

From Policy to Prosperity: The Fiscal Path to Nigeria Economic Growth

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Abstract

This paper explores the transformative role of fiscal policy in driving economic prosperity in Nigeria covering 1985 to 2022. By examining how federal government domestic debt, external debt, capital expenditure, recurrent expenditure, oil revenue and non-oil revenue as a proxy for fiscal policy correlate with gross domestic product per capita as a proxy for economic growth. Data for the study were obtained from Central Bank of Nigeria (CBN) Statistical Bulletin 2022. The Augmented Dickey Fuller (ADF) method was used to conduct a unit root test on the developed model. The variables were found to be of mixed order $I(0)$ and $I(1)$ according to the results of the Augmented Dickey Fuller unit root test. In order to determine whether fiscal policy and economic growth have a long-run connection, the research used the Auto-regressive Distributive Lag (ARDL) model and conducted a bound test. Results from the regression analysis showed that federal government domestic debt had a negative relationship with gross domestic product per capita in the short-run, while federal government external debt reported a negative but significant impact on gross domestic product per capita in the long-run. The Auto-regressive Distributive Lag (ARDL) bound test showed that fiscal policy and economic growth are correlated in the long run. The impact on gross domestic product per capita was positive and statistically significant for federal government recurrent spending and oil and non-oil income, while it was negligible for federal government capital expenditure. Hence, it was concluded that fiscal policy leads to economic prosperity significantly. It was therefore recommended amongst other that the federal ministry of finance should prioritize improving debt management practices to reduce the reliance on domestic debt. This includes developing strategies for refinancing existing high interest debt with lower cost options and integrating debt reduction into fiscal planning.

Keywords: *Economic Growth, Federal Government Expenditure, Federal Government Revenue*

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Background to the Study

One of the most important instruments for promoting economic growth and development in Nigeria is fiscal policy, which involves directing the economy via taxes and government expenditure. Government expenditure and taxes as tools for economic policymaking are known together as fiscal policy. To manage economic growth, control inflation, decrease unemployment, and accomplish other economic goals, it entails altering the amount and distribution of government spending and taxation. Fiscal policy is a tool for economic stabilization that can be used to achieve macroeconomic policy goals and reverse bad trends in the Nigerian economy (Abdurraut, 2015; Gbosi, 2001). It can control the amount, cost, availability, and direction of money flowing into an economy. Fiscal policy, according to Idebi and Adesina-Uthman (2022), is a tool or strategy that governments use to manage the intensities of public expenditure and tax levies in order to boost economic development. In their view, fiscal policy is the process by which the government influences the economy via expenditure and taxation. The significance of fiscal policy in determining the rate of economic growth is paramount. Government expenditure on healthcare, education, and infrastructure all see increases, which in turn enhances productivity and, ultimately, the economy.

The successful execution of fiscal policies that promote development, provide employment opportunities, and raise living standards is, therefore, crucial to the country's path from policy to prosperity. Economic growth in Nigeria is very possible due to the country's abundant natural resources and high output. Leveraging fiscal policies to attain and maintain economic development in Nigeria is the trip from the fiscal route to economic growth in the country. To achieve these goals—economic growth, job creation, and improved living standards—prudent fiscal management, efficient taxes, and smart government expenditure are all necessary. Economic growth in Nigeria has been greatly impacted by the government's spending decisions. The 2017 Economic Recovery and Growth Plan (ERGP) is a prime example of this. Reviving economic development, investing in Nigerians, and creating an economy that can compete on a global scale were all goals of this strategy plan. The National Bureau of Statistics (NBS) reports that before the COVID-19 epidemic disrupted global markets, Nigeria's GDP growth rate increased from -1.6% in 2016 to 0.8% in 2017 and 2.3% in 2019, demonstrating the effectiveness of this strategy.

A significant part of fiscal policy, which the government has allocated funds for, has gone toward building new infrastructure. Investing in infrastructure is critical for increasing productivity and promoting sustainable economic development. As an example, the Nigerian government allocated more than 40% more funds for infrastructure in 2019 (NBS, 2020). The improvement of corporate operations and the attraction of international investment have necessitated these expenditures to concentrate on power supply, technology, and transportation networks. The trajectory of Nigeria's budget has also been significantly influenced by tax revisions. Increased tax compliance and a broader tax base were two goals of the 2019 Finance Act. A large chunk of Nigeria's government revenue has come from oil sales in the past, so this was a calculated effort to diversify the country's economic streams. Compared to other developing countries, where non-oil income usually accounts for 15-20%

of GDP, this proportion was a meager 6% in 2018. The changes are anticipated to diversify and stabilize Nigeria's income base, bringing non-oil revenue closer to this range.

Nevertheless, there are still obstacles along this budgetary road. Persistently high inflation rates have eaten away at buying power and savings. Compared to the 6-9% goal range set by the Central Bank of Nigeria, 2020's average inflation rate of 12.2% was far higher. The cost of living is affected and investment is discouraged due to the economic uncertainties caused by this high inflation rate. Also worrisome is the debt-to-GDP ratio in Nigeria. Although the ratio was relatively low compared to global standards at 2.9% in 2019, it is becoming more concerning that the trend is increasing. This calls into question the long-term viability of current fiscal policies. Prudent debt management is essential to ensure that borrowing funds' investments that can generate economic returns rather than leading to unmanageable levels of debt. Additionally, it was found that not all studies have thoroughly examined the relationship between fiscal policy and economic growth, as some of them have reported mixed or contradictory findings. Fiscal route policies, including public and government income and spending, are associated with economic growth, according to earlier research by Vladimir (2020) and Tasnia (2018).

