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MONETARY POLICY AND NIGERIAN ECONOMY

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Abstract

Monetary policy plays an important role in the economic growth of any nation. This research looks at how Nigeria's monetary policies affected the country's economic development from 1994 and 2021. For this study, the Central Bank of Nigeria Statistical Bulletin was utilized. The study looked into how Nigeria's monetary policies affected the country's economic growth using a time series research approach. While the empirical analysis was based on a multiple regression model that described the gross domestic product in terms of the influence of monetary variables, graphs were employed to augment the descriptive analysis. The study's findings showed that monetary policy positively impacted Nigeria's economic expansion. The study came to the conclusion that monetary policies are essential to Nigeria's long-term economic growth. The study's result suggests that monetary authorities in Nigeria use monetary policy to address the issue of the country's poor economic growth.

1. Introduction

According to Ayodeji and Oluwole (2018), economic growth is the process by which an economy's capacity for production rises over a specific time period, increasing national revenue. The Gross Domestic Product (GDP) is a monetary indicator of a country's economic growth. The value of goods and services generated in Nigeria, excluding net foreign income, is known as the gross domestic product (GDP). Monetary policy is a measure used by a country's monetary authority to regulate and control the volume, cost, and path of money and credit in an economy in order to achieve specific macroeconomic policy objectives over time, based on the country's current economic position (Sule, 2020).

Money supply needs to be regulated in an economy as it can stimulate, accelerate or slow down economic and social progress. In order to tackle economic issues, Nigeria's monetary authority has implemented a variety of monetary regimes and instruments, including the necessary aggregate gross domestic product growth rate, to affect the expansion of the money supply (Fasanya et al., 2013). Different monetary policy tools are employed to accomplish macroeconomic objectives. Some of the instruments are more effective than others. Effectiveness of the instruments used is judged and measured in terms of the extent of goals attainment. The employment of suitable monetary policy tools can enhance economic expansion by adapting the money supply to meet growth demands, such as extending credit to particular sectors of the economy (Miftahu, 2019).

Various monetary policies have been implemented in attempt to address Nigeria's economic challenges. This has caused the economy to experience either expansionary or contractionary monetary policy in order to attain desired outcomes. Studies carried out by Akinbobola (2012); Onyewu (2012) and Fasanya et al (2013) came to the conclusion that all the efforts made to achieve desired macroeconomic objectives through monetary policy, the results have not been sustainable

as the economic problems still persist in Nigeria and other less developed countries. With all the policies put in place to address economic problems confronting Nigeria, problems surrounding economic growth in Nigeria still persist. It is for these reasons the study investigates monetary policy and economic growth in Nigeria.

Research Hypotheses

We formulate research hypotheses below:

$H0_1$: Liquidity ratio has no significant effect on economic growth in Nigeria.

$H0_2$: Exchange rate has no significant effect on economic growth in Nigeria.

$H0_3$: Money supply has no significant effect on economic growth in Nigeria.

2. Literature Review

Review of related literature on monetary policy and economic growth were discussed in this section under conceptual review, theoretical review and empirical review.

2.1 Conceptual Review

Variables used for the study were identified, classified and defined in section of the study.

2.1.1 Economic Growth

Economic growth is the total value of goods and services that provide an estimate of the economic worth of gross domestic product (GDP) of the society as a country from time to time (Adeyemi & Awogbade, 2022). For a given level of resources, there is potential gross domestic product (GDP) that can be produced and it is expected that as more resources are employed every year, the gross domestic product increases in the same level (Sule, 2020). Monetarists believe that by increasing aggregate demand, expansionary monetary policies will raise the level of real GDP in the short term. However, when the economy is at full employment in the long run, there will be a link between the money supply, price level, and real GDP (Chipote & Makhetha-kosi, 2014).

2.1.2 Monetary Policy

Monetary policy is a set of actions implemented by the monetary authority to regulate the value, supply, and cost of money in the economy in accordance with the level of economic activity (Okimoto, 2018). The Central Bank of Nigeria, like other developing-country central banks, aims to promote price stability by managing the money supply (Inam and Ime, 2017). Depending on the state of the economy, monetary policy can be either expansionary or contractionary. If the economy is in recession, expansionary monetary policy measure will be applied, and if the economy is experiencing boom, contractionary monetary policy will be applied by Central Bank. Central Bank of Nigeria has employed various monetary policy instruments like open market operations (OMO), money supply (MS), liquidity ratio (LR), reserve requirement (RR) to mention but few to address economic problems Nigeria is being confronted with (Baghebo & Ebiba, 2014).

