

Relative Impact of Monetary and Fiscal Policy on Output Growth in a Small-open Economy

Miftahu Idris

Department of Economics, Taraba State University, Jalingo; Nigeria.

**Corresponding Author: Miftahu Idris*

ABSTRACT: Both monetary and fiscal policies are employed across the globe particularly in small-open economies like Nigeria to guide the economy towards the path of sustainable growth, ensure stable price and further creates a conducive atmosphere for domestic and foreign investment. In lieu of that, this study examines the monetary and fiscal policy of the Nigerian economy over the period of 1980 to 2017 using annual time series data as well as evaluates the growing trend in critical indicators with the view to determining the existence of possible relationship. Using the OLS technique and the cointegration test, results indicate that both monetary and fiscal policy have positive and significant impact on economic growth. In addition, further result shows that monetary policy is more effective in Nigeria than fiscal policy for the period under consideration. As such, there is need to impose fiscal discipline in the public finance since monetary policy cannot attain the desired goal given the existence of fiscal imbalances. The public sector should safeguard the maintenance of a steady macroeconomic environment which ensure that monetary aggregates are operating within the growth limits.

KEYWORDS: Monetary policy, fiscal policy, economic growth, Nigerian economy.

I. INTRODUCTION

Across the international boundaries, both monetary and fiscal policies are adopted to ensure the attainment of sustainable economic growth while addressing other macroeconomic challenges. These macro policies are vibrant and dynamic towards achieving a common objectives for maintaining price stability, balance of payment equilibrium, high and rapid economic growth, increases employment generation and raises economic welfare. The effectiveness of these policies in realising its desired goals depend largely on the working economic environment and the institutional framework implemented by the government. It appears difficult for countries to achieve these goals all together, hence policy makers need to identify the nation's priority target in the pursuit of economic policy. Conceptually, monetary policy encompasses the utilisation of various approaches with the aim of regulating the value, supply and cost of money in consistent with the projected level of economic activities. However, fiscal policy involves a deliberate efforts by the public sector towards expenditure and taxes with the greater aim of influencing the level and growth of aggregate demand, employment and output.

In recent years, the Nigerian government has progressively improved its monetary and fiscal policy operations that are utilised to control the aggregate economy. The monetary and fiscal policy affects not only the growth of aggregate economy, but also established a significant impact on the micro environment. Both the micro and the macro environment have been unstable in Nigeria most particularly in the recent years with the economy being expose to shocks (both internal and external) from the domestic market prices and international exchange policy. More so, despite the response and involvement of monetary management through the manipulation of money supply combined with budget deficit, the economy is yet to produce any meaningful sustainable growth. In addition to other complications, Nigeria like other small-open economies; is fronted with various developmental challenges including insecurity and poor infrastructural facilities.

Despite numerous economic and social investment programmes undertaken by the government in previous decades including the poverty alleviation programme, SURE-P and the NPOWER programmes, the level of income per capita is still insignificant compare to other developing countries across the globe, most particularly within the Sub-Saharan region. It is maintained that a proper conduct of monetary and fiscal policy

in addition to good governance would establish a moderating impact especially on those elements that hinder economic growth. Furthermore, in spite the rich human and natural resources, Nigeria is yet to attain its true position within the African continent. The use of sub-optimal or poor economic measures by the policy makers has translated to be a major factor of underdevelopment. This explained the necessity and desire of conducting an empirical analysis most particularly on macroeconomic policies toward measuring its efficiency and relevance to the Nigerian economic growth. Similarly, previous literature on the monetary-fiscal policy interactions in Nigeria do not provides depth review of the empirical literature and are mostly theoretical in nature (Abata, Kehinde & Bolarinwa, 2012) whose conclusions are subjectively guided and encourage by the prominent debate in the existing literature. In lieu of the knowledge gap, this study is considered timely and relevant to the Nigerian economy.

Moreover, the study is further motivated by factors derived from the previous literature related to Nigeria that established conflicting and diverse findings on which policy is more appropriate by the policy makers and the degree of impact for each variable on the economic growth. In addition, the recent global financial crisis has provided further weight to the argument on the effectiveness of monetary and fiscal policy. While a policy harmonisation that is seen more realistic to attain the desired balance of macroeconomic growth and stability remains vague and unidentifiable, it is expected that the drawn policy implications would encourage a sound management of the policy indicators. As such, the burning questions now are that: to what extent do the monetary and fiscal indicators enhance economic growth in Nigeria? Which policy is more potent towards sustainable output growth? These and other related issues are addressed by this study. Consequently, an integrative approach is employed to examine the effects of monetary and fiscal policy on economic growth. This is adopted with the view to providing a better understanding through which both monetary and fiscal policies encourage rapid and sustainable growth. The aim is to examine the relative effectiveness of monetary and fiscal policy in Nigeria using a recent data-set.

The rest of the study is divided into sections such that each section or sub-section provides a detailed information related to the phenomenon under consideration: section 2 deals with the interactions between monetary and fiscal policy taking into cognisance the opposing views between the classical school and the Keynesian school of thought; section 3 present the empirical review of literature as related to the study with much emphasis from developed and developing economies; section 4 encompasses the data sources, techniques of analysis and other estimation procedures; section 5 present the empirical findings based on the monetary and fiscal models (model 1 & 2), respectively; section 6 highlight the summary of finding and provides the detailed conclusion.

II. INTERACTIONS BETWEEN MONETARY AND FISCAL POLICY

The aftermath of the 1930's Great depression and the subsequent challenges of other global crises including the post-world war II have led to deterioration of fiscal balance, increased public liabilities and expanded balance sheet of the apex banks. This scenario has impulse the fiscal budgets and the apex banks to provide a considerable support to the aggregate demand. Implying that, no automatic mechanism as supposed by the classical economist will automatically restore stability and brings full employment into the economy. Consequently, Keynes postulates that government intervention through adopting appropriate and suitable measures of macroeconomic policy will remedy the depression and further restore stability. Hence the need to provide adequate strategies and approaches which the government needs to adopt in order to restore parity among monetary and fiscal balances. While monetary policy is challenged for its ineffectiveness to catapult the economy out of a recessionary period, Keynes argued for fiscal policy to be an effective and appropriate measure for restoring stability in the aggregate economy. Both policies are conferred with specific roles in the pursuit of macroeconomic stabilisation, but the relative significance of each policy has been an issue of thoughtful deliberations between different schools of thought. Even though controversies surface between the Keynesian and the Classical economist, contemporary policy makers established that both monetary and fiscal policies play a significant role in macroeconomic stabilisation across both developed and developing economies. In other words, absence of proper policy coordination in the country's macroeconomic management would cause instabilities even when the policies appear meaningful to the economy. This suggests for policy harmonisation and proper coordination towards attaining greater macroeconomic performance.

