Fiscal and Monetary Policies Coordination and Economics Growth in Nigeria

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ABSTRACT

Macroeconomic policy aims for steady, inflation-free growth. These measures include, for instance, monetary and fiscal policy. The Nigerian central bank utilizes monetary instruments, whilst the ministry of finance uses fiscal policy. Coordination of policies is required for the efficient application of the chosen policies and the accomplishment of the intended goal(s) or targets since the objectives and results of the policies adopted by the two institutions frequently clash. Using time series data from the World Bank Development Indicators, this study assessed the effects of monetary-fiscal policy coordination on economic development in Nigeria from 1980 to 2018. Multiple regression analysis was used in the study, and the results showed that, despite being ineffective, monetary-fiscal policy coordination is the most crucial tool for preserving economic stability in Nigeria. The study's findings imply that before starting to enact fiscal measures, the government should focus on monetary operations. Additionally, the agencies in charge of carrying out monetary and fiscal policies must demonstrate a stronger commitment to enhancing their coordination.

Keywords: monetary policy, fiscal policy, coordination and economic growth

JEL code: E52, O23

INTRODUCTION

Price stability, full employment, balance of payments equilibrium, and stable and sustained economic growth that can raise the general population's standard of living are the main goals of macroeconomic policy in many countries across the world (Ojo, 2000). The government's two main tools for achieving macroeconomic goals are monetary and fiscal policy (Wren-Lewis, 2011). Fiscal policy focuses on government taxes and expenditures, including borrowing, to determine aggregate demand in the economy, as opposed to monetary policy, which is employed by monetary authorities like the central bank to influence aggregate demand towards the achievement of macroeconomic aims. Regarding which of them is better than the other, there is no agreement in the literature. Milton is supported by monetarists, who disagree with Keynesians who believe fiscal policy to be more effective than monetary policy (Folawewo & Oshinubi, 2006).

Although macroeconomic stability is the primary objective of both monetary and fiscal policy, the specific goals and tools employed by each authority vary and frequently conflict. Sometimes it is vital to pursue fiscal policies that prioritize job creation and economic growth at the expense of inflation, and the opposite is also true (Arby & Hanif, 2010). They need to collaborate closely and in partnership in order to prevent the pursuit of these goals from competing with one another (Laurens & Piedra, 1998). In order to create coordinated decisions on topics pertinent to the creation and implementation of macroeconomic policies, coordination in practice requires routine interactions between the fiscal and monetary authorities. The accomplishment of stated policy objectives can be substantially accelerated by effective cooperation between the fiscal and monetary authorities. The decision-makers in charge of different policy domains can also discuss and agree upon the nature, goal, and timetable of

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macroeconomic policy formation and implementation in this forum. Macroeconomic management suffers from a lack of monetary and fiscal policy coordination. Fiscal policy is less effective when monetary policy is weak, and vice versa.

The existence of a study that would experimentally demonstrate the degree of monetary and fiscal policy coordination in Nigeria is called for by all of the above-mentioned facts. The coordination of monetary and fiscal policy is essential for maintaining macroeconomic equilibrium, although little study has been done in this area. There were hardly any studies that examined how well Nigerian policy was coordinated in the body of extant literature. The application of the ordinary least square (OLS) approach with country-specific variables and a big sample size covering the 1980-2018 periods represents the primary addition of this work to knowledge or is the research gap. In order to create more relevant and trustworthy results for making policy decisions, this is important in practice. The research goal of this study is to assess whether the coordination of monetary and fiscal policies in Nigeria are more effective in stabilizing the economy or only fiscal or only monetary policy are more effectives.

Monetary policy frequently assists fiscal policy in many nations. In order to address public sector deficits, particularly those brought on by quasi-fiscal operations, central bank financing has frequently been needed. There has been a global trend in more recent years to improve central bank independence and increase the probability that the two policies will complement one another. Through its impact on the general price level, which calls into question the effectiveness of monetary policy, through short-term effects on aggregate demand, and by modifying the long-term conditions for economic growth and inflation, fiscal policy actions may influence the effectiveness of monetary policy in a variety of ways. On the other side, monetary policy may act in favor of or against the fiscal system. The central bank may tighten monetary policy by raising interest rates or limiting lending in the financial sector in order to balance out the detrimental effects of an expansionary fiscal policy on the total demand for goods and services and inflation. Due to the short-term and readily reversible capital inflows they would attract, the high interest rates that emerge from this could eventually destroy macroeconomic and financial stability. They would also contribute to currency appreciation and inflation pressures while stifling economic activity. Similar to this, how much and how expensively governments can borrow money from the general public depends on the interest rates set by the central bank. Therefore, substantial collaboration between the relevant agencies may be needed for effective monetary and fiscal policy. One's success is reliant on the other's. Therefore, despite the fact that they may be carried out by two different entities, monetary and fiscal policies are not independent. One's performance will have an impact on another's performance, which will have an impact on how any policy changes will affect the economy as a whole. Prior to the formation of the government's coordinating committee for monetary and fiscal policies, there had been no significant attempts at policy coordination in Nigeria. The main objectives of this study are to investigate the effects of Nigeria's coordinated monetary and fiscal policies. The main research question is does fiscal and monetary policies coordination has any significant impact on economic growth in Nigeria? The subsequent portions of the essay are structured as follows: The conceptual and empirical problems with monetary and fiscal coordination are discussed in sections two and three, which deal with the study methodology, respectively. The consideration of empirical data and Nigeria's coordination of monetary and fiscal policy is the main topic of section four, on the other hand. Section five has a summary, a conclusion, and a suggestion.

THE CONCEPTUAL ISSUES RELATING TO MONETARY AND FISCAL POLICIES COORDINATION

The Concept of Monetary Policy

In order to attain the broad macroeconomic objectives of price stability, output growth, and full employment, the monetary authorities adopt monetary policy. One of these activities is altering the value and amount of the money supply. According to Mordi (2009), monetary policy is a set of steps taken or a collection of tools created by the Central Bank to control the value, supply, and cost of money in accordance with the economy's ability to adapt to change or the anticipated level of economic activity, without necessarily placing undue pressure on domestic prices and exchange rates.

Depending on the economy's ability to absorb additional money at a particular time, central banks can change the amount of money available on the market to lower the cost of money. The importance of maintaining a balanced monetary policy is increased by the possibility that an excess or deficit in the money supply above the ideal level could prevent the achievement of the macroeconomic goals.

The Concept of Fiscal Policy

To affect economic activity and attain the defined macroeconomic goals of full employment, a favorable balance of payments, price stability, and output growth, among others, the government uses public expenditure, debt, taxes, and other income. Fiscal policy, as defined by Idowu (2010) and Okunrounmu (2003), is the intentional alteration of the levels of government spending, taxes, and other revenue, as well as borrowing, with the goal of achieving a number of national goals or objectives, such as price stability, full employment, economic growth, and balance of payments equilibrium.

