

THE IMPACT OF PUBLIC INVESTMENT ON THE GROWTH OF THE REAL SECTOR IN NIGERIA

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Abstract

This study looked at how public investment affected Nigeria's real sector growth between 1990 and 2022. Data for the study were obtained from World Bank, World Development Indicators (WDI), and the Central Bank of Nigeria (CBN) Statistical Bulletin 2022. Using the Augmented DickeyFuller (ADF) method, a unit root test was performed on the developed model. The variables were integrated in mixed order $I(0)$ and $I(1)$, according to the results of the Augmented Dickey-Fuller unit root test. The study utilized the Auto-regressive Distributive Lag (ARDL) model to ascertain if there is a long-run relationship between public investment and real sector growth using the bound test. The Auto-regressive Distributive Lag (ARDL) bound test result established a long-run relationship between public investment and real sector growth, The Result from Auto-regressive Distributive Lag (ARDL) reported that public expenditure on economic service (PXES) is positive and statistically significant with growth rate (GRT) in the long-run as well as the current year period of the short-run. However, governmental spending on administrative services (PXAS), and government expenditure on social service (PXSS) are insignificant with growth rate (GRT) both in the long-run and short-run. It was recommended amongst others that the federal government should increase its expenditure on administrative services which will lead to increased funding of defense and internal security. An increase in administrative expenditure will ensure security in the country thereby allowing investors in the real sector (agriculture, industry, and service) to carry out productive activities.

Keywords: Public Investment, Public Expenditure, Real Sector Growth, Nigeria

Introduction

The real sector encompasses the segment of the economy that generates tangible products and services. This particular sector is often referred to as the “real” part of the economy due to its capacity to produce goods and services that can be physically experienced, utilized, and traded. It encompasses various industries, including agriculture, manufacturing, construction, and mining. The real sector is a major contributor to long-term economic growth and job creation, which makes it an important part of the economy as a whole. Many nations heavily rely on their real sector to manufacture goods and provide services that can be marked on a global scale. According to ThankGod and Igbinovia (2022), the real sector holds significant potential for driving positive outcomes in a nation’s economy. A robust real sector can enhance productivity, elevate living standards, and improve the overall quality of life for the populace. Furthermore, a thriving real sector can play a pivotal role in mitigating poverty and reducing income disparities by generating lucrative employment opportunities and ensuring a stable income stream for families and communities. Ultimately, the real sector is instrumental in fostering economic growth through amplified productivity, increased employment rates, and heightened consumer expenditure.

However, the efficiency of the real sector largely relies on public investment primarily through the provision of infrastructures such as roads, bridges, healthcare, education, and more. Within the context of this study, "public investment" refers to state investments in particular assets, whether undertaken by corporations, municipal or federal. It can also refer to consumer goods that reduce an economy’s savings and capital investment. An economy's ability to grow depends heavily on public investment and its various sectors. For example, it leads to increased production, which subsequently boosts a country’s output and employment levels. Ultimately, this contributes to the overall economic growth of a nation. According to Keynes (1963), it has been affirmed that public investment serves as a tool for the government to stimulate production at a particular level. By increasing output, public investment contributes to the growth of aggregate demand, subsequently leading to an increase in employment. Additionally, public

investment has a multiplier effect on output, further bolstering aggregate demand (Blinder, 2008).

According to Sandler and Hartley (1995), according to the Neo-Classical perspective, resources are transferred from the private to the public sectors. This shift hurts economic growth and leads to a crowding-out effect in both the private and public sectors, hampering the growth of the economy. From the perspective of the Neo-Classicals, when a government tool is employed through public investment, it does not create a multiplier effect to enhance economic growth. Instead, it has a negative multiplier effect. This means that an increase in military spending does not result in an increase in output and reduces overall productivity (Smalldone, 2006; Musayev, 2013).

The primary goal of the paper is to investigate how public investment impacted Nigeria's real sector growth between 1990 and 2022.

