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CAUSAL NEXUS BETWEEN GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH IN THE PRESENCE OF STRUCTURAL BREAKS IN NIGEIRA: A BOOTSTRAP ARDL APPROACH

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Abstract
Researchers all over the world have not agreed on the causal relationship between economic growth and government expenditure. Hence, this work re-examined the nexus between government expenditure and economic growth in the presence of structural breaks for Nigerian economy. It used time series annual data from 1981 to 2020 and the Bootstrap Autoregressive distributed lag model. The results show that economic growth has strong and positive impact on government expenditure in both short run and long run in Nigeria. The results also indicate uni-direction causality which runs from economic growth to government expenditure. This finding supports the Wagner's law which posits that economic growth leads while expenditure follows. These results suggest that economic growth is the main driver of government expenditure both in the short run and long run in Nigeria. Consequently, government activities should be directed toward stimulating economic growth rather than increasing unproductive government expenditure.

Keywords: *Government expenditure, Gross domestic product, Keynesian hypothesis, Structural breaks, Wagner's law*

1. Introduction

The link between government expenditure and economic growth and the direction of between the variable remain an important and unsettled aspect in public finance and economic literature with various empirical contributions from experts such as Wagner (1893), Peacock and Wiseman (1961) as well as Keynes (1936). Nevertheless, it is pertinent to note that the nitty-gritty of the debate lies in the determining factor within the two phenomena viz; expenditure and growth. Most notably` Adolph Wagner's law (1893) and Keynes' hypothesis (1936) are two widely competing theories or views on this relationship.

Wagner's law was developed in the late-19th century by Adolph Wagner (1835–1917), a prominent German economist, who theorizes that during the period of industrial revolution public expenditure increases as real income of the nation increases. The fundamental proposition of the Wagner's law is that government expenditure does not play a substantial role in economic growth process, hence is not a suitable policy tool for national development. Rather he suggested that economic growth determines the growth, pattern and rate of government expenditure as a fall out of the several findings of his studies from industrialized nations (Kolapo et al 2021). In addition, he opined that causality runs from economic growth to government expenditure. On the other hand, Keynes (1936) viewed government expenditure as an important determinant of economic growth. According to him the expenditure is considered as an exogenous element in ensuring economic growth and maintains that causality runs from government expenditure to economic growth.

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On the empirical front, several studies had, over time, reported divergent result especially on the validity of Wagner's law (Udo & Effiong, 2014; Ahmad & Suleiman, 2015 and Oseni & Adekunle, 2020) these studies maintained that the law holds in Nigeria. On the contrary, Ighodaro and Oriakhi (2010), Awode and Akpa (2018) and Orimolade and Olusola (2019) found out that it is Keynesian assumption that is valid in Nigeria. In different dimensions, Iyoboyi (2018) tested the validity of Wegner's law while considering structural breaks in Nigeria using five versions of the law and reported that both the Wegner's law and the Keynesian hypothesis are valid. This is similar to the finding of Owolabi-Merus (2015) but different from the work Ibrahim and Bashir (2019) who found that one of the view hold in Nigeria.

More so, government expenditures (recurrent and capital) have been on the increase in Nigeria as result of the huge receipts from production and sales of crude oil and other internally generated revenues which have not translated to meaningful growth (Abu and Abdullahi, 2010). Consequently, the Nigerian economy had continued to record unimpressive performance coupled with fluctuations (such as the recessions and recoveries) witnessed from 2015 to 2020. These breaks should be considered by researchers in the modeling approach when testing government expenditure and economic growth nexus in Nigeria otherwise the results may be biased towards the erroneous acceptance of the non-stationarity hypothesis (Peron, 1997). Moreover, Perron (1989) stressed that ignoring structural breaks can render the statistical results and cointegration tests invalid. In addition, Kunitomo (1996) also argue that traditional cointegration tests yield inconsistent results if there are breaks in the series are not accommodated in the model.

