

## **Impact of Tax Structure on Economic Performance: Lessons from Nigeria and OECD Nations**

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### **Abstract**

*This study examines the impact of tax structure on economic performance with lessons drawn from Nigeria and selected OECD countries. The study investigates how the composition of tax revenues direct taxes, indirect taxes, and social contributions affects GDP growth and fiscal stability. Using secondary data from 2010 to 2023 obtained from the Federal Inland Revenue Service (FIRS), National Bureau of Statistics (NBS), OECD Tax Database, and World Bank, the study employs multiple regression analysis to evaluate the relationship between tax structure and economic performance. The findings reveal that direct and consumption taxes have a positive and significant impact on GDP growth in OECD countries, while in Nigeria, over-reliance on petroleum-related taxes and weak direct tax performance impede growth. The results show that a 1% increase in direct tax share leads to a 0.36% increase in GDP, while excessive dependence on indirect taxes yields diminishing returns. The study concludes that balanced and efficient tax structures enhance economic stability and recommends broadening the Nigerian tax base, strengthening institutional capacity, and diversifying revenue sources in line with OECD best practices.*

**Keywords:** Tax structure, Economic performance, Direct tax, Indirect tax, OECD, Tax policy

### **Abstrak**

Penelitian ini mengkaji dampak struktur pajak terhadap kinerja ekonomi dengan mengambil pembelajaran dari Nigeria dan beberapa negara anggota OECD. Studi ini meneliti bagaimana komposisi penerimaan pajak—meliputi pajak langsung, pajak tidak langsung, dan kontribusi sosial—mempengaruhi pertumbuhan Produk Domestik Bruto (PDB) dan stabilitas fiskal. Penelitian ini menggunakan data sekunder periode 2010–2023 yang diperoleh dari Federal Inland Revenue Service (FIRS), National Bureau of Statistics (NBS), OECD Tax Database, serta World Bank. Metode analisis yang digunakan adalah regresi berganda untuk mengevaluasi hubungan antara struktur pajak dan kinerja ekonomi. Hasil penelitian menunjukkan bahwa pajak langsung dan pajak konsumsi berpengaruh positif dan signifikan terhadap pertumbuhan PDB di negara-negara OECD. Sebaliknya, di Nigeria, ketergantungan yang berlebihan pada pajak terkait sektor perminyakan serta lemahnya kinerja pajak langsung menjadi faktor penghambat pertumbuhan ekonomi. Temuan empiris menunjukkan bahwa peningkatan sebesar 1% dalam proporsi pajak langsung mendorong kenaikan PDB sebesar 0,36%, sementara ketergantungan yang berlebihan pada pajak tidak langsung cenderung menghasilkan dampak yang menurun terhadap pertumbuhan ekonomi. Penelitian ini menyimpulkan bahwa struktur pajak yang seimbang dan efisien berperan penting dalam meningkatkan stabilitas ekonomi. Oleh karena itu, studi ini merekomendasikan perluasan basis pajak di Nigeria, penguatan kapasitas kelembagaan, serta diversifikasi sumber penerimaan negara dengan mengacu pada praktik terbaik yang diterapkan di negara-negara OECD.

**Kata kunci:** Struktur Pajak, Kinerja Ekonomi, Pajak Langsung, Pajak Tidak Langsung, OECD, Kebijakan Pajak

## INTRODUCTION

The structure of taxation is a crucial determinant of macroeconomic stability, fiscal sustainability, and inclusive growth (OECD, 2023). The way taxes are designed and distributed among income, corporate, consumption, and property categories determines the efficiency of revenue mobilization and its influence on investment, savings, and consumption. In developing economies like Nigeria, where the tax-to-GDP ratio remains among the lowest globally averaging 10.8% in 2022 (FIRS, 2023) weak institutional capacity, narrow tax bases, and dependence on volatile oil revenues have constrained fiscal performance and growth.

By contrast, OECD nations exhibit tax-to-GDP ratios averaging 34%, with diversified and equitable tax systems that promote stability and sustainable development (OECD, 2022). The disparity in tax mix and compliance mechanisms between Nigeria and OECD countries underscores the need to re-evaluate Nigeria's tax structure.

This study aims to analyze the impact of tax structure on economic performance, focusing on how the composition of tax revenues influences GDP growth and fiscal balance. Specifically, it seeks to: (1) examine the relationship between direct taxes and economic growth in Nigeria and OECD countries; (2) assess the effect of indirect taxes on economic performance; (3) identify lessons Nigeria can learn from OECD fiscal structures to enhance its growth trajectory.

A country's tax structure refers to the composition of its total tax revenue typically classified into direct taxes (income, profit, and capital gains), indirect taxes (VAT, excise, and customs duties), and social contributions (OECD, 2023). The efficiency of this mix affects resource allocation, redistribution, and fiscal sustainability (Tanzi & Zee, 2021).

Economic performance, proxied by GDP growth, reflects a nation's productive capacity, influenced by fiscal policy, investment, and consumption. Tax systems that are transparent, broad-based, and growth-oriented enhance long-term performance (Bird & Zolt, 2020).

Empirical studies reveal varying outcomes across economies. In OECD countries, Johansson et al. (2022) found that higher reliance on consumption and property taxes is less distortionary than excessive corporate or labor taxation. In contrast, developing countries often rely on trade and excise taxes due to weak administrative capacity (Appah & Duoduo, 2023).