Neutral, expansionary, or contractionary fiscal policy are all possible. When revenue and expenditures are equal, fiscal policy is deemed neutral. This is often referred to as the budget balance. The budget has no impact on the nation's economic activities when all government expenses are fully offset by tax revenue. If a government's budget is in deficit, it is assumed that they are operating under an expansionary fiscal strategy. A situation like this occurs when public spending exceeds tax receipts. In a downturn, taking this measure is sensible. The negative effects of using deficits to stimulate an economy, however, have come to light as a result of recent developments in the global economy, particularly in the eurozone. The budget of a government with a contractionary fiscal strategy, on the other hand, is one that is in surplus because public spending is lower than tax receipts. It is conceivable that this strategy will successfully reduce inflation.

Empirical Literature Review on Fiscal and Monetary Policies Coordination in Nigeria and Other Parts of the World

The degree of coordination between Nigeria's monetary and fiscal policy has been the subject of numerous research. Chuku A. Chuku (2016) used a state-space model with Markov switching and time series data from 1980 to 1994 to investigate the level of coordination between Nigeria's monetary and fiscal policy. The outcomes show that Nigeria's monetary and fiscal policies have negatively coordinated. Additionally, the results show fiscal dominance in Nigeria's monetary and fiscal policy interactions, indicating that monetary control problems are not the main contributor to inflation.

A 2003 study by Muhammad Nadeem Hanif, however, examined the level of coordination between Pakistan's monetary and fiscal policies. Prior to the beginning of financial sector reforms in 1989–1990, there was no coordination between monetary and fiscal policies, the study's findings show. As a result of the financial sector reform and restructuring

process, which made it necessary, a board for the coordination of monetary and fiscal policy has been established in Pakistan. Cleomar and Flavio (2014) used panel data from 113 advanced and emerging/developing economies to evaluate how monetary and fiscal policies fared before and during the most recent global financial crisis. According to the system GMM dynamic panel data models' findings, the complete sample, which covers the years 2001 to 2012, shows that fiscal policy appears to behave procyclically.

To determine the level of monetary and fiscal policy coordination in Nigeria, Oboh (2017) examined time series data spanning the years 1981 to 2015. Overall results indicate a 17 percent projected weak level of policy coordination. The period of low growth and high inflation, however, coincided with the highest degree of coordination, which was 36.4 percent, according to a deeper breakdown of the data. There is no evidence, nevertheless, that coordination took place while both the GDP and inflation were rising quickly. The result emphasizes how better policy coordination between the monetary and fiscal institutions is necessary to increase macroeconomic stability.

Lawal et al. (2018) explore the relationship between monetary and fiscal policy and stock market performance using data from Nigeria. This study explores the relationship between monetary and fiscal policy, as well as how stock market volatility, affects the Nigerian stock market. The study analyzes monthly data using the ARDL and EGARCH models. The results show how the combination of monetary and fiscal policy affects stock market outcomes in Nigeria. The ARDL findings show a long-term relationship between ASI and monetary and fiscal policies. The findings of the volatility estimates show that the volatility of the interactions between the two policy instruments has a considerable impact on ASI volatility. The results suggest that since the interplay between monetary and fiscal policies has a significant impact on stock market behavior, both should be calibrated in a single model when developing stock market policy. Therefore, both policies should be considered at the same time. However the following hypothesis will be tested in null form: (a) fiscal policy has no significant impact on economic growth in Nigeria, (b) monetary policy has no significant impact on economic growth in Nigeria, (c) fiscal and monetary policies have no significant impact on economic growth in Nigeria.

METHODOLOGY OF THE STUDY

This study's objective was accomplished with the aid of a straightforward multiple regression analysis. One of the specific objectives of the study is to investigate whether or not fiscal and monetary policy coordination in Nigeria is more effective in stabilizing the economy. In order to achieve this objectives, three models—the monetary policy model, the fiscal policy model, and the fiscal-monetary policy coordination model—were created. The study's time series data covered the years 1980 to 2018. A variety of preliminary experiments were conducted to ascertain the applicability of the model and the behaviors of the time series data in order to prevent erroneous results. The three models' functional, mathematical, and econometric descriptions will come next.

Equations 1–3 give the functional forms of the models for coordination of monetary and fiscal policy as well as for fiscal and monetary policy.

Below is a list of the models used in this investigation.

$$RGDP = f (M2, INFL, INTR, EXR) \qquad (1)$$
$$RGDP = f(GEX, GREV, EXR) \qquad (2)$$
$$RGDP = f(M2, INFL, INTR, GEX, GREV, EXR) \qquad (3)$$

where;

RGDP = Real Gross Domestic Product

M2= Broad Money supply

INFL= Inflation

INTR = Interest rate

GEX= government expenditure

GREV = Government Revenue

EXR= Exchange rate

The equation 1 – 3 can be written in mathematics and econometrics forms as below

$$RGDP = \alpha_0 + \alpha_1 M2 + \alpha_2 INFL + \alpha_3 INTR + \alpha_4 EXR + \mu_t \qquad (4)$$

$$RGDP = \beta 0 + \beta_1 GEX + \beta_2 GREV + \beta_3 EXR + U_t \qquad (5)$$

$$RGDP = \lambda_0 + \lambda_1 M2 + \lambda_2 INFL + \lambda_3 INTR + \lambda_4 GEXP + \lambda_5 GREV + \lambda_6 EXR + V_t \qquad (6)$$

Where: $\alpha_{1,2}, \alpha_3, \alpha_4, \beta_1, \beta_2, \beta_3, \lambda_1, \lambda_2, \lambda_3, \lambda_4, \lambda_5, \lambda_6$ are parameters for monetary policy, fiscal policy and fiscal and monetary policy coordination respectively. And $\alpha_0, \beta 0$ & λ_0 are the intercepts of the three models respectively while $\mu_t, U_{t,}$ & V_t are error term.

Justification of equation 1, 2 and 3. Equation 1 is monetary equation and it drives from monetary theory which has to do with money supply, interest rate, inflation and exchange rate while equation 2 is fiscal policy equation and it drives from the Keynesian theory which postulated that fiscal policy has to do with government expenditures, government revenue via taxation. Finally equation 3 is the fiscal and monetary policy coordination equation and it drives from both monetary policy and the Keynesian policy.

ANALYSIS AND DISCUSSION OF FINDINGS

The purpose of this section is to evaluate and summarize the results in light of the specific objectives of the study. Several residual tests, including serial correlation, the heteroskedasticity and normalcy test, and the Cusum estimation test, were conducted at the beginning of the chapter to evaluate the data features and guard against producing inaccurate results. Using multiple regression analysis, the impact of monetary and fiscal policy coordination during the research period as well as their respective influences on economic growth in Nigeria were evaluated. Broad money supply (M2) and real interest rate (RINTR) are the variables used to quantify the impact of monetary policy on economic development, while exchange rate acts as a control variable for the three models. Government spending (GEXP) and government revenue are the variables used in this study to assess the impact of fiscal policy (GREV). Each of the three models uses the real gross domestic product (RGDP) as the dependent variable as a proxy for economic growth. Our goal is to assess the impact of fiscal and monetary policy on economic growth in Nigeria over the research period in order to establish if integrating the policies—that is, fiscal-monetary policy coordination—will be the most effective method for stabilizing the economy in Nigeria. The analysis's results were analyzed and compared to relevant literature as a final step. Below is a display of the unit root's results.

