



Fiscal Policy and Economic Stabilization Nexus: The Nigerian Situation

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ABSTRACT

The aim of this study was to examine fiscal policy performance for the period 1990-2018 with a view to ascertaining if the goal of economic stabilization was achieved. The study used real GDP growth as proxy for economic stabilization; tax revenue, capital expenditure, recurrent expenditure and external debt as proxies for fiscal policy. Inflation rate and exchange rate was introduced as control variables. Stationarity tests were carried out on the variables using the Augmented Dicker Fuller and Phillips-Perron Tests and the Johanson Cointegration Test was employed to ascertain the short-run and long-run relationship among the cointegrating equations. The OLS estimate was employed to determine the relationship between the dependent and independent variables. It was found that recurrent expenditure, external debts and inflation has a negative impact on economic stabilization in the long-run while capital expenditure, tax revenue and exchange rate has a positive impact on the economy in the long-run. However, in the short-run, capital expenditure and exchange rate had a negative impact on economic stabilization. It is recommended that borrowed funds be used only for the intended productive purposes. There should be strict monitoring of government projects to ensure that every naira spent counts. The fight against corruption must be upheld to restore sanity into the polity and accountability in the use of public funds. There is need to transmogrify the economy into a productive hub, this will reduce the rate of external borrowing, inflationary pressures and enhance effective and beneficial exchange rate policy. Tax policies/regimes should not be such that discourage investments and other productive economic activities.

Key words: Fiscal Policy, Economic Stabilization

INTRODUCTION

The intervention of government in an economy is meant to correct market failures based on the interventionists' theory. Keynesian economics argue that the use of fiscal and monetary measures to influence macroeconomic variables can impact positively on the economy. The stabilization of the economy as opined by the Keynesians depended on the involvement of the government in economic activities. The Great Depression of the 1930's made the views of the Keynesians more plausible especially because market forces alone could not be relied upon to restore equilibrium and stabilize the economy. It became easier as a result of the success of fiscal and monetary measures (government intervention as encouraged by Keynes) to re-establish equilibrium for different economies to adopt the ideas of the Keynesians. It is clear that many economies have adopted this theory albeit with differing results. Some economies tend to do better when government gets involved in economic activities, however, some perform poorly, especially developing economies like Nigeria. However, despite years of such intervention especially through fiscal policy measures in the Nigerian economy, there seem to be very little success. Lately, the Nigerian government has plunge huge amount of money into the economy through increased government spending, bailouts to different states of the federation, and increased capital and recurrent expenditure spending. To finance these expenses, sometimes the government must borrow and lately external debt burden has increase; and still, the government is set to borrow some more. As observed by Gbosi (2007), the government fiscal budget over the years has been expansionary; billions of naira spent has had no significant impact on the standard of living of the people. The above observation is factual as there is



no real improvement in the lives of people. Inflationary pressures still persist; unemployment, incessant poverty levels, dwindling foreign exchange and slower rate of economic growth still persist. This is a sad fact. What could have been responsible for fiscal policy failure in emerging economies like Nigeria? The reason for the failure of fiscal policy measures to tackle economic problems such as inflation, unemployment, underdevelopment and poverty has been clearly expounded in the literature on the subject. Several works on effects of fiscal policy variables in Nigeria have identified some of the reasons for these challenges as: gross mismanagement/ misappropriation of public funds, (Okemini and Uranta, 2008), corruption and ineffective economic policies (Gbosi, 2007), lack of integration of macroeconomic plans and the absence of harmonization and coordination of fiscal policies (Onoh, 2007), imprudent public spending and weak sectoral linkages and other socioeconomic maladies (Amadi et al., 2006), inappropriate/ineffective policies and structural deficiencies (Anyanwu, 2007). These findings tend to suggest that fiscal policy measures do not meet the stipulated objective of economic growth and stabilization in Nigeria. The aim of this paper, therefore, is to determine the true effect, if any, of fiscal policy on economic growth in Nigeria. What really is the situation of the fiscal policy-economic stabilization nexus in Nigeria? What is the short-run and long-run dynamic impact of fiscal policy instruments on economic stabilization in Nigeria? The varying result in the available literature on this issue necessitates this study. The paper is divided into five sections- introduction, literature review, methodology, discussion of empirical findings, conclusion/recommendations.

