

S.T. Ajagbe* , O.A. Aremu 

Al-Hikmah University, Ilorin, Nigeria

*e-mail: tundesuraj@gmail.com

THE IMPACT OF GOVERNMENT EXPENDITURE AND INFLATION ON ECONOMIC GROWTH: AN ARDL APPROACH WITH STRUCTURAL BREAK ANALYSIS IN NIGERIA

This study examined the impact of government expenditure and inflation on Nigeria's economic growth from 2000 to 2024 using the Autoregressive Distributed Lag (ARDL) model with structural breaks. Both short- and long-term relationships between government spending, inflation, and growth were analyzed using annual time-series data. Results indicate that government expenditure has a negative but statistically insignificant effect on economic growth in both periods, suggesting public spending has not significantly driven growth. Inflation shows a weak positive correlation, indicating minimal direct impact on growth. The model demonstrates strong explanatory power with R^2 values of 0.782 (long run) and 0.679 (short run). Significant F-statistics confirm the joint influence of variables on growth. A structural break was identified with a notable negative effect on economic growth, highlighting the adverse impact of major economic events or policy shifts. While long-run interaction effects between the structural break and explanatory variables are minor, short-run results reveal inflation's positive and significant influence on growth. The error correction term is significant and negative, indicating a stable long-run equilibrium with 68.54% of short-run disequilibrium corrected per period. The findings suggest fiscal policy alone may not sustain long-term growth without efficient expenditure management, sound policy implementation, and macroeconomic stability. The study recommends improved allocation of public spending toward productive sectors, enhanced fiscal oversight, better policy coordination, and incorporating structural break considerations into economic planning and policymaking.

Keywords: Fiscal policy, government expenditure, inflation, economic growth, structural break, ARDL Model, Nigeria.

С.Т. Аджагбе*, О.А. Арему

Әл-Хикма университеті, Илорин, Нигерия

*e-mail: tundesuraj@gmail.com

Мемлекеттік шығыстар мен инфляцияның экономикалық өсуге әсері: Нигериядағы құрылымдық үзілістерді талдау мен ARDL тәсілі

Бұл зерттеу 2000–2024 жылдар аралығындағы Нигерияның экономикалық өсіміне мемлекеттік шығындар мен инфляцияның әсерін құрылымдық үзілістерді ескеретін авторегрессиялық үлестірілген лаг (ARDL) моделі арқылы талдайды. Жылдық уақыттық қатарлар деректері негізінде мемлекеттік шығындар, инфляция және экономикалық өсім арасындағы қысқа мерзімді және ұзақ мерзімді байланыстар зерттелді.

Нәтижелер мемлекеттік шығындардың экономикалық өсімге теріс, бірақ статистикалық тұрғыдан маңызды емес әсер ететінін көрсетті. Бұл мемлекеттік шығындардың экономикалық өсімді айтарлықтай ынталандырмағанын білдіреді. Инфляция әлсіз оң корреляция көрсетіп, оның экономикалық өсімге тікелей әсері шамалы екенін байқатады.

Модельдің түсіндіру қабілеті жоғары, мұны детерминация коэффициентінің (R^2) 0,782 (ұзақ мерзімде) және 0,679 (қысқа мерзімде) мәндері дәлелдейді. Маңызды F-статистика мәндері айнымалылардың экономикалық өсімге бірлескен ықпалын растайды.

Экономикалық өсімге елеулі теріс әсер еткен құрылымдық үзіліс анықталды, бұл ірі экономикалық оқиғалардың немесе саясаттағы өзгерістердің жағымсыз әсерін көрсетеді. Құрылымдық үзіліс пен түсіндірмелі айнымалылар арасындағы ұзақ мерзімді өзара әсерлер шамалы болғанымен, қысқа мерзімді нәтижелер инфляцияның экономикалық өсімге оң және статистикалық маңызды ықпал ететінін көрсетті.

Қателерді түзету коэффициенті маңызды және теріс мәнге ие, бұл ұзақ мерзімді тұрақты тепе-теңдіктің бар екенін білдіреді. Әр кезең сайын қысқа мерзімді тепе-теңсіздіктің 68,54%-ы түзетіледі.

Зерттеу нәтижелері тиімді шығындарды басқару, саясатты сапалы іске асыру және макроэкономикалық тұрақтылықсыз тек фискалдық саясаттың өзі ұзақ мерзімді экономикалық өсімді қамтамасыз ете алмайтынын көрсетеді. Сондықтан мемлекеттік шығындарды өнімді секторларға тиімді бөлу, бюджеттік бақылауды күшейту, саясаттарды үйлестіруді жақсарту және экономикалық жоспарлау мен саясат қалыптастыру барысында құрылымдық үзілістерді ескеру ұсынылады.

Түйін сөздер: Фискалдық саясат, мемлекеттік шығындар, инфляция, экономикалық өсім, құрылымдық үзіліс, ARDL моделі, Нигерия.

С.Т. Аджабге*, О.А. Арему

Университет Аль-Хикма, Илорин, Нигерия

*e-mail: tundesuraj@gmail.com

Влияние государственных расходов и инфляции на экономический рост: подход ARDL с анализом структурных разрывов в Нигерии

Данное исследование изучает влияние государственных расходов и инфляции на экономический рост Нигерии в период с 2000 по 2024 год с использованием модели авторегрессионно-го распределённого лага (ARDL) с учётом структурных разрывов. Были проанализированы как краткосрочные, так и долгосрочные взаимосвязи между государственными расходами, инфляцией и экономическим ростом на основе годовых временных рядов.

Результаты показывают, что государственные расходы оказывают отрицательное, но статистически незначимое влияние на экономический рост как в краткосрочном, так и в долгосрочном периодах, что свидетельствует о том, что государственные расходы не являлись существенным фактором роста экономики. Инфляция демонстрирует слабую положительную корреляцию, указывая на минимальное прямое влияние на экономический рост.

Модель обладает высокой объясняющей способностью, о чём свидетельствуют значения коэффициента детерминации R^2 , равные 0,782 (долгосрочный период) и 0,679 (краткосрочный период). Значимые значения F-статистики подтверждают совместное влияние переменных на экономический рост.

Был выявлен структурный разрыв, оказавший заметное отрицательное влияние на экономический рост, что подчёркивает негативное воздействие крупных экономических событий или изменений экономической политики. Хотя долгосрочные эффекты взаимодействия между структурным разрывом и объясняющими переменными являются незначительными, краткосрочные результаты показывают положительное и статистически значимое влияние инфляции на рост экономики.

Коэффициент корректировки ошибок является значимым и отрицательным, что свидетельствует о наличии устойчивого долгосрочного равновесия: за каждый период корректируется 68,54 % краткосрочного отклонения от равновесия.

Полученные результаты показывают, что одна лишь фискальная политика не способна обеспечить устойчивый долгосрочный экономический рост без эффективного управления государственными расходами, качественной реализации политики и макроэкономической стабильности. Исследование рекомендует улучшить распределение государственных расходов в пользу производительных секторов экономики, усилить бюджетный контроль, повысить координацию экономической политики и учитывать структурные разрывы при экономическом планировании и разработке государственной политики.