This study which is motivated by the foregoing developments, attempts to re-examine the relationship between economic growth and government spending with a view to establishing whether or not Wagner's law hold for Nigeria in the presence of structural breaks. The rest of the paper is structured as follows: the second section is on the review of the empirical literature. The third section deals with the methodology employed while the fourth part discusses the empirical results. The last and the fifth section summarizes the findings, concludes and provides policy recommendations as well as direction for further research on the topic.

1. Literature Review

There are number of empirical studies that investigated the validity of the Wegner's law but their findings have generated conflicting results. For instance, Lahirushan and Gunasekara (2015) examine the impact of government expenditure on economic growth in Asian Countries using the random effects panel OLS model and concluded that government spending positively impacted on growth in Asian countries between 1970 and 2013. Using the Generalized Methods of Moments approach and panel data, Kimaro, Keong and Sea (2017) analyzed effects of government efficiency and spending on Sub-Saharan African low-income countries' economic growth. The results demonstrate that increase in government expenditure accelerates economic growth of 25 low-income countries in Sub-Saharan Africa between 2002 and 2015.

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Similarly, Kolapo et al (2021) investigated the impact of government expenditure on economic growth with main objective of testing the Wagner's law in Sub Saharan Africa between 1986 and 2018. They employed Panel first generation tests, Panel Auto Regressive Distributed Lag (ARDL) and pair wise causality techniques. The results show that government expenditure causes economic growth thereby making Wagner's law inapplicable in the Sub-Saharan region. Also, both capital and recurrent expenditures have negative effect on economic growth while total expenditure affects growth positively.

The panel approaches applied in the above studies may not capture the dynamics of the relationship between government expenditure and economic growth in a specific country. Such improper assessments in panel studies have led researchers to seek for more dynamic time series analysis which is appraised to be more appropriate by providing estimates that consider countries specificities.

In this regard, Udo and Effiong (2014) used ordinary least square (OLS) method and Granger causality tests to investigate the causal relationship between government expenditure and economic growth in Nigeria. The result reveals that there is a bidirectional relationship between government spending and economic growth in Nigeria, thus lending support to both Wagner's and Keynesian hypotheses. This result is similar to the work of Aruwa (2012); Aladejare (2013); Awomuse, Olorunleke & Alimi (2013).

Ahmad and Suleiman (2015), Ampah and Kotosz (2016) and Jobarteh (2017) examined the causal between government spending and economic growth in the presence of Wagner's Law in Nigeria and Burkina Faso. They employed ARDL cointegration approach and Toda-Yamamoto non- Granger causality test. The results show cointegration in both methods, and the causality test supports the presence of Wagner' law in Nigeria and Burkina Faso respectively. These findings similar to work of Eldemerdash and Ahmed (2019) and Oseni and Adekunle (2020) who found that increased government spending significantly predicts variations in real gross domestic product and thus lending empirical credence to Wagner's hypothesis for Egypt and Nigeria respectively.

Contrarily, Owolabi-Merus (2015) used Johansen cointegration approach and Granger causality test to examine the validity of Wagner's law and Keynesian hypothesis using annual time series data from 1980 to 2011. The results show non-existence of both Wagner's law and Keynesian Hypothesis on public spending and economic growth in Nigeria. In the same vein, Ighodaro and Oriakhi (2010), Orimolade and Olusola (2019), Awode and Akpa (2018) and Olayiwola, Bakare-Aremu and Abiodun (2021) reported that Wagner's law does not hold in their various estimates.

However, Iyoboyi (2018) tested the validity of Wegner's law in the presence of structural breaks in Nigeria using annual time series data from 1981 to 2015. It employed five versions of the law by following the approach developed by Johansen, Masconi and Nelson (Johansen et, al, 2000) referred to as JMN and the framework developled by Lutkepohl, saikkonen and Trankler (2003) LST cointegration technique and Toda Yamamoto (TY) causality test. The results show that both the Wegner's law and the Keynesian

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hypothesis are valid. Similarly, Olanrewaju & Funlayo (2020) investigated the relationship between and economic growth relationship in Nigeria and Angola for the 1981 to 2017 and the result confirmed that both Wagner's law and Keynesian hypothesis are valid in the two countries. Moreso, Ekpa, Daniel & Okon (2022) examine the effects of government expenditure at its' aggregate level on economic growth in Nigeria for the period 1981-2018 using bound test (ARDL) approach. The co-integration result indicates the existence of long-run relationship between total government expenditure (LTGE) and economic growth in Nigeria. Total government expenditure (LTGE) impacted positively on economic growth in Nigeria in line with Keynesian theory. The Granger causality test result indicates the existence of uni-directional causal relationship from economic growth (LGDP) to government expenditure (LTGE) for the observed period, in line with Wagner's theory.

