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Indonesia's Tax Ratio and Revenue Structure: A Comparative Fiscal Analysis

Bunga Dwi Fani Ritonga[1*], FIMANOU MITNA Fidèle[2], KADA Gilbert[3]
[1] Universitas Islam Negeri Sumatera Utara, Indonesia
[2] University of Maroua, Cameroon
[3] Université de Moundou, Chad
email: dwibungaa22@gmail.com[1]

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Abstract

Indonesia's nominal tax receipts grew during 2015–2024, but its tax-to-GDP ratio remained low relative to regional peers. This study integrates OECD revenue trends, tax composition, and a 2023 Southeast Asian comparison with a literature-derived administrative diagnostic. Selected OECD observations for 2015 and 2019–2024 were analyzed using percentage changes, tax shares, and percentage-point gaps; government, IMF, and World Bank publications provided context. OECD tax revenue increased from IDR 1,395.96 trillion in 2015 to IDR 2,620.67 trillion in 2024, while the tax ratio changed from 12.0% to 11.8%. The ratio reached 10.1% in 2020 and 12.1% in 2022 before moderating. In 2023, Indonesia's ratio was 7.6 percentage points below the Asia-Pacific average. The study's contribution is to distinguish higher nominal collections from persistent relative revenue constraints and connect these outcomes to testable administrative questions. Administrative capacity was not directly measured, and no reform effects were estimated. The fiscal patterns are descriptive findings; priorities involving broader tax bases, stronger information matching, and lower compliance costs are literature-informed policy considerations rather than demonstrated causal results.

Keywords: *fiscal capacity, Indonesia, revenue mobilization, tax ratio, tax structure.*

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INTRODUCTION

Domestic revenue capacity has become a central constraint in Indonesia's fiscal strategy because demands for infrastructure, social protection, health, education, climate adaptation, and debt service continue to expand faster than the tax base. The issue is not simply whether nominal collections increase, but whether the tax system can mobilize a stable share of national income across commodity cycles and macroeconomic shocks. OECD statistics place Indonesia's tax-to-GDP ratio at 11.8% in 2024, well below the ratios observed in many comparable Asia-Pacific economies, while the IMF has repeatedly identified weak revenue mobilization as a structural fiscal challenge (OECD, 2026; IMF, 2024). This gap matters for economic management because low recurring revenue narrows the space for countercyclical policy and increases reliance on expenditure compression when shocks occur. The fiscal problem is therefore best understood as a question of tax capacity, combining policy design, administrative effectiveness, compliance behavior, information systems, and the breadth of the formal economy rather than as a narrow collection target (Benitez et al., 2023; Jensen & Weigel, 2026).

Indonesia has introduced electronic filing, payment, invoicing, risk-based compliance management, and tax-data integration alongside changes to VAT and income-tax rules. These measures could improve administrative reach by reducing compliance costs and generating more verifiable transaction information, but their aggregate fiscal effects cannot be inferred from their adoption alone. International studies illustrate plausible channels: e-filing in Tajikistan reduced compliance time and changed payment and bribery behavior, while mandatory e-invoicing in Peru improved reported VAT liabilities among previously less compliant firms (Okunogbe & Pouliquen, 2022; Bellon et al., 2022). Evidence on electronic sales registration in Ethiopia likewise supports an information-based mechanism, although institutional implementation and taxpayer coverage condition its transferability to Indonesia (Ali et al., 2021; Bird & Zolt, 2008).

The central Indonesian puzzle is the divergence between nominal tax receipts and revenue relative to national output. According to the OECD series, tax revenue increased from IDR 1,395.96 trillion in 2015 to IDR 2,620.67 trillion in 2024, while the tax-to-GDP ratio moved from 12.0% to 11.8% (OECD,

2026). Larger receipts can reflect an expanding economy, inflation, commodity-related profits, or temporary conditions without implying greater effective tax coverage. Annual budget target attainment measures performance against a planned collection amount, not necessarily a lasting improvement in revenue capacity. Distinguishing cyclical buoyancy from structural base expansion thus requires examining revenue levels and ratios jointly, with attention to the design and enforcement of the tax system (Slemrod, 2019; Alm, 2019).

Tax structure adds a second layer to the problem. In 2023, OECD classification indicates that Indonesia collected about 5.1% of GDP from taxes on income, profits, and capital gains; 5.0% from taxes on goods and services; 0.5% from social security contributions; 0.2% from property taxes; and around 1.2% from other taxes (OECD, 2025). This composition shows a relatively balanced dependence on income taxation and consumption taxation, but it also reveals limited revenue from recurrent property taxation and social security relative to many higher-capacity systems. The practical performance of VAT is especially important because VAT can create self-enforcing information chains when invoices are verified across buyers and sellers, yet its effectiveness depends on registration thresholds, exemptions, refund administration, audit quality, and the capacity to detect breaks in transaction chains (Pomeranz, 2015; Mascagni et al., 2023). The structure therefore links tax policy directly to administrative architecture rather than treating rate changes as sufficient for revenue mobilization.

