Monetary-Fiscal Policy Coordination and Economic Growth Sustainability in Nigeria

[1]Okorontah, Chikeziem F., [2]Uruakpa, Chiagoziem G., [3]Uzoma, Kelech P., [4]Amadi, Kingsely W. & [5]Odoemena Ikenna U.
[1,2&3]*Rhema University Nigeria, Aba, Abia State.*
[4]*Federal University Wukari, Taraba State, Nigeria.*
[5]*Federal polytechnic Nekede Owerri, Imo State, Nigeria*

Abstract

In many economies the major role of government is the regulation and stabilization of the system in other to achieve macroeconomic objectives, which include but not limited to sustainable economic growth, full employment, and price stability. Monetary and fiscal policies have been considered as viable economic planning strategies for achieving the stated macroeconomic objectives. But the extent to which each is to be used to achieve the desired objectives is a matter of intense debate among policy makers and economists. This study is on monetary-fiscal policy coordination and economic growth sustainability in Nigeria. The objective is to examine the contributions of monetary and fiscal policies to economic growth in Nigeria and how their coordination has affected the economy towards growth recovery and sustainability. Unit root test, co integration test, Auto Regressive Distribution Lag (ARDL) model and trend analysis were some of the econometric techniques used for data estimation. The following variables were used as explanatory variables – Money Supply (MS), Monetary Policy Rate (MPR), Total Government Expenditure (TEXP) and Tax Revenue (TXREV), while the dependent variable is Real Gross Domestic Product (RGDP) proxy of economic growth. The data were sourced from Central Bank of Nigeria (CBN) statistical bulletin covering the period of 37 years. The result of the stationarity test showed that all the independent variables were stationary at 1st difference while the dependent variable was stationary at level form. The Bound test proved that there was the existence of long run equilibrium relationship among the variables. The result from the short run analysis showed that TXREV was significant in one period lag and negatively related to RGDP. In the long run MPR and MS have significant impact on RGDP and were rightly signed. The combined effect of monetary and fiscal policies on the level of economic growth in Nigeria is found to be weak and unstable over the years of study, which indicates weak long-run relationship between the explanatory variables and the dependent variable. It is therefore necessary to establish an appropriate framework to intensify coordination between monetary and fiscal policies as tools for economic stabilization. However increased autonomy of the Central bank and the Debt management office may help realize the desired objective.

Keywords: *Monetary-fiscal, Policy coordination and Economic growth*

Corresponding Author: **Okorontah, Chikeziem F.**

Background to the Study

Indeed, major role of many economies is the regulation and stabilization of the system for the achievement of macroeconomic objectives, which include but not limited to sustainable economic growth, full employment and price stability (Oboh, 2017; Ojo, 2000). Monetary and fiscal policies have been considered viable economic strategies for achieving the stated macroeconomic objectives (Mehar, 2023). But the extent to which each is to be used to achieve the desired object of the authorities is a matter of intense debate among policy makers and economists. There is a high expectation that effective coordination of monetary and fiscal policy should bring about price stability, generate employment and in overall lead to economic growth (Kisefakora, et al, 2020). However, it is observed that many nations that employ them pursue them in different directions without proper coordination of the two in most of the times. Iyoboyi (2014).

Two fundamental issues are normally stressed considering the nature of fiscal and monetary policies coordination. The first is that, the overall mix and also each individual policy needs to be set on a sustainable course. Secondly, fiscal policy and monetary policy often operate with different time lags. As noted by Laurens and Piedra (1998) fiscal policy takes longer time to adjust and economic actors react with such lag for adjustments, while monetary policy almost adjust on a continuous basis and also, economic actors react with much shorter lags towards its adjustments. Indeed, monetary policy hinges on the idea that changes in money supply is the main driver of economic activities. The supporters of monetary policy as effective means of controlling the economy argue that the authorities that control the activities of monetary policy actually have measurable power over changes in economic growth by tinkering with the amount of currency and other liquid instruments existing in the economy of a nation (Daniel, 2021). Many governments influence investments, employment, output and income through monetary policy. It is by increasing or decreasing the supply of money that the monetary authorities achieve this. In Nigeria the main instruments used to influence the money supply is the monetary policy rate (MPR), the cash reserve ratio (CRR), and the liquidity ratio (LR), etc. The monetary policy committee meets regularly to review and take decisions on what the monetary policy should be. In 2020, the MPR was the Central Bank of Nigeria's (CBN) key instrument for stating monetary policy stance and management. It was lowered by 10 basis points from 13.5 to 12.5 percent in May (CBN, 2020). In 2021, monetary policy focused on easing the input of stocks on the Nigerian economy caused by various developments in the global and domestic economies especially the COVID-19 pandemic and the burgeoning public debt portfolio respectively. Also, in 2022 the monetary policy committee on its 28th meeting decided the following (CBN, 2022)

    i.   Retain the MPR to 16.5%
    ii.   Retain the CRR at 32.5%
    iii.   Retain the liquidity ratio at 30%