Unit Root Test Results

Table 1. Augmented Dickey-Fuller (ADF) Unit Root Test Results

LEVEL	1st DIFF.				
5% critical	5% critical				
Variables	ADF Test	**Values**	**ADF Test**	Values	**Remarks**
RGDP	-3.445398	-3.445398	**-**	**-**	I(0)
GEXP	-2.754103	-2.941145	-7.290872	-2.943427	I(0)
GREV	-2.061597	-2.941145	-6.465291	-2.945842	I(0)
EXCHRT	-1.205812	-2.941145	-3.355002	-2.943427	I(0)
M2	-1.662651	-2.945842	-4.233845	-2.945842	I(0)
RINTR	-4.518935	-2.941145	**-**	**-**	I(0)

Source: Eview Estimated Output Computed by the Author, 2019

To assess the time series properties of the model's variables in this study, only the Augmented Dickey-Fuller (ADF) unit root test was used. According to the null hypothesis, every variable in the study has a unit root. The results of the ADF unit root test for the investigated variables are shown in Table 1 above. The test findings show that only two of the variables are stationary at a level, whereas at the first difference, all variables are stationary. If the calculated ADF test statistics at the 5% level of significance are higher in absolute terms than the test critical values, the variable is said to be stationary at that level. When the computed ADF test statistics at a given level are less than the test critical values in absolute terms at a 5 percent level of significance, but when the variable is changed, the computed ADF test statistics increase in absolute terms above the test critical values at a 5 percent level of significance, the variable is said to be stationary at the first difference. After the initial difference, the variable becomes stationary.

In other words, whereas some variables, such as EXCHRT, M2, GEXP, and GREV, are integrated of order one, RGDP and RINTR are integrated of order zero (0). Because of this, we can accept the unit root null hypothesis for these variables but reject it for RGDP and RINTR. Then, it is said that two of the variables are integrated of order zero, or I(0), while four of the variables are integrated of order one, or I. (1). The table shows that although trends are present for four of the variables at the level, they are absent when the variables are changed.

Estimated Result for Fiscal Policy

Table 2. Estimated Result for fiscal policy

Variables	Coefficient	Std.error	t.stat	Prob.
C	-6.529482	3.437981	-1.899220	0.0658
GREV	0.564634	0.225045	2.508983	0.0169
GEXP	-0.127508	0.256288	-0.497519	0.6219
EXCHRT	0.029526	0.009561	5.186229	0.0039

Note: R-squared= 0.284628, Adjusted R-squared=0.223311, D.W =1.541509, and prob(F-statistic)= 0.007791

Source: Eview Estimated Output computed by the Author, 2019

The estimated results for the relationship between fiscal policy and economic growth in Nigeria are reported in Table 2 in order to satisfy the study's first goal, which is to ascertain the impact of fiscal policy on economic growth in Nigeria. We can infer from the data in Table 2 above that government revenue positively and significantly affects economic growth in Nigeria. This demonstrates that if government income collection increases, the Nigerian economy will expand. In Nigeria, government revenue growth is strongly connected with economic growth. Therefore, whereas a 1 percent increase in government spending would not significantly affect economic development throughout the length of the study, a 1 percent increase in government revenue would actually result in a 56 percent rise in economic growth in Nigeria. This implies that Nigeria's real economic growth is cut by over 13% for every percentage point rise in government spending. The exchange rate, on the other hand, has a positive and considerable impact on the expansion of the Nigerian economy. This suggests a link between the exchange rate and Nigeria's economic expansion. In reality, an increase in the exchange rate of 1% will result in an increase in Nigeria's economic growth of 0.3%.

The model appears to fit, according to the R-squared values of 0.284628. The adjusted R-squared value of 0.223311, which indicates that the model explains 22.3 percent of the variability in the RGDP, GREV, GEXP, and EXCHRT, indicates that the model is 28 percent fit. This implies that external factors account for 77.7% of the GDP's unpredictability.

Furthermore, the F-statistics value of 4.641870 (prob. 0.007791) shows that the individual and combined effects of GREV, GEXP, and EXCHRT have a significant impact on GDP.

Residual Diagnostics and Stability Test for Model One (Fiscal Policy)

Table 3a. Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.788303	Prob.F(2,33)	0.4630
Obs*R-squared	1.778302	Prob.chi-square(2)	0.4110

Source: Computed by the researcher using Eview, 2019

The Breusch-Godfrey Serial Correlation LM Examine was used to test the model's serial correlation; the results are shown in Table 3a above. The p-value clearly surpasses 0.05, demonstrating that serial correlation is not taken into account in the model. Therefore, we concede that there is no serial correlation in the model, which is the null hypothesis. This demonstrates how dependable, trustworthy, and effective the analysis's model is.

**Table 3b. Heteroskedasticity Test: Breusch-Pagan-Godfre**

F-statistic	1.373373	Prob. F(3,35)	0.2670
Obs*R-squared	4.107467	Prob. Chi-Square(3)	0.2501
Scaled explained SS	4.262758	Prob. Chi-Square(3)	0.2345

Table 3b contains the findings of the Breusch-Pagan-Godfrey test; it is obvious from the results that the model does not take heteroskedasticity into account because the p-value is greater than 0.05. We therefore agree with the null hypothesis, according to which the model does not show heteroskedasticity. Since the absence of heteroskedasticity in this model demonstrates that the residuals have a constant variance, the researcher is confident in the study's overall conclusions.

| Series: Residuals	
Sample 1980 2018	
Observations 39	
Mean	-6.38e-16
Median	-0.171154
Maximum	9.720008
Minimum	-11.92102
Std. Dev.	4.621136
Skewness	-0.319813
Kurtosis	3.577150
Jarque-Bera	1.206113
Probability	0.547137
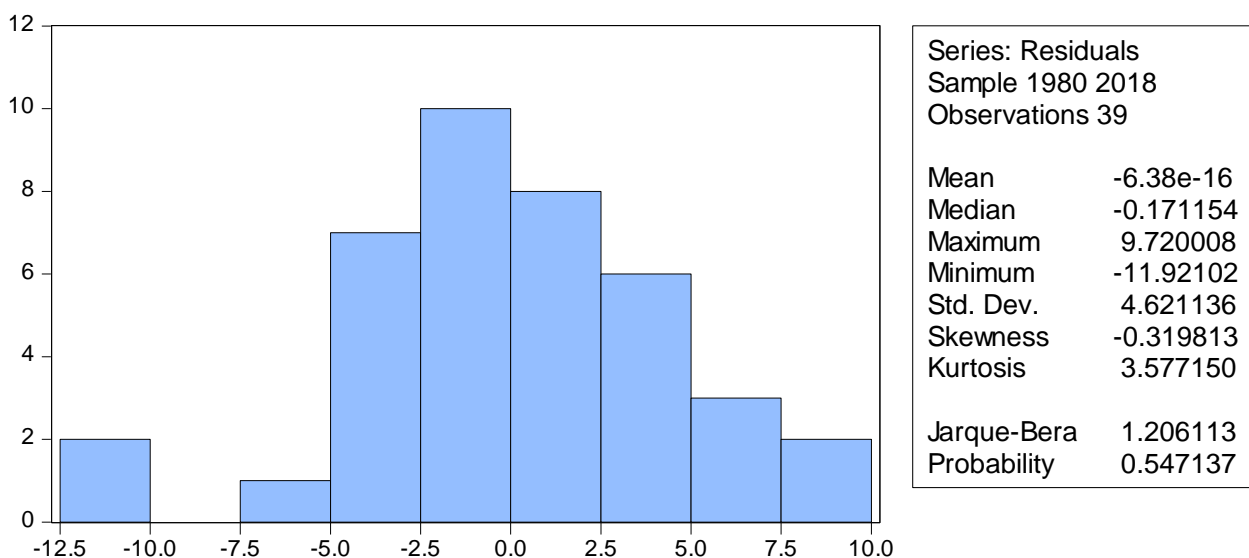
Figure 1. Histogram Normality Test