Ключевые слова: фискальная политика, государственные расходы, инфляция, экономический рост, структурный разрыв, модель ARDL, Нигерия.

Introduction

The government of Nigeria has persistently pursued various macroeconomic policy options as a means of steering the Nigerian economy towards growth and improving the living standards of its people through the means of different macroeconomic policy options. The concept of tax-and-spend policy (fiscal policy) which is one of the macroeconomic tools is continually in use by the government of Nigeria, as it is one of the major tools used in

achieving economic growth and stability. Fiscal policy as often employed by the government is an intentional action of the Nigeria government to manage its taxations, expenditures and public debts to achieve its macroeconomic aims like stabilizing price, beneficial balance of payment and sustainable economic growth implemented through its agencies. Fiscal policy role in the management of the Nigeria economy has been extensive and dynamic showing the reliance of Nigeria on oil revenue and exposure to global shocks. Over the years in Nige-

ria there have been continues increase in spending by the government to boost productivities without a substantial rise in economic growth (Amadi *et al.*, 2020). Government spending on all sectors of the country's economy are projected to result into economic growth, as these spending on public expenditures will improvement the productive base of the nation's economy, and the outcome of which will result into economic growth (Mohammed & Ibrahim, 2019).

Barro *et al.* (2023) explained public expenditure in growth model and determine the nature and connection between public spending, rate of growth and savings, he is of the opinion that any increase of resources dedicated to non-productive services will result to low production of economic goods and services, which will lead to low per capita growth. Hence, government expenditures should be spent on productive services in order to enhance economic growth. Some economic problem troubled economic growth of Nigeria such as inflation, increasing exchange rate, increasing rate of unemployment, infrastructural deficits, etc. These economic problems called for the government involvement in the controlling the economy through fiscal policy. Between the year 2000 and 2024, there are some changes that have occur in the fiscal environment of Nigeria, such as global financial crisis between 2008 and 2009, fall in oil price between 2014 and 2016, 2020 tax reforms including increase VAT from 5% to 7.5% and the emergence of COVID-19 in the year 2020, all of which have cause some disruption in Nigeria economic growth. These fiscal changes have prompted the Nigeria government to implement emergency fiscal interventions such as debt relief initiatives and social investment programmes to cushion the effect of the economic shocks (Verivafrika, 2025).

In Nigeria, diverse fiscal policies measures have been implemented and the economic growth has been slow and the standard of living of the citizen of the country is not improving and unemployment level is increasing, level of poverty is also increasing day by day and inadequacy of infrastructures. Therefore, the investigation of the effects of some fiscal policy tools on Nigeria economic growth over the years is necessary so as to evaluate their contribution or otherwise. Therefore, it calls for the attention of the researcher to study the impact of fiscal policy on Nigeria economic growth. The current fiscal situation globally due to fluctuation in the oil prices and the removal of fuel subsidy in Nigeria coupled with high inflation rate and increase in exchange rate in the coun-

try which have adversely affected virtually every households and businesses in Nigeria and also affecting the level of production and consumption of economic goods and services in the Nigeria. During the period under review Nigeria economy has experienced multiple disruptions such as financial crisis that occur globally between 2008 and 2009, oil price collapse between 2014 and 2016 and COVID-19 pandemic in the year 2020 that can cause structural breakdown (Verivafrika, 2025). Despite an abundance of natural resources and a youthful population, the country has faced persistent economic challenges characterized by low growth rates, high unemployment, and significant poverty levels. Fiscal policy, which includes tax revenue, government expenditure and public debts, plays a critical role in shaping economic outcomes. However, the effectiveness of Nigeria's fiscal policies in promoting sustainable economic growth remains uncertain.

While there have been various fiscal reforms implemented within the years under study, such as the establishment of debt management office in the year 2000 to centralized the management of Nigeria public debt, oil price based fiscal rule and excess crude account in the year 2000 to manage Nigeria oil revenue volatility, fiscal responsibility act 2007 to enforce fiscal discipline, budget reform act by adopting multi-year budgeting through medium term expenditure framework (MTEF), unification of exchange rates in 2023 and fuel subsidy removal in the year 2023 (Olufemi, 2024). Most of the policy reforms in Nigeria fail as a result of weak public finance management, weak oversight, corruption, political economy challenges, debt accumulation and servicing pressure implementation gaps. Existing studies have documented a range of outcomes, but many have focused on isolated aspects of fiscal policy, overlooked the effect of any structural changes and the broader economic context within which these policies operate. Moreover, the volatility of the naira and the impact of global economic conditions, including fluctuations in oil prices, pose further challenges to the success of fiscal interventions in Nigeria.

There is need to examine how this fiscal policy variable interact with economic growth, considering the unique structural challenges faced by Nigeria. By means of empirical evidence, this research will contribute to the existing literature by revealing the effectiveness of fiscal policy in the contexts of growth and economic stability in Nigeria, thereby informing policymakers about effective strategies to

harness fiscal tools for national development. The main objective of the study is to evaluate the impact of fiscal policy on economic growth in Nigeria.

To achieve this goal, the following objectives are set:

1. To assess the impact of fiscal policy on economic growth in Nigeria?
2. To check if there is significant structural breakdown in the Nigeria economic growth?
3. To assess the effect of structural breakdown on economic growth in Nigeria?

Literature review

Tax-and-spend policy can be define as a deliberate action taken by the government of a country on public spending and tax levying on every citizen of the country with the aim of prompting its macroeconomic variables, like employment level, level of aggregate demand, general price level and level of national income in a desired direction (The Economic Times, 2025). Fiscal policy can also be referring to as the use of expenditure and taxation by the government to stimulate the economy. Fiscal policy is a macroeconomic policy option is crucial for controlling economic performance, inflation and employment. International Monetary Fund (2025) define fiscal policy as a way of influencing the economy through taxation and government spending. Generally, most government use fiscal policy to boost sustainable growth and reduce poverty. According to Mellisya, (2025) sees it as tax policies and expenditure by the government to control economic conditions, particularly macroeconomic conditions, which include economic growth, employment, inflation and aggregate demand. Oguejiofor *et al.* (2024) define fiscal policy as the process of influencing a nation's economic activities through the use of tax and expenditure. Dwivedi (2009) refers to fiscal policy as a government programmes for achieving certain national goals through taxation, government expenditure and other financial operations.

Economic growth can be regarded as an increase in the overall production of goods and services in an economy throughout a certain period that is both positive and continuous. Jiaqi (2024) define it as a raise in economic goods and services in a period or year compared with previous year or period. Cornwall (2025) define economic growth a raise in a country wealth over time. It is a raise in a nation's wealth over an extended time period. It is an improvement in the inflation adjusted economy in a financial year. According to Reserve Bank of Aus-

tralia (2025) define it as arise in the volume of the economy of a nation over a year. GDP is typically used to measure the sizes of the economy. it can be measured in either real term or nominal term. When there is raise in the volume of goods and services only, which takes away the effect of price changing it is refers to real economic growth rate as it is better to reflects how much a country is producing at a given period of time, compared with another points in time. When there is a raise in dollar which leads to changes in both volume produced it is refers to nominal economic growth. There is positive economic growth when there is a raise in the growth of an economy over a specific period of time. While a negative economic growth is connected with economic recession and depression.