In summary, there appeared to be no theoretical consensus on the exact direction of the causal nexus between government expenditure and economic growth. The empirical results on the causal relationship between these variable have remained mixed or inconclusive. In particular, researchers who examined the causal nexus between government expenditure and economic growth over the years have neglected to consider structural breaks in their model. This error or omission in the literature has constituted a methodological gap which tended to jeopardize the relevance of such findings for policy. Therefore, this study is aimed at filling this important gap by re-examining the causal nexus between government expenditure and economic growth in the presence of structural breaks in Nigeria for the period 1981-2020 using the Bootstrap ARDL approach.

3. Methodology

3.1 Model specification

This study adopted the Peacock – Wiseman (1961) model to explore the causal nexus between government expenditure and economic growth in Nigeria. The model is specified as follows:

$$GE = f(GDP) \qquad (1)$$

GE stands for government expenditure and GDP is the gross domestic product. Taking natural logarithm of equation (1) and inclusion of dummy variable which considers the possibility of structural break in the series yields the baseline econometric model of the study as represented in the below equation 2.

$$LTGE_t = \alpha_0 + \alpha_1 LGDP_t + \alpha_2 DUM_t + \mu_t \qquad (2)$$

The BARDL model of equation (2) above is specified below:

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$$LTGE_t = \alpha_0 + \alpha_1 LTGE_{t-1} + \alpha_2 LGDP_{t-1} + \alpha_3 DUM_{t-1} + \sum_{t=1}^{p} \beta_1 \Delta LTGE_{t-1} + \sum_{t=0}^{q} \beta_2 \Delta LGDP_{t-1} + \sum_{t=0}^{r} \beta_{3\Delta} DUM_{t-1} + \mu_t \quad (3)$$

The next stage is the estimation of the short-run coefficients of the model. In order to obtain it an error correction model (ECM) is estimated and the ARDL specification of the ECM is represented in this equation:

$$\Delta LTGE_t = \alpha_0 + \sum_{t=1}^{p} \Delta\beta_1 LTGE_{t-1} + \sum_{t=0}^{r} \Delta\beta_2 LGDP_{t-1} + \sum_{t=0}^{s} \beta_3 DUM_{t-1} + ECT_{t-1} + \varepsilon_t \quad (4)$$

3.2 Definition and Measurement of variables

Table 3.1 Definition and Measurement of Variables

Variables	Definition	Measurement	Source
Gross Domestic Product(GDP)	Change of real GDP over time relative to previous year	Measured by share contributed by each sector in the economy.	WDI 2020
Total Government Expenditure	Comprises of government current expenditures on goods and services as well as other expenditures, which include compensation of employees, national defense and security.	Represents the public sector and is measured by the overall final consumption expenditure of government, it is in constant LCY 2010	WDI 2020

Source: Author's Computation

3.3 Estimation Procedures

To achieve the objective of the paper, a three (3) step procedure was adopted. The first stage involves the conduct of unit root tests to establish the stationarity property of the data. Hence, three units root tests were employed, two traditional tests (which assume no breaks in the time series) and one test which assumes presence of structural breaks, namely Augmented Dickey-Fuller ADF (1981), and the Phillips-Perron (1989) tests. The Zivot-Andrews (1992) deal with structural breaks,

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The ADF (1981) unit root test model is specified as:

$$\Delta Y_t = \beta_1 + \beta_{2i} + \delta Y_{t-1} + \sum_{i=1}^{k} \Delta Y_{t-i} + \varepsilon_t \quad (5)$$

Where ΔY_t is the first difference of the series Y; k is the lag order; t is the time period; β_1 and δ are parameters to be estimated; while ε_t is a white noise error term. Y is a stationary series if 0 < δ < 1. The null hypothesis to be tested is H_0: δ = 1 indicating the presence of a unit root against the alternative H_0: δ < 1.

