

Recession and the Challenge of Sustainable Economic Growth in Nigeria: An Evaluation of Macroeconomic Policies

I. O. Oseni, A. T. Okwu,† D. A. Babalola‡ & S. B. Adegboyega§*

Abstract

The recent economic recession in Nigeria was manifested shortly after the successful democratic-to-democratic transmission of political power in 2015, against the backdrop of continental and global economy rankings of the country as the largest in Africa, and 24th in the world as at 2014. Based on relevant variables of datasets from 1981 to 2016, this paper employed error correction mechanism on log-linear regression model to evaluate macroeconomic policies being implemented to stabilise and restore the economy on the path of sustainable growth. The variables were surrogates of fiscal, monetary, exchange rate and supply-side policies. The results showed that the respective macroeconomic policies had mixed effects, but jointly had significant growth-retarding effect on the country's economy. Therefore, the paper concludes that macroeconomic policies had heterogeneous effects, and emphasised the need for appropriate mix of macroeconomic policies to be implemented to sustain and move the economy out of the recession trap.

Keywords: *recession, macroeconomic policies, sustainable economic growth, log-linear regression, error correction model*

JEL Codes: C22, C52, E52, E62 and F31

1. Introduction

Historically, macroeconomic policies in Nigeria and other African countries have been pro- rather than counter-cyclical, leading to fluctuations in economic growth of the countries. For instance, expansionary fiscal policy is implemented during booms and tight policy during downturns or recessions, thereby worsening the adverse effects of shocks on output (Thornton, 2008). Dependency on primary commodity exports with volatile prices, instability of private and official capital flows, and vulnerability to climate change are among the reasons for the pro-cyclical macroeconomic policy stance in the countries (Thornton, 2008). Others are corruption and democracy, social inequality, and net foreign debt (Halland & Bleaney, 2009). Moreover, the global economic crisis of the late 1990s made economists, policy-makers and international financial institutions to reconsider

*Department of Economics, Olabisi Onabanjo University, Ago-Iwoye, Nigeria

†Department of Economics, Babcock University, Ilishan-Remo, Nigeria

‡Department of Agriculture & Ind. Tech, Agric Economics Unit, Babcock University, Ilishan-Remo, Nigeria. Corresponding Author: babalolada@babcock.edu.ng

§Department of Economics, Olabisi Onabanjo University, Ago-Iwoye, Nigeria

their views on the role of macroeconomic policy, and emphasise the need for discretionary policies to reduce economic fluctuations and support the development efforts of developing countries (UNCTAD, 2010). Essentially, it is evident that effective use of macroeconomic policies for stabilisation in Africa requires reduction of policy conditions attached to lending by international financial institutions.

The emphasis is on the need to build strong institutions of accountability, as well as improve access to credit, particularly during downturns. Taylor (1994) noted that stabilisation policies, particularly a change from good to bad policy, can explain a large part of a major puzzle about productivity growth in the United States and other advanced countries. He cited the example of the remarkable slowdown in productivity growth experienced from the mid-1960s to the early 1980s, and the partial revival in recent years. Therefore, Nayyar (2011) emphasised the necessity to rethink macroeconomic policies that have not been effective in the management of inflation, elimination of macroeconomic imbalances, and overcoming the constraints embedded on orthodox economic thinking to recognise the constraints implicit in the politics of ideology and interests. The author further noted that fiscal policy seems to have greater monetary impact in the developing countries because a much larger proportion of fiscal deficit is financed by borrowing from the central banks. Caballero's (2013) analysis of the effects of fiscal and monetary policy in the great recession emphasises the need for more theoretical and applied research on the effects of economic policy during crises; and different approaches that expand the frontier of knowledge. This necessitates the need for African countries to create fiscal scope for counter-cyclical policy response by ensuring that revenues earned during booms are effectively managed, and thus lends some credence to the approach employed in this paper.

Like other African countries, as well as others in the world, the Nigerian economy has experienced economic downturns at different times. Dimensions of responses to the events have led to the emergence of broad consensus by governments attempting to do their best to assuage the negative effects associated with such economic downturns, while evoking relevant policy options to prevent reoccurrence, stabilise and stimulate economies to the path of sustainable growth and development. These are predicated on the consensus that a stable and predictable economic environment contributes substantially to social and economic welfare (Otmar, 2005). In the short-run, households usually exhibit preference for economic stability with continuous employment that guarantees stable incomes, which enables them to maintain stable consumption over time. In the long-run, however, unnecessary economic fluctuations have the potentials to reduce growth, especially through increasing the volatility and riskiness of investments. Also, negative impacts on the choice of education profiles and career paths are likely to manifest in a highly volatile economic environment. Therefore, the implication is that appropriate macroeconomic policies are a *sine qua non* for maintaining a stable macroeconomic environment and stimulating economic growth to engender the development and welfare of the people.

The negative growth (-0.36% and -1.5%) of the Nigerian economy in the first and second quarters of 2016 clearly indicates that Nigeria was experiencing economic recession (Noko, 2016). Contrary to predictions of reversal by the first quarter of 2017, the situation persists. Therefore, Nigeria is in the web of yet a lingering situation of economic downturn or recession. Noko (2016) further explains that the major cause of inflation (a general rise in price of goods and services, leading to low purchasing power) in any economy may include accumulation of debt servicing (especially of foreign debts), high interest rates that discourages investment, decline in aggregate demand, fall in wages and income, mass unemployment and general loss of confidence in a government on the basis of economic indices. In the case of Nigeria, the causes are poor economic planning, high inflation rates (induced by government actions such as banning the importation of certain essential agricultural products like rice without considering gestation period, and the removal of fuel subsidy), speculations in stock markets due to budget delay, rise in the domestic price of oil due to oil subsidy removal, fall in global oil prices, deteriorating exchange rates, high interest rates, high taxation, and policy conflicts (ibid.).

Classical economists believed that a situation of economic imbalance, such as recession, would reverse through a self-adjustment mechanism; while Keynesian economists advocate for government intervention using fiscal and monetary instruments embedded in appropriate macroeconomic policies. The intensity of a recession, which cuts across virtually all strata of the economy, is such that it arouses the need for the implementation of a mix of appropriate macroeconomic policies geared towards stabilising and stimulating the economy out of the recession trap and, ultimately, restoring it on the path of steady growth and development experienced in the recent past. Essentially, the recent recession in Nigeria presents a scenario that requires an evaluation of the effectiveness of macroeconomic policies within the country's context: i.e., a set of government rules and regulations to control, stabilise and stimulate the aggregate indicators that define the status of the economy of the country needs to be directed to reawaken the economic potentials of the once largest economy in Africa, and twenty-fourth largest in the world (World Bank, 2016).

