UNRAVELLING THE RELATIONSHIP BETWEEN INFLATION ECONOMIC GROWTH AND GOVERNMENT EXPENDITURE IN NIGERIA: AN ARDL APPROACH

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ABSTRACT

The Nigerian economy has experienced a decline in its growth rates, which has coincided with a gradual rise in government expenditures. Unravelling the interrelationship between these variables is crucial in understanding the implications of Government expenditure on economic development and the potential inflationary consequences. This study is to offer significant comprehension of the efficacy of fiscal policies and the consequences for Nigeria's overall economic performance by examining the correlation between Inflation, economic expansion, and public spending. Annual series data spanning 1990 to 2021 is utilized for the study. Economic growth, is the dependent variable whereas, Government aggregate expenditure, disaggregated government expenditure (Recurrent expenditure and Capital expenditure), inflation, and money supply are independent variables. Data is gotten on the World Development Indicator (World Bank) and Nigerian Central Bank Statistical Bulletin. The study employed Auto regressive Distributed Lag. The empirical finding demonstrates a substantial and positive correlation amid the growth in the economy and aggregate administration expenditure, recurrent government spending and money supply, while inflation and total current spending exhibit an adverse impact on growth in economy. As a result, it might be suggested that the government should improve efficiency and competence in resource apportionment to sectors and projects that exhibit a greater capacity to stimulate economic progress such as infrastructure, education, health, research and development. It is also imperative to adopt a monetary policy that ensure price stability, encourage competition and reducing regulatory constraints as well as encouraging entrepreneurship.

Keywords: Inflation, Government spending, ARDL, Economic growth.

INTRODUCTION

Over the recent years, Nigeria's economic growth rate has been declining while the government's expenditure has been on a gradual rise. The 2021 edition of the Nigeria Central Bank (CBN) Statistical Bulletin, reports that in 2009, there was a 9.41% increase in government expenditure compared to the previous year. However, during the same period, the GDP increased

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by 3.63% in the preceding year. The severity of the situation can be observed by examining the statistics from 2016, wherein the government expenditure increased to 17.43% from the preceding year and the GDP increased to -1.61%. Table 1 displays the percentage alteration in both fiscal expansion and administration spending, specifically to the progress in economy of Nigeria.

Table 1
THE PERCENTAGE ALTERATION IN BOTH FISCAL EXPANSION AND ADMINISTRATION

YEAR	RGDP	Percentage change in RGDP (%)	Government Expenditure ₦Billion	Percentage change
2011	57,511,041,765,000	5.3079	4,712.1	12.337
2012	59,943,794,014,100	4.2300	4,605.3	-2.2665
2013	63,942,845,560,000	6.6713	5,185.3	12.5941
2014	67,977,459,215,300	6.3097	4,587.4	-11.5306
2015	69,780,692,718,300	2.6526	4,988.9	8.7522
2016	68,652,430,364,700	-1.6168	5,858.6	17.4327
2017	69,205,691,115,000	0.8058	6,456.7	10.2089
2018	70,536,348,621,700	1.9227	7,813.7	21.0169
2019	72,094,093,995,700	2.2084	9,714.6	24.3277
2020	70,800,543,492,000	-1.7942	10,231.7	5.3229
2021	73,382,771,385,200	3.6471	12,164.1	18.8864

A rise in spending by the government does not have a significant upsurge in economic development (Chinedu et al., 2022). The government is anticipated to enhance the economic well-being and overall welfare of its citizens through the implementation of suitable economic policies. Apart from its responsibility of upholding law and order, the government is anticipated to assume a significant function in economic matters (Udabah S.I, 2002).

The allocation of funds by the government is a crucial tool for economic management within a nation (MacKinnon, 2000). According to (Faguet, 2004) (Gbadamosi et al., 2009)(Lin, 2011) economists posit that the allocation of government funds towards social and economic infrastructure has the potential to stimulate growth. The significance of the government's role is of utmost importance in nearly all contemporary economies. One rationale behind this is that it guides the pursuit of a nation's macroeconomic goals, including but not limited to attaining full employment, fostering economic advancement and expansion, maintaining stable prices and reducing poverty. Furthermore, the allocation of public funds by the government is a significant factor in influencing the state of the economy. The allocation of public funds towards essential sectors such as infrastructure, social welfare programs, education, healthcare, and other areas that are crucial for the advancement of the economy. (Lucas, 2012)(Stenberg et al., 2017) the distribution and administration of public funds hold considerable consequences for both the expansion of the economy and the emergence of inflationary forces. Hence, the investigation of the correlation between government spending and inflation assumes a crucial role in formulating efficacious fiscal measures.