Compliance behavior affects how much of a statutory tax base becomes revenue. Beyond audit probability and penalties, empirical studies emphasize perceived fairness, trust, service quality, and social norms (Cummings et al., 2009; Alm et al., 2019). Indonesian research associates tax morale with institutional trust, taxpayer knowledge, and enforcement perceptions, while corporate-level findings link digital transformation and compliance behavior under particular social conditions (Daneshwara & Riandoko, 2023; Erina et al., 2024; Lumbantobing & Adwimurti, 2026). These studies identify possible mechanisms within taxpayer groups, not an estimate of their contribution to the national tax-to-GDP ratio. Their relevance is therefore diagnostic: digital enforcement needs credible procedures, accessible services, and verifiable information to support compliance sustainably.

Informality remains another structural constraint. A large informal sector limits the reach of third-party reporting, weakens withholding networks, and raises the cost of identifying businesses that operate outside standard registration and accounting systems. Cross-country and firm-level research shows that taxpayer size, visibility, information trails, and enforcement thresholds strongly shape effective tax burdens and reporting behavior (Mascagni & Mengistu, 2019; Waseem, 2018). Information technology can improve compliance among registered taxpayers, but it cannot automatically discover or formalize economic activity that remains outside digital, banking, invoicing, or payroll records, particularly when administrative data are fragmented (Joshi et al., 2020). Indonesia's policy challenge therefore combines intensive-margin compliance among known taxpayers with extensive-margin expansion of the effective tax base.

The pandemic and recovery years provide a useful stress test because revenue was exposed to a sharp contraction, subsequent economic normalization, commodity-related fluctuations, and ongoing administrative reform. The OECD tax ratio fell to 10.1% in 2020, recovered to 12.1% in 2022, and eased to 11.8% in 2024 (OECD, 2026). Separately, Ministry of Finance budget reporting recorded IDR 1,932.4 trillion in central-government tax receipts in 2024, or 100.5% of the annual target (Ministry of Finance, 2025). Because this budget measure and the OECD general-government tax series have different coverage, they cannot be treated as interchangeable. A multi-year and cross-country comparison helps establish whether the observed recovery coincided with a durable change in the tax share, without attributing it to an individual reform.

Prior Indonesian studies have investigated e-filing, taxpayer behavior, and digital tax services, frequently using surveys or specific taxpayer populations. Their evidence helps identify service and compliance mechanisms, but it does not directly reconcile three aggregate questions: why nominal receipts have risen without a comparable increase in the tax-to-GDP ratio, which major revenue categories account for the tax structure, and how the resulting ratio compares with regional peers (Rahmi & Gangodawilage, 2022; Rosyid et al., 2024; Ilahi et al., 2025; Restu Bagus & Sulkiah, 2025). The gap is therefore one of analytical integration, not the absence of studies on tax administration. This article connects the OECD-consistent revenue series, component-level tax shares, selected regional benchmarks, and literature-based administrative mechanisms within a single explicitly noncausal

diagnostic design. Its originality lies in separating directly observed fiscal outcomes from proposed explanations and policy levers.

The study answers three questions: how did nominal revenue and the tax-to-GDP ratio change across the 2015 and 2019–2024 benchmark observations; how did Indonesia's 2023 tax composition and ratio compare with selected Southeast Asian economies and the Asia-Pacific average; and which administrative constraints are consistent with, but not proven by, those patterns? The comparison is needed because trends alone cannot show whether Indonesia's revenue share is unusually low, while peer ratios alone cannot explain its domestic revenue trajectory. The contribution is a replicable descriptive comparison combined with a clearly labeled, literature-derived administrative diagnostic, rather than a causal assessment of reform effects. This approach complements the World Bank's discussion of tax-base coverage, administrative quality, and the review of exemptions (World Bank, 2022).