Nonetheless, Endurance (2022) found in a related research that public and government income, as well as government spending, had a detrimental effect on economic growth. Igwe et al. (2015), Remigius et al. (2023), Daoudi (2023), Macek and Jankž (2015), and Iwuoha et al. (2020) all surprisingly argued that fiscal policy may be both good and detrimental, depending on the situation. On the other hand, it was found that previous research ignored the effect of federal oil revenue on economic development in favor of proxies such as public spending, government revenue, or tax income when analyzing fiscal policy. This points to an unfulfilled need in the literature. The following questions are intended to be answered by the article in light of this background. To what degree has the federal government's foreign debt contributed to improved economic growth? How has the federal government's domestic debt contributed to this improvement? If investment by the federal government spurred expansion in the economy? Do ongoing spending by the federal government affect GDP growth? What percentage of GDP growth was attributable to federal oil revenue? Also, the role that non-oil money has in the federal government's impact on economic development. Therefore, this research added to the existing body of knowledge by conducting an empirical investigation of the fiscal route to economic development in Nigeria from 1985 to 2022, thereby extending the scope of the study beyond previous efforts.

Literature Review

Theoretical Literature

Supply-Side Theory

In 1980, Robert Mundel proposed the supply-side economics which is often referred to as supply-side theory, revolves around the ideas that economic growth and prosperity can be enhanced by policies that stimulate production and investment. Here's a logical explanation of its assumptions, viewpoints from opponents, along with examples: Supply-side theory assumes that economic growth is primarily driven by the supply of goods and services rather

than demand. Proponents such as Arthur Laffer, Ronald Reagan, Jude Wanniski, Milton Friedman etc argue that reducing barriers to production, such as taxes and regulations, encourages businesses to invest, innovate, and expand output. They contend that by incentivizing work, saving, and investment, economies can achieve sustainable long-term growth. For instance, proponents point to the Reagan administration's tax cuts in the 1980's, which aimed to stimulate economic activity by reducing marginal tax rates on income and capital gains. This policy was intended to spur investment and job creation, contributing to a period of economic expansion.

However, opponents of supply-side theory like Paul Krugman, Joseph Stiglitz and Thomas Piketty argue that its emphasis on reducing taxes and regulations disproportionately benefits the wealthy and corporations, potentially exacerbating income inequality. They contend that tax cuts may not necessarily lead to increased investment and economic growth if businesses and individuals use the savings for non-productive purposes, such as stock buybacks or luxury consumption. Another argument against supply-side policies is that they can cause government income to fall short of spending priorities, which might mean less money for things like public services and infrastructure.

Endogenous Growth Theory

Romer mainly put out the endogenous growth theory (or new growth theory) in 1986. Human capital, innovation, and knowledge are seen as internal variables that have a significant impact in economic development, according to this view. Endogenous growth theory posits that an economy's policies, institutions, and investments may impact its long-term growth rate, as opposed to classic growth theories that see technological development as an external force. Along with arguments for and against it, this article provides a rational breakdown of its underlying assumptions. Economic development, according to the endogenous growth idea, is mostly caused by internal processes rather than outside influences. A fundamental premise is that long-term economic expansion may be achieved via spending money on people, new ideas, and information. Education, R&D, and technological innovation policies, say proponents like Robert Lucas, Gene Grossman, Ehanman Helpman, Philippe Aghion, and Peter Howitt, may boost economic growth rates in the long run. As an illustration of how investments in education and innovation may lead to major economic development, one might look to Silicon Valley's success as an example.

Paul Romer, one of the main proponents of endogenous growth theory, posits that ideas and knowledge are crucial drivers of growth. He emphasizes the importance of non-rivalrous and partially excludable goods like technology, which can lead to increasing returns to scale. Romer's model suggest that policies promoting research and development protecting intellectual property rights, and encouraging innovation can enhance an economy's growth potential. For instance, countries like South Korea and Taiwan have experienced rapid economic growth by investing heavily in education and technology. Another assumption of endogenous growth theory from Robert Slow, Gregory Mankiv and Williams Easterly opined that there are no diminishing returns to capital in the context of human capital and innovation. This contrasts with traditional growth theories, which assume diminishing returns

to physical capital. They further argue that continuous investments in human capital and technological innovation can sustain high growth rates indefinitely. They point to the long-term growth trajectories of developed countries, which have maintained high growth rates through continuous innovation and improvements in human capital. For example, some critics argue that theory does not adequately account for the role of external shocks, such as financial crisis or global economic downturns, which can significantly impact on economy's growth trajectory. The 2008 financial crisis illustrated how external shocks can disrupt even the most innovative and knowledge-driven economies. Moreover, opponents contend that endogenous growth theory may underemphasize the role of physical capital and infrastructure in driving growth. They argue that while human capital innovation are important, adequate investments in physical infrastructure, such as transportation and energy, are also crucial for sustaining economic growth. Countries with inadequate infrastructure may struggle to fully realize the benefits of investments in human capital and innovation.

Review of Related Empirical Studies

The topic of fiscal policy and its impact on economic growth has been the subject of several empirical investigations. The results of these studies, however, were uneven and often contradictory. Remigius et al. (2023) reviewed the literature on the topic of fiscal policy's impact on economic development in Nigeria. While total capital expenditure had a negative and non-significant effect on GDP (prob. -0.313), total recurrent expenditure had a positive and statistically significant effect (prob. -0.000) on GDP in Nigeria during the period under review. Total government revenue had a positive but statistically insignificant effect (prob. -0.283). Additionally, Daoudi (2023) employs the Autoregressive Structural Vector Methodology (SVAR) to examine the effect of fiscal policy on economic development in Algeria. According to the research, public expenditure does have a favorable influence on economic development in Algeria, but it's limited, temporary, and has a negative effect in the medium and long run. Given the prevalence of petroleum taxes, this suggests that conventional taxes have little impact on Algeria's economic development. A decline in the price of a barrel has a direct impact on tax collections, which in turn affect government expenditures.