The Philips Perron (1989) unit root test is also presented as:.

$$\Delta Y_t - 1 = \propto 0 + \Upsilon yt - 1 + e_t \quad (6)$$

In order to conduct unit root test in the presence of structural breaks, Zivot and Andrews (1992) developed three models. First, model A which allows for a break in intercept only. Second, model B that allows for a break in trend only, and third model C which allows for a break both in intercept and trend. Although there is no consensus on which model is more suitable, in practice, model (A) and model (C) are generally prepared. In addition, Sen (2003) opines that, applying Model A leads to a substantial power loss if the break actually occurs in Model C. However, if the break occurs in Model A but model C is used, the loss in power is minimal, suggesting that model C is superior to model A. Consequently, this paper employed model C which allow for a break both in intercept and trend to examine the presence or otherwise of structural breaks in the data. Model C is specified in equation (6):

$$y_t = \mu + \beta_t + \gamma DU_t(\lambda) + \delta Y_{t-1} + \theta DT_t(\lambda) + \sum_{i=1}^{k} \phi_t \Delta Y_{t-i} + \varepsilon_t \quad (7)$$

Where, y_t is the data generating process, k is the number of lags determined for each possible breakpoint by one of the information criteria, DU_t is a dummy variable that captured shift in the intercept, and DT_t is another dummy that represents a shift in the trend occurring at a time of break (TB), $\gamma and \theta$ are coefficients of the dummy variables, λ is the breakpoint and ε_t is the shock. These dummy variables are defined as follows:

DU_t (λ) = [1 if t > T λ, [0 otherwise;

DT_t (λ) = [t-T λ if t > T λ [0 otherwise.

The decision rule for Zivot-Andrews (1992) unit root test is that in order to reject the null hypothesis of the series has unit root with structural break (in both intercept and trend), the absolute value of t-statistics should be greater than the 5% critical value. Contrarily, if the absolute value of the t-statistics is less than the 5% critical value we cannot reject the null hypothesis. That is, the series has a unit root (i.e.: it is not stationary).

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The second stage is to establish the existence of cointegration (long run) relationship among the variables while controlling for structural breaks. Consequently, this study employed the Bootstrap ARDL approach developed by McNown et al. (2018) and modified by Sam et al. (2019). This cointegration approach involves the inclusion of an additional F-test on the lagged level of the independent variable(s) in the traditional ARDL model specified in equation 3 and 4. The superiority of this technique over the conventional ARDL approach of Pesaran et al. (2001) is that, it overcomes the reliance on the assumption of an I(1) dependent variable and prevents wrong inference on cointegration status (Sam et al., 2019).

By and Large, establishing cointegration among the variables in the model specified in equation (3) requires the rejection of all the three null hypotheses namely:

1. F-test on the coefficients on the lagged level of all variables (denoted as F_1): $H_0 = \alpha_1 = \alpha_2 = \alpha_3 = 0$; Against $H_1 = \alpha_1 = \alpha_2 = \alpha_3 \neq 0$.
2. t-test on the coefficients on the lagged level of the dependent variable: (denoted as t): $H_0 = \alpha_1 = 0$; Against $H_1 = \alpha_1 \neq 0$.
3. F-test on the coefficients on the lagged levels of the independent variables: (denoted as F_2): $H_0 = \alpha_2 = \alpha_3 = 0$; Against $H_1 = \alpha_2 = \alpha_3 \neq 0$.

Two degenerated cases may arise. Degenerated case 1 occurs when F_1 is significant, but F_2 is insignificant. In this case, the joint significant of the error correction term is solely due to the lag of dependent variable; the independent variables are not part of the long run cointegration relationship. On the other hand, degenerated case 2 occurs when F_1 and F_2 are significant but t statistics is not significant. Degenerate cases as pointed out by Pesaran et al. (2001) imply non-cointegration by its incomplete structure of error correction term to adjust the system back to equilibrium (McNown et al. 2018).

