

Sectoral Allocation and Economic Wellbeing in Nigeria

Wasurum, Edward, Ph.D¹; Oriji, Esther Chimekwa, Ph.D² & Nwalaenzi Zebulon Chibuike³

^{1,2&3}Department of Economics, Ignatius Ajuru University of Education, Port Harcourt
wasurum@iaue.edu.ng¹; chime.ogolosingha@gmail.com²;
nwalaenzichibuike@gmail.com³

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ABSTRACT

This study examines the relationship between sectoral allocation and economic wellbeing in Nigeria, with a focus on identifying the most effective sectors for improving economic outcomes. The research employs a comprehensive framework, considering various sectors, including administrative services, economic services, social and community services, and transfer payments. The study used autoregressive distributed lag (ARDL) estimation techniques due to the mixed stationary condition of the annual time series data, which was sourced from the Central Bank of Nigeria Statistical Bulletin 2024. The findings of this study reveal that the sectoral allocation of government expenditure plays a crucial role in shaping economic wellbeing in Nigeria. Specifically, the results show that government spending on transfer payments, administrative services, and social and community services has a significant positive impact on economic wellbeing. In contrast, expenditures on economic services are found to have an insignificant negative relationship with economic wellbeing. Furthermore, the study highlights the importance of transparency and accountability in government spending. Corruption and misallocation of funds are identified as major challenges that undermine the effectiveness of sectoral allocations in improving economic wellbeing. Based on these findings, the study recommends that policymakers prioritise transparency and accountability in government spending. Establishing stronger monitoring and evaluation frameworks is

suggested as a key strategy for ensuring that allocated funds reach their intended sectors and produce measurable welfare outcomes. The results of this study have important implications for policymakers seeking to optimise government expenditure and improve economic wellbeing in Nigeria.

Keywords: Sectoral allocation, administration, economic wellbeing

INTRODUCTION

Governments at federal, state, and local levels implement projects financed either internally or externally. Typically, government objectives are funded through the real sector of the economy. According to the Central Bank of Nigeria Statistical Bulletin (2010), the real sector comprises agriculture, manufacturing, and services. Funding is usually distributed across these sectors with the expectation of stimulating growth. The prevailing belief has been that credit distribution to these industries would foster economic development and stability, particularly by enhancing GDP.

However, analyses of Nigeria's public expenditure reveal that agriculture, health, and education have not received sufficient attention to achieve sustained economic growth (Yerima, Nymphas, Sani, Auta, Amos & Abwage, 2022). Although Nigeria's annual budget and related funding channels reflect a declared willingness to finance productive sectors, especially through infrastructural investment and human capital development, the outcomes have fallen short of expectations. Economic growth, as a prerequisite for sustainable development, is heavily dependent on government spending in critical areas such as agriculture, health, education, and transportation (Jumare, Yusuf & Rafiat, 2021).

The pattern of government expenditure significantly affects macroeconomic performance and household welfare. Nigeria, despite being Africa's largest economy and most populous nation, faces persistent human-capital deficits, regional disparities, and poor social outcomes that constrain productivity and living standards. The World Bank (2021) estimated that, in 2020, the average Nigerian achieved only 36% of their potential productivity if fully supported by education and health, signalling a substantial human-capital loss.

Public spending is influenced by a combination of economic, social, political, and institutional factors. In Nigeria, fiscal realities, revenue sources, and governmental structures shape development priorities. Governments often prioritise sectors perceived as growth-inducing and transformative. For example, investment in transport, power, and communication infrastructure lowers transaction costs, enhances productivity, and attracts private investment (Calderón & Servén, 2010). Likewise, spending on education and health strengthens human capital, which research by Barro (1991) and

Hanushek & Woessmann (2012) identifies as a driver of long-term growth. Social sector spending also improves household welfare, reduces income inequality, and alleviates poverty. The World Bank (2022) confirms that countries with higher social expenditure tend to achieve higher Human Development Index (HDI) scores. With over 40% of Nigerians living below the poverty line (NBS, 2020), reallocation towards social and productive sectors is widely considered a key mechanism for inclusive growth.

Nevertheless, Nigeria's dependence on oil revenues creates fiscal volatility that shapes sectoral allocations. During oil booms, capital-intensive infrastructure projects expand, whereas downturns often lead to a concentration on recurrent spending, particularly wages and debt servicing (Okonjo-Iweala & Osafo-Kwaako, 2007). This cyclical pattern undermines consistent long-term investment in critical sectors. Additionally, ethnic diversity influences public expenditure patterns, as governments attempt to balance competing group interests, manifesting in Nigeria as “zonal” equity in infrastructure distribution and public employment (Alesina, Baqir & Easterly, 1999).