Economic literature is replicate with issues relating to macroeconomic stabilisation, which essentially entails the roles of macroeconomic policies in smoothening and mitigating the adverse effects of fluctuations in output and business cycles. Also, there seems to be less emphasis on the potentials of macroeconomic policies to stimulate aggregate demand and economic activity, in addition to macroeconomic stabilisation, especially during economic recessions. In the situation of economic downturn, fiscal policy thrust of increased government spending and reduced taxes (deficit financing), complemented by expansionary monetary and other macroeconomic policies, are usually implemented to influence aggregate demand and economic activity in the upward direction. Essentially, this means the need to implement appropriate mix of macroeconomic policies to stimulate aggregate demand and economic activity. Consequently, the set of macroeconomic policies evaluated in this paper for relative and collective effectiveness in the face of recent recession are fiscal, monetary, exchange rate and supply-side of government policies. However, more emphasis is on fiscal policy.

Specific questions that are pertinent in this paper are: (i) How effective is fiscal policy in stabilising and sustaining growth of the Nigerian economy? (ii) To what extent has monetary policy enhanced stabilised and sustained growth of the Nigerian economy? (iii) How appropriate has exchange rate policy been in stabilising and sustaining growth of the Nigerian economy? (iv) What is the relative effectiveness of supply-side policies in stabilising and sustaining growth of the Nigerian economy?

2. Literature Review

2.1 Conceptual Issues

Recession subsists when there is general economic downturn in a country. There is a contraction in the business cycle, which manifests in a general slowdown in economic activities for two consecutive quarters (CBN, 2012). Theoretically, underutilisation of available resources subsists, human and capital stocks are unemployed or underemployed, technical inefficiency prevails, actual output falls far below potential output, investment declines, firms operate at less than full capacity, aggregate demand and consumption fall or stagnate at below potential equilibrium, even at low general price level. Real gross domestic product (RGDP) and income, as well as employment, industrial production and sales exhibit downward trends owing to decline in aggregate demand. The economy experiences considerable retardation in growth of output and services. Technically, therefore, an economy is in recession when it records two consecutive quarters of negative growth in real GDP (CBN, 2012). In summary, there is a persistent decrease in GDP and employment over a period of six months or more; and a negative real GDP growth rate for two consecutive quarters. These are consistent with the meaning given by the National Bureau of Economic Research (NBER) (Noko, 2016). The set of government rules and regulations to control or stimulate the aggregate indicators of an economy constitute macroeconomic policies. The policies encapsulate quantifiable macroeconomic instruments that can be directly controlled by economic policy-makers. The major instruments are in terms of fiscal, monetary and exchange rate policies. Each has its peculiar nature and ways of influencing the level of aggregate demand and economic activity. In addition to fiscal, this paper also considers monetary and exchange rate policies, and supply-side policies.

Fiscal policy deals with managing a nation's budget and its financing to influence economic activity. It also involves servicing of a national debt. It is conducted by the executive and legislative arms of the government, and essentially entails the expansion or contraction of government expenditures related to specific government programmes, e.g., providing infrastructure such as roads, military expenditures, social welfare programmes, etc. It also involves raising tax revenues to finance government expenditures, and raising debts to bridge expenditure gap (budget deficit) between revenues (tax receipts) and expenditures on government programmes, with the latent effect of slowing GDP growth. It can as well be expansionary (reducing taxes and increasing a budget deficit) to increase aggregate demand and economic activity, sustain threshold inflation and, ultimately, stimulate the growth of gross domestic product (GDP).

Monetary policy is a component of macroeconomic policy conducted by a central bank to influence aggregate demand and economic activity through money supply and cost of credit. It entails managing short-term rates (treasury bills discount rates and monetary policy rate in Nigeria), and changing reserve requirements for deposit money banks. Like fiscal policy, monetary policy can be either contractionary (high short-term rates relative to inflation rate); or expansionary (low short-term rates relative to inflation rate). In addition to controlling domestic inflation, central banks manage economic growth through monetary policies, since inflation and economic growth are highly interrelated. Essentially, a monetary policy aims at attaining internal and external balance of payments (CBN, 2014). Major phases in monetary policy pursuit in Nigeria have been two: before and after 1986. The first phase emphasised direct monetary controls; while the latter relies on market mechanisms (*ibid.*).

Exchange rate policy has to do with the way a country manages its currency in respect to foreign currencies and the foreign exchange market. Exchange rate is the rate at which the domestic currency can be converted into a foreign currency. In turn, this affects the costs of domestic production and finance relative to foreign products and capital. The policy considers the international purchasing power of a currency, and particularly the impact of changes on domestic inflation (Bank of Botswana, 2018). Exchange rate affects aggregate demand through its effect on export and import prices, and policy makers usually exploit this connection. (www.economicsonline.co.uk/Managing_the_economy/Exchange_rate_policy.html). In Nigeria, the main objectives of its exchange policy are to preserve the value of the naira, maintain favourable external reserves position and ensure external balance without compromising internal balance and the overall goal of macroeconomic stability (<https://www.cbn.gov.ng/IntOps/ExchRatePolicy.asp>). The Central Bank of Nigeria (CBN) conducts the exchange rate policy. In consonance with the recent recession, the CBN has switched from pegged to floating exchange rate regime.

Supply-side policies are designed to increase productive potential and, hence, aggregate supply through increased quantity and quality of resources and efficiency of the market. Articulated in the policies are increased human capital investment (education and training) to raise labour productivity, reduced direct taxes and benefits, reforming trade unions, and privatisation. Direct taxes and benefits are cut to make work more attractive, relative to living on benefits, to induce the unemployed to search for work more actively, and thus raise the labour force. Reforming trade union is intended to make labour more productive, while privatisation aims to increase productive capacity.

Transmission channels of macroeconomic policies are articulated in the conceptual model shown in Fig. 1. The model shows that exchange rate policy can be embedded in monetary policy, and that supply-side policies can be integrated into fiscal policy to influence economic growth. Similarly, economic growth can be influenced via a combination of fiscal and monetary policies. However, the concept in the model is that a holistic implementation of appropriate mix of the various aspects of macroeconomic policies is necessary and sufficient to stabilise and stimulate a country out of economic recession and, ultimately, set the economy on the path of sustainable growth and development.

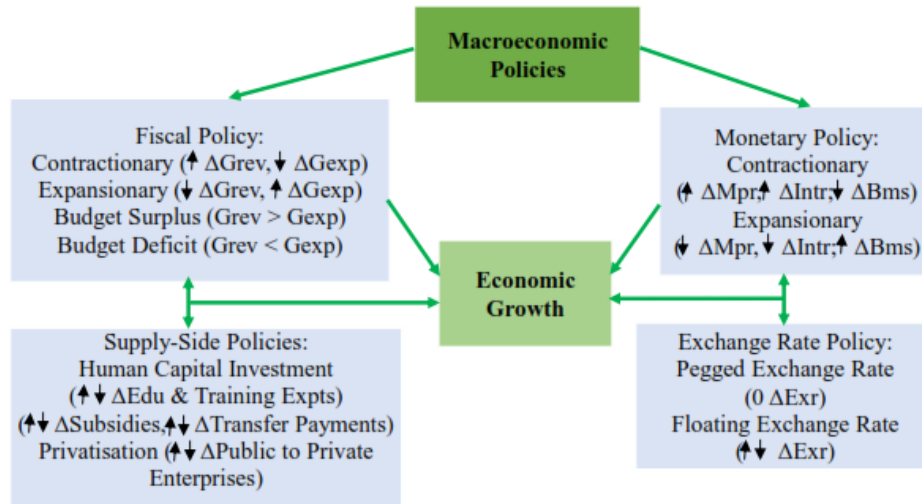


Figure 1: Conceptual Model of Macroeconomic Policies Channels-Economic Growth Nexus in Nigeria