Fiscal Policy

The term fiscal policy has conventionally been associated with the use of taxation and public expenditure to influence the level of economic activities. Fiscal policy deals with government deliberate actions in spending money and levying taxes with a view to influencing macroeconomic variables in a desired direction. This includes sustainable economic growth, high employment creation and low inflation. The objective of this deliberate action by the government or policymakers is to manipulate certain macroeconomic variables and influence the outcome of such manipulations in order to attain sustained economic growth and stabilization of the economy. The objective of fiscal policy tends to depend on the situation of the economy and the goals of government. In view of this, an economy experiencing inflationary pressure can be control through the use of fiscal policy, in this case, a reduction in government spending and an increase in taxation. On the other hand, an economy experiencing a recession can be controlled through an increase in government expenditure and reduction in taxes. The use of government expenditure and revenue (fiscal policy) is predicated on the interventionist ideas based on the failure of purely market economies achieving sustained equilibrium. The ideas of the classical economists that the market can correct itself almost simultaneously when in disequilibrium and therefore does not need any intervention by the government suffered a setback during the Great Depression that affected Europe. The concept of fiscal policy was not generally recognized as important until the birth of Keynesian Economics in the mid-nineteen thirties which enhanced its significance as a policy tool to overcome the economic depression of Western Europe and North America. Since then, purely market economies beset by



business cycles are corrected by fiscal policy measures. Realistically, fiscal policy is used in gearing the economy towards achieving a variety of economic transformation such as economic development and growth, price stability, reduction in unemployment, external equilibrium as well as income redistribution. According to Medee and Nembee (2011), fiscal policy involves the use of government spending, taxation and borrowing to influence the pattern of economic activities and also the level and growth of aggregate demand, output and employment. It also entails government's management of the economy through the manipulation of its income (government revenue) and spending power (government expenditure) to achieve certain desired macroeconomic objectives (goals) amongst which is economic growth and stabilization. Accordingly, the Central Bank of Nigeria (2011) defined fiscal policy as the use of government expenditure and revenue collection through tax and amount of government spending to influence the economy. Again, Dom Busch & Fischer (1990) defines fiscal policy as the use of government revenue collection (taxation) and expenditure (spending) to influence the economy. From the definition, it is clear that two main instruments of fiscal policy are government taxation and expenditure, though it is not limited to just the two. Other fiscal policy tools may include public debt, public work amongst others. The authors further argued that fiscal policy involves the use of these tools to influence the level and growth of aggregate demand, output and employment. Fiscal policy influences macroeconomic conditions because they affect tax rates, interest rates and government spending, in an effort to control the economy. Achieving fiscal policy goals requires that policy makers make use of certain instruments to influence or manipulate macroeconomic variables for the overall good of the economy. From the foregoing, it is clear that one of the regulatory policies used by government in achieving its objectives to bring about economic growth and stabilization is fiscal policy. Fiscal policy is an outgrowth of Keynesian economics; its logical analysis suggests that it offers a sure-fire means of stabilizing the economy as opposed to classical paradigms. The goal of modern fiscal policy is to achieve economic efficiency and stability. In a modern economy, no sphere of economic life is untouched by the government. Two major instruments or tools are used by government to influence private economic activity; taxes and expenditure but not limited to these two, it may include public debt, public work among others.

Economic Growth and Stabilization

Economic growth and stability has long been considered an important goal of macroeconomic policy. The concept of economic growth and stability is part of the core economic concerns of the early scholars especially the classical economists. The classical believed that economic growth is largely linked to labor and capital accumulation in the economy. According to Fadare (2010), economic growth according to the classical economists was mainly an increase in the general level of a country's output (GDP) as a result of increase in the workforce (labor). The classical argued that an inbuilt mechanism (the forces of demand and supply) exists in every purely market economy that can correct any divergences, alterations and departure from equilibrium immediately in order to ensure economic stability. According to Olopade and Olopade (2010), economic growth represents the expansion of a country's potential GDP or output and economic stabilization on the other hand is concern with sustaining economic growth and other macroeconomic goals over



time. Economic growth is the general increase in the total amount of goods and services (output) produced within a given year. These increases in real GDP constitute economic growth. Sustained economic growth over time will result in economic development and overall wellbeing of the economy. To actualize this, there is need to enhance and promote economic stabilization policies through the use of fiscal and monetary policies. These policies will stimulate or create incentives for economic agents who in turn will take advantage of these incentives to engage in productive ventures. For instance, tax cuts may incentivize investors to go into business, as a result, people are employed, output increases, labor is remunerated and aggregate demand increases resulting in economic growth. From the foregoing, it is clear that economic growth and stabilization is an essential goal of macroeconomic policymakers. It is also clear that the use of fiscal policy measures can influence macroeconomic variables towards desired outcome such as economic growth and stability.