Also, using yearly data collected from secondary sources, Endurance et al. (2022) looked at how fiscal policy affected GDP growth in Nigeria from 1970 to 2019. Government recurrent expenditure had a strong positive correlation with economic growth in Nigeria during the deregulated period, but no effect during the regulated period, according to the results of the analyses. Government capital expenditure, on the other hand, had a strongly negative correlation with economic growth in Nigeria during the deregulated period, but no effect during the regulated period. A positively signed and statistically significant regression coefficient for the dummy variable Regime indicates that the effects of fiscal policy were different during the regulation and deregulation eras. Additionally, Olisaji and Onuora (2021) looked at how fiscal policy affected GDP growth in Nigeria from 2015 to 2019. At the 5% level of significance, the p-value of 0.030 indicates a strong and positive correlation between Companies Income Tax (CIT) and Economic Growth (EG) as measured by Gross Domestic Product (GDP). Also, the analysis uncovered a negative and insignificant correlation between

government expenditure (GE) and economic growth (GDP), with a p-value of 0.334, which is higher than the 5% threshold of significance that was approved. The effect of fiscal policy on GDP growth in Rwanda from 1999 to 2017 is also investigated by Vladimir (2020) using the variables of government spending, tax income, and public debt. To assess the study's assumptions, the researchers used multivariate linear regression using the least squares technique (OLS). The research concluded that government spending, public debt, and revenues all significantly and positively affect GDP growth in Rwanda.

Iwuoha et al. (2020) also looked at how fiscal policies affected Nigeria's GDP growth. Government spending increases economic growth by 5.43%, decreases unemployment by 1.09% but increases inflation by 8.95%; government revenue has the opposite effect, reducing economic growth by 7.85% and increasing unemployment by 3.33% in the following year. On the other hand, government debt stock has the opposite effect, increasing economic growth by 1.88% and reducing unemployment by 4.3% in the following year. In order to put the economy back on track for growth and stability, the report makes it clear that cutting taxes while keeping the deficit and increasing government spending are still required. In addition, Tasnia (2018) looks at four South Asian nations from 1980 to 2016 to see how fiscal policies affected economic development. On panel data that can be handled by using fixed-effects and random-effects estimators, as well as on pooled cross-section time-series data, I utilize the Autoregressive Distributed Lag (ARDL) model and the Error Correction Model (ECM). In certain South Asian nations, real GDP growth is unaffected by government spending or tax income, according to empirical findings. On top of that, these nations have a very good correlation between real investment and real GDP growth.

In a similar vein, Ghulam and Noman (2017) used time series data spanning 1980–2014 to examine the effect of government spending on GDP growth. The following variables are used in this analysis: GDP, DT, NDT, LFP, IR, DFEXP, TOP, and military expenditures. When considering the linear trend and intercept, all variables are considered to be stationary at level when using an Augmented Ducky Fuller (ADF) for the unit root. For long-term relationships, researchers employ the Johansen maximum likelihood approach in the Johansen Co-integration test; for short-term relationships, they use the V-shaped empirical correlation matrix (VECM). In the short term, VECM showed a positive relationship between GDP, DT, and NDT, and the co-integration result announced the existence of two co-integration equations.

The effect of fiscal policy on economic development in OECD nations from 2000 to 2012 is analyzed by Macek and Janků (2015), who also take institutional factors into account. Panel regression techniques and tests form the basis of the study. It is clear from the data that government expenditure has a positive effect on economic growth in nations with lower levels of fiscal openness and a negative effect in countries with greater levels of fiscal transparency. Capital spending, recurrent expenditure, and direct income tax are the fiscal policy variables that Igwe et al. (2015) study in relation to economic development in Nigeria. According to the VECM study, there is a positive and statistically significant relationship between capital investment and recurrent spending in influencing economic growth in the long run. To no one's surprise, there is a

statistically significant adverse relationship between GDP growth and direct income taxes. Increases in capital expenditures of 1% result in increases in revenue of 3.94 percent. Income rises by 3.22% for every 1% increase in recurring expenditures. However, national production drops 6.83% when direct income taxes are raised by 1%. A 1% increase to direct income taxes results in a 0.39 percent drop in national production, demonstrating that taxes are the only short-term factor determining economic development. There is no correlation between fiscal policy variables and GDP growth, according to pairwise granger causality

Methodology

The World Development Indicators, 1985–2021, compiled by the World Bank, provide the bulk of the secondary data used in this analysis. The manufacturing value added (MVA) was chosen to represent the manufacturing sector, while the interest rate (LR), inflation rate (IFR), trade openness (TOP), and exchange rate (EXR) were used as proxies for the exchange rate. The Augmented Dickey Fuller (ADF) method was used to conduct a unit root test on the developed model. The research used the Auto-regressive Distributive Lag (ARDL) Model, Johansen, and Error Correction Mechanism based on the ADF results.