2.1.3 Liquidity Ratio (LR)

Liquidity ratio is one of the monetary tools employed by Central Bank of Nigeria to manage the economy. Liquidity ratio is always stated in the monetary and credit guidelines issued by Central Bank of Nigeria. It is a prudential requirement. Liquidity ratio is the percentage of bank total deposit required to be kept in specified liquid assets to enable deposit money banks to meet depositors cash withdrawals. This is done to make sure depositors have confidence in the Nigerian baking system (Hamilton et al, 2020). Monetary authorities will be concerned with the level of liquidity in the banking system for many reasons. In the first instance, excess liquidity will have negative impact on monetary management by central bank, on the other hand, inadequate liquidity may lead to runs on the banking system making people not to have confidence in the financial system of a country (Ojeigbe et al, 2016).

2.1.4 Exchange Rate

The attainment of a stable exchange rate has become one of the major pre-occupations of policy makers worldwide. Exchange rate is one of the monetary policy instruments that can be used in solving economic problem of balance of payment, unemployment and price instability that may be confronting a nation (Takon & Ita, 2020). Exchange rate is the price of one currency in terms of another currency (Adeniran et al, 2014). Exchange rate is an economic indicator that can be used in the assessment of overall performance of the economy. In essence, exchange rate is a macroeconomic variable that can be used to measure the strengths and weaknesses of the economy.

2.1.5 Money Supply

Economic growth is significantly impacted by the money supply in both developed and developing nations. The cost of products and services will rise in areas where there is an excess of money in circulation (Omankhanlen et al, 2022). Ability to estimate the money stock in an economy is an indication of efficient monetary policy in economic management. Central Bank of Nigeria determines the direction of growth rates for both narrow and broad money in the economy which are represented by M_1 and M_2 respectively. Broad money is the total amount of money outside the banking system, while narrow money is the money within the banking system (Odumusor, 2019). For Central Bank's effort in controlling credit to be successful, monetary policy instruments must be well received and accepted by the people. In addition, for Central Bank to control credit effectively, all the non-bank financial institutions operating in the country must be under the control of Central Bank (Ayodeji & Oluwole, 2018).

2.2 Theoretical Review

Theories that are related to the study were reviewed. The theories are monetarists theory, keynesian theory of money and classical monetary theory.

2.2.1 Monetarists Theory

Monetarist theory was championed in the 1940s by Milton Friedman of the University of Chicago (Ibrahim, 2019). Monetarists are of the view that "money matters" and advocated that monetary policy would impact on economic growth. They argued that there is a direct relationship between the monetary and real sectors of the economy (Chipote & Makheta-Posi, 2014). The monetarists in their efforts to restore money to a place of importance claimed that the relation between money supply and level of income is impossible to ignore. The relation is so strong the monetarists assert that controlling the growth of money supply is the most powerful tool that exists for controlling the economy (Nwoko, et al, 2016). Monetarists in their assumptions stated that how much money people would want to hold at any point in time is determined by a combination of variables which include level of income, interest rate structure, market condition to mention but few. Keynesians have criticized the monetarists on the ground that primary means of controlling the economy are tax and fiscal policy as opposed to money supply.

2.2.2 Keynesian's Theory of Money

Keynesian theory of money was pioneered by John Maynard Keynes in 1937 (Odumusor, 2019). Keynesians stated that "money does not matter". Keynesian view holds that money is only one of several assets. Hence, control of the money supply in the Keynesian liquidity preference theory, is of less than over-whelming importance. For keynesians, regulation of the economy might well be better effected through tax and fiscal measures, since they hold any suggestion that money has a direct influence on the equilibrium income level to be questionable (Twinoburyo & Odhiambo,

2018).

Keynesian theory of money has been criticized by the monetarist on the ground that in the long-run expansionary monetary policy recommended by Keynesian can lead to inflation and may not in any way have positive impact on the real gross domestic product (RGDP) as claimed by the keynesians.

2.2.3 Classical Monetary Theory

The classical school comprised all economists before keynes. One of them is Irving fisher (1867-1947) who taught at Yale University from 1895 to 1935. Fisher formulated "equation of exchange in 1932" (Salami & Toriola, 2021).

This equation states that MV = PT

Where:

M - Exogenous variable (supply of money)

V - Velocity of circulation

P - General price level

T - Volume of transaction of goods and services

The equation states that MV=PT i.e. the quantity of money multiplied by its velocity is equal to price multiplied by the volume of goods and services. It may also be claimed that the price level is directly proportionate to the number of money in existence, such that a rise in the quantity of money would cause an increase in prices. Fisher believed that the money supply (M), the commodities and services being exchanged in each transaction (T), and the velocity of money (V) all affected pricing.

P = f(M,V,T)

Critics of classical monetary theory point out that it makes the assumption that the economy would

inevitably move toward full employment, which will eradicate inflation (Udude, 2014).

Theoretical Framework

The study is anchored on monetarist theory of monetary policy. This is due to the fact that monetarists theory of monetary policy would have a greater impact on economic growth if used in conjunction or compared to keynesian or classical theories.

2.3 Empirical Review

We discussed in this section existing studies of other researchers in relation to monetary policy and economic growth.

