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DOES FISCAL POLICY HAVE ANY INFLUENCE ON INFLATION DYNAMICS IN NIGERIA?

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Abstract

The rate of inflation has consistently been rising over time. Fiscal policy's role in regulating economic activities overtime using the instruments of taxation and public spending influences aggregate demand. Hence, this study examined how well fiscal policy influenced inflation in Nigeria, between 1986 and 2023. Specifically, the study examined the impact of government expenditure, tax revenue and fiscal deficit on inflation in Nigeria during the period. Using autoregressive distributed lag (ARDL) technique, the findings revealed that government expenditure, fiscal deficit and GDP growth rate had negative impact on inflation both in the long and short run, while tax revenue had positive impact on inflation. However, in the long run, only fiscal deficit was statistically significant while in the short run, fiscal deficit, government revenue and government expenditure were statistically significant. Based on the findings, it is recommended that government spending to productive activities should encourage because it will increase output and reduce inflation.

Keywords: *Fiscal policy, inflation rate, government expenditure, tax revenue, Nigeria.*
JEL Classification Codes: *C32, E31, E62, H2*

1. Introduction

The effectiveness of fiscal policy in taming inflation has generated serious debate over the years, as some scholars see fiscal policy as ineffective in controlling inflation while some argued that it is a major policy instrument that can be used to control inflation. The use of fiscal policy to curtail high inflation has thus been studied widely because inflation is a global macroeconomic issue that threatens economies, and it is inevitable. Fiscal policy can put the economy on a sounder long-term path through investment in infrastructure, health care, and education. Olasehinde and Omolade (2022) also argued that fiscal policy is a weapon to control inflation. Fiscal policy is required for economic growth and stabilization. It can be used to control the production and consumption of particular

goods, services and products. The aggregate demand can be increased by the government through taxes and increasing government expenditure. It also boosts demand through tax cuts and increased transfer payments. In times of high inflation with high risk of persistence, fiscal policy, that is, the use of tax, spending and borrowing can play an important role. Taxation is the levy imposed by government on its residents. Raising taxes will generate more revenue for the government which would be used to finance fiscal deficit that is seen as a potential contributor to inflationary pressures (The Committee for a Responsible Federal Budget, 2023). Government spending which is the expenditure of government on recurrent and capital can be used to provide infrastructural facilities for investment to thrive, pay workers' wages and salaries, etc. Borrowing can as well be used to finance budget deficit for smooth running of an economy.

On the other hand, inflation is the persistent increase in the prices of goods and services. It erodes the purchasing power of consumers, as consumers can no longer buy as much products with the same amount of money. Inflation is argued to be harmful to consumers, businesses, and ultimately can stunt economic growth because it can lead to less economic activities (Tevin-Anyali et al., 2023). One mechanism for persistence of inflation is through expectations channel. When consumers expect higher inflation, they may spend more money, push for higher wages and be more ready to spend at higher prices. This is because inflation often leads to loss of purchasing power. On the part of businesses, when business owners expect higher Inflation, based on expectation, they might increase the prices of goods and services. The wage-price increase is said to be another mechanism for persistence in high inflation. Due to this fact, it has been advocated by scholars that reduction in spending is the antidote to control high inflation (The Committee for a Responsible Federal Budget, 2023).

Weinstock (2021) argued that expansionary fiscal policy will increase inflation, while Alesina and Ardagna (2010) assert that contractionary fiscal policy is the best to control inflation. High and volatile inflation which is inevitable thus makes fiscal management more challenging. Since, government usually uses spending, taxation and borrowing to stabilize the economy, fiscal policy becomes more complex because the overall fiscal stance affects inflation through aggregate demand and inflation expectations (International Monetary Fund [IMF], 2023). The impact of fiscal policy on inflation varies according to the level of fiscal space and economic conditions. According to Cervik and Miryugin (2023), inflation increases more in countries with constrained fiscal space and

during economic expansion. It has been suggested that building strong fiscal buffers in normal times would allow governments to respond swiftly and flexibly during adversities, to price changes, or prioritizing spending that preserves social protection and growth-enhancing investments in human or physical capital. Thus, fair distribution of income to assist the most vulnerable through targeted cash transfers can help improve the fiscal position. In the case where government revenue falls short of its expenditure, bringing down the deficit, that is, reducing borrowing/spending is one way to ease inflationary pressures. Health care costs reduction and raising of taxes can also have wholesome effect in reducing inflation. This would also have some economic benefits (IMF, 2023).