The third stage deals with the determining the direction of causality between economic growth and government expenditure. This study employed Toda-Yamamoto (1996) causality approach (henceforth, T-Y). The T-Y is the modified version of the traditional Granger causality and considered to be superior to traditional Granger causality because it accepts variable integrated to the order of either I(0) or I(1). The tests include estimating the following regressions:

$$\Delta GDP_t = \delta_x + \sum_{i=1}^{k+d} \beta_x \Delta GDP_{t-i} + \sum_{j=0}^{k+d} \beta_x \Delta TGE_{t-i} + \mu_t \tag{8}$$

$$\Delta TGE_t = \delta_y + \sum_{i=1}^{k+d} \beta_y \Delta TGE_{t-i} + \sum_{j=0}^{k+d} \beta_y \Delta GDP_{t-i} + \mu_t \tag{9}$$

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The decision rule for T-Y Granger causality test can be explain in four cases: First, there is unidirectional causality from TGEt to GDPt if the estimated coefficient of the TGEt (βx) in equation (7) is statistically significant, while the estimated coefficient of the GDPt (βy) in equation (8) is statistically insignificant. Conversely, the unidirectional causality from GDPt to TGEt exists if the TGEt coefficient (βx) in equation (7) is statistically insignificant, and the estimated coefficient of the GDPt (βy) in equation (8) is statistically significant. Third, bi-directional causality is suggested when the GDPt and TGEt coefficients ($\beta x and\ \beta y$) are statistically significant in both equations. Finally, Independence causality is suggested when the GDPt and TGEt coefficients ($\beta x and\ \beta y$) are statistically insignificant in both equations.

4. Result And Discussion

4.1 Results of Unit Root (ADF and PP) Tests

The results of stationery tests conducted based of ADF and PP reported in Table 4.1 Illustrate that the variable of the study LGDP and LTGE, are stationary are first difference. In essence, the series are integrated of order one i.e. I (1). Therefore, the null hypothesis that the variables are stationary in levels is rejected.

Table 4.1: Results of ADF and PP Unit Root Tests

	Level		First Difference	
Variables	ADF	PP	ADF	PP
LGDP	-1.8324	-3.1497	-3.3825**	-3.7641**
LTGE	-1.8205	-1.9810	-6.2479***	-6.2621***

Akaike Information Criterion (AIC) was used to select the optimum lag length in the ADF test using both intercept and trend. Asterisks ***and ** indicate statistical significant at 1% and 5% respectively.

Source: Author's Computation (2021)

4.2 Result of Zivot and Andrew Unit Root Tests.

The result of the Zivot and Andrews's unit root test that allow for structural break is reported in Table 4.2 which shows that the null hypothesis of a unit root with structural break in the intercept and trend at level is rejected.

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Table 4.2: Results of Zivot-Andrews Unit Root Test

	Level		First Difference	
Variables	T-Statistics	Break Point	T-Statistics	Break Point
LGDP	-2.9734	1993	-5.3445**	2002
LTGE	-9.7606	2004	-9.7483***	2004

Note: ***, ** and * indicates statistical significance at 1%, 5% and 10% respectively. Both tend and intercepts are used.

Source: Authors computation (2021).

The variables are stationary after taking its first difference, which indicate that they are integrated to the order one I(1) . The result is consistent with the ADF and PP results reported in Table 4.1.

4. 2 Results of the Bootstrap ARDL Cointegration Tests

Table 4.2: Augmented ARDL Cointegration Tests Results

Unrestricted Constant and no trend	Optimum lag length	F^{III}_{over}	t^{III}_{DV}	F^{III}_{IDV}	Dummies	Cointegration Status
(LTGE|LGDP,DUM)	(4,0,1)	4.87	-4.880	5.986*	D2002	Cointegration

Note: Schwarz Information Criterion (SIC) is used to select optimum lag length; ***, **, * indicate statistical significance at 1%, 5% and 10% levels respectively,

The results of the bootstrap ARDL cointegration tests reported in Table 4.2 show that all the three tests are statistically significant, suggesting the existence of cointegration (long-run) relationship between government expenditure and economic growth in Nigeria. Hence, equation (3) does not fall into degenerated lagged variable case which is consistent with the I(1) finding of the three unit root test conducted.

