

Impact of Fiscal Policy on Nigeria’s Macro-Economic Performance

by

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Abstract

This research work is aimed at answering the questions of why the unimpressive performance of the Nigerian economy, the high unemployment rate, and the increasing cost of living in Nigeria. Three models were formulated addressing the macro-economic variables –economic growth, unemployment, and inflation. It employed the distributed lag model approach in analyzing the impact of fiscal policy measures on each macro-economic variable. The results indicate that government revenue significantly reduces economic growth by 7.85% and increases unemployment by 3.33% in the following year, government debt stock significantly boosts economic growth and reduces unemployment in the following year by 1.88% and 4.3% respectively, while government expenditure boosts the growth of the economy by 5.43%, reduces unemployment by 1.09% but spurs inflation by 8.95%. It is therefore evident from the study that reducing the tax burden while maintaining fiscal deficit and growing government expenditure is still necessary if the economy must be set on the path of growth and stability.

Keywords: Distributed lag model, Economic growth; Fiscal policy; Inflation; Unemployment; Economic stability, Macro-economic performance.

Introduction:

A major challenge facing developing countries, including Nigeria is that of economic stability. According to Audu (2012), there are external and internal shocks that are responsible for this problem. They include an increase in the general price level, high unemployment rate, and staggering economic growth. The rising unemployment, according to the National Bureau of Statistics annual report (NBS, 2018), with the corresponding rising inflation is a reflection of the weakening economic activities in Nigeria. Due to high unemployment, government revenue is under-generated, which should have boosted government function. It, therefore, becomes a goal of modern governments to mitigate unemployment, achieve price stability, and sustain economic growth while making the environment conducive for investors to invest. This can be achieved through effective and proper implementation of fiscal policies, which according to Ozurumba

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(2012) is the government's manipulation of its income and spending power to actualize desired macroeconomic objectives.

In the face of huge expenditures and soaring national debt burden, successive governments face the embarrassment of rising unemployment levels, price instability, and weak growth of the economy. The General Yakubu Gowon led administration, having come out of a three-year civil war, embraced the centralized fiscal federalism and financing gap policy, focusing its budgets on the reconstruction of the economy. Government expenditure was high; taxes including import duties were reduced drastically. This was intended to make it easy for essential items to flood the market, thus, bridging the gap between the demand and supply especially as the country was producing little or nothing at the time. The Alhaji Shehu Shagari's government of 1979-1983 adopted the decentralized fiscal federalism and fixed revenue allocation formula (Gbosi, 2012). The main thrusts of its budgets were a reversal of inflationary trend, stimulation of local production, and improvement in external reserves. According to Gbosi (2012), Shagari's government adopted a restrictive fiscal policy as its stabilization strategy. The military administrations of Generals Mohamadu Buhari, Ibrahim Babangida, Sanni Abacha, and Abdulsalam Abubakar adopted the centralized fiscal federalism and flexible revenue allocation formula, multiple budgets and extra-budgetary expenditure in its fiscal operations. Succeeding democratic regimes of Olusegun Obasanjo, Yaradua and Jonathan reverted to the decentralized fiscal federalism and fixed revenue allocation formula adopted earlier between 1979 and 1983 (Nwosa, 2014). However, these administrations extended their fiscal policy objectives to boost infrastructural development, lay a solid foundation for private sector-led economic growth, improve education and agricultural production, reduce unemployment and poverty, raise productivity, etc (Nwosa, 2014). Regardless of successive government efforts to boost economic growth, reduce unemployment, and stabilize the price, economic performance remained unimpressive and saddled with the same problems it sought to tackle. Hence, aided by the hypotheses; Fiscal policy measures do not impact significantly on economic growth, unemployment and inflation in Nigeria and secondly, there is no causal relationship between fiscal policy measures and economic growth, unemployment and inflation in Nigeria, this research sought to answer the question: "to what extent has fiscal policy been effective in advancing economic growth and macroeconomic stability in Nigeria?" has the broad objective of evaluating the impact of fiscal policy measures, on economic growth, unemployment and inflation in Nigeria.

Given the peculiar nature of regime change in Nigeria, the new government is sworn in on the 5th month of the fiscal year, in which period, the fiscal policy objectives and direction has been spelled out by the outgoing government. This forces the incoming government to follow the fiscal policy stance slated by the previous administration, causing a one-period lag effect on the economy. Consequently, bad fiscal policy or otherwise of an outgoing government is carried over into the first fiscal year of a new government regime, which could have serious effects on the economy. This was not accounted for in previous studies. This study, therefore, makes significant contributions as it studies the implication of the last fiscal policy introduced by an outgoing government on the incoming government. The rest of this study is organized into four sections. Section 2 is a brief review of the literature; section 3 presents the methodology; Section 4 discusses the empirical results, while Section 5 concludes the paper.