RESEARCH METHODS

This study used secondary-data longitudinal and comparative fiscal analysis. The analytical horizon was 2015–2024, but the reported trend observations were deliberately restricted to 2015 as a long-run benchmark and the consecutive years 2019–2024 to trace the pre-pandemic position, 2020 shock, and subsequent recovery; 2016–2018 were not presented as annual observations. Nominal total tax revenue and tax-to-GDP ratios were transcribed from OECD Revenue Statistics in Asia and the Pacific 2026, retaining the published units (IDR billions and percent of GDP) and OECD classification (OECD, 2026). The 2023 revenue categories and peer ratios were taken from the 2025 OECD edition so that the regional comparison used one reporting vintage (OECD, 2025). Directorate General of Taxes reports, Ministry of Finance budget releases, IMF surveillance, and World Bank publications supplied contextual information rather than additional observations in the OECD series (Directorate General of Taxes, 2024; IMF, 2024). OECD general-government tax statistics, which include qualifying compulsory payments and social security contributions, were not spliced with narrower central-government budget collection figures; coverage, accounting, and institutional definitions may differ.

Four descriptive calculations were applied to the transcribed OECD values. For adjacent reported years, nominal growth was computed as $g(t) = [(R(t) / R(t-1)) - 1] \times 100$, where R is total tax revenue in IDR billions; the 2015–2024 change used the same formula with 2015 as the base year and was identified as a cumulative, not annual, change. The tax ratio was read directly from the OECD dataset rather than calculated from Ministry of Finance receipts. Each 2023 tax-category share was reported as the OECD percentage of GDP, and each peer gap was calculated in percentage points as Gap(peer) = Ratio(peer) - Ratio(Indonesia); rounding followed the published one-decimal ratios. Malaysia, Vietnam, Thailand, and the Philippines were chosen as geographically relevant Southeast Asian comparators exhibiting a range of 2023 tax ratios in the same OECD release; the Asia-Pacific average provided wider regional context, not a matched control group. Table 1 reports the selected revenue levels and ratios, Table 2 their consecutive annual changes for 2019–2024, Table 3 the 2023 tax components, and Table 4 the contemporaneous peer gaps. No statistical or causal decomposition of growth into GDP, policy, prices, and enforcement components was attempted.

Administrative capacity was not measured with a separate quantitative index. Instead, the interpretation used a literature-derived mechanism map covering five channels: taxpayer identification and registration; third-party reporting and invoice verification; filing and payment costs; audit selection and enforcement credibility; and trust-related voluntary compliance. The channels were selected because research links digital filing to compliance costs, invoicing to verified transactions, and information systems to enforcement capacity (Okunogbe & Pouliquen, 2022; Bellon et al., 2022; Kochanova et al., 2020). Indonesian studies on digital services, taxpayer awareness, and compliance were then read against these channels to assess contextual relevance, not to estimate their effects on national revenue (Rahmi & Gangodawilage, 2022; Lumbantobing & Adwimurti, 2026). For each channel, Table 6 pairs a hypothesized constraint with an illustrative signal and a possible response. These signals are proposals for future administrative evaluation; they were not constructed as measured variables in the present dataset.

No regression, counterfactual test, or causal attribution was performed. The short set of selected annual fiscal observations, simultaneous policy and macroeconomic changes, and differences across tax systems prevent identification of how much each reform contributed to revenue. The reported

percentages, growth rates, tax shares, and peer gaps are descriptive quantities reproducible from the cited OECD tables; qualitative interpretations use the identified publications without converting them into observed fiscal effects. The absence of reported 2016–2018 yearly observations also limits fine-grained trend assessment between the two benchmark points. Finally, aggregate figures cannot establish evasion rates, distributional incidence, sector-specific tax productivity, or the relative impact of Coretax and other initiatives. These limits guide the cautious interpretation of the results.

RESULTS AND DISCUSSION

Revenue Mobilization and Tax-Ratio Persistence

Indonesia's revenue series displays substantial nominal expansion without a corresponding structural increase in the tax ratio. OECD total tax revenue rose from IDR 1,395.96 trillion in 2015 to IDR 1,834.71 trillion in 2019, then fell to IDR 1,555.33 trillion in 2020 as the pandemic compressed profits, consumption, imports, and taxable activity. The rebound was rapid: revenue increased to IDR 1,844.69 trillion in 2021 and IDR 2,363.88 trillion in 2022 before reaching IDR 2,517.06 trillion in 2023 and IDR 2,620.67 trillion in 2024 (OECD, 2026). In nominal terms, the 2024 level was approximately 87.7% above the 2015 benchmark. The tax-to-GDP ratio, however, was 12.0% in 2015 and 11.8% in 2024. This combination is the central fiscal finding of the study: Indonesia has demonstrated an ability to generate larger nominal receipts as the economy expands, but the effective tax claim on GDP has not shifted upward on a sustained basis.