Model Specification

This study is based on the modification of Olisaji and Onuora (2021) when investigating the impact of Fiscal Policy on the Growth of Nigerian Economy. Their model is specified as follows:

$$RGDP = f(GExp, CITRev) \quad 1$$

Where: (RGDP) represents Gross Domestic Products, (GExp), Government Expenditure (CITRev); Companies Income Tax Revenue

The model was modified by introducing Oil Revenue (ORV). The model is specified as follows:

$$GDP-PC = f(DDT, EDT, CXE, ORV, NOR) \quad 2$$

The mathematical model could be symbolically expressed as;

$$GDP-PC = \beta_0 + \beta_1 DDT + \beta_2 EDT + \beta_3 CXE + \beta_4 RXE + \beta_5 ORV + \beta_6 NOR \quad 3$$

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

$$GDP-PC = \beta_0 + \beta_1 DDT + \beta_2 EDT + \beta_3 CXE + \beta_4 RXE + \beta_5 ORV + \beta_6 NOR + e \quad 4$$

Logarithmic transformation are also a convenient means of transforming a highly skewed variable into one that is more approximately normal (Kenneth 2011)

The modified version of the model adopted for this study now take the form of

$$LGDP-PC = \beta_0 + \beta_1 LDDT + \beta_2 LEDT + \beta_3 LCXE + \beta_4 LRXE + \beta_5 LORV + \beta_6 LNOR + e \quad 5$$

Where:

GDP-PC = Gross Domestic Product Per Capita, DDT = Federal Government Domestic Debt, EDT = Federal Government External Debt, CXE = Federal Government Capital Expenditure, RXE = Federal Government Recurrent Expenditure, ORV = Federal Government Oil Revenue, NOR = Federal Government Non-Oil Revenue, f = functional relationship β_0 = Intercept of relationship in the model/constant β_1 - β_6 = Coefficients of each independent or explanatory variable e = Stochastic or Error term.

Description of Variables in the Model

Gross Domestic Product Per Capita (GDP-PC): By dividing a country's total GDP by its population, may get its average economic production per person. The gross domestic product per capita is a crucial measure of economic well-being in the Nigerian context. An increase in GDP per capita is indicative of more economic prosperity, better living circumstances, and higher standards of life. Nevertheless, Nigeria's enormous population presents a number of issues, including a low GDP per capita, which may be an indicator of widespread poverty and poor living conditions. An improved economic climate, as seen by a higher GDP per capita, might increase Nigeria's appeal to international investors. One measure of economic growth is the gross domestic product (GDP) per capita.

The term "domestic debt" (abbreviated "DDT") describes the sum total of all federal government obligations to domestic lenders. In order to pay for things like infrastructure projects, budget deficits, and other public expenditures, the government sometimes issues bonds and treasury bills. In other words, the national debt has a major impact on the economy. For example, when the national debt is large, the private sector will have a harder time getting loans. Interest rates rise when the government borrows a lot of money. This makes borrowing and investing money costlier for people and companies, which might slow down economic development. "Crowding out" describes this phenomenon. Governments' capacity to invest in vital public services and development initiatives may be hindered by high debt servicing costs, which in turn can adversely affect GDP per capita. Consequently, the premise of this article is that a rise in the national debt will have a detrimental impact on economic development. The yearly amount in billions of Naira that the federal government borrows is an indicator of its fiscal policies.

When talking about a country's external debt, or EDT, the item External Dept refers to the whole total of what the federal government owes other countries, private investors, and international financial organizations. The government takes on this debt by borrowing money in foreign currencies to pay for various projects, budget deficits, and other necessities. This implies that a country's GDP per capita may rise and its economic capacity can be improved via the use of borrowed cash for productive expenditures such as healthcare, education, and infrastructure. Thus, the purpose of this work was to postulate that there is a positive correlation between the national debt and GDP per capita. The yearly measurement in billions of Naira of the federal government's foreign debt is a key indicator of fiscal policy.

Capital Expenditure of the Federal Government: This is the money that the federal government spends on things like buildings, infrastructure, equipment, and other long-term investments like repairs, upkeep, and improvements. Investments like this seek to boost the economy's productive capacity, encourage growth, and provide advantages in the long run. In order to improve infrastructure, which in turn increases productivity and efficiency across the board, capital expenditures are believed to stimulate economic development. An improvement in infrastructure such as roads, bridges, and ports lower transaction and transportation costs, which in turn encourages trade and commerce, which boosts economic production and, ultimately, GDP per capita. Capital expenditures by the federal government

should be positively correlated with GDP per capita, according to this research. The yearly outlay of billions of Naira by the federal government on capital projects is a surrogate for fiscal policy.

A recurrent expenditure, or RXE, is money that the federal government has to pay for on a recurring basis in order to keep its services and activities running. Government programs use a lot of products and services, and salaries and pay for government personnel, infrastructure upkeep, operating expenses, and other such items add up. To keep the administrative activities and public services that contribute to economic development and stability running, the federal government must have a steady stream of revenue. Spending enough on essential services like healthcare, education, and public safety may raise living standards, strengthen human capital, and increase productivity, all of which have the potential to raise GDP per capita. Therefore, this article postulated that there is a positive correlation between GDP per capita and federal government recurrent spending. As a stand-in for fiscal policy, the yearly recurring spending of the federal government is measured in billions of Naira.

Federal Government Oil Revenue (ORV): This refers to the income that a nation's central government earns from the extraction, production, and sale of oil and related products. This revenue typically comes from taxes, royalties, and profits from state-owned oil enterprises, as well as leases and fees paid by private oil companies operating within the country. Oil revenue can significantly boost a country's GDP per capita by providing substantial financial resources that the government can invest in economic development. With high oil revenue, the government can fund infrastructure projects, improve healthcare and education systems, and support various social programs, all of which can enhance economic productivity and improve living standards, leading to higher GDP per capita. Therefore, this study expects a positive relationship between federal government oil revenue and gross domestic product per capita. Federal government oil revenue is used as a substitute for fiscal policy and is measured in billions of Naira annually.

