it is the demand side economic policy used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth, and liquidity (The Economic Times, 2018). All central banks have three tools of monetary policy in common. Most have many more. They all work together in an economy by managing bank reserves.

The monetary authorities have six major tools of monetary management. First, it sets a reserve requirement, which tells banks how much of their money they must have on reserve each night. If it weren't for the reserve requirement, banks would lend 100 percent of the money you've deposited. Not everyone needs all their money each day, so it is safe for the banks to lend most of it out. The CBN requires that banks keep a certain percent of deposits on reserve. That way, they have enough cash on hand to meet most demands for redemption. For instance, when the Fed wants to restrict liquidity, it raises the reserve requirement. The Fed only does this as a last resort because it requires a lot of paperwork. It's much easier to manage banks' reserves using the Fed funds rate. This is the interest rate that banks charge each other to store their excess cash overnight. The target for this rate is set at the eight annual Federal Open Market Committee meetings. The Fed funds rate impacts all other interest rates, including bank loan rates and mortgage rates.

Theoretical Review

The Monetarist Theory of Monetary Policy

Monetarist is a school of thought led by Milton Friedman. This school of thought is a modern variant of classical macroeconomics. They developed a subtler and relevant version of the quantity theory of money. Like any school of thought, Friedman (1963) emphasized on the supply of money as the key factor affecting the well-being of the economy and as well, accepted the need for an effective monetary policy to stabilize an economy. He also has the notion that, in order to promote a steady growth rate, money supply should grow at a fixed rate, instead of being regulated and altered by the monetary authority(ies). Friedman equally argued that since money supply might be demanded for reasons other than anticipated transaction, it can be held



in different forms such as money, bonds, equities, physical goods and human capital. Each form of this wealth has a unique characteristic of its own and a different yield. These effects will ultimately increase aggregate money demand and expand output. The Monetarists acknowledge that the economy may not always be operating at the full employment level of real GDP. Thus, in the short-run, monetarists argue that expansionary monetary policies may increase the level of real GDP by increasing aggregate demand. However, in the long-run, when the economy is operating at the full employment level, they argue that the quantity theory remains a good approximation of the link between the supply of money, price level, and the real GDP. Also, in the long-run expansionary monetary policy only leads to inflation and does not affect the level of real GDP.

Keynesian Theory of Monetary Policy

Keynesian theory did not buy the notion that the relationship between money and price is direct and proportional. They share the view that it is indirect through the rate of interest. Also, they reject the notion that the economy is always at or near the natural level of real GDP so that Y in the equation of exchange can be regarded as fixed. They also reject the proposition that the velocity of circulation of money is constant. Keynesians believe that expansionary monetary policy increases the supply of loanable funds available through the banking system, causing interest rates to fall. With lower interest rates, aggregate expenditures on investment and interest-sensitive consumption goods usually increase, causing real GDP to rise. Hence, monetary policy can affect real GDP indirectly.

Empirical Review

Sikiru (2020) investigated the impact of monetary policy on foreign trade in Nigeria during the period 1981 to 2017. The research made use of secondary data which were collected from the Central Bank of Nigeria, Statistical Bulletin (2017). The model obtained from the result represents an Error Correction Model (ECM) which relates the dependent variable (Net Import) to several predictor variables Money Supply, Interest Rate, Exchange Rate, Foreign Direct Investment and Trade Openness. From the findings of the study, the error correction term (speed of adjustment towards equilibrium) value of -0.53581 is significant at 5% and implies that there is a long run causality running from monetary policy activities measures of foreign trade. However, only all the variables used in the study were significant at 5% level of significance. This implies that monetary policy in Nigeria has a positive influence on foreign trade within the period, except for interest rates that have a negative coefficient and are not significant. In conclusion, these intermediate variables of monetary exchange rate arguably have a huge impact on the economy because of its effect on the value of local currency, domestic inflation, macroeconomic credibility, capital flows and financial stability.