Table 1. Indonesia Tax Revenue and Tax-to-GDP Ratio, Selected Years

Year	Total tax revenue (IDR bn)	Tax-to-GDP ratio (%)
2015	1,395,962	12.0
2019	1,834,711	11.6
2020	1,555,331	10.1
2021	1,844,690	10.9
2022	2,363,876	12.1
2023	2,517,061	12.0
2024	2,620,668	11.8

Source: OECD (2026), Revenue Statistics in Asia and the Pacific 2026.

The 2020 decline illustrates Indonesia's exposure to macroeconomic shocks. Between 2019 and 2020, the OECD tax ratio fell from 11.6% to 10.1% and total nominal revenue declined by approximately 15.2%. Weaker profits, consumption, imports, and formal-sector activity are plausible transmission channels, but the aggregate series does not identify their individual contributions. This distinction matters because a downturn can reduce receipts even when tax rules and administrative practices remain unchanged. The fiscal implication is that a relatively low starting ratio leaves less recurring revenue to cushion expenditure needs. The IMF's emphasis on strengthening medium-term domestic revenue mobilization is consistent with this vulnerability (IMF, 2024; Benitez et al., 2023).

Recovery was unusually pronounced in the first two post-shock years: nominal tax revenue grew by 18.6% in 2021 and 28.1% in 2022, while the tax ratio returned to 10.9% and 12.1%, respectively. These movements can be described as cyclical improvements insofar as they coincide with reopening, recovery in taxable activity, and favorable commodity conditions; the current data cannot assign numerical shares to those forces. A structural improvement, by contrast, would require a sustained increase in effective tax coverage after temporary conditions subside, preferably corroborated by indicators such as stable non-commodity bases or improved registration and reporting. The decline in the ratio after 2022 does not prove that reforms failed, but it provides no clear evidence of a new, higher fiscal plateau. The distinction aligns with work on information-based enforcement and the institutional determinants of compliance (Slemrod, 2019; Alm, 2019).

The ratio eased from 12.1% in 2022 to 12.0% in 2023 and 11.8% in 2024, despite continued nominal revenue growth. Central-government tax receipts of IDR 1,932.4 trillion in 2024 exceeded the Ministry of Finance target, but this budget figure is narrower in coverage than the OECD general-government measure (Ministry of Finance, 2025). Target achievement therefore cannot be used to infer an increase in the OECD ratio. The juxtaposition identifies a measurement issue as well as an economic

one: growth in an annual budget aggregate and changes in a standardized tax-to-GDP ratio answer different questions. Neither series alone isolates how changes in the tax base, activity mix, or administration affected collections.

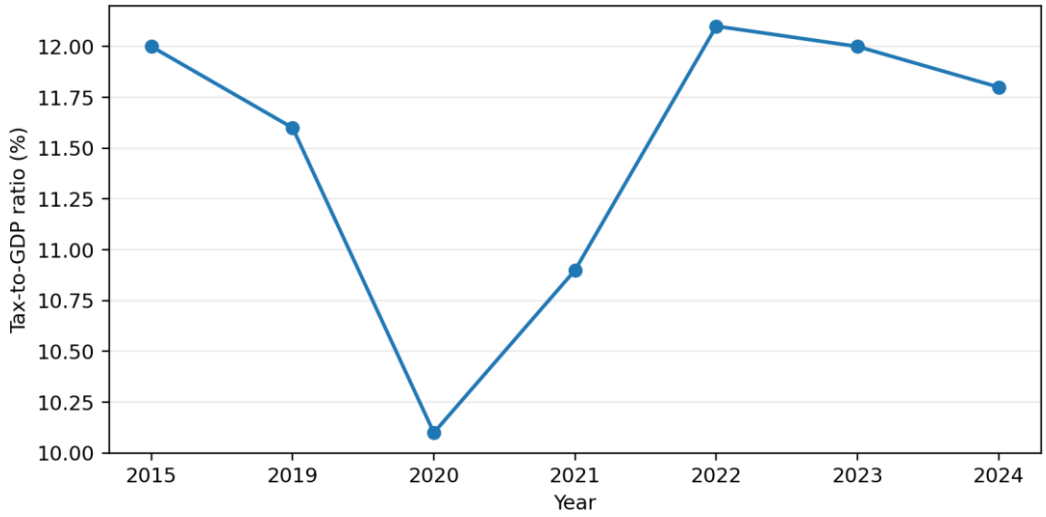


Figure 1. Indonesia Tax-to-GDP Ratio, Selected Years, 2015–2024

Table 1 and Figure 1 show ratios near 12% in 2015, 2022, and 2023, separated by the 2020 shock and an uneven recovery. This stability is consistent with persistent constraints on the effective tax base, including exemptions, hard-to-observe activity, or uneven reporting and enforcement, but the aggregate series cannot distinguish among them. The possibility that technology modernizes existing taxpayer interactions without proportionately widening coverage is supported conceptually by research on organizational tax capacity (Jensen & Weigel, 2026). Accordingly, the observed pattern should be described as persistence in the tax ratio rather than evidence of a measured structural equilibrium. A formal structural explanation would require micro-level compliance data and controls for economic composition.