Studies have indicated that the role played by fiscal policy in aggregate demand and inflation may be larger than imagined. Government spending matters for inflation via their impact on aggregate demand. However, the effect of fiscal policy on inflation differs. It was empirically established that 1% of gross domestic product (GDP) increase in government spending would lead to an average hike in inflation of almost 1%, phasing out slowly (IMF, 2023). In a developing economy, high inflation rate has been attributed to large budget deficit by the government over the years. This can be supported by the assertion of Keynes (1936) which postulates that fiscal policy is the major stabilization policy tool because inflation arises due to deficiencies in the real economy. In contrast to this, Barro (1989) postulates that an increase in budget deficit does not have any effect on aggregate demand, interest rate or price level. Over the years, Nigeria has been facing a serious challenge of high inflation, coupled with high debt profile. To help bridge the fiscal deficit gap, funds are sourced from both internally and externally to put some critical infrastructures that can encourage investments in place. On the other, inflation rose from 16.95% in 2021 to 21.34% in 2022 and 28.92% in 2023 (Central Bank of Nigeria Statistical Bulletin, 2022; Budget Office of the Federation, 2023). It has been observed that the kind of inflation experiencing in Nigeria is as a result of inadequate investments as the environment is too hostile for investors to invest. This led to low production of goods and services which makes most of intermediate and consumables goods to be imported.

Conversely, Nigeria government over the years has been running deficit budget because the revenue generated cannot cater for the expenditure. This can be linked to fiscal indiscipline because Nigeria is naturally blessed to have all the resources needed to put the economy on the path of development and help control inflation. There are wasteful

spending, budget padding and tax administration loopholes that cause fiscal deficit. This forces the government to always borrow from other sources in order to bridge deficit gap. According to Central Bank of Nigeria (2022), fiscal deficit in Nigeria was 4.69% in 2019 but it rose from 6.04% in 2021 to almost 11.34% in 2023. Incidentally, the borrowed funds were surprisingly mismanaged, thereby causing deficiencies in the real economy. The dilapidated infrastructures due to mismanagement of funds, inadequate spending and inefficient tax system have caused most foreign and domestic investors to move their investments away to other countries, thereby causing low investments. This has wholesome effect on the economy as producers result into importation of goods and services to satisfy the needs of Nigeria populace, which makes inflation to increase every day.

Several policy measures were put in place by the government to control inflation through the use of fiscal policy. These include increasing monetary policy rate, fiscal policy measures, the Economic Recovery and Growth Plan (ERGP) of 2017, were all aimed at increasing investment in infrastructures, diversify resources from less desirable investments to more desirable ones, stimulate favourable business environment to attract investors and promote digital-led industry growth (CBN, 2022). However, with the various fiscal policy measures put in place each year to correct any deficiencies that may cause persistent inflation, the goal of controlling inflation has not been achieved as inflation rate continues to be high.

Previous empirical studies have resulted to mixed and inconclusive findings. Scholars such as Samson et al. (2023); Otto and Ukpere (2015); Tarick (2014) affirmed that fiscal policy has positive impact on inflation, while studies such as Udo and Kokoette (2023); Alrawshdeh et al. (2022); Asemota and Dibie (2019) revealed that fiscal policy is not effective in controlling inflation. Having realized that Nigeria inflation is related to structural deficiencies, and that many scholars adopted different methodologies and variables to study the impact, this study therefore incorporated fiscal deficit, government expenditure, tax revenue, GDP growth rate and consumer price index to examine the impact of fiscal policy and inflation in Nigeria from 1986 to 2023 using autoregressive distributed lag model.

2. Literature Review

2.1. Conceptual Literature Review

Chartered Financial Analyst Institute (2023) defined fiscal policy as the use of government spending and taxation to impact a number of aspects of the economy. These include the overall level of aggregate demand, the distribution of income and wealth among

different segments of the population, and allocation of resources. The tools that governments use in implementing fiscal policy are related to the way in which they raise revenue and the different forms of expenditure. Governments usually raise money via a combination of direct and indirect taxes. Government expenditure can be current on goods and services or can take the form of capital expenditure. As economic growth weakens, or when in recession, government tries to stabilize the economy using an expansionary fiscal policy, that is, increase spending and reduce taxes. According to Olasehinde and Omolade (2022), fiscal policy is an important policy instrument that can be used to attain various macroeconomic objectives such as economic growth, full employment, price stability amongst others. Ekwunife et al. (2021) refer to fiscal policy as the use of government revenue collection and expenditure to influence the economy. It deals with government's deliberate actions in spending money and levying taxes with the aim of stabilizing the economy. Government intervention through fiscal policy is geared towards the achievement of macroeconomic stability and real growth.