Statement of the Problem

Over the years scholars are divided on the efficacy of government expenditure in accelerating and deepening economic growth and development of a nation's economy globally. While some believe that public investment is an antidote to the growth and development of a nation differs in that public investment lacks any positive impact on the economic growth and development of any country. Arising from the previous studies conducted by scholars in the past have reported worrying and contradicting results as regards the above-stated argument. For instance, studies conducted by Enya and Ezeali (2021); Chandana et al (2021); Aluthge et al (2021); Bashir et al (2020); Rabnawaz and Jafar (2015); Uddin and Aziz (2014) suggest that public investment had positive and significant impact on the improvement and growth of the economy. Yet other studies such as; Makuyana and Odhiambo (2018); and Maku (2014) in their study revealed public investment does dose have any effect on economic growth. Rather public investment is found to crowd out private investment.

However, according to Romer (1999), when a government increases public investment, it leads to a reduction in the Gross Domestic Product (GDP). As such, spending on other

sectors of the economy, particularly the education sector, is negatively affected. Unfortunately, despite the contributions made by public investment in areas such as road and bridge construction, healthcare, and education, the available statistical data from the past five years shows that the real sector has underperformed expectations. For example, in 2018 world Bank World Development Indicator (WDI) shows that the growth rate was 1.9%, which marginally increased to 2.2% in 2019 but then immediately declined to -1.8% in 2020. However, the fourth quarter growth indicates a steady recovery accounting for an annual growth of 3.4% in 2021` but then declining again to 3.3%. Based on the problem enunciated above. This paper intends to address the following research questions: To what extent has public expenditure on administrative services improved growth in the real sector? Has public expenditure on economic services promoted growth in the real sector? Has public expenditure on social services enhanced growth in the real sector? Consequently, this study's main goal is to investigate how public investment affects Nigeria's real sector growth.

In line with the research questions above the specific objectives of this study are to:

1. Assess how public spending affects administrative services and real sector growth.
2. Determine how public spending affects economic services and real sector growth.
3. Ascertain how public spending affects social services and enhanced real sector growth.

Review of Related Empirical kinds of literature

Several empirical studies have been conducted in the area of public investment about real sector growth. However, the findings of such research were mixed and inconsistent in some cases. The impact of Public Investment in Infrastructure and the Economic Growth of Nigeria was examined by Enya and Ezeali (2021). They used Econometric analysis with E-View in their investigation. The study's stationarity test revealed that all of the variables were stationary at the first difference, or 1(1). As a result, the researchers went

on to look for evidence of co-integration between the variables; the co-integration test result indicates that there is evidence of two co-integration equations, indicating a long-term relationship. The ECM test has a well-adjusted coefficient of determination of 92.78%, a well-signed value of -0.019307, and a joint statistical probability of 0.00000. According to the study, public investments in power, technology, and educational infrastructure all have a positive relationship with the economy, but public investments in transportation have a negative relationship. The research went on to say that, particularly in this democratic period, public investment is crucial in boosting the Nigerian economy. The study conducted by Chandana et al. (2021) examined the relationship between Nigerian government spending (disaggregated into capital and recurring) and economic development using time series data covering the years 1970–2019. In this paper, the Autoregressive Distributed Lag (ARDL) model is utilized. The study takes into account structural breaks in the co-integration analysis and unit root test to guarantee the robustness of the results. The study's main conclusions are that capital spending significantly and favorably affects economic growth over the long and short terms, but recurring spending has no discernible effect on growth over any time frame. According to the report, the government should spend a larger percentage of capital funds, particularly on important initiatives that directly affect citizens' lives.

Similarly, Aluthge et al (2021) examine the impact of Nigerian government expenditure (disaggregated into capital and recurrent) on economic development using time series data for the period 1970-2019. In their paper, the Autoregressive Distributed Lag (ARDL) model was utilized. The study's main findings are that capital spending significantly and favorably affects economic growth over the long and short terms, but recurring spending has no discernible effect on growth over any time frame. The study makes two recommendations: first, the government should improve the spending patterns of recurrent expenditure by carefully reallocating resources toward productive activities that would enhance human development in the nation; second, the government should

increase the share of capital expenditure, especially on meaningful projects that directly impact the welfare of the citizens.