All these are to bring the money supply in control for Sustainable Economic Growth

The elements of fiscal policy affect economic activities, such as investment, employment, output and income through the operations of the public and private sectors, which the political and legal processes of the government influence. The political and legal influences of the

government include legislation and other various policy statements on how to manipulate changes in the taxing and spending of the government revenue for the purpose of economic sustainability (Ofar, Nkamare & Emori, 2014).

The Nigerian fiscal operations depend mainly on oil revenue accruing to government treasury. The aggregate expenditure of the government expanded during the 2000s, rising from N70.106 billion to N4,194.22 billion in 2000 and 2010 respectively; and to N4,767.37 billion in 2015. It was reasoned that the factors that led to the rapid growth in expenditure of the government are increased earnings from oil, massive investment in infrastructure and economic stimulation after the 2007 – 2008 global economic and financial crisis (Oboh, 2017). Government revenue was on the increase from 1971 – 1975. These were the period of oil boom. It declined most in 1981 – 85 coinciding with the collapse of the world oil market and the introduction of SAP in 1986. (Obioma and Ozughdu, 2010). Between 2015 and 2022 the government revenue has experienced both increases and decreases. For instance, in 2015, it recorded about 3741.75 billion and decreased to 3307.46 billion in 2016. In 2022 it recorded about 4.956.22 billion as against the 6402.71 billion in 2021 (CBN, 2015 – 2021). The instability in government revenue may be as a result of insecurity which led to low production of crude in most of the years.

However, the relative effectiveness of monetary or fiscal policy depends on the shape of the LM curve (equilibrium in the money market) and the IS curve (equilibrium in the goods market). Monetary policy is more effective if the LM curve is steeper, meaning that the demand for money is less interest elastic. As well fiscal policy is more effective if the LM curve is flatter, showing when the demand for money is interest inelastic. The elasticity of the IS curve is also considered. (Jhingan, 2003, Chamberlin & Yueh, 2006). The implication is that the effectiveness of monetary or fiscal policy depends on the interaction of the money market and the product market, suggesting that coordination of the two policies may bring better economic opportunities.

A simple illustration can show how monetary-fiscal coordination could bring about increase in investment and consequently increase in economic growth.

- **Coordination of monetary and fiscal policies and level of output**
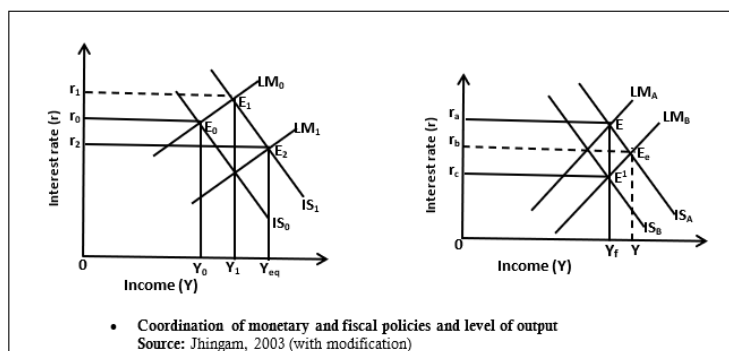 Source: Jhingam, 2003 (with modification)

Figure 1 and 2 depict how coordination of monetary and fiscal policy could bring about increase in output (income). In figure 1, assuming the economy is initially at E_o where the IS_o and LM_o interact with interest rate of r_0 and income of Y_0. The government wants to expand the economy through fiscal policy (that is increase in expenditure or decrease in taxes), this shift the IS_0 curve to IS_1 with new equilibrium at E_1. This policy will have the effect of increasing interest rate to r_1 (if not controlled) and the intended expansion may not be achieved. To reduce the interest rate and stimulate investment an expansion monetary policy may be adopted; this will shift the LM_0 curve to LM_1, with full employment equilibrium of E_2 and low interest rate of r_2 and income of Y_{eq}.