The graph from the histogram normality test above demonstrates that the model is normally distributed. Given that the p-value is greater than 0.05 and suggests that at the 5 percent level, where the model is normally distributed, the difference is not significant. It indicates that a normal distribution does really apply to the data utilized for analysis or estimation. This suggests that the data's outcome will be accurate and effective.
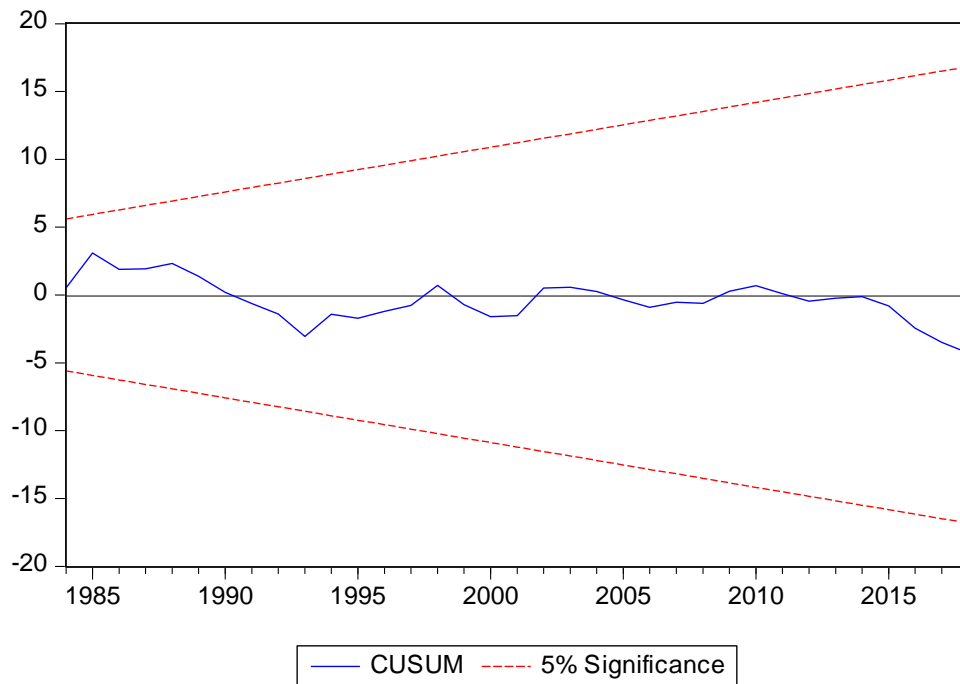
Figure 2. Cusum stability test

Using a 5 percent level of significance, the test graph swings or moves within its mean, demonstrating the stability of the model. If the blue line departs from the red dotted line, the model is assumed to be unstable at the 5% level of significance. This type is reliable and steady.
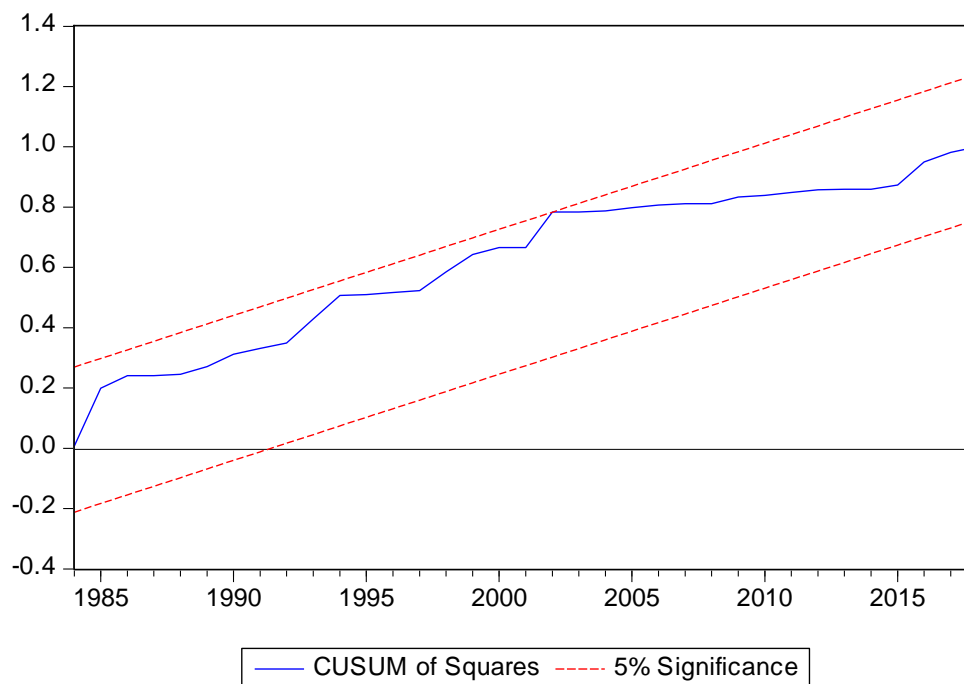
Figure 3. Cusum Squared test for Stability

Since the test graph swings or moves within its mean, the above graph is considered to be significant at the Cusum squares 5 percent threshold, suggesting that the model is stable. The model is implied to not be stable at the 5% level of significance if the blue line deviates from the red dotted line. This model is trustworthy and stable.

Estimated Result for Monetary Policy

Table 4. Estimated Result for Monetary Policy

Variables	Coefficient	Std.error	t.Statistic	Prob.
C	3.114460	2.645145	1.177425	0.2470
M2	-0.021153	0.186045	-0.113699	0.9101
INTR	0.210182	0.056087	3.747447	0.0006
EXCHRT	0.004956	0.010420	0.475602	0.6373

Note: R-Squared=0.347541, Adjusted R-Squared=0.291616, Prob(F-Statistic)=0.001694, D.W 1.235782.