Literature Review:

Substantial pieces of literature abound that favor a positive relationship between fiscal policy tools and economic performance (Gregoriou and Ghosh, 2007; Ranjin and Sharma, 2008;

Lui, Hsu, and Younis, 2008; Obayori, 2016; etc). Gregoriou and Ghosh (2007) argued that countries with large government expenditure tend to experience higher growth, but the effect varies from one country to another. This was supported by the findings of Ranjin and Sharma (2008) in the case of India, and Lui, Hsu, and Younis (2008) in the case of the United States of America (USA). Obayori (2016) considering fiscal policy-unemployment nexus explained that fiscal policy is effective in reducing unemployment in Nigeria, supporting the use of expansionary fiscal policy as a tool to reduce unemployment in Nigeria. This is not without its attendant adverse effect on inflation. Ozurumba (2012) however argued that fiscal deficit must be reduced in order to grow the real sector. Tai (2014), studied the long-run and short-run impact of government spending on inflation in three Asian emerging economies of India, Indonesia, and Vietnam using co-integration and VECM model on time series data from 1979–2010. According to the study, India's government spending has a positive short-run impact on inflation, Indonesia's is negative suggesting a crowding-out effect of government spending on private investment and the short-run impact is positive for Vietnam.

These studies in bits explain the problem of ineffective fiscal policy in Nigeria. Earlier government regimes sought to solve single economic objectives of growth and productivity or unemployment but created another problem of price instability and vice versa, while successive governments, especially in the democratic era, which sought to achieve multiple objectives could not come to Pareto-optimal position. More specifically to Nigeria, Taiwo and Agbatogun (2011) recommended that proper management of capital expenditure, especially in manufacturing and agriculture would help boost economic performance in Nigeria. Abu-Bader and Abu-Qarn (2003) mentioned a critical point bothering on the divergent impacts of the military and civilian rule on the economy. They were able to prove that military regimes had a negative impact on economic growth in Egypt, Israel, and Syria, while civilian government expenditure has a positive effect on economic growth for both Israel and Egypt.

Methodology:

We specify three distributed lag models. These models will show the impact of fiscal policy measures on macroeconomic performance variables namely economic growth, unemployment, and inflation in Nigeria in the succeeding year(s). We also assume that succeeding government regimes inherit the current fiscal plan of the outgoing regime in its first administrative year, while enjoying three succeeding years of uninterrupted government between elections. We adopt tax revenue, government debt stock, and government total revenue – that is revenue from oil and non-oil sectors of the economy. We also use the growth rate of the gross domestic product as a proxy for economic growth.

Data sources and description:

The following macroeconomic and fiscal policy variables data are being used for this empirical study and they are sourced from various editions of the central bank of Nigeria (CBN) and National Bureau of Statistics (NBS) publications. Time series data of the real gross domestic product, inflation rate, government expenditure, government total debt stock, and government revenue were sourced from CBN statistical bulletin, 2017, while the unemployment rate was sourced from NBS annual report, 2017. The growth rate of the real gross domestic product was estimated as shown in the model specification below.

Theoretical Framework:

John Maynard Keynes's theory of fiscal policy forms the theoretical underpinning of this study. According to the Keynesian theory, the volume of employment rests upon the level of aggregate demand, and that aggregate demand could be manipulated through appropriate government tax and expenditure policies. Keynes model expresses output (Y) in an open economy, such as Nigeria's, as a positive function of consumption (C), investment (I), government expenditure (G), and trade balance (XM). This is mathematically expressed as;

$$Y=C+I+G+ (X-M) \quad (1)$$

Where $C + I + G =$ Aggregate demand (A) which implies that a positive change in government expenditure increases aggregates demand and vice versa. We, therefore, modified equation (1) to a functional format relevant to the study, taking into consideration key macroeconomic variables, such as real gross domestic growth rate, unemployment, and inflation, as the dependent variables and fiscal policy variables, such as government expenditure, government debt stock and government revenue, as the independent variables.