As well if the economy is already in equilibrium at E (as depicted in figure 2) with interest rate r_a and full employment level of income Y_f as described by the intersection of IS_A and LM_A, Assuming that the interest rate r_a could no longer sustain the full employment level as such the economy's growth rate begins to slow down. To restrain such situation, money supply may be increased, this action shift the LM_A curve to LM_B curve which intersect the IS_A curve at E_e with low interest rate of r_b and income of Y. This increase in national income that is higher than the full employment income level may cause inflation. To avoid this, there is need to change the monetary-fiscal policy mix, possibly adopt a restriction fiscal policy (the government reduces expenditure or increase taxes). With this, the ISA curve shifts to the left to IS_B intersecting LM_B at E^I with a lower interest of rc and income level of Y_F, the formal level but with lower interest rate that can encourage investment. This paper examined monetary-fiscal policy coordination and economy growth sustainability in Nigeria.

Literature Review
Conceptual Issues
Monetary policy is a measure government use to control the money supply by manipulating some instruments. According to Wrightsman (1976), monetary policy involves a deliberate attempt to control the stock of money and credit in order to achieve certain macroeconomic objectives. It deals with the relationship between interest rate and money supply and uses some instruments to control them mainly to impact on economic growth, exchange rates, inflation and employment. The Central Bank of Nigeria (CBN) is responsible for formulating and implementing monetary policy in the country. The primary objective of the Nigerian monetary policy is to maintain price stability and ensure sustainable economic growth. According to Kirchner (2020) the CBN uses various monetary policy tools to effect changes in the economy which include:

Monetary Policy Rate (MPR): This is the benchmark interest rate set by the CBN. Changes in the MPR affect the cost of borrowing, which can influence consumer spending and investment.

Cash Reserve Ratio (CRR): Many banks are required to keep certain percentage of their deposits as reserves with the CBN. Adjusting the CRR can impact the money supply in the economy.

Open Market Operations (OMO): The CBN buys or sells government securities in the open market to control liquidity and interest rates.

Liquidity Ratio: This sets the minimum amount of liquid assets that banks must hold as a percentage of their total deposits.

Fiscal policy encompasses the use of public expenditure, taxes and reliefs to impact on economic activities. It can be decomposed into two, via, automatic stabilizers and discretionary fiscal policy. The former relates to expenditure of government and tax management for the purpose of regulating business cycles, the latter is a deliberate action by government to achieve some macroeconomic objectives (Johnston,2009). The Nigerian fiscal policy involves the government's use of taxes and spending to influence economic activities. The fiscal policy is typically implemented through the annual budget presented by the government to the National Assembly. Key components of Nigerian fiscal policy include:

Government Revenue: This includes tax collections, oil revenue, and other sources of income for the government.

Government Expenditure: The allocation of funds for various sectors such as education, healthcare, infrastructure, defense, etc.

Deficit and Debt Management: The government may run a budget deficit when expenditure exceeds revenue. Debt management involves borrowing and repaying loans.

Subsidy Programs: The government may provide subsidies on certain goods and services to support specific sectors or vulnerable groups, (Akerlof & Yellen, 1985)

Theoretical Literature
Generally monetary policy involves government control of the money supply and other instruments such as monetary policy rate, open market operation (OMO) etc to attain economic stabilization and growth. On the hand, fiscal policy encompasses the use of government expenditure and tax to promote economic activities, (Johnston 2009).

Keynesian View of Fiscal Policy
Before 1950s, the desire of balancing federal budget was greatly accepted among businessmen and policy makers. The supporters of Keynes were not comfortable with this view. They suggested that the government budget should be for the promotion of aggregate demand such that it is consistent with full employment output. According to them, government purchases contribute directly to aggregate demand. The demand for goods and services expands as the government spends more on education, transport system, national defense, hospitals, etc. A reduction in taxes (personal and business) increases the disposable income of households and after-tax profitability level of firms respectively and thereby encourages individual demand for goods and services and business investment spending. This theory discussed fiscal policy as a tool used for reducing fluctuations in demand and therefore improves economic output (Nwaru, 2006; Keynes, 1936; Betta, 2016)

The Modern View of Monetary Policy

From the late 1950s, economists greatly debated the impact of changes in the Money Supply in the economy of the Nation. Led by Milton Friedman, a group of economists, subsequently called monetarists, challenged the existing Keynesian view. In contrast with the Keynesians, the monetarists argued that changes in the stock of money exerted a powerful influence on both nominal and real Gross National Product (GNP), as well as on the level of price. (Nwoko et'al, 2016; Olakojo et'al 2021).