Source: Eview Estimated Output computed by the Author, 2019

The estimated result for the association between monetary policy and economic development in Nigeria is shown in Table 4 in order to meet study aim no. 2. Examining the effect of Nigeria's monetary policies on economic growth was the second study goal. The results show that over the duration of the study, the vast money supply (M2) has had a detrimental and insignificant effect on Nigeria's economic growth. This implies a conflict between Nigeria's broad money supply and economic growth, i.e., that a rise in the wide money supply would result in a decline in that nation's economic growth. Therefore, a real increase in money supply of 1% would result in a 0.2 percent decline in economic growth in Nigeria, whereas real interest rates have, during the course of the research, had a positive and significant impact on that country's economic growth. This means that for every 1% increase in real interest rates, Nigeria's economic growth will really increase by 21%. Currency exchange rates have a positive impact on Nigeria's GDP growth, albeit not significantly. This suggests a link between the exchange rate and Nigeria's economic expansion. In reality, an increase of 1% in the exchange rate will result in an increase of 0.4% in Nigeria's economic growth.

The model's fitness is demonstrated by the R-squared value of 0.347541. The adjusted R-squared value of 0.291616, which indicates that approximately 29.2% of the fluctuations in the RGDP are explained by M2, RINTR, and EXCHRT, indicates that the model is roughly 35% fit. This demonstrates that other variables account for 70.8% of the volatility in RGDP. Additionally, the F-statistics value of 6.214400 shows that the M2, RINTR, and EXCHRT have a significant impact on RGDP both separately and jointly (prob. 0.001694).

Residual Diagnostics and Stability Test (Monetary Policy)

Table 5a. Breusch-Godfrey Serial Correlation LM Test

| F-statistic	3.407087	Prob.F(2,33)	0.0452
Obs*R-squared	6.674828	Prob.chi-square(2)	0.0355

Source: Computed by the researcher using Eview, 2019

The Breusch-Godfrey Serial Correlation LM was used to investigate the serial correlation of the model. The outcomes are displayed in Table 5a above. As can be seen, the p-value is less than 0.05, and this shows that serial correlation is present in the model. As a result, we accept the alternative hypothesis that serial correlation occurs in the model and reject the null hypothesis that there is no serial correlation in the model. This demonstrates that the analysis' model is useless and that the conclusions cannot be relied upon or trusted.

**Table 5b. Heteroskedasticity Test: Breusch-Pagan-Godfre**

F-statistic	0.541075	Prob. F(3,35)	0.6573
Obs*R-squared	1.728569	Prob. Chi-Square(3)	0.6306
Scaled explained SS	1.892019	Prob. Chi-Square(3)	0.5951

Table 5b contains the results of the Breusch-Pagan-Godfrey test; it is obvious from the results that the model does not take heteroskedasticity into account because the p-value is greater than 0.05. We therefore agree with the null hypothesis, according to which the model does not show heteroskedasticity. Since there is no heteroskedasticity in this model, the residuals have a constant variance, giving the researcher confidence in the study's overall findings.
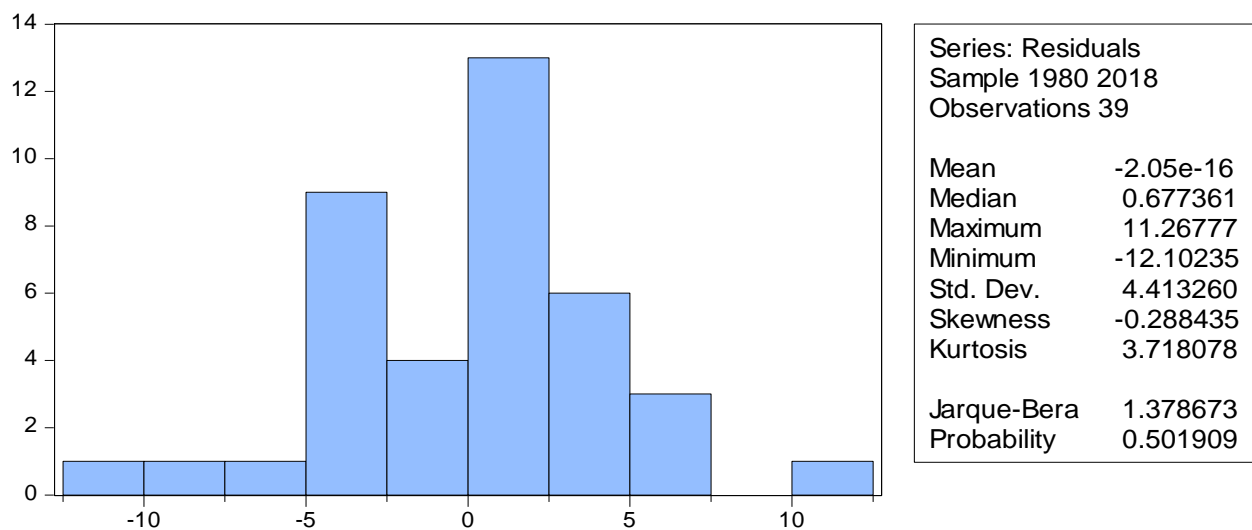

Figure 4. Histogramme Normality Test

The model is shown to be normally distributed by the graph from the previous histogram normality test. This is true given that the outcome is not statistically significant at the level of 5% and that the model has a normally distributed distribution with a p-value greater than 0.05. It suggests that the distribution of the data utilized for analysis or estimation is normal. This implies that the data's outcome will be accurate and beneficial.
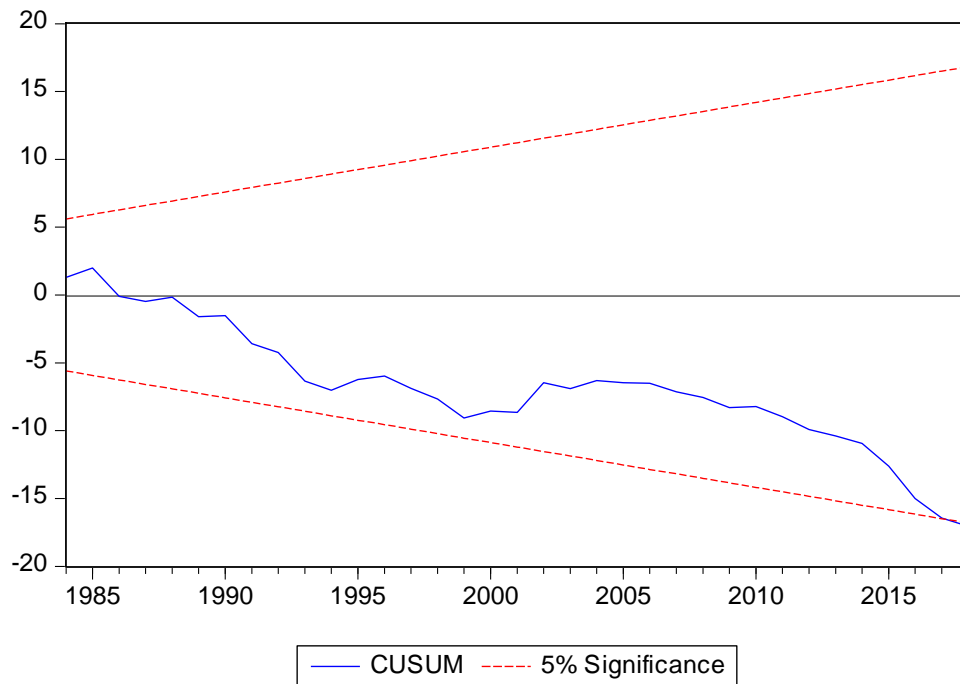
Figure 5. Cusum stability test