Although Nigeria has employed various fiscal and development policies to raise living standards, many have failed due to poor design, weak implementation, and institutional deficiencies. Policies such as the National Economic Empowerment and Development Strategy (NEEDS, 2004–2007), Vision 20:2020, the Agricultural Transformation Agenda (ATA, 2011–2015), Universal Basic Education (UBE, 1999–present), the National Health Insurance Scheme (NHIS, 2005–present), and the Power Sector Reform (2005–present) illustrate this pattern. Despite considerable capital investment and the privatisation of power generation and distribution, electricity supply remains grossly inadequate due to regulatory weaknesses, tariff disputes, gas shortages, and procurement-related corruption (Adenikinju & Osakede, 2020). This shortfall has negatively impacted industrial growth and employment creation.

Overall, Nigeria's sectoral allocations have not consistently translated into sustained growth. Key constraints include inefficiency and misallocation of resources, weak public investment management, implementation gaps, corruption, revenue volatility, procyclical spending patterns, political pressures, inadequate social spending, and macroeconomic instability (notably high inflation, exchange rate fluctuations, and heavy debt servicing, which crowd out productive investment).

These challenges necessitate a targeted empirical inquiry: **Which sectoral allocations, particularly in agriculture, health, education, and social services, have contributed most significantly to Nigeria's economic well-being between 1990 and 2024?** Although recent budgets have increased appropriations to education, health, infrastructure, and agriculture, the results have not consistently materialised in terms of growth and welfare improvements. This contradiction reflects the complexity of Nigeria's fiscal outcomes.

Empirical evidence highlights these inconsistencies. Useni et al. (2023) found

that health and education expenditures do not significantly affect GDP growth, despite their prominence in theoretical literature. Similarly, Chinedu et al. (2018) concluded that transport, communication, health, and education are not strong growth drivers in Nigeria. Ajayi & Nwogu (2023) argued that capital and recurrent expenditure provide only limited short-term benefits, while Onabote et al. (2023) reported that sectoral spending does not significantly influence human development either in the short or long term. This suggests that merely allocating resources to priority sectors does not automatically stimulate GDP growth.

Other studies provide nuanced insights. Alice & Ofor (2024), Osifo (2018), and Fapetu & Obalade (2015) argued that bank credit to manufacturing, particularly under deregulation, has been beneficial. Indeed, credit to productive sectors such as manufacturing and mining has yielded positive results (Fapetu & Obalade, 2015). Similarly, Chandsna et al. (2020) demonstrated that capital expenditure promotes growth, while recurrent spending does not—a finding consistent with Niloy et al. (2003), Chandsna et al. (2021), and Ajayi & Nwogu (2023). In terms of public debt, however, Nduka & Nwankwo (2023) and Useni et al. (2023) found no significant relationship with economic growth.

As a measure of well-being, HDI has shown mixed responses to social sector investment (Akidi et al., 2024; Onabote, 2023). Importantly, much of the literature examines sectors in isolation (health, education, manufacturing, or agriculture) without exploring cross-sectoral interactions. For example, capital spending on transport infrastructure may enhance manufacturing productivity, yet such interlinkages are rarely studied. Moreover, while many studies report insignificant sectoral effects, they often overlook the extent to which governance quality, corruption, and inefficiency dilute the impact of public investment.

Against this background, the present study evaluates the impact of sectoral allocations on economic growth in Nigeria, with particular attention to the moderating roles of governance quality and corruption.

LITERATURE REVIEW

Economic Growth

Economic growth is the long-term rise in an economy's output, which is then followed by other things that affect growth, like improvements in infrastructure, technology, and human capital. Over time, the inflation-adjusted market value of the goods and services generated by an economy rises. This is called economic growth. Consequently, it is quantified as the percentage rate of growth in the real gross domestic product (Umeh, Ezudike & Anyaegbunam, 2022). Olatubosun (2024) asserts that economic growth is optimally characterised as a prolonged augmentation of the economy's productive capacity. This growth trajectory can be enhanced by increasing capital investment expenditures as a proportion of national income, alongside the expansion of capital

inputs, labour supply, workforce, and technological advancements. For the purposes of this study, economic growth is defined as a rise in the quantity of goods and services generated inside a nation.

Sectoral Allocations

Sectoral means anything that has to do with, is split up into, or has an effect on certain parts of an economy, society, or organisation. 'Sectoral' is a term used in economics and public policy to talk about how activities, resources, or policies are divided into different groups or sectors, like agriculture, industry, education, health, infrastructure, and services (World Bank, 2020). It is an important part of public finance and economic policy since it decides how much of the overall spending each sector gets in a given fiscal cycle.