Source: Authors' Conceptual Model (2018)

2.2 Theoretical Issues

Classical economists believe that the existence of full employment in the economy is a normal situation; and that any deviation from it is regarded as abnormal. Pigou emphasises the tendency for the economy to automatically provide full employment in the labour market when the demand and supply of labour are equal. According to him, unemployment results from the rigidity in the wage structure and interference in the working of a free market system in the form of trade union and minimum wage legislations, among others. Say's law of the market, as the core of the classical theory of employment, posits that there cannot be general overproduction and a problem of unemployment in an economy. According to him, the problems of unemployment and actual output below potential output arise in the short-run since in the long-run the economy will automatically tend toward full employment and potential output when the demand and supply of goods become equal. When a firm produces goods and pays wages to workers, the workers in turn buy goods in the market. Thus, the very act of supplying goods implies a demand for them. In this way, supply creates its own demand, and growth of output or the economy is sustained. In the classical theory, output and employment are determined by the production function and the demand for, and supply of, labour in the economy. Given the capital stock, technical knowledge and other factors, a precise relation exists between output and level of employment, i.e., number of workers.

Historically, Keynes (1936) pioneered the idea of government intervention in the economy through macroeconomic policies, using monetary and fiscal policy instruments. Keynes believed that a government could positively influence

economic conditions and performance by altering tax rates and its expenditure. He advocated that a government should try to regulate and influence the economy rather than wait for the self-adjustment mechanism driven by market forces of demand and supply to automatically regulate and restore an economy on the part of steady equilibrium in the long-run. Keynes further argued that a government should remedy disequilibrium economic conditions in the short-run to avoid the disastrous outcome that may ensue in the long-run. Therefore, a government needs to intervene in an economy experiencing recessionary (negative or low growth rates of output, high rates of unemployment among others) or inflationary (persistent rises in general price level, declining value of money, and so on) situations by altering either tax rates or government spending. The implication is that less tax increases the disposable income of the people, increase aggregate demand and consumption, encourages investment and output, stimulates economic activity and, ultimately, economic growth. The reverse obtains if the people are taxed less. Also, a government should implement monetary policy by manipulating money supply to influence the availability and cost of credit in consonance with prevailing economic conditions. The implication is that implementing expansionary monetary policy lowers interest rates (cost of credit), encourages investment, expands employment and output, stimulates economic activity and, ultimately, engenders economic growth. Conversely, the reverse is the case for contractionary monetary policy. Therefore, the submission is to embark on either contractionary or expansionary fiscal and or monetary policy (ibid.).

Contractionary or restrictive macroeconomic policies encompass increase in taxes, reduction in government expenditures (budget surplus), unfavourable exchange rate regime, and reduced investment in human capital through less expenditure on education and training. Conversely, expansionary or loose macroeconomic policies comprise the reduction in taxes, increase in government spending (budget deficit), favourable exchange rate regime and increased expenditure in education and training. Contractionary macroeconomic policies are usually employed to reduce excess aggregate demand, control inflation, and maintain internal balance in the domestic economy. Expansionary macroeconomic policies are implemented to stimulate aggregate demand, engender threshold or natural rate of inflation, stimulate economic activity, and possibly stimulate higher rate of economic growth.

The Keynesian view, which has formed the operational basis of modern macroeconomics, is contrary to the reliance on self-adjustment mechanism of market forces of demand and supply proposed by classical economists such as Adam Smith, Alfred Marshall, David Ricardo, Pigou, and Say. Also, Friedman's (1959) alternative macroeconomic policy, anchored on the tenets of 'monetarism', denotes the tradition of economic analysis that believes in market benevolence and denounces any efficient role of fiscal policy. Friedman and Keynes have been two of the most relevant of all times, and the social and political influence of their conflicting approaches about the role and effects of macroeconomic policy are key to understanding ideologies, policies, and societies in the last century (Caballero, 2013).

2.3 Review of Empirical Studies

Some research efforts have been directed at macroeconomic policies Nigeria, Africa and other countries in the world. For instance, Olanipekun and Folorunso (2015) found a long-run relationship among fiscal and monetary variables and economic growth in Nigeria for the period of 1970-2013. Kenneth et al. (1996) examined the export-led growth experience of Taiwan and South Korea in the context of macroeconomic policy as a causal factor or an inevitable choice. They found no robust and significant statistical relationships between macroeconomic policy and economic growth for Taiwan and South Korea. Thus, they argued that international competition forces households, firms, and governments in the countries to react to external shocks optimally, and their decisions and policies were endogenous. They further argued that fiscal discipline does not only give macroeconomic policy instruments the maximum degree of freedom in achieving export growth goals, but also allows a central bank to be more flexible in promoting exports without immediately compromising its price stability goal. They further submitted that in the event of declining exports as a source of growth, government spending becomes an essential stimulant for the growth of a domestic economy (ibid.).

Alesina (2012) favours spending-based macroeconomic policy actions over taxed-based alternatives. An analysis of the effectiveness of macroeconomic policy by Oh and Reis (2012) showed that targeted lump-sum transfers are expansionary because of both neoclassical wealth effect and Keynesian aggregate demand effect. Coenen et al. (2012) showed that discretionary fiscal policy measures increased annualised quarterly real GDP growth in the Euro area during the great depression by up to 1.6 percentage points. Corsetti et al. (2012) analysed the impact of strained government finances on macroeconomic stability and the transmission of fiscal policy in Philadelphia. The study found that fiscal retrenchment can help curtail the risk of macroeconomic instability and, in extreme cases, even stimulate economic activity.

Some recent studies concentrated attention on the fiscal policy-economic growth nexus (Omitogun & Ayinla 2007; Gotz-Kozierkiewicz & Kolodko, 1991; Arestis, 2009; Ogbole et al., 2011; Audu, 2012; Agu et al., 2015; Maku, 2015; Guru, n.d.; Ubesie, 2016); while others examined monetary policy-economic growth relationship (Onyeiwu, 2012; Dimitrijevic, 2013; Niculae, 2013; Hassan & Okoroafor, 2013; Udude, 2014; Kyari, 2015; Nwoke et al., 2016). Of note, however, is that these recent research efforts have not been holistic in the analysis of macroeconomic policies-economic growth relationships.