During the years 2012 and 2014, the Nigeria government successfully implemented expenditure reduction measures resulting in a decrease of government spending by -2.26% and -

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11.53% respectively, as indicated by the adverse sign denoting a decrease in expenditures compared to the prior year. During the years 2012 and 2014, the percentage increase in Gross Domestic Product (GDP) exceeded that of government expenditure. Specifically, the percentage change in GDP was 4.2300% and 6.3097% for 2012 and 2014, respectively. In contrast, the change in government expenditure was -2.2665% and -11.5306% for the same years, respectively. As government spending rises, there is a corresponding need for increased financial resources to meet these expenditures. Consequently, the government obtains funding from the Nigerian central bank, and seek assistance from foreign financial organizations like the IMF and World Bank, or enforces additional taxes on the populace to fulfill their financial obligations. Prior research has shown that the utilization of loans or borrowings, as well as the implementation of taxes, have resulted in a noteworthy adverse effect on the economic progress of the nation. Using a central bank loan has a tendency to upsurge the overall money supply. Thereby serving as a significant contributor to inflation and engendering economic uncertainty. Public borrowing is associated with a decrease in domestic investment and upsurge in interest rates (Blanchard, 2019) The imposition of additional taxes results in economic distortions and diminishes both output and growth. This research aims to supplement existing empirical research on the relationship amid inflation, growth in economy and government expenses in Nigeria.

More specifically the objectives are as follows

- To measure the association amid the inflation rate and economic growth variable;
- To measure the association amid the economic growth variable, and aggregated government expenses;
- To measure the association amid economic growth variable, the rate of inflation, and dis-aggregated government expenses.
- The paper is alienated into diverse sections: Unit 2 reviews the literature. Unit 3 explained the materials and method Unit 4 explains the result analysis. Section 5 gives conclusions and recommendations.

LITERATURE REVIEW

In the extant literature, several research have been done on inflation growth in economy and government expenditure for instance in Pakistan, (Attari & Javed, 2013) Through an investigation into association among rate of inflation , economic progress, and government expenses, a long-term correlation has been identified. From 1980 to 2010, the allocation of government funds has been categorized as: development expenditure and current expenditure. The unit root test, Autoregressive Distributed Lag, (ARDL) model, Johansen cointegration analysis, and Granger-causality test are employed to examine the aforementioned relationship. These econometrics tools has yielded results indicating that administration expenditures generate favorable externalities and connections. In the immediate term, the influence of inflation on economic progress is negligible, whereas government expenditures have a discernible effect. Causality analysis outcomes indicate there exists a unidirectional causal relationship amid the rate of inflation and economic advance, as well as between economic growth and government expenses. In the same vein, (De Gregorio, 1992) examines inflation and long-term growth. An endogenous growth model shows how inflation affects growth. The model also shows how inflation affects capital productivity and accumulation. The loss in growth is caused by a shift of

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resources from growth-promoting activities to inflation-reducing ones. For a sample of Latin American nations, inflation negatively affects growth. In another development studied Indonesia's 2005–2012 economic growth and interest rates, inflation, and government expenditure. Data study panel showed that rate of interest, rate of inflation, and government expenses impose 99percent impact on growth in economy this study found government spending boosts economic growth. Keynesian theory says government spending influences economic growth. Variable interest rates hurt economic growth. (Gupta et al., 2009) examine how government spending affects Nepalese economic development. The research uses 2002/03–2015/16 annual series data. Economic growth is dependent, whereas the variables of total principal expense, total recurrent expenses, inflation, non-agriculture, agriculture, service, and commerce are considered to be autonomous of one another. The research examines how government spending affects economic development in Nepal. Nepal economic survey data. Analytical techniques include the regression model, DW Test, and VIF test for multicollinearity. Economic development is positively correlated with variables like non- agricultural, service and industrial sectors. Total recurrent and current spending and inflation adversely affect economic growth. The beta coefficient is positively significant for agricultural, non-agricultural, industrial, and service sectors, indicating that investment in these areas increases economic growth. Economic growth increases with industrial and service sector investment. D-W is 1.301, indicating no autocorrelation between variables.