Karl (2025) define inflation as the as a general or universal raise in prices or an increase in the money supply, both of which can cause a country's currency purchasing power to decline. Jason (2025) explain that inflation is a continuous or gradual loss of purchasing power that is reflected in a comprehensive rise in price. Inflation is calculated as the average price increase of a chosen goods and services over one year. The root of inflation in any economy is the increase in the money supply, shortage of key goods and supply bottlenecks. Inflation can come in various ways, it may be demand pull inflation which occur as a result of increase in the supply of money and credit stimulates the overall demand for goods and services to rapidly increase than the economy's production capacity, this will increase demand and leads to rice in price. Inflation can also be cost push inflation which is caused as a result of the rise of the inputs employed in the production process.

The theoretical background of this study is centered on "financing and macro stability theory". The theory explains the link between the public expenditure and economic growth. According to this theory, the issue as to whether the government spending will boost the growth of the economy lies not just on the level of expenditure but also on the type of macroeconomic and financing environment within which the expenditure is made. In most nations (Nigeria included), it is only possible for expenditure to lead to growth provided that such expansion in expenditure does not result in a disturbance in the levels of inflation, exchange rate, interest rate and debts. Public spending is mainly funded by one (or any combination) of either tax revenues or borrowing from either internal or external sources, monetizing (printing of money) and aid (mainly through foreign source). This is because according to the

macroeconomic stability theory, when there is a sustainable funding of the expenditure, it will result in economic growth while unsustainable spending leads to economic instability.

The theoretical background of this study is centered on “financing and macro stability theory”. The theory explains the link between the public expenditure and economic growth. According to this theory, the issue as to whether the government spending will boost the growth of the economy lies not just on the level of expenditure but also on the type of macroeconomic and financing environment within which the expenditure is made. In most nations (Nigeria included), it is only possible for expenditure to lead to growth provided that such expansion in expenditure does not result in a disturbance in the levels of inflation, exchange rate, interest rate and debts. Public spending is mainly funded by one (or any combination) of either tax revenues or borrowing from either internal or external sources, monetizing (printing of money) and aid (mainly through foreign source). This is because according to the macroeconomic stability theory, when there is a sustainable funding of the expenditure, it will result in economic growth while unsustainable spending leads to economic instability.

Saputra *et al.* (2025) analyzed local expenditure policies implemented by the Aceh government, using per capita income as a mediating variable. The analysis was conducted using the Random Effects Model (REM) and panel data from 23 districts/cities from 2011 to 2021. Findings revealed capital expenditure and social assistance expenditure negatively impact inclusive growth, whereas grant expenditure and per capita income have a positive effect. Additionally, the findings indicate that per capita income mediates the impact of capital expenditure on inclusive growth but does not mediate the effects of grant expenditure or social assistance on inclusive growth. Therefore, the study proposed improve governance, budgeting policies, and regional expenditures in a more sustainable and targeted manner to promote inclusive growth and achieve more equitable welfare for all people in Aceh Province.

The article by Adesodun and Isaac (2025) discusses the fiscal policy growth nexus in Nigeria. They employed trend analysis, descriptive statistics, and OLS regression to analyze the data. Expo factor design and a quantitative research approach were used. Secondary data was collected from 1986 to 2023 by the FIRS and the National Bureau of Statistics. The findings indicate that government expenditure has a significant and positive effect on

the economic growth of Nigeria whereas tax revenue has a positive correlation with GDP and public debt has a negative but non-statistically significant effect on GDP. It was agreed that, even though the contributions of tax revenue and public debt are still limited for the time being, government spending is the main driver of economic growth in Nigeria. The research results advise the policymakers to adopt the proper fiscal method of public spending to develop the economy of Nigeria in the long term, as efficient public spending is the way to go.

Ele *et al.* (2024) focused on the influence of fiscal policy variables on Nigeria economic prosperity. Data analysis was done using OLS method. Secondary data was employed to draw out information. The result indicate that government expenditure positively and significantly influences Nigeria’s GDP, while taxation drive an adverse significant effect on Nigeria’s GDP. Reduction in spending when tax rate is high was proposed, this will balance effect and normalize growth, government should review the tax rates downward because it is hitting hard on the aggregate economic output.

Ali Saif *et al.* (2024) considered the dynamics between good governance, fiscal policy and economic growth in Oma. Quantitative Research design and secondary sources of data was used. The analysis used to analyze the data was OLS regression and ARDL Model. The analyzed data show that there is bidirectional causal connection, the Regulatory Quality Index, Good Governance Index, and economic growth have established a relationship, whereas the Government Efficiency Index, Fiscal Policy Effectiveness, and Rule of Law Index have demonstrated one-way causality leading to GDP. Budget Balance indicate no causal bond with GDP. According to the study, sustainability of economic growth can be achieved through the improvement of governance practices, the enhancement of fiscal policy effectiveness, and the promotion of digital financial inclusion

Alli-Momoh *et al.* (2024) investigate the relationship between fiscal policy and the economic growth of Nigeria. Secondary data sources were applied for data collection and analysis; the result shows a direct link between recurrent expenditure and economic growth, while there was a reversed link between capital expenditure and economic growth, as well as taxes and economic growth. This has led to improvement in both tax policies and government spending.

Muhammad *et al.* (2024) studied the nature of relationship between public spending and long-run

economic growth depends upon the institutional quality of a country. The techniques of analyses used in the study were. Panel method of data analysis of 113 developed and developing economies was used. The result indicates that the relationship between the public size and growth effects was mostly felt in the country with a poor institutional quality, while the growth inhibiting effects of government size become insignificant.

Ejinkonye *et al.* (2023) studied the influence fiscal policy on Nigeria's economy growth. Secondary sources of data were used and OLS as technique for analysis. The results demonstrate that revenue positively but non-significantly impact GDP, capital expenditure negatively and non-significantly impact, and recurrent expenditure positively and significantly impact. It was suggested that the Nigeria government make sure that its revenue base is increased and varied, monitor and assess spending to prevent waste, and guarantee that recurring expenditures and capital expenditures are properly channeled.

Jane *et al.* (2023) investigated the impact of fiscal policy on the economic growth of Nigeria. Secondary source of data was used and Johansen Cointegration for analysis. The finding shows that the connection between GDP and public debt, tax revenue and expenditure was linear. Total government expenditure is positively related to GDP, while public debt and revenue from taxation were negatively connected with GDP. The recommendation was that Nigeria government to jack-up expenditure on economically feasible investment and that all government expenditures should be well monitored.

