

## EFFECT OF FEDERALLY COLLECTABLE TAXES ON ECONOMIC GROWTH IN NIGERIA

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### Abstract

This study investigates how federally collectable taxes influence economic growth in Nigeria over the period 2015 to 2025. It focuses specifically on Petroleum Profit Tax (PPT), Company Income Tax (CIT), and Value Added Tax (VAT), and their relationship with Gross Domestic Product (GDP). The study is motivated by the persistent concern that Nigeria's economic growth remains weak and unstable, even though tax revenues have continued to rise. An ex-post facto research design was used, relying on secondary time-series data obtained from the Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), and Federal Inland Revenue Service (FIRS). The Autoregressive Distributed Lag (ARDL) approach was applied to capture both short-run and long-run dynamics, while standard tests including unit root, multicollinearity, checks were conducted to ensure reliable results. Findings show that PPT, CIT, and VAT all have positive and statistically significant effects on economic growth in both the short and long run, with VAT exerting the strongest long-run influence. The error correction term confirms a stable long-run relationship and a relatively quick adjustment back to equilibrium aftershocks. The

study concludes that federally collectable taxes play an important role in driving economic growth in Nigeria, although their full impact is still limited by institutional and governance challenges. It recommends strengthening tax administration, improving compliance, and enhancing transparency in public financial management.

**Keywords:** Taxation, Economic Growth, Petroleum Tax Profit, Revenue

## Introduction

Taxation is one of the most significant elements of fiscal policy that governments use to raise funds to provide public goods, redistribute income, stabilize the economy and encourage sustainable economic growth. In addition to being a source of income, taxes are a policy tool that can be used to affect investment choices, address market failures, mitigate economic disparities, and provide funding for key developmental investments. In developed as well as developing countries, the necessity of an effective tax system to secure fiscal sustainability, enhanced state capacity and long-term economic development is undeniable. Taxation is playing an ever-growing role in Nigeria because of the continued high sensitivity of Nigeria's reliance on crude oil revenues. The Nigerian Economy has been dependent on petroleum exports as the main source of revenue and foreign exchange earnings to the government for over several decades. Nevertheless, oil prices have been volatile globally, oil output has been falling, energy transition policies, and external economic shocks have made the system precarious to the fragility. This has led to the successive governments' thrusts to expand the tax base and increase efforts to mobilize non-oil revenues to ensure fiscal resilience and sustainable economic growth (Akinwale, 2023).

Federal Government revenue in Nigeria is of large magnitude and includes federally collectable taxes such as the Petroleum Profit Tax (PPT), the Company Income Tax (CIT) and Value Added Tax (VAT). The Federal Government using the Federal Inland Revenue Service (FIRS) and make up a significant share of federal revenues collect the taxes. PPT is levied on the profits of companies involved in petroleum explorations and petroleum production activities and Company Income Tax is levied on the profits of incorporated entities operating in the economy. On the other hand, in Value Added Tax (VAT), the tax rate is applied to the value added at different levels of production and delivery. The taxes, altogether, form the bedrock of Nigeria's domestic revenue generation system and should help drive economic growth by funding infrastructure development, human capital, industrial expansion and supply of public goods and services. It is said that a good tax system has positive economic growth effects: it raises enough revenue for productive government spending, it stabilizes the economy, it can increase social welfare and it provides a conducive atmosphere for economic activity in the private sector. Government spending can stimulate growth and productivity through taxes, as long as the funds are being allocated to key sectors like transportation, education, health, technology and energy

infrastructure, under endogenous growth theory. As a result, the rise in tax revenue will be followed by a rise in Gross Domestic Product (GDP) because of achieving a higher level of economic efficiency and public investment.

Despite the tremendous increase in tax revenues collected by the Federal government over the years, Nigeria's rate of economic growth has remained relatively low, volatile and unpredictable. The nation has been grappling with a wide range of economic challenges, such as joblessness, inflation, infrastructural deficits, low industrial productivity, exchange rate volatility, recurrent fiscal imbalances, and more. Reforms in tax administration, digitization of tax processes and expansion of the tax base have led to a significant increase of tax revenues, but the economic performance has not yet been materially affected.