Inflation is the rate of increase in prices over a given period of time (Ceyda, 2010). According to CBN (2021) inflation is often seen as a state where too much money in circulation chases few goods. This means that it an economic situation where there is a general rise in the prices of goods and services, continuously. It typically measures the overall increase in prices or the increase in the cost of living in a country. It can be measured using consumer price index or implicit price deflator for gross national product (GNP) (CBN, 2021).

2.2 Theoretical Literature Review

This study adopts the fiscal theory of price level developed by Sargent and Wallace in 1981. The theory was as a result of the shortcomings in monetarist view on price level and postulates that price level is determined by the fiscal choices that government make. Sargent and Wallace (1981) argue that price level is determined by fiscal policy instruments such as spending, debt and deficit. The theory argued that when government consistently runs on deficit financing, it will trigger higher inflation which is the case with Nigeria. Moreover, fiscal deficit increases individual wealth which in turn raises aggregate demand, thereby causing inflationary spike. Despite the criticism against fiscal theory of price level, it is still applicable in the case of Nigeria because the orthodox use of monetary policy has not achieved any meaningful results in curtailing inflation.

2.3 Empirical Literature Review

This section discusses some empirical works that have been done in this area, this will guide us in understanding their findings, methodology and period of study. For instance, Samson et al. (2023) studied the impact of fiscal policy on inflation in Nigeria from 1981 to 2021, using error correction model. The results showed a positive relationship between government expenditure, revenue and inflation in Nigeria. A recent study was conducted by Udoh and Kokoette (2023) to ascertain how inflation can be controlled with fiscal policy in Nigeria. The study covered a timeframe that spans from 1986 to 2021 and adopted the autoregressive distributed lag (ARDL). From the findings, government capital expenditure and government taxes had negative and significant impact on inflation while government recurrent expenditure had a positive relationship with inflation in Nigeria.

A study on the effectiveness of fiscal policy in targeting inflation was carried out by Alrawshdeh et al. (2022) in Jordan. The period covered was 1992 to 2000 using ARDL model and the findings revealed that direct taxes had negligible and negative impact on inflation while indirect taxes, import price index and real GDP has positive and significant impact on inflation in Jordan. In 2021, a study was conducted by Atan and Effiong on the impact of fiscal policy on Nigeria's inflation. The study covered the period of 1991 to 2019 using the error correction model (ECM) technique. The results indicated that government expenditure does not cause increase in inflation within the study period.

Metu et al. (2019) investigated the impact of fiscal policy on inclusive growth in Nigeria using annual data that span from 1980 to 2017 using structural vector autoregressive (SVAR) model. The study found that government capital expenditure contributes more to achieving inclusive growth than tax, and that tax has higher impact on unemployment than on poverty and GDP per capita growth rate. Asemota and Dibie (2019) empirically examined the impact of fiscal policy on inflation expectations in Nigeria using annual data that span from 1981Q1 to 2018Q2. The study adopted the vector error correction technique and the findings revealed that fiscal policy had negative relationship with inflation in Nigeria. Similarly, Danlami et al. (2019) in their study on how inflation is affected by fiscal deficit in Nigeria from 1970 to 2016 and employing ARDL model found that fiscal spending contributes to inflationary pressure in Nigeria.

Dikeogu (2018) carried research on the relationship between public spending and inflation in Nigeria from 1980 to 2017. An ARDL model was used and the results found that both government capital and recurrent

expenditures had negative impacts on inflation in Nigeria. In the same vain, Egbulonu and Wobilor (2016) studied the relationship between fiscal policy and inflation in Nigerian economy from 1970 to 2013. An error correction mechanism and OLS were employed as tools of analysis and their findings revealed a positive but insignificant relationship between government expenditure, taxation and inflation; while inflation and government debt stock were negatively related. Furthermore, Otto and Ukpere (2015) found that government expenditure and GDP had positive but insignificant impact on inflation, while government revenue had a negative and insignificant impact. Their study was carried out in Nigeria using annual data from 1980 to 2011 which was analysed using the ordinary least square technique. Meanwhile the study by Oseni (2015) found that fiscal policy had a long run negative and significant effect on inflation volatility in Nigeria from 1981 to 2013.

Empirical evidence suggest that fiscal deficit causes high inflation. However, previous studies have not considered using fiscal deficit in analysing the role of fiscal policy despite being an instrument of fiscal policy. Therefore, this study filled the identified gap in the literature by including fiscal deficit alongside other variables to examine the impact of fiscal policy on inflation in Nigeria. Moreover, the extension of the time frame to 2023 is another justification for carrying out this research since the most recent studies cover the period to 2021.