Model specification and justification:

This study focuses on macroeconomic performance. Consequently, major macroeconomic variables that address the macroeconomic stability are utilized in the model as the dependent variables. The predictors are made to capture the three major fiscal tools used in Nigeria—expenditure, revenue and debt stock. This will be used to test the following hypothesis:

Three models were specified for the study as follows:

Fiscal policy and economic growth:

$$\Delta \text{Log}Y_{gt} = \Phi_0 + \Phi_1 \Delta \text{LogGovtexp}_{t-1} + \Phi_2 \Delta \text{LogGovt ds}_{t-1} + \Phi_3 \Delta \text{LogGovrev}_{t-1} + \Phi_4 \text{ect} + u_t \quad (2)$$

Where $Y_{gt} =$ Growth rate of real gross domestic product; defined by

$$\text{Growth rate} = \frac{\text{RGDP}_{\text{current year}} - \text{RGDP}_{\text{previous year}}}{\text{RGDP}_{\text{previous year}}}$$

Govtexp is the Government total expenditure, which is a summation of Recurrent & Capital expenditures; Govtrev is an abbreviation for Government total revenue from Oil & Non-oil sectors of the economy; Govt ds represents Government total debt stock, which comprises of Local and Foreign debt, 'ect' represents the residual adjustment (error correction term) and 'u' is the stochastic error term.

Fiscal Policy and Unemployment:

$$\Delta \text{LogUMP}_t = \rho_0 + \rho_1 \Delta \text{LogGovtexp}_{t-i} + \rho_2 \Delta \text{LogGovt ds}_{t-i} + \rho_3 \Delta \text{LogGovrev}_{t-i} + \rho_4 \text{ect} + \varepsilon_t \quad (3)$$

UMP represent the unemployment rate, 'ε' is the stochastic error term. Other variables are as explained in equation (2).

Fiscal Policy and Inflation:

$$\Delta \text{LogINF}_t = \eta_0 + \eta_1 \Delta \text{LogGovtexp}_{t-i} + \eta_2 \Delta \text{LogGovtD}_{t-i} + \eta_3 \Delta \text{LogGovrev}_{t-i} + \eta_4 \text{ect} + v_t \quad (4)$$

INF represents inflation rate, ‘v’ is the stochastic error term for the models, while other variables are as defined in (2).

Discussion of Results:

Unit root and cointegration test results:

Table 1 shows the result of the Augmented Dickey-Fuller (ADF) in which all the variables are integrated of order 1 and the Johansen cointegration test show all variables for the three models were cointegrated. Tables 2 and 3 shows, from maximum eigenvalue statistics, and trace statistics, that there are three (3) cointegrating equations, while in table 4, both statistics reveal two cointegrating equations.

Table 1: ADF Results of unit root Test on yearly data on variables with Trend 1975-2017

Variable	Level	1 st Diff.	2 nd Diff.	Prob.	Integration Order	Critical Value of Stat.
GOVTEXP	2.995298	-6.350860	-	0.0000	I(1)	-2.935001
GOVREV	0.813138	-6.434615	-	0.0000	I(1)	-2.935001
GOVTDS	2.324906	-4.481256	-	0.0009	I(1)	-2.935001
UNEMP	1.994134	-8.376768	-	0.0000	I(1)	-2.935001
INF	3.252224	-6.267357	-	0.0000	I(1)	-2.936942
Yg	2.936942	-8.415462	-	0.0000	I(1)	-2.936942

Table 2: Result of Johansen Cointegration Test for Model (2)

Hypothesized No of CE(s)	Eigenvalue	Trace	0.05 Critical Value	Prob.**
None *	0.664409	93.11847	47.85613	0.0000
At most 1 *	0.497897	48.35212	29.79707	0.0001
At most 2 *	0.386177	20.10521	15.49471	0.0094
At most 3	0.002320	0.095226	3.841466	0.7576
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob.**
None *	0.664409	44.76634	27.58434	0.0001
At most 1 *	0.497897	28.24691	21.13162	0.0042
At most 2 *	0.386177	20.00998	14.26460	0.0055
At most 3	0.002320	0.095226	3.841466	0.7576

* denotes rejection of the hypothesis at the 0.05 level

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

Table 3: Result of Johansen Cointegration Test for Model (3)

Hypothesized No of CE(s)	Eigenvalue	Trace	0.05 Critical Value	Prob.**
None *	0.734144	117.4834	47.85613	0.0000
At most 1 *	0.681895	63.16653	29.79707	0.0000
At most 2 *	0.318402	16.20618	15.49471	0.0390
At most 3	0.011886	0.490250	3.841466	0.4838
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob.**
None *	0.734144	54.31689	27.58434	0.0000
At most 1 *	0.681895	46.96036	21.13162	0.0000
At most 2 *	0.318402	15.71593	14.26460	0.0293
At most 3	0.011886	0.490250	3.841466	0.4838

* denotes rejection of the hypothesis at the 0.05 level

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

Table 4: Result of Johansen Cointegration Test for Model (4)

Hypothesized No of CE(s)	Eigenvalue	Trace	0.05 Critical Value	Prob.**
None *	0.610068	76.65956	47.85613	0.0000
At most 1 *	0.524601	38.98819	29.79707	0.0033
At most 2	0.199161	9.244117	15.49471	0.3433
At Most 3	0.008967	0.360290	3.841466	0.5483
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob.**
None *	0.610068	37.67137	27.58434	0.0018
At most 1 *	0.524601	29.74407	21.13162	0.0024
At most 2	0.199161	8.883827	14.26460	0.2959
At Most 3	0.008967	0.360290	3.841466	0.5483