Anderson (2019) examined the impact of monetary policies on foreign trade in Nigeria. The research made use of secondary data which are collected from the Central Bank of Nigeria, Statistical Bulletin (2018). The data were collected for a period of thirty-nine years (1981-2018). The study employed a quantitative analysis approach. The variables considered appropriate indices for monetary policy were Money Supply, Interest Rate, Exchange Rate, Inflationary Ratio and Liquidity Ratio. The major tool of analysis is a multiple regression analysis model specified on the basis of perceived function relationship between monetary policies and foreign exchange earnings in Nigeria. Treating foreign exchange earnings as the explanatory and the others as the explanatory variables, a multiple regression model was



specified to forge a link between the variable sets. The model was estimated using the ordinary least squares (OLS) techniques and evaluated based on relevant data from the regression output. The result showed that Money Supply, Exchange Rate, Inflationary Ratio exerted a positive effect on foreign exchange while Interest Rate and Liquidity Ratio exerted negative influence on foreign exchange. In addition, the model exhibited high explanatory power and indicated absence of first order serial correlation in the explanatory variable.

Moliso (2021) examined the effect of monetary policies on Total Trade (proxy of international trade) in Ethiopia between 1989 to 2019. International trade was captured using Total Trade (proxy of international trade) while the independent variables that described the various macroeconomic policies in Ethiopia were money supply, exchange rate, real lending rate and inflation rate. Time series data on the variables of the study was obtained from Annual reports of the National Bank of Ethiopia (NBE) from 1989-2019. The secondary data was analyzed using Eviews 9.0 software. A model was formulated for the study. The Augmented Dickey Fuller (ADF) stationary test showed that the variables in the study were stable at both levels and at first difference. The regression of the independent variables with Total Trade (proxy of international trade) showed the existence of a long run relationship. Using the Autoregressive Distributed Model (ARDL), the empirical results money supply exerts a significant positive effect on Total Trade (proxy of international trade) in the long run while real lending rate and inflation rate exerts a significant negative effect on Total Trade (proxy of international trade) in the long run and Total Trade (proxy of international trade) one period lag of the variable significantly affects the Total Trade (proxy of international trade) in the short run. LagTT or $D(LTT(-1))$, a one percent increase in expectation pushes Total Trade (proxy of international trade) by 51% in the short run. This result is similar to the theory of adaptive expectations, they state that individuals will form future expectations based on past events. The study thus concluded that the monetary policy channels through which Total Trade (proxy of international trade) in Ethiopia can be influenced are money supply, lending rate and inflation rate. The study tests all the diagnostic tests like serial correlation, Normality, heteroskedasticity and stability. The estimate of the speed of adjustment coefficient found in this study indicates that about 75% of the variation in the Total Trade (proxy of international trade) from its equilibrium level is corrected within a year. The paper thus recommended that it should promote policies that boost exports such as reduction of export duty and the Government should implement policies such as free tax Regimes, Technology transfer and loans for specific sectors to boost export diversification and drive-up Total Trade (proxy of international trade) in the long run.



METHODOLOGY

Research Design

This study adopted the *Ex post facto* design as the researcher made use of past data in the form of secondary data to investigate the impact of monetary policy on importation in Nigeria. *Ex post facto* research is chosen as a suitable research design for this work because the dataset obtained for analysis were wholly secondary data, which cannot be manipulated.

Model Specification

The model that guided this study is specified thus:

$$IMP = \beta_0 + \beta_1 LR + \beta_2 EXR + \beta_3 M2 + \beta_4 INF + \beta_5 TOPN + \mu \dots\dots\dots(3.1)$$

Where;

IMP = Net Import

LR = Lending Rate

EXR = Exchange Rate

M₂ = Broad Money Supply

INF = Inflation Rate

TOPN = Trade Openness

$\beta' s$ = The Parameters of the independent variables to be estimated.

μ = Stochastic Error Term

Autocorrelation Test

To evaluate the reliability of the expected numerical estimates, the Durbin – Watson (D-W) statistics at 5% was used to test for the presence of autocorrelation problems. The region of autocorrelation remains:

$$du < d^* < (4-du)$$

Where:

du = Upper Durbin – Watson

d* = Computed Durbin-Watson

Normality Test: The normality test was carried out to ascertain if the residuals of the model are normally distributed. The basis of the decision was based on the value of the Jaque-Berra [JB].



Heteroscedasticity Test

The primary essence of this test is to evaluate if the variance of the residuals are constant overtime. It is thus based on ascertaining if the series possesses the Homoscedasticity property. The basis of judging the heteroscedastic status of the residuals is based on comparing the values between the Computed Chi-Square [X^2] and the tabulated version.