3. Research Methodology

3.1. Model Specification

In line with theoretical underpinning of the study, this study modifies the model specified in Udoh and Kokoette (2023). The model explains inflation as a function of government capital expenditure, government recurrent expenditure and government taxes. The model is thus specified mathematically as;

$$IN = f(GCE, GRE, GTX) \quad 3.1$$

Where, INF is inflation, GCE is government capital expenditure, GRE is government recurrent expenditure and GTX is government taxes.

This study, incorporate government expenditure, tax revenue, fiscal deficit, gross domestic product growth rate and inflation rate. The model was modified in order to include some important variables that affect inflation. The functional form of the model is specified as:

$$CPI = f(GEXP, TAXR, FISD, GDPGR) \quad 3.2$$

Where, CPI is consumer price index, proxy for inflation; GEXP stands for government expenditure; TAXR connotes tax revenue; FISD represents fiscal deficit; and GDPGR is gross domestic product growth rate, used as a

control variable. The econometric form of the model is written as;

$$CPI = \beta_0 + \beta_1 GEXP_{t-1} + \beta_2 TAXR_{t-1} + \beta_3 FISD_{t-1} + \beta_4 GDPGR_{t-1} + \mu_t \quad 3.3$$

Where, t-1 is the lagged value of the variables, μ is the stochastic error term which explains other variables that cannot be captured in the model. β_0 is the intercept, while β_1 - β_4 are the slopes coefficients.

In this study, the ARDL model which estimates both the long run and short run relationship is presented as in accordance with Pesaran et al. (2001):

Long and Short run ARDL Equation

$$\Delta CPI_t = \beta_0 + \beta_1 CPI_{t-1} + \beta_2 GEXP_{t-1} + + \beta_3 TAXR_{t-1} + \beta_4 FISD_{t-1} + \beta_5 GDPGR_{t-1} + \sum_{i=1}^{p} \beta_1 \Delta CPI_{t-1} + \sum_{i=1}^{p} \beta_2 \Delta GEXP_{t-1} + \sum_{i=1}^{p} \beta_3 \Delta TAXR_{t-1} + \sum_{i=1}^{p} \beta_4 \Delta FISD_{t-1} + \sum_{i=1}^{p} \beta_5 \Delta GDPGR_{t-1} - \emptyset ECM_{t-1} + £_t \quad 3.4$$

3.2. Estimation Techniques and Procedures

Since the data collected for this study are time series, unit root test was conducted using Augmented Dickey Fuller unit root test. This method is chosen because it can handle bigger and more complex time series models and also adjusts for serial correlation. The ARDL Bounds test for co-integration was also conducted to establish a long run relationship among the variables. Thereafter, the ARDL model was adopted to obtain the long run and short run estimates of the variables. This method is employed because it can handle data with small sample sizes and even be applied when there are mixed order of integration in the stationarity tests conducted, that is, I(1) and I(0).

The data for government expenditure, tax revenue, fiscal deficit, inflation rate (consumer price index) and GDP growth rate were sourced from National Bureau of Statistics 2023, Budget Office of the Federation 2023 and Central Bank of Nigeria Statistical Bulletin 2023.

4. Presentation of Results and Discussion of Findings

4.1 Presentation of Results

4.1.1 Descriptive Statistics

The descriptive statistics was conducted for this study to show the behaviour of the data set. The result is presented in Table 4.1.

Table 4.1: Descriptive Statistics Result

	CPI	FISD	GEXP	TAXR	GDPGR
Mean	19.04487	-2.287632	3.085022	3.249022	4.147368
Median	12.71577	-2.500000	3.230269	3.639300	3.900000
Maximum	72.84000	6.500000	5.312017	5.988301	15.30000
Minimum	1.234517	-8.600000	1.209515	1.100371	-2.000000
Std. Dev.	17.33926	2.395339	0.959538	0.991685	3.797064
Skewness	1.749698	0.764639	-0.177534	-0.187754	0.537625
Kurtosis	4.879556	6.867578	2.536754	3.356947	3.554758
Jarque-Bera	24.98262	27.38668	0.539395	0.424995	2.317875
Probability	0.000004	0.000001	0.763611	0.808562	0.313819
Sum	723.7051	-86.93000	117.2308	123.4628	157.6000
Sum Sq. Dev.	11124.05	212.2931	34.06637	36.38722	533.4547
Obs.	38	38	38	38	38

Source: Authors' Computation using Eviews 10

From Table 4.1, fiscal deficit (FISD) had negative mean value while other variables such as inflation (consumer price index), government expenditure (GEXP), tax revenue (TAXR) and GDP growth rate (GDPGR) had positive mean values, respectively. The standard deviation for consumer price index (CPI) shows moderately high value, while the standard deviation for other variables such as GEXP, TAXR, FISD and GDPGR were low. This simply means that our estimation can be used to predict economic situations. The skewness revealed that government expenditure (GEXP) and tax revenue (TAXR) are negatively skewed while CPI, FISD and GDP growth rate are positively skewed. The probability value of Jarque-Bera indicates that CPI and FISD are not normally distributed because their p values are lower than 0.05 significance level, while GEXP, TAXR and GDPGR are all normally distributed.