Theoretical Framework

According to Bakare (2010), theoretical literature is replete with inconsistent views with regards to the true effects of fiscal policy on the real economy. The literature is generally divided along two major schools of economic thoughts. This section will focus on the Classical and Keynesian theories on economic stabilization policies by government, which is the effect of government intervention in the economy.

The Classical view

The earliest organized school of macroeconomic thought is the "classical" school. According to Ekanem and Iyoha (1999), the classical economists were proponents of the price mechanism (market system) which assumes a smooth functioning market where there is effective resource allocation and a guarantee of economic freedom to all and sundry, with built-in flexibility that excludes the need for conscious government planning and intervention. In view of this ideology, the classical economists argued that there is no need for government to get involve in the workings of the market as this will result in disequilibrium. They argued that government intervention (through monetary or fiscal policies) tends to disrupt rather than amplify or enhance economic stability. According to Bhatia (2008), the classical economists argue that, given flexible prices and a constant money supply, an increase in real government expenditure, financed either by taxes or bonds, crowds out the private sector and results in little, if any, increase in total spending. The ideology therefore, is that an increase in government spending, financed by either taxes or domestic debt, merely constitutes a resource transfer from the private sector to government and results in a lower stock of productive capital in the long-run. In other words, an increase in deficit-driven spending by the public sector leads to a displacement of private expenditure and does not result in an increase in aggregate demand. The views of the classical school as posited by Medee & Nenbee (2011) implies that the steady-state government spending multiplier is near zero as increases in government demand erase an almost equal amount of private demand. According to Musgrave and Musgrave (2004), the Classical doctrines emphasized that effective demand could not be deficient or excessive, therefore, any incremental increase in deficit-driven government spending only results in



changes in relative prices, causing a re-distribution of the same level of real output. This view is embodied in Say's Law, which posits that 'supply creates its own demand' for the production of all goods and services in the economy. In a market economy, the Classical economists opined that aggregate supply of goods and services is determined strictly by supply side factors such as the behavior of profit maximizing producers, competitive labor markets, the existing stock of capital goods and the state of technology. In conventional neo-classical models, such as those of Robert Solow in 1956, the natural growth rate of the economy does not depend on the rate of capital accumulation (like in Keynesian models), but rather on the growth rate of the labor force and the state of technology. Thus, fiscal policy can only affect the rate of growth on the transitional growth path that is associated with movement from an initial capital stock towards the steady state. Summarizing the neoclassical views in other words, Dornbusch and Fischer (1990) asserted that fiscal policy can only affect the level of output in the economy and can hardly influence its steady state growth rate. However, views of the Classical economist were tested during the situation that resulted in the Great Depression. Would the market be able to adjust itself almost simultaneously? The reality was that the market mechanism failed to achieve a satisfactory level of welfare. According to Ogiiji (2004), the 1930's Great Depression was a confirmation of the reality of the failure of the market economy which led to the evolution of Keynesian economics.

The Keynesian View

The fallout of the classical theories was due to business cycles that could not be corrected by the so called "self-regulating principles" of market economies. (Burrow and Hitris, 1974). The Great Depression of the 1930's resulted in the birth of a new frontier in economic thinking known as the Keynesian school of thought. To revamp the depressed economy, Keynes in 1935 urged the use of fiscal policy to stabilize fluctuations in aggregate income during downturns. Keynes argued that governments should increase deficit spending and lower taxes to boost effective demand during recessions. Thus, as opposed to the views of the Classics, Keynesian economics emphasized that an increase in deficit spending during recessionary times leads to an increase in aggregate demand and a reduction in unemployment. The Keynesian multiplier process predicts that an increase in government expenditure or a decrease in the tax rate leads to repeated rounds of increased spending by the private sector, resulting in an expansion of total spending. This idea is opposed to the views of the classical that such intervention by the government will result in crowding out of the private sector and have almost little or no effect on the general level of output. Summarizing the Keynesians' views, Auerbach (2009) explained that the role of fiscal policy in the achievement of macroeconomic objectives has been the increase in aggregate spending over time should be at least equal to the initial increase in net investment. Thus, Keynes stated that when there is an incremental increase in government spending during a period of economic slack, aggregate income is expected to rise by an amount that is larger than the size of the initial increment of government spending. Furthermore, the size of fiscal multipliers is believed to be even larger during recessionary times, especially when monetary policy rates reached their lower bounds. In view of this, Keynesian economics argue for the involvement of the government through the use of fiscal and monetary policies in ensuring