(Anidiobu, GA;Okolie PIP;Oleka, 2018) analyzed Nigeria's 1986–2015 economic growth and inflation. Augmented Dickey-Fuller (ADF) explained the former, descriptive statistics the latter. Estimating variables using OLS. Real Gross Domestic Product (RGDP) was the dependent variable, whereas Inflation Rate, Exchange Rate, and Interest Rate were the independent variables. The regression findings showed that INFR had a optimistic and non-significant influence on growth in Nigerian economy (RGDP) over the study period. Likewise, (Ojomolade, & Oni, 2018) examine Nigeria's inflation-economic growth link from 2000 to 2009, inflation was proxied by the consumer price index (CPI) and economic growth by GDP. The Ordinary least square technique and t-test are used to examine inflation's effects on Nigeria's economic growth. The author finds that inflation, the currency rate have positive influence on economic growth, while high interest rates forestalls economic growth. (Eggoh & Khan, 2014) analyses the nonlinearity of the connection and suggests numerous approaches for the universal sample and income-specific sub-samples using a large panel data set from established and emerging countries using PSTR and dynamic GMM approaches. This nonlinearity is also affected by country-specific macroeconomic factors. Author found that inflation-growth nonlinearity is subtle to a nation's monetary development, capital buildup, openness in trade, and administration spending. These nation-specific attributes also alter this nonlinear connection.

Patterns and bearings of government expenditure on real GDP growth in Nigeria from 1970 to 2008 employing the econometrics model using Ordinary Least Square (OLS) approach. The Durbin Watson unit root test checks for stationary variables in the article. The model's variables were all non-stationary. And had no serial correlation. In a long-term connection between public spending and economic growth, at 5% and 10% critical levels, co-integration of the variables is achieved. Real GDP, recurrent, and capital spending are positively correlated. Government

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spending and inflation affected Nigeria's economic development from 1981 to 2013. Vector Auto-Regressive (VAR) modeling. The variance decomposition demonstrates that excessive government spending and inflation caused real GDP shocks. The analysis concludes that production growth volatility over time is a realistic representation of government spending and inflation in Nigeria.

MATERIALS AND METHODS

Data

This investigation utilized country-specific data for all Nigerian variables from 1990 to 2021. The selection of Nigeria is motivated by a yearning to limit consideration to the most populated black nation in Africa. Economic growth was measured with data on the real GDP, as in(Chaudhry et al., 2020) and (Nasir et al., 2019); (Anidiobu, GA;Okolie PIP;Oleka, 2018) We introduced Total Government Expenditure AGEXP to capture the Aggregate Expenditure in the country. (The study categorizes Total government expenditures as government recurrent expenditures and government capital expenditures), according to the Central Bank of Nigeria Statistical Bulletin on Nigeria Economy, 2021. Inflation is measured with Consumer Price Index (CPI as in the work of Ojomolade, & Oni, 2018). $lnEXCH$ Represents Exchange rate as well as $M2$ as a money supply as control variables indicating determinant of economic growth other than the variables of interest. The variable of real GDP (Y), government current expenditure (GC), government development expenditure and (GD) government expenditure (G) are measured in local monetary unit (₦B). The variable of rate of inflation (P) is measured in percentage change of log of consumer price index (CPI). All the variables were log to achieve stationarity in variance except money supply M2.

Table 2 contains the study's variables and their respective descriptions and sources.

Table 2
DESCRIPTION OF VARIABLES

Abbreviation	Description	Source
$\boldsymbol{lnRGDP}$	Real GDP	World Development Indicator, (WDI)
$\boldsymbol{lnCPI}$	Inflation rate	World Development Indicator, (WDI)
$\boldsymbol{lnAGEXP}$	Total Government Expenditure	Statistical Bulletin CBN
$\boldsymbol{lnCEXP}$	Capital Expenditure	Statistical Bulletin CBN
$\boldsymbol{lnREXP}$	Government Recurrent Expenditure	Statistical Bulletin CBN
$\boldsymbol{lnEXCH}$	Exchange Rate	World Development indicator *WDI*
$\boldsymbol{M2}$	Money Supply	World Development indicator WDI

*WDI: World Development Indicator; CBN: Central Bank of Nigeria

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METHODOLOGY AND MODEL

The present research expands upon the previous investigations conducted by (Atesoglu, 1998) and (Chowdhury, Mallik; Girijasankar, 2002) as cited in the (Atesoglu, 1998) study, with a focus on the context of Nigeria. The present study examines the aforementioned correlation between the actual Gross Domestic Product (GDP), rate of inflation, and government expenditure, utilizing the identical functional format as previously employed by (Atesoglu, 1998)and (Akhter et al., 2010)(Devarajan et al., 2015).