4.1.2 Test of Stationarity

The test of stationarity is necessary in a time series data because if the series are not stationary, it can produce spurious regression which will make the estimations unreliable. The test result is presented in Table 4.2

Table 4.2: Summary of ADF Unit Root Test Result

Variables	ADF Stat	Critical Value @5%	Order of Integration	P Values	Remarks
CPI	-5.3193	-2.9458	I(1)	0.0001	Stationary
GEXP	-4.4673	-2.9484	I(1)	0.0011	Stationary
TAXR	-5.1452	-2.9458	I(0)	0.0016	Stationary
FISD	-4.4392	-2.9458	I(1)	0.0011	Stationary
GDPGR	-4.0941	-2.9434	I(0)	0.0034	Stationary

Source: Authors' Computation using Eviews 10

The Augmented Dickey Fuller test result presented in Table 4.2 shows that inflation dynamics proxied by consumer price index (CPI), fiscal deficit (FISD) and government expenditure (GEXP) are stationary at first difference, while tax revenue (TAXR) and GDP growth rate (GDPGR) are stationary at level. This is seen in the ADF statistics against the critical values at 5% as the ADF values in absolute terms are greater than the critical values at 5% level. This leads to the rejection of the null hypothesis that the variables have unit root. It is then concluded that the variables are stationary and the estimates can produce consistent and unbiased results. Based on this mixed order of integration, the ARDL Bounds test was conducted to show the long run relationship.

4.1.3 ARDL Bounds Test for Cointegration

Before testing for cointegration, a lag length was selected using Akaike criteria and it shows 1,1,1,1,0 as the appropriate lag length. The ARDL Bounds test for cointegration was employed to test for long run relationship among the variables. The result is presented in Table 4.3.

Table 4.3: ARDL Bounds Test for Cointegration

Test Statistic	Value	k
F-statistic	5.286094	4
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Authors' Computation using Eviews 10

The result in Table 4.3 shows that there is cointegration among the variables since the F statistics value of 5.2861 is greater than the upper and lower bound at 5% critical level. This leads to the rejection of the null hypothesis which states that there is no long run relationship among the variables. It is therefore concluded that there is a long run relationship.

4.1.4 Autoregressive Distributed Lag Result

Based on the bounds test for cointegration which shows a long run relationship among the variables, the long run and short run estimates are conducted and the results are presented in Tables 4.4 and 4.5 respectively.

Table 4.4: Long run Estimate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.76257	14.02742	2.335609	0.0264
CPI(1)	0.182223	0.228614	0.797075	0.4317
GEXP(-1)	-15.95782	15.23129	-1.047700	0.3031
TAXR(-1)	9.685527	15.05465	0.643358	0.5249
FISD(-1)	-2.293996	2.045073	-3.121719	0.0209
GDPGR	-1.180943	0.702173	-1.681842	0.1030

Source: Authors' Computation using Eviews 10

In the long run, the coefficient of the lagged value of CPI is positive and it indicates that a 1% increase in the lagged value of CPI will increase its current value by 0.18%. The lagged value of GEXP and FISD are negative, meaning that on average, a 1% increase in the lagged value of GEXP and FISD will decrease CPI by 15.96% and 2.29%, respectively. Similarly, GDPGR had a negative coefficient of -1.18. This implies that on average, a 1% increase in GDPGR will decrease CPI by 1.18%. Tax revenue (TAXR) however had a positive relationship with inflation and it suggests that a percentage increase in TAXR will cause CPI to increase by 9.69%. On statistical significance, only the lagged values of CPI and FISD are statistically significant because the p values are lower than the critical value at 5% significance level.