economic stabilization. Rather than leave the market to operate on its own during emergency conditions the government could manipulate various macroeconomic variables to hasten the stabilization of the economy. (Kenyes, 1998). In view of the foregoing, the role of fiscal policy in the achievement of macroeconomic objectives has been extensively dealt with the Keynesian Theory which is referred to as an activist macroeconomic policy. The Keynesian analysis leads to the conclusion that demand management policies can and should be used to improve macroeconomic performance. An activist macroeconomic policy involves setting monetary and fiscal variables in each time period at the values which are thought necessary to achieve the government's objectives. A basic premise of Keynesian economics is that the private sector is inherently unstable and subject to frequent and quantitatively important disturbances in the components of aggregate demand. The broad objectives of Keynesian macroeconomic policy are not in dispute, these objectives are full employment, a stable price level, the absence of significant deviations of output from its equilibrium time path, a satisfactory rate of economic growth, an equitable distribution of income, and balance of payment equilibrium. The activist policy has come under increasing attack from the monetarist and classical school, and all those who opine that management of the economy should be left to the forces of demand to correct any instability. Nevertheless, stabilization policy requires that policy makers can determine feasible targets, have a reasonable knowledge of the workings of instrumental variables and can effectively control the instrumental variables. Therefore Keynes submitted that to stabilize the economy, there is need for government to intervene through the use of monetary and fiscal policies.

Empirical Review

According to Anderton (2010), the Classical economists argue that fiscal policy cannot, in the long term, affect the level of real output (GDP) whereas the Keynesian economists argue that fiscal policy can affect the level of output. In this part of the work, different empirical findings will be reviewed. Alexiou (2009) empirically examined the relationship between economic stability and fiscal policy in the developed nations using panel data for seven transition economies in South Eastern Europe from 1995 to 2005. The study revealed significant results. More specifically, the evidence generated indicates that four out of the five variables used, including fiscal policy (government spending on capital formation) in particular had positive and significant impact on economic growth and stability. In a related study, Amanja and Morrissey (2005) used autoregressive distributed lag (ARDL) model and ordinary least square methods on time series data to analyze the relationship between fiscal policy and growth in Kenya between 1964 -2002. The study reveals that productive expenditure has strong adverse effect on growth while there was no evidence of distortionary effects on growth of distortionary taxes. Government investment was found to be beneficial to growth in the long run. This too was alluded to by Osuala et al. (2014) and Ogbale et al.(2011). In another study, Adefeso *et al* (2010) examined the impact of fiscal policy on economic growth in Nigeria using data from 1970 to 2005, using the error-correction technique to test the predictive ability of the endogenous growth model. The findings of the study were consistent with earlier empirical findings in other countries, which revealed that productive government expenditure has positive effect on economic



growth. Muritala and Taiwo (2011) employed the ordinary least squares estimation technique to investigate the effect of recurrent and capital expenditure on GDP and finds that both components of government expenditure have significant positive effects on the GDP which in turn stabilizes the economy. In a related work, Yahya et al. (2013), investigated the impact of recurrent and capital expenditure on Nigeria's economic growth using multiple regression analysis for data covering the period 1987 to 2010 and find that the impact of both components of expenditure was statistically insignificant, though the impact of recurrent expenditure was positive and that of capital expenditure, negative. This too was alluded to by Ogbonna & Appah (2012). In another study to examine the relative effectiveness of monetary and fiscal policies in Nigeria, Aigheyisi (2011), employs the method of co-integration and error correction using quarterly data spanning the period 1981Q3 to 2009Q4 and finds that total government expenditure (acting as proxy for fiscal policy) positively affected real gross domestic product (RGDP) in the short run. Aregbeyen (2007), Alex and Peter (2008), Appah (2010), Babalola and Aminu (2011), Kneller et al. (1999) and Bose et al. (2003), established positive relationship between fiscal policy (public spending) and economic growth. Bose et al. (2003) in Aregbeyen (2007) found that the share of government capital expenditures in the gross domestic product is positively and significantly correlated with economic growth, while the growth effect of current expenditure is insignificant. Yasin (2007) believed that although government expenditures were necessary for economic growth, yet the impact of such expenditures on the economy is of primary importance. He concluded that the key to rapid economic growth constituted capital and public investment expenditure and that increased government budget deficits do not automatically guarantee rapid economic growth. This is corroborated in Amassom (2011).