Notwithstanding, the monetary and fiscal policy operations are perform by different instructions. While the monetary policy is independently conducted by the central banks, fiscal policy is carried out by the executive and the legislature which is largely influenced by the political scenario. These policies are considered as essential and strategic elements that can influence changes in the aggregate national income of any country. Hence, proper coordination between these two macroeconomic policies is necessary in order to achieve the desired economic objectives. When the economy is depressed and unemployment surfaces, policy analyst could be motivated to moderate both monetary and fiscal policies toward encouraging the aggregate demand. When aggregate demand has increased beyond the growth potentials of the economy, the economy will engross the

slacks while employment return to a sustained growth path. On the other hand, when the economy is overheating, proper coordination between monetary authorities and fiscal management (through central bank and federal ministry of finance) is essential to provide proactive measures that could counter the increasing pressure by contracting the economy to lower the growth of aggregate demand below the production potentials of the economy with view to neutralising the inflationary pressure and restore stability towards the sustainable growth path.

Similarly, the interaction between monetary and fiscal policy is connected to fact that both policies have an impact on critical macroeconomic indicators. This however creates a mutual relations in the pursuit of policy objectives. Given that monetary policy has an impact on short term interest rate, inflation expectations and the risk premia are included in long term yield, the fiscal policy stimulates price development, encourages aggregate demand and total output. However, monetary policy has an impact on fiscal policy through financing the cost of government debt and the potential market effects of the financing decisions. On the other hand, fiscal policy can influence the surroundings and settings of monetary policy in the short-term period using three (3) major channels: 1) by influencing the rate of economic growth and price level through discretionary approach, 2) the operation of automatic stabilisers would assist to decrease short-term fluctuations, 3) changes in tax rates by the government could establish a speedy impact on price development. In the long run, both fiscal sustainability and supply-side oriented reform measures have the potential to catapult the non-inflationary growth rate of the economy and thus improves the macroeconomic environment for monetary policy. Since discretionary fiscal changes are sometimes challenging to timely imposed, automatic stabilisers and discretionary monetary policy are regarded as the main tools for macroeconomic stabilisation. In conventional ground, fiscal policy contributes to ensure the sustenance of appropriate environment where macroeconomic stability can prevail, while monetary policy to ensure the continual monitoring and supervising the position of fiscal policy with the view to ensuring efficiency.

While analysis of monetary and fiscal policy may be unambiguous and direct, policy makers particularly in developing countries encounter some remarkable challenges during decision-making process. This is because, the real economic situation and the increased in aggregate demand at any available point is only known partially, since information on variables come lags such that policy analyst are restricted to depend only on approximate values of these variables when evaluating the proper policy choice and priority; hence acting on an incomplete facts. In either developed or developing country, policy changes affect all the economic unit. Any decision making has an impact across the economic activities and therefore diffuse into household and business organisation's income and further translated into the aggregate national income. In order to achieve the targeted optimal mix of macroeconomic goals for price stability and sustained growth level, policy makers need to ensure interdependency between the policies. The interaction between the policies inform that both policy measures have an impact on essential macroeconomic indicators which also creates the need for mutual complementarity in pursuing the desired objectives.

Given the inefficiency of policy makers within the domain of monetary and fiscal policy to adjust economic development, active harmonisation of these policies is predestined to be unproductive. In addition, commitments to ex ante coordination between the policies could distort the duties and tasks of monetary and fiscal management and finally decrease the inducements to attain the targeted goals. Similarly, the central banks have to consider the fiscal policy measures in pursuing its stated objectives especially the degree of the cyclically-adjusted budget balance and the sources of deficit financing. With robust automatic stabilisers in place, increase in aggregate demand could established a reduced impact on output and price level, and therefore reduce the need for central banks to respond aggressively. More so, automatic stabilisers would play a significant task in supplementing countercyclical monetary policy. In many countries particularly the developing nations, medium term expenditure framework has played a vital role in accelerating long run expectations such that automatic stabilisers are accorded much priority to allow for effective role of countercyclical approach. These automatic stabilisers could play a significant task as a counterpart to countercyclical monetary policy. Likewise, judicious discretionary fiscal policy that are carried out proportionally over business cyclical fluctuations could provide more support for monetary policy.

III. REVIEW OF THE RELATED LITERATURE

A worthy section of the economic literature debated and argued on the relationship between fiscal and monetary policy and how it affects economic growth. Certain number of studies emphasise on the positive effect government in enhancing aggregate output growth, while others counter the argument and institutes that government intervention is growth retarding, considering monetary policy to be highly essential for accelerating economic growth. Nevertheless, contemporary scholars within the growing discipline of economics, presently support the assertion that a policy combination or coordinated monetary and fiscal policy is more effective for attaining rapid and sustainable economic growth. In lieu of that, this study presents several contributions across both developed and developing countries with the view to providing more knowledge about the subject

matter. Studies that show evidenced in support of fiscal policy effectiveness includes the followings: Adegioriola (2018) examines the effectiveness of monetary and fiscal policy instruments in stabilising the Nigerian economy covering the period of 1981 to 2015 using data annual collected from documentary archives. By employing the Johansen cointegration and the error correction model, findings indicate the existence of positive relationship between money supply, government expenditure and revenue while interest rate and budget deficit have negative relationship with economic growth within the study period. As such, fiscal policy is more effective than the monetary policy. In another empirical support, Bianchi and Ilut (2017) measure a model of monetary/fiscal policy mix changes for the US economy. Monetary policy accommodated fiscal policy through the 1960s to 1970s hence leading to high inflation. Using the new Keynesian model, monetary policy changed with Volcker, but inflation dropped only when fiscal policy and agents' beliefs about fiscal backing switched; successful disinflations require fiscal backing. If the monetary authority has confident about this switch, the adverse inflation would not have occurred.