For the economy of Poland, Gotz-Kozierkiewicz and Kolodko (1991) found that over-ambitious objectives for fiscal stabilisation contributed to both the debt of recession and budgetary crisis itself. Omitogun and Ayinla (2007) employed Ordinary Least Squares estimation techniques on Solow's growth model to analyse the contribution of fiscal policy to economic growth in Nigeria. The results showed that fiscal policy has not been effective in promoting sustainable economic growth in Nigeria. Thus, the study seemed to invalidate the Keynesian postulate that suggests fiscal policy

as an active policy to stimulate economic activities (with reference to Nigeria). Other factors such as policy inconsistencies, high level of corruption, wasteful spending, poor policy implementation and the lack of feedback mechanism for implemented policies evident in Nigeria are indeed capable of hampering the effectiveness of fiscal policy in the country. However, there are contrasting opinions. Arestis (2009) considered fiscal policy within the 'new consensus' and found the need for more attention to be paid to it than on monetary policy. Ogbole et al. (2011) found that fiscal policy has more growth effect in Nigeria during deregulation than during regulation.

Audu (2012) used the co-integration error correction mechanism to evaluate the impact of fiscal policy on the growth of the Nigeria's economy between 1970 and 2010. The results showed that fiscal policy had a significant causal effect on economic growth. Agu et al. (2015) found evidence of a positive correlation between fiscal policy components and economic growth in Nigeria. Maku (2015) found significant positive effect of fiscal policy on economic growth in Nigeria from 1970 to 2011. Ubesie (2016) found significant growth effect of government spending in Nigeria during the 1985-2015 periods. Guru (n.d.) showed that fiscal policy has the potentials to lift an economy out of depression via increased government spending.

Onyeiwu (2012) found that monetary policy exerted positive impact on GDP growth and balance of payments between 1981 and 2008, but the impact was negative on inflation during the period. Udude (2014) used the vector error correction mechanism (VECM) to analyse the growth of Nigeria's economy in relation to monetary policy variables during 1981 to 2012. The results showed a long-run relationship between monetary policy and economic growth in Nigeria. Only exchange rate had a significant impact on the economic growth of the country during the period. Therefore, the conclusion was that monetary policy did not impact significantly on the economic growth of the country. A related study by Nwoko et al. (2016) showed that money supply did not have a significant impact on gross domestic product during the years 1990 to 2011, while interest rate had a significant and a negative effect on economic growth during the period.

Dimitrijevic (2013) considered monetary reviews and appropriate time for monetary policy as the source of economic growth with inflationary consequences. Based on an analysis of demand and supply functions for money, the quantity theory of money, velocity of circulation and instruments of monetary policy, his study proposed a new approach to the money creation mechanism to connect money supply to the growth of real GDP. The author proposed money supply control as the key instrument, and a low and stable long-term interest rate as the factor for maintaining stability of velocity so that monetary policy would exert a real impact on short- and long-run economic growth. Niculae (2013) analysed monetary policy approach at the European and Romanian economic levels. Noting the influence of monetary policy on nominal interest rates, currency supply and average rate of inflation in the economy, the author found that the viability and effectiveness of monetary policy depend on structural reforms and fiscal measures.

Hassan and Okoroafor (2013) employed error correction mechanism to examine the effectiveness of monetary policy in macroeconomic stability in Nigeria, based on 1970-2010 datasets. They found that monetary policy played a positive and significant role in stabilising the economy during the period, and raised aggregate output. They also found that exchange rate policy had a significant negative impact on the economy. Thus, exchange rate policy was not effective in stabilising the economy. The study further found that money supply, exchange and monetary policy rates fuelled inflation in the economy. Kyari (2015) analysed the real sector of the Nigerian economy in relation to monetary policy variables. Anchored on the error correction model, the study found that the effects of money supply shocks were similar and significant. The study emphasised the need for the use of money supply regularly as a mechanism to improve the real sector of the economy.

It is obvious from the review that there has been no consensus about the effects of macroeconomic policies on economic growth, and that most of the research efforts have not been holistic. More focus has been on either monetary or fiscal component rather than the totality of the constituents of macroeconomic policies. This paper contributes to bridging this gap by considering the macroeconomic policies-economic growth nexus from a broader perspective.

3. Methodology

3.1 Design, Data and Sources

Given that this paper intends to explore the possibility of stimulating an economy out of recession via holistic macroeconomic policies, the analysis is anchored on a time series design consisting of measurable quantitative macroeconomic variables. Therefore, time series values of the variables are incorporated in an error correction analytic model. The variables are real gross domestic product (RGDP) as surrogate for economic growth; government expenditure (GEXP) and government revenue (GREV) as proxies for fiscal policy; broad money supply (BMS), monetary policy rate (MPR) and interest rate (INTR) as proxies for monetary policy; official exchange rate (OEXR) vis-à-vis the US dollar as surrogate for exchange rate policy; and government transfer payments (GTP) and school enrolment rate (SER) as proxies for supply-side policies. Inflation rate (INFR) and gross fixed capital formation (GFCF) are considered as control variables. The datasets are sourced from the Central Bank of Nigeria (CBN) and World Bank's World Development Indicators (WDI), which where appropriate, were transformed for analysis in this paper. The datasets are subjected to stationarity test using the Augmented Dickey-Fuller (ADF) unit root test to ascertain the order of integration in time series values of the datasets, and thus justify the use of error correction model (ECM) for the analysis (Cottrel & Lucchetti, 2017). The data collected covered 35 years, between 1981 and 2016.

3.2 Analytic Model

In the economic literature, the ability of countries to reduce output gap (difference between actual and potential) and sustain a long-run growth path has been of research interest. To test the efficacy of macroeconomic policies in the growth of the Nigerian economy, this study adapts the model used by Fayissa and Nsiah (2008) in their study

of remittances-economic growth and development nexus in Africa. The simple double log-linear Cobb-Douglas production function specified by the authors is adapted for the peculiarities of this paper. RGDP is the dependent variable; while GREV, GEXP, BMS, MPR, INTR, OEXR, GTP, SER, INFR and GFCF entered the model as independent variables. Thus, the functional relationship specified for this paper is:

$$RGDP = f(GREV, GEXP, BMS, MPR, INTR, OEXR, GTP, SER, NFR, GFCF) \quad (1)$$

The underlying mathematical expression of the functional relationship in equation (1) is configured in its aggregative form:

$$\begin{aligned} \ln RGDP_t = & \beta_0 + \beta_i \sum_{i=1}^2 FPV_t + \beta_j \sum_{j=3}^5 MPV_t + \beta_k \sum_{k=6}^7 SSPV_t \\ & + \beta_p \sum_{p=8}^9 MDV_t + \beta_t EXPV_t \end{aligned}$$

where FPV, MPV and SSPV are vectors of monetary, fiscal and supply-side policies variables (GREV and GEXP, BMS, MPR and INTR, GTP and SER) respectively; MDV is metric of moderating variable, and EXPV is the exchange rate policy variable.