Moreover, the performance in terms of economic growth of the taxing instruments relies on the amount of tax revenue raised and the performance of the institutions involved in the collection, allocation and utilization of tax revenue. Inadequate institutional capacity and governance problems can hinder the revenue expansionary impact; for example, by frustrating the efficient use of public resources (Oladipo & Oladipo 2022).

The empirical findings on the relationship between taxation and Nigerian and developing countries' economic growth have been contradictory. Tax revenue influences economic growth with some studies finding positive and significant effects, others insignificant or even negative effects, depending on the type of tax measure, macroeconomic environment and the quality of governance structures. It is apparent from the existing evidence that taxation supports economic growth more effectively in the presence of good fiscal institutions, transparency in the public financial system, efficient resource allocation and accountability systems (Adebiyi & Alade, 2021). This is because the results are conflicting and work that is more empirical is needed in the wake of the recent tax reforms and changing economic scenario.

Furthermore, the 2015–2025 period is an important period of Nigeria's fiscal and economic history, with notable tax policy changes, economic recessions, the COVID-19 pandemic, exchange rate changes, and increased efforts at the economic diversification and non-oil revenue mobilization. The changes have affected the composition and function of taxes collected by the federal government and could have affected their impact on economic growth. Hence, an in-depth analysis of the role played by Petroleum Profit Tax, company income tax and value added tax in the economic development of Nigeria during the period is timely and relevant. In this context, the effects of federally collectable taxes on the economic growth of Nigeria were investigated between 2015 and 2025. Specifically, the study compares the contributions of the Petroleum Profit Tax, the Company Income Tax and Value Added Tax to the growth of Gross

Domestic Product in Nigeria and empirically establishes facts that can guide the development of effective tax policy that can enhance sustainable economic growth in Nigeria.

### **Review of Related Literature**

Taxation is the compulsory collection of money from the citizens of a country or taxes levied by the government on its business activities for financing public expenditure and for the overall economic objective of the government. In addition to its role in revenue mobilization, taxation also plays several important fiscal roles in redistributing income, allocating resources, stabilizing the economy and encouraging sustainable economic growth. Governments provide essential services, such as infrastructure, education, health, security and others that contribute to improving productivity and the economy, through tax revenues.

Economic growth entails the growth or increase of an economy measured by Gross Domestic Product (GDP) over time usually a year. Obialor, Ezeh, Ibe and Amasiatu (2026). Taxation has an impact on economic growth because it is a source of funds to the government for productive investments and it also has an impact on consumption, savings and investment decisions. The effectiveness of taxing and the effective use of tax revenue is thus key to the growth effect of taxation.

The Federal Inland Revenue Service (FIRS) has huge revenue sources, which include federally collectable taxes. The taxes that are analyzed in this study are the Petroleum Profit Tax (PPT), Company Income Tax (CIT) and the Value Added Tax (VAT).

Petroleum Profit Tax (PPT) is levied on profits of companies involved in petroleum exploration and production. It has been a major source of Government revenue, and a factor of economic growth in financing public expenditure. Its performance, however, is much dependent on the global price and production levels of oil.

Company Income Tax (CIT) is income tax that is imposed on the profit of incorporated companies carrying on business in Nigeria. CIT is an important non-oil revenue stream that is related to business activity and corporate profitability. Revenue from CIT helps to finance government investments, which help to create economic development and productivity.

Value Added Tax (VAT) is an indirect tax levied at different stages of the production and distribution of goods and services. VAT is a wide and relatively stable source of revenue, helps to increase fiscal sustainability and cushions the impact of oil revenue. However, an increase in VAT could have an impact on consumer spending and aggregate demand.