In addition, Bokreta and Benanaya (2016) examine the relative impacts of fiscal and monetary policy on the economic growth of Algeria using the econometric modelling techniques of cointegration test and vector error correction mechanism to analyse the collected data from 1970 to 2014. From the estimation, government expenditure is positive while tax is negative; inflation exerts minimal impact while exchange rate is significant on economic growth, respectively. As such, fiscal policy established more powerful impact than the monetary policy towards accelerating the pace of sustainable economic growth. Likewise, Greiner (2013) present a monetary endogenous growth model and analyse the effects of fiscal and monetary policy with real money as an argument in the utility function. In addition, the author maintained that a balanced government budget gives a higher balanced growth rate and lower inflation than a situation with permanent public deficits. It also leads to higher welfare compared to a situation with permanent deficits where the government does not put a high weight on stabilizing debt.

According to Gusti (2014), both fiscal and monetary policies are essential in financing policy and has an imperative role in the development realisation. Using the annual data covering the period of 1988 to 2013, the author examines the effects of government policy (fiscal and monetary) on the economic growth of Indonesia by adopting the double linear regression estimates. Findings indicate that fiscal and monetary measures have significant effect on the economic growth of Indonesia. Although fiscal policy possess higher impact than the monetary policy within the same period. More so, Khosravi and Karimi (2010) examine the impact of monetary and fiscal policy on the economic growth of Iran by applying an ARDL approach which is more appropriate for estimating a small sample observations on a time series data covering the period of 1960 to 2006. Findings show the existence of long-run relationship among the variables. In other words, exchange rate and inflation has negative impact on economic growth while government expenditure revealed a positive and significant impact on the economic growth. As such, fiscal indicators appear more effective than monetary instruments within the sample period.

Furthermore, Quartey and Afful-Mensah (2014) evaluate the phenomenon of monetary and financial policies in Ghana. The authors conclude that even though there are significant advancement in the fundamental monetary tools which implies a relatively effective monetary policies, the fiscal imbalances surrounding the country's growth has hinder the monetary outcomes. Hence, the need for aggressive fiscal discipline since the monetary policy cannot attained to its potential given the fiscal imbalances. To buttress more evidence, Abata, Kehinde and Bolarinwa (2012) evaluate the impact of fiscal and monetary policy and how it influences the development process in Nigeria. Using a descriptive approach to present both national and international arguments on this phenomenon, the authors concluded that restricting a fiscal indiscipline in the public sector will go a long way in ensuring proper budgetary management than including a fiscal policy rules in the nation's public finance. Further evidence shows the existence of a long-run equilibrium relationship between economic growth and fiscal policy. Also, Carvalho, Diniz, Pedrosa and Rossi (2016) examine the impact of an increase in the Brazilian policy interest rate on the fiscal cost taking into considerations the direct and the indirect effects on the yield of public bonds. Using the VAR model to estimate the coefficients of interest rate, exchange rate and the inflation. With the inclusion of adjustments in the international reserve, the results indicate an effective fiscal cost than a more restrictive monetary policy. Further evidence shows a policy mix between monetary and fiscal policies in Brazil to be of high significance.

To provide further empirical evidence, Ehikioya, Uduh and Edeme (2018) examine the impact of fiscal and monetary policies on the growth of SMEs in Nigeria using time series data covering the sample period of 1986 to 2015 by utilising on the OLS estimation method. Results from the estimated coefficients indicate that fiscal policy is more effective and efficient than the monetary policy in encouraging the output growth performance of SMEs in Nigeria for the period under review. Likewise, Musa, Asare and Gulumbe (2013) examine the effectiveness of monetary and fiscal policies interaction on price and output growth in Nigeria using the cointegration test and the VAR model based on the dynamic response of IRF and VD. By utilising a time series data covering 1970 to 2010, result indicates that both monetary and fiscal policy has a significant

impact on economic growth, but the fiscal policy appears more relevant for sustainable growth. In a corresponding submission, Praise and Jacob (2018) investigate the impact of fiscal and monetary policy on the economic growth of 47 Sub-Saharan African countries covering the period of 1996 to 2016. A dynamic panel GMM technique and the Dumitrescu-Hurlin causality analysis are employed for the estimation. Findings indicate the existence of positive relationship between fiscal, monetary policy and economic growth across the examined countries under consideration. Further evidence shows that fiscal policy has larger and greater impact towards accelerating rapid economic growth than the monetary policy in Sub-Saharan African.

On the contrary, Saqib and Aggarwal (2017) examine comparative effect of fiscal and monetary policy on the economic growth of Pakistan using annual time series data spanning 1984 to 2014. Using the cointegration technique, findings indicate the existence of positive and significant impact of fiscal and monetary policy indicators on economic growth. Although the coefficient of monetary policy has greater impact than fiscal policy. Meaning that, monetary policy has more concerned with economic growth than fiscal policy in Pakistan. In addition to that, Jawaid, Qadri and Ali (2011) empirically examine the effect of monetary, fiscal and trade policy on the economic growth of Pakistan using annual time series data covering 1981 to 2009. From the cointegration and error correction estimates, findings indicate the presence of significant and positive long-run and short-run relationship between monetary and fiscal policy with economic growth, while trade policy remains insignificant. Further result also indicates that monetary policy is more effective than fiscal policy in Pakistan. Similarly, Adefeso and Mobolaji (2010) examine the relative effectiveness of fiscal and monetary policy on economic growth in Nigeria using the annual time series data covering the period of 1970 to 2007. The authors adopt the cointegration and the error correction mechanism to analyse the collected data. Findings show the effects of monetary policy to be more effective than that of fiscal policy during the period under consideration.

In a related development, da Silva and Vieira (2017) evaluate the conduct of monetary and fiscal policies for a panel data of 113 advanced and emerging/developing economies for the period prior to the beginning of the crisis (2001–2008) and for the period after the financial crisis (2009–2012). Estimated findings using the GMM dynamic panel data models show that monetary policy seems to be countercyclical only for advanced economies in the period prior to the international financial crisis, while the fiscal policy behaves in a procyclical way only in the pre-crisis period. More so, interest rate smoothing seems to be an important tool in the conduct of monetary policy around the world. Likewise, Traum and Yang (2011) examine a new Keynesian approach which allows for 1) active monetary and passive fiscal policy regime, and 2) passive monetary and active fiscal policy regime. Sample data covering the period of 1955 to 2007 are utilised using the US economy and further estimated using an econometrics tool. Findings show evidence in favour of active monetary and passive fiscal policy regime. The authors do not find any evidence supporting a passive monetary regime, because the variations or changes in inflation within the passive monetary policy are much higher than overserved in the survey data.