Unit Root/Stationarity Test

This was used to test whether a variable's mean value and variance varies over time. The test is necessary to be carried out in time series data in order to avoid the problem of spurious regression. The Augmented Dickey Fuller (ADF) test was used for the analysis. Augmented Dickey-Fuller (ADF) test is used to test existence of unit root when there is autocorrelation in the series and lagged terms of the dependent variable are included in the equation. The following three models represent pure random walk with drift and random walk with drift and trend used in Augmented Dickey Fuller tests:

$$\Delta \psi_t = \Omega \psi_{t-1} + \sum_{i=1}^p \beta_i \Delta \psi_{t-i} + \varepsilon_t$$

$$\Delta \psi_t = \alpha_0 + \Omega \psi_{t-1} + \sum_{i=1}^p \beta_i \Delta \psi_{t-i} + \varepsilon_t$$

$$\Delta \psi_t = \alpha_0 + \Omega \Psi + \beta_2 t + \sum_{i=1}^p \beta_i \Delta \psi_{t-i} + \varepsilon_t$$

where: $\Omega = (\lambda - 1)$ The null hypothesis is $H_0 : \Omega = 0$ and the alternative hypothesis is $H_a : \Omega < 0$ If the ADF test statistic (t-statistic of lagged dependent variable) is less than the critical value, we reject the null hypothesis and conclude that the series is stationary (there is no unit root).

Co-integration test

In an econometric analysis, there is the need to estimate the long-run relationship of the variables under consideration. This was applied to the concept of Cointegration test. One of the most popular tests for cointegration has been suggested by Engel and Granger (1987). The process is demonstrated thus; given a multiple regression: $y_t = \beta' x_t + \mu_t, t = 1, \dots, T$, where $x_t = (x_{1t}, x_{2t}, \dots, x_{kt})'$ is the k-dimensional I(1) regressors. For y_t and x_t to be cointegrated, μ_t must be I(0). Otherwise, it is spurious. Thus, a basic idea is to test whether μ_t is I(0) or I(1).



Granger Causality Analysis

The Granger causality model is a statistical technique that was carried out to determine the direction of causality existing between the dependent variables and the specified independent variables.

PRESTATION AND ANALYSIS OF RESULTS

Unit-Root Test Result

Table 1: *Unit Root Test Result*

VARIABLE	ADF STAT.	CRITICAL VAL.	ORDER
IMP	-4.020828	-2.967767	I(1)
LR	-6.842109	-2.971853	I(1)
EXR	-4.459794	-2.967767	I(1)
M2	-3.765505	-2.998064	I(1)
INF	-3.924718	-3.574244	I(1)
TOPN	-5.160642	-3.574244	I(1)

Source: *Author's Computation Using Eviews 10.*

Table 1 clearly shows that all the variables are stationary at first difference (I(1)). This means that the variables have unit-root until differences in the first order.

Cointegration Analysis (Johansen Methodology)

Table 2: *Cointegration Test Result*

Hypothesized	No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *		0.843017	147.0481	95.75366	0.0000
At most 1 *		0.706976	93.35114	69.81889	0.0002
At most 2 *		0.651671	57.75365	47.85613	0.0045
At most 3		0.434039	27.17002	29.79707	0.0975
At most 4		0.299593	10.66234	15.49471	0.2331
At most 5		0.011507	0.335642	3.841466	0.5624

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

Source: *Author's Computation Using Eviews 10.*



The Johansen method of cointegration was used for the study because all the variables are stationary at first difference. The Johansen result as displayed in table 2 clearly shows evidence of cointegration as trace statistics test indicates 3 cointegrating equations as the trace statistic value is greater than that of 5% critical value ($147.0481 > 95.75366$).