Table 2 indicates that nominal revenue growth slowed to approximately 6.5% in 2023 and 4.1% in 2024 after the 2022 surge. Slower growth after a rebound is not inherently evidence of weak administration; it may reflect the normalization of commodity prices, profit margins, or other temporary tax bases. To determine whether structural capacity improved, future assessments would need to track stable-base revenue, VAT efficiency, income-tax reporting coverage, and compliance measures over several years. These indicators are more directly related to the productivity of tax bases than one-year collection targets. The IMF's 2024 assessment supports a medium-term focus on improving underlying tax administration and revenue performance (IMF, 2024).

Table 2. Annual Change in Total Tax Revenue

Period	Nominal growth (%)
2019–2020	-15.2
2020–2021	18.6
2021–2022	28.1
2022–2023	6.5
2023–2024	4.1

Source: Authors' calculations from OECD (2026).

Figure 1 establishes the timing of the disruption and recovery, whereas Table 2 quantifies changes in nominal collections. Taken together, they cannot identify the contribution of statutory policy, inflation, compliance, or commodity activity to annual growth. Such a decomposition would require additional information on taxable bases, prices, rates, sectoral receipts, and behavioral responses.

Findings on reporting thresholds and firm-size differences show why these responses may vary considerably across taxpayers (Waseem, 2018; Mascagni & Mengistu, 2019). The methodological conclusion is therefore narrower than a claim about reform effectiveness: the available aggregates document the outcome, but not its causal allocation.

Figure 2 provides the complementary nominal perspective. The near doubling of total tax revenue between 2015 and 2024 is fiscally meaningful because budgets are financed in currency units, and rising collections support a much larger scale of public expenditure. Yet nominal growth generated by economic expansion, inflation, and changes in the price level does not measure the state's relative capacity to tax. This distinction is especially important when communicating fiscal performance because the same data can support very different narratives depending on the denominator. OECD tax statistics are useful precisely because they standardize that denominator and allow intertemporal and international comparison. The evidence suggests that Indonesia's next fiscal challenge is not merely maintaining nominal growth but increasing revenue productivity relative to GDP without imposing excessive compliance burdens or discouraging formalization.

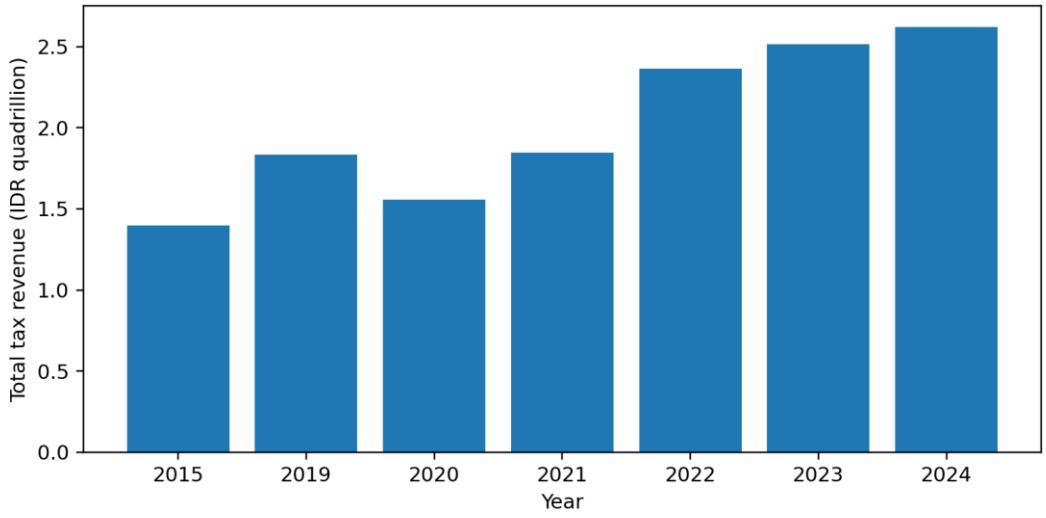


Figure 2. Total Tax Revenue in Indonesia, Selected Years, 2015–2024

The revenue analysis identifies one robust result: tax collections were much larger in 2024 than in 2015, while the tax ratio ended slightly below its initial benchmark. The COVID-19 shock and the temporary 2022 improvement make the time profile especially important. Evidence about whether this pattern reflects limited tax-base coverage, tax expenditures, or offsetting compliance gains is not contained in the revenue series and must be investigated separately. International and World Bank research identifies stronger VAT and income-tax bases and information systems as possible responses, not as effects established by this study (World Bank, 2022). This distinction between a measured fiscal trajectory and hypothesized mechanisms is the first part of the article's contribution.