The econometric model estimated for analysing the effects of the variables of macroeconomic policies on growth of the economy is thus specified in the transformed log-linear form as:

$$\begin{aligned} \ln RGDP_t = & \beta_0 + \beta_1 \ln GREV_t + \beta_2 \ln GEXP_t + \beta_3 \ln BMS_t + \beta_4 MPR_t + \beta_5 \ln INTR_t \\ & + \beta_6 \ln GTP_t + \beta_7 SER_t + \beta_8 \ln INFR_t + \beta_9 GFCF_t + \beta_{10} OEXR_t + \varepsilon_t \quad (2) \end{aligned}$$

The study intends to determine how the variables of macroeconomic policies affected economic growth of the country. The effects are dynamic such that they cause fluctuations in growth of the economy over time, the model above, equation (2), is specified in a manner that corrects any possible error, and restores the variables to long-run equilibrium from dynamics of short-run disturbances. Thus, the error correction mechanism (ECM) is incorporated into equation (2) and specified as follows:

$$\begin{aligned} \ln RGDP_t = & \beta_0 + \beta_1 \ln GREV_t + \beta_2 \ln GEXP_t + \beta_3 \ln BMS_t + \beta_4 MPR_t + \beta_5 \ln INTR_t \\ & + \beta_6 \ln GTP_t + \beta_7 SER_t + \beta_8 \ln INFR_t + \beta_9 GFCF_t + \beta_{10} OEXR_t + \beta_{11} ECM(-1) \\ & + \varepsilon_t \quad (3) \end{aligned}$$

The coefficients $\beta_1, \beta_2, \beta_3, \dots, \beta_{10}$ are the effects of the macroeconomic measures as well as the moderating variables on growth of the economy; and the coefficient β_{11} depicts the speed at which economic growth adjusts to equilibrium in the short- and long-run after changes in macroeconomic policies. ε_t denotes the white noise error term. Based on equation (3), the following null and alternative hypotheses are tested: $\beta_1 = \beta_2 = \beta_3 = \dots = \beta_{10} = 0$ (i.e., zero effects), against $\beta_1 = \beta_2 = \beta_3 = \dots = \beta_{10} \neq 0$ (i.e., non-zero effects).

For the fact that the direction of co-integration is not established *a priori*, each variable is normalised. Then, equation (3) is estimated for short- and long-run relationships and effects thereof, as well as adjustment speed to equilibrium. The effects are evaluated for statistical significance or otherwise, based on 5% level of significance.

4. Results and Discussion

4.1 Data Description and Descriptive Statistics of Variables

The definitions and descriptive statistics of the variables included in the study model are shown in Table 1.

Table 1: Description and Summary Statistics of the Variables

Variable	Description	Mean	Minimum	Maximum	Std. Dev.
RGDP	Real gross domestic product. Inflation-adjusted gross domestic product (₦bn).	33021.75	13779.26	71177.90	18977.67
GEXP	Government expenditure (₦bn)	520.20	9.60	5185.30	1840.70
GREV	Government Revenue (₦bn)	2786.00	10.50	10654.80	3465.11
BMS	Broad money supply (₦bn)	4004.24	14.47	18901.30	3597.27
MPR	Monetary policy rate (%). Principal instrument used to control the direction of interest rates and anchor inflation expectations in the economy (CBN, 2014).	12.83	6.00	26.00	4.09
INTR	Banks' prime lending rate (annual % average).	17.58	7.75	29.80	4.76
OEXR	Official exchange rate (units of naira per US dollar).	72.75	0.62	158.55	65.15
GTP	Government transfer payments (₦bn)	703.71	3.90	2602.98	899.10
SER	School enrolment rate (average % of the population of official secondary and tertiary education age); measure of investment in human capital.				
INFR	Inflation rate (%). Persistent increase in general price level over considerable time period.	19.43	5.38	72.84	17.76
GFCF	Gross fixed capital formation (annual growth); measure of investment in physical capital.	3.61	35.99	59.39	23.01

Source: Author's computations (2018)

As Table 1 shows, the average value of real gross domestic product during the period was ₦33021.8m. The minimum and maximum values were ₦1377.3m and ₦7177.9m, respectively, with a standard deviation of ₦18977.7m. The standard deviation shows considerably wide fluctuations in real GDP or growth of the economy during the period. Average amounts of government revenue and expenditure, as fiscal policy proxies, were ₦2786bn and ₦1520.2bn, respectively. The minimum and maximum revenue and expenditure amounts of ₦10.5bn and ₦10654.8bn, and ₦9.6bn and ₦5185.3bn, with corresponding standard deviations of ₦3465.1 and ₦1840.7, respectively, indicate that the government tended more towards contractionary than expansionary fiscal policy stance. The standard deviations also indicate more fluctuations in revenue than expenditure of the

government. The revenue fluctuations attest to the dynamics in the price of crude oil in the international market as the major source of foreign exchange earnings of the government of Nigeria.

The descriptive statistics of the variables show mean values of broad money supply and monetary policy rate, as well as interest rate, as monetary policy surrogates, to be ₦4004.2bn, 12.8% and 17%, respectively; with respective standard deviations of ₦5957.2bn, 4.09% and 4.8%. The minimum values were ₦14.4bn, 6% and 7.5%; while the maximum values were ₦18901.3bn, 26% and 29.8%, respectively. This indicates that interest rate was the most fluctuating among the monetary policy variables, and that monetary policy rate fluctuated more than broad money supply. Lower fluctuations in broad money supply and monetary policy rate suggest some manifestations of tight monetary policy stance of the government during most of the part of the period.

The statistics show that during the period, official exchange rate of mean of ₦72.8 to US\$1, minimum of ₦0.6 to US\$1, and maximum of ₦158.6 to US\$1, with a standard deviation of ₦65.2. The standard deviation indicates low fluctuation in official exchange rate and, thus, showed relative stability of foreign exchange as a macroeconomic policy. The mean amount of government transfer of payments was ₦703.7bn, the minimum transfer payments was ₦3.9bn, and the maximum was ₦2602.1bn. On the other side, as a component of supply-side policy, the mean school enrolment rate was 21.3%; while the minimum and maximum school enrolment rates were 9.7% and 36.3%, respectively. The standard deviation of ₦899.1bn in government transfer payments and the 6.9% school enrolment rate indicate that the supply-side policies of the government were a mixture of stability and instability. Correspondingly, inflation and gross fixed formation rates were a mixture of narrow and wide fluctuations as shown by the respective standard deviations of 17.8% and 23.0%. The mean inflation rate was 19.4%, and the mean school enrolment rate was 3.1%. The minimum inflation rate was 5.4%, and the maximum was 72.4%.

4.2 Time Series Properties of the Datasets

4.2.1 ADF Unit Root Tests

Testing for stationarity or order of integration in the form of unit root has become a normal practice in the analysis of time series datasets (Engle & Granger, 1987). This is because of the spurious results that standard statistical or econometric techniques, such as Ordinary Least Squares (OLS), present when applied to datasets with unit roots. In such cases, the OLS really estimates common trends and not the underlying relationships between two or more variables. Therefore, such estimates may appear to be significant and plausible but are actually meaningless and insignificant (Hamilton, 1994). Relevant transformations such as differencing and logging are employed to ensure stationarity in the case of non-stationary time series datasets. After achieving stationarity through transformations, error correction mechanism can be used for the analysis (Cottrell & Lucchetti, 2017). Table 2 presents the results of the unit root tests.