The Synthesist View

The effectiveness of monetary policy or fiscal policy depends however on the condition of the economy as regards the product market and the money market which is often regarded as IS and LM curves. The synthesists' view reconciled the extremes of the Keynesian and the monetarist view. According to this view monetary and fiscal policies are more effective in the intermediate range. Nevertheless, this intermediate range is achieved through the coordination of monetary–fiscal policy mix to bring about a sustainable economic growth. (Jhangan, 2003).

Empirical Literature

Several studies on the relative impart of the effectiveness of monetary-fiscal policy mix on the Nigerian economy exist, such are: Darat (1984), Adefeso and Mobolaji (2010), and Olaloya and Iklude (1995). They concluded that monetary and fiscal policy coordination cannot be said to have been effective in Nigeria, thus the management of both fiscal and monetary policy in Nigeria has neither been impressive nor prudent. Iyeboyi (2013) examined monetary and fiscal policy coordination in Nigeria using set theoretical approach and Autoregressive Distribution Lag (ARDL) respectively, both of them reached a similar conclusion that there is week coordination of monetary and fiscal policy. In the works of Landi and Goshit (2014), explained fiscal/monetary policy measures and their limitations in Nigeria based on arguments of theory. They recommended that collaboration between monetary and debt management authorities can improve macroeconomic stability. It strongly supported the independence of each of the policy authorities for effective coordination. Chuku (2012) looked at the level of relationship between monetary and fiscal policies in Nigeria. Quarterly data from 1970 to 2008 was used. The vector auto regression model and a state-space model were applied for the analysis. It was observed that there was a counteractive relationship among the two policies, depicting weak coordination. Tarawaile et al. (2013) in their study on fiscal and monetary policy coordination covering the Monetary Zone of West Africa employed the VAR model to investigate the rate of coordination that exist between fiscal and monetary policies. The results showed the existence of coordination for the West African Monetary Zone to tune of 38.6% 46. The impulse response test of the VAR regression showed weaker response to shocks, meaning that for variables to converge to equilibrium takes a long time.

The work of Omodero (2020), dealt with how capital market responds to monetary policy amendments by considering the important role the capital market plays in enhancing economic stability and the effect of changes in the monetary instruments on capital market

conditions. Adopting ordinary least squares method, the study found that changes in interest rate harmfully affected the capital market. But exchange rate had insignificant effect. The study also maintained that money supply positively and significantly had effect on the rate of changes of capital market activities in Nigeria. Miftahu (2019) conducted a review on the impact of monetary policy on the growth of the Nigeria economy. The study made use of secondary data ranging from 1980 to 2017. With the help of co-integration test and the ordinary least squares (OLS) method it conducted its analysis. In the findings it was found that money supply exerted much impact on GDP while interest rate and exchange rate have negative effect on GDP. Also, the study suggested that there is long-run relationship between monetary instruments and economic growth in Nigeria. In the work Ashamu (2020), which examined monetary policy and foreign trade relationship beginning from1981 to 2017. The use of Error Correction Model (ECM) was made for estimation. The co-integration test revealed a long-run relationship between the variables. Causality test suggested that there are different direction of causality between monetary policy and foreign trade in Nigeria. Sakanko & Akims (2021) investigated the impact of monetary policy on the trade balance of Nigeria from 1980 to 2018. It employed the Autoregressive Distributed Lag Model for the estimation of the data. From the study it was discovered that monetary policy instruments, real interest rate, and exchange rate showed a long-run co-integration relationship. And also have significant adverse effects on the trade balance of Nigeria in both short and long run analysis.

Some related work outside Nigeria are: Resende and Rebei (2008) who looked at the interaction between fiscal and monetary policy using DSGE model. The result shows that fiscal policy was active in Mexico and South Korea, but the result was different in USA and Canada. Javid and Arif (2014) studied how effective fiscal and monetary policy is on effecting inflation in Pakistan from 1960 to 2011. With the use vector error correction (VEC) model, it was revealed that it was not easy to regulate inflation through the operations of a particular regime in Pakistan. Afonso & Jalles (2017) examined time-varying properties of fiscal sustainability in 11 Euro-area countries from 1991: q1-2013: q4. The outcome was that, though fiscal regime dominance is not in practice, the impact of fiscal policy is noticeable in France, Belgium, Netherlands and Germany. It is also noticed that FTPL is not relatively effective in the Euro-area captured by this study.