Tax Structure and Regional Comparative Position

The 2023 revenue mix reveals where the fiscal envelope is concentrated. Taxes on income, profits, and capital gains supplied 5.1% of GDP and taxes on goods and services another 5.0%; social security contributions, property taxes, and other taxes contributed 0.5%, 0.2%, and 1.2%, respectively (OECD, 2025). Similar aggregate sizes for income and consumption taxes do not imply identical collection problems: corporate receipts can be sensitive to profit and commodity cycles, whereas VAT performance depends more directly on transaction reporting and taxable-consumption coverage. The small property share points to a different institutional issue involving registries, valuation, and subnational functions. These contrasts motivate instrument-specific diagnosis instead of an undifferentiated recommendation to raise rates.

Table 3. Indonesia Tax Structure by Major OECD Category, 2023

Tax category	Percent of GDP
Income, profits and capital gains	5.1
Social security contributions	0.5
Property	0.2
Goods and services	5.0
Other taxes	1.2
Total	12.0

Source: OECD (2025)

Property taxes contributed only 0.2% of GDP in the OECD's 2023 classification (Table 3). The limited share may reflect tax-base design, assessment practices, and the assignment of property-related responsibilities across levels of government; it is not sufficient evidence of poor central tax-office performance. Property taxation may offer a less mobile base for subnational finance, but valuation, land records, administrative capacity, and political feasibility shape its potential. Benitez et al. (2023) discuss underused property bases in developing economies, whereas the Indonesian result here establishes only the current scale of collections. A sensible policy inference is to evaluate registry and valuation constraints before assuming that a higher property-tax rate would produce large, immediate gains.

The balance between income and consumption taxation also matters for enforcement architecture. VAT is built around transaction chains in which firms have incentives to request invoices for deductible inputs, creating third-party information that can reveal underreporting. Pomeranz (2015) shows that this information trail is central to VAT's enforcement advantage, but the mechanism weakens at the final consumer stage and where businesses operate outside invoicing networks. Bellon et al. (2022) find that mandatory e-invoicing in Peru increased reported VAT liabilities, especially among firms with initially weaker compliance, illustrating how digitized invoices can strengthen the information chain. Indonesia's expansion of e-invoicing and digital reporting is therefore aligned with a well-established compliance mechanism. The remaining policy question is whether transaction information is sufficiently integrated, timely, and analytically usable to raise effective VAT productivity at national scale.

Income taxation presents a different challenge because third-party reporting varies across taxpayer groups. Wage income can be captured efficiently through withholding, while self-employment, professional income, closely held firms, and informal businesses are more difficult to observe. Kleven et al. (2011) demonstrate the powerful role of third-party information in limiting evasion when income is reported by employers or financial intermediaries. Where such reporting is absent, audit capacity and taxpayer incentives become more important. Indonesian tax-morale studies reinforce this point by showing that trust, fairness, enforcement perceptions, and knowledge contribute to compliance among taxpayers whose liabilities cannot be fully determined from third-party data (Daneshwara & Riandoko, 2023; Fitriandi et al., 2026). A stronger income-tax pillar therefore requires both information expansion and credible, procedurally fair compliance management.

Table 4 places Indonesia's 2023 ratio of 12.0% alongside Malaysia (13.1%), Vietnam (16.8%), Thailand (17.1%), the Philippines (17.9%), and the OECD-reported Asia-Pacific average (19.6%) (OECD, 2025). The corresponding gaps are 1.1, 4.8, 5.1, 5.9, and 7.6 percentage points. These are descriptive gaps in the same OECD taxonomy, not estimates of forgone Indonesian revenue or differences in administrative efficiency. Countries vary in income structures, informality, social security contributions, resource-related receipts, decentralization, and taxable-base design. The shared statistical definition makes the ratios comparable as revenue outcomes but does not make the underlying tax institutions equivalent. The benchmark is thus useful for identifying scale and motivating further inquiry, not for assigning a performance ranking to tax authorities.