Table 4.5: Short Run Estimate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.910771	3.116587	1.254825	0.2199
D(CPI(-1))	-0.385846	0.199642	-1.932691	0.0634
D(GEXP(-1))	-86.67504	32.85276	-2.638288	0.0135
D(TAXR(-1))	52.61389	24.44354	2.152466	0.0401
D(FISD(-1))	**-7.737472**	**2.444843**	**-3.164813**	**0.0037**
D(GDPGR)	-0.893570	0.530879	-1.683189	0.1035
ECM-1	-1.187717	0.321168	-3.698113	0.0009
R-squared	0.877551	Adjusted R-squared		0.792741
F-statistic	3.345485	Durbin-Watson stat		1.518386
Prob(F-statistic)	0.013007			

Source: Authors' Computation using Eviews 10

The result of the short run estimate presented in Table 4.5 shows that only TAXR had positive relationship with CPI. The coefficient values of CPI, FISD, GEXP and GDPGR indicate that a percentage increase in the lagged values of CPI, GEXP and FISD will decrease the current value of CPI by 0.39%, 86.7% and 7.73%, respectively. Also, with the coefficient value of -0.8936, GDPGR will decrease CPI by 0.89%. On the other hand, TAXR had a positive relationship with CPI and the value suggests that on average, a percentage increase in TAXR will increase CPI by 52.61%. The p values show that all the variables are statistically significant at 5% except the lag value of CPI and gross domestic product growth rate (GDPGR).

The error correcting term as indicated by ECM, has the expected negative sign of -1.1877 with the p value of 0.0009. This implies that any disequilibrium in the previous years would be corrected for in the current year with a speed of about 1.19%. Based on the rule of thumb which states that the closer the value is to 1, the faster the speed of adjustment, hence, any disequilibrium will quickly be corrected for. The R^2, that is, the goodness of fit is 0.8776 and it means that 88% variations in CPI are explained by GEXP, TAXR, FISD and GDPGR while the remaining 12% variations are explained by the error term. Thus, the estimates are reliable and can be used for economic predictions. The F-statistic value of 3.345 shows that the variables are jointly and highly statistically significant at 5% level of significance. The Durbin- Watson (DW) statistic suggests that the model is free from autocorrelation since the value of DW (1.5183) is approximately 2.

4.1.5. Post-Estimation Test Result

The post estimation tests are carried out to ascertain the reliability and robustness of the estimates. Hence, Breusch-Godfrey serial correlation, stability and Breusch-Pagan-Godfrey heteroscedasticity tests were conducted in this regard and the results are presented in Table 4.6 and Table 4.7

Table 4.6: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	2.427477	Prob. F(6,28)	0.0614
Obs*R-squared	11.97631	Prob. Chi-Square(6)	0.0725
Scaled explained SS	8.443201	Prob. Chi-Square(6)	0.2074

Source: Authors' Computation using Eviews 10

The result in Table 6 shows that there is no problem of heteroscedasticity in the model. This is because the probability value of F-statistic of 0.0614 is greater than the critical value at 5%. This therefore leads to the rejection of the null hypothesis and the study concludes that the model is homoscedastic.

Table 4.7: Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.172022	Prob. F(2,26)	0.1342
Obs*R-squared	5.010589	Prob. Chi-Square(2)	0.0817

Source: Authors' Computation using Eviews 10

This result reveals that the model is not suffering from the problem of serial correlation since the probability value of F-statistic which is 0.1342 is greater than 5%. The null hypothesis which states that there is no serial correlation in the model is thus accepted.

Stability Tests

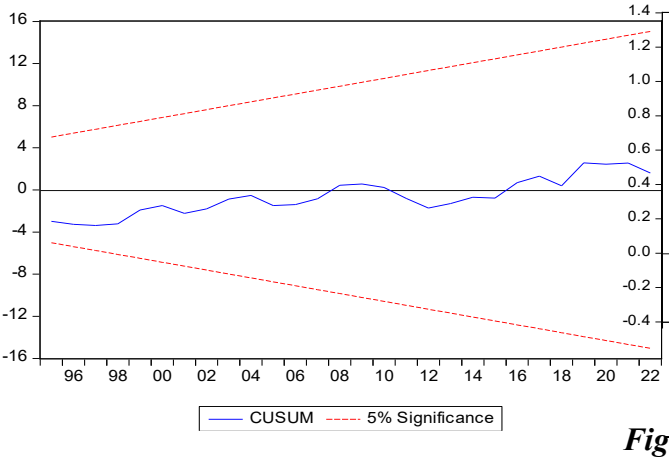


Figure 4.1: Cumulative Sum Test
Source: Authors' Computation using Eviews 10

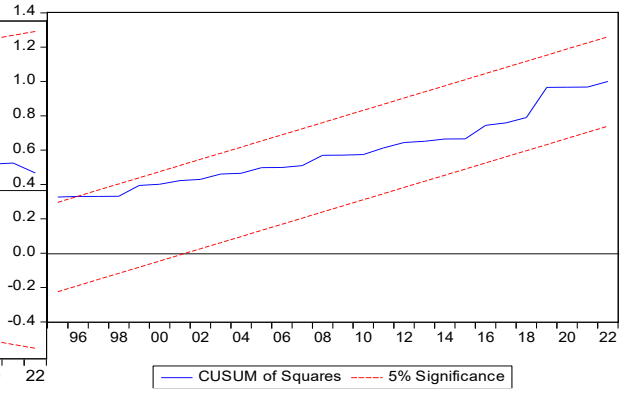


Figure 4.2: Cumulative Sum of Squares Test
Source: Authors' Computation using Eviews 10

Figures 4.1 and 4.2 clearly show that the model is stable since the base lines fall within the 5% boundary level. Thus, the study rejects the null hypothesis of no stability. Hence, the model is fit for policy analysis.