2.3.1 Monetary Policy and Economic Growth

Ayodeji and Oluwole (2018) conducted a comparable study on the influence of monetary policy on economic growth in Nigeria from 1981 to 2016 using a time series approach. The study discovered a strong and favorable correlation between monetary policy and economic growth across the study period, both in the short and long terms. Multiple regression analysis was used by Nwoko et al. (2016) in an effort to look at the impact of monetary policy on economic development in Nigeria from 1990 to 2011. Their study's findings demonstrated that monetary policy tools are more successful at controlling prices, employment, production levels, and the rate of economic expansion

2.3.2 Liquidity Ratio and Economic Growth

Using the Ordinary Least Square estimate approach, Ekechukwu et al. (2020) empirically assessed the impact of the money supply and liquidity ratio on economic development in Nigeria from 1986 to 2018. The study's empirical findings indicated that the real gross domestic product (RGDP) in Nigeria is negatively but statistically not significantly impacted by the liquidity ratio. The study also showed that the money supply in Nigeria had a positive, if statistically minor, impact on the

country's actual gross domestic product. From the result of the study, they recommend that federal government to use monetary policies to revive all sectors of the Nigerian economy.

Andabai et al. (2019) used secondary data from the Central Bank of Nigeria statistics bulletin to examine the effects of monetary policy on economic development in Nigeria from 1990 to 2017. The liquidity ratio and the rate of Treasury bills were utilized as independent variables, while the gross domestic product was used as the dependent variable. The study's results demonstrated that the liquidity ratio had a favorable and substantial influence on GDP (economic growth). It was recommended from the study that strong economic policies should be formulated by policy makers to stabilize the economy.

2.3.3 Exchange Rate and Economic Growth

Obansa et al (2013) investigated relationship between exchange rate and economic growth in Nigeria from 1970 to 2010 using vector auto-regressive (VAR) technique. Empirical result obtained from the study showed that exchange rate has a strong positive impact on economic growth in Nigeria during the period of the study. It was recommended that Nigeria should intensify effort on exchange rate liberalization because of its favourable effect as it promotes economic growth. In a research on exchange rate volatility and macroeconomic performance in Nigeria from 1986 to 2010, Azeez et al. (2012) used the Johansen Co-integration estimation approach and Ordinary Least Square (OLS) for analysis. The study's findings demonstrated that Nigeria's GDP (economic growth) is significantly and favorably impacted by exchange rates. The report suggests that Nigeria's monetary authorities implement measures to guarantee exchange rate stability. Also, study by Lawal et al (2016) on exchange rate fluctuation and the growth of Nigerian economy from 2003 to 2013 using Auto-regression Distributed Lag (ARDL). Real GDP served as a proxy for economic growth, and the money supply, interest rate, exchange rate, and inflation rate served

as stand-ins for macroeconomic indicators. According to empirical findings, exchange rate fluctuations have no appreciable impact on economic growth over the long or short term. It was suggested that the Nigerian Central Bank use foreign exchange control measures in order to ascertain the exchange rate's value.

2.3.4 Money Supply and Economic Growth

Onyeiwu (2012) investigated monetary policy and economic growth with the use of Ordinary Least Square (OLS) method from 1981 to 2008 in Nigeria. Money supply was used as proxy for monetary policy while gross domestic product was used as proxy for economic growth. The study's findings demonstrated that the money supply significantly and favorably affects both the balance of payments and the growth of the gross domestic product (GDP). The study came to the conclusion that prices, production, employment, and liquidity can all be effectively controlled by monetary policy. Ordinary Least Square (OLS) and the Granger Causality test were used by Inam and Ime (2017) in their analysis of the impact of monetary policy on economic development in Nigeria from 1970 to 2012. The study's findings showed that Nigeria's money supply had a little but favorable effect on economic expansion. The research supports the monetarist theory, which holds that a nation's money supply is the primary factor influencing its economic expansion. .

3. Methodology

We discussed the methods adopted in carrying out this study in other to achieve the objectives of the study.

3.1 Research Design

The study employed an *ex-post facto* research design using secondary data since the study made use of already published data on both dependent and independent variables to be measured. Secondary data were used to examine the impact of monetary policy on economic growth in

Nigeria.

3.2 Sources and Types of Data

Secondary data sourced from Central Bank of Nigeria statistical bulletin from 1994 to 2021 were used for this study taking into consideration Structural Adjustment Program (SAP), global financial meltdown of 2008 and pandemic (COVID 19). Data as regards the implementation of monetary policy as obtained from quantitative variables like liquidity ratio, exchange rate and money supply, while data as regards the growth of the economy was obtained from macroeconomic indicator which is gross domestic product (GDP).

3.3 Method of Data Presentation

Disaggregated data in respect of liquidity ratio, exchange rate, money supply and cross domestic product (GDP) used for the study were presented in tabular form to aid the understanding of the trend that exists among the variables use for the study.

3.4 Method of Data Analysis

The conventional multiple regression analysis was employed in examining the effect of monetary policy on economic growth in Nigeria. Multiple regression techniques offer explanation on the relationship between a dependent variable and independent variables. In this study, the model used was estimated with the use of Ordinary Least Square (OLS) techniques using econometric views (E-views) software.