Additionally, Bashir et al (2020) employ time series data from 1970 to 2017 to attempt to explain how government spending affects economic growth in Nigeria. Secondary data were obtained from the World Bank and the Central Bank of Nigeria. The Autoregressive distributed lag model was used in the study to apply a modified version of the endogenous growth model. Six variables were used to fit the proposed model: trade openness, inflation, labor force participation, capital expenditure, and recurrent spending. According to empirical evidence, two variables—capital and recurrent—are statistically significant and, as a result, play a key role in elucidating how government spending affects economic growth. The Granger causality test supports Keynesian theory by showing a unidirectional causal relationship between government spending and economic growth. Consistent with the aforementioned, the research proposes several recommendations, including that the government should intensify its efforts to ensure that resources are distributed and managed appropriately to successful industries to foster economic growth.

Muhammad et al. (2019). through a logic model framework, assess the role of government in education. The logic model offers a rational framework for evaluating the role of government as an assessment tool. The instruments demonstrated a rationale for the application of inputs, such as government spending on health, to outcomes, such as a health index. This study employs quantitative techniques and data from 10 districts/cities in NTB between 2010 and 2016 in the form of imbalanced panels. The health index is the dependent variable, household consumption expenditure is the control variable, and government health spending is the independent variable. The study's findings indicate that government spending on education has no bearing on the education index; panel regression analysis and random effects estimate were used in this investigation.

Makuyana and Odhiambo (2018) studied the crowding effect between the two investment components in South Africa as well as the effects of public and private

investment on economic growth. Using yearly information from 1970 to 2017, The study uses a recently developed approach to cointegration called Autoregressive Distributed Lag (ARDL)--bounds testing. According to the study, state spending hinders economic growth over the long term, but private investment benefits it both now and in the future. Furthermore, over time, it is discovered that while its infrastructure component attracts private investment, gross public investment tends to drive out private investment. The study's findings also show that, in the near term, governmental spending—both gross and non-infrastructure—disperses private investment. Overall, the study concludes that public investment is not as significant as private investment in the process of South Africa's economic growth and that, over time, public infrastructure investment plays a critical role in attracting private investment.

Rabnawaz, and Jafar (2015) examine how public investment and gross domestic product are related. The period for the empirical investigation's time series data is 1980–2009. The study's findings demonstrated a favorable correlation between GDP and public investment in the near term. Public investment increases quickly as a result of GDP growth. To verify the causal relationship, the Granger causality test was used. The test's results indicated that there is a bi-causal relationship between public investment and GDP. Additionally, there is a causal relationship between public investment and GDP as well as between GDP and public investment.

Uddin and Aziz (2014) examine how government investment affects Bangladesh's economy's growth process. Parameters for the relevant datasets were derived for the period 1973-2011 because official statistics were not updated. Multiple econometric techniques were applied for the estimate. The findings demonstrate the beneficial impact of public investment on Bangladesh's GDP. Consequently, increases in public investment ought to enhance economic growth and, consequently, future economic development. According to the findings, Bangladesh's high level of public investment should be

maintained while institutional environments are improved for the country's economic progress.