Table 3: Regression Results (ECM Inclusive)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.80415	0.761997	14.17874	0.0000
D(LR)	-0.015470	0.025459	-0.607650	0.5494
D(EXR)	0.157978	0.180875	0.873411	0.3915
D(M2)	0.595813	0.166941	3.569006	0.0016
D(INF)	-0.007620	0.004075	-1.870125	0.0742
D(TOPN)	0.435122	1.524279	0.285461	0.7778
ECM(-1)	0.45763	2.223208	0.686449	0.4993
R-squared	0.970622	Mean dependent var	15.60462	
Adjusted R-squared	0.962958	S.D. dependent var	1.545608	
S.E. of regression	0.297472	Akaike info criterion	0.613969	
Sum squared resid	2.035259	Schwarz criterion	0.940916	
Log likelihood	-2.209542	Hannan-Quinn criter.	0.718562	
F-statistic	126.6495	Durbin-Watson stat	1.427905	
Prob(F-statistic)	0.000000			

Source: *Author's Computation Using Eviews 10.*

From table 3, it can be clearly seen that the numerical coefficient of lending rate (LR) is negative. This means that there is an inverse relationship between the lending rate and importation in Nigeria. It econometrically entails that a 1% increase in lending rate will reduce importation by 0.015470.

From table 3, exchange rate yielded a positive numerical coefficient at the magnitude of 0.157978. This entails that a one percent increase in exchange rate led to a 0.157978% increase in importation in Nigeria for the period under analysis.

From the table it can be clearly seen that the numerical coefficient of broad money supply (M2) yielded a positive coefficient at the magnitude of 0.595813. This means that an increase in broad money supply led to an increase in importation by 0.595813%. This means they are positively related.



The regression result shows there is a negative relationship between inflation and importation as the numerical coefficient yielded -0.007620. This means that a percentage increase in inflation reduced importation by 0.007620%.

Trade openness is seen to yield a numerical coefficient of 0.435122. This means that there existed a positive relationship between trade openness and importation in Nigeria. This econometrically means that a percentage increase in trade openness led to a 0.435122% increase in importation.

The F-statistics which is employed to test for the statistical significance of the entire regression plane yielded 126.6495 with a corresponding probability value of $0.000000 < 0.05$. This entails that the test is statistically significant at the entire regression plane.

The coefficient of determination (R^2) which measures the explanatory power of the independent variables yielded 0.970622. This implies that approximately 97% of the variations in imports in Nigeria within the period were explained by changes in monetary policy and other control variables as used in this study. This is however high and significant.

The error correction mechanism (ECM), which measures the speed of the adjustment of the variables at which equilibrium is restored yielded -0.45763. This is correctly signed (negative) at 5 percent level, and therefore confirms our earlier proposition that the variables are cointegrated. The speed suggests that net imports in Nigeria adjusted relatively slowly to the long-run equilibrium changes in the explanatory variables and it gives the proportion of the disequilibrium error accumulated in the previous period that is corrected in the current period. The speed of adjustment is specifically at 46% annually and approximately.

Serial Correlation LM Test Result

Table 4: Serial Correlation Test Result

Breusch-Godfrey Serial Correlation LM Test:

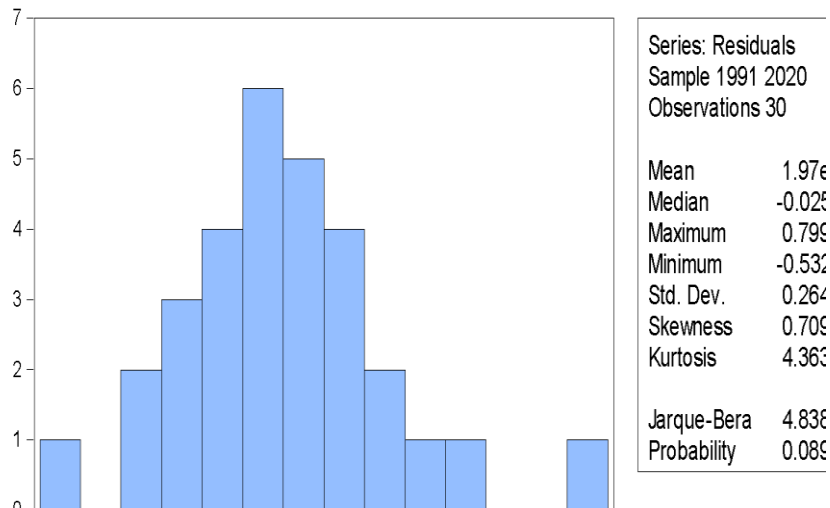
F-statistic	1.511564	Prob. F(2,21)	0.2436
Obs*R-squared	3.775272	Prob. Chi-Square(2)	0.1514

Source: *Author's Computation Using Eviews 10.*
 The Breusch-Godfrey Serial Correlation LM Test was used to carry out the test of autocorrelation. It is clearly seen that the Obs*R-squared which follows the computed Chi-Square distribution yielded 3.775272 and it is clearly greater than the Chi-Square probability which yielded 0.1514. This compels us to accept the null hypothesis that there is no serial correlation of any order. Hence, there is no presence of autocorrelation problems in the model.