Methodology
Multiple regression analysis was adopted in the study. It made use of time series data spanning from 1985 to 2021 sourced from the Central Bank of Nigeria (CBN, 2021) statistical bulletin. The results were carried out using E-views 10.

Model Specification
To investigate the impact of monetary-fiscal policy coordination on economic growth in Nigeria for economic sustainability, the model was thus specified as;

RGDP = f (TXREV, TEXP, MPR, MS) …. (1)

Where:

RGDP = Real gross domestic product

TXREV = Tax revenue

TEXP = Total government expenditure

MPR = Monetary policy rate

MS = Broad money supply

The model in its econometric linear form can be written as:

$$RGDP = b_0 + b_1 TXREV + b_2 TEXP + b_3 MPR + {}_b 4MS + U \ldots (2)$$

The model in its log-linear form is:

$$Log(RGDP)_t = b_o + b_1 log(TXREV)_t + b_2 Log(TEXP)_t + b_3 log(MPR)_t + b_4 log(MS)_t + U_t \ldots (3)$$

U_t = random or stochastic error term

b_o = constant intercept

$b_1 - b_3$ = coefficients of determination

The study made use of Augmented-Dickey Fuller (ADF) unit root test to ensure data stationarity to checkmate the problem of spurious regression since the data for the analysis is time series. Bound test was carried to determine the existence of long run equilibrium relationship among the variables

Estimation of Result

Table 1: Augmented Dickey-Fuller Unit root Test Result

Variable	ADF test statistic	1% critical value	5% critical value	10% critical value	Order of integration
LOG(RGDP)	-6.468383	-4.234972	-3.540328	-3.202445	1(0)
LOG(TXREV)	-8.902249	-3.632900	-2.948404	-2.612874	1(1)
LOG(TEXP)	-8.165687	-3.632900	-2.948404	-2.612874	1(1)
LOGMPR	-7.244430	-3.632900	-2.948404	-2.612874	1(1)
LOG(MS)	-4.103645	-3.632900	-2.948404	-2.612874	1(1)

Source: Author's computation using E-Views

The unit root test result presented on table 1 showed that LOG(RGDP) was stationary at level while LOG(TXREV), LOG(TEXP), MPR, and LOG(MS) were stationary at first difference.

Table 2: ARDL Bounds Test

| Sample: 1985-2021		
Included observations: 33		
Null Hypothesis: No long run -relationships exist		
Test Statistic	Value	K
F-statistic	9.753334	4
Critical value bounds		
Significance	1(0) bound	1(1) bound
10%	2.2	3.09
5%	2.56	3.49
2.5%	2.88	3.87
1%	3.29	4.37

Source: Author's computation using E-Views 10

The unit test result examined depicted that the data employed in the work is a combination of 1(0) and 1(1) meaning that there is a combination of stationarity and non- stationarity data as a result, Bound test was carried out to determine the existence of long run equilibrium relationship among the Variables.

The result of Table 2 proved that there is a presence of co-integration among the Variables in the model since the Null hypothesis of no long run relationship could not be accepted because the upper and lower Critical Value Bounds at all level of significance is less than the value of F-Statistic. This implies that LOG(RGDP), LOG(TXREV), LOG(TEXP), LOG(MPR) and LOG(MS) have a long run relationship. This justifies the need to estimate both short run and long run relationship among the variables in this study.

**Figure 3:** Model Stability Test
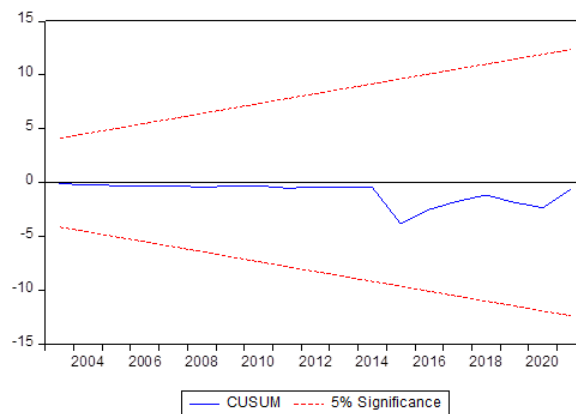
Source: Author's computation using E-Views 10

In order to trace the existence of a possible structural instability, the study applied the Cusum test on figure 3 and found that the cumulative sum remained within the area between the two critical lines showing that, the test did not detect any systematic eventual movement and that the coefficient values reflect structural stability

Trend Analysis
From the trend analysis in figure 4 below, it is observed that all the variable has been on the increase since 1985. Only in 2012 and 2015 that TXREV and RGDP recorded decreases. Between 1985 and 2000 TEXP and MS were increasing nearly at the same rate, depicting lack of coordination. Looking at the smooth growth of RGDP between 1985 and 2012, one may reach the conclusion that there is sustainable growth rate; but this may be deceiving except the inflation rate is considered, that is, understanding the constant base from which the RGDP was calculated.