The economy of Nigeria is divided into two parts: the primary sector and the secondary sector. The primary sector includes agriculture (growing crops, raising animals, cutting down trees, and fishing), mining and quarrying (getting crude oil, natural gas, and solid minerals), and oil and gas exploration and production. The secondary sector includes manufacturing (processing food, making textiles, cement, steel, and pharmaceuticals), construction (building roads, bridges, and buildings), and utilities (providing electricity, water, and waste management). The last part of the economy is the tertiary sector, which is also called services. This sector offers intangible goods and services, encompassing trade (both wholesale and retail), transportation and storage, information and communication technology (ICT), financial services (such as banks and insurance), education and health, hospitality and tourism, public administration, defence, security, and real estate. Each of these parts helps the economy grow in different ways, such as by increasing GDP, creating jobs, bringing in foreign exchange, and improving technology. For example, agriculture has always been the most important part of Nigeria's economy, adding a lot to GDP and jobs, especially in rural areas. It makes sure there is enough food, gives companies raw materials, and brings in foreign currency through exports like cocoa, sesame, and palm oil. This has made farming more productive, which raises rural incomes, lowers poverty, and increases demand for goods and services made in factories, which in turn boosts growth in other areas (Ogen, 2007; World Bank, 2020). Manufacturing changes raw materials into things that add value. This encourages import substitution, diversifies the economy, and makes the economy less reliant on crude oil. This has led to a strong manufacturing sector that creates jobs, makes it easier to transfer technology, and makes exports more competitive, all of which help the economy grow in a sustainable way (Adebayo & Adepoju, 2017; UNIDO, 2021). Finance, ICT, education, health, and transport are all examples of services that offer the infrastructure and people needed for economic activities (NBS, 2022; World Bank, 2021).

Theoretical Framework

This study is anchored on Wagner's Law, originally proposed by the German political economist Adolph Wagner (1835–1917). The theory, also known as the *Law of Increasing State Activity*, posits that economic growth is closely linked to rising public expenditure. Wagner argued that as industrialisation advances and gross domestic product (GDP) expands, government spending naturally increases. The Wagnerian school of thought therefore maintains that the growth of an economy is typically accompanied by a corresponding rise in the proportion of public expenditure.

The relevance of Wagner's Law to this study lies in its explanatory power regarding the relationship between sectoral allocation and economic growth in Nigeria. A review of the literature demonstrates empirical support for the existence of this relationship, thereby justifying the use of Wagner's framework as the theoretical underpinning for the analysis.

Empirical Review

Akidi, Abdullahi, and Okeke (2024) examined how social sector spending affected Nigerians' economic well-being from 1981 to 2022. Defence, health, education, and transport expenditures represent social sector spending, whereas the Human Development Index measures economic well-being. The 'Autoregressive Distributed Lag' analytical method is used to analyse World Bank World Development Indicators and Nigeria's Central Bank statistical data. The estimation found that the federal government's social spending in defence, health, and education positively and significantly influenced economic wellbeing (Human Development Index) over the short and long term, while transportation spending positively and insignificantly impacted the regressand. According to research, social sector expenditures are essential for Nigerians' economic well-being.

Alice and Ofor (2024) examined how government sectoral expenditure affects Nigerian economic growth. The study showed how government sectoral spending affects Nigerian economic growth. The study used health, education, and agriculture expenditures as proxy variables to determine the impact of government sectoral expenditure on economic growth. Real GDP was used as the economic growth variable. The investigation was guided by three hypotheses. The study uses an *ex post facto* design and data from the Central Bank of Nigeria Statistical Bulletin and Statement of Accounts from 2001 to 2023. The parameter estimates were tested using panel least squares regression. At the 5% significance level, government sectoral expenditures on health, education, and agriculture boosted Nigerian economic growth. The study found that government sectoral expenditures boosted Nigeria's economy. The study argues that Nigeria must continue to use fiscal policy instruments to achieve macroeconomic goals because government sectoral expenditure on health, agriculture, and economic growth is linked.

Useni, Vincent, Yakubu, David, Nzens, and Jamilu (2023) examined government expenditure and economic development in Nigeria using 2006-2020 time series data. The structural vector autoregression (SVAR) model and the pairwise causality test were applied. Government spending on health and education had little effect on economic growth, the study concluded. This proved that public debt has little effect on economic growth.

Nduka and Nwankwo (2023) examined how government spending affects Nigerian SMEs. Descriptive statistics, Augmented Dickey-Fuller and Philip Perron unit root tests, Granger causality tests, and ordinary least squares were used to analyse the data. The study found that capital expenditure on roads, agriculture, education, and recurring expenditure boosts GDP, but government borrowing hurts Nigerian small and medium-sized firms. The study found that government spending has benefited Nigerian medium-sized firms and boosted economic growth over the study period.

Ajayi and Nwogu (2023) examined government recurrent and capital expenditure, inflation, and economic development in Nigeria from 1985 to 2020. The study uses Central Bank of Nigeria Statistical Bulletin time series data. The study found that government capital expenditure and real GDP have an insignificant relationship, while government recurrent expenditure and inflation rate have an inverse and insignificant relationship. In the short run, all variables have a positive and insignificant effect on GDP.

Chandsna, Adamu, and Musa (2020) used 1970–2019 time series data to examine how Nigerian government expenditure (capital and recurrent) affected economic growth. The study used the Autoregressive Distributed Lag (ARDL) model. The study compensates for structural fractures in the unit root test and co-integration analysis for robustness. The study found that capital investment positively and significantly affects economic growth in the short and long term, but recurrent expenditure did not.