3.5 Model Specification

This refers to a mathematical expression in expressing functional relationship between the dependent and independent variables. The model employed in this study is built based on the model specification of Ayodeji and Oluwole (2018). The model is as specified below:

$GDP = \beta_0+\beta_1 LR+\beta_2 EXRT+\beta_3 MS+\mu$

Where:

GDP - Gross Domestic Product

LR - Liquidity Ratio

EXRT - Exchange Rate

MS - Money Supply

. 3.6 A Priori Expectations

In line with the hypotheses formulated, it is expected that there would be positive effect of monetary policy on economic growth.

$\beta_1, \beta_2, \beta_3 > 0$ **4. Data Analysis, Results and Discussion of Finding**

We present the data analyze and interprete the result thereof. The data collected for analysis were presented in tables and carefully analyzed.

4.1 Descriptive Analysis

Gross Domestic Product

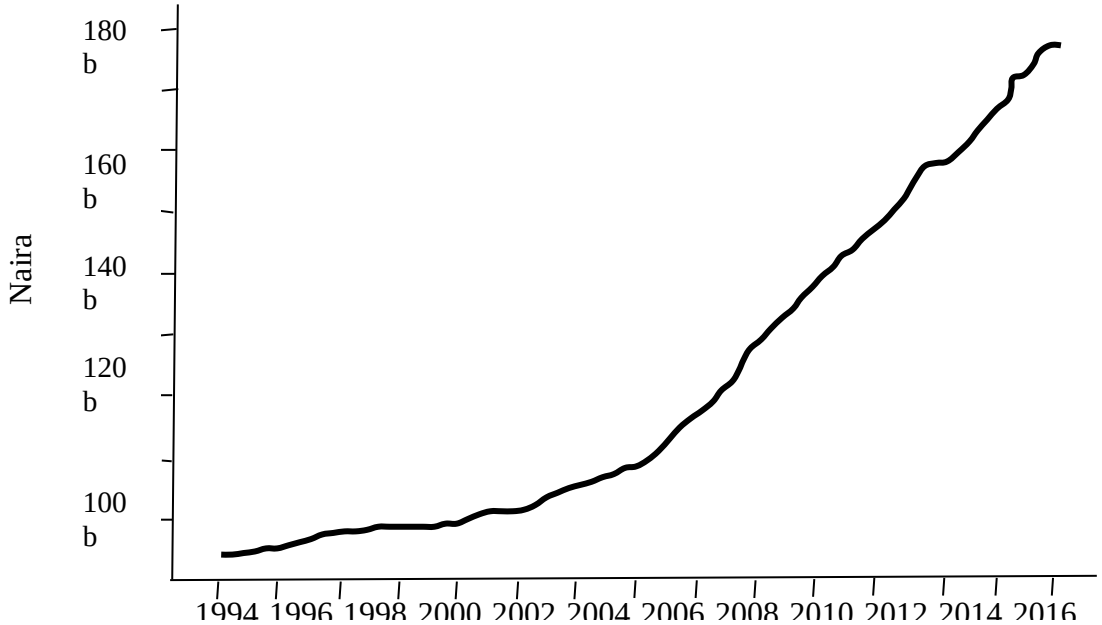

Figure 1: Gross Domestic Product (1994-2021)

Source: CBN Statistical Bulletin

Gross Domestic Product (GDP) experienced an upward trend where the figure kept on increasing from 1994 to 2021. In 1994, it was ₦1,399.77 billion. The increased continued till 2001 when it was ₦8,134.14 billion. In 2010, GDP was ₦54,612.26 billion, the figure increased by 72.39% to reach ₦94,144.96 billion in 2015. The GDP increase again by 53.18% to move to ₦144,210.49 billion in 2019 from where it moved to ₦165,439.63 billion in 2021. Thus, it can be concluded that from 1994 to 2021, GDP was on a rising trend in Nigeria.