Similarly, Senbet (2011) examines the relative impact of monetary and fiscal policies on the real economic activity of US by utilising a quarterly response covering the sample period of 1950:q1 to 2010:q2. The study employs a Granger causality test and the VAR model to estimate the model coefficients and interpret the results. Findings indicate that monetary policy is relatively superior than the fiscal policy in affecting the real output growth for the period under consideration. Correspondingly, Leith, Moldovan and Rossi (2015) examine the optimal monetary and fiscal policy using the new Keynesian approach in relation to externality of deep habits and investigate the ability of simple policy rules to fully imitate the optimal policy. Given the presence of deep habits at estimated level, results established that large externalities can significantly affect the conduct of both monetary and fiscal policies. In addition, government expenditure is scarcely utilised as a stabilisation tool under an optimal policy. Besides, Rahman (2009) measures the relative effects of monetary and fiscal policies in enhancing the real output growth in Bangladesh. Using the VAR model, St. Louis equations are employed to estimate the Variance Decomposition (VD) and its corresponding Impulse Response Functions (IRF). Findings show that monetary policy has a positive and significant effect on the real output growth, while fiscal policy remains insignificant. This implies that monetary policy is more effective towards accelerating economic growth in Bangladesh.

Furthermore, Havi and Enu (2014) examine the relative impacts of monetary and fiscal policy on economic growth in Ghana and further evaluates the superiority of these policies in enhancing output growth. Using the OLS estimation technique on time series data spanning 1980 to 2012, finding indicates the existence of positive relationship between monetary and fiscal policies with economic growth. Further results show that monetary policy is more effective and superior than fiscal policy in accelerating the level of economic growth. In a corresponding submission, Jawaid, Arif and Naeemullah (2010) examine the comparative effects of fiscal and monetary policy in Pakistan for the period covering 1981 to 2009 using time series data. By employing the cointegration approach, results indicate both monetary and fiscal policy with positive and significant impact on

the Pakistani economic growth. Further result shows the coefficient of monetary policy with high determination, implying the superiority or effectiveness of monetary policy than the fiscal policy on economic growth.

However, other literature that support a suitable coordination and policy harmonisation between monetary and fiscal policy includes the followings: Noman and Khudri (2015) examine the impact of monetary and fiscal policies on economic growth in Bangladesh using annual data spanning 1979 to 2013. Using the line diagram, correlation matrix, multiple linear regression models and trend analysis, both fiscal and monetary policy variables have positive and significant impact on economic growth except inflation and interest rate. As evidenced by Sharma and Sharma (2014), monetary and fiscal policies possess powerful influence on the pace and pattern of economic growth of a nation. The authors examine the pertinent issues surrounding monetary and fiscal policies towards accelerating rapid economic growth. The study is contextual in nature hence, established that both fiscal and monetary policy are essential instrument of economic stabilisation but a balance approach between the policy measures need to be adopted.

In the same way, Cui (2016) develops a macro-model with endogenous asset liquidity to understand monetary-fiscal interactions with liquidity frictions. Using a growth model with liquidity frictions and nominal price stickiness, results indicate that appropriate mix of both monetary and fiscal policies can avoid a deep financial recession. As established by Afonso, Araujo and Fajardo (2016), the formulation as well as the implementation of both monetary and fiscal policies does not emanate from appropriate strategic plan rather are enforced by means of circumstances. The authors further highlight the origin and evolution of both fiscal and monetary policies in the economy of Brazil following the creation of the Real in the mid-1990s with particular emphasis on the institutional reforms and economic changes.

According to Jarocinski and Mackowiak (2018), when monetary and fiscal policies are conducted in the euro area, output, inflation, and government bond default premia are indeterminate. Using the recent euro area data to examine the impact of monetary and fiscal interactions within the region, the authors provide an alternate arrangement of monetary and fiscal policy with a non-defaultable eurobond. The study established that monetary-fiscal policy interactions have significant impact on macroeconomic stability, and the consequences could be improved significantly if monetary and fiscal policy had interacted differently. Also, Cabral and Diaz (2015) examine the relevance of participation for small open economies in the European Monetary Union. Without proper fiscal policy deliberations, small open economies' participation in a large monetary unions is counterproductive. With appropriate incorporation of fiscal policy roles, participation in large monetary unions become necessary. Further evidence shows that collaboration between monetary and fiscal authorities with an efforts to exploit externalities would lead to attainment of Pareto efficient if fiscal policy within the monetary union is coordinated by the central authority through the central bank.

Correspondingly, Lawal, Somoye, Babajide, and Nwanji (2018) investigate the effect of policy interactions between monetary and fiscal policies on the stock market behaviour and further measures the volatility of these interactions on the Nigerian stock market. By utilising monthly data and analysed using the ARDL model and EGARCH model, findings indicate that interactions between monetary and fiscal policies has significant impact on the Nigeria's stock market returns. Further results indicate the presence of long-run relationship between the All Share Index (ASI) and the monetary-fiscal policy interactions. Besides, Hutchison, Noy and Wang (2007) examine the impacts of monetary and fiscal policies on output growth during the period of financial crises characterised by a sudden stop in net capital inflows in developing and emerging market economies. By investigating 83 sudden stop crises among 77 countries within the period of 1982 to 2003, the authors employed the baseline empirical model to control for the determinants of output losses during the period of sudden stop crisis. Result shows that both monetary and fiscal tightening at the time of a sudden stop crisis significantly worsens output losses.

In a related development, Alavi, Moshiri and Sattarifar (2016) examine the application of IS-MP-AS framework to the Iranian economy and further evaluates the monetary and fiscal policies using this approach. By utilising an annual series covering the sample period of 1971 to 2006 according to the IS-MP-AS model, findings indicate that both monetary and fiscal policies are effective and significant in the Iranian economy and equally enhances the nation's aggregate income. On the impact of fiscal-monetary policy on unemployment, Attamah, Anthony and Ukpere (2015) examine the impact of fiscal and monetary policies on the unemployment problems in Nigeria spanning the sample period of 1980 to 2013. Using the OLS technique, Engle Granger approach and the error correction model, results show that both fiscal and monetary policy indicators have significant impact on the unemployment challenges in Nigeria. Furthermore, the national productivity measured by the real GDP established a negative and significant impact on the unemployment rate in Nigeria for the period under consideration.