$$\ln RGDP_t = f(\ln CPI_t, \ln AGEXP_t) \quad \text{.....(1)}$$

$$\ln RGDP_t = \alpha_0 + \alpha_1 \ln CPI_t + \alpha_2 \ln AGEXP_t + \mu_t$$

The analysis has categorized government expenses into two distinct categories, namely government recurrent expenditures and government capital expenditures. This classification is based on the Nigeria Central Bank Statistical Bulletin on Nigeria's Economy for the year 2021. Initially, the impact of each expenditure was assessed individually. Subsequently, the joint impact of both expenditures was evaluated by employing equation (1). Three distinct equations, denoted as N-2, N-3, and N-4, are derived in the following manner:

$$\ln RGDP_t = \alpha_0 + \alpha_1 \ln CPI_t + \alpha_2 \ln REXP_t + \alpha_3 EXCH_t + \alpha_4 M2_t + \mu_t \quad \text{.....(2)}$$

$$\ln RGDP_t = \alpha_0 + \alpha_1 \ln CPI_t + \alpha_2 \ln CEXP_t + \alpha_3 EXCH_t + \alpha_4 M2_t + \mu_t \quad \text{.....(3)}$$

$$\ln RGDP_t = \alpha_0 + \alpha_1 \ln CPI_1 + \alpha_2 \ln REXP_t + \alpha_3 EXCH_t + \alpha_4 M2_t + \mu_t \quad \text{.....(4)}$$

Therefore, to check the connection among these economic variables, we engage Autoregressive Distributed Lag ARDL model postulated by (Pesaran et al., 2001)(Kisswani, 2017)(Pesaran et al., 1999).

RESULTS AND DISCUSSION

Table 3
UNIT ROOT TESTS

Variable	@FIRST DIFFERENCE		ORDER OF INTEGRATION		
	ADF	PP	ADF	PP	
	Intercept {Trend & Intercept}	Intercept {Trend & Intercept}	Intercept {Trend & Intercept}	Intercept {Trend & Intercept}	
CPI	-4.074** -7.134**	-3.153** -2.824	-2.006 -2.522	-2.263 -2.870	I(0)
AGEXP	-3.057** -2.690	-3.210** -2.004	-8.081** -2.918	-7.569** -9.929**	I(0)
CEXP	-2.334 -2.535	-2.047 -2.470	6.507** -6.745**	-6.447** -6.723**	I(1)
REXP	-2.388 -2.048	-4.311** -1.811	-7.746** - 8.393**	-7.726** -11.067**	I(0)

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RGDP	-0.610 -1.789	-0.251 -1.841	2.853*** -2.788	-2.821*** -2.764	I(1)
EXCH	-2.062 -2.183	-2.184 -2.209	-5.111** -5.290**	-5.094** -5.414**	I(1)
M2	-1.026 -3.056	-0.819 -1.866	-4.385** -4.317**	-5.729** -6.018**	I(1)

Note: $*\ P < 0.01$, $**\ P < 0.05$, *** P<0.1

Table 3 parades the outcomes of the Phillips-Perron test (PP) and the Augmented Dickey-Fuller (ADF) test. Both with intercept and trend and intercept. The tabular data validates that each selected variable is either stationary at the level or after undergoing first-order differencing. The results vary dependent on the type of stationarity test used, indicating that the variables are integrated at either order zero (I(0)) or order one (I(1)). Table 3 displays the results of the unit root test, indicating that the variables of interest, including the regressor and regressand, exhibit a degree of integration of I(1) and I(0). This finding enables the utilization of the Auto Regressive Distributed Lag model (ARDL). ARDL models have been a prevalent tool in econometrics for a considerable period. However, their application has surged in recent times, primarily for investigating co-movement connection. Two noteworthy contributions in this context are the works of Pesaran and Shin (1998, PS(1998)) and Pesaran, Shin and Smith (2001, PSS(2001)). The authors contend that ARDL models possess notable benefits, particularly in their capacity to manage cointegration while displaying inherent resilience to the misrepresentation of integration orders of pertinent variables.

After findings that all variables are stationary are integrated of order I(0) and I(1), we proceeded to the decision of VAR optimal lag order selection.

Table 4(a)
TEST STATISTICS AND VAR LAG ORDER SELECTION CRITERION OF MODEL: (N-1 ENDOGENOUS VARIABLES)

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-101.5414	NA	0.001068	7.347680	7.583420	7.421511
1	72.21187	275.6086	3.86e-08	-2.911163	-1.496720*	-2.468177
2	107.9213	44.32893*	2.18e-08*	-3.649744*	-1.056597	-2.837603*

Note: $*\ P < 0.01$, $**\ P < 0.05$ respectively

Table 4(b)
TEST STATISTICS AND VAR LAG ORDER SELECTION CRITERION OF MODEL: (N-2 ENDOGENOUS VARIABLES)