Maku (2014) examines the relationship between government expenditure and economic growth in Nigeria for the period of 1977–2006, as determined using the Ram (1986) model analysis of time series data. Ram (1986) developed three variations of his model: Developed-Regressing Real GDP on Absolute Levels of Private Investment, Human Capital Investment, Government Investment, and Consumption Spending; Regressing it as a Share of Real Output; and Regressing the Real Output Growth Rate to the Explanatory Variable as a Share of Real GDP. Economic development during the examined time was not significantly impacted by either public or private investments, according to empirical findings. The results indicate that the variables are cointegrated at the 5% and 10% critical levels, which may be useful in establishing a long-term link between public spending and economic growth. The conclusion demonstrates that for any distortion in the short run, the error correction model, which was used to identify the short-run behavior of the variables

Theoretical Framework

Keynesian Consumption Theory

The Keynesian consumption theory was developed by Keynes (1936). According to the theory, disposable income determines consumption, and as income increases, so does consumption. According to Keynes (1936), as demand rises, so does production, and as production rises, so does the amount of jobs created. Savings, which derive from money that is not spent, also play a major role in the expansion of an economy. To comprehend savings, capital stock, investments, employment, and income growth, consumption is crucial. The hypothesis states that consumption is reliant on current deposable income, which is current income less taxes. The amounts of government spending and the tax multiplier are thus determined by the marginal willingness to consume. This suggests that the amount we spend on consumption determines how much the GDP grows or shrinks in response to changes in government spending in the economy. The private investment

multiplier's value is also determined by this. Consider the way that changes in the amount that we spend on consumption affect the GDP, which is influenced by changes in private investment in the economy. This implies that the amount of money spent by the government, individuals, and households on security, health, education, infrastructure, food, clothes, leisure, and other services, among other things, will determine how much the country's citizens' standard of living will increase. The theory in question was chosen because it is predicated on the idea that government spending, both capital and ongoing, will have a positive effect on the development and growth of the real sector. The presumption is that the economy will grow and develop in proportion to government investment in the real sector, which includes industries like manufacturing, mining, and agriculture.

Public Expenditure Theory

Adolph Wagner's (1835–1917) public expenditure theory serves as the foundation for the theoretical framework of this investigation. According to the notion, the public sector's proportion of GDP rises over time as the economy develops. Put otherwise, public spending consistently increases as income growth does in every given nation. Thus, the theory is based on four points of view: that public expenditure increases lead to urbanization and externalities; that growth results in increased complexity due to new and ongoing increases in public expenditure; that the goods provided by the public sector should have a high degree of income elasticity of demand; and that growth causes demand to rise and thus increases public expenditure. This suggests that the public sector's function in society is to guarantee the efficient operation of economic activity, which is consistent with the goal of this research. Also, It follows that government investment in the real sector will promote economic development and growth. A robust economy depends on the role that public investment plays in the expansion of the real sector.

In practical terms, this theory predicts that expenditure growth will keep pace with economic growth, which will lead to economic progress. In actuality, though, the opposite has proven true, especially in emerging nations like Nigeria.

Methodology

The study utilized secondary time series data from the Central Bank of Nigeria statistical bulletin, World Bank, and World Development Indicators. Public expenditure on administrative service (PXAS), Public expenditure on economic service (PXES), and Public expenditure on social service (PXSS) are used to proxy public investment while GDP growth rate is used to capture the response variable “real sector growth” spanning from 1990 to 2022.

Model Specification

The model used in this study was modified from a prior study by Rabnawaz and Jafar (2015) to meet the objectives of this research discourse. As a result, the model's functional form is described as follows: GDP is equal to $f(R, IRR,)$

Where;

R stands for revenue, GDP for gross domestic product, and RIR for real interest rate. The model was modified by introducing Public expenditure on administrative service (PXAS) Public expenditure on Economic service (PXES), and Public expenditure on social service (PXSS) as fresh variables.

The model's specifications are as follows::

$$GRT = f(PXAS, PXES, PXSS) \quad 1$$

The mathematical model could be symbolically expressed as;

$$GRT = \beta_0 + \beta_1 PXAS + \beta_2 PXES + \beta_3 PXSS \quad 2$$

Equation (3.2) above is transformed into an econometric model by incorporating the disturbance term (ϵ) as follows;

$$GRT = \beta_0 + \beta_1 PXAS + \beta_2 PXES + \beta_3 PXSS + e \quad 3$$

Where,

GRT = Growth Rate of GDP, PXAS = Public Expenditure on Administrative Service, PXES =Public Expenditure on Economic Service, PXSS = Public Expenditure on Social Service.