Unlike previous studies that focused on aggregate government spending and used the gross domestic product as an indicator of development, Onabote, Ohwofasa, and Ogunjumo (2023) used a robust human development index that captures the multifaceted state of economic development in terms of educational attainment, life expectancy, and per capita income. Interestingly, the Autoregressive Distributed Lag (ARDL) model showed no correlation between government sectoral spending and human development in Nigeria in the short or long term. However, ECMs imply that government sectoral investment may alter human development over time.

Akujuobi, Ndugbu, and Akujuobi (2021) investigated government expenditure's impact on Nigeria's economy from 1983 to 2012. The model uses government expenditures on health, education, defence, agriculture, and transportation

and communication as explanatory variables. Economic growth was measured by GDP. Secondary data from the Central Bank of Nigeria (CBN) statistical bulletin were used to link government expenditure with economic growth in Nigeria. The variables have no unit root according to the Augmented Dickey-Fuller (Stationarity) unit root test. The Johansen cointegration test shows a long-term link between GDP and government spending on health, education, defence, agriculture, and transportation and communication. The pairwise Granger causality test shows secondary causalities between government spending on health, education, agriculture, transport, and communication, and GDP, while GDP causes defence spending.

Osifo (2018) investigated the short- and long-term effects of sectoral allocations to long sectors on Nigeria's economic development. The study estimated variables using multivariate OLS analysis, cointegration analysis for long-run relationships, and an error correction model for short-run effects. Causality between variables was determined using the Granger causality test. The study found that budgetary allocations to education, health, and agriculture boost Nigerian economic growth, but defence allocations hurt it. We suggest increasing explicit and careful expenditure on key areas of the economy, as well as institutional mechanisms to monitor their resources, to channel cash for quick economic growth and development.

Fapetu and Obalade (2015) examined how sectoral allocation of Deposit Money Bank loans and advances affected Nigerian economic growth during intense regulation, deregulation, and guided deregulation. All three regimes undergo ordinary least squares regression analysis. Only government, personal, and professional credit boosts economic growth with intensive regulation. Bank credits rarely boost economic growth under deregulation. Guided deregulation looks to be working, as commercial bank loans and advances to production and other subsectors are positive and growth-determining. According to empirical findings, Nigerian deposit money banks should lend more to production and other subsectors like agriculture, manufacturing, mining and quarrying, real estate and construction, government, personal, and professional at reasonable interest rates. Finally, monetary authorities should maintain guided deregulation rather than extensive or comprehensive deregulation.

Chinedu, Daniel, and Ezekwe (2018) examined Nigerian economic growth and sectoral government spending. Using 1980–2017 time-series secondary data, ex post facto research examined dependence and explanatory variables. Data were examined for unit root, Johansen cointegration, error correction, and Durbin-Watson. The study found that sectoral government expenditure helped Nigeria's economy. Three of five sectoral government expenditure variables show long-term correlation with real GDP. This study confirmed Wagner's law that government expenditure boosts growth. Agriculture and defence spending affect Nigeria's GDP statistically, while transportation, communication, health, and education do not. The study recommended

that public and political officeholders must first have political will to create Nigeria through public finance accountability and transparency. Nigeria needs more anti-corruption agencies to pursue and execute public fund looters.

RESEARCH METHODOLOGY

The ex-post facto design, which is a component of quasi-experimental research design. This research design shows how the independent variables, respectively, affect the dependent variable. The ex-post facto research design choice is predicated on the fact that the researcher intends to use time series data for the study. Time series data is already an established dataset that cannot be altered. In carrying out this study, time series data on the relevant variables was derived from relevant statistical bodies and subjected to analysis, from which conclusions on the relationship being examined were made based on the estimation of variables that were used to capture the effect of sectoral allocations on economic wellbeing in Nigeria.

Model Specification

The model for the study adopted the modified version of Alice and Ofor's (2024) estimation of government sectoral expenditure and economic growth in Nigeria. The functional form of the model is expressed thus:

$$RGDP = F(LGSEH, LGSEE, LGSEA)$$

The explicit form of the regression designed for the study is expressed as thus:

$$RGDP_t = \beta_0 + \beta_1 LGSEH_t + \beta_2 LGSEE_t + \beta_3 LGSEA_t + \mu$$

Where:

RGDP = Real Gross Domestic Product

LGSEH = Log of Government Sectoral Expenditure on Health

LGSEE = Log of Government Sectoral Expenditure Education

LGSEA = Log of Government Sectoral Expenditure Agriculture

μ = Stochastic Term

$\beta_1 - \beta_3$ = Coefficient of Regression Equation

β_0 = Constant coefficient (intercept) of the model

A Priori' is given as: $\beta_0, \beta_1 > 0$

Decision Rule: accept H_0 if P-value $> 1\%$ at 5% significant level otherwise reject H_0 .