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-102.6795	NA	0.001156	7.426174	7.661914	7.500005
1	62.02543	261.2561	7.79e-08	-2.208651	-0.794207	-1.765664
2	108.9790	58.28722*	2.03e-08*	-3.722692*	-1.129544*	-2.910550*

Note: $*\ P < 0.01$, $**\ P < 0.05$

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Table 4(c) TEST STATISTICS AND VAR LAG ORDER SELECTION CRITERION OF MODEL: (N-3 ENDOGENOUS VARIABLES)						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-118.4184	NA	0.003422	8.511617	8.747358	8.585448
1	56.46665	277.4040	1.14e-07	-1.825286	-0.410843*	-1.382300
2	89.21801	40.65685*	7.93e-08*	-2.359863*	0.233285	-1.547721*

Note: $* \ P < 0.01, ** \ P < 0.05$

Table 4(d) TEST STATISTICS AND VAR LAG ORDER SELECTION CRITERION OF MODEL: (N-4 ENDOGENOUS VARIABLES)						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-104.3120	NA	8.11e-05	7.607726	7.890615	7.696323
1	77.08738	275.2267	3.80e-09	-2.419819	-0.439598	-1.799638
2	138.2593	67.50007*	9.53e-10*	-4.155815*	-0.478260*	-3.004051*

Note: $* \ P < 0.01, ** \ P < 0.05$

To determine the ideal lag order for the VAR model presented in Table 4 (a), (b), (c), (d), it is crucial to select an order that is sufficiently high to prevent the optimal order from surpassing it. The trivariate autoregressive models of second order have been computed for the temporal span ranging from 1990 to 2021. The AIC criteria suggest that the order is 2.

The log-likelihood ratio statistics, regardless of if they were adjusted for small sample sizes or not, yielded rejection of order 0. However, they did not reject a VAR of order 2. Based on the aforementioned statistics, the decision has been made to opt for a VAR (2) model.

Table 5 WALD TEST: NIGERIA 1990-2021		
Models	F-Statistics	P-value
N-1	3.370	0.041**
N-2	9.235	0.001**
N-3	7.003	0.027**
N-4	17.466	0.003**

Note: $* \ P < 0.01, ** \ P < 0.05$

Table 5 specifies that the F-statistic for the second order of lag was found to be statistically significant at a 5% level of significance. The findings suggest that there exists a robust long-term linkage among the variables within the complete models.

Table 6 ARDL MODEL LONG RUN ESTIMATES: NIGERIA 1990 TO 2021				
Table 6a. Model 1				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LCPI	-1.022914	0.313045	-3.267626	0.0097
LAGEXP	0.810190	0.232209	3.489056	0.0068
LEXCH	0.337251	0.135089	2.496504	0.0341
M2	0.005396	0.012288	0.439150	0.6709

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C	28.62453	0.626901	45.66036	0.0000

Note: $* \ P < 0.01, ** \ P < 0.05$

Table 6b Model 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LCPI	-0.453786	0.111968	-4.052810	0.0016
LREXP	0.389229	0.068453	5.686061	0.0001
LEXCH	0.146532	0.095129	1.540348	0.1494
M2	0.021947	0.006068	3.616611	0.0035
C	29.95618	0.172277	173.8842	0.0000

Note: $* \ P < 0.01, ** \ P < 0.05$

Table 6c Model 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LCPI	-0.940133	0.686591	-1.369276	0.1982
LCEXP	0.496119	0.456441	1.086929	0.3003
LEXCH	0.648355	0.314251	2.063178	0.0635
M2	0.029363	0.020073	1.462841	0.1715
C	29.81072	0.880869	33.84239	0.0000

Note: $* \ P < 0.01, ** \ P < 0.05$

Table 6d Model 4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LCPI	-1.417743	0.734817	-1.929381	0.1019
LREXP	0.258117	0.108200	2.385558	0.0544
LCEXP	0.569588	0.403943	1.410071	0.2082
LEXCH	0.731799	0.448086	1.633165	0.1536
M2	0.039338	0.010787	3.646726	0.0107
C	28.70104	0.801767	35.79721	0.0000

Note: $* \ P < 0.01, ** \ P < 0.05$

The results are presented below.

Table 6a displays that there is an adverse coefficient of the rate of inflation (lCPI), that is statistically substantial. While the Aggregate Government expenditure is positive and statistically significant, the Exchange rate is positive and noteworthy and the Money supply is positive but insignificant at 5%.

Table 6b shows LCPI is negative and significant, Regular Government Spending and Money Supply are essential and Positive while the exchange rate is positive but insignificant.

Table 6c shows LCPI is negative and not significant, Government capital expenditures are positive and not significant while the rate of exchange is positive and significant at 5%.