Technique for Data Analysis

Unit Root Test

To choose the best methodology and prevent false regression, the study used the Augmented Dickey-Fuller (ADF) unit root test to determine the order of integration of the variables under consideration.

Empirical Data Analysis

Table 1: Augmented Dickey-Fuller (ADF) Unit Root Test

| Variables | Levels | | First Difference | | Order of Integration | P-value |
|-----------|------------|-----------|------------------|-----------|----------------------|---------|
| | ADF | 5% | ADF | 5% | | |
| | Statistics | Critical | Statistics | Critical | | |
| | | Value | | Value | | |
| GRT | -3.685841 | -2.957110 | | | I(0) | 0.0092 |
| PXAS | -2.147521 | -2.957110 | -7.166979 | -2.960411 | I(1) | 0.0000 |
| PXES | -4.321917 | -2.963972 | | | I(0) | 0.0020 |
| PXSS | -1.156582 | -2.957110 | 4.048678 | -2.960411 | I(1) | 0.0000 |

Source: Extracts from E-view 10. * Level of significance at 5%

According to the results from Table 1 above, the variables included in the study were subjected to Augmented Dickey-Fuller (ADF) Tests to determine if they were stationary series or non-stationary series. According to the findings of the stationarity test, GRT and PXES were stationary at level I (0), while PXAS and PXSS were stationary at initial difference 1. Based on evaluations of the variables' stationarity in model one, the variables show mixed order of integration or stationarity of level and first differences.

Co-integration Outcome

Table 2: ARDL Bound Examination

| Test Statistics | Value | K |
|-----------------|-------|---|
|-----------------|-------|---|

| | | |
|--------------|----------|---|
| F-statistics | 5.681959 | 3 |
|--------------|----------|---|

| Significance | I (0) | I(1) |
|--------------|-------|------|
| 10% | 2.72 | 3.77 |
| 5% | 3.23 | 4.35 |
| 2.5% | 3.69 | 4.89 |
| 1% | 4.29 | 5.51 |

Source: Authors computation from E-view 10 Output

Table 2 displays the findings of the bound test, which involved comparing the critical bound values and the F-statistics. The value of the F-statistic is 5.681959. The result showed that the F-statistic is more than the critical values' upper and lower bounds, which are 4.35 and 3.23, respectively, at a significance level of 0.05. As a result, governmental investment and real sector growth in Nigeria are somewhat co-integrated. Consequently, the anticipated outcomes of the Auto-Regressive Distributive Lag (ARDL) in the long and short terms.

Table 3: Long-term ARDL Outcome (Dependent Variable = GRT)

| Variable | Coefficient | Std. Error | t-statistics | Prob |
|--|-------------|------------|--------------|--------|
| PXAS | -0.161386 | 0.274742 | -0.587410 | 0.5651 |
| PXES | 0.284649 | 0.104430 | 2.725729 | 0.0150 |
| PXSS | 0.839475 | 0.536443 | 1.564891 | 0.1372 |
| EC = GRT - (-0.1614*PXAS + 0.2846*PXES + 0.8395*PXSS) | | | | |

Source: Authors computation from E-view 10 Output

Table 3 As a stand-in for real sector growth, the Autoregressive Distributive Lag (ARDL) long-run result indicates a negative -0.161386 link between growth rate (GRT) and public expenditure on administrative services (PXAS). On average, a unit increase in public expenditure on administrative service (PXAS) will result in about 0.16% decline in

growth rate (GRT). However, the p-value of 0.5651 indicates that public expenditure on administrative service (PXAS) is statistically insignificant with growth rate (GRT)

Moreover, the coefficient of public expenditure on economic service (PXES) reported a positive +0.284649 relationship with growth rate (GRT). This indicates that the value of growth rate (GRT) will increase by 0.28% for every unit increase in the value of public expenditure on economic services (PXES). Furthermore, a significant correlation between growth rate (GRT) and public expenditure on economic services (PXES) is indicated by the probability value of 0.0150.