Girma *et al.* (2023) analyzed Effect of Public Expenditure on Economic Growth of Ethiopia from the year 1980 to 2018. Secondary sources of data collection were utilized. The johansen cointegration test and VECM are used for analysis. The finding shows that economic growth negatively impacts expenditure on agriculture in the long term. GDP positively and impact by expenditure on education in short run and long run. Investment spending also positively but negligible effect on growth in the long run, however in the short run investment present a negative but huge effect. The study reviewed that government spending on education sector would help assist in having higher labour force which will result to higher economic growth. Thuy *et al.* (2023) examined the relationship between tax revenue and economic growth, including the intermediate role of trade openness, in developing countries. between the year 2000 to 2020. The study used the generalized least squares (GLS) and the fixed effect

model (FEM). The results of the analysis show that in general tax revenue positively affects GDP and trade openness increases the positive connection between GDP and tax revenue. The findings of the study reviewed that increasing tax and trade openness provides an important implication for developing countries.

Ezenwobi *et al.* (2022) examined the resultant impact of government borrowing on economic development from 1990 to 2020. Secondary source of data was used, multiple regression model was used to analyze data. The findings show a positive statistically significant bond between external debt and economic development. Similarly, positive statistically significant relationships have been established among domestic debt and economic development. The study suggests that the government should direct borrowed funds to sectors that promote growth in the economy

Elham (2022) studies the long-term connection between disaggregated government expenditure and economic growth in Jordan from 1990 to 2019. The secondary source of data was used and the Granger cointegration test, fully ordinary least squares (FMOLS) and ARDL was used as techniques for analysis. The findings indicate that recurrent expenditure negatively affects economic growth in the long run, while government capital expenditure has a long-lasting positive effect on economic growth. In order to increase its positive investments and reduce recurrent expenditure it was recommended in the study that government of Jordan should implement some procedures.

The following hypotheses are formulated accordingly:

HO1: There is not significant impact of fiscal policy on economic growth in Nigeria?

HO2: There is no significant structural breakdown in the Nigeria economic growth?

HO3: There is no significant effect of structural breakdown on economic growth in Nigeria?

Methodology

The study utilized quantitative data analysis, employing an Autoregressive Distributed Lag (ARDL) approach to analyze time-series data and examine trends in selected variables over time. It relied on secondary data sources, focusing on existing records from 2000 to 2024. Real GDP growth rate, government spending, and inflation rate were the variables being studied, and they were found in the 2024 CBN Statistical Bulletin. The model is specified as follows:

$$RGDP = f(FP) \quad (1)$$

The functional model including the control variable

$$RGDP = f(GOVE, INF) \quad (2)$$

The econometry model is given below:

ARDL model (short-run form)

$$\begin{aligned} \Delta RGDP_t = & \alpha_0 + \sum_{i=1}^{p} \phi_i \Delta RGDP_{t-i} + \\ & + \sum_{j=0}^{q} \theta_j \Delta GOVE_{t-j} + \\ & + \sum_{k=0}^{r} \psi_k \Delta INF_{t-k} + \\ & + \lambda_1 RGDP_{t-1} + \lambda_2 GOVE_{t-1} + \\ & + \lambda_3 INF_{t-1} + \lambda_4 Dt + \lambda_5 GOVE_{t-1} Dt + \\ & + \lambda_6 INF_{t-1} Dt + \varepsilon_t \end{aligned} \quad (3)$$

ARDL Long-run (cointegrating) relationship

$$RGDP_t = \beta_0 + \beta_1 GOVE_t + \beta_2 INF_t + \beta_3 Dt + \beta_4 GOVE_t Dt + \beta_5 INF_t Dt + u_t \quad (4)$$

Error-Correction Representation (ECM)

$$\begin{aligned} \Delta RGDP_t = & \phi (RGDP_{t-1} - [\beta_0 + \\ & + \beta_1 GOVE_{t-1} + \beta_2 INF_{t-1} + \beta_3 D_{t-1} + \\ & + \beta_4 GOVE_{t-1} D_{t-1} + \beta_5 INF_{t-1} D_{t-1}]) + \\ & + \sum_{i=1}^{p-1} \alpha_i \Delta RGDP_{t-i} + \\ & + \sum_{j=0}^{q-1} \theta_j \Delta GOVE_{t-j} + \\ & + \sum_{k=0}^{r-1} \psi_k \Delta INF_{t-k} + \eta_t \end{aligned} \quad (5)$$

Where:

RGDP = Real Gross Domestic Product growth rate (proxy for economic growth), FP = Fiscal Policy, GOVE = Total Government Expenditure, INF = Inflation Rate (control variable), D = Dummy variable capturing structural breaks, α and β = Regression Parameters, p,q,r = lag orders,

λ = long run equilibrium, ϕ = the speed of adjustment coefficient, ε_t = short-run error term (white noise) and μ_t = long-run disturbance.

RGDP rate is the dependent variable. It is used to measure economic growth. Fiscal policy, which is defined by government expenditures is the study's independent variable. The inflation rate is the control variable.

Results and discussion

Table 1
Descriptive Statistics

	RGDP	GOVE	INF
Mean	5.313200	6395.262	13.85400
Median	5.390000	4210.060	12.90000
Maximum	14.60000	34494.25	31.43000
Minimum	-1.790000	701.0500	5.400000
Std. Dev.	3.845136	7360.887	5.705900
Skewness	0.274151	2.519008	1.238342
Kurtosis	3.064890	9.711922	4.993187
Jarque-Bera	0.317548	73.36616	10.52788
Probability	0.853189	0.000000	0.005175
Sum	132.8300	159881.5	346.3500
Sum Sq. Dev.	354.8417	0.0000000013	781.3752
Observations	25	25	25

Note: authors' computation

Table 1 above. The mean value of RGDP, GOVE, and INF is 5.31%, N6395.26b, and 13.85% respectively, and the median of RGDP, GOVE, and INF is 5.39%, N4210.06b, and 12.9% respectively. According to the standard deviation values, RGDP

varies from the mean by 3.85%, GOVE varies from the mean by N7,360.89b, and INF varies from the mean by N5.71%. The value of skewness of RGDP is positive i.e. 0.274151 with a long right tail. Similarly, the value of skewness of GOVE and INF is

2.519008, and 1.238342 respectively with long right tails. This is a desirable condition for normal distribution. Furthermore, RGDP, GOVE, and INF are leptokurtic, and the value of kurtosis is 3.06, 9.71, and 4.99 respectively, which are greater than three. This is the best distribution. For RGDP, the Jarque-Bera probability is 0.853189 which is higher than 0.05 hence we accept the null hypothesis that RGDP distribution is normally distributed. On the other hand, for the variable GOVE, its Jarque-Bera probability is 0.0000, while INF Jarque-Bera probability is 0.005175; both of them are lower than 0.05. We, therefore, reject the null hypothesis because their probabilities are statistically significant.

The correlation analysis presented in Table 2 was used to examine the relationships among RGDP, GOVE, and INF. Both Government Expenditure (GOVE) and Inflation (INF) exhibit a moderate negative linear relationship with Real GDP growth rate (RGDP), indicating that increases in GOVE and INF are associated with decreases in RGDP. Additionally, there is a strong positive linear relationship between Government Expenditure (GOVE) and In-

flation (INF), suggesting that as GOVE rises, INF tends to increase correspondingly.

Table 2
Correlation matrix

	RGDP	GOVE	INF
RGDP	1		
GOVE	-0.417781	1	
INF	-0.183575	0.768502	1

Note: authors' computation

Unit Root Test

This was tested to check the order to ascertain the order of integration of the variables. (ADF) test was used to establish if the data is stationary (absence of unit root) or non-stationary (present of unit root).