* denotes rejection of the hypothesis at the 0.05 level

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

Fiscal Policy and economic growth:

From table 5 below, the error correction coefficient followed the a’p priori expectation, significantly adjusting to its long-run equilibrium at a speed of 96%. Government expenditure and debt stock show it positively boosts the economy by 7.31% (5.43% and 1.88% respectively) each time they grow by 1%. This agrees with the works of Audu (2012), Ndari, Diah, and Budi (2012) and Agu, Idike, and Okwor (2014) whose study arrived at a positive effect of government expenditure on economic growth. However, government revenue counters this positive boost by 7.85% each time government generates 1% more revenue. Interestingly, this shows that government revenue has more impact on the growth of the Nigerian economy than the combined effect of government expenditure and fiscal deficit. Therefore, given the interplay of these fiscal policy tools, a percentage in these fiscal policy tools will on the aggregate cause a significant recess in the economy by 0.54%. This may not be far-fetched as the drive for revenues decreases output,

if not reinvested, supporting the works of Wosowei (2013) whose research found a negative effect of government revenue on economic growth in Nigeria. These predictors however explain 54.38% of the variations in real gross domestic product growth in Nigeria.

Table 5: Distributed lag result for model (2) - (Economic growth)

Variable	Coefficient	Std.Error	t-Statistic
LOG(GOVTEXP(-1))	5.427081	2.17202	2.49863
LOG(GOVREV(-1))	-7.850014	2.22339	-3.53065
LOG(GOVTDS(-1))	1.880035	0.79122	2.37611
ECT	-0.961518	0.42231	-2.27680
C	-0.885693	1.54055	-0.57492
R-Squared	0.543828		
F-Statistic	3.973856		

Fiscal Policy and Unemployment:

The error correction coefficient as shown in table 6 below has a value of -0.132. This indicates that the speed of adjustment from the short-run disequilibrium to long-run equilibrium is a paltry speed of 13.2% which is not significant. Thus, the degree of responsiveness of Unemployment to government expenditure, government total debt stock, and government revenue is -1.09, 3.34, and -4.30 respectively. In line with a priori expectation, for every (1%) unit increase in government expenditure and government total debt stock, there will be about 1.09% and 4.30% reduction in unemployment level with a corresponding increase of about 3.34% if government revenue increases by 1%. The R² value of 0.70 is an indication that about 70% of the changes in the level of unemployment rate in the country from 1975 to 2017 are explained by fiscal policy measures. This result is consistent with the works of Holden and Sparman (2014) and Egbulonu and Amadi (2016) who discovered a negative effect of government expenditure on unemployment.

Also, government revenue complies with the researchers' expectations with a positive sign. Increasing tax revenue implies the rising cost of doing business which discourages investment, contracts the economy, and forces unemployment rate upwards. The debt stock is negative; a negative government debt stock implies that unemployment reduces with increasing debt in Nigeria within the period under study.

Table 6: Distributed lag result for model (3) - (Unemployment rate)

Variable	Coefficient	Std.Error	t-Statistic
D(GOVTEXP(-1))	- 1.094054	3.63029	-0.30137
D(GOVREV(-1))	3.336038	3.59933	0.92685
D(GOVTDS(-1))	- 4.304102	1.42999	-3.00989
ECT	- 0.131848	0.19757	-0.66734
C	3.923594	3.97988	2.1352
R-Squared	0.704373		
F-Statistic	2.803111		

Fiscal Policy and Inflation:

Table 7 below shows the error residual adjustment term of -0.746568 as an indication of a high speed of adjustment. Government expenditure did not deviate from our expectations, bearing positive signs. However, government revenue and government debt stock deviated from our

expectations. Government debt stock reveals a significant negative relationship with inflation in Nigeria. It shows that as the fiscal deficit increases by 1%, the price level declines by 8.33%. This may just be proof that the rising fiscal deficits in Nigeria over these 43 years (1975 to 2017) have mainly been used as a contractionary measure. For every unit increase in government expenditure and government revenue, there is a corresponding increase in price level by about 8.95% and 0.4% respectively. This result is consistent with Nwaoha (2006) and Tai's (2014) argument in favor of a positive effect of government expenditure on inflation. The R² value of 63% indicates that 63% of the changes in inflation in Nigeria's economy are caused by fiscal policy measures. This f-statistics suggests an overall significant relationship between fiscal policy measures and inflation in Nigeria.