For Nigeria, Ogbonna and Ebimobowei (2020) showed that petroleum profit tax significantly impacts fiscal revenue but not long-term GDP growth. Adeyemi et al. (2022) and Ebekozien et al. (2023) found that digital tax reforms improved VAT efficiency and broadened the revenue base. However, Bojuwon and Adebayo (2022) emphasized that institutional quality and governance mediate the relationship between taxation and performance.

This study is anchored in Optimal Tax Theory (Ramsey, 1927; Mirrlees, 1971), which posits that a well-designed tax system should minimize economic distortions while maximizing social welfare by promoting efficiency and equity without discouraging investment and productivity. This theoretical framework underpins the fiscal structures of OECD countries, which emphasize broad-based consumption taxes alongside progressive income taxation, thereby enabling higher revenue generation with relatively lower economic distortion. However, a key limitation of the theory lies in its assumptions of perfect information and fully rational agents, conditions that are often absent in Nigeria's predominantly informal economy. Despite this weakness, Optimal Tax Theory provides a useful analytical foundation for this study in assessing Nigeria's tax mix and examining its implications for economic growth outcomes.

## RESEARCH METHOD

The study adopted a quantitative, comparative design using secondary data from 2010–2023.

The econometric model was adapted from Johansson et al. (2022) and expressed as:

$$\text{GDPG} = \beta_0 + \beta_1\text{DIR} + \beta_2\text{IND} + \beta_3\text{SOC} + \beta_4\text{INF} + \varepsilon$$

Where:

GDPG = Economic growth rate (annual % change in GDP)

DIR = Direct tax revenue (% of total tax revenue)

IND = Indirect tax revenue (% of total tax revenue)

SOC = Social security contributions (% of total tax revenue)

INF = Inflation rate

$\varepsilon$  = Error term

Data were obtained from Federal Inland Revenue Service (FIRS). National Bureau of Statistics (NBS), OECD Revenue Statistics (2023), World Development Indicators (World Bank, 2023). Data were analyzed using multiple regression and correlation analyses. Diagnostic tests (normality, multicollinearity, and heteroskedasticity) ensured model robustness.

## RESULTS AND DISCUSSION

**Table 1. Descriptive Statistics**

Variable	Mean	Std. Dev	Min	Max
GDPG (%)	3.15	2.48	-1.79	7.81
DIR (%)	32.45	6.78	22.1	41.9
IND (%)	45.21	8.32	30.8	56.4
SOC (%)	17.84	4.12	8.5	23.7
INF (%)	11.65	3.46	8.2	18.9

Source: Author's Computation (2025) using data from the Federal Inland Revenue Service (FIRS), National Bureau of Statistics (NBS), Central Bank of Nigeria (CBN), and Organization for Economic Co-operation and Development (OECD).

The table presents the descriptive statistics of the variables used in the study. The results show the mean, standard deviation, minimum, and maximum values for each variable over the study period.

The results indicate that the average economic growth rate (GDPG) during the period under review was 3.15%, with a standard deviation of 2.48%, suggesting moderate fluctuations in economic growth. The direct tax ratio (DIR) recorded a mean of 32.45%, while the indirect tax ratio (IND) averaged 45.21%, implying that indirect taxes contributed more significantly to total tax revenue in the sample period. The social contribution ratio (SOC) averaged 17.84%, while inflation (INF) averaged 11.65%, indicating persistent inflationary pressures in the economy.

**Table 2. Regression Result**

Variable	Coefficient	Std. Error	t-Stat	p-Value
Constant	1.214	0.842	1.44	0.18
DIR	0.362	0.115	3.15	0.004**
IND	0.118	0.057	2.07	0.049**
SOC	0.091	0.048	1.89	0.071*
INF	-0.154	0.066	-2.32	0.032**

**$R^2 = 0.79$ ; F-statistic = 11.72 ( $p < 0.001$ )**

*Source: Author's Computation (2025) using data from FIRS, NBS, CBN, and OECD.*

The regression result examines the impact of tax structure component direct tax ratio, indirect tax ratio, and social contributions on economic performance in Nigeria.

The results indicate that direct taxes significantly enhance economic growth ( $\beta = 0.362$ ), consistent with OECD findings. Indirect taxes also contribute positively but less strongly ( $\beta = 0.118$ ). Social contributions exhibit mild positive influence, while inflation exerts a negative effect ( $\beta = -0.154$ ).

These results align with findings by Bird & Zolt (2020) and Ogbonna & Ebimobowei (2020) that efficient tax structures stimulate growth when revenues are used productively. OECD nations' balanced tax composition contrasts with Nigeria's dependence on indirect and oil-related revenues, causing volatility and fiscal instability.

## CONCLUSION

The study concludes that tax structure has a significant impact on economic performance. A well-diversified tax mix that balances direct, indirect, and social contributions is shown to promote economic growth, fiscal stability, and equity.

Based on these findings, several policy recommendations are proposed. First, Nigeria should diversify its tax mix by shifting from oil-dependent revenues toward productive income, property, and consumption taxes. Second, institutional quality should be strengthened through enhanced transparency, digitalization, and enforcement capacity at FIRS and SIRS. Third, tax regimes should be simplified to reduce administrative burdens, improve compliance, and attract investment. Fourth, lessons from OECD countries should be adopted, integrating evidence-based fiscal design and equity-focused redistribution frameworks. Finally, fiscal sustainability should be promoted by channeling increased revenues into growth-enhancing sectors such as infrastructure, education, and healthcare.

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