Figure 4
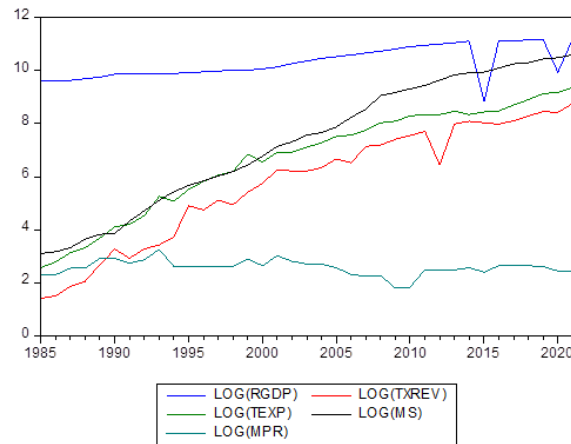
Source: Author's computation using E-view 10

Table 3: Estimated Short Run coefficient of ARDL (4, 3, 0, 2, 0) Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(TXREV)	-0.019927	0.110267	-0.180720	0.8585
DLOG(TXREV(-1))	-0.354423	0.107686	-3.291252	0.0038
DLOG(TXREV(-2))	-0.692224	0.104751	-6.608256	0.0000
DLOG(MPR)	-0.353378	0.208241	-1.696971	0.1060
DLOG(MPR(-1))	0.433081	0.218984	1.977685	0.0627
ECM(-1)*	-2.550417	0.296640	-8.597674	0.0000
R-squared	0.874664	Mean dependent var		0.045749
Adjusted R-squared	0.832886	S.D. dependent var		0.651579
S.E. of regression	0.266363	Akaike info criterion		0.419088
Sum squared resid	1.702783	Schwarz criterion		0.827226
Log likelihood	2.085052	Hannan-Quinn criter.		0.556414
Durbin-Watson stat	1.961193			

Source: Author's computation using E-Views 10

The estimated short-run coefficient results as depicted in table 3 showed that TXREV in the current period has a negative and insignificant relationship with RGDP while TXREV in one period lag and two periods lag has a negative and significant relationship with RGDP. MPR in the current period has a negative and insignificant relationship with RGDP but MPR in one period lag has insignificant relationship with RGDP and not in line with theory. The E-view package automatically removed MS from the model depicting that it is not among the variables affecting RGDP in the model in the short run. The error correction model (ECM) which explained the speed of adjustments back to equilibrium in the estimated model is correctly sign and is significant. The speed of adjustment for correcting disequilibrium from the previous year to equilibrium in current year is 255 percent as shown by the coefficient of ECM. In another words, this implies that an approximately 255 percent of disequilibrium from the previous year's shock converge to the long-run equilibrium in the current year.

Table 4: Estimated Long Run Coefficient of ARDL (4, 3, 0, 2, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(TXREV)	-0.001033	0.139920	-0.007384	0.9942
LOG(TEXP)	-0.132524	0.133661	-0.991494	0.3339
LOG(MPR)	-0.391970	0.113324	-3.458831	0.0026
LOG(MS)	0.242895	0.081993	2.962393	0.0080
C	10.50665	0.521097	20.16256	0.0000

EC = LOG(RGDP) - (-0.0010*LOG(TXREV) -0.1325*LOG(TEXP) - 0.3920
     *LOG(MPR) + 0.2429*LOG(MS) + 10.5067)

Source: Author's computation using E-Views 10.

The estimated long run coefficient result in table 4 showed that tax revenue (TXREV) has a negative and insignificant impact on economic growth (RGDP). The result also showed that total government expenditure (TEXP) has a negative and insignificant impact on economic growth (RGDP) while monetary policy rate (MPR) has a negative and significant relationship with economic growth. It also revealed that money supply (MS) has a positive and significant relationship with economic growth. The result showed that a percent increase in tax revenue will on the average bring about 0.001 percent decrease in economic growth. The result also showed that a percent increase in monetary policy rate will on the average lead to 0.392 percent fall in economic growth while a percent increase in money supply will on the average lead to 0.243 percent increase in economic growth.