RESEARCH METHODOLOGY

The study adopts a descriptive research design which ensures that the procedure to be employed in the study is carefully planned so as to obtain correct and reliable information about the research work. The population of this study is the all fiscal policy instruments data on government expenditure-current and recurrent, public debt, tax revenue and gross domestic product (GDP) from 1990 to 2017. The sample size is 27 annual observations ranging from 1990 to 2017. Secondary data (time series data) is used and were obtained from Central Bank of Nigeria (CBN) publication of 2008, 2014, 2015, 2017 and 2018. Stationarity test was done on each of the variable using the Augmented Dicker Fuller (ADF) to ensure that the variables are stationary. The Autoregressive Distributed Lags (ARDL) model was employed and the Johanson Cointegration technique employed to ascertain if there is cointegration among the variables. Once the cointegration was ascertained the Vector Error Correction (VEC) model was applied to determine the dynamic impact of fiscal policy instruments on economic stabilization in both the short-run and long-run relationship among the cointegrating variables. (Asika, 2004). The study employed the multiple regression technique which offers explanation on the relationship between a dependent variable and two or more explanatory variables.



Model Specification

This study used the econometric technique of Ordinary Least Square (OLS) in form of Multiple Linear Regressions to the relative regression coefficients. The mathematical model for the study is as follows:

$$RGDP = f(CExp, RExp, TaxRev, ExtD, Inf, Exc) \dots \dots \dots (1)$$

The Econometric Model for Eqn (1) can be written as:

$$RGDP_t = \beta_0 + \beta_1 CExp_t + \beta_2 RExp_t + \beta_3 TaxRev_t + \beta_4 ExtD_t + \beta_5 Inf + \beta_6 Exc + U_t \dots \dots \dots (2)$$

Where; β_0 = the parameter which represents the intercept
 $\beta_1 - \beta_6$ = Coefficient or the regression parameters used in determining the significance of the effect of each of the independent variables on the dependent variable RGDP. $RGDP_t$ = real GDP proxy of economic stabilization $CExp_t$ = Capital Expenditure $RExp_t$ = Recurrent Expenditure $TaxRev_t$ = Tax Revenue Inf_t = Inflation Rate Exc_t = Exchange Rate $ExtD_t$ = External Debt U_t = Error or Random disturbance term. The expected signs of the coefficients of the explanatory variables are: $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$, $\beta_5 < 0$, $\beta_6 > 0$. RGDP is used as a measure of predictive variable. The model above was used to estimate the OLS Regression.

Measurement of Variables and a Priori Expectations

Recurrent Expenditure (RExp) was measured by yearly federal government recurrent expenditure, Capital Expenditure (CExp) was measure by yearly federal government capital expenditure, External Debt (ExtD) was measured by total federal government borrowing source from international countries or organization and Tax Revenue (TaxRev) was measured by total tax revenue generated in Nigeria. The expected signs of the coefficients of the explanatory variables are: $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$, $\beta_5 < 0$, $\beta_6 > 0$. The economic implications are that the explanatory variables (recurrent expenditure, capital expenditure, tax revenue, external debt and exchange rate) should positively impact on economic stability hence the constants being positive except inflation.

DISCUSSION OF FINDINGS

Stationarity test was conducted on all the variables to ensure that they are stationary and thus useful for the analysis. The Augmented Dicker Fuller and Phillips-Perron test statistic results show that all the variables were integrated at the first difference without which they cannot be suitable for analysis. (Gujarati & Porter, 2009). The table below shows the results of the stationarity test.