Table 6d depicts that LCPI is negative and insignificant, recurrent government expenditure is positive and significant while Government capital expenditure and exchange rate are found to be positive and insignificant at 5% but money supply is positive and significant.

The outcome indicate a positive correlation amid real GDP and both recurrent and capital expenditure. It is thus advisable to suggest that the government should endorse the enhancement of

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the optimization of resource allocation for development purposes by prioritizing private segment of the economy involvement in the process of privatization and commercialization.

ARDL Model ECM Short Run Estimate

After a short-term disturbance, the estimated outcomes of ECM permit the measurement of the rate of adjustment essential to reinstate to long-term values. The outcome of the short-term are shown in Table 7:

Table 7a

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LRGDP(-1))	-0.157905	0.075035	-2.104404	0.0647
D(LCPI)	-0.265275	0.028573	-9.284268	0.0000
D(LAGEXP)	0.022264	0.010731	2.074836	0.0678
D(LEXCH)	-0.024562	0.006388	-3.844844	0.0039
D(M2)	-0.003490	0.000587	-5.947369	0.0002
CointEq(-1)*	-0.135566	0.008841	-15.33455	0.0000

Note: $* \ P < 0.01, ** \ P < 0.05$

Table 7b

D(LRGDP(-1))	0.280477	0.130988	2.141251	0.0454
D(LCPI)	-0.273043	0.058457	-4.670867	0.0002
D(LEXCH)	-0.030500	0.015350	-1.986931	0.0615
D(M2)	-0.003795	0.001722	-2.204304	0.0400
CointEq(-1)*	-0.046956	0.008603	-5.457856	0.0000

Note: $* \ P < 0.01, ** \ P < 0.05$

Table 7c

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LRGDP(-1))	0.290394	0.120492	2.410075	0.0262
D(LCPI)	-0.269313	0.053193	-5.062928	0.0001
D(LEXCH)	-0.029126	0.014461	-2.014051	0.0584
D(M2)	-0.004702	0.001663	-2.827124	0.0108
CointEq(-1)*	-0.010724	0.001796	-5.972387	0.0000

Table 7d

D(LCPI)	-0.188340	0.013920	-13.52996	0.0000
D(LREXP)	-0.070620	0.005293	-13.34138	0.0000
D(LCEXP)	0.060467	0.003124	19.35686	0.0000
D(LEXCH)	0.029609	0.003808	7.775424	0.0002
D(LEXCH(-1))	-0.013851	0.002997	-4.621890	0.0036
D(M2)	-0.003165	0.000247	-12.80598	0.0000
CointEq(-1)*	-0.127443	0.002537	-50.23014	0.0000

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The error correction term (ECM) coefficients exhibit expected signs and significant p-values, specifically -0.135, -0.04, -0.010, and -0.127. The ECM coefficient exhibits a significant magnitude, indicating that a considerable proportion of the imbalances in the GDP resulting from the shocks of the previous year are corrected towards the long-term equilibrium in the present year, specifically at rates of 13.5.5%, 4%, 1%, and 12.7.3%. it indicates that inflation is statistically significant and harmful with growth, while, the Money supply also exhibit negative correlation and statistically significant .

The stability test has been completed for the model. The CUSUM and CUSUMSQ techniques are employed as a final step in ARDL estimation to assess the stability of all coefficients in the ECM model. These methods involve calculating the cumulative sum of recursive residuals and the cumulative sum of squares of recursive residuals, respectively. Figure 1:6 displays the plots of CUSUM and CUSUMSQ statistics.