Table 4. Tax-to-GDP Ratio in Selected Asia-Pacific Economies, 2023

Economy	Tax-to-GDP ratio (%)	Gap vs. Indonesia (pp)
Indonesia	12.0	0.0
Malaysia	13.1	1.1
Vietnam	16.8	4.8

Thailand	17.1	5.1
Philippines	17.9	5.9
Asia-Pacific average	19.6	7.6

Source: OECD (2025)

Table 4 summarizes the regional tax-to-GDP comparison. Indonesia was closest to Malaysia, with a 1.1-percentage-point gap, but lay 4.8–5.9 points below Vietnam, Thailand, and the Philippines in 2023. The spread is not evidence that a particular peer's tax rules or institutions can be copied successfully. Tax systems differ in social-insurance financing, the balance of income and consumption taxes, the distribution of responsibilities across government levels, and the size of hard-to-tax economic activity. The comparison therefore poses specific follow-up questions about base breadth, invoice coverage, income reporting, and tax expenditures rather than identifying a single best-practice country. A causal or institutional explanation would require harmonized country-level covariates beyond the ratios reported here.

Figure 3 displays the magnitude of the regional differences without identifying their causes. Closing even part of the gap would require changes sustained across multiple revenue instruments, but the figures do not show which instrument offers the largest feasible gain. Policy options proposed in the literature include VAT-base protection, better coverage of business and personal income, review of tax expenditures, and improved property administration (Benitez et al., 2023). The IMF also highlights underlying administrative and base-design weaknesses (IMF, 2024). In Indonesia, the relative merits of these options would need to be assessed against equity, informality, administrative capacity, and the cost of compliance; a regional average is a benchmark, not an attainable forecast.

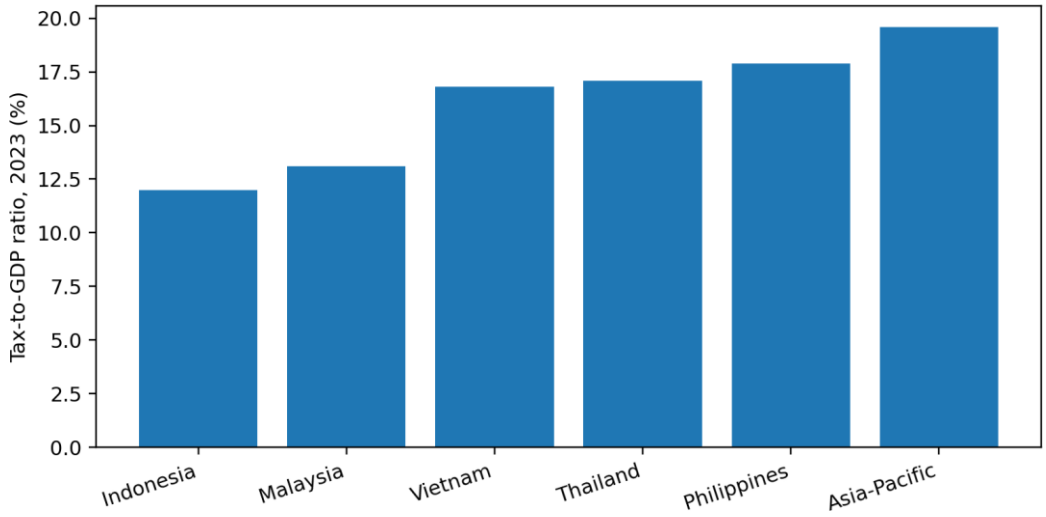


Figure 3. Tax-to-GDP Ratio: Indonesia and Selected Comparators, 2023

Tax expenditures are particularly relevant to this portfolio because exemptions, reduced rates, holidays, and special regimes can narrow the effective base while being less transparent than direct spending. They may support investment, MSME transition, distributional goals, or strategic sectors, but their fiscal cost should be evaluated against measurable outcomes. A narrow base forces compliant taxpayers to carry a larger effective burden or requires higher statutory rates to generate the same revenue. International tax-capacity research stresses that simplifying core taxes and rationalizing exemptions can produce durable revenue gains while improving neutrality (Benitez et al., 2023; Jensen & Weigel, 2026). For Indonesia, reform design must also account for informality and administrative feasibility, because eliminating a preference on paper yields little revenue if the underlying base remains difficult to identify or enforce. Policy and administration must therefore be sequenced together.

The composition and cross-country comparisons indicate that Indonesia's main tax categories generate a relatively small combined share of GDP compared with selected neighbors. They do not, however, reveal whether rate policy, exemptions, taxpayer coverage, economic structure, or

enforcement accounts for each difference. Income taxation, VAT, property-related taxes, and tax expenditures have distinct institutional requirements, so one policy instrument cannot be assumed to resolve every gap. The second contribution of this study is to connect observed category shares to testable questions about information, base design, and implementation capacity without claiming that the descriptive ratios identify the answers. Subsequent research should compare revenue composition and economic controls using matched country data.