Liquidity Ratio

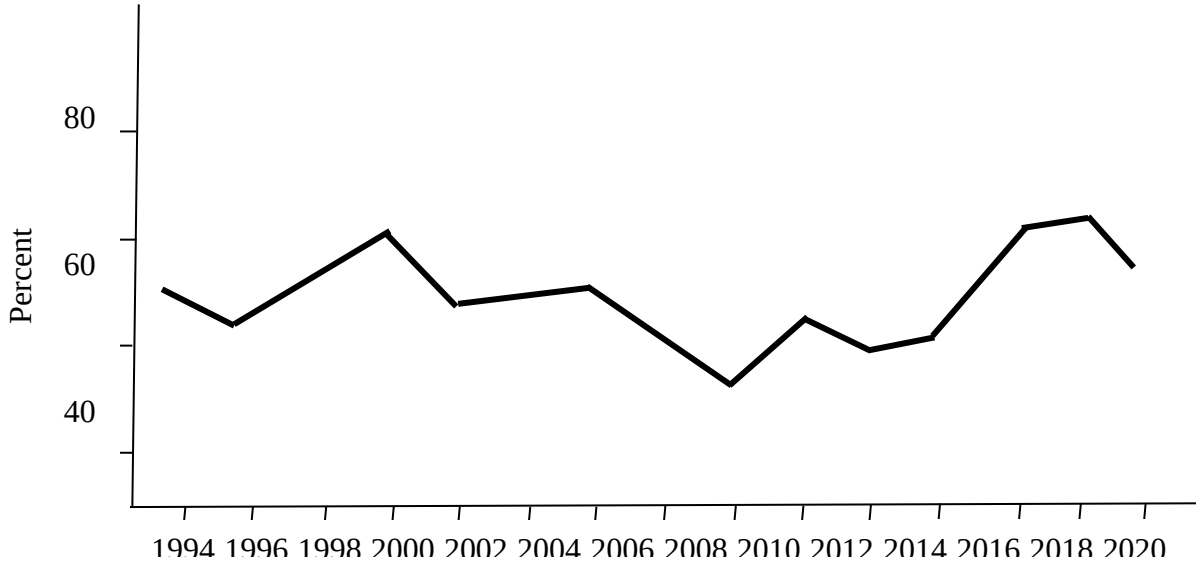

Figure 2: Liquidity Ratio (1994-2021)

Source: CBN Statistical Bulletin

One of the instruments used by Central Bank of Nigeria in controlling the amount of liquidity in circulation is the liquidity ratio. In 1994, liquidity ratio was 48.5%, it reduced to 33.1% in 1995. In 1996, it moved up to 43.1% and downward to 40.2% in 1997. Liquidity ratio increased by 16.41% to move up to 46.8% in 1998 from where it increased to 64.1% in 2000 an increase of about 36.97%. Liquidity ratio has a steady decrease from 2000 at 64.1% to move down to 44.3% in 2008. This downward movement continued till 2011 when it was 25.8%. It moved to 48.25 in 2012 with about 87.02% increase. In 2014, liquidity ratio was 38.27% from where it has been having another steady increase to 42.35 in 2015, 45.95 in 2016 54.79 in 2017 with highest liquidity ratio of 67.6% in 2020 from where it decreased to 61.2% in 2021 a decrease of about 9.47%. It can therefore be concluded that liquidity ratio has been fluctuating.

Exchange Rate

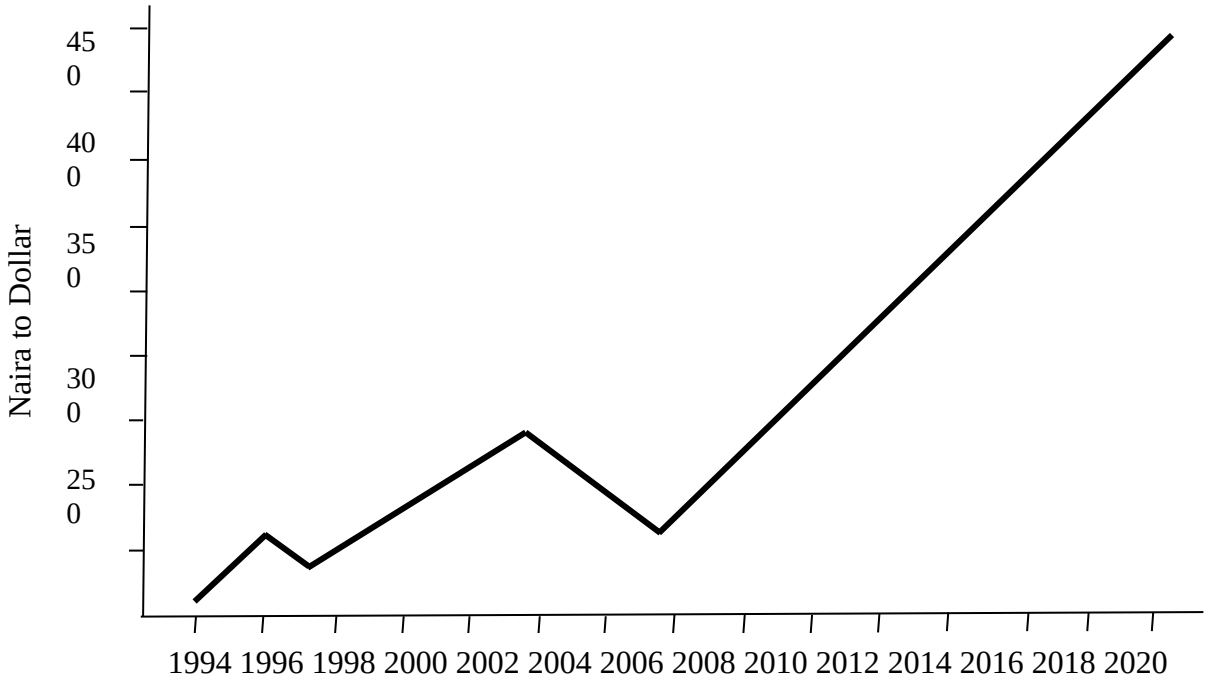

Figure 3: Exchange Rate (1994-2021)