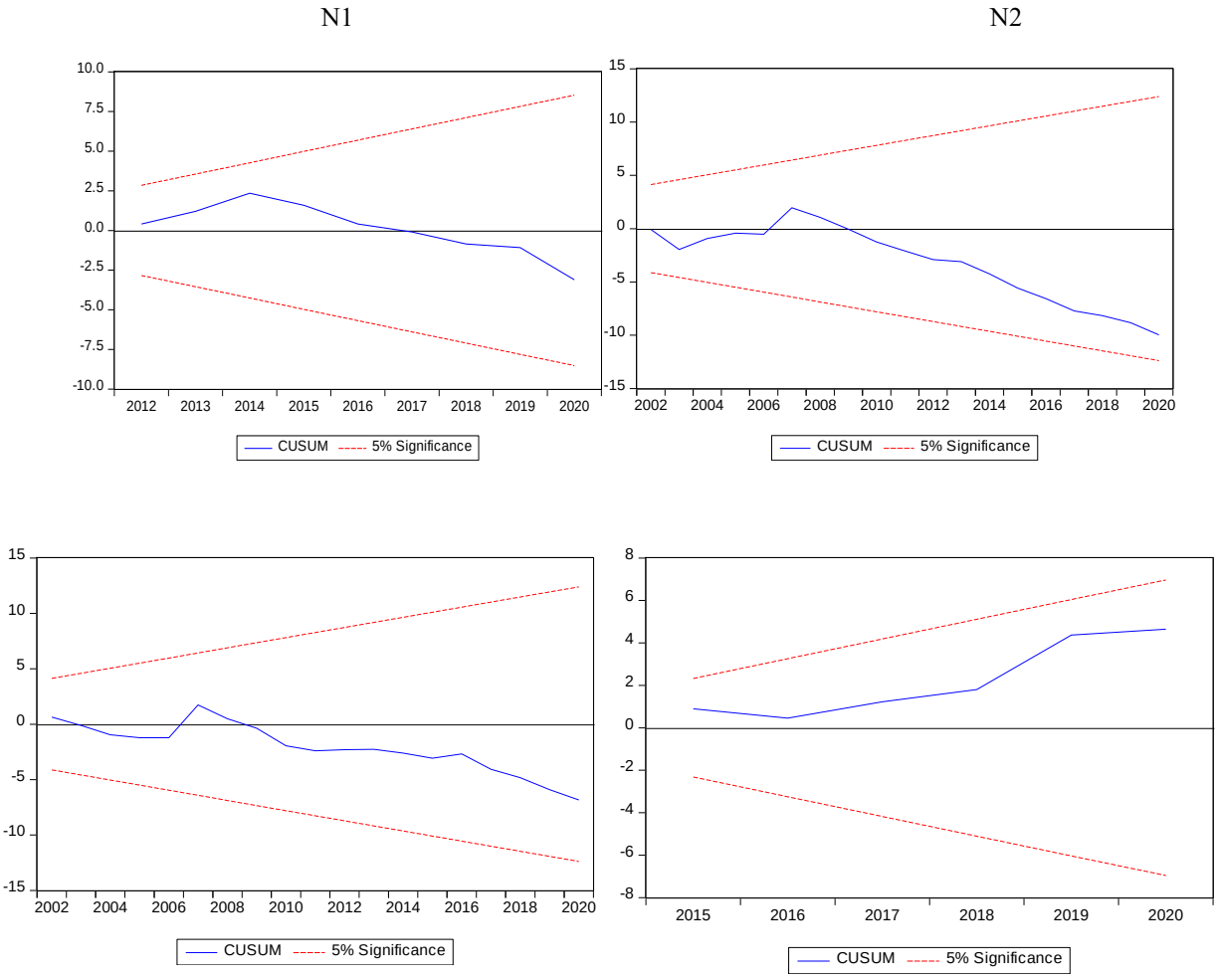

FIGURE 1
CUSUM STABILITY TEST

The results depicted in Figure 1 demonstrate that the CUSUM line falls in the critical bounds of 5 percent significance, which suggests that the model exhibits structural steadiness.