The test graph swings or moves within its mean at a 5% level of significance, indicating that the model is stable. At the 5% level of significance, the model is thought to be unstable if the blue line diverges from the red dotted line. This kind is dependable and sturdy.
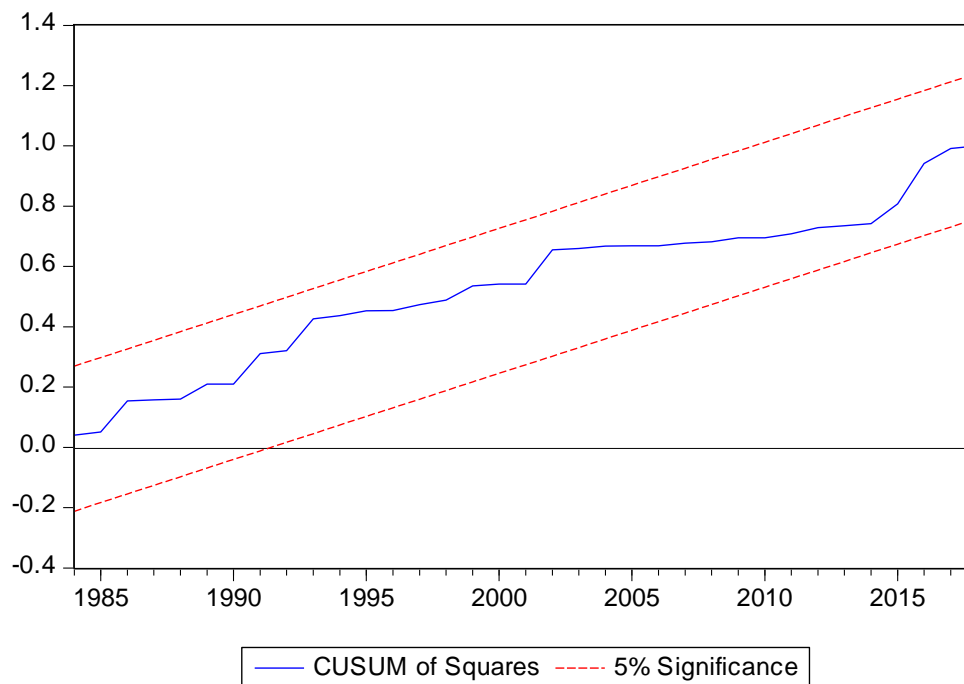
Figure 6. Cusum of Squared Stability test

Since the test graph swings or moves within its mean, demonstrating that the model is stable, the aforementioned graph is considered significant at the cusum of squares 5 percent criterion. At the 5% level of significance, the model is thought to be unstable if the blue line diverges from the red dotted line. This kind is stable and dependable.

Table 6. Estimated Result for Monetary -Fiscal Policy coordination on Economic Growth in Nigeria

Variables	Coefficient	Std. Error	t-statistic	Prob.
C	-6.985151	3.963153	-1.762524	0.0872
GEXP	-0.351673	0.215802	-1.629612	0.1127
GREV	0.710170	0.195507	3.632447	0.0009
M2	0.218694	0.169580	1.289623	0.2061
RINTR	0.196045	0.048699	4.025628	0.0003
EXCHRT	0.011274	0.009116	1.236626	0.2250

Note: R-Squared=0.556228, Adjusted R-Squared=0.488990, Prob(F-Statistic)= 0.000038, D.W 1.670922.

Source: Eview Estimated Output computed by the Author, 2019

The major goal of this study was to determine the predicted consequences of coordinated monetary and fiscal policy on Nigeria's economic development. Investigating the effect of monetary and fiscal policy coordination on economic growth in Nigeria is one of the key goals of this study. The results show that factors affecting monetary policy had a positive but not statistically significant effect on Nigeria's economic growth; throughout the research period, the interest rate was the only factor that had a statistically significant impact on that country's economic growth. M2 has a negative and little impact on the economic growth of Nigeria when we merely look at how monetary policy has affected that country's economy over the research period. Throughout coordination, the main indicator of monetary policy, M2, is positive and not noteworthy. Thus, a rise in Nigeria's total money supply would result in a rise in the economy of the nation. Positive correlations exist between Nigeria's massive money supply and economic expansion. One of the monetary factors, real interest rates, has a positive and considerable effect on economic growth. Consequently, a 1 percent increase in the real interest rate would result in a 19.6 percent increase in Nigeria's GDP, whereas a 1 percent increase in the money supply would cause a 21.9 percent increase in economic growth. Currency exchange rates have a positive impact on Nigeria's GDP growth, albeit not significantly. This suggests a link between the exchange rate and Nigeria's economic expansion. Realistically, a 1% rise in the exchange rate will result in a 0.1% rise in Nigeria's economic expansion. Government spending and revenue were the final fiscal policy variables to be considered. Government revenue (GREV), the more important of the two components, has a positive and notable effect on Nigeria's economic expansion. As a result, according to this study, a 1% increase in government revenue (GREV) would actually result in a 71 percent rise in economic growth in Nigeria, whereas a 1% increase in government spending (GEXP) would have a negative and insignificant effect on that nation's economic growth. While a 1% rise in government spending (GEXP) will cause Nigeria's economic growth to decline by 35%. R-squared values of 0.55628 for the model show that it is fit. The model is found to be 55.6 percent fit by the Adjusted R-squared value of 0.488990, and the variables M2, GREV, GEXP, RINTR, and EXCHRT account for around 48.9 percent of the RGDP's variability. This demonstrates that 51.1 percent of GDP fluctuations are due to outside factors. Additionally, the F-statistics value of 8.272510 (prob. 0.000038) shows that the individual and combined effects of M2, GREV, GEXP, RINTR, and EXCHRT on GDP are both significant. Last but not least, the D.W Statistic of 1.670922 shows that the model does not include autocorrelation.

Residual Diagnostics and Stability Test for Model Three (Monetary and Fiscal Policy)

Table 7a. Breusch-Godfrey Serial Correlation LM Test

| F-statistic	0.530143	Prob.F(2,31)	0.5938
Obs*R-squared	1.289793	Prob.chi-square(2)	0.5247

Source: Computed by the researcher using Eview, 2019

The Breusch-Godfrey Serial Correlation LM Examine was used to test the model's serial correlation; the results are shown in Table 7a above. The p-value clearly surpasses 0.05, demonstrating that serial correlation is not taken into account in the model. Therefore, we concede that there is no serial correlation in the model, which is the null hypothesis. This demonstrates how dependable, trustworthy, and effective the analysis's model is.