Likewise, a positive +0.839475 link between the value of public expenditure on social service (PXSS) and growth rate (GRT) was found. This suggests that the value of growth rate (GRT) will increase by almost 84% for every unit increase in the value of public expenditure on social services (PXSS). The value of public expenditure on social services (PXSS) does not significantly affect the growth rate (GRT), as indicated by the p-value of 0.1372.

Table 4: ARDL Short-run outcome (Dependent Variable =GRT)

| Variables | Coefficient | Std. Error | t-Statistics | Prob |
|--|-------------|------------|--------------|--------|
| C | -10.69801 | 2.604923 | -4.104080 | 0.0008 |
| D(PXAS) | -0.133756 | 0.094794 | 1.411019 | 0.1774 |
| D(PXAS(-1) | -0.001138 | 0.118053 | -0.009638 | 0.9924 |
| D(PXAS(-2) | -0.040444 | 0.097640 | -0.414217 | 0.6842 |
| D(PXES) | 0.188584 | 0.068785 | 2.741654 | 0.0145 |
| D(PXES(-1) | -0.050811 | 0.054833 | -0.926655 | 0.3679 |
| D(PXES(-2) | -0.028323 | 0.057739 | -0.490536 | 0.6304 |
| D(PXSS) | 0.014578 | 0.048991 | 0.297570 | 0.7699 |
| D(PXSS(-1) | -0.209629 | 0.194270 | -1.079058 | 0.2966 |
| D(PXSS(-2) | 0.054067 | 0.148889 | 0.368509 | 0.7173 |
| ECM(-1) | -0.716213 | 0.171260 | -4.182022 | 0.0007 |
| Adj R ² =0.465452, F-statistics = 8.525144 (0.008781), DW =2.002216 | | | | |

Source: Authors computation from E-view 10 Output

It is clear from Table 5 above that the Auto-regressive Distributive Lag (ARDL) model's outcome is significant and negative for the error correction term's coefficient. Stated otherwise, the relevance of the negative sign is justified. That is, any deviations from the long-run equilibrium will be effectively corrected by the ECM. When any previous deviation is rectified in the current period, the coefficient of the ECM at -0.716213 shows that the pace of adjustment to long-run equilibrium is 72%. This indicates that changes in PXAS, PXES, and PXSS have a gradual effect on the present value of GRT. The ARDL short-run results make it clear that the constant parameter (Bo) is positive at -10.69801. This indicates that the dependent variable, GRT, will increase by 10.7 units annually if all the independent variables remain constant. The values are -0.133756, -0.001138, -0.040444, and the coefficient of public expenditure on administrative service (PXAS). This indicates that in the current, prior, and second-year periods, PXAS and GRT have a negative relationship. This outcome deviates from the apriori prediction. The negative outcome indicates that the growth rate (GRT) will only be lowered by 0.13 percent for every unit increase in public spending on administrative services. The negative relationship between public expenditure on administrative service (PXAS) and growth rate (GRT) is statistically insignificant.

Moreover, the value of public expenditure on economic service (PXES) is positive +0.188584 in the current year period. This indicates that PXES and GRT have a favorable association. GRT will rise by 0.19 percent in the near term in response to a unit increase in PXES. This result agrees with apriori and is significant. Finally, the value of public expenditure on economic service (PXES) was reported to be positive +0.014578 and +0.054067 with growth rate (GRT) both in the current, and second-year periods. However, the positive relationship between PXSS and GRT is statistically insignificant.

Additional results about the dependent variable's 47% variance in the coefficient of modified R² indicated the presence of a relationship between the variables and validated the degree of the relationship. The model's overall relevance was also demonstrated by its associated probability value of 0.008781, which suggests that the model as a whole is

extremely significant. According to Durbin Watson of 2.002216, there is no autocorrection issue with the series. Overarching findings indicated that public investment had a major influence on real sector growth in Nigeria.