Furthermore, Ryan-Collins and Van Lerven (2018) conducted an overview of the holdings of government debt by both central and commercial banks as a proxy for fiscal-monetary coordination in advanced economies within the contemporary era focusing on the 1930 to 1970. This was the period when central banks and finance ministries coordinated properly towards attaining the desired goals. The authors concluded that

coordination between monetary and fiscal policy are highly essential in enhancing economic growth. In the same vein, Falade and Folorunso (2015) investigate the relative effectiveness of both fiscal and monetary policy instruments on the economic growth sustainability in Nigeria covering the sample period of 1970 to 2013. By adopting the error correction mechanism and the Johansen cointegration technique, findings indicate the existence of long-run relationship between monetary and fiscal policy variables with economic growth. In addition, appropriate policy-mix is essential in accelerating the sustainable growth in Nigeria.

As suggested by Arestis (2015), fiscal policy is an effective tools for controlling the level of aggregate demand and in particular; the unemployment rate. Using both theoretical and empirical deliberations, the author established that fiscal policy is an essential element of macroeconomic framework together with monetary and financial policies, and the appropriate coordination of the policies would accelerate the sustainable growth level. In addition, Chen (2015) examines the interaction of fiscal and monetary policies in an endogenous growth model taking into cognisance the impacts of banking system and reserve market. The author concludes that the presence of credit channel generates positive growth rate effects of fiscal and monetary policies. In a mix reaction among developed countries, Bertella et al. (2015) investigate the dynamic relationship between fiscal and monetary policy in the Brazilian and UK economy with further efforts to attain growth or inflation targets by setting an interest rate rule and fiscal policies, measured by the public debt. While fiscal policy appears more effective for the Brazilian economy, monetary policy is appropriate and efficient for the UK economy.

IV. MATERIALS AND METHOD

This section presents the source and nature of the data used during the estimation process. Also, the selected methodology and other estimation procedures are highlighted with the view to expediting reference and understanding.

4.1 Data source

The study rely on data from the statistical bulletin of the Central Bank of Nigeria (CBN) and the statistical archive of the World Bank, which contains a comprehensive report of the country's macroeconomic and financial occurrences as well as some other specific operations. Time series data covering the sample period of 1980 to 2017 are employed for the analysis. Data for broad money supply, exchange rate, interest rate are used as monetary policy indicators; data on government expenditure (capital and recurrent) and tax revenue (oil and non-oil revenue) are utilised for fiscal policy tools; while data on the real GDP is employed as the growth variable. It is expected that both monetary and fiscal indicators as well as the control variable have a significant impact on the economic growth. Moreover, the data and the variables' *a priori* expectations indicate that the study is unbiased and followed a systematic approach.

4.2 Techniques of analysis

The study adopts the OLS regression technique and the Johansen cointegration test to determine the effect as well as the possible relationship among the variables. The multivariate regression model is considered to be an essential approach in explaining the direction of monetary and fiscal indicators. The model is adopted to describe the extent of the interplay between the variables as well as ascertain the level of variance to which each of the monetary and fiscal variables can explain the behavior of real GDP within the ascribed period. The OLS regression analysis is used to create an equation that can describe the relationship between independent variable(s) over the dependent variable. A regression coefficient or the p-value test the null hypothesis effect of any variable. Meaning that, a variable with a low p-value is likely to have a significant effect on the examined model as variations in the independent variable(s) can be related to changes in the dependent variable. However, the Johansen cointegration test allows for the determination of a long-run relationship among the examined variables. As established by Attamah, Anthony and Ukpere (2015), various nonstationary time series are cointegrated if the linear combination of the variables are stationary. The test allows for the presence of normality to any variable that automatically becomes a regressand.

The study divides the framework into model 1 which measures the impact of monetary policy on output growth while model 2 account for the effects of fiscal policy on economic growth. The models are specifies as follows:

Model 1

This model is formulated to measure the effect of monetary policy on economic growth. The aim is to determine the significance of monetary policy and its superiority relative to other policies on economic growth. The model is derived and formulated in the following approach:

$$Y_t = f(\text{MP}_t) \quad (1)$$

Where, Y is the measure of aggregate economic activities such that real GDP is utilised as the proxy; MP is the measure of monetary policy comprising of broad money supply, exchange rate and interest rate; while the subscript (*t*) represent a time period. In n broader term, eqn (1) is elucidated as:

$$\text{GDP}_t = f(\text{Broad Money Supply [BMS]}, \text{Exchange Rate [EXR]}, \text{Interest Rate [INT]}) \quad (2)$$

In a geometric form, the eqn (2) is transformed as follows:

$$GDP = \beta_0 + \beta_1 BMS + \beta_2 EXR + \beta_3 INT + \varepsilon_t \quad (3)$$

Model 2

This model is designed to measure the effect of fiscal policy on economic growth. The aim is to determine the significant role played by the fiscal policy towards enhancing output growth in Nigeria and further evaluate its efficiency over monetary policy within the period under review. The model is given as:

$$Y_t = f(FP_t) \quad (4)$$

Where, Y represent the economic growth proxy by the real GDP; FP present the fiscal policy which comprises of Government Expenditure (GE) and Taxation (TX); while the t represent a time period since the estimation involves time-series observations. The model is therefore substituted as:

$$GDP = \alpha_0 + \alpha_1 GE + \alpha_2 TX + \varepsilon_t \quad (5)$$

Where, β_0 and α_0 represent the intercepts for model 1 and model2; $\beta_1, \beta_2, \beta_3, \alpha_1, \alpha_2$ are the coefficients of the explanatory variables for monetary and fiscal policy, respectively; while ε present the error term.

As hitherto, the model is estimated using the OLS and the cointegration technique. It is further subjected to a dynamic estimation using the lag structure of the parameters. The existence of significant co-movement between the coefficients are determined. This is because, when all the examined variables have unit root (non-stationary property), using observations on the variables as a traditional method of estimation could possibly established a significant relationship even when no linkage is present (Noman & Khudri, 2015).

V. RESULTS AND DISCUSSION

In order to avoid the use of spurious regression, unit root test is conducted on the variables using the Augmented Dickey-Fuller (ADF) test. This is to allow for the use of stationary series in the model coefficient. The possible existence of long-run relationship among the variables is determine by the cointegration approach while the significance of each parameter is estimated using the OLS technique.