The unit root using the ADF was presented in table 3 shows that RGDP, LGOVE, and INF are all stationary at 1st difference.

Table 3
ADF UNIT ROOT

VARIABLE	ADF T-STAT. VALUE	1% CRITICAL VALUE	5% CRITICAL VALUE	10% CRITICAL VALUE	ORDER REMARKS	T-STAT PROB.
RGDP	-6.2099	-3.7530	-2.9981	-2.6388	I(1) STATIONARY	0.0000
LGOVE	-2.7073	-3.7530	-2.9981	-2.6388	I(1) STATIONARY	0.0880
INF	-5.4890	-3.7530	-2.9981	-2.6388	I(1) STATIONARY	0.0002

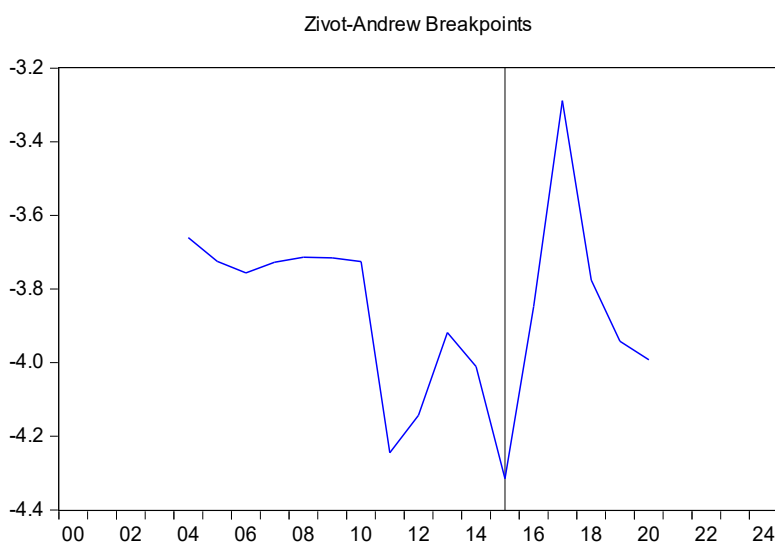
Note: authors' computation

Table 4
Zivot-Andrews Test

Chosen break date: 2015		
	t-Statistic	Prob. *
Zivot-Andrews test statistic	-4.314975	0.040350
1% critical value:	-5.34	
5% critical value:	-5.93	
10% critical value:	-4.58	

Note: authors' computation

Figure 1
Zivot-Andrew Breakpoints Figure



Note: authors' computation

The Zivot-Andrews test identified 2015 as the structural break date in the data series, with a test statistic of -4.315 and a p-value of 0.0404. This test statistic is higher than the 1% and 5% critical values of -5.34 and -5.93, respectively, but slightly lower than the 10% critical value of -4.58. Therefore, the test statistic of -4.315 and corresponding p-value of 0.040 indicate rejection of the null hypothesis of a unit root at the 5% sig-

nificance level. This finding implies that the series is stationary once the structural break is taken into account. As the Zivot-Andrews test shows that there is a structural break in the year 2015, a statistical analysis will be run for all the variables including the dummy variable that represent the structural break using the Auto-regressive Distribution Lag (ARDL) model.

ARDL Regression analysis

Table 5
ARDL Regression analysis

Variable	Coeff	Std. r	t-Stat	Prob
RGDP (-1)	-0.068549	0.210629	-0.325448	0.7493
LGOVE	-2.299992	1.382366	-1.663808	0.1169
INF	0.017099	0.198347	0.086205	0.9324
INF(-1)	0.236688	0.152868	1.548313	0.1424
DUMMY	-42.80167	23.99982	-1.783416	0.0948
LGOVE*DUMMY	4.930689	2.924743	1.675542	0.1145
LGOVE(-1)*DUMMY (-1)	-0.431095	0.349992	-1.231729	0.2370
INF* DUMMY	-0.177069	-0.578028	-0.578028	0.5718
C	23.22741	1.807568	1.807568	0.0908
R ²	0.782027	Mean dependent variable		5.304583
Adjusted R ²	0.665775	S.D. dependent variable		3.927590
F-statistic	6.726994	D-W		1.978908
Prob. (F.Static)	0.000815			

Note: authors' computation

The ARDL Regression model as show in table 5 above shows that Government expenditure (LGOVE) shows a negative coefficient of -2.3000 with a p-value of 0.1169, suggesting that the dependent variable tends to decrease as government spending rises. Nevertheless, at the standard 5% threshold, this effect is not statistically significant. In a similar vein, the current inflation rate (INF) has a p-value of 0.9324 and a positive coefficient of 0.0171, showing a small and statistically insignificant impact on the dependent variable. With a p-value of 0.1424 and a positive coefficient of 0.2367, the lagged inflation rate INF (-1)] is likewise statistically insignificant. With an R^2 value of 0.782, the regression findings show that the model has a significant explanatory power, meaning that the explanatory variables included account for about 78.2% of the variability in the dependent variable. The modified R^2 of 0.666 further indicates that the model explains roughly 66.6% of the variation in the dependent variable after taking the number of regressors into account. The model is statistically significant overall, with an F-statistic of 6.727 and a corresponding probability value of 0.000815, indicating that the explanatory factors jointly affect the dependent variable. Additionally, the Durbin-Watson statistic of 1.979, indicates that there is not any significant autocorrelation in the residuals. The regression model explains approximately 78.2% of the variation in the dependent variable ($R^2 = 0.782$), with an adjusted R^2 of 66.6% indicating strong explanatory power after accounting for the number of predictors. The model is statistically significant overall, supported by an F-statistic of 6.727 ($p = 0.000815$), confirming that the explanatory variables jointly affect the dependent variable. The Durbin-Watson statistic of 1.979 suggests no serious autocorrelation in the residuals. The struc-

tural change over the study period was linked to a decrease in the dependent variable, according to the structural break dummy variable, which has a negative coefficient and is significant at the 10% level. The effects of inflation and government spending may have changed throughout the structural break, according to the interaction terms, but these changes are not statistically significant.

ARDL Bounds Cointegration Test

Table 6
Bounds Test

	VALUE	K
F-stat	4.753060	5
Crit-v		
Signi	I (0)	I (1)
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

Note: authors' computation

Table 6 present the result of the bounds test to check if there is a lasting connection in the model. From the result since the value of F-statistics of 4.753060 is larger than the upper critical value I(0) and lower critical value I(1) at 5% critical value of 2.62 and 3.79 respectively, this shows that there is present of co-integration in the bounds test. This suggest a long run connection. As the lower critical value I(1) is less than the F-statistics value, so we run the Error Correction Model (ECM).