Table 1. Augmented Dicker Fuller (ADF) Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TAXR(-1))	-0.735576	0.196605	-3.741383	0.0010
D(REXP(-1))	-1.216551	0.198898	-6.116458	0.0000
D(GDP(-1))	-1.135513	0.202605	-5.604557	0.0000
D(EXTD(-1))	-1.779886	0.174205	-10.21719	0.0000
D(CEXP(-1))	-0.945165	0.203786	-4.638021	0.0001
D(EXC(-1))	-1.153198	0.233986	-4.928495	0.0001
D(INF(-1))	-0.845373	0.205378	-4.116178	0.0004

Phillips-Perron Stationarity Test Results

D(EXTD(-1))	-1.125716	0.202461	-5.560167	0.0000
D(CEXP(-1))	-0.945165	0.203786	-4.638021	0.0001
D(GDP(-1))	-1.135513	0.202605	-5.604557	0.0000
D(REXP(-1))	-1.216551	0.198898	-6.116458	0.0000
D(TAXR(-1))	-0.735576	0.196605	-3.741383	0.0010
D(EXC(-1))	-1.153198	0.233986	-4.928495	0.0001
D(INF(-1))	-0.845373	0.205378	-4.116178	0.0004

Author's computation using Eviews, 2018

In applying the ADF test, Akaike Info Criterion (AIC) with a maximum lag of 2 was used and from the tests above all the variables are integrated of difference one. The Phillips-Perron test also shows that the variables are stationary with significant prob-values. This suggests that further analysis can be carried out on these variables. The Autoregressive Distributed Lag (ARDL) and the Johanson Cointegration test were carried out to determine the dynamic impact of the fiscal policy instruments on economic stabilization. Below is a result of the cointegration test.

Table 2 Johanson Cointegration Test Results

Date: 11/02/18 Time: 14:16
 Sample (adjusted): 3 28
 Included observations: 26 after adjustments
 Trend assumption: Linear deterministic trend
 Series: GDP CEXP EXC EXTD INF REXP TAXR
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace	0.05		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob. **
None *	0.987504	329.6665	125.6154	0.0000
At most 1 *	0.952623	215.7244	95.75366	0.0000
At most 2 *	0.868716	136.4343	69.81889	0.0000



At most 3 *	0.798875	83.64414	47.85613	0.0000
At most 4 *	0.573485	41.94464	29.79707	0.0013
At most 5 *	0.386670	19.78985	15.49471	0.0106
At most 6 *	0.238371	7.079697	3.841466	0.0078

Trace test indicates 7 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob. **
None *	0.987504	113.9420	46.23142	0.0000
At most 1 *	0.952623	79.29014	40.07757	0.0000
At most 2 *	0.868716	52.79015	33.87687	0.0001
At most 3 *	0.798875	41.69951	27.58434	0.0004
At most 4 *	0.573485	22.15479	21.13162	0.0358
At most 5	0.386670	12.71015	14.26460	0.0867
At most 6 *	0.238371	7.079697	3.841466	0.0078

Max-eigenvalue test indicates 5 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

Author's computation using Eviews, 2018

Based on Johanson cointegration test results above, the null hypothesis of no cointegration is rejected base on the Trace test and the Maximum Eigenvalue. Both the Trace test and the Maximum Eigenvalue show that there are 6 and 5 cointegrating equations at the 0.05% level respectively. The result reveals that the variables are cointegrated and therefore have a long-run relationship. The dynamic long-run effects of fiscal policy variables on economic stabilization can be captured using the Vector Error Correction (VEC) Model. Below is the result.

Table 3. VEC Estimates: Long-run Analysis

Cointegrating Eq:	CointEq1
GDP(-1)	1.000000
EXTD(-1)	-582.3483 (36.8499) [-15.8033]
INF(-1)	-482.0288 (100.958) [-4.77455]



CEXP(-1)	119.7401 (6.12453) [19.5509]
REXP(-1)	-386.7425 (7.62151) [-50.7435]
TAXR(-1)	27.89360 (1.19257) [23.3895]
EXC(-1)	5.003326 (75.1533) [0.06657]
C	-57544.99

Author's computation using Eviews, 2018

According to Osuala (2010) the equations for capturing long-run relationships among variables and their impacts can be modeled thus:

$ECT_{t-1} = [Y_{t-1} - n_j X_{t-1} - \alpha m R_{t-1} - \alpha r T_{t-1} - \alpha h S_{t-1}] \dots \dots \dots (3)$ // Long-run cointegrating equation). Where ECT_{t-1} is the error correction term used which captures the dynamic long-run relationship and impact between the explanatory variables X_{t-1} , R_{t-1} , T_{t-1} , S_{t-1} and the variable of interest Y_{t-1} . Based on the result above Eqn (3) can be written as follows:

$$ECT_{t-1} = 1.000GDP_{t-1} - 582.35EXTD_{t-1} + 119.74CEXP_{t-1} - 386.74REXP_{t-1} + 27.89TAXR_{t-1} + 5.00EXC_{t-1} - 482.03INF_{t-1} - 57544.99 \dots \dots \dots (4)$$