Source: CBN Statistical Bulletin

Until 1986 when Structural Adjustment Programme (SAP) was introduced in Nigeria, exchange rate was controlled by Central Bank of Nigeria. Since September 1986, the currency rate is decided by market forces of demand and supply. The trend in exchange rate from 1994 to 2021 is depicted in figure three above: Exchange rate has been on the increase since 1994 when it was ₦35.4819 to a dollar. The increase continued till 1997 when it was ₦86.53464 to a dollar. It reduced to ₦80.42102 in 1998. Exchange rates continued their upward trend with continuous increase from 1999 at ₦92.3381 until 2021 with the highest real exchange rate figure recorded having ₦412.49. It can therefore be concluded that during the period of the study, exchange rate of naira to dollar was on a rising trend.

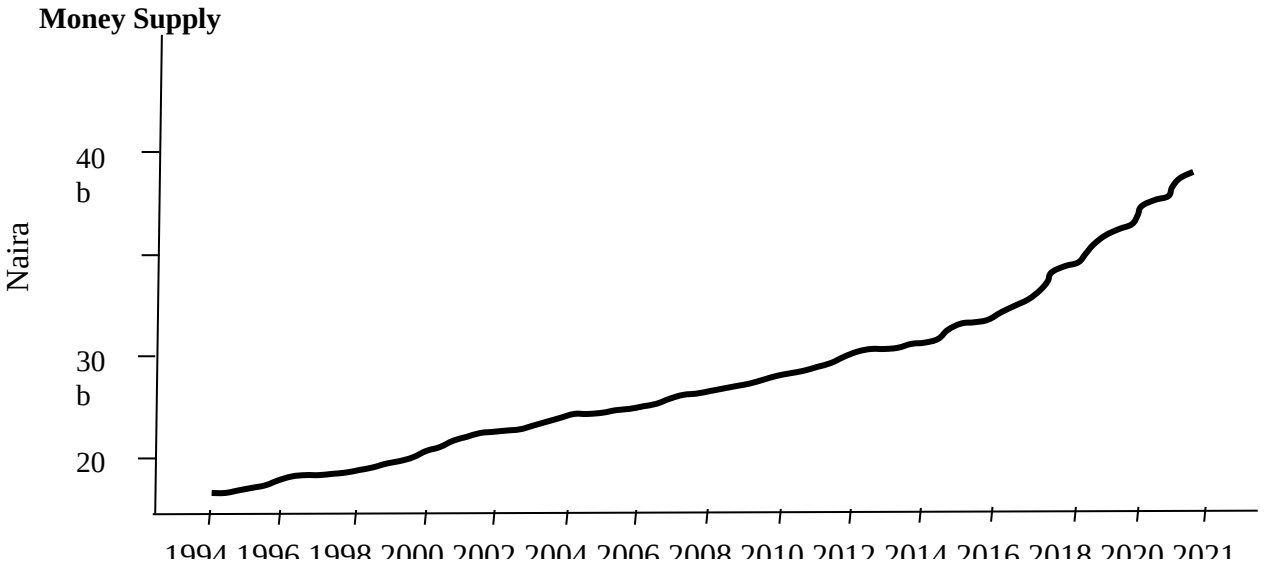

Figure 4: Money Supply (1994-2021)

Source: CBN Statistical Bulletin

Money supply experienced an upward trend where the figures kept on increasing from 1994 to 2021. In 1994, it was ₦230.29 billion from where it has a steady increase to move to ₦878.46 billion in 2000. In 2001, it was ₦1,269.32 and moved to ₦1,505.96 in 2002 with 18.64% increase. There have been an increase in money supply from 2002 to 2021 when it recorded ₦34,598.92 billion.

4.2 Empirical Analysis

Based on the data supplied in Appendix 1, the parameters of the multiple regression model stated under methodology were estimated using Ordinary Least Squares (OLS) methods, and the results are presented in Table 1 below:

Table 1: Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1789636.	1462130.	-1.223993	0.2328
LR	36251.04	32396.02	1.118997	0.2742
EXRT	43510.29	7792.242	5.583797	0.0000
MS	2.476554	0.112017	22.10870	0.0000

R-squared	0.986914	Mean dependent var	10102846
Adjusted R-squared	0.985278	S.D. dependent var	12167022
S. E. of regression	1476253	Akaike info criterion	31.37948
Sum squared resid.	5.23E+13	Schwarz criterion	31.56979
Log likehood	-435.3127	F-statistic	603.3499
Durbin-Watson Stat.	1.263948	Prob (F-statistic)	0.000000

Source: Researchers Computation, 2023: E-view Regression Output

From the regression result obtained above, the estimated model is:

GDP = - 1789636.344 + 36251.03501LR + 43510.29321 EXRT + 2.476554293 MS + μ

The estimated model was assessed to determine statistical significance, whether or not estimates were consistent with a priori expectations, what research hypotheses to adopt, and how well the monetary policy explained the dynamics of economic growth in Nigeria during the study period.