5.1 Unit root

Every time series data has trend, to identify the pattern of this trend; the study applied a unit root testing. In other words, time series variables are characterised by a stochastic trend that could be removed by differencing. Certain variables became stationary at level, others at first differentiation, while some may requires more than one differentiation before stationary could manifest. Result for the unit root testing is given as follows:

Table 1: result of the unit test

ADF unit root						
No linear trend				With Linear trend		
Variables	Level	First diff.	Order of stationary	Level	First diff.	Order of stationary
LGDP	0.9817	0.0199	I(1)	0.1582	0.0510	I(1)
LBMS	0.7608	0.0187	I(1)	0.8116	0.0856	I(1)
LEXR	0.2867	0.0008	I(1)	0.2476	0.0044	I(1)
LINT	0.0818	0.0011	I(1)	0.6313	0.0027	I(1)
LGE	0.7894	0.0000	I(1)	0.9555	0.0000	I(1)
LTX	0.7339	0.0000	I(1)	0.9572	0.0033	I(1)

Table 1 shows the estimated results of unit root testing based on the ADF test. The estimation is conducted without a linear trend and with the inclusion of linear trend. Although the result seems similar whether or not a linear trend is included in the model estimation. Overall result indicates that all variables exhibit stationary at first difference using 5% significance level except for the LGDP and LBMS that are significance at 10% when trend is included. These findings indicate that all series would be differentiated at first level in order to evade spurious estimates. In absolute value, since the computed values are higher than the critical values at 5% and 10% levels, the null hypothesis of nonstationary (unit root) is therefore rejected. By indicating stationary at first difference, it however provides a platform for estimating the long-run relationship using the cointegration approach.

5.2. Existence of long-run relationship among the variables

To determine the presence or otherwise of a long-run relationship among the monetary and fiscal indicators, the study adopts a Johanssen cointegration technique. Result for this approach is given as follows:

Table 2: Unrestricted Cointegration test

Number of CE(s)	Trace test			Maximum Eigenvalue test		
	Trace stat.	5% CV	P-value	Max-Eigen stat.	5% CV	P-value
None*	182.1418	95.7533	0.0000**	67.08710	40.07757	0.0000**
At most 1*	115.0547	69.8188	0.0000**	48.39574	33.87687	0.0005**
At most 2*	66.6589	47.8561	0.0004**	31.38083	27.58434	0.0155**
At most 3*	35.2781	29.79707	0.0106**	22.89536	21.13162	0.0279**

Note: Both Trace test and the Max-Eigenvalue test indicate 4 cointegrating equations at 5% level

* denotes a rejection of hypothesis at 5% level

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

Result in Table 2 shows the estimated findings based on the unrestricted Johansen cointegration test displaying the long-run relationship between variables of monetary and fiscal policy as well as the variable of economic growth. Overall findings indicate that all examined variables are cointegrated in the model signifying the presence of long-run relationship between indicators of monetary policy, fiscal policy and economic growth. In other words, given that the values of Trace test and the Max-Eigenvalue test are greater than their corresponding Critical Values (CV) at 5% level, it implies the rejection of hypothesis and further support the existence of long-run and cointegrated relationship among the examined variables under consideration. This result is consistent with the literature as evidenced by Adegioriola (2018); Saqib and Aggarwal (2017); Bokreta and Benanaya (2016).

5.3 Model 1: the impact of monetary policy on economic growth

In this section, OLS method is employed to estimate the model coefficient and further explain the significance or impact of broad money supply, exchange rate and interest rate on the real GDP. Result for this model is given as follows:

Table 3: result of the monetary policy model

Dependent variable: LGDP				
Method: Least square				
Included observation: 38				
Variables	Coefficient	Std. Error	t-statistic	P-value
LBMS	0.216993	0.007304	29.70698	0.0000**
LEXR	-0.103292	0.047601	-2.169945	0.0371**
LINT	-0.391139	0.095203	-4.108459	0.0002**
C	10.44313	0.472973	22.07974	0.0000**
R ² = 0.97				
Adjusted R ² = 0.96				
S.E of regression = 0.103523				
Prob(F-statistic) = 0.000000				

Note: ** indicates a level of significance at 5%

Table 3 presents the results of the estimated regression model for the monetary policy model taking into cognizance its impact on economic growth. Consequently, the log of broad money supply (LBMS) indicates a positive coefficient with significant p-value at 5% level. Meaning that, one percent increase in money supply leads to eventual increase in real GDP (economic growth) by 21%. By implication, injecting money into the economy would encourage more economic activities, increase employment opportunities and disposable income, increase rate of saving and ultimately raises investment and output growth. For the log of exchange rate (LEXR), the parameter indicates a negative coefficient with significant p-value at 5%. This implies that, one percent increase in the exchange rate results to a decrease in economic growth by 10%. This particular finding advocates for a currency depreciation towards accelerated output growth in Nigeria. However, with regards to the interest rate, the coefficient established a negative relationship with a significant p-value at 5% level. Implying that, one percent increase in interest rate leads to a decrease in economic growth by 39%. This clearly indicates that, high interest rate discourages the household and business enterprises for seeking investment loans from the financial institutions, thereby decreasing the rate of investment, lowering individual and corporate savings as well as retarding the aggregate output.

To measure the model fitness, the value of R² is evaluated. The R² also known as coefficient of determination, indicates how monetary indicators best explain the variations in economic growth thereby

establishing a strong effects in the model. The value of R^2 is 0.97, meaning that, about 97% of the total variations in economic growth is explained by broad money supply, exchange rate, and interest rate. The remaining 3% account for other factors that influence economic growth but not captured in this model. In addition, the overall regression equation for this model is significant since the p-value of F-statistic is 0.0000 at 5% level. In general, the aggregate results indicate that monetary policy is effective towards enhancing sustainable growth in Nigeria. This result is consistent with the literature as supported by Saqib and Aggarwal (2017); Havi and Enu (2014); Adefeso and Mobolaji (2010).

5.4 Model 2: the impact of fiscal policy on economic growth

This model is formulated to measure the effect of fiscal policy in influencing economic growth. The model is estimated using OLS estimation technique and further determine the significance of government expenditure and tax revenue on the real GDP. Result for this model is given as follows:

Table 4: result of the fiscal policy model

Dependent variable: LGDP				
Method: least square				
Included observation: 38				
Variable	Coefficient	Std. error	t-statistic	P-value
LGE	0.333556	0.109303	3.051661	0.0043**
LTX	-0.096677	0.099179	-0.974775	0.3364
C	8.875479	0.089383	99.29701	0.0000**
$R^2 = 0.88$ Adjusted $R^2 = 0.87$ S.E of regression = 0.194566 Prob(F-statistic) = 0.000000				

Note: ** indicates a level of significance at 5%

Results from Table 4 shows that estimated regression coefficient for fiscal policy tools comprising of government expenditure and taxation. Coefficient for the log of government expenditure reveals a positive impact with significant p-value at 5% level. Meaning that, one percent increase in government expenditure leads to 33% increase in economic growth. By implication, increased government expenditure would raise economic and social welfare, increase disposable income, raise employment opportunities and entrepreneurial activities, increase the rate of saving and investment, as well as uplift the national income. For the coefficient of tax revenue, the variable indicates a negative relationship with insignificant p-value any level.