Table 7
ARDL Long run Dynamics

VARIABLES	Coff	Stdr	T-stat	Prb
LGOVE	-2.299992	1.319432	-1.631342	0.1169
INF	0.2375506	0.240370	0.988087	0.3388
DUMMY	-42.80167	22.65275	-1.768257	0.0948
LGOVE*DUMMY	4.210940	2.727485	1.543891	0.1434
INF*DUMMY	-0.165710	0.283503	-0.584508	0.5676

Note: authors' computation

According to the regression analysis shown in table 7, LGOVE has a non-significant effect with a negative coefficient of -2.15 (standard error 1.32), a t-statistic of -1.63, and a p-value of 0.12. INF is likewise not significant, with a positive coefficient of 0.24 (standard error of 0.24), a t-statistic of 0.99, and a p-value of 0.34. The DUMMY variable has a t-statistic of -1.77, a marginally significant p-value of 0.10, and a huge

negative coefficient of -42.80 ($p = 0.0948$) and (standard error 22.65). LGOVE*DUMMY with a coefficient of 4.21 (standard error 2.73), t-statistic 1.54, and p-value 0.14 and for the interaction term of INF*DUMMY with -0.17 (standard error 0.28), t-statistic -0.58, and p-value 0.57, neither interaction is statistically significant. All these explains how they affect the structural break in the long run

Table 8
Error Correction Model (Short Run Dynamics)

ECM REGRESSION VARIABLES	Coeff	Stdr	t-sta	Prb
C	23.22741	3.759372	6.178535	0.0000
D(INF)	0.017099	0.089984	0.190018	0.8518
D(DUMMY*LGOVE)	4.930689	5.481703	5.481703	0.001
Coin. Eq. (-1)	-0.685429	0.173286	-6.166400	0.0000
R-Squared	0.679218	F-Statistics		14.11589
Adjusted R ²	0.631101	Prob. (F-Statistics)		0.000036
Durban-W			1.978908	

Note: authors' computation

The short run dynamics as shown in table 8 analyze the immediate fluctuations of the variables in relation to the correction term. It shows, inflation (INF) has a little positive and insignificant effect on RGDP. Indicating that increase in inflation (INF) by 1% in the short run will cause an increase in RGDP by 0.017 units. The interaction of structural break with inflation (INF) shows a positively and statistically significantly impact on RGDP, an increase in inflation (INF) by 1% after interaction with structural break result in 4.93 units increase RGDP. The Co-integration equation (Coin Eq (-1)) is statistically significant and shows that the previous error will be corrected and integrated at a speed of 68.54% from the short run period to long run period. Is that previous errors will adjust back to equilibrium at a speed of 68.54% after shocks. The R-square value of 67.92% indicates a good fit and significant of the model is also very good one with a probability of less than 0.05. The explanatory factors account for 67.92% statistical mean variance of (RGDP) as indicated by R² of 0.679218, the remaining 32.08% was accounted for exogenously but are reflected by the disturbance term. The adjusted R-square (Adj

R²) shows that 63.11% of the change in economic growth (RGDP) in Nigeria can be explained by fiscal policy. This shows that fiscal policy can enhance growth. Also, fiscal policy variables in the model have significant effect on the Nigeria economic growth the value of the exogenous variable is represented by intercept (c), which is 23.22741 when all explanatory factors are zero. The D. W statistic shows no autocorrelation among the variables with a coefficient value of 1.978908, which is within the acceptable range of 1.79 to 2.50.

Diagnostic Test

Serial correlation Test

Table 9
Serial correlation Test

Breusch-G test			
F-statistic	0.438783	Prob. F(2,6)	0.7222
Obs*R ²	1.635526	Prob. Chi(2)	0.5565

Note: authors' computation

The Breusch-Godfrey test results determine whether or not a regression model's residuals contain autocorrelation. The F-statistic value is 0.4388, with a corresponding p-value of 0.7222 (Prob. F(2,6)), suggesting that the null hypothesis of no autocorrelation cannot be rejected at typical significance levels. Similarly, the Obs*R² statistic is

1.6355 with a p-value of 0.5565 (Prob. Chi(2)), indicating no significant autocorrelation in residuals. Overall, both test statistics indicate that the regression model's residuals do not show autocorrelation, meaning that the error terms are independent across observations, validating the model's conclusion.

Heteroskedasticity Test

Table 10

Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan- Null hypothesis: Homoskedasticity			
F-statistic	1.323958	Prb F(15,8)	0.6774
R ²	17.10824	Prob. Chi-2(15)	0.5790
Scales SS	2.789803	Prob. Chi-2(15)	0.9583

Note: authors' computation

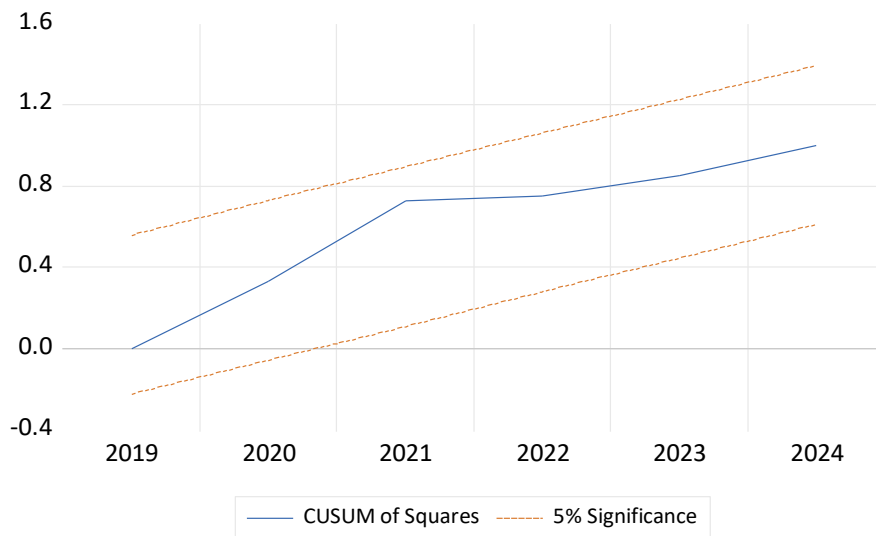
The Breusch-Pagan test results show that the null hypothesis of homoskedasticity is not rejectable. The F-statistic of 1.324 ($p = 0.6774$), R² based statistic of 17.108 ($p = 0.5790$), and Scales SS statistic of 2.790 ($p = 0.9583$) indicate that the residuals'

variance is consistent across data. This means that there is no evidence of heteroskedasticity, verifying the regression model's homoskedasticity assumption and supporting the model's estimate reliability.