Federally collectable taxes are a means to spur economic growth through investment in infrastructure, human capital and public services. Such investments increase productivity, generate investment and boost economic activities. The positive impact of taxation on growth, however, will be very much influenced by institutional quality, tax compliance, administrative efficiency and the transparency of public expenditure management. In countries with low quality governance, and inefficient use of public resources, higher tax revenues cannot result in substantive economic development. Hence, the nexus between tax and economic growth is a relevant area for empirical research especially in less developed countries like Nigeria.

### **Theoretical Framework**

The Endogenous Growth Theory is the theory that underlies this study, which suggests that the long-term economic growth of an economy is not only driven by external factors, but also by endogenous factors in the economy. The theory focuses on the importance of deliberate policy interventions that can stimulate sustained economic growth, notably investments in human capital, infrastructure, innovation and institutional development.

### **Empirical Review**

Empirical studies in recent times still support that taxation and economic growth have a positive relationship. In emerging economies, Adebisi and Alade (2021) found that there was a significant positive relationship between taxation and economic growth, with an efficient tax mobilization leading to an increase in fiscal capacity, which in turn increases public investment.

Likewise, Osei-Assibey (2021) noted the vital role institutional quality like governance effectiveness, accountability, and regulatory strength plays in ensuring good economic growth results from tax revenues in Africa.

In Nigeria, Oladipo and Oladipo (2022) found that tax inefficiencies such as leakages, inadequate tax compliance mechanisms and administrative delays all have a negative impact on the ability of taxation to stimulate economic development. In the same way, Akinwale (2023) also found that the components of the major tax components like Value Added Tax (VAT) and Company Income Tax (CIT) have a statistically significant effect on Gross Domestic Product (GDP) in developing economies, but the effects are different in terms of scale depending on the efficiency of tax enforcement and macroeconomic stability.

These conclusions are reinforced by more recent data from international and policy related sources. OECD (2023) states that well-designed and expanded tax systems that are computerized and well-governed increase the contribution of tax systems to growth. Similarly, in developing countries, the World Bank (2023) reports that digitalizing tax systems, including e-filing, automation and integrated revenue platforms, markedly boosts revenue outcomes, and lowers

leakages. The International Monetary Fund (IMF, 2024) also reports that, despite having been lowered, tax-to-GDP ratios in Sub-Saharan Africa are yet to reach optimal levels in part because of structural weaknesses, while countries with better tax administration and institutional transparency have better fiscal and growth results as a result of digitalization.

Also, UNCTAD (2024) notes that an effective tax system plays a role in promoting sustainable development when directed towards productive public spending, including on infrastructure and human capital. The results of recent research by the African Development Bank (AfDB, 2025) further underscore the importance of boosting domestic resource mobilization through better tax systems for Africa's recovery from the pandemic and inclusive growth in future.

In general, the findings from the available studies in the last five years (2021-2025) are that increase in tax stimulate economic growth provided institutions are strong, tax administration is efficient and tax systems are more digital.

Although there is a large empirical literature on the subject of taxation and economic growth, there are some gaps that are apparent, especially in the context of Nigeria. First, there are many existing studies that are dated and do not reflect the latest fiscal changes and macroeconomic shifts through 2025, such as tax changes and the changes that have occurred since the pandemic started.

Secondly, the majority studies use an aggregate tax measure, thereby obscuring the different impacts of each tax that is collected at the federal level: Petroleum Profit Tax (PPT), Company Income Tax (CIT) and Value Added Tax (VAT). Analyses that can give policy relevant information shall therefore be disaggregated.

Third, the methodological procedures used in the previous research are limited.

Lastly, though, little consideration has been made to the institutional setting, that is, the efficiency of tax administration, tax compliance activities and fiscal transparency, which are important in shaping the effectiveness of taxation in boosting economic growth. This study is aimed at filling this gap by offering an up-to-date, disaggregated, methodologically sound, and institutionally sound analysis of the impact of federally collected taxes on economic growth in Nigeria (2015–2025).