Test for Diagnosis

Table 6: Test Results for Homoscedasticity, Serial Correlation LM Test, and Ramsey Reset Test

| | F-Statistic | Prob. Value |
|---|--------------------|--------------------|
| Ramsey RESET Test | 4.927866 | 0.0823 |
| Breusch-Godfrey Serial Correlation LM Test | 0.302066 | 0.7440 |
| Breusch-Pagan-Godfrey Heteroskedasticity Test | 0.835283 | 0.6238 |

Source: Author's Computation using E-view 10

According to Table 6 above, the diagnostic test results show that the model is appropriately described based on the linearity test of the Ramsey reset test, which produced an f-statistic (4.927866) with a computed p-value of 0.0823, greater than the 5 percent (0.05) critical value. The investigation consequently disproved the null hypothesis. Serial Correlation Godfrey-Breusch LM The f-statistic is 0.302066 and the probability value of the Chi-Square test is 0.7440, according to the findings of the serial or autocorrelation test. Consequently, the analysis shows that the model has no serial correlation, with a probability value of around 74% (0.7440) exceeding the 5 percent (0.05) cutoff. The results of the Breusch-Pagan-Godfrey test for heteroscedasticity show that the probability value of the Chi-Square is 0.6238 and the f-statistic is 0.835283. The probability Chi-square value is greater than 5% ($P > 0.05$), indicating that the model does not exhibit heteroskedasticity. Since residuals have a constant variance, they are homoscedastic.

Normality Test

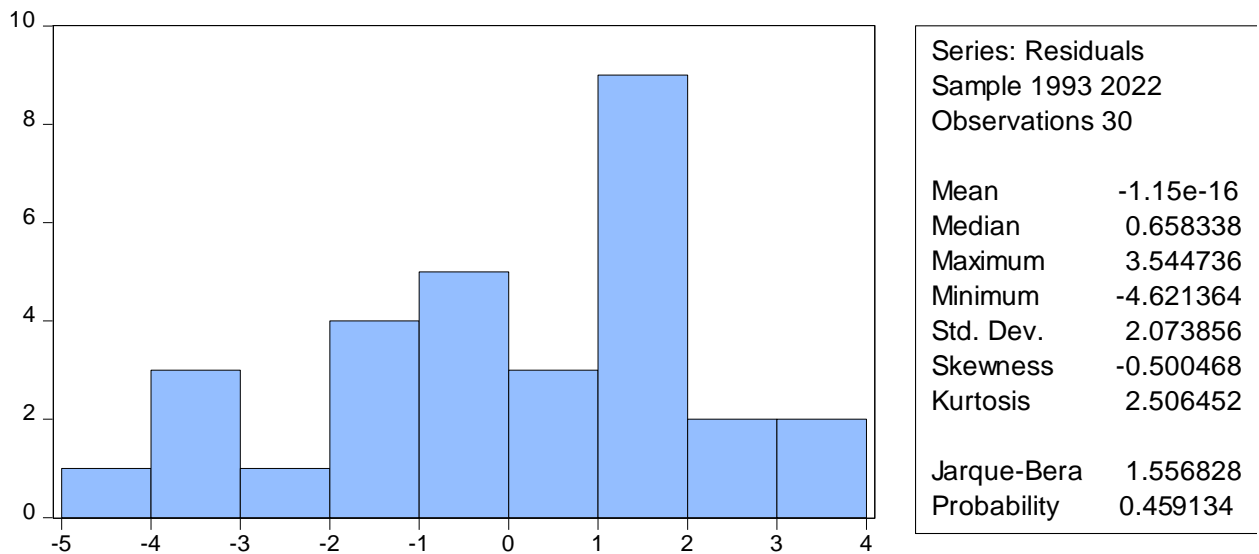


Figure 4.1, displays the normality test summary, showing that the residuals are normally distributed with a Jarque-Bara value of 1.556828 and a corresponding probability value of 0.459134 at the more than 0.05 level of significance.