Based on the VEC result above, the long-run dynamic impact of the various explanatory variables is captured by the individual coefficients in the model. The result reveals that there exists a positive relationship between capital expenditure (CEXP) and economic stabilization (GDP) in the long-run. The result also reveals a positive long-run relationship between tax revenue (TAXR) and economic stabilization (GDP). The result further reveals a positive long-run relationship between exchange rate and economic stabilization (GDP). Therefore, all things being equal, a unit increase in capital expenditure (CEXP) will result in 119.74 units increase in GDP in the long-run. Similarly, a unit increase in tax revenue (TAXR) and exchange rate (EXC) will result in 27.89 and 5.00 units increase in GDP in the long-run respectively. Conversely, based on the results, a unit increase in external debts (EXTD) will result in 582.35 units decrease in GDP. The unit decrease is more than the unit increases to GDP by tax revenue, exchange rate and capital expenditure combined. Also, recurrent expenditure and inflation has negative long-run effects on economic stabilization. As captured in Eqn (4) above, a unit increase in recurrent expenditure and inflation will



result in a 386.74 and 482.35 units decrease in GDP. The combined long-run negative impact of external debt (EXTD), recurrent expenditure (REXP) and inflation (INF) is far more than the combined positive effect of tax revenue (TAXR), exchange rate (EXC) and capital expenditure (CEXP) on economic stabilization (GDP).

The short-run relationships amongst the variables were also tested and the result is presented below:

Table 4. VEC Estimates: Short-run Relationship

Error Correction:	D(GDP)
CointEq	-0.516697 (0.30059) [1.71892]
D(GDP(-1))	-1.695516 (0.64974) [-2.60952]
D(EXTD(-1))	165.1366 (208.824) [0.79079]
D(INF(-1))	281.8966 (1073.66) [0.26256]
D(CEXP(-1))	-198.9514 (99.5513) [-1.99848]
D(REXP(-1))	255.5567 (158.031) [1.61713]
D(TAXR(-1))	43.85001 (16.5353) [2.65190]
D(EXC(-1))	-283.2917 (720.762) [-0.39304]
C	24021.14 (25111.5) [0.95658]

Author's computation using Eviews, 2018



The short-run relationship amongst the variables above can be modeled thus:

$$\Delta Y_t = \alpha + \sum_{i=1} \gamma_i \Delta Y_{t-1} + \sum_{j=1} n_j \Delta X_{t-j} + \sum_{m=1} \bar{x}_m \Delta R_{t-m} + \sum_{r=1} x_r \Delta T_{t-r} + \sum_{h=1} g_h \Delta S_{t-h} + \lambda ECT_{t-1} + U_t \dots \dots \dots$$
 (5) ΔY_t refers to the variable of interest and the ΔX_{t-j} ΔR_{t-m} ΔT_{t-r} ΔS_{t-h} all measure the changes that affect the dependent variable in the short-run. ECT_{t-1} is the error correction term and U_t is the residual term. The result above can be imputed into Eqn (5) as follows:

$$\Delta GDP_t = -0.52 ECT_{t-1} - 1.70 GDP_{t-1} + 255.56 REXP_{t-1} + 43.85 TAXR_{t-1} + 165.14 EXTD_{t-1} - 198.95 CEXP_{t-1} - 286.29 ECH_{t-1} + 281.90 INF_{t-1} + 24021.14 \dots \dots \dots (6)$$

Based on the result above, we can see that recurrent expenditure (REXP), tax revenue (TAXR), inflation (INF) and external debts (EXTD) all have a positive impact on economic stabilization in the short-run. From the above, a unit change in recurrent expenditure (REXP) is associated with a 255.56 units increase in GDP on average, ceteris paribus, in the short-run. Also a unit increase in tax revenue (TAXR), inflation (INF) or external debts (EXTD) is associated with a 43.85, 281.90 and 164.14 units increase in GDP on average, ceteris paribus, in the short-run respectively. However, a unit increase in capital expenditure (CEXP) and exchange rate (ECH) is associated with a 198.95 and 286.29 units decrease in GDP on average, ceteris paribus, in the short-run respectively. The error correction term or the adjustment coefficient is -0.52 suggesting that the previous year's departure or deviation from long run equilibrium is corrected in the current period at an adjustment speed of 52%.