In this study, we retain real gross domestic product (RGDP) as the dependent variable, while the sectoral classification will follow the Central Bank of Nigeria's capital expenditure formations in the form of administrative services, economic services, social and community services and transfer. While the corruption perception index will serve as a control variable to close the gap created in the study. The functional form of the

model is expressed thus:

$$RGDP = F(GEAS, GES, GESCS, GETS, CPI)$$

The explicit form of the regression designed for the study is expressed as thus:

$$RGDP_t = \beta_0 + \beta_1 GEAS + \beta_2 GES_t + \beta_3 GESCS_t + \beta_4 GETS_t + \beta_5 CPI + \mu_t$$

Where:

RGDP= Real Gross Domestic Product

GEAS= Government Expenditure on Administrative Services

GES= Government Expenditure on Economic services

GESCS = Government Expenditure on social and community Services

GETS= Government Expenditure on Transfers

CPI= Corruption Perception Index

μ = Stochastic Term

$\beta_1 - \beta_5$ = Coefficient of Regression Equation

β_0 = Constant coefficient (intercept) of the model

A Priori' is given as: $\beta_0, \beta_1 > 0$

Decision Rule: accept H_0 if P-value $> 1\%-5\%$ significant level otherwise reject H_0

Estimation Techniques

The empirical analysis will follow the three-stage procedures used in econometric analysis. Firstly, the stationarity condition of the series will be ascertained with the unit root process (ADF). Secondly, the model will be estimated on the basis of the unit root recommendation, and thirdly, we will perform a post-estimation test to ensure that the model is free from the problem of serial correlation and heteroscedasticity.

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS**Table 4.1.1: Descriptive Statistics**

	RGDP	GEAS	GES	GESCS	GETS	CPI
Mean	34391369	178.3250	319.7100	85.81571	119.4678	21.34651
Median	25267542	73.57740	215.3334	32.46730	43.58760	24.00000
Maximum	69799942	1130.643	1960.733	540.0636	854.7670	28.00000
Minimum	13779255	0.262700	0.656300	0.237600	0.000000	6.900000
Std. Dev.	18853723	242.0298	409.6302	115.5787	182.0690	5.881057
Skewness	0.628614	2.041234	2.115769	2.001394	2.287852	-0.772705
Kurtosis	1.970319	7.537892	8.019549	7.428082	8.374952	2.384152
Jarque-Bera	4.731549	66.75573	77.22402	63.83748	89.27369	4.958548
Probability	0.093877	0.000000	0.000000	0.000000	0.000000	0.083804
Sum	1.48E+09	7667.974	13747.53	3690.076	5137.115	917.9000
Sum Sq. Dev.	1.49E+16	2460294.	7047471.	561054.1	1392263.	1452.647
Observations	43	43	43	43	43	43

Table 4.1.1 presents the descriptive statistics for the study on sectoral allocation and economic well-being in Nigeria, covering 43 observations.

For real gross domestic product (RGDP), the mean value is 34,391,369, while the median is 25,267,542. The wide disparity between the mean and median suggests that RGDP distribution is influenced by extreme values. The standard deviation of 18,853,723 indicates very high variability around the mean. A skewness of 0.628614 shows a positive skew, with the distribution tailing to the right. The kurtosis value of 1.970319 is less than 3, implying a platykurtic distribution that is flatter than the normal distribution. The Jarque-Bera probability of 0.093877 indicates that RGDP does not deviate significantly from normality at the 5% significance level.

For government expenditure on administrative services (GEAS), the mean is 178.3250, while the median is 73.57740. Since the mean is greater than the median, the distribution is right-skewed. The standard deviation of 242.0298 shows high variability. The skewness value of 2.041234 confirms strong positive skewness, while the kurtosis value of 7.537892 (greater than 3) indicates a leptokurtic distribution, suggesting a highly peaked pattern. The Jarque-Bera probability of 0.000000 reveals significant deviation from normality.

For government expenditure on economic services (GES), the mean is 319.7100 with a median of 215.3334. The maximum observed value is 1960.733, while the minimum is 0.656300, reflecting a wide spread. The standard deviation of 409.6302 further shows very high variability. The skewness value of 2.115769 indicates positive

skewness, while the kurtosis value of 8.019549 signifies a leptokurtic distribution. The Jarque-Bera probability of 0.000000 confirms that the distribution significantly deviates from normality.

For government expenditure on social and community services (GESCS), the mean is 85.81571, while the median is 32.46730, again reflecting right-skewness. The standard deviation of 115.5787 shows high variability. A skewness of 2.001394 indicates strong positive skewness, while the kurtosis value of 7.428082 points to a leptokurtic distribution. The Jarque-Bera probability of 0.000000 suggests a significant deviation from normality.

For government expenditure on transfer services (GETS), the mean is 119.4678 and the median is 43.58760. Since the median is less than the mean, the distribution is positively skewed. The standard deviation of 182.0690 reveals high variability. The skewness value of 2.287852 reflects positive skewness, while the kurtosis of 8.374952 confirms a leptokurtic distribution. The Jarque-Bera probability of 0.000000 indicates significant deviation from normality.

Finally, for the corruption perception index (CPI), the mean is 21.34651, while the median is 24.00000. The standard deviation of 5.881057 reflects relatively low variability. The skewness value of -0.772705 indicates negative skewness, while the kurtosis of 2.384152 (less than 3) points to a platykurtic distribution, meaning it is flatter than the normal distribution. The Jarque-Bera probability of 0.083804 implies that CPI does not significantly deviate from normality at the 5% level.