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4.3 Coefficients of Long-run and Short-run BARDL Models

Table 4.3 Results of ARDL model

Panel A: Long-run Coefficients - Dependent variable is TGE				
Regressor	Coefficient	Standard Error	T-Ratio	Prob.
C	-55.059	25.958	-2.1211	0.0436
LGDP	1.10607	0.307505	3.59692	0.0012
DUM	1.466865	0.327977	4.472464	0.0001
PANEL B: Short-run Coefficients Dependent variable is TGE				
ΔLGDP	2.6704***	0.9012	2.9633	0.0064
ΔLTGE-1	0.5242**	0.2033	2.5783	0.0159
ΔLTGE-2	0.8646**	0.4185	2.0659	0.0489
ΔLTGE-3	0.2407	0.1516	1.5881	0.1244
ΔDUM	-0.5524	0.7887	-0.7004	0.4899
ECT_{t-1}	-0.9994***	0.2273	-4.3978	0.0002
R^2	0.4451			
F-stat	3.7430			0.0074
D.W-stat	2.0817			

Source: Authors' calculation (2021). ARDL optimal lags length is (4,0,1). Lag selection based on Akaike Information Criterion (AIC). Asterisks ***, ** and * indicate statistical significant at 1%, 5% and 10% respectively. Δ is the first difference operator.

The coefficients of the long-run and short-run models are in reported in panel A and B in Table 4.3. The results show a positive and statistically significant coefficient of economic at 1% level. It demonstrate that a 1% increase in economic growth will lead to 1.106% on the average, cereteris paribus, increase in government expenditure in the long-run.

Panel B also reveals that the coefficients of economic growth lagged by a year and government expenditure lagged by three years are statistically significant at 1% and 5% respectively. In essence, a 1% increase in economic growth will boast government spending by 2.670% averagely in the short run. This finding support the Wegner,s law of increasing state activity and tallies with the findings of Jobarteh (2017), Iyoboyi (2018) and Oseni and Adekunle (2020). However, it is inconsistent with the work of Ekpa, Daniel & Okon (2022)

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whose work supported the Keynesian theory and Ibrahim and Bashir (2019) who found no positive relationship.

The table also shows that dummy for the break period is statistically significant in the long run. This implies that controlling for structural breaks in the model is justified.

The coefficient of the error correction term lagged by one period (ECT_{t-1}) is negative and statistically significant at 1% which is in line with the apriori expectation. The significance of the ECT_{t-1} confirms the existence of conitegrating relationship between the variables. Also the coefficient of the ECT_{t-1} is 0.99 which means that 99% of the deviations from the long-run will be adjusted within one year.

4.4 Results of Toda Yama Moto (TY) Causality Tests

The TY Causality test is carried out to investigate the causal linkage between economic growth (LGDP) and total government expenditure (LTGE) and the results are reported in table 4.4

Table 4.4: Toda Yama Moto Causality Tests

Null Hypothesis	DF	MWALD	P-Values	Hypothesis Accept/Reject	Decision
LGDP ↔ LTGE	3	14.17697	0.0027	Reject	Unidirectional
LTGE ↔ LGDP	3	0.38568	0.9432	Accept	No Causality

↔ Donates * does not granger cause; DF indicates degree of freedom and MWALD is the modified Wald Chi- Square of the Toda Yamamoto (1995) Causality Test.
Source: Authors' calculation

The results show unidirectional causality that runs from economic growth to government expenditure. This is consistent with the work of Ekpa, Daniel & Okon (2022), Akonji, Olabukola & Wakili 2018) who found causality from economic growth to government expenditure in Nigeria and contrary to Anowor & Nwaji (2018) and Chinedu, Peace & Stanislaus (2022). Based on the result it can be concluded Nigerian economy is biased toward Wagner's law.

4.5 Results of Diagnostic Tests

The results of diagnostic tests reported in table 4.5 shows that the BARDL model passes the serial correlation, functional form, and heteroscedasticity except normality test.