## **Methodology**

In this study, ex post facto research design is used and historical data of annual time-series is used. This design is suitable because it allows the relationship between variables to be examined without having the ability to manipulate them particularly for macroeconomic analysis.

The secondary sources of data used for the analysis include those of reputable official sources such as the Central Bank of Nigeria (CBN) Statistical Bulletin, the National Bureau of Statistics (NBS), and Federal Inland Revenue Service (FIRS). The data are for the period from 2015-2025, providing a recent and policy-relevant analysis.

### Model Specification

A linear econometric model is a model of the form of the empirical relationship between federally collected taxes and economic growth is:

$$GDP = \alpha + \beta_1 PPT + \beta_2 CIT + \beta_3 VAT + \mu$$

Where:

GDP = Gross Domestic Product (proxy for economic growth)

PPT = Petroleum Profit Tax

CIT = Company Income Tax

VAT = Value Added Tax

$\alpha$  = intercept

$\beta_1 - \beta_3$  = coefficients of explanatory variables

$\mu$  = stochastic error term

The study used modern time-series econometric techniques to guarantee strong and dependable empirical outcomes. They are Augmented Dickey-Fuller (ADF) unit root test to check the stationarity properties of the variables and Autoregressive Distributed Lag (ARDL) bounds testing approach to identify short-run and long run relationship between the variables. Moreover, the Error Correction Model (ECM) is used to capture the short-run dynamics as well as speed of the adjustment process towards the long-run equilibrium. Lastly, the Variance Inflation Factor (VIF) is used to examine multicollinearity among the independent variables, which is important for the stability and reliability of the estimated coefficients.

## RESULTS AND DISCUSSION

### Table 1: Descriptive Statistics

Variable	Mean	Std Dev	Min	Max
GDP	184.5	32.7	140	240

**Variable Mean Std Dev Min Max**

PPT	5.6	1.8	3.2	8.4
CIT	3.9	1.2	2.1	6.0
VAT	4.8	1.5	2.5	7.2

**Table 2: ADF Unit Root Test**

**Variable Level 1st Diff Order**

GDP	NS	S	I(1)
PPT	NS	S	I(1)
CIT	S	—	I(0)
VAT	NS	S	I(1)

**ARDL Bounds Test Results**

**Test Statistic Value**

F-Statistic 11.175

**Critical Values (Pesaran et al., 2001) at 5%**

**Model (k = 3) I(0) Bound I(1) Bound**

5% level 3.23 4.35

**Table 3: ARDL Long-Run Results**

**Variable Coefficient t-stat Prob**

PPT	0.412	3.21	0.002
CIT	0.356	2.89	0.005
VAT	0.478	4.02	0.001

$$R^2 = 0.785$$

**Table 4: Short-Run ECM****Variable Coefficient t-stat**

D(PPT)	0.221	2.45
D(CIT)	0.198	2.10
D(VAT)	0.250	2.88
ECM(-1)	-0.63	-3.91

**Table 5: VIF Test****Variable VIF**

PPT	2.34
CIT	2.11
VAT	2.67

The findings of this empirical study firmly establish that federally collected taxes have a significant impact on the economic growth in Nigeria during the period under study. The descriptive statistics also show moderate variability across the variables, where GDP shows a relatively high mean value of 184.5 compared to PPT (5.6), CIT (3.9) and VAT (4.8). This is simply a reflection of the size difference between the components of output and tax revenue, and also indicates a fairly constant and upwardly trending tax base during the time period covered.

The Augmented Dickey-Fuller (ADF) unit root test results indicate mixed order of stationarity for the variables with GDP, PPT and VAT being of order one and CIT stationary at level. This

mixed integration is suitable for applying the ARDL approach, which is suitable for analyzing the relationships between variables with different orders of integration.

### **ARDL Bounds Test for Cointegration**

The ARDL bounds test was employed to determine the existence of a long-run relationship between federally collectable taxes and economic growth.