**Table 7b. Heteroskedasticity Test: Breusch-Pagan-Godfre**

F-statistic	0.334380	Prob. F(3,35)	0.8885
Obs*R-squared	1.880601	Prob. Chi-Square(3)	0.8654
Scaled explained SS	2.149355	Prob. Chi-Square(3)	0.8281

Table 7b contains the findings of the Breusch-Pagan-Godfrey test; it is obvious from the results that the model does not take heteroskedasticity into account because the p-value is greater than 0.05. We therefore agree with the null hypothesis, according to which the model does not show heteroskedasticity. Since there is no heteroskedasticity in this model, the residuals have a constant variance, giving the researcher confidence in the study's overall findings.
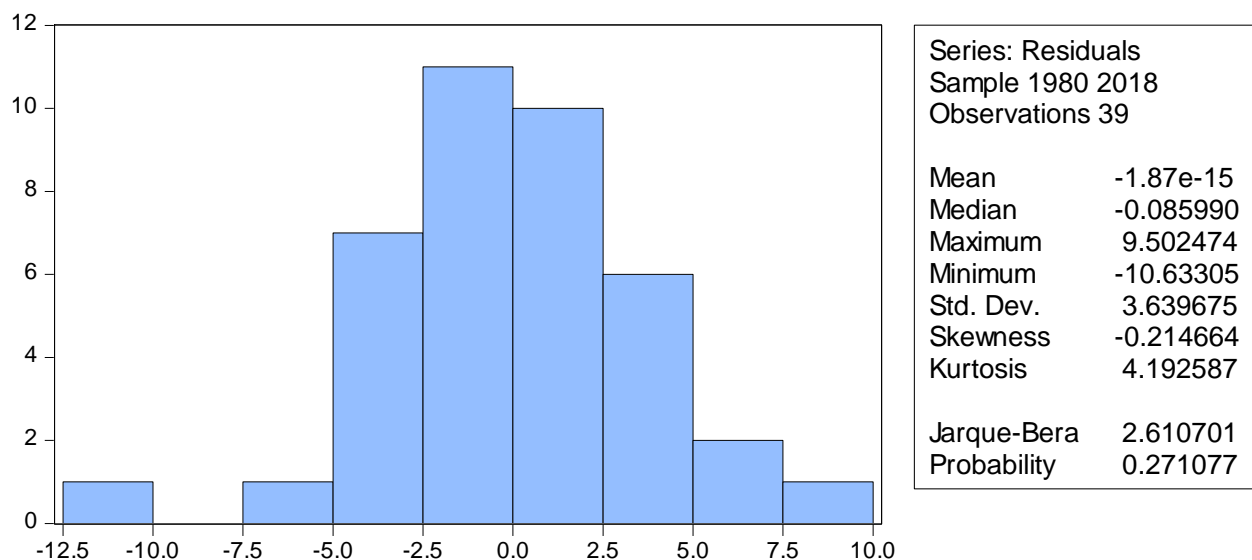

Figure 7. Histogramme Normality Test

The model is shown to be normally distributed by the graph from the previous histogram normality test. This is true given that the outcome is not statistically significant at the level of 5% and that the model has a normally distributed distribution with a p-value greater than 0.05. It suggests that the distribution of the data utilized for analysis or estimation is normal. This implies that the data's findings will be accurate and beneficial.
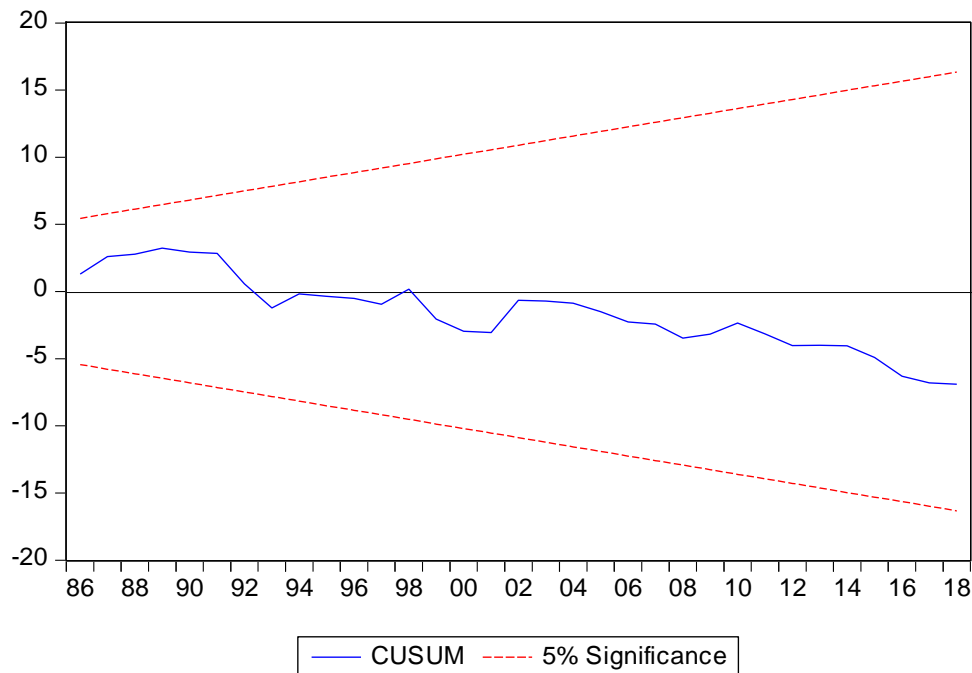
Figure 8. Cusum stability test

The test graph swings or moves within its mean at a 5% level of significance, indicating that the model is stable. At the 5% level of significance, the model is thought to be unstable if the blue line diverges from the red dotted line. This kind is stable and dependable.
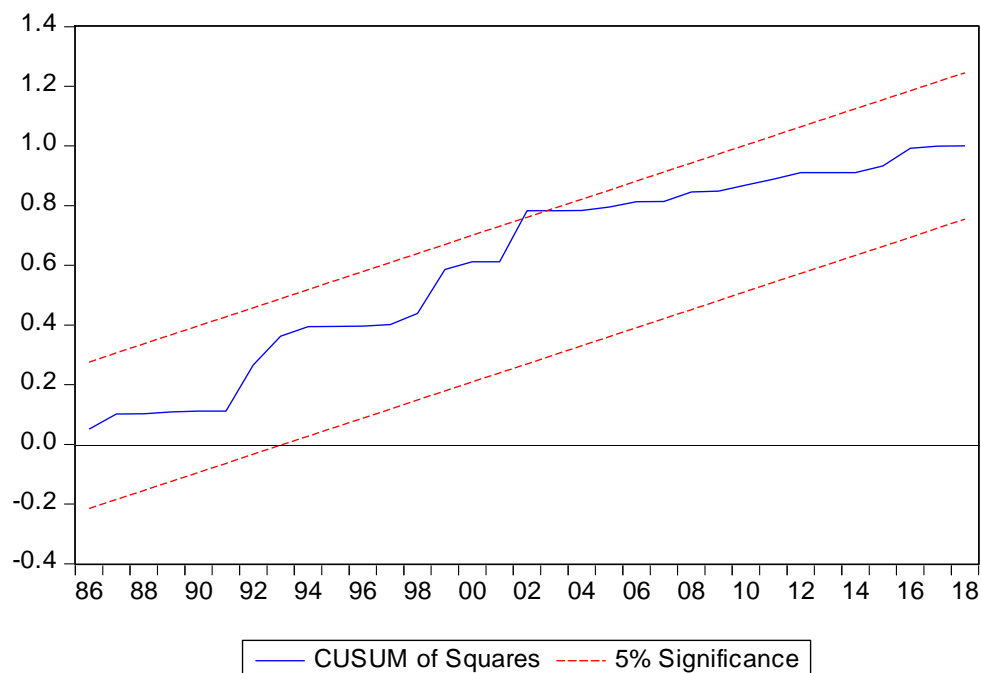
Figure 9. Cusum of Squared test for Stability

Because the test graph swings or moves within its mean, the aforementioned graph is defined as having a cusum of squares 5 percent level of significance, showing that the model is stable. At the 5% level of significance, the model is thought to be unstable if the blue line diverges from the red dotted line. This kind is stable and dependable.