Federal Government Non-Oil Revenue (NOR): This refers to the income that a nation's central government earns from sources other than the extractions, production, and sale of oil related products. This revenue comes from various taxes (such as income tax, value-added tax), customs duties, tariffs, fees, licenses, and other forms of revenue generated from economic activities and transactions within the country. Non-oil revenue sources are diverse and stable compared to oil revenue, which can be volatile due to fluctuations in global oil prices. Therefore, increasing non-oil revenue can provide a more sustainable and reliable source of income for the government to finance public services and infrastructure investments that can support economic growth and improve living standards, ultimately leading to a higher GDP per capita. This paper suggest that federal government non-oil revenue will have a positive impact on gross domestic product per capita. Federal government non-oil revenue is used as a replacement for fiscal policy and is measured in billions of Naira annually.

Unit Root Test

In order to minimize false regression, the research used the Augmented Dickey Fuller (ADF) unit root test to determine the order of integration of the variables under consideration. This helped in selecting the proper technique.

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

Variables	Levels		First Difference		Order of Integration	P-value
	T. Statistics	5% Critical Value	T. Statistics	5% Critical Value		
LGDP-PC	-2.439525	-2.943427	8.500980	-2.945842	I(1)	0.0000
LDDT	-5.611527	-2.945842	-4.977310	-2.945842	I(1)	0.0000
LEDT	-1.596656	-2.963972	-4.598056	-2.945842	I(1)	0.0023
LCXE	-1.339352	-2.943427	-4.190016	-2.945842	I(1)	0.0100
LRXE	-1.607687	-2.943427	-6.191324	-2.945842	I(1)	0.0000
LORV	-2.440030	-2.943427	-8.333166	-2.945842	I(1)	0.0000
LNOR	-3.714478	-2.954021	-6.020973		I(0)	0.0084

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

Based on the findings from table.1 above, the variables included in the research were evaluated using Augmented Dickey Fuller (ADF) Tests to determine whether they are stationary series or non-stationary series. While LNOR and LTOP were shown to be stationary at level I(0), the stationarity test findings reveal that LGDP-PC, LDDT, LEDT, LCXE, LRXE, and LORV were all stationary at initial difference I(1). According to evaluations of the variables' stationarity, the variables display a mixed order of integration or level and first difference stationarity. Because it is capable of handling both stationary at level I(0) and first difference I(1), the Autoregressive Distributive Lag (ARDL) approach was used for the data analysis. Therefore, the best analytical method is the ARDL test, which considers both the short-term and long-term trends when looking at the relationship between the dependent and independent variables.

Table 2: ARDL Bound Test

Test Statistics	Value	K
F-statistics	4.498280	6
Significance	I (0)	I(1)
10%	2.12	3.23
5%	2.45	3.61
2.5%	2.75	3.90
1%	3.15	4.43

Source: Authors computation 2024

The table 2 shows the outcomes of the bound test, which contrasted the F-statistics with the values of the critical bounds. The F-statistic yields a result of 4.498280. The results showed that the F-statistic is larger than the critical values' lower limit of 2.45 and upper limit of 3.61 at

a significance level of 0.05. Economic development and fiscal policy in Nigeria are therefore somewhat interdependent. Results from the Auto-Regressive Distributive Lag (ARDL) models for both the long and short term are therefore expected.

Table 3: ARDL Long-run Result (Dependent Variable = LGDP-PC)

Variable	Coefficient	Std. Error	t-statistics	Prob
LDDT	1.388656	0.621462	2.234498	0.0523
LEDT	-0.456973	0.128835	-3.546970	0.0062
LCXE	0.220184	0.272664	0.807528	0.4402
LRXE	1.345245	0.567365	2.371041	0.0418
LORV	0.442669	0.439297	1007677	0.3399
LNOR	-2.769528	1.133214	-2.443958	0.0371

EC = LMVA - (-0.1191*IR + 0.1966*IFR + 0.9415*LEXR -0.4270*LTOP)

Source: Authors computation 2024

Table 3 of the Autoregressive Distributive Lag (ARDL) long-run result suggest a positive +1.388656 relationship between the logarithm of domestic debt (LDDT) and the log value of gross domestic product per capita (LGDP-PC) as a proxy for economic growth. This means that a unit increase in LDDT is associated with a decrease in annual LGDP-PC of 1.4 unit's yearly. However, the p-value of 0.0523 indicate that there is no statistical significant relationship between LDDT and LGDP-PC. Investigation of the log value of external debt (LEDT) advocates a negative -0.456973 relationship with the log value of gross domestic product per capita (LGDP-PC) as a proxy for economic growth. The result denotes that a unit rise in LEDT is related to a decline in annual LGDP-PC of about 46 percent increase per year. Astoundingly, the p-value of 0.0062 shows that there is a statistical significant relationship between LEDT and LGDP-PC.

Furthermore, the log value of capital expenditure (LCXE) suggest a positive +0.220184 relationship with the log value of gross domestic product per capita (LGDP-PC) as a proxy for economic growth. This implies that a unit increase in the log value of capital expenditure (LCXE) will result to about 0.22 percent in annual LGDP-PC per yearly. Conversely, the p-value of 0.4402 signpost that there is no statistical significant relationship between LCXE and LGDP-PC.

Also, the log value of recurrent expenditure (LRXE) suggest a positive +1.345245 relationship with the log value of gross domestic product per capita (LGDP-PC) as a proxy for economic growth. This implies that a unit increase in the log value of recurrent expenditure (LRXE) will result to about 1.3 units in LGDP-PC per yearly. Conversely, the p-value of 0.0418 indicates that there is a statistical significant relationship between LRXE and LGDP-PC. Still, the log value of oil revenue (LORV) suggest a positive +0.442669 relationship with the log value of gross domestic product per capita (LGDP-PC) as a proxy for economic growth. This implies that a unit increase in the log value of oil revenue (LORV) will result to about 0.44 percent in annual LGDP-PC per yearly. Conversely, the p-value of 0.3399 signpost that there is no statistical significant relationship between LORV and LGDP-PC.