Empirical Analysis

Table 4.2.1: ADF Stationarity Test of the Model:

Variables	Level		1 st Difference		Order
	T-Stat.	5% Critical Value	T-Stat.	5% Critical Value	
CPI	-2.648302	-2.933158	-8.452345	-2.935001	I (1)
GEAS	3.363649	-2.948404	-4.011598	-2.948404	I (1)
GES	2.875546	-2.933158	-5.623639	-3.523623	I (1)
RGDP	-1.643506	-2.933158	-8.571463	-2.935001	I (1)
GESCS	4.903591	-3.520787	-	-	I (0)
GETS	3.087570	-2.935001	-6.935140	-2.935001	I (1)

Table 4.2.1 illustrates the summary of the stationarity test conducted with a unit root approach proposed by Dickey and Fuller in 1979. The summary result of the stationarity test reveals that all the time series data used for the study became stationary after they were subjected to first differences, except government expenditure on social and corporate services (GESCS). As such, we can conclude that all of the time series data were integrated at the first order, or order one (1); thus, we conclude to use the autoregressive distributed lag (ARDL) modelling approach.

Table 4.2.2: ARDL Bounds Test of the Model

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	4.332110	5

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

From the bounds cointegration test above, the f-statistical value of 4.332110 is greater than the upper bound of the critical value of 3.79 at 5 percent. This suggests that there is evidence to reject the null hypotheses of no long-run relationship and accept the alternative hypotheses of the existence of a long-run relationship between the variables being tested. Since there is a long-run association, we then proceed to ascertain their long-run and error-correction regressions.

Table 4.2.3: Long Run result

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(GEAS)	0.165575	0.074000	2.237501	0.0331
LOG(GES)	-0.032217	0.134326	-0.239844	0.8121
LOG(GESCS)	-0.172085	0.076318	-2.254852	0.0319
GETS	0.001852	0.000726	-2.551063	0.0163
CPI	0.021893	0.014349	1.525778	0.1379
C	16.262913	0.367539	44.248147	0.0000

Table 4.2.3 presents the long-run estimation results of sectoral allocation and economic well-being in Nigeria over the study period. The findings indicate that government expenditure on administrative services (GEAS) exerted a positive effect on economic well-being in the long run. Specifically, a 1% increase in administrative spending is associated with a 16% rise in economic well-being, *ceteris paribus*. This outcome aligns with a priori expectations. Efficient public administration minimises corruption, reduces bureaucratic delays, and curtails leakages. Strengthened institutions enhance the rule of law, contract enforcement, and property rights, thereby fostering investment, entrepreneurship, and innovation. Over time, these dynamics create a more stable business environment that drives productivity, income growth, and long-run improvements in welfare.

In contrast, government expenditure on economic services (GES) showed a negative but statistically insignificant impact on economic well-being in the long run. This suggests that spending in this sector has not been sufficient or effectively structured to influence the welfare of Nigerians during the study period.

The results further reveal that government expenditure on social and community services (GESCS) had an inverse relationship with economic well-being (RGDP) in the long run and was statistically significant at the 5% level. Specifically, a 1% increase in social and community spending corresponded to a 17% decline in economic well-being, other things being equal. This finding contradicts theoretical expectations, as investments in housing, sanitation, clean water, and recreational facilities are generally expected to enhance health outcomes, reduce disease burdens, and improve labour productivity. A plausible explanation for this negative outcome lies in administrative inefficiencies. When social and community expenditures are poorly targeted,

mismanaged, or captured by elites, they fail to deliver intended benefits and may instead become a fiscal burden. Such inefficiencies can crowd out more productive investments in infrastructure, education, and healthcare, ultimately undermining long-run economic well-being.

The long-run estimates also show that government expenditure on transfer services (GETS) had a significant positive effect on economic well-being. This implies that allocations for pensions and allowances for the unemployed, the disabled, and other vulnerable groups improved household welfare in the long run, consistent with a priori expectations. Transfer payments directly raise the disposable income of low-income households, the elderly, and the unemployed. With increased purchasing power, these groups spend more on essential needs such as food, healthcare, housing, and education, thereby improving living standards and reducing poverty over time. The corruption perception index (CPI) appeared with a positive sign in the long-run estimates but was statistically insignificant at the 5% level. This suggests that variations in corruption perception during the study period were insufficient to produce tangible improvements in economic well-being in Nigeria.