Stability diagnostics test

Figure 2

Stability diagnostics



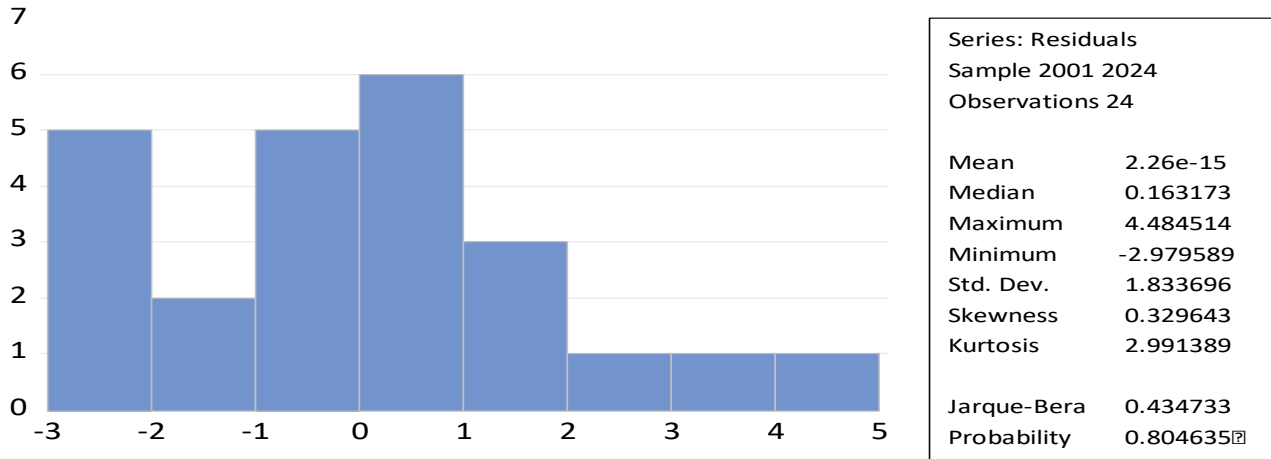
Note: authors' computation

Stability test verifies whether the model's parameters are dependable and consistent, guaranteeing that the model's predictive capability and inference stay valid during the study time. Therefore, the figure 3 above shows that there is stability in the

regression model parameters. It was shown that the model is stable as the blue line is in between the red line, which means that it lays between the 5% significance level.

Normality Test

Figure 4
Normality Test



Note: authors' computation

From figure 4 above the Jarqu-Bera probability of 0.804635 is larger than 0.05, so we accept the normality that residual is normally distributed.

The discoveries of this study are summarized below: It was established in the finding that there is structural breakdown in the time series of the dependent variable. Overlooking structural change in macroeconomic time series relationship can be dangerous as forecast. The finding also established the presence of a co-movement from fiscal policy to growth in Nigeria. The relationship between Total Government Expenditure (GOVE) and Real Gross Domestic Product growth rate (RGDP) is negative and statistically insignificant in the long run this aligns with crowding out effect theory that says public spending displaced private investment, potentially harming growth over time. The relationship between Inflation (INF) and Real Gross Domestic Product growth rate (RGDP) positively but statistically insignificantly. The structural break which is represented by dummy variable also have a large negative effect on growth of Nigeria in the long run but marginally significant at 10% level. Although total government stands as a major determinant of growth in Nigeria and implying insufficient evidence that government expenditure reliably impacts

real GDP rate in the long run and the interaction term shows that fiscal policy impacts are sensitive to structural break represented by dummy.

The study shows that Nigeria economic growth is insignificantly affected by change in fiscal policies, inflation and structural shifts.

In conclusion, the effect of fiscal policy on Nigeria's economic growth is negative and insignificant, and inflation (INF) has a positive but insignificant effect on Nigeria's economic growth, a structural breakdown exists in Nigeria's economic growth in the year 2015 and the impact of the structural break is negative and marginally statistically significant on growth of Nigeria in the long run.

The results of the ARDL analysis show that during the research period, inflation and government spending had no direct impact on Nigeria's economic growth. Despite having a negative coefficient in both the short-run and long-run estimates, government expenditure (LGOVE) has a statistically insignificant impact, indicating that increases in government spending have not resulted in appreciable improvements in economic growth. This result could be the result of ineffective fiscal policy execution, inefficient public expenditure allocation, or the concentration of government expenditures

in unproductive areas. In a similar vein, inflation shows a positive but negligible correlation with economic growth, suggesting that variations in the inflation rate did not significantly impact growth performance throughout the reviewed period. As seen by the R^2 values of 0.782 in the long run and 0.679 in the short run, the regression findings also show that the model has significant explanatory power. It is confirmed by the statistically significant F-statistics that economic growth is jointly influenced by the explanatory variables. The calculated model's reliability is supported by the Durbin-Watson statistics, which are near to 2 and show no serial correlation. The existence of a structural break, indicated by the dummy variable, that has a detrimental and marginally significant impact on economic growth is one of the study's key conclusions. This implies that the selected break period's economic event or policy change had a negative impact on Nigeria's growth trajectory. The link between fiscal policy variables and economic growth may have changed after the structural break, even though the interaction terms coupling government spending and inflation with the break are not statistically significant over the long term. In the medium term, inflation continues to have a slight but favorable impact on economic expansion. Nonetheless, there is a positive and statistically significant interaction between inflation and the structural break, suggesting that inflation had a favorable impact on economic growth during the post-break period. A steady long-term link between the variables is also confirmed by the fact that the error correcting mechanism is statistically significant and negative. With more than two-thirds of disequilibrium adjustments taking place in a single period, the speed of adjustment coefficient of roughly 68.54% shows that deviations from long-run equilibrium are adjusted somewhat quickly.

Conclusions

This study used an ARDL model to evaluate how inflation and fiscal policy affected Nigeria's economic growth while taking structural breaks into consideration. The findings demonstrate that inflation and government spending have no long-term statistically meaningful effects on economic growth. However, the model as a whole shows strong explanatory power and is statistically significant, suggesting that all of the factors have an impact on economic growth. Additionally, the analysis proves that there was a structural rupture that had a detrimental impact on economic growth during the study period. The short-term results

show that inflation positively interacted with the structural break to affect economic growth, even if the long-term interaction effects of fiscal policy variables with the structural break are generally negligible. A stable long-run equilibrium relationship between the variables is also confirmed by the considerable error correction term, which also shows a comparatively quick adjustment process after economic shocks. Overall, the results imply that fiscal policy actions by themselves might not be enough to promote long-term economic growth unless they are combined with macroeconomic stability, efficient resource allocation, and successful policy implementation. The data also emphasizes how crucial it is to take structural changes into account when developing and accessing Nigeria's economic strategies.

Policy recommendations

Based on the findings of the study, the following policy recommendations are proposed:

1. Government should improve the efficiency and productivity of public expenditure by directing spending toward growth-enhancing sectors such as infrastructure, education, healthcare, agriculture, and technology. This would ensure that public spending contributes more effectively to economic growth.
2. Given the negative effect of the structural break on economic growth, government should develop proactive policy frameworks capable of mitigating the adverse effects of economic shocks, policy changes, and external disturbances on the economy.
3. Economic planning should incorporate structural-break considerations when designing fiscal and monetary policies, as ignoring significant economic shifts may lead to ineffective policy outcomes.

Ajagbe et al: Funding

The authors report that this study was conducted without receiving any specific financial or institutional support.

Acknowledgements and Conflict of Interest

The authors declare that there are no conflicts of interest that could have influenced the results of the study or their interpretation.

Author Contributions

AST: conceptualization, methodology, writing the original text;

AOA: literature review, collection of statistical data, interpretation of research results, development of the article structure, and manuscript formatting.