Table 7: Distributed lag result for model (4) - (Inflation rate)

Variable	Coefficient	Std.Error	t-Statistic
D(GOVTEXP(-1))	8.952066	9.88260	0.90584
D(GOVREV(-1))	0.396225	9.84903	0.04023
D(GOVTDS(-1))	-8.332941	3.57845	-2.32864
ECT	-0.746568	0.17890	-4.17319
C	-2.214838	3.33620	-0.66388
R-Squared	0.638255		
F-Statistic	3.393036		

Granger causality relationship among the variables used:

From table 8 below, the Granger causality test result for the economic growth model, Ygt, three bidirectional causalities. While government expenditure (GEXP) and economic growth (Ygt) Granger causes each other, government revenue (GTREV) and economic growth (Ygt) Granger causes each other too as well as government debt stock (GTD) and economic growth (Ygt) Granger causing each other. From the result, it is observed that government revenue (GTREV) Granger causes government expenditure (GEXP); also government debt stock (GTDS) Granger causes government expenditure (GEXP) and government revenue (GTREV).

Table 8: Granger Causality Test for GDP (Ygt) Growth Rate Model

Null Hypothesis	Obs.	F-Statistic	Prob %	Decision	Direction
GEXP does not Granger Cause YGT	42	2.66235	0.0108	Reject	Bi-Causality
YGT does not Granger Cause GEXP		4.51122	0.0401	Reject	
GTREV does not Granger Cause YGT	42	3.85644	0.0367	Reject	Bi-Causality
YGT does not Granger Cause GTREV		0.21768	0.0434	Reject	
GTDS does not Granger Cause YGT	42	3.35560	0.0146	Reject	Bi-Causality
YGT does not Granger Cause GTDS		4.95835	0.0318	Reject	
GTREV does not Granger Cause GEXP	42	11.8638	0.0014	Reject	Uni-Causality
GEXP does not Granger Cause GTREV		0.51636	0.4767	Accept	
GTDS does not Granger Cause GEXP	42	4.65716	0.0371	Reject	Uni-Causality
GEXP does not Granger Cause GTDS		0.02125	0.8848	Accept	
GTDS does not Granger Cause GTREV	42	8.24178	0.0066	Reject	Uni-Causality
GTREV does not Granger Cause GTDS		1.34586	0.2531	Accept	

From table 9 below, the Granger causality test for the unemployment rate model, there is uni-causality in all the instances. It is found that while unemployment (UNEMP) Granger causes government expenditure (GEXP) and government revenue (GTREV), government debt stock

(GTDS) Granger causes unemployment (UNEMP). Also government revenue (GTREV) and government debt stock (GTDS) Granger causes unemployment (UNEMP), while Granger causes government debt stock (GTDS) government revenue (GTREV). One being that government total revenue does not Granger cause unemployment; two government revenue does not Granger causes government total debt stock. From the above, it means that it is unemployment that actually causes government revenue. Also, it is the government's total debt stock that Granger causes government revenue.

Table 9: Granger Causality Test for Unemployment (UMP) Rate Model

Null Hypothesis	Obs.	F-Statistic	Prob 5%	Decision	Direction
GEXP does not Granger Cause UNEMP	42	4.04764	0.0512	Accept	Uni-Causality
UNEMP does not Granger Cause GEXP		0.38459	0.0388	Reject	
GTREV does not Granger Cause UNEMP	42	2.71999	0.1071	Accept	Uni-Causality
UNEMP does not Granger Cause GTREV		0.65923	0.0218	Reject	
GTDS does not Granger Cause UNEMP	42	2.47439	0.0238	Reject	Uni-Causality
UNEMP does not Granger Cause GTDS		0.76383	0.3875	Accept	
GTREV does not Granger Cause GEXP	42	11.8638	0.0014	Reject	Uni-Causality
GEXP does not Granger Cause GTREV		0.51636	0.4767	Accept	
GTDS does not Granger Cause GEXP	42	4.65716	0.0371	Reject	Uni-Causality
GEXP does not Granger Cause GTDS		0.02125	0.8848	Accept	
GTDS does not Granger Cause GTREV	42	8.24178	0.0066	Reject	Uni-Causality
GTREV does not Granger Cause GTDS		1.34586	0.2531	Accept	

However, the output from the Granger causality for the inflation rate model as shown in table 10 below, there exists uni-causality in four instances. It is found that government expenditure (GEXP) Granger causes inflation (INF), government revenue (GTREV) Granger causes government expenditure (GEXP); government debt stock (GTDS) Granger causes government expenditure (GEXP), and government debt stock (GTDS) Granger causes government revenue (GTREV).