Test of Stability

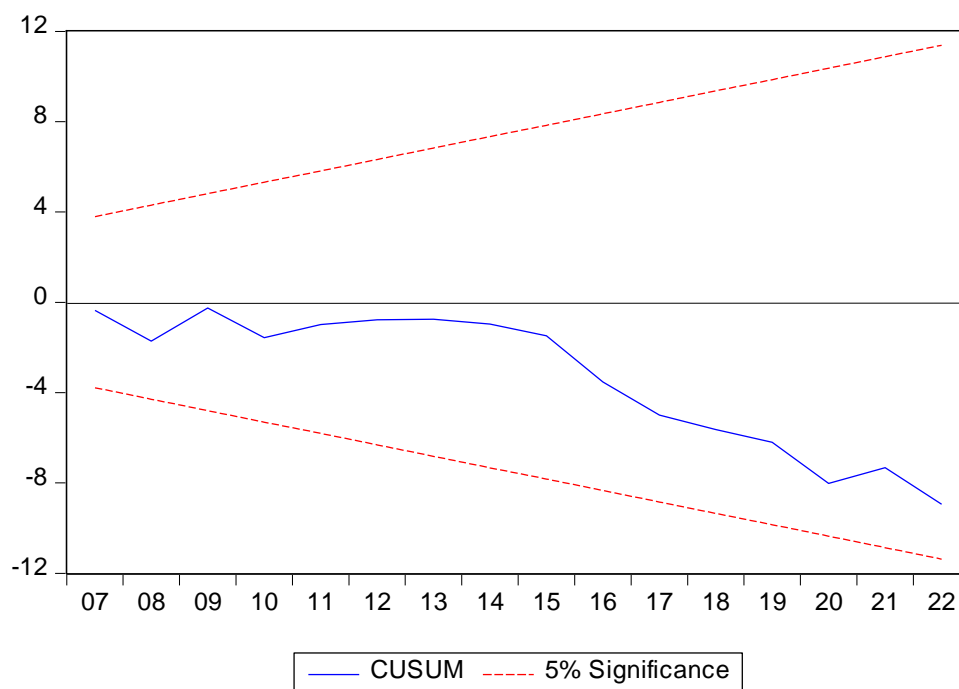


Figure 4.2, provides an overview of the model's stability. Because the blue line inside the graph lies between the two red lines, it is clear from the graph that the model is stable. This suggests that the significance threshold is less than 0.05 as well.

Conclusion

The impact of public investment on real sector growth in Nigeria from 1990 to 2022 was examined in this research topic. Public spending on social, economic, and administrative services was utilized to measure the independent variables, and growth rate was used as a stand-in for the dependent variable. Secondary data were taken from the Central Bank of Nigeria (CBN) Statistical Bulletin 2022 and the World Bank World Development Indicator. The study discovered that public spending on economic services, such as transportation, road and construction projects, and agriculture, supports the real sector of the economy. However, Public spending on social services and administrative services is proven to have little effect on the actual growth of the industry. As a result, this study concludes that real sector growth and public investment are significantly correlated.

Recommendations

These recommendations were made in light of the findings:

- i. The national government should allocate more expenditure on administrative services which will lead to increased funding of defense and internal security. An increase in administrative expenditure will ensure security in the country thereby allowing investors in the real sector (agriculture, industry, and service) to carry out productive activities.
- ii. Also, as a policy to rapidly grow the Nigerian economy, the government should increase the annual budget on health and education (social and community service). This will spur innovation, which will propel the real sector and expand the nation's economy. More so, to enable the real sectors to thrive and support the government in achieving its macroeconomic objectives, the federal government of Nigeria should make significant investments in the development of infrastructure.
- iii. Finally, the real sectors of the economy should partner with the federal government to rehabilitate most of the infrastructure provided by the government which will ease their business and massively contribute to the nation's expansion and advancement.

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