Table 2: Summary Results of Augmented Dickey-Fuller (ADF) Unit Tests Results

Variable	Test Critical Values			Order of Integration
	ADF t-Statistic	(at 5%)	Prob.	
InRGDP	6.438067	2.954021	0.0000	<i>I(1)</i>
GREV	4.312503	3.620686	0.0034	<i>I(1)</i>
InGEXP	4.628700	2.960411	0.0008	<i>I(1)</i>
BMS	9.504522	2.971853	0.0000	<i>I(1)</i>
MPR	3.045729	2.948404	0.0404	<i>I(1)</i>
INTR	3.016299	2.971853	0.0455	<i>I(1)</i>
OEXR	5.508197	2.951125	0.0001	<i>I(1)</i>
InGTP	7.446899	2.951125	0.0000	<i>I(1)</i>
INTR	4.278618	2.960410	0.0021	<i>I(1)</i>
SER	6.346524	3.639407	0.0000	<i>I(1)</i>
GFCF	10.89320	2.957110	0.0000	<i>I(1)</i>

Source: Author's computations (2018)

The result in Table 2 show that all the variables are integrated of order one, *I(1)*. Therefore, error correction model is employed for analysis in this paper. The error correction model is theoretically useful for estimating both short- and long-term effects of one time series on another.

4.2.2 Graphical Illustrations of Economic Growth and Macroeconomic Policies in Nigeria

Fig. 2 presents graphical illustrations of economic growth and macroeconomic policies in Nigeria during the 1981-2016 periods. The figure shows graphical representations of the real gross domestic product (RGDP), and macroeconomic policy variables (GREV, GEXP, BMS, MPR, INTR, OEXR, GTP and SER) for the years 1981 to 2016. The graph of RGDP shows that the economy sustained slight decreases of real gross domestic product from 1981 to 1984. The trend reversed in 1985 and increased marginally thereafter, with slight fluctuations till it peaked in 1996. The RGDP declined sharply in 1997. The decline reversed in 1998 and increased steadily thereafter through to 2015, before declining again in 2016 due to economic recession.

Slight fluctuations were visible in government revenue (GREV) prior to 2000. Though GREV increased considerably from the year 2000, it fluctuated thereafter throughout the remaining part of the period. Correspondingly, government expenditure (GEXP) sustained slight increases prior to the year 2000. Thereafter, government expenditure increased slightly, but declined considerably from 2014 to 2016, reflecting fiscal policy measure of the government.

On the other hand, upward increases were maintained in broad money supply (BMS) but declined. The decline in 2016 suggests the government's tight monetary policy stance even in the face of evolving economic recession. However monetary policy rate (MPR), which was lowest in 1981 and slightly higher in 2010, fluctuated considerably during most of the years being analysed, reaching its peak in 1993.

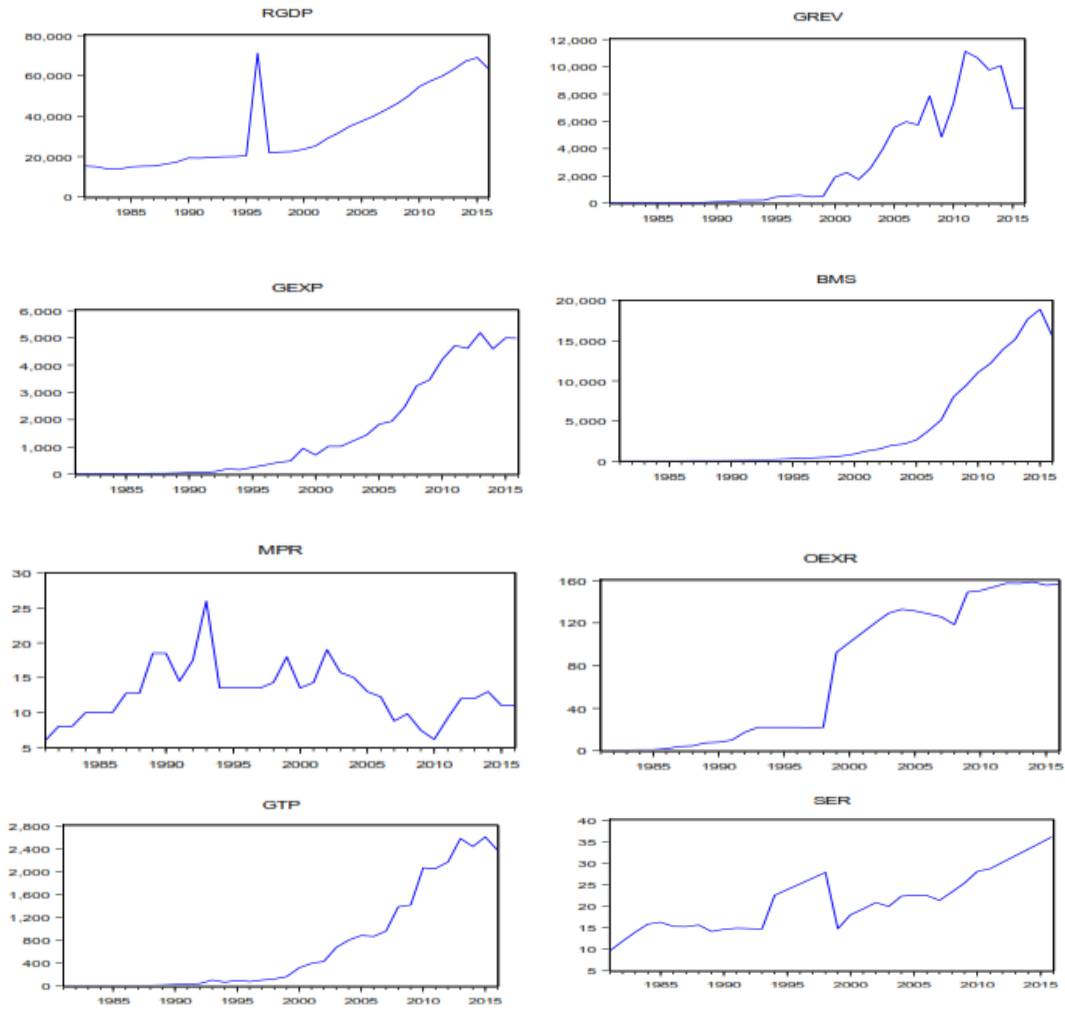


Figure 2: Economic Growth and Macroeconomic Policies in Nigeria During the 1981-2016 Periods

Compared to 2010 and 2011, MPR was considerably higher in 2015 and 2016, thereby reflecting the complementary tight monetary policy stance of the government even in the situation of economic recession. Correspondingly, interest rate (INTR) fluctuated in line with the monetary policy rate (MPR). Compared to 2008, interest rate was slightly higher in 2015 and 2016. The implications are higher cost of borrowing and tight monetary policy even in the prevailing economic recession. The graph of exchange rate shows somewhat zigzag upward movements in official exchange rate (OEXR) of the naira vis-à-vis the US dollar. The upward movements showed that the domestic currency

depreciated against the dollar, and that exchange rate policy management of the government was not effective, and thus contributed to the recession in the economy owing to external shocks.