Summary of Findings
From the short run result, Tax Revenue (TXREV) was significant (in one period lag) and negatively related to the Real Gross Domestic Product (RGDP). It revealed that an increase in TXREV will reduce output by 0.35 units. This implies that an increase or reduction in tax may not affect the economy in the current period but after a period of one year. In the absence of monetary – fiscal policy coordination, the monetary authorities may engage in a policy that will reduce the effect of the fiscal policy before it starts to work. In the long run TXREV and Total Government Expenditure (TEXP) have insignificant impact on RGDP. The implication of this is that TXREV and TEXP (fiscal policy) have not been effectively managed. This could be verified from the negative sign of TXEP, which truly identifies the structure of the Nigerian economy, where, as government total expenditure increases, unemployment increases, productivity reduces because most of the funds were not channeled to the productive sector of the economy. Monetary Policy Rate (MPR) and Money Supply (MS) were rightly signed and have significant impacts on RGDP. It was observed that a unit reduction in MPR will only increase RGDP by 0.39 units, while a unit increase in MS will on average increase RGDP by 0.24 units. From the Bound test, it was observed that the joint effect of the independent variables on the dependent variable was significant but weak considering the f-statistic of 9. 75334.This may be attributed to low coordination of the policies as proper or effective

coordination could improve the joint effect of the variables which may lead to sustainable economic growth.

Conclusion and Recommendation

This study dealt on how monetary-fiscal coordination exerts pressure on economic growth sustainability in Nigeria. It was confirmed that a long run relationship exists between real gross domestic product and the variables represented by monetary policy (money supply and monetary policy rate) and fiscal policy (total government expenditure and tax revenue). The results suggested that there is no effective coordination between monetary and fiscal policy tools and hence the cumulative impact of monetary and fiscal policy was week. There is need for intensified monetary-fiscal coordination in Nigeria because an individual policy instrument can affect more than one policy target. For example, if the debt management office embarked on expansionary fiscal policy to stimulate the economy, interest rate may rise (which may bring about crowding-out of private investment) if the monetary authorities embark on restrictive measures like increase in monetary policy rate. Regarding the growth of fiscal operations and the great role of government in the Nigerian economy, this study also recommended intensified coordination between monetary policy and fiscal policy as tools for economic stabilization. However, increased autonomy of the central bank and the debt management office may help realize the desired objectives.

References

Adefeso, H. A. & Mobolaji, H. I. (2010). The fiscal-monetary policy and economic growth in Nigeria: Further empirical evidence, *Pakistan Journal of Social Sciences, 7(2)* 137-142.

Afonso, A., Alves, J. & Balhote, R. (2019). Interactions between monetary and fiscal policies, *Journal of Applied Economics; 22(1*), 132–151 DOI: 10.1080/ 15140326.2019.1583309.

Akerlof, G. A. & Yellen, J. L. (1985). A near rational model of the business cycle, with wage and price inertia, *Quarterly Journal of Economics*, 100 (supplement), 823-838.

Ashamu, S. O. (2020). The effect of monetary policy on foreign trade in Nigeria, *Australian Finance & Banking Review*, *4*(1), 1–8. https://doi.org/10.46281/afbr.v4i1.496

Betta, M. (2016). Ethicmentality—ethics in Capitalist economy, business, and society, *Springer Dordrecht*. https://link.springer.com/book/10.1007/978-94-017-7590-8

CBN (2011a). *Understanding monetary policy framework, Monetary policy series No 3,* Central Bank of Nigeria (CBN)

CBN (2021). *Annual economic report and statement of account for the year 31ˢᵗ December 2021.* CBN Garika, Abuja

CBN (2021). *Statistical bulletin*, Abuja; CBN Publications. www.CBN.gov.ng

Chamberlin, G. & Yueh, L. (2006). *Macroeconomics.*, Higg Holborn House. Thomson Learning http://www.thomsonlearning.co.uk

Chuku (2012). Evaluating monetary policy options for managing resource revenue shocks when fiscal policy is laissez-faire: Application to Nigeria, *International Journal Economics.* https://econpapers.repec.org/scripts/redir.pf?u

Daniel. L. (2021). Monetary theory: Overview and examples of the economic theory, *Economy > Economic. Investipedia; Ritrived 17/7/23.*

Darrat, A. F. (1984). The dominant influence of fiscal action in developing countries, *Eastern Economic Journal 10*(3) 271-284.