Normality Test (Jarque-Berra)

Table 5



Source: Author's Computation Using Eviews 10.

From the analysis from table 5 above, it can be seen that Jarque-Berra yielded 4.838241 with a probability value of 0.089000. Since the probability value is less than 0.05, we accept the null hypothesis which states that the residuals are normally distributed. Hence, residuals of the model are normally distributed.

Heteroscedasticity Test (Breusch-Pagan-Godfrey)

Table 6

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.154386	Prob. F(6,23)	0.3639
Obs*R-squared	6.943371	Prob. Chi-Square(6)	0.3261
Scaled explained SS	6.862568	Prob. Chi-Square(6)	0.3337

Source: Author's Computation Using Eviews 10.

From table 6, it can be clearly seen that the F-statistics of the heteroscedasticity output yielded 1.154386. This implies that the model is homoscedastic. Hence, the variance is constant over-time.



Granger Causality Test

Table 7

Null Hypothesis:	Obs	F-Statistic	Prob.
LR does not Granger Cause IMP	29	0.19233	0.8263
IMP does not Granger Cause LR		0.95097	0.4004
EXR does not Granger Cause IMP	29	3.28934	0.0546
IMP does not Granger Cause EXR		1.64188	0.2146
M2 does not Granger Cause IMP	29	6.27989	0.0064
IMP does not Granger Cause M2		3.68202	0.0403
INF does not Granger Cause IMP	29	0.07328	0.9295
IMP does not Granger Cause INF		0.54731	0.5856
TOPN does not Granger Cause IMP	29	1.27273	0.2983
IMP does not Granger Cause TOPN		25.3380	0.0006

Source: *Author's Computation Using Eviews 10.*

Table 7 clearly shows that importation (IMP) granger-caused broad money supply (M2) as the probability value yielded $0.0403 < 0.05$. It can also be seen that IMP granger-caused trade openness (OPN) given that its probability value yielded $0.0006 < 0.05$.

SUMMARY, CONCLUSION AND RECOMMENDATION

The primary focus of this study has been to empirically estimate the effect of monetary policy on importation in Nigeria. Data for the study were extracted from the Central Bank of Nigeria (CBN) statistical bulletin. The major statistical tool engaged in the study is the multiple regression technique. The major findings of the study were that:

1. Interest rate had a negative and insignificant effect on importation in Nigeria within the period under review.
2. Exchange rate had a positive and insignificant effect on importation in Nigeria within the period under review.



3. Broad money supply had a positive and significant effect on importation in Nigeria within the period under review.
4. There was a causal relationship between importation, trade openness and broad money supply within the period under review

Conclusion

Monetary policy is an important tool for the attainment of macroeconomic stability, usually seen as a step to achieving economic growth and economic sustainability. Thus, in the pursuit of macroeconomic stability, the managers of monetary policy have often set targets on intermediate variables which include the short-term interest rate, growth of money supply and exchange rate. Based on the analysis, the study concluded that there is a significant relationship between money supply and net import in Nigeria. The study also shows that there was a significant relationship between trade openness and net import in Nigeria.

Recommendation

In the light of the findings of this study, the following recommendations were recommended:

1. There is a need to boost domestic production so as to reduce the high level of imports that tend to have a detrimental effect on our external reserves. With production being stimulated, most of the commodities that are imported will be produced locally and even for export.
2. The Nigerian monetary authorities should carry out reforms that would enhance the role of interest rate in order to mobilize funds for trade purposes. This may be done by a complete deregulation of the interest rate. This is for long-term economic performance.
3. Adopt tight trade openness by keeping trade openness rate below or at ceiling level in order to ensure economic growth.
4. Government should ensure political and macroeconomic stability so as to encourage investment, both local and foreign and guarantee business survival.

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