The graph of government transfer payments (GTP) shows increasing and slightly fluctuating amounts of government transfer payments, especially from 1997 to 2015. The amount of transfer payments declined in 2016. The implications are that there were reduced aggregate demand and constraint on the supply-side of the economy. School enrolment rate (SER) showed considerable fluctuations prior to the year 2000, but slight fluctuations between 2000 and 2009. The rate showed relative upward trend from 2010 to 2016. The trend fosters the emphasis placed on education and training even during economic recession.

4.3 Estimates of the Error Correction Model

Table 3 presents the results of the estimation of the error correction model.

Table 3: Estimates of the Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.028846	0.195011	-0.147920	0.8839
D(GREV)	5.19E-05	4.26E-05	1.220192	0.2366
D(InGEXP)	0.001260	0.031279	0.040279	0.9683
D(BMS)	-0.03E-06	1.20E-05	-0.253071	0.8028
D(MPR)	-0.002202	0.014236	-0.154713	0.8786
D(INTR)	0.009422	0.011437	0.823801	0.4198
D(INTR)	0.009422	0.011437	0.823801	0.4198
D(OEXR)	-0.002215	0.004480	-0.494522	0.6263
D(InGTP)	-0.386670*	0.169530	-2.80833	0.0337
D(SER)	0.012118	0.019507	0.621229	0.5415
D(INFR)	-0.001976	0.002451	-0.806193	0.4296
D(GFCF)	0.003205*	0.001389	2.307279	0.0319
ECM(-1)	-1.306943*	0.218647	-5.977400	0.0000

R-squared = 0.721969 F-statistic = 4.721308 S.E. of Reg. = 0.205185; Adjusted R-squared = 0.569052 Prob; (F-statistic) = 0.001322; Durbin-Watson stat. = 2.120911

Note: *Significance at the 0.05 level

Source: Author's computations (2018)

The results of the estimation presented in Table 3 reveals some interesting findings about the effects of macroeconomic policies on the growth of the economy. Based on the result, the coefficients of fiscal and monetary policy variables were not statistically significant. The implications are that fiscal and monetary policy stance of the government had no significant effect on economic growth in Nigeria. This support the findings by Gotz-Kozierekiewicz and Kolodklo (1991), Omitogun and

Ayinla (2007), Udude (2014), Nwoko et al. (2016), Ubesie (2015), and Guru (n.d); but contradicts the findings by Ogbole et al. (2011), Audu (2012), Onyeiwu (2012), Hassan and Okoroafor (2013), Agu et al. (2015) Kyari (2015), and Maku (2015). However, the negative but significant coefficient (-1.306946) of the error correction mechanism suggests the possibility of a long-run relationship between fiscal or monetary policy and economic growth, as in Udude (2014).

Government transfer payments (GTP) have significant negative effect on economic growth as indicated by the negative coefficient and p-value <0.05 ($\beta = -0.386670$; $p = 0.0337$). Though school enrolment rate (SER) exerted positive effect, the effect was not statistically significant. The implication of this is that the exchange rate policy of the government retarded growth of the economy, though to an insignificant extent; while supply-side policies of the government had mixed effects on the growth of the economy. Similarly, the control variables (INFR and GCFC) have mixed effects on economic growth. Inflation rate (INFR) has a negative but not significant effect, while gross fixed capital formation (GFCF) has positive and significant effect on growth of the economy as evidenced by their respective coefficients and p-values of their t-statistics.

The F-statistic of 4.721308, with its p-value (0.001322), indicates that the explanatory variables in the model jointly have a significant effect on economic growth. The R-squared and the Adjusted-R-squared values of 0.721969 and 0.569052 shows that the explanatory variables exhibited moderately high strength in explaining variations or fluctuations in the growth of the economy during the period under study. The standard error of regression (0.205185) provides sufficient narrow precision of 95% that the independent variables included in the model well predicted growth of the economy. Thus, both the R-squared and standard error of regression provide statistical evidence that the model employed for the analysis well fits the datasets (Frost, 2014). The Durbin-Watson statistic (2.120911) provides evidence that the datasets are free from the problem of serial autocorrelation. The coefficient (-1.306946) of the error correction mechanism indicates that the economy has the potential of adjusting to long-run equilibrium from a short-run disequilibrium and downturn at a speed of about 131%.

5. Summary, Conclusion and Policy Implications

This paper evaluated the effectiveness of fiscal, monetary, exchange rate and supply-side policies as a set of government macroeconomic rules and regulations for stabilising and stimulating growth in the face of economic recession. The findings show positive but not significant effects of government revenue and expenditure on economic growth, though expenditure has greater positive effect than revenue. Broad money supply and monetary policy rate have negative and not significant effects, and interest rate has a positive but not significant effect. The official exchange rate policy of the government has negative and not significant effect, but supply-side policies have mixed effects such that government transfers have significant negative effect; while school enrolment rate, as a metric of government investment in human capital, has a positive but not significant effect on economic growth. Based on the findings, therefore, the paper concludes that the

fiscal policy stance of the government has no significant effect on economic growth, though expansionary fiscal policy by way of increased government expenditure over revenue or deficit financing has the potential to stimulate growth of the economy, especially during recession. The paper also concludes that tight monetary policy has no significant growth-retarding effect on an economy. However, threshold interest rate induced by monetary policy has sustainable and growth-stimulating effects during recession. Moreover, the exchange rate policy of the government has a marginally growth-retarding effect, while supply-side policies have mixed effects on economic growth. On the aggregate, the current mix of macroeconomic policies being implemented by the Nigerian government has significant growth-retarding effect on the economy.

Consequently, this paper emphasises the need for the implementation of an appropriate mix of macroeconomics to sustain and stimulate the economy out of recession, harness growth potentials, and restore the economy to the path of sustainable growth. This is essential if the ultimate goal of sustainable economic development must be attained in the country. Specifically, there is the need for increased deficit financing via expansionary fiscal policy, complemented by expansionary monetary policy, sustained floating or managed exchange rate policy, and requisite supply-side policies—especially through education and training—for accelerated human capital development. The caveat in this paper is that commercial policy is not considered in macroeconomic policies because Nigeria is an import-dependent country. Therefore, further studies may consider net export as a proxy for commercial policy, especially for manufacturing export-oriented countries.

References

- Agu, S.U., I.M. Okwo, O.D. Ugwunta & A. Idike, 2015. Fiscal Policy and Economic Growth in Nigeria: Emphasis on Various Components of Public Expenditure. *sagepub.com* (Accessed on 28 March, 2018).
- Alesina, A. 2012. Fiscal Policy After the Great Recession. *Atl. Economic Journal*, 40(1): 429–435.
- Arestis, P. 2009. Fiscal Policy within the New Consensus Macroeconomic Framework. Cambridge Centre for Economic and Public Policy working paper WP06-09.
- Audu, N.P. 2012. The Impact of Fiscal Policy on Nigerian Economy. *International Review of Social Sciences and Humanities*, 4(1): 142–150.
- Bank of Botswana. 2018. Basics of Exchange Rate Policy. <http://www.bankofbotswana.bw/content/2009103010010-basics-of-exchange-rate-policy> (Accessed, 20 June, 2019)
- Caballero, B. 2013. Effects of Fiscal and Monetary in the Great Depression. *Economics*, 1. pp. 15–18. www.mdpi.com/economics (Accessed on 26 February, 2018).
- Central Bank of Nigeria (CBN). 2012. Economic Recession: Understanding Monetary Policy Series, No. 14. Abuja: Central Bank of Nigeria.
- . 2014. *Monetary Policy Review*. Abuja: Central Bank of Nigeria.