Table 4.2.4: Short run result

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(GEAS)	0.165575	0.074000	2.237501	0.0331
DLOG(GEAS(-1))	0.031833	0.080451	0.395677	0.6952
DLOG(GEAS(-2))	-0.165575	0.074000	-2.237501	0.0331
DLOG(GES)	-0.015880	0.066479	-0.238868	0.8129
DLOG(GESCS)	0.507105	0.132786	3.818976	0.0007
D(GETS)	0.001019	0.000406	2.512642	0.0178
D(CPI)	0.010791	0.007702	1.401047	0.1718
CointEq(-1)	-0.492895	0.132786	-3.711966	0.0009
R-squared	0.901610	Mean dependent var	17.25971	
Adjusted R-squared	0.867683	S.D. dependent var	0.530819	
S.E. of regression	0.193087	Akaike info criterion	-0.222931	
Sum squared resid	1.081200	Schwarz criterion	0.241511	
Log likelihood	15.45862	Hannan-Quinn criter.	-0.055003	
F-statistic	26.57466	Durbin-Watson stat	2.272517	
Prob(F-statistic)	0.000000			

Evidence from the short-run statistical results indicates that the coefficient of determination (R^2), which measures the goodness of fit of the regression model, is 0.901610, while the adjusted R^2 is 0.867683. This implies that approximately 87% of the variation in the dependent variable (real gross domestic product (RGDP)) is explained by the independent variables in the model, while the remaining 13% is captured by the error term. The Durbin-Watson statistic of 2.272517 suggests the absence of first-order autocorrelation in the residuals. Furthermore, the error correction term carries the expected negative sign and is statistically significant at the 5% level, indicating that past disequilibrium is corrected towards long-run equilibrium at an adjustment speed of 49% per annum.

The short-run estimates further reveal that government expenditure on administrative services (GEAS) in the current period has a positive and statistically significant effect on economic well-being at the 5% significance level. This suggests that increases in administrative spending significantly improve household welfare in the short run. Put differently, as the government continues to allocate funds to administrative services, the well-being of citizens improves correspondingly. However, the two-year lagged coefficient of GEAS appears with a negative sign and is statistically significant at the 5% threshold. This implies that a 1% increase in GEAS two years earlier is associated with a 0.16% decline in current RGDP growth, *ceteris paribus*. From a Keynesian perspective, administrative expenditure injects funds into the economy through salaries, wages, and operational costs of government institutions. These expenditures quickly translate into household consumption, raising aggregate demand and, consequently, short-run economic well-being.

With respect to other components, government expenditure on economic services (GES) exhibited a negative effect on economic well-being in the short run, though the effect was statistically insignificant at the 5% level. In contrast, government expenditure on social and community services (GESCS) showed a positive and statistically significant relationship with economic well-being in the short run. Specifically, a 1% rise in spending on social and community services corresponds to an estimated 0.50% increase in household well-being. This outcome reflects the immediate benefits of government investments in health, education, housing, social protection, and community development projects, which directly improve the quality of life for citizens in the short run.

The results also indicate that government expenditure on transfers (GETS) had a positive and statistically significant impact on economic well-being in the short run. Transfer payments, including pensions, unemployment benefits, subsidies, and social welfare programmes, directly increase household income, particularly for low- and middle-income groups with high marginal propensities to consume. This boosts purchasing power, enhances access to basic needs such as food, shelter, and healthcare, and improves overall living standards.

Finally, the corruption perception index (CPI) displayed a positive but statistically insignificant relationship with economic well-being in the short run. This suggests that marginal improvements in corruption perception did not immediately translate into institutional reforms or tangible welfare gains for Nigerian households within the study period.

Post Estimation Test

i. Serial Correlation Test:

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.588823	Prob. F(2,27)	0.5619
Obs*R-squared	1.671746	Prob. Chi-Square(2)	0.4335

This study employed the Breusch-Godfrey Serial Correlation LM Test in testing the serial independence of the error term. Given the fact that the F-statistic value of 0.588823 and the observed R-squared value of 1.671746 are statistically insignificant with probability values of 0.5619 and 0.4335, we assert that there is no evidence of serial correlation in the residual of the study, and we conclude that the estimated equation is blue.

ii. Heteroskedasticity Test:

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	12.73645	Prob. F(10,29)	0.0968
Obs*R-squared	19.40211	Prob. Chi-Square(10)	0.0654
Scaled explained SS	49.43930	Prob. Chi-Square(10)	0.0938

This study employed the Breusch-Pagan-Godfrey heteroskedasticity test in testing the equality of the variance of the residual. This test assesses whether there is evidence of unequal variance of the residuals across different levels of the independent variables in regression analysis. Given the fact that the F statistic value of 12.73645, the Obs*R-squared value of 19.40211, and the scaled explained SS value of 49.43930 and their probability values of 0.0968, 0.0654, and 0.0938 are greater than the 0.05 threshold, we conclude that there is evidence of homoskedasticity in the residual, and we conclude that the estimated equation is blue.

Discussion of Findings

The estimated results indicate that government expenditure on administrative services (GEAS) had a significant positive impact on economic well-being in Nigeria in both the short and long run, *ceteris paribus*. This suggests that spending on administrative purposes enhances household welfare in the country. In practice, administrative expenditure strengthens institutional capacity in areas such as record keeping, planning, monitoring, and evaluation. These improvements facilitate easier access to government services (e.g., licences, permits, legal aid, and social protection), thereby lowering transaction costs for households and firms. As service delivery improves, public confidence in government increases, fostering social stability and promoting greater economic participation. Conversely, government expenditure on economic services (GES) was found to exert an insignificant negative effect on economic well-being in both the short and long run. This implies that changes in government spending on economic services lacked sufficient influence to alter economic well-being within the study period.