Table 10: Granger Causality Test for Inflation Rate (INF) Model

Null Hypothesis	Obs.	F-Statistic	Prob. 5%	Decision	Direction
GEXP does not Granger Cause INF	42	0.30227	0.0356	Reject	Uni-causality
INF does not Granger Cause GEXP		2.43247	0.1269	Accept	
GTREV does not Granger Cause INF	42	0.52771	0.4719	Accept	Zero
INF does not Granger Cause GTREV		1.01744	0.3193	Accept	
GTDS does not Granger Cause INF	42	0.00310	0.9559	Accept	Zero
INF does not Granger Cause GTDS		2.09573	0.1557	Accept	
GTREV does not Granger Cause GEXP	42	11.8638	0.0014	Reject	Uni-Causality
GEXP does not Granger Cause GTREV		0.51636	0.4767	Accept	
GTDS does not Granger Cause GEXP	42	4.65716	0.0371	Reject	Uni-Causality
GEXP does not Granger Cause GTDS		0.02125	0.8848	Accept	
GTDS does not Granger Cause GTREV	42	8.24178	0.0066	Reject	Uni-Causality
GTREV does not Granger Cause GTDS		1.34586	0.2531	Accept	

Fiscal policy measures by different governments and macroeconomic performance in Nigeria:

A consideration of the fiscal policy measures by different government regimes from 1975 to 2017 using the established causal relationship shows that fiscal policy adopted in Gowon/

Obasonjo’s military regime on the average caused a negative growth of the real gross domestic product (-3.76%) in 1980 (being the succeeding fiscal year after Gowon/ Obasonjo’s military era), within which period Shehu-Shagari led government was in charge of the federal governing administration. Shehu Shegari’s fiscal policy contributed an average positive growth of 0.42% in the succeeding fiscal years until 1984, when the Babangida/Abacha, Abubakar military government took over the administration of the federal government of Nigeria. The rest of the regimes (military and civilian) adopted fiscal policies that caused an average positive growth of the economy, with the Yaradua/Goodluck Jonathans policy impact on the incoming government of General Mohmmadu Buhari’s regime performing the worst, showing its fiscal policy accounting for the average economic growth of 0.62%. However, between 1975 and 2017, the fiscal policy measures were seen to make an average significant contribution of 3.15% to economic growth in each succeeding year. Regarding unemployment, there was generally a negative impact of fiscal policy on unemployment. This shows that different government regimes targeted unemployment, for example, the Yaradua-Jonathan led government of 2008 to 2014 fiscal policy measures contributed an average of 14.76% to the growth in unemployment. However, the current administration between 2015 and 2017, through its fiscal deficit strategy, has so far contributed an average of 33.8% of unemployment in each succeeding year. Fiscal policy strategies in the 43 year period, starting from 1975 to 2017 has caused double-digit inflation, having its highest outcome between 1993 and 1997, a period that witnessed international sanctions. However, a percentage increase in the fiscal policy during the Abacha’s regime contributed to the average to 35.52% growth in the price level in 1998, while the lowest since was 8.3% in 1998-1999. Following its downward trend from 12.55% in the previous year to 10.46% in 2008-2015, the policy under President Buhari has contributed to an average of 13.37% of the inflation seen in 2018.

Table 11: Descriptive statistics output for different regimes from 1975 – 2017.

Gowon/Obj Military Era of 1975 – 1979)

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	4.362500	3.716500	6.932500	21.77500	6.900000	1.017500
Median	4.520000	3.385000	7.085000	18.90000	6.400000	0.395000
Maximum	5.200000	6.066000	8.040000	33.90000	10.70000	9.040000
Minimum	3.210000	2.030000	5.520000	15.40000	4.100000	-5.760000
Std. Dev.	0.920159	1.720530	1.074969	8.461038	3.049590	7.623457
Skewness	-0.354643	0.589843	-0.421982	0.879899	0.339149	0.075017
Kurtosis	1.507890	1.969185	1.841780	2.079785	1.494798	1.105578
Jarque-Bera	0.454913	0.409040	0.342291	0.657281	0.454287	0.601891
Probability	0.796557	0.815039	0.842699	0.719902	0.796807	0.740118
Sum	17.45000	14.86600	27.73000	87.10000	27.60000	4.070000
Sum Sq. Dev.	2.540075	8.880667	3.466675	214.7675	27.90000	174.3513
Observations	5	5	5	5	5	5

Shehu-Sahagari 1979- 1983

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	10.78250	20.05300	12.61750	15.42500	7.275000	-3.757500
Median	10.78500	18.67500	12.36500	15.40000	7.500000	-3.050000
Maximum	11.92000	32.78000	15.23000	23.20000	9.400000	4.200000
Minimum	9.640000	10.08200	10.51000	7.700000	4.700000	-13.13000
Std. Dev.	1.061520	10.30118	2.093058	7.759457	1.951709	7.306770