4.2. Discussion of Findings

The results of the ARDL show that government expenditure (GEXP) had a negative relationship with inflation (CPI), meaning that increase in GEXP will cause more persistent increase in CPI. This is actually not expected because any spending at any time in an economy should encourage

investment which would bring competitions and lower inflation rate. In the case of Nigeria, the reverse is the case. This is not unconnected from the wasteful spending of Nigeria government which has caused deficiencies that discourage investments in the economy. While the finding of this study aligns with the findings of Udoh and Kokoette (2023), it is contrary to the findings of Samson et al. (2023) that found a positive relationship between government expenditure and inflation. The positive relationship between tax revenue and inflation suggests that over the period of study, the revenue generated from tax and inflation increased over time. Increasing taxes to generate more revenue means that producers/consumers purchasing power is reduced, which helps to reduce inflationary pressures. This finding does not align with the finding of Udoh and Kokoette (2023).

The negative relationship between fiscal deficit and inflation both in the long and short run implies that running deficit budget is not helping the Nigeria situation because of the wasteful spending habits. Recently, persistent high inflation rate has been linked to fiscal deficit both theoretically and empirically. This negative impact suggests that as money is sourced to finance deficit budget, the same funds are mismanaged, which makes Nigeria's growth to remain stunted. This leads to a reduction in investments, thereby, causing increase in import, which is one of the major causes of Nigeria inflationary pressures. The findings of this study corroborate the finding of Danlami et al. (2019) which established that fiscal deficit contributes to persistent high inflation in Nigeria, but contradicts the finding of Alrawshdeh et al. (2022). Similarly, the GDP growth rate was found to have negative impact on inflation in Nigeria. The implication of this is that the growth rate of GDP in Nigeria is low to meet the needs of the populace, which causes importation of goods and services that put pressure on inflation in Nigeria.

5. Conclusion and Recommendations

Fiscal policy has been affirmed to be an instrument of stabilizing the economy. However, it was revealed from the findings of this study that both in the long run and short run, government expenditure, fiscal deficit and GDP growth rate had negative impact on inflation, while tax revenue had positive impact on inflation during the study period. These findings have provided more insight on how fiscal policy affects inflation, and it is concluded that one key way to reduce inflationary pressures is by discouraging excessive spending in the economy and judiciously spend the revenue generated. Based on the findings, it is recommended that government spending should be allocated to critical infrastructures that can encourage

investments and boost GDP growth. This will go a long way in controlling inflation. Furthermore, borrowing to finance deficit budget should be discouraged, while investments that boost supply are encouraged so as to generate more revenue that can run surplus budget for government.

References

Alesina, A., & Ardagna, S. (2010). Large changes in fiscal policy: Taxes versus spending. In Jeffrey R. Brown (ed). *Tax policy and the economy, 24.* University of Chicago Press.

Alrawshdeh, S. T. A., Hamdan Zyadat, A. A. F., & Marzouq Abkal, A. M. (2022). The effectiveness of fiscal policy in targeting inflation in Jordan. *Academy of Entrepreneurship Journal, 28*(S1), 1-12.

Asemota, G., & Dibie, K. E. (2019). Impact of fiscal policy on inflation expectations in Nigeria. *International Journal of Research and Innovation in Social Science, 3*(5), 105-112.

Atan, J. A., & Effiong, U. E. (2021). Fiscal policy and inflation in Nigeria: An insight into the critical limit hypothesis. *Journal of Research in Business and Management, 9*(5), 66-73.

Barro, R. J. (1989). The Ricardian approach to budget deficit. *Journal of Economic Perspectives, 3*(2), 37-54.