Finally, the log value of non-oil revenue (LNOR) suggest a negative -2.769528 relationship with log value of gross domestic product per capita (LGDP-PC) as a proxy for economic growth. This suggests that a unit increase in the log value of non-oil revenue (LNOR) will result to about 2.8 units in LMVA per yearly. Conversely, the p-value of 0.0371 indicates that there is a statistical significant relationship between LNOR and LGDP-PC.

Table 4: ARDL Short-run Result (Dependent Variable = LGDP-PC)

Variables	Coefficient	Std. Error	t-Statistics	Prob
C	5.635213	0.806609	6.986298	0.0001
D(LDDT)	-0.147535	0.456232	-0.323376	0.7538
D(LDDT(-1))	-3.386101	0.603931	-5.606770	0.0003
D(LDDT(-2))	-0.832592	0.601288	-1.467835	0.1762
D(LEDY)	0.475617	0.177160	2.684107	0.0250
D(LEDY(-1))	-0.137408	0.209761	-0.655070	0.5288
D(LEDY(-2))	0.126014	0.154125	0.817612	0.4347
D(LCXE)	-0.421032	0.198096	-2.125389	0.0625
D(LCXE(-1))	0.390911	0.191670	2.039498	0.0718
D(LCXE(-2))	0.305268	0.183889	1.660067	0.1313
D(LRXE)	-0.666768	0.325511	-2.048246	0.0708
D(LRXE(-1))	-2.015275	0.448847	-4.489894	0.0015
D(LRXE(-2))	0.933286	0.459931	2.029185	0.0730
D(LORV)	0.462277	0.194720	2.374060	0.0416
D(LORV(-1))	0.172023	0.201938	0.851860	0.4164
D(LORV(-2))	-0.509076	0.214811	-2.373599	0.0417
D(LNOR)	-2.554816	0.375271	-6.807923	0.0001
D(LNOR(-1))	1.062231	0.270798	3.922596	0.0035
D(LNOR(-2))	-0.078500	0.291509	-0.269289	0.7938
ECM(-1)	-1.055476	0.145697	-7.244303	0.0000
Adj R² = 0.779255, F-statistics = 7.317063 (0.000152), DW = 2.397467				

Source: Authors computation 2024

At the 0.05 level, the negative value of the coefficient estimates for the error correction component, ECM (-1), has significance. This finding is consistent with the model's predicted annual pace of 1.1 units toward long-run equilibrium. This suggests that the error from the prior year might be corrected with an annual adjustment speed of 1.1 units. The corrected R-Square (R²) value indicates that the independent variables (LDDT, LEDT, LCXE, LRXE, LORV, and LNOR) account for 80% of the total variation in the dependent variable (LGDP-PC). The model stands out when taken as a whole due to the substantial F-statistic at the 5% level of significance. The model would not function without serial correlation, as shown by the Durbin-Watson statistics of 2.397467, which is in the vicinity of 2.

The short-run result of the model is shown in Table 3. Utilizing the log value of gross domestic product (LGDP-PC) as a stand-in for fiscal policy in Nigeria in prior years yielded a positive logarithm of domestic debt (LDDT) of (-3.386101). This indicates that for every unit rise in the logarithm of domestic debt (LDDT) in Nigeria, the log value of gross domestic product (LGDP-PC) would decrease by around 3.4 units. A statistical correlation exists between the log value of domestic debt and gross domestic product (p=0.0003). This is the result that

economic theory foresees. A higher logarithm of domestic debt is likely to lead to a higher logarithm of GDP. The log value of external debt (LEDT) is +0.475617 according to the log value of gross domestic product (LGDP-PC) in Nigeria for both the current and preceding year. A one-unit increase in Nigeria's log value of external debt (LEDT) would result in a 0.48% increase in the log value of gross domestic product (LGDP-PC). A statistically significant relationship between the logarithm of foreign debt and the logarithm of GDP exists, as shown by the p-value of 0.0250. Economic theory lends credence to this result. The expected result is that as the amount of foreign debt increases, the log value of the GDP will also climb.

When the logarithm of capital expenditure (LCXE) is applied to the logarithm of gross domestic product (GDP), the result is negative (+0.390911 and +0.305268), serving as a substitute for economic growth in Nigeria in the previous and following years. An economic growth measure, the log value of gross domestic product (LGDP-PC), would fall by about 0.40% and 0.31% for every unit increase in the log value of capital expenditure (LCXE) in Nigeria. With $p=0.0718$ and $p=0.1313$, respectively, there is a statistically significant association between the logarithms of capital expenditure and gross domestic product. This is the result that economic theory foresees. There will be more jobs and more money coming in as a result of higher capital expenditures, which should lead to a higher log value of GDP.

Additionally, when applied to the logarithm of recurrent expenditure (LRXE), the log value of gross domestic product (LGDP-PC) is negative (-2.015275), serving as a substitute for the economic growth variable in Nigeria for the current year. It follows that for every one unit increase in the log value of LRXE in Nigeria, the stand-in for economic growth known as LGDP-PC would fall by around two units. A statistically significant link exists between the logarithm of recurrent spending and the logarithm of gross domestic product ($p=0.0015$). This is the result that economic theory foresees. There is a positive correlation between changes in recurrent spending and changes in the log value of GDP.