$\beta_1 = 36251.03501$, $\beta_2 = 43510.29321$, $\beta_3 = 2.476554293$.

Given the above estimates, all the three independent variables namely: liquidity ratio, exchange rate and money supply conformed to the a priori expectation which also follows the theoretical expectations. From the result of the model above, the estimates revealed that liquidity ratio (LR), exchange rate (EXRT) and money supply (MS) exert a positive impact on economic growth. Also, the estimated model shows that when all the three variables are held constant, there will be no level of economic growth; instead, there would be a drop in economic growth as we can see in the value -1789636.344. The estimated model also shows that a unit change in liquidity ratio exerts substantially positive impact on GDP (an estimate of 36251.03501).

A unit increase in liquidity ratio causes GDP to rise by ₦36,251.03501. In addition, the estimated model also shows that a unit change in exchange rate exerts a substantially positive impact on GDP (an estimate of 43510.29321). A unit in exchange rate causes GDP to rise by ₦43,510.29321. Furthermore, a unit change in money supply does not exert much effect on economic growth (an

estimated value of 2.476554293). It could be said that a percentage increase in money supply will bring an increase of 2.5% in economic growth.

4.3 Statistical Significance and Test of Hypotheses

The aim of this evaluation was to determine the statistical significance of monetary policy on the economic growth in Nigeria from 1994 to 2021. The evaluation was a basis to test the specific hypotheses of the study in order to achieve specific objectives. The t-statistic and its p-value as well as the 0.05 significance level were employed in the evaluation of test of significance i.e.

Accept H0 if the p-value of the T-statistic associated with a coefficient is less than 5% significance level.

Reject H0 if the p-value of the T-statistic associated with a coefficient is greater than the 5% significance level.

Table 2: Coefficients, T-stat P-value and Significance Level

Coefficient	**T-stat**	**P-value**	**Greater or Less than 0.05 Significance Level**	**Significance**
β_1 = 36251.03501	1.118997	0.2742	Greater	No
β_2 = 43510.29321	5.583797	0.0000	Less	Yes
β_3 = 2.476554293	22.10870	0.0000	Less	Yes

Source: E-views Regression Output

The t-statistic's p-value for the coefficient of liquidity ratio is higher than the predetermined significance level of 0.05, as can be seen in table two above. This offered factual proof that it lacks statistical significance. As a result, the first particular null hypothesis (H01), which claims that the liquidity ratio has no statistically significant effect on Nigeria's GDP, is accepted based on the decision rule. With this choice, the particular research question 1 is addressed and specific aim 1, which was to ascertain the impact of liquidity ratio on economic growth in Nigeria, is accomplished.

Nonetheless, the p-value of the t-statistic linked to the exchange rate coefficient is below the

designated significance threshold of 0.05. This indicates that it is statistically significant based on empirical data. Therefore, the second particular null hypothesis, H02, which claims that the exchange rate has no discernible impact on the expansion of the Nigerian economy, is accepted in accordance with the specified decision criterion. This choice fulfills specific objective 2 and provides an answer to research question 2.

The t-statistic's p-value for the money supply coefficient is below the predetermined significance level of 0.05. This provides empirical support for its statistical significance.

The third particular null hypothesis, which claims that the money supply has no appreciable impact on the expansion of the Nigerian economy, is thus rejected in accordance with the decision rule. With this choice, research question 3 is resolved and specific objective 3 is met.

4.4 Significance of Overall Relevance

The primary goal of this review was to ascertain the statistical significance of the money supply, exchange rate, and liquidity ratio on the economic growth throughout the study period, which was 1994–2021, in order to evaluate the study's basic premise and accomplish the primary research objective. For the assessment, the f-statistic and its p-value, a predetermined degree of significance, and a decision rule were used.

These are shown in table three below

Table 3: F-statistic, P-value and Level of Significance

F-statistic	**P-value**	**Greater or Less than 0.05 Significance Level**	**Decision on Overall Effect**
603.3499	0.000000	Less	Significant

Source: E-views Regression Output

As shown in table three above, the p-value of the f-statistic is 0.000000 is less than the 0.05 level of significance (f-stat p-value = 0.000000 < 0.05). This provided empirical evidence that on the

liquidity ratio, exchange rate and money supply in Nigeria bore significant relevant on economic growth. Therefore, we concluded that liquidity ratio, exchange rate and money supply jointly have statistically significant effect on gross domestic product in Nigeria during the period of the study i.e 1994 to 2021.