References

- Adesodun, I. A. & Isaac B. T. (2025). Convergence of fiscal policy and economic growth in Nigeria. *Journal of social and development sciences* 15, (1), 1-13. [https://doi.org/10.22610/jsds.v15i1\(S\).4368](https://doi.org/10.22610/jsds.v15i1(S).4368)
- Ali, S., Ali, A. & Mohamed, k. (2024). The dynamic relationship between good governance, fiscal policy, and sustainable economic growth in Oman, *Journal of Infrastructure, Policy and Development*, 8(5),3557-3568. <https://doi.org/10.24294/jipd.v8i5.3557>
- Alli-Momoh, B. O., Rotimi O., Olaniyan N. O., Babatunde A. & Samuel A. T. (2024). Does Fiscal Policy Affect Economic Growth in Nigeria? *acta universitatis danubius*, 20(4),233-250. https://dj.univ-danubius.ro/index.php/AUDOE/article/view/2923?utm_source=chatgpt.com
- Amadi, G & Alolot, O (2020). An analysis of government spending and economic growth in Nigeria. *International Journal of Development Research*, 5(6), 4876-4882. 10.56201/jafm.v10.no9.2024.pg170.186
- Cornwall, A. (2025). Defining economic growth: A rise in national wealth over time. *Journal of Economic Development*, 50(1), 23-35.
- Dwivedi, D. N. (2009). Fiscal policy: Government programs for achieving national goals through taxation and expenditure. *Journal of Public Economics*, 33(2), 101-115.
- Ejinkonye, C. R., Nwankwo, B. C. & Mazeli, E. N. (2023). Effect of fiscal policy on Nigeria's economy growth for the period 2001 to 2021. *Journal of the Management Sciences*, 60 (2), 242-254.
- Elham M. A. Y. (2022) the Long-run relationship between disaggregated government expenditure and economic growth in Jordan. *International journal of economics and finance issues*, 12 (5) 1-9. <https://doi.org/10.32479/ijefi.11912>
- Ezenwobi, N. F., & Anisiobi, C. A. (2022). Effect of Government Public Debt on Economic Development in Nigeria, *Social Science Research*, 7(2). 75-96.
<https://doi.org/10.56201/wjfir.v8.no4.2024.pg117.132>
- Girma M. E. (2023) Effect of Public Expenditure on Economic Growth of Ethiopia. *The science world journal*, 20 (23) 1-14. <https://doi.org/10.1155/2023/9305196>
- International Monetary Fund (2025). What is Fiscal Policy? Retrieved from: <https://www.imf.org /external/pubs/ft/fandd/2009/06/pdf/basics.pdf>
- Jane, U. U., David, W., Domnic, U. N., Justice, E. E., Izundu, O. & Chirs A. N. (2023). The Impact of Fiscal Policy on Economic Growth of Nigeria. *European Journal of Theoretical and Applied Sciences*, 1(6),741-750. [https://doi.org/10.59324/ej-tas.2023.1\(6\).73](https://doi.org/10.59324/ej-tas.2023.1(6).73)
- Jiaqi, Z. (2024). Economic Growth: what it is and how it is measured. Retrieved from: <https://www.investopedia.com/terms/e/economicgrowth.asp>
- Jason, F. (2025). Inflation: What it is and how to control inflation rate. Retrieved from: <https://www.investopedia.com/terms/i/inflation.asp>
- Karl, M. (2025). Inflation. Retrieved from: <https://www.britannica.com/money/inflation-economics>
- Mellisayah, M. (2025). *Tax policies and economic growth: A comparative review*. *Advances in Taxation Research*, 3(1), 1–14. <https://doi.org/10.60079/atr.v3i1.412>
- Oguejiofor, U. H., Obansa, S. J., Ihuoma, A., & Olushola, T. (2024). The Dynamics of Fiscal Policy Measures on Manufacturing Sector Growth: Evidence from Nigerian Economy. *International Journal of Research in Social Science and Humanities (IJRSS)* ISSN: 2582-6220, DOI: 10.47505/IJRSS, 5(5), 14-35.
- Olufemi, M.O. (2024), Overview of Fiscal and Tax Reforms in Nigeria. <https://www.linkedin.com/pulse/overview-fiscal-tax-reforms-nigeria-olufemi-michael-olarinde-nv8oe>
- Mohammed, O. & Ibrahim, B. (2019). The association between government expenditure and economic growth: The granger causality test of the US Data 1974-2002. *Journal of Public Budgeting, Accounting and Financial Management*, 31(5), 439-445.
- Muhammad, K., Saqlain, R. & Xuan, V. V. (2024). Government spending and economic growth relationship: can a better institutional quality fix the outcomes? *The Singapore Economic Review* 69(1), 227-249. <https://ideas.repec.org/a/wsi/serxxx/v69y-2024i01ns0217590820500216.html>
- Reserve Bank of Australia. (2025). *Measuring economic growth and GDP*. Retrieved from <https://www.rba.gov.au/publications/smp/2025/nov/outlook.html>
- Saputra, M. E., Zulham, T., & Srinita, S. (2025). The Effect of Aceh Government Spending Policy on Inclusive Growth: Income per Capita as a Mediating Variable. *Grimsa Journal of Business and Economics Studies*, 2(1), 1–14. <https://doi.org/10.61975/gjbes.v2i1.41>
- The Economic Times, (2025). What is ‘Capital Expenditure. <https://economictimes.indiatimes.com/definition/capital-expenditure>
- Thuy T. H., Xuan H. T. & Quan. K. N. (2023) Tax revenue-economic growth relationship and the role of trade openness in developing countries. *Cogent business and management*, 10 (2) 1-11. <https://doi.org/10.1080/23311975.2023.2213959>
- Verivafrika (2025), The Dark Decade: A Data Story of Nigeria's De-growth Years (2015-2024) <https://www.verivafrika.com/insights/the-dark-decade-a-data-story-of-nigerias-de-growth-years-2015-2024>

Information about the authors:

Ajagbe Surajdeen Tunde – PhD in Finance, Senior Lecturer, Head of the Department of Finance, Al-Hikmah University (Ilorin, Nigeria, e-mail: tundesuraj@gmail.com).

Aremu Olagoke Ahmed – Department of Finance, Faculty of Management Sciences, Al-Hikmah University (Ilorin, Nigeria, e-mail: aremuolagoke@gmail.com).

Авторлар туралы мәлімет:

Аджагбе Суражди́н Тунде – Қаржы саласы бойынша PhD докторы, аға оқытушы, Қаржы кафедрасының меңгерушісі, Әл-Хикма университеті (Илорин, Нигерия, e-mail: tundesuraj@gmail.com).

Арему Олагоке Ахмед – Қаржы кафедрасы, Менеджмент ғылымдары факультеті, Әл-Хикма университеті (Илорин, Нигерия, e-mail: aremuolagoke@gmail.com).

Сведения об авторах:

Аджагбе Суражди́н Тунде – PhD в области финансов, старший преподаватель, заведующий кафедрой финансов Университет Аль-Хикма (Илорин, Нигерия, e-mail: tundesuraj@gmail.com).

Арему Олагоке Ахмед – Кафедра финансов, факультет управленческих наук Университет Аль-Хикма (Илорин, Нигерия, e-mail: aremuolagoke@gmail.com).

Received: 25 February 2026

Accepted: 20 June 2026