The logarithm of oil revenue (LORV) is positive (+0.462277) when applied to the logarithm of gross domestic product (LGDP-PC), which is a proxy for economic growth in Nigeria in the current year. This indicates that for every unit rise in the log value of oil revenue (LORV) in Nigeria, the log value of gross domestic product (LGDP-PC), a measure of economic growth, would climb by around 0.46%. There is a statistically significant ($p=0.0416$) relationship between the logarithm of oil income and the logarithm of gross domestic product (LGDP-PC). This is the result that economic theory foresees. There will likely be an increase in the log value of GDP as a result of rising oil revenues.

Finally, LNOR is positive (+1.062231) when the log value of GDP is used as a stand-in for the macroeconomic indicator in Nigeria this year. A one-unit increase to Nigeria's log non-oil revenue (LNOR) would result in a 1.1-unit increase to the country's LGDP-PC. The statistical significance of the link between the logarithm of gross domestic product (LGDP-PC) and the log of non-oil income is $p=0.0035$. This is the result that economic theory foresees. Log value of GDP (LGDP-PC) is expected to climb as a result of an increase in non-oil revenue's impact on economic growth.

Diagnostic Test

Table 5: Ramsey Reset Test, Serial Correlation LM Test and Homoscedasticity Test Results

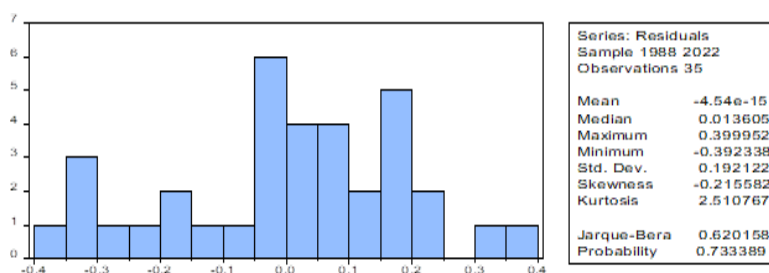
	F-Statistic	Prob. Value
Ramsey Reset Test	2.017262	0.1933
Breusch-Godfrey Serial Correlation LM Test	0.828668	0.4753
Breusch-Pagan-Godfrey Heteroskedasticity Test	1.335708	0.3377

Source: Author's Computation using E-view 10

The diagnostic test results are shown in Table 5, which shows that the Ramsey reset tests linearity test showed that the model is properly defined. The f-statistic is 2.017262 and the calculated p-value is 0.1933, which is more than the 5 percent (0.05) critical threshold. Consequently, the null hypothesis was rejected by the investigation. The serial or autocorrelation test indicates an f-statistic of 0.828668 and a Chi-Square probability value of 0.4753 according to the Breusch-Godfrey Serial Correlation LM Test findings. Consequently, the study proves that the model does not include serial correlation, as the probability value of around 48% (0.4753) is more than the 5% (0.05) cutoff.

A result of 0.3377 for the Chi-Square probability and an f-statistic of 1.335708 for the heteroscedasticity test conducted by Breusch-Pagan-Godfrey. The fact that the probability Chi-square value is more than 5% ($P > 0.05$) indicates that the model does not exhibit heteroskedasticity. Since a constant variance is desirable in regression, we may say that the residuals are homoscedastic.

Figure 1: Normality Test



The results of the normality test are shown in Figure 1. The residuals are found to be normally distributed, as indicated by the Jarque-Bara value of 0.620158 and the associated probability value of 0.733389, both of which are more than the 0.05 threshold of significance.

Figure 2: Stability Test

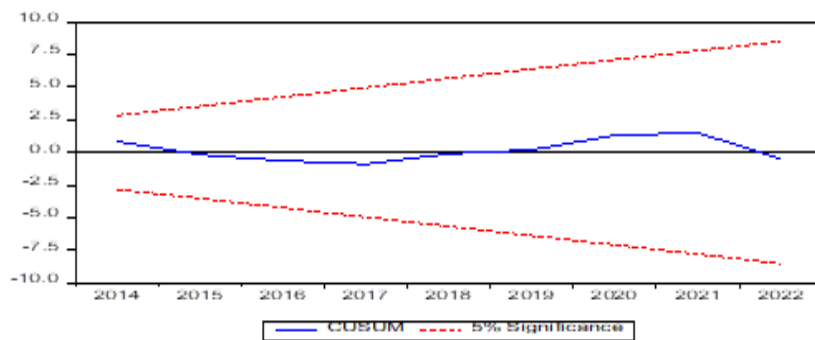


Figure 2, shows summary of the stability test, the result showed that the model is stable. This is evident to the fact that the blue line is in-between the two red (-5 & +5) or less than 0.05 level of significance.

Discussion of Findings

Domestic Debt and Gross Domestic Product Per Capita in Nigeria

The findings of the regression analysis using the Auto-Regressive Distributive Lag (ARDL) approach shown that domestic debt (DDT) has a negative correlation with gross domestic product per capita (GDP-PC) in the current years' time period of the short-run. It lends credence to the idea that GDP-PC and domestic debt (DDT) are positively correlated in economic theory. The public at large assumes that government borrowing at home will bolster economic development and productivity by financing social programs and infrastructure. The scenario will have an impact on interest rates and liquidity, which will stimulate the economy. A statistically significant relationship between domestic debt (DDT) and the LGDP-PC is also shown by the p-value. The results show that there is a substantial relationship between the DDT and GDP-PC, proving the null hypothesis wrong. In contrast to previous work by Vladimir (2020), this investigation found no such thing.