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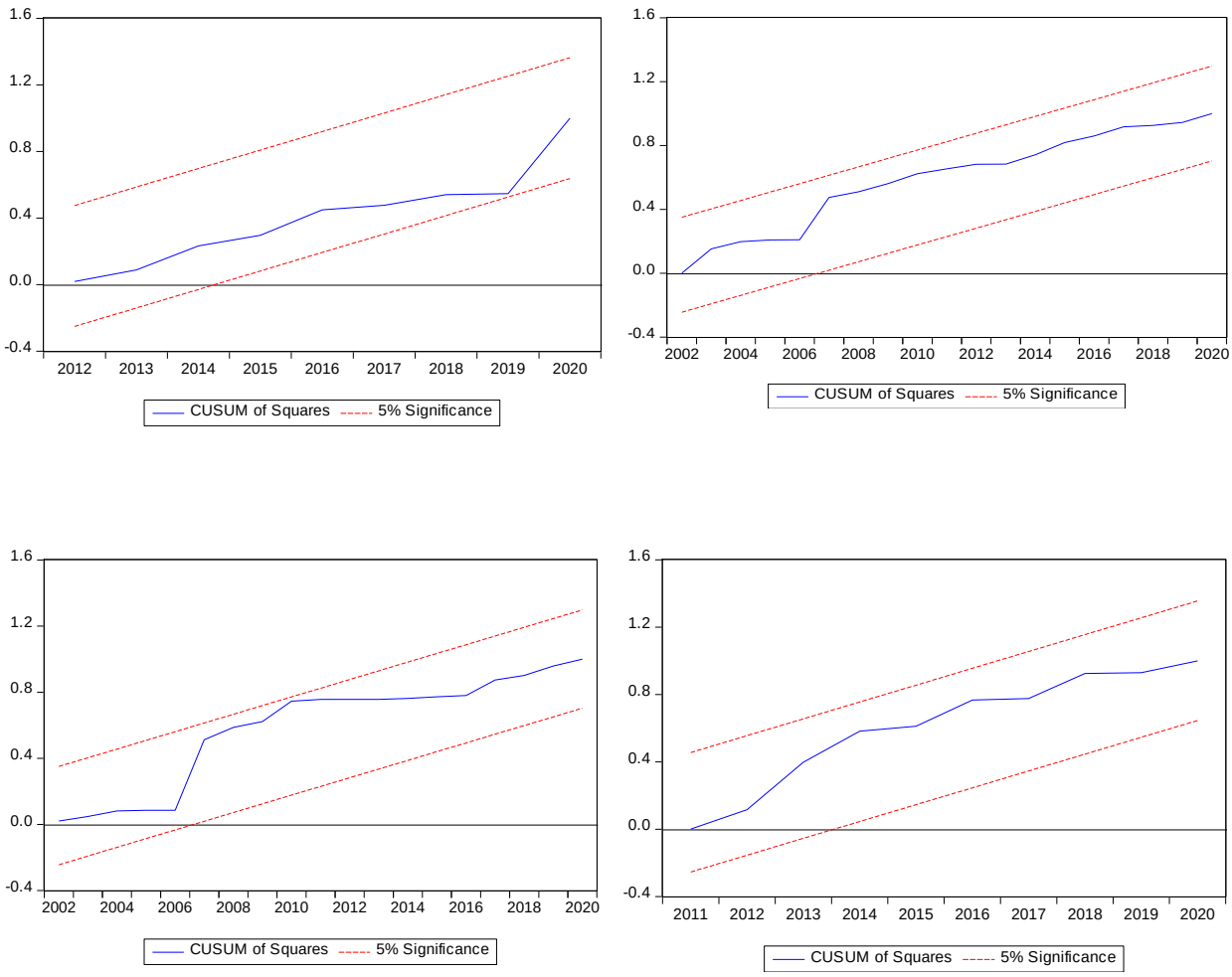

FIGURE 2
CUSUM OF SQUARES

As depicted in Figure 2, the CUSUM of Squares line falls within the critical bounds of 5 percent significance, suggesting the model exhibits basic stability.

CONCLUSION

This study examine the correlation between inflation, economic growth and government expenditure in Nigeria. The Autoregressive Distributed Lag, (ARDL) model has been utilized to compute both the long-term and short-term estimates. The results are in disagreement with the suggestion of Ricardian equivalence in the new classical theory. The occurrence of a high adverse coefficient of inflation has been observed in Nigeria, as well as in the United Kingdom and Pakistan. According to the statement, in cases where the inflation rate surpasses the threshold level, the growth nexus experiences a significant adverse influence as a result of the inflation. The existing literature suggests a positive correlation between real income and government expenses, as evidenced by studies conducted in various countries including

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Australia, Finland, Australia New Zealand, Canada, Spain, the UK and the US (Atesoglu, 1998) (Chowdhury, Mallik; Girijasankar, 2002).

The estimation reveals that the coefficient of authority current expenses is statistically insignificant when the government disbursement is divided into government recurrent expenditure and government capital expenditure. The statistical significance of the coefficient of authority capital expenses indicates that such expenditures generate positive externalities and linkages.

The study evaluate the robustness of the data through the implementation of cointegration analysis. The findings indicate that a long-term equilibrium exist amid the variables.

Various diagnostic tests are utilized to examine autocorrelation, the findings of this test demonstrate that there is no evidence of autocorrelation. The stability of the model has been assessed and confirmed. The CUSUM and CUSUMSQ techniques are employed as a final step in ARDL estimation to verify the stability and suitability of all coefficients in the ECM model for effective policy analysis.

It is critical to undertake effective monetary policy initiatives targeted at reducing inflation. To successfully control inflationary pressures, it is advised that the Nigeria central bank prioritize the adoption of tightening monetary policy measures such as rising interest rates, lowering the money supply, and adopting prudent fiscal management methods. It is also imperative to underscore the significance of upholding price stability by utilizing effective regulation and vigilant monitoring of prices in pivotal sectors. The implementation of measures aimed at addressing supply-side constraints is crucial. Such measures may include the improvement of infrastructure, the reduction of bottlenecks in production, and the promotion of competition to enhance productivity and reduce costs.

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