Budget Office of the Federation (2023). *Breakdown and highlights of the 2023 executive budget proposal.* https://www.budgetoffice.gov.ng/index.php/public-presentation-of-2024-executive-budget-proposal/view document/955

Central Bank of Nigeria (2021). *What is inflation and why must the central bank fight hard to subdue this monster? How does inflation affect the ordinary man?* https://www.cbn.gov.ng>stdPDF A Predictive Model for Inflation in Nigeria

CBN Statistical Bulletin (2022). CBN Statistical Bulletin: *Economic report fourth quarter.* https://www.cbn.gov.ng

Cervik, S., & Miryugin, F. (2023). Fiscal policy shocks and inflation. *IMF Working Paper, WP/23/98, May 2023.*

Ceyda, O. (2010). *Back to basics: What is inflation?*. IMF Financial and Development Department. https://www.imf.org>pdf>b...PDF March 2010 – Ceyda Oner.

Chartered Financial Analyst Institute (2023). *Monetary and fiscal policy.* https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/monetary-fiscal-policy

Danlami, I. A., Bin, H., Mhamad, H., & Sallahuddin, H. (2019). Dynamic analysis of the effect of fiscal deficit on inflation in Nigeria. *Academic Journal of Economic Studies, 6*(2), 159- 165.

Dikeogu, C. C. (2018). Public spending and inflation in Nigeria. *International Journal of Advanced Academic Research: Social and Management Sciences, 4*(12), 52-66.

Egbulonu, K. G., & Wobilor, A. K. (2016). Impact of fiscal policy on inflation in Nigerian economy. *International Journal of Innovative Development and Policy Studies, 4*(3), 53- 60.

Ekwunife, I. J., Emuveyan, A. E., & Nduka, A. J. (2021). Fiscal policy instruments and Nigerian real sector. *Journal of Emerging Trends in Management Sciences and Entrepreneurship, 3*(1), 167-180.

International Monetary Fund (2023). *Inflation and disinflation: What role for fiscal policy? Fiscal Monitor: On the path to policy normalization.* https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url https://www.imf.org//media/Files/Publications/fiscalmonitor/2023/April/English/ch2.ashx&ved=2ahUKEwjtgr7oyriDAxXPa0EAHa8ABXsQFnoECCgQAQ&usg=AOvVaw1XkbpSTji1NtgTDVmAH3y

Keynes, J. M. (1936). *The general theory of employment, interest and money.* Palgrave MacMillan

Medee, P. N., & Nenbee, S. G. (2012). The impact of fiscal deficits on inflation in Nigeria between 1980 and 2010. *International Journal of Economic Development Research and Investment, 3*(1), 12-21.

Metu, A. G., Maduka, O. D., & Ajudua, E. E. (2019). Impact of fiscal policy on inclusive growth in Nigeria. *African Journal of Sustainable Development, 9*(2), 61-87.

Neumark, F. (1962). *Fiscal policy as a weapon to control inflation.* Palgrave Macmillan, pp.185-197.

Olasehinde, T.J., & Omolade, A. (2022). Fiscal policy shocks and industrial sector growth in Nigeria. *Fuoye Journal of Accounting and Management, 5*(2), 182-195.

Oseni, I. O. (2015). Fiscal policy and inflation volatility in Nigeria. *Nigerian Journal of Economic and Social Studies, 57*(1), 1-20.

Otto, G., & Ukpere, W.I. (2015). The impact of fiscal policy on inflation in Nigeria. *Risk Governance and Control Financial Markets and Institutions, 5*(1), 123-132.

Samson, B., Peter, F., & Cynthia, D. (2023). Fiscal policy and inflation in Nigeria. *Journal of Sustainable Business and Economics, 6*(2), 1-11.

Sargent, T. J., & Wallace, N. (1981). Some unpleasant monetary arithmetic. *Quarterly Review, Fall, Federal Reserve Bank of Minneapolis,* 1-17.

Surjaningsih, N., Utari, G. A. D., & Trisnanto, B. (2012). The impact of fiscal policy on output and inflation. *Bulletin of Monetary Economics and Banking, 14*(4), 368-396.

Tarick, B. (2014). Exploring the link between fiscal policy and inflation in Jamaica. *Fiscal and Economic Programme Monitoring Department Working Paper.*

Tevin-Anyali, C. L., Obi, C. I., & Oladipo, A. O. (2023). Nigeria's standard of living in the face of inflation. *Asian Research Journal of Arts and Social Sciences, 21*(4), 32-42.

The Committee for a Responsible Federal Budget (2023). *Fiscal policy in a time of high inflation.* https://www.crfb.org/papers/fiscal-policy-time-hime-inflation

Udoh, I. E., & Kokoette, I. U. (2023). Fiscal policy and inflation in Nigeria. *Asian Journal of Economics, Business and Accounting, 23*(22), 95-108.

Weinstock, L. R. (2021). Fiscal policy: Economic effects. *Congressional Research Service, R45723.* https://crsreport.congress.gov