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Table 4.5: ARDL-ECM model diagnostic tests

Test Statistic	Results
Serial Correlation: CHSQ(2)	1.2418[0.3068]
Functional Form: Reset F-stat(1,25)	0.1530[0.6990]
Normality: Jarque-Bera	62.315[0.0000]
Heteroscedasticity: CHSQ(4)	1.6785[0.1852]

Source: Authors' calculation

Specifically, the P-value (0.000) for the normality test suggest that the error term are not normally distributed, However, this outcome can be accepted if the sample size is greater than 30, as per the central limit theorem (Arshed, 2014).

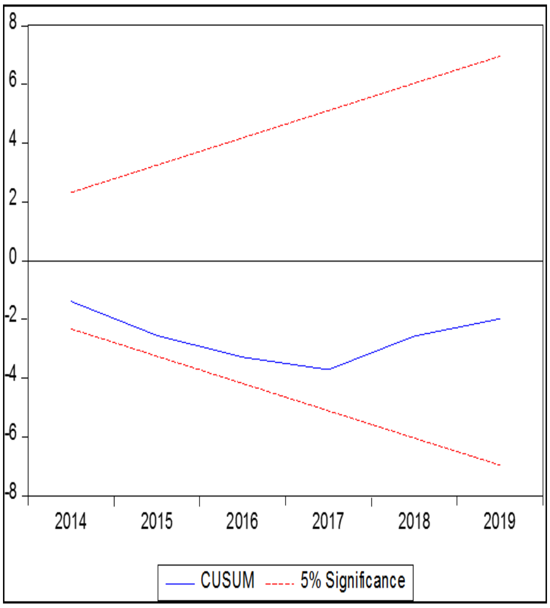

Figure 1. Plot of CUSUM

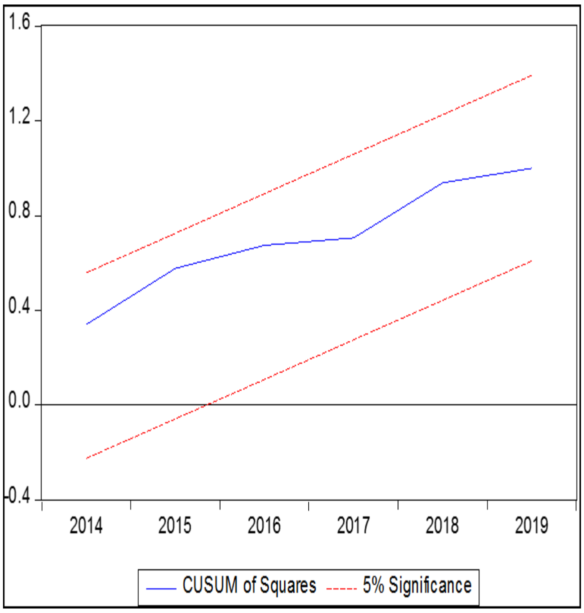

Figure 2. Plot of CUSUM of Square residual

In an effort to check the stability of the estimated parameters of the model, the Brown, Durbin & Evans (1975) test was carried out. The plots of the (CUSUM) and (CUSUMQ) are within the critical bounds at 5% level of significance (see Figure 2 and Figure 3) implies that the coefficients of the estimated model are stable throughout the period of the study.

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5. Conclusion And Recommendations

This paper re-examined the nexus between government expenditure and economic growth in Nigeria using annual time series data for the period 1981 to 2020. It employed Bootstrap ARDL method and accounted for structural breaks in the series. The paper established a cointegration relationship between government expenditure and economic growth in Nigeria. Both short run and long run results indicated a positive and statistically significant relationship between government expenditure and economic growth. Significantly, the long-run causality results indicate that there is unidirectional causality between the variables employed; thereby validating the Wagner's law for Nigeria.

The Policy implication is that government activities should be directed toward stimulating economic growth rather than increasing unproductive public spending. Furthermore, investigation into the relationship between various component of government expenditure (recurrent, capital and sectoral) and economic growth in the presence of structural break would be worthwhile in the future studies. In addition, a panel review among countries with similar characteristics with Nigeria can be an addition to knowledge.

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