- . 2014. *The Conduct of Monetary Policy*. Abuja: Central Bank of Nigeria.
- . 2018. *The conduct of monetary policy*. Available at <https://www.cbn.gov.ng/monetary-policy/conduct.asp> (Accessed 20 June, 2019)
- Coenen, G, R. Straub & M. Trabandt. 2012. Fiscal Policy and the Great Recession in the Euro Area. *American Economic Review*, 102): 71–76.
- Corsetti, G., K. Kuester, A. Meier & G.J. Mueller. 2012. Sovereign Risk, Fiscal Policy and Macroeconomic Stability. IMF Working Paper Number WP/12/33. International Monetary Fund.
- Cottrell, A. & R. Lucchetti. 2017. Gnu Regression, Econometrics and Time-series Library: User's Guide. Available at <http://gretl.sourceforge.net/gretl-help/gretl-guide.pdf> (Accessed on 28 March 2018).
- Dimitrijevic, B. 2013. Essay on Monetary Policy and Economic Growth. *Journal of Central Banking Theory and Practice*, 1: 111-138.
- Engle, R.F. & C.W.J. Granger. 1987. Cointegration and Error Correction Representation: Estimation and Testing. *Econometrica*, 55(2): 251-276.
- Fayissa, B. & C. Nsiah. 2008. The Impact of Remittances on Economic Growth and Development in Africa. Department of Economics and Finance Working Paper Series, Murfreesboro, USA: Middle Tennessee State University.
- Friedman, M.A. 1959. *Program for Monetary Stability*. New York, NY: Fordham University Press.
- Frost, J. 2014. Regression Analysis: How to Interpret S, the Standard Error of the Regression. <http://blog.minitab.com/blog/adventures-in-statistics-2> (Accessed 4 April 2018).
- Gotz-Kozierkiewicz, D. & G.W. Kolodko. 1991. Fiscal Adjustment and Stabilisation Policies: The Polish Experience. *Oxford Review of Economic Policy*, 6(1).
- Guru, S. (n.d). Importance of Fiscal Policy for Economic Stabilisation (with diagrams). Available at <http://www.yourarticlelibrary.com/economics/> (Accessed on 21 March. 2018).
- Halland, H. & M. Bleaney. 2009. Explaining the Pro-Cyclical Fiscal Policy in Developing Countries. Credit Research Paper Number 11/09. University of Nottingham: Centre for Research in Economic Development and International Trade.
- Hamilton, J.D. 1994. *Time Series Analysis*. Princeton, New Jersey: Princeton University Press.
- Hassan, A.E. & O.K.D. Okoroafor. 2013. Monetary Policy and Macroeconomic Stability in Nigeria: Evidence from Error Correction Model. *Journal of Economics and Sustainable Development*, 4(6): 147–155.
- Kenneth, S.L., L. Hsiu-Yun & H. Bor-Yi. 1996. The Role of Macroeconomic Policy in Export-Led Growth: The Experience of Taiwan and South Korea. In Ito, T. Ito and Kruger, A. O. (eds.), *Financial Deregulation and Integration in East Asia*, National Bureau of Economic Research (NBER-EASE) Vol. 5): 193–227. Chicago: University of Chicago Press.
- Keynes, J.M. 1936. *The General Theory of Employment, Interest and Money*. Cambridge, London, UK: Cambridge University Press.
- Kyari, G.V. 2015. An Evaluation of the Impact of Monetary Policy on the Real Sector in Nigeria. *Mediterranean Journal of Social Sciences*, 6(2): 361–368.

- Maku, O.E. 2015. Fiscal Policy and Economic Growth: A Study on Nigerian Economic Perspective. *Journal of Economics and Sustainable Development*, 6(15): 86–96.
- Nayyar, D. 2011. Rethinking Macroeconomic Policies for Development. *Revista de Economia Politica*, 31(3): 339–351.
- Nicule, M. 2013. Monetary policy and its Role in Macroeconomic Stability. *International Journal of Academic Research in Business and Social Sciences*, 3(1): 520–524.
- Noko, E.J. 2016. Economic Recession in Nigeria: Causes and Solution. <http://educacinfo.com/economic-recession-nigeria/> (Accessed on 26 March 2018).
- Nwoko, N.M., J.C. Ihemeje & E. Anumadu. 2016. The Impact of Monetary Policy on the Economic Growth of Nigeria. *African Research Review: An International Multidisciplinary Journal*, Ethiopia, 10(3): 192–206.
- Ogbole, F, S.N. Amadi & I.D. Essi. 2011. Fiscal Policy and Nigerian Economic Growth, *Journal of Economics and International Finance*, 3(6): 407–417.
- Oh, H & R. Reis. 2012. Targeted Transfers and the Fiscal Response to the Great Depression. *Journal of Monetary Economics*, 59): 50–64.
- Olanipekun, E.F. & B.A. Folorunso. 2015. Fiscal and Monetary Policy Instruments and Economic Growth Sustainability in Nigeria. *American Journal of Economics*, 5(6): 587–594.
- Omitogun, O & T.A. Ayinla. 2007. Fiscal Policy and Nigerian Economic Growth. *Journal of Research in National Development*, 5(2). Available at <http://www.transcampus.org/> (Accessed on 28 February 2018).
- Onyeiwu, C. 2012. Monetary Policy and Economic Growth of Nigeria. *Journal of Economics and Sustainable Development*, 3(7): 62–70.
- Otmar, I. 2005. The Role of Fiscal and Monetary Policies in the Stabilisation of the Economic Cycle. Paper presented at International Conference on Stability and Economic Growth: The Role of the Central Bank, Mexico City. 2005. November 14.
- Taylor, B J. 1994. Stabilisation Policy and Long-Term Economic Growth. In Wright, G and Landau, R. (eds.) “Growth and Development: The Economics of the 21st Century, pp. 1–36.
- Thornton, J. 2008. Explaining the Pro-Cyclical Fiscal Policy in African Countries. *Journal of African Economies*, 17(3): 451–464.
- Ubesie, M.C. 2016. The Effect of Fiscal Policy on Economic Growth in Nigeria. *Journal of Finance and Accounting*, 4(3): 140–145.
- Udude, CC. 2014. Monetary Policy and Economy Growth of Nigeria (1981–2012). *Journal of Policy and Development Studies*, 9(1): 234–237.
- UNCTAD. 2010. The Financial Crisis, Macroeconomic Policy and the Challenge of Development in Africa. Geneva: United Nations. www.unctad.org/en/Docs/ (Accessed on 24 March 2018).