The OLS estimate was done to determine the relationship between the explanatory variables and the dependent variable. Below is the result of the finding:

Table 5. OLS Estimates

Dependent Variable: GDP
 Method: Least Squares
 Date: 11/02/18 Time: 15:56
 Sample: 1 28
 Included observations: 28

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	307941.6	37880.64	8.129261	0.0000
CEXP	-52.05585	23.84189	-2.183377	0.0405
REXP	205.1508	16.72498	12.26613	0.0000
INF	-327.5837	490.6812	-0.667610	0.5117
TAXR	-6.536240	4.165260	-1.569227	0.1315
EXTD	-184.3976	142.4965	-1.294050	0.2097
EXC	170.0162	242.7355	0.700417	0.4914
R-squared	0.976005	Mean dependent var	510743.8	



Adjusted R-squared	0.969149	S.D. dependent var	220882.2
S.E. of regression	38796.74	Akaike info criterion	24.18238
Sum squared resid	3.16E+10	Schwarz criterion	24.51543
Log likelihood	-331.5533	Hannan-Quinn criter.	24.28420
F-statistic	142.3624	Durbin-Watson stat	1.696954
Prob(F-statistic)	0.000000		

Author's computation using Eviews, 2018

The result shows a positive coefficient or constant suggesting that if the entire explanatory variables are held at constant or are at zero, GDP will growth by 307941.6 units. The result show that tax revenue (TAXR), capital expenditure (CEXP) and external debts (EXTD) all have a negative relationship with economic growth and stabilization. This is not in line with the expectation of positive relationship. A percentage increase in tax revenue will lead to 6.54% decrease in GDP growth. Similarly, a unit increase in external debts (EXTD) and capital expenditure (CEXP) will have a negative impact on GDP by 184.398 and 52.056 units respectively. Inflation has a negative impact on economic stability in line with a prior expectation. An increase in inflation rate will result in a decrease (negative impact) on GDP by 327.58 units. However, recurrent expenditure (REXP) and exchange rate (EXC) had a positive relationship on economic growth. A unit increase in recurrent expenditure (REXP) and exchange rate (EXC) will lead to a 205.15 and 170.02 units increase in GDP. This is in line with a prior expectation. The R-squared of approximately 0.98 shows a strong positive significant relationship among the variables. The adjusted R-squared of approximately 0.97 shows the coefficient of determination suggesting that the model has passed the test of goodness fit and therefore is accurate for the model. This also suggests that 97% of the changes or variation in the dependent variables is explained by the explanatory variables in the model.

CONCLUSION AND RECOMMENDATION

The result of the long-run dynamic impact of recurrent expenditure, inflation and external debt on economic stabilization portray red alert. This certainly is a cause for concern. This could be as a result of policy makers not utilizing borrowed funds efficiently by ensuring that such funds be used for the intended purposes. And sadly, borrowing seems to be the first and quickest options for political office holders who control the polity and economy. Corruption by political office holders has also contributed to this sad occurrence. Most funds (most of which are borrowed) disbursed for capital/recurrent expenditure purposes are siphoned into private pockets or used to finance white elephants projects that do not have any significant positive impact on economic growth. The problem of underproduction and low productivity has resulted in over reliance on foreign products resulting in imported inflation. Most regional or state governments have failed over the years to disbursed the funds (ranging into billions of naira) given as bailouts for the intended purposes. Sadly many states still owed salaries. It is crystal clear that external debts is bedeviling the economy and is adversely affecting the goal of economic stabilization. Again from the OLS



estimate we see that tax revenue has a negative relationship with economic growth. This could be as a result of tax evasion or lack of proper management of tax funds by the authorities responsible to do so could possibly be the reason for this negative relationship.

Based on the findings, government should ensure strict utilization of borrowed fund for the intended purposes. Funds disbursed for any capital projects must be fully accounted for by setting up a strict monitoring unit to inspect and fully account for every naira spent on such projects. Government should invest more on capital projects since in the long-run the positive effects will be worth all the efforts. There is need to transmogrify the economy into a productive hub, this will reduce the rate of external borrowing, inflationary pressures and enhance effective and beneficial exchange rate policy. Tax policies must be such that do not discourage investors and entrepreneurs from engaging in productive ventures.

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