For this model, the coefficient of determination (R^2) shows a strong variation while the overall p-value is also significant at 5% level. The R^2 indicates how the fiscal policy indicators best explain the variations in the real GDP. The closer the value of R^2 to 1, the better the estimation. The R^2 established a strong impact (88%) in the fiscal model. This implies that economic growth is significantly explained by government expenditure and taxation in Nigeria. Given the value of R^2 as 88%, it implies the total variation of real GDP by the government expenditure and taxation. To further indicates the fitness of this model, adjusted R^2 is 87% hence, strong fit. In general, the overall results indicate that fiscal policy is effective towards enhancing the desired growth level. This result is consistent with the literature as established by Ehikioya, Uduh and Edeme (2018); Gusti (2014); Musa et al. (2013).

5.5 Effective monetary or fiscal policy in Nigeria?

Following the previous discussions in model 1 and model 2 (see Table 3 and 4, respectively), it is indicated that both monetary and fiscal policy established a significant impact on economic growth. At this juncture, the interesting issue now is the identification of which policy model is more effective and efficient for the Nigerian economy. The aim is to identify a macroeconomic policy that possess high potential of generating greater output performance and ensure judicious utilisation of the nation's resources toward sustainable economic growth and development.

Based on the value of R^2 and the degree of elasticity for both monetary and fiscal policy, it can be established that monetary policy is more effective and growth-oriented than the fiscal policy in Nigeria for the period under consideration. This is further justified by the significant values of all monetary indicators, while for the fiscal policy; only one parameter (government expenditure) is significant as tax revenue remains insignificant. This result is consistent with the literature as supported by Saqib and Aggarwal (2017); Havi and Enu (2014); Jawaid et al. (2011); Adefeso and Mobolaji (2010). Given the irregular release of the budgeted funds and the unproductive expenditure of the Nigerian government, it is not surprising that fiscal policy is ineffective. More so, the operations of fiscal policy is largely determine and control by the political forces

(executive and the legislature) in an unstable and volatile market environment. In addition to limited autonomy by the state and local governments to make expenditure decision, it is evident that fiscal policy would be ineffective in Nigeria.

VI. CONCLUSION AND RECOMMENDATIONS

Both monetary and fiscal policies are employed across the globe particularly in small-open economies like Nigeria to guide the economy towards the path of sustainable growth, ensure stable price and further creates a conducive atmosphere for domestic and foreign investment. Mutually, proper coordination of monetary and fiscal policy lead to attainment of joint goals and consequently provides a platform for successful policy making and implementation. In many instances, policy harmonisation has been carried out by institutional arrangement of monetary and fiscal authorities in Nigeria. Joint committees and regular interactions have facilitated a steady collaborations between the central bank of Nigeria and the federal ministry of finance to discuss on issues related to current economic circumstances, provides a monitoring team and ensure policy implementation. In view of that, this study examines the monetary and fiscal policy of the Nigerian economy over several decades as well as evaluates the growing trend in critical indicators with the view to determining the existence of possible relationship. Using the OLS technique and the cointegration test, results indicate that both monetary and fiscal policy have positive and significant impact on economic growth. In addition, further result shows that monetary policy is more effective in Nigeria than fiscal policy for the period under consideration.

There is need for fiscal discipline to be imposed in the public finance since monetary policy cannot attain the desired goal given the existence of fiscal imbalances. The public sector should safeguard the maintenance of a steady macroeconomic environment which ensure that monetary aggregates are operating within the growth limits. In addition, the Nigerian government should concentrate more on the monetary measures that can established a positive impacts on the sustainable growth. This requires the need to design and implement policy reforms that encourage productive investment, accelerate balance and complimentary trade, improves the labour ability and provides a conducive atmosphere for political stability. There is further need to coordinate both monetary and fiscal policies toward catapulting the growth prospects of Nigeria. This is made possible, when designing and implementation of fiscal policy are made to strengthen the existing monetary policy.

REFERENCE

- [1]. Abata, M.A., Kehinde, J.S., & Bolarinwa, S.A. (2012). Fiscal/Monetary policy and economic growth in Nigeria: A theoretical exploration. *International Journal of Academic Research in Economics and Management Sciences*, 1(5), 75-88.
- [2]. 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.
- [3]. Adegoriola, A. E. (2018). An empirical analysis of effectiveness of monetary and fiscal policy instruments in stabilizing economy: *Evidence from Nigeria. Social Sciences*, 7(3), 133-140.
- [4]. Afonso, J.R., Araujo, E.C., & Fajardo, B.G. (2016). The role of fiscal and monetary policies in the Brazilian economy: Understanding recent institutional reforms and economic changes. *The Quarterly Review of Economics and Finance*, 62, 41-55.
- [5]. Alavi, S.E., Moshiri, S., & Sattarifar, M. (2016). An analysis of the efficiency of the monetary and fiscal policies in Iran economy using IS – MP – AS model. 1st International Conference on Applied Economics and Business, ICAEB 2015. *Procedia Economics and Finance*, 36, 522-531.
- [6]. Arestis, P. (2015). Coordination of fiscal with monetary and financial stability policies can better cure unemployment. Cambridge Centre for Economic and Public Policy, Department of Land Economy, University of Cambridge, UK.
- [7]. Attamah, N., Anthony, I., & Ukpere, W.I. (2015). The impact of fiscal and monetary policies on unemployment problem in Nigeria (managerial economic perspective). *Risk Governance & Control: Financial Markets & Institutions*, 5(2), 101-109.
- [8]. Bertella, M.A., Rego, H.A., Neris, C., Silva, J.N., Podobnik, B., & Stanley, H.E. (2015). Interaction between fiscal and monetary policy in a dynamic nonlinear model. *PLoS ONE*, 10(3), 01-21.
- [9]. Bianchi, F., & Ilut, C. (2017). Monetary/Fiscal policy mix and agent's belief. *Review of Economics Dynamics*, 26, 113-139.
- [10]. Bokreta, K., & Benanaya, D. (2016). The fiscal-monetary policy and economic growth in Algeria: VECM approach. *International Journal of Economics and Management Engineering*, 10(9), 3084-3088.
- [11]. Cabral, R., & Diaz, R.G. (2015). Is fiscal policy coordination desirable for a monetary union? An assessment from the perspective of a small open economy. *Investigación Económica*, LXXIV (294), 3-72.