Discussion of Finding

Because one of the key variables used to measure fiscal policy, namely government expenditure, has a negative and no significant impact on economic growth in Nigeria, we concluded from the study's analysis that fiscal policy in Nigeria does not entirely have a positive and significant impact on economic growth in Nigeria. Government revenue is the only thing that significantly and positively affects Nigeria's 56 percent economic growth. Low R-squared and Adjusted R-squared values (28 and 22 percent, respectively) for the fiscal policy and economic growth models were found. The broad money supply, the main variable used to quantify monetary policy, has a negative but not particularly substantial influence on economic growth in Nigeria, according to studies on the impact of monetary policy on the nation's economy. With R-squared and Adjusted R-squared values of 34 percent and 29 percent, respectively, the real interest rate—one of the variables—indicates that it has a favorable and significant impact on economic growth in Nigeria over the course of the study. Finally, it was found that a big money supply has a positive but negligible effect on the economy, but continued government spending continues to have a negative but negligible effect. This is as a result of the effects of coordinated monetary and fiscal policy. The exchange rate has a favorable but minor impact on economic growth, in contrast to government revenue and interest rates. R-Squared and Adjusted R-Squared values of 55.6 and 48.9 percent, respectively, demonstrate the importance of monetary and fiscal policy coordination for economic growth. This assertion is supported by Prob(F-Statistic)= 0.000038, D.W 1.670922. According to the perspectives of R-squared and Adjusted R-squared, the model is more effective at stabilizing the economy when it takes into account the impact of monetary and fiscal policy coordination on economic growth in Nigeria as opposed to the impact of each policy's impact on growth separately. This demonstrates that the economy is balanced or stabilized by the combination of these two policies rather than just one of them. This result is consistent with Victor U. Uboh's (2017) work, which examined the coordination of the monetary and fiscal policies in Nigeria using a Set theoretic method. Overall, it was determined that only 17% of policies were coordinated, which was a low percentage. A more detailed analysis of the data revealed that the highest degree of coordination, which was 36.4 percent, occurred during the time of poor growth and high inflation. There is no evidence to support any coordination during the times of high GDP and inflation. However, the findings demonstrate that while monetary and fiscal policy coordination in Nigeria is not perfect, it still outperforms the effects of the individual policies on economic development and stabilization. It is also generally recognized that during times of weak growth and high inflation, monetary policy and fiscal policy are most closely synchronized. While the monetary policy at the time reduced the money supply (M2) and also employed a number of ways to identify areas of excess liquidity in order to prevent inflation, the government would chose to increase spending at this time to stimulate the economy.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

This chapter provides a summary of the key results regarding the impact of monetary policy, fiscal policy, and the coordination of monetary and fiscal policy on economic growth in Nigeria. The chapter ends succinctly with some recommendations based on the key discoveries.

Summary

The major goal of the study was to determine how Nigeria's economic success was impacted by the coordination of fiscal and monetary policies. The study's particular goals were to analyze the effects of fiscal and monetary policy coordination on economic growth in Nigeria, then look at the effects of each separately, and finally look at the effects of monetary policy. Multiple regression analysis was used in the study with data spanning the years 1980

to 2018. According to early findings of the Augmented Dickey Fuller Unit Root Test, two of the variables are stationary at level (integrated at order 1(0)), whereas four are integrated at order 1, i.e. (1). Several of the variables may have initially behaved as unit roots before changing to stationary behavior at the first difference, according to this.

Breusch-Godfrey When the Serial Correlation LM Test was used to check for it, it was found that there was no serial correlation in the model. Breusch-Pagan-Heteroskedasticity Using Godfre's Test, it was determined that the model is not heteroskedastic and that the residuals of the model have a constant variance, providing the researcher confidence in the study's overall findings. The results of calculations for the cusum and cusum of squared demonstrate the validity of the study's model.

The outcome for model one demonstrates that while government spending has a negative but moderate impact on economic growth, government revenue has a positive and significant impact. The outcome of goal two demonstrates that the money supply (M2) has a negative impact on Nigeria's economic growth rather than a substantial and positive one. However, the outcome of aim three demonstrates that integrating or coordinating monetary and fiscal policy has a greater influence on Nigeria's economic development than concentrating on the effect or impact of each policy alone. The results of this study show that the Nigerian economy benefits from the coordination of monetary and fiscal policy. Though it is low throughout the recovery and boom phases of the business cycle, the degree of coordination between monetary and fiscal policy is high during economic recessions, which are characterized by low GDP, high unemployment, high poverty, and high inflation rates.

Conclusion

The study employed multiple regression analysis to look at how Nigeria's monetary and fiscal policies affected economic growth. The results of the investigation suggest the following. The first research goal's outcome demonstrates that only government revenue, as opposed to government outlays or expenditures has a favorable and significant influence on economic growth in Nigeria. One of the control variables, the exchange rate, has a positive and considerable influence on Nigeria's economic growth. But the outcome of the second objective shows that only the interest rate, with the large amount of money in circulation having a negative and insignificant impact, has a positive and significant influence on economic growth in Nigeria. The outcome of the third objective demonstrates, however, that coordination between fiscal and monetary policy has a considerable impact on economic growth in Nigeria when seen from the standpoint of R-square and Adjusted R-square of model 3 of this study. This demonstrates that the best way to stabilize the Nigerian economy or have a beneficial impact on it is to coordinate monetary and fiscal policy. This implies that Nigeria economy can best via coordination of the two theories that monetary and fiscal policies than using the theory separately in trying to stabilize the Nigeria economy. The limitation of this study is only lack of finances and data. However, future research direction should be the Nexus between government Revenue, interest Rate and economics growth in Nigeria.

Recommendations

The study's conclusions prompt the following suggestions:

i. According to the study's findings, Nigeria has fiscal dominance as evidenced by the coordination of its monetary and fiscal policies. Evidence from the execution of non-Recardian fiscal policy and the fiscal theory of price level indicate that fiscal issues, rather than a lack of monetary control, are the main causes of inflation. The study's findings suggest that the government should take monetary activity into account while making budgetary decisions, especially in light of its obligations.

ii. The monetary and fiscal authorities are advised to devote themselves more fully to enhancing their policy coordination in light of the study's conclusions.

iii. Appropriate procedures should be put in place to make sure that the relevant committee not only meets regularly but actually executes the decisions made at such meetings in order to implement the aforementioned suggestion. Policy coordination will also be improved by formalizing any required panels for inter-agency policy cooperation with suitable regulations that are enforceable against both agencies and come with sanctions

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