Skewness	-0.004387	0.297610	0.298598	0.003684	-0.379697	-0.297722
Kurtosis	1.289236	1.505629	1.586655	1.109021	1.973602	1.837218
Jarque-Bera	0.487798	0.431239	0.392365	0.595976	0.271695	0.284436
Probability	0.783567	0.806042	0.821862	0.742310	0.872976	0.867432
Sum	43.13000	80.21200	50.47000	61.70000	29.10000	-15.03000
Sum Sq. Dev.	3.380475	318.3432	13.14268	180.6275	11.42750	160.1667
Observations	4	4	4	4	4	4

Gen. Buhari (1983-1985)

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	6.400000	39.50333	12.27000	22.76667	8.300000	0.416667
Median	5.460000	40.48000	11.25000	23.20000	8.900000	-2.020000
Maximum	9.640000	45.25000	15.05000	39.60000	9.400000	8.320000
Minimum	4.100000	32.78000	10.51000	5.500000	6.600000	-5.050000
Std. Dev.	2.887144	6.292109	2.435816	17.05413	1.493318	7.010152
Skewness	0.534727	-0.278288	0.634397	-0.046650	-0.618974	0.561414
Kurtosis	1.500000	1.500000	1.500000	1.500000	1.500000	1.500000
Jarque-Bera	0.424217	0.319972	0.482480	0.282338	0.472814	0.438843
Probability	0.808877	0.852156	0.785653	0.868343	0.789459	0.802983
Sum	19.20000	118.5100	36.81000	68.30000	24.90000	1.250000
Sum Sq. Dev.	16.67120	79.18127	11.86640	581.6867	4.460000	98.28447
Observations	3	3	3	3	3	3

IBB (1986 -1992)

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	56.14375	391.5588	87.72000	27.12500	5.787500	1.147500
Median	37.65000	335.0750	75.98500	25.65000	5.950000	1.260000
Maximum	191.2300	906.9800	192.7700	57.20000	7.500000	12.77000
Minimum	6.370000	69.89000	12.60000	5.400000	3.200000	-10.75000
Std. Dev.	63.73825	293.0274	71.87521	20.22769	1.537565	8.002801
Skewness	1.241840	0.686496	0.544824	0.202596	-0.561580	-0.201640
Kurtosis	3.503569	2.203116	1.801765	1.417822	2.039354	2.004657
Jarque-Bera	2.140751	0.840044	0.874367	0.889156	0.728110	0.384447
Probability	0.342880	0.657032	0.645853	0.641095	0.694853	0.825122
Sum	449.1500	3132.470	701.7600	217.0000	46.30000	9.180000
Sum Sq. Dev.	28437.95	601055.4	36162.32	2864.115	16.54875	448.3138
Observations	8	8	8	8	8	8

Abacha (1993-1997)

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	332.4420	1115.966	446.3840	35.52000	7.300000	2.222000
Median	337.2200	1097.680	463.6100	29.30000	7.200000	2.720000
Maximum	487.1100	1194.600	582.8100	72.80000	8.500000	4.990000
Minimum	160.8900	1037.300	201.9100	8.500000	6.400000	-0.310000
Std. Dev.	131.8612	74.69948	145.6226	28.59733	0.806226	2.023381
Skewness	-0.128721	0.170581	-1.050346	0.300393	0.480029	0.102352
Kurtosis	1.624481	1.264843	2.747880	1.449915	2.071302	1.919232
Jarque-Bera	0.407985	0.651492	0.932598	0.575772	0.371707	0.252075

Probability	0.815468	0.721989	0.627320	0.749847	0.830395	0.881582
Sum	1662.210	5579.830	2231.920	177.6000	36.50000	11.11000
Sum Sq. Dev.	69549.54	22320.05	84823.76	3271.228	2.600000	16.37628
Observations	4	4	4	4	4	4

Abubakar (1998-1999)

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	717.4000	2283.015	706.4000	8.300000	8.050000	1.595000
Median	717.4000	2283.015	706.4000	8.300000	8.050000	1.595000
Maximum	947.6900	3372.180	949.1900	10.00000	8.500000	2.720000
Minimum	487.1100	1193.850	463.6100	6.600000	7.600000	0.470000
Std. Dev.	325.6792	1540.312	343.3569	2.404163	0.636396	1.590990
Skewness	4.40E-17	0.000000	-4.23E-17	1.11E-16	6.18E-17	-1.19E-18
Kurtosis	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Jarque-Bera	0.333333	0.333333	0.333333	0.333333	0.333333	0.333333
Probability	0.846482	0.846482	0.846482	0.846482	0.846482	0.846482
Sum	1434.800	4566.030	1412.800	16.60000	16.10000	3.190000
Sum Sq. Dev.	106067.0	2372561.	117894.0	5.780000	0.405000	2.531250
Observations	2	2	2	2	2	2