- [12]. Carvalho, L., Diniz, A., Pedrosa, I., & Rossi, P. (2016). Fiscal costs of monetary policy: indirect effects of an interest rate shock on Brazilian public net debt. *Brazilian Journal of Political Economy*, 36(3-144), 557-579.
- [13]. Chen, S. (2015). Fiscal and monetary policies in an endogenous growth model with banking system and reserve markets. Department of Economics, National Taipei University, 151, University Rd., San Shia District, New Taipei City, 23741 Taiwan.
- [14]. Cui, W. (2016). Monetary-Fiscal interactions with endogenous liquidity frictions. *European Economic Review*, 87, 1-25.
- [15]. da Silva, C.G., & Vieira, F.V. (2017). Monetary and fiscal policy in advanced and developing countries: An analysis before and after the financial crisis. *The Quarterly Review of Economics and Finance*, 63, 13-20.
- [16]. Ehikioya, I.L., Uduh, D.M., & Edeme, R.K. (2018). Relative impact of fiscal and monetary policy on the growth of small and medium scale enterprises in Nigeria. *Quantitative Economics Research*, 1(1), 1-12.
- [17]. Falade, O.E., & Folorunso, B.A. (2015). Fiscal and monetary policy instruments and economic growth sustainability in Nigeria. *American Journal of Economics*, 5(6), 587-594.
- [18]. Greiner, A. (2013). Fiscal and monetary policy in a basic endogenous growth model. Universität Bielefeld, Working Papers in Economics and Management; paper no. 10-2013.
- [19]. Gusti, A.P. (2014). The effect of government policy on the economic growth in Indonesia (from fiscal and monetary aspects). *International Journal of Business, Economics and Law*, 5(1), 53-59.
- [20]. Havi, E.D.K., & Enu, P. (2014). The effect of fiscal policy and monetary policy on Ghana's economic growth: which policy is more potent? *International Journal of Empirical Finance*, 3(2), 61-75.
- [21]. Hutchison, M.M., Noy, I., & Wang, L. (2007). Fiscal and monetary policies and the cost of sudden stops. Working Paper, No. 07-10, University of California, Santa Cruz Institute for International Economics (SCIE), Santa Cruz, CA.
- [22]. Jarocinski, M., & Mackowiak, B. (2018). Monetary-fiscal interactions and the euro area's malaise. *Journal of International Economics*, 112, 251-266.
- [23]. Jawaid, S.T., Arif, I., & Naemullah, S.M. (2010). Comparative analysis of monetary and fiscal policy: a case study of Pakistan. Munich Personal RePEc Archive, MPRA paper no. 30850.
- [24]. Jawaid, S.T., Qadri, F.S., & Ali, N. (2011). Monetary-Fiscal-Trade policy and economic growth in Pakistan: Time series empirical investigation. *International Journal of Economics and Financial Issues*, 1(3), 133-138.
- [25]. Khosravi, A., & Karimi, M.S. (2010). To investigation the relationship between monetary, fiscal policy and economic growth in Iran: Autoregressive distributed lag approach to cointegration. *American Journal of Applied Sciences*, 7(3), 415-419.
- [26]. Lawal, A.I., Somoye, R.O., Babajide, A.A., & Nwanji, T.I. (2018). The effect of fiscal and monetary policies interaction on stock market performance: Evidence from Nigeria. *Future Business Journal*, 4, 16-33.
- [27]. Leith, C., Moldovan, I., & Rossi, R. (2015). Monetary and fiscal policy under deep habits. *Journal of Economic Dynamics & Control*, 52, 55-74.
- [28]. Musa, Y., Asare, B.K., & Gulumbe, S.U. (2013). Effect of monetary-fiscal policies interaction on price and output growth in Nigeria, *CBN Journal of Applied Statistics*, 4(1), 55-74. The Central Bank of Nigeria, Abuja.
- [29]. Noman, S.M.S., & Khudri, M.S. (2015). The effects of monetary and fiscal policies on economic growth of Bangladesh. *ELK Asia Pacific Journal of Finance and Risk Management*, 6(3), 21-34.
- [30]. Praise, U.I., & Jacob, D.E. (2018). Fiscal policy, monetary policy and economic growth in Sub-Saharan Africa. Munich Personal RePEc Archive, MPRA paper no 91950.
- [31]. Quartey, P., & Afful-Mensah, G. (2014). Financial and monetary policies in Ghana: A review of recent trends. *Review of Development Finance*, 4, 115-125.
- [32]. Rahman, M.H. (2009). Relative effectiveness of monetary and fiscal policies on output growth in Bangladesh: A VAR approach. *Bangladesh Journal of Political Economy*, 22(1&2), 419-440.
- [33]. Ryan-Collins, J., Van Lerven, F. (2018). Bringing the helicopter to ground: A historical review of fiscal-monetary coordination to support economic growth in the 20th century. UCL Institute for Innovation and Public Purpose Working Paper Series (IIPP WP 2018-08).
- [34]. Saqib, N., & Aggarwal, P. (2017). Impact of fiscal and monetary policy on economic growth in an emerging economy. *International Journal of Applied Business and Economic Research*, 15(4), 457-462.

- [35]. Senbet, D. (2011). The relative impact of fiscal versus monetary actions on output: a Vector Autoregressive (VAR) approach. *Business and Economic Journal. Academic OneFile*, accessed 6th April, 2019.
- [36]. Sharma, S.K., & Sharma, B. (2014). Reflections on monetary and fiscal policies and economic growth in India. *International Journal of Trade, Economics and Finance*, 5(6), 551- 556.
- [37]. Traum, N., & Yang, S.S. (2011). Monetary and fiscal policy interaction in the post-war U.S. *European economic review*, 55, 140-164.

**Corresponding Author: Miftahu Idris
Department of Economics, Taraba State University Jalingo; Nigeria.*