4.5 Explanatory Power of the Model

The assessment established the model's goodness of fit. The amount of variation in the dependent variable that the independent variables can account for is shown by the coefficient of determination.

Table 4

R-squared	**Adjusted R-squared**	**Variation Explained**	**Variation Unexplained**
0.986914	0.985278	99%	1%

Source: E-views Regression Output

From the regression results in the table four above, R-squared (R^2) is 0.986914 while the adjusted R^2 is 0.985278. This suggests that changes in the money supply, exchange rate, and liquidity ratio account for 99 percent of the volatility in the gross domestic product. One possible explanation for the remaining 1% of unexplained changes is the stochastic variable, which encompasses factors not expressly included in the model. In a similar vein, the altered R^2 may be interpreted similarly.

4.6 Test for Non-Auto correlation

This is done to check for the presence or absence of auto-correlation of the time series value of the dependent variable. From the regression result in table 1 above, the computed Durbin=Watson Statistics is d* = 1.263948 and from the table, the critical value is:

dL = 1.181 and dU = 1.650. Since dL = 1.181 < d* (1.263948) < dU (1.650). The Durbin Watson stats which tests the auto-correlation in the residuals from a statistical regression analysis of the model is 1.263948.

This implies that the value is less than two(2), meaning there is a positive auto-correlation.

General Discussion

The relative importance of monetary policy on economic growth was confirmed in this study. Monetary policy was proxied by liquidity ratio, exchange rate and money supply, while economic growth was proxied by gross domestic product (GDP). From the regression result, it was seen that monetary policy has positive and insignificant effect on economic growth in Nigeria during the period of the study.

This corroborates with the findings of Ayodeji and Oluwole (2018), Nwoko and Ihemeje (2016) in a similar studies carried out by them. However, the work by Younsi and Nafla (2019) does not agree with above findings as it revealed negative impact of monetary policy on economic growth. The result furthermore indicated that liquidity ratio has positive and insignificant effect on economic growth of Nigeria. This findings is in agreement with Akujobi (2012) who found a positive relationship between liquidity ratio and economic growth in Nigeria from 1986 to 2007. In contrast to the view above, Ojeigbe et al (2016), their study showed negative relationship between monetary policy and economic growth.

The third hypothesis findings also indicated that exchange rate has a positive and significant effect on economic growth. The work of Obansa et al (2013) was in line with the findings of this work which shows that exchange rate has a strong and positive impact on economic growth in Nigeria. However, the work of David et al (2010) was not in tandem with the findings of this study. Still on the empirical result, it was further revealed that money supply showed positive and significant effect on economic growth. The results of this investigation are corroborated by studies conducted by Onyeiwu (2012) and Inam and Ime (2017). Monetary policy has a favorable effect on economic growth, according to both research. It was evident from the high values of R-squared (0.986914)

and adjusted R-squared (0.985278) that the estimated regression result suited the data well. R-squared and modified R-squared have both shown that changes in the explanatory factors account for a systematic fluctuation in the dependent variable.

Finally, the Durbin Watson statistic at 1.263948 implies the existence of positive auto-correlations of the variables of the model, suggesting that monetary policy is much a major predictor of economic growth in Nigeria.

Table 5: Regression Analysis Results

Variables	Coefficients	Standard Error	T-Stat	P-Value
Intercept (β0)	-1789636.	1462130.	-1.223993	0.2328
LR	36251.04	32396.02	1.118997	0.2742
EXRT	43510.29	7792.242	5.583797	0.0000
MS	2.476554	0.112017	22.10870	0.0000

R-squared R2	0.986914	F-statistic	603.3499
Adjusted R-squared	0.985278	Prob (F-statistic)	0.000000
Durbin-Watson Stat	1.263948		

Source: E-views regression output

The estimated Model

From the regression result obtained in table five above, the estimated model is

GDP = -1789636.344 + 36251.03501LR + 43510.2932EXRT + 2.476554293MS + e

5. Conclusion

The study investigated effect of monetary policy on economic growth of Nigeria from 1994-2021. E The results of the regression analysis showed that the money supply, exchange rate, and liquidity ratio—all of which are used in Nigerian monetary policy implementation—have a small but beneficial impact on economic development. We deduced from the outcome that monetary policy and economic development in Nigeria are directly related. indicating that during the years under consideration, monetary policy has boosted economic growth in Nigeria.

From the findings of the study, recommendations below are made:

1. Monetary policy should be used to create favourable investment climate in Nigeria which will attract both domestic and foreign investors that will participate in production of goods and services for economic growth.
2. Monetary authority should put in place liquidity ratio that will assist in economic growth..
3. Exchange rate stability policy should be formulated and implemented by the monetary authority. This will reduce inflation rate and make naira value to appreciate.
4. Results from the study showed that money supply has positive and significant impact on economic growth. We recommend that interest rate on lending should be investors friendly, this will encourage investors to borrow from banks and money supply to the economy will increase.

Conflicts of Interest

The authors have disclosed no conflicts of interest.

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