Obasanjo Civilian Admin (1999-2007)

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	1235.088	4394.285	3150.803	12.55000	6.862500	8.526250
Median	1122.085	4207.125	2593.065	13.45000	4.800000	4.865000
Maximum	1842.590	6260.590	5965.100	18.90000	15.00000	33.74000
Minimum	701.0500	2204.720	949.1900	6.600000	2.300000	0.470000
Std. Dev.	398.4729	1311.838	1824.020	4.831740	4.871766	10.57570
Skewness	0.391542	-0.132986	0.521141	-0.062745	0.740699	1.958016
Kurtosis	1.916512	2.231386	1.861674	1.532552	1.971669	5.350566
Jarque-Bera	0.595723	0.220503	0.794046	0.723050	1.084002	6.953490
Probability	0.742404	0.895609	0.672319	0.696613	0.581583	0.030908
Sum	9880.700	35154.28	25206.42	100.4000	54.90000	68.21000
Sum Sq. Dev.	1111465.	12046434	23289338	163.4200	166.1387	782.9180
Observations	8	8	8	8	8	8

Yaradua/Goodluck (2008 – 2014)

	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	3767.673	5828.056	8417.826	10.46250	14.76250	6.883750
Median	4096.620	5880.675	8813.195	11.25000	15.55000	6.755000
Maximum	4797.450	9535.540	11116.85	13.80000	25.10000	11.30000
Minimum	2348.590	2608.530	4844.590	6.600000	4.500000	4.280000
Std. Dev.	796.1205	2618.431	2341.133	2.483050	9.623622	2.248510
Skewness	-0.583904	0.061009	-0.343654	-0.316700	-0.050155	0.814406
Kurtosis	2.269770	1.569421	1.662097	1.787826	1.137611	2.890570
Jarque-Bera	0.632337	0.687148	0.754126	0.623520	1.159518	0.888335
Probability	0.728937	0.709231	0.685873	0.732157	0.560033	0.641358
Sum	30141.38	46624.45	67342.61	83.70000	118.1000	55.07000
Sum Sq. Dev.	4436655.	47993266	38366317	43.15875	648.2988	35.39059

Observations	8	8	8	8	8	8
PMB (2015-2017)						
	GEXP	GTDS	GTREV	INF	UNEMP	YGT
Mean	4801.403	15745.90	6563.400	13.36667	33.80000	0.623333
Median	4813.400	14537.12	6912.500	15.40000	35.20000	0.820000
Maximum	4940.500	21725.04	7098.670	15.70000	37.00000	2.650000
Minimum	4650.310	10975.53	5679.030	9.000000	29.20000	-1.600000
Std. Dev.	145.4665	5475.751	771.5229	3.784618	4.084116	2.131815
Skewness	-0.150477	0.385783	-0.661070	-0.702112	-0.555749	-0.168038
Kurtosis	1.500000	1.500000	1.500000	1.500000	1.500000	1.500000
Jarque-Bera	0.292572	0.355664	0.499757	0.527730	0.435678	0.295368
Probability	0.863911	0.837083	0.778896	0.768077	0.804255	0.862704
Sum	14404.21	47237.69	19690.20	40.10000	101.4000	1.870000
Sum Sq. Dev.	42321.00	59967694	1190495.	28.64667	33.36000	9.089267
Observations	3	3	3	3	3	3

Conclusion:

In this study, we empirically investigated the Nigerian experience regarding fiscal policies and economic stabilization from 1975 – 2017. In the course of study, we find that macroeconomic performance depends on the fiscal policy target which may have implications in the following fiscal year. We also find that given a percentage increase in fiscal policy measures, government revenue becomes responsible for the rise in unemployment by 3.34% and aggregate decline of economic growth by 0.54%, government debt stock notably reduced unemployment by 4.3%, while the increase in government expenditure results in an increase in the price level in Nigeria.

The empirical results showed that government expenditure impacted positively on economic growth and inflation while impacting negatively on unemployment. Government revenue impacted negatively on economic growth and impacted positively on unemployment and inflation.

Also, government total debt stock is found to impact positively on economic growth but is negatively signed on unemployment and inflation. The government should, therefore, rescind its drive for government revenue, increase government debt stock and government expenditure, tame corruption that leads to expenditure leakages if the economy must be set off the path of growth, reducing unemployment and stabilizing the price level.

Funding:

This study received no specific financial support.

Competing Interests:

The authors declare that they have no competing interests.

Acknowledgement:

This is the corresponding author’s abridged Thesis, assisted by the second author in the conception and design of the study while the third author is the content reader.

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