### **Decision Rule**

If F-statistic > Upper bound (I(1)), reject null hypothesis of no cointegration.

### **Decision**

Since **11.175 > 4.35**, the null hypothesis is rejected.

This confirms the existence of a long-run equilibrium relationship between PPT, CIT, VAT, and economic growth in Nigeria. This infers that federally collectable taxes and GDP move together in the long run, and deviations from equilibrium are momentary.

The ARDL long run results indicate positive and statistically significant effect of all the tax components on economic growth. Specifically, Petroleum Profit Tax ( $\beta = 0.412$ ,  $p < 0.002$ ), Company Income Tax ( $\beta = 0.356$ ,  $p < 0.005$ ), and Value Added Tax ( $\beta = 0.478$ ,  $p < 0.001$ ) all contribute positively to GDP. Of these, the long run effects of VAT are strongest, indicating that there is a trend towards a consumption tax as a more stable revenue and economic driver. The explanatory power of the model ( $R^2 = 0.785$ ) suggests that the variables included in the model can explain about 78.5% of the variations in economic growth, which indicates that the model is well fitting.

The Error Correction Model (ECM) results for the short run dynamics indicate that the growth rate of PPT, CIT and VAT all have positive, significant and economically meaningful effects on economic growth. Finally, the error correction term is negative and statistically significant, suggesting a very strong speed of adjustment toward long-run equilibrium, in that about 63% of the short-run disequilibrium is corrected in a year. This further substantiates the stable long run relationship between the variables.

The Variance Inflation Factor (VIF) results show that there is no multicollinearity problem among the explanatory variables as all values are lower than the rule of thumb,  $VIF < 10$ .

On a substantive level, the results indicated that PPT is still one of the major contributors to economic growth considering Nigeria's continued dependence on the oil sector as one of the major sources of revenue for the country. However, VAT is becoming more significant, as there are structural changes in the approach to generating revenue, driven by consumption, and

expanding the tax base. At the same time, CIT also has positive contribution to show the role of the activity of the corporate sector in supporting economic activity.

Overall, the findings support existing empirical research by Adebisi and Alade (2021) and Akinwale (2023) that demonstrate that well-designed and well-implemented taxation policy boosts economic growth. However, the results also indicate that the institutional inefficiencies such as the lack of fiscal discipline and the problems of public expenditure management could restrict the developmental effect of taxation in Nigeria to the level permitted.

### **Conclusion**

This focused on the effect of the federally collectable taxes on economic growth in Nigeria (2015-2025). The empirical result suggests that PPT, CIT and VAT indeed have a positive and significant impact on economic growth, which implies that they are important fiscal tools for mobilization of revenue and macroeconomic performance. Although these taxes have positive effects, the findings indicate that taxes may not be used to their maximum growth enhancing potential. This is mainly due to institutional inadequacies, such as tax administration inefficiencies, compliance problems and public financial management weaknesses. These limitations diminish the effectiveness of tax revenues in becoming productive public investment, which limits their overall impact on development.

### **Recommendations**

The following recommendations were made:

1. Complete end-to-end digitalization of tax administration: Government should continue to build tax administration end-to-end digitalization to minimize revenue leakages, increase efficiency and strengthen transparency in tax revenue.
2. Improvement of enforcement and compliance systems: Tax authorities should beef up tax monitoring, enforcement and penalty systems to combat tax evasion and to expand the effective tax base.
3. Extension of non-oil revenues: Tax policy should shift to provide greater coverage to the non-oil sector with a view to including more players in the informal sector.
4. Greater transparency and greater accountability of public spending: Greater fiscal governance will ensure that taxes are used effectively in productive sectors that will directly boost the economy.
5. Linkage of tax revenues to measurable development outcomes: Government to implement result based budgeting framework that will bind utilization of tax revenues to verifiable infrastructure and social development indicators.

In general, strengthening the institutional quality and fiscal discipline is crucial in supporting Nigeria's efforts to achieve robust and equitable economic growth with expanded tax revenues.

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