Goshit, G. G. & Landi, J. H. (2014). Monetary and fiscal policy interactions and limitations: The need for policy coordination for macroeconomic outcomes in Nigeria, *African Journals Online, 11(3).* https://doi.org/n.1108/AJES-12-2021

Iyoboyi, M. (2014). Effective coordination of fiscal and monetary policies for growth in Nigeria: An empirical analysis. Contemporary Issues in Nigeria's National development, *Faculty of Social Sciences, Usman Danfodiyo University Sokoto, Nigeria.* 301-319.

Javid, Y. A. & Arif, U. (2014). Fiscal and monetary regime identification for price stability in case of Pakistan economy, *Journal of Economic Cooperation and Development, 35(3),* 43–70.

Jhingan, M. L. (2003). *Macroeconomic theory (11ᵗʰ revised edition)*, Delhi, *Vrida Publication.*

Keynes, J. M. (1936). The general theory of employment, interest and money, *Macmillan* for the Royal Economic Society

Kirchner, S. (2020). The effect of change in monetary policy on consumer and business confidence, *The Australian Economic Rewiew, 53(1),* 118-125

Kisefakora, D., Filip, P., Onufeoova, E. & Valentiny, T. (2020). The impact of monetary policy on the sustainable Economic and financial development in the Euro Area countries, *Sustainability, 2(22).* https://doi.org/103390/su12229367

Laurens, B, & Piedra, E, G. (1998). *Coordination of monetary and fiscal policies.* A working Paper of the International Monetary Fund (IMF). *WP (98/25,* 1-32.

Lin-Hi, N., & Blumberg, I. (2012). The link between self- and societal interests in theory and practice, *European Management Review 9*(1), 19–30. https://doi.org/10.1111/j.1740-4762.2012.01025.x

Mehar, M. A. (2022). Role of monetary policy in economic growth and development. From theory to empirical evidence, *Assian Journal of Economics and Bank, 7(1),* 99-120.

Miftahu, I. (2019). Monetary policy and economic growth in developing countries: Evaluating the policy nexus in Nigeria, *International Journal of Business and Economics Research, 8(5),* 303-313. https://doi.org/10.11648/j.ijber.20190805.17

Nwaru, N. M. (2006). *Macroeconomics (second edition)*, Owerri: Kricel Publishers.

Oboh, V. U. (2009). Monetary and fiscal policy coordination in Nigeria, *Academic Journal of Economic Studies, 3*(1), 48-58

Ogar, A., Nkamare, S. E. & Emori, E. G. (2014). Fiscal and monetary policy and its effect on the growth of Nigeria economy*, Department of Banking and Finance, Faculty of Management Science, University of Calabar,* Cross River State Nigeria.

Ojo, M. O. (2000) The role of the autonomy of the Central Bank of Nigeria in promoting macroeconomic stability, *Economic and Financial Review, 38(1),* Central Bank of Nigeria

Olakojo, S. A., Onanuga, A. T., & Onanuga, O. T. (2021). Cyclical fluctuations of economic growth and monetary policy in Nigeria: Does fiscal policy also matter? *Journal of Contemporary African Studies, 39(1),* 34–55. https://doi.org/10.1080/02589001.2020.1822992

Olaloye, A. O. & Ikhide, S. I. (1995). Economic sustainability and the role of fiscal and monetary policies in a depressed economy: The case study of Nigeria, *Sustainable Development 3,* 89-100.

Omodero, C. O. (2020). Capital market response to monetary policy shocks: Evidence from Nigeria, *Academy of Accounting and Financial Studies Journal, 24(3),* 1-11.

Resende, C. D. & Rebei, R. (2008). Estimating the degree of fiscal dominance in a DSGE model with sticky prices and Non-zero trend inflation. *Bank of Canada, Wellington St. Ottawa, ON, K1A 0G9.*

Sakanko, M. A., & Akims, K. A. (2021). Monetary policy and Nigeria's trade balance, 1980-2018, Signifikan*: Jurnal Ilmu Ekonomi, 10(1),* 129–138. https://doi.org/10.15408/sjie.v10i1.18132

Tarawalie, A. B., Sissoho, M., Conte, M & Ahotor, C. R. (2013). *Fiscal and monetary policy: The Convergence Criteri*a. WAMI Occasional Paper Series 1 (4).