External Debt and Gross Domestic Product Per Capita in Nigeria

Regression analysis was used to establish that there is a negative correlation between EDT and GDP-PC. To claim that external debt (EDT) is negatively correlated with GDP-PC is to misrepresent economic theory. Since paying off large amounts of foreign debt includes both interest and principal, it may reduce economic development by taking money out of investments that might otherwise be put to better use. The depreciation of the currency may cause inflation to rise and the cost of imports to rise, both of which have a detrimental effect on people's quality of living. A statistical analysis revealed that EDT significantly affects GDP-PC (gross domestic product per capita). Hence, the investigation proves that the alternative hypothesis, which states that there is no substantial relationship between UNE and GDP-PC, is wrong.

Capital Expenditure and Gross Domestic Product Per Capita in Nigeria

We also see a positive correlation between capital expenditure (CXE) and GDP-PC in the prior two years of data, in addition to the long-run years of data. The CXE will positively

correlate with the GDP-PC, just as economists predicted. A gain in GDP per capita is expected as a result of increased government expenditure on long-term assets that boost economic capacity and productivity, such as infrastructure, education, and healthcare. Business operations are made easier, expenses are reduced, and investment is attracted by this rise and development in infrastructure. As a result, jobs are created and incomes are raised. But the capital expenditure (CXE) doesn't seem to have much of an impact on the GDP-PC, according to the p-value. Researchers have concluded that there is no statistically significant relationship between CXE and GDP-PC, thereby supporting the null hypothesis. These findings corroborate those of a previous study by Igwe et al. (2015).

Recurrent Expenditure and Gross Domestic Product Per Capita in Nigeria

It seems that, over the long run, RXE and GDP-PC are directly related. Theoretically, the RXE and GDP-PC should go hand in hand. Government spending on wages, repairs, and basic services like healthcare and security is seen to promote economic development and stability. Investments in these sectors raise GDP per capita by making workers more skilled and productive. The p-value of the result indicates that RXE significantly affect GDP-PC. It is not true that there is no connection between recurrent expenditure (RXE) and gross domestic product per capita (GDP-PC), as the study shows a considerable correlation between the two. Consistent with previous work by Remigius et al. (2023), our investigation found the same thing.

Oil Revenue and Gross Domestic Product Per Capita in Nigeria

Also, following the previous year, the estimated model findings demonstrated that GDP-PC is temporarily impacted by a positive oil revenue (ORV). Theoretically, economic growth should be positively correlated with oil revenue (ORV) and GDP-PC. Governments may use the large funds they get from oil sales toward a variety of initiatives that will help the economy thrive and create more jobs. This allows governments to put money into building things like roads, ports, and energy facilities, which in turn generates jobs in the construction industry and other fields. Gross domestic product per capita (GDP-PC) is significantly impacted by oil revenue (ORV), as shown by the p-value of the conclusion. There is a statistically significant association between the ORV and the GDP-PC, hence the research does not support the null hypothesis that this is not the case.

Non-oil Revenue and Gross Domestic Product Per Capita in Nigeria

Lastly, the findings of the estimated models demonstrated that, following the previous year, GDP-PC is temporarily impacted by a positive non-oil revenue (NOR). A positive relationship between non-oil revenue (NOR) and GDP per capita (GDP-PC) is predicted by economic theory. When governments get more money from sources other than oil, they may use it into social welfare programs, healthcare, education, and infrastructure. The construction, education, and healthcare service industries all benefit from these investments since they generate new jobs and boost the economy. Based on the p-value of the result, non-oil revenue (NOR) has a statistically significant impact on GDP-PC. The results show that the null hypothesis, which states that there is no statistically significant link between the NOR and the GDP-PC, is not supported by the analysis. This study's findings are consistent with those of Vladimir's previous work (2020).

Conclusion

To examine the fiscal route to economic development in Nigeria over 37 years (1985 to 2022). The Augmented Dickey Fuller unit root (ADF), Auto-Regressive Distributive Lag (ARDL) bound test model was used in this study topic. We proxied the explanatory variables with domestic and foreign debt, capital and recurrent spending, oil and non-oil income, and gross domestic product per capita, and we utilized the dependent variable to measure everything else. The results show that fiscal policy significantly impacted Nigeria's economic growth in a negative way. In particular, oil and non-oil income had a positive and statistically significant effect on GDP per capita in the short term, while recurrent spending and domestic and foreign loans had a negative and statistically significant effect in the long run as well. On the other hand, there was no correlation between capital spending and GDP per capita in either the long- or short-term. Therefore, it was determined that fiscal policy plays a crucial role in influencing the development of the Nigerian economy.

Recommendations

Based on the findings, the following recommendation were made below;

- i. The federal ministry of finance should prioritize improving debt management practices to reduce the reliance on domestic debt. This includes developing strategies for refinancing existing high interest debt with lower cost options and integrating debt reduction into fiscal planning.
- ii. The ministry of finance, budget and National planning should implement a comprehensive review of government expenditure to cut wasteful spending and enhance efficiency as well as improve tax collection mechanisms to increase revenue.
- iii. The ministry of finance, budget and national planning should ensure that capital expenditures are directed towards high impact projects such as infrastructure, education and healthcare. This involves implementing rigorous project evaluation and selection processes to prioritize projects with the highest potential return.
- iv. Also, the ministry of finance, budget and National planning recurrent expenditure and reallocate funds towards productive investment. This involves conducting a comprehensive review of current spending to identify and eliminate wasteful expenditures such as excessive administrative costs and non-essential services.
- v. Additionally, the ministry of finance, budget, and national planning should focus on prudent fiscal management to ensure that oil revenue are used effectively. This involves creating a stabilization fund to save excess oil revenues during periods of high prices which can be used to cushion the economy during downturn.
- vi. Finally, federal ministry of finance, budget and national planning should continue to strengthen tax administration and broaden the tax base.

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