In contrast, government expenditure on social and community services (GESCS) demonstrated a mixed effect. In the long run, it negatively influenced economic well-being and was statistically significant at the 5% level, while in the short run it exerted a positive and statistically significant effect. This outcome suggests that variations in social and community spending had both beneficial and adverse implications for economic well-being in Nigeria. In real terms, targeted social spending on initiatives such as rural development, affordable housing, and water supply projects helps uplift marginalised groups, reduce inequality, and broaden economic participation. Community centres, recreational facilities, and cultural programmes indirectly support education, skills development, and youth empowerment, ultimately contributing to human capital development—a crucial driver of long-term economic well-being.

Furthermore, the results reveal that government expenditure on transfer services (GETS) had a positive and statistically significant impact on economic well-being in both the short and long run, in line with *a priori* expectations. This indicates that allocations to subsidies, unemployment allowances, and related transfers significantly enhanced well-being during the study period. Such transfers often target vulnerable groups (e.g., the unemployed, elderly, or low-income households), thereby reducing poverty, mitigating inequality, and raising overall living standards.

Finally, the corruption perception index (CPI) was found to have a positive but statistically insignificant effect on economic well-being in both the short and long run, suggesting that changes in corruption perception did not substantially influence Nigerians' welfare during the study period. The findings establish that sectoral allocation had a significant overall relationship with economic well-being in Nigeria throughout the study period. The findings of the study are consistent with the views of

scholars like Akidi, Abdullahi, and Okeke (2024); Alice and Ofor (2024); and Nduka and Nwankwo (2023), who contended that a positive relationship between government allocations and economic growth existed, contrary to the insignificant disposition of Ajayi and Nwogu (2023).

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

This study examines the relationship between sectoral allocation of government expenditure and economic wellbeing in Nigeria. Economic wellbeing is viewed in terms of improvements in living standards, poverty reduction, access to basic services, and sustainable growth. The argument is that the way government resources are allocated across critical sectors has a significant bearing on the welfare of the people. The study highlights that effective sectoral allocation, especially when tilted toward welfare-enhancing and growth-inducing sectors, can lead to substantial improvements in the economic wellbeing of Nigerians. The findings emphasise the need for a balanced expenditure framework that combines short-term poverty alleviation with long-term structural transformation of the economy. The summary of the results in this study includes:

- Government expenditure on administrative services significantly increased economic wellbeing in the long run and short run in Nigeria, respectively.
- Government expenditure on economic services had an insignificant negative relationship with economic wellbeing in the long run and short run, respectively.
- Government expenditure on social and community services significantly decreased economic wellbeing in the long run while in the short run, it significantly increased economic wellbeing.
- Government spending on transfer services exerted a significant positive impact on economic wellbeing in the short run and long run, respectively.
- Corruption perception index had an insignificant positive association with economic wellbeing in the short run and long run, respectively.

Conclusion

This study has shown that government expenditure and its allocation across sectors plays a decisive role in shaping the economic wellbeing of Nigerians. Evidence suggests that when public resources are directed toward welfare-enhancing sectors, the impact on economic wellbeing is significant. However, the findings also highlight that the challenge is not merely the volume of government spending but its effectiveness, transparency, and alignment with the needs of the population. Misallocation, leakages, and corruption weaken the ability of sectoral allocations to translate into improved welfare outcomes. The study concludes that sectoral allocation had a significant positive effect on the economic wellbeing of the people in Nigeria over the study period.

Recommendations for Policy:

This study therefore recommends the following:

- The government should enhance transparency and accountability by establishing stronger monitoring and evaluation frameworks to ensure that allocated funds reach their intended sectors and produce measurable welfare outcomes.
- Reforms aimed at improving public financial management, reducing waste, and enhancing the efficiency of service delivery will maximise the impact of government spending.
- Budgeting and expenditure decisions should be based on empirical research, welfare data, and performance indicators rather than political considerations.
- States and local governments should tailor allocations to their unique socio-economic needs, ensuring grassroots participation in decision-making for more inclusive development.

Suggestions for Further Research

Future studies may consider:

- investigating how sectoral spending affects households at different income levels, regions, or rural–urban divides, thereby revealing distributional impacts of government spending.
- comparing Nigeria with other developing economies to evaluate whether patterns in sectoral allocation and their effects on wellbeing are consistent or country-specific.

Additions to Knowledge

Unlike many previous studies that examined government expenditure in aggregate terms, this research specifically analysed the impact of sectoral allocation on economic wellbeing in Nigeria. This provides a more nuanced understanding of how different sectors contribute to welfare outcomes.

The study highlighted the significant role of transfer payments and social protection spending in enhancing household welfare and reducing poverty, thereby extending the literature on welfare economics in Nigeria.

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