Administrative Modernization, Compliance Capacity, and Revenue Quality

Administrative modernization offers potential channels for improving collections but is not measured as a cause of the aggregate tax-ratio trend in this study. Indonesia's use of e-filing, e-payment, e-invoicing, prefilled information, data exchange, and Coretax provides the national policy context. International research finds that e-filing in Tajikistan reduced compliance time and altered reported payments and bribery exposure, while broader e-government studies associate digital systems with lower compliance costs (Okunogbe & Pouliquen, 2022; Kochanova et al., 2020). Such results support the plausibility of reducing filing frictions and improving information, but they are not estimates for Indonesia. The relevant local evaluation questions concern data matching, system reliability, taxpayer access, audit selection, and whether any improvements persist in tax receipts relative to GDP.

Indonesian evidence must be distinguished from the international studies in Table 5. Rahmi and Gangodawilage (2022) discuss domestic innovation and implementation constraints, while Rosyid et al. (2024) examine digitalization and compliance. Lumbantobing and Adwimurti (2026) report relationships between digital tax transformation, corporate compliance, and social norms; other Indonesian studies cover e-filing and taxpayer behavior in more limited settings (Restu Bagus & Sulkiah, 2025; Ilahi et al., 2025). These findings provide local support for the relevance of administrative mechanisms but vary in sample, method, and outcome. None of them, as used here, supplies an identified national effect of Coretax or another digital reform on the OECD tax ratio. Table 5 is therefore a synthesis of relevant external evidence, not a new cross-study effect estimate.

Table 5. Evidence on Digital Tax Administration and Compliance

Study	Setting / method	Main implication
Okunogbe & Pouliquen (2022)	Tajikistan; experimental e-filing	Lower compliance time; changed payments and bribery exposure
Bellon et al. (2022)	Peru; VAT e-invoicing	Higher reported VAT liabilities, strongest for less-compliant firms
Ali et al. (2021)	Ethiopia; electronic sales registration	Technology can improve reported compliance outcomes
Kochanova et al. (2020)	Cross-country e-government analysis	Digital government can reduce tax compliance costs
Lumbantobing & Adwimurti (2026)	Indonesia; corporate survey/archival	Digital transformation associated with compliance; social norms matter

Source: Compiled from cited studies.

The first operational requirement is data integration. Tax administrations accumulate information from invoices, withholding, customs, banks, payrolls, government procurement, licensing systems, and taxpayer declarations, but the enforcement value of these data depends on unique identifiers, matching quality, timeliness, and the ability to generate risk signals. Third-party information is one of the most robust determinants of compliance in modern tax research. Kleven et al. (2011) show that income subject to third-party reporting is much harder to evade than self-reported income, while Pomeranz (2015) demonstrates how VAT transaction chains generate enforceable information. Indonesia's integrated tax system can therefore raise capacity if it turns dispersed administrative records into verified taxpayer-

level profiles. Merely digitizing forms without effective data matching would lower filing costs but leave the information gap largely intact.

The second requirement is risk-based enforcement. A tax administration with millions of taxpayers cannot audit everyone, and random or poorly targeted enforcement can impose large compliance costs without generating proportional revenue. Slemrod (2019) emphasizes that audits, information reporting, and remittance systems should be evaluated by behavioral response and administrative cost. Digital analytics can improve case selection by identifying inconsistencies between sales, purchases, payroll, imports, assets, and declared income, but automated flags still require legal clarity and professional case management. Jensen and Weigel (2026) place organizational structure, personnel, and task management at the center of tax capacity for exactly this reason. Technology becomes fiscally productive when it improves the allocation of scarce enforcement resources rather than simply increasing the volume of data collected.

The third requirement is to manage compliance costs, especially for MSMEs and newly formal businesses. Complex registration, accounting, invoicing, and reporting obligations can discourage formalization or encourage firms to remain below thresholds. Mascagni and Mengistu (2019) show that smaller firms can face disproportionately high effective burdens because compliance costs and enforcement are not evenly distributed across firm sizes. Waseem (2018) similarly documents behavioral responses around tax thresholds, illustrating how businesses reorganize or misreport when rules create sharp incentives. Indonesia's simplified regimes can reduce these frictions, but prolonged preferential treatment can also segment the tax base and slow transition into ordinary regimes. Digital systems should therefore be designed to make standard compliance progressively easier rather than creating permanent parallel systems that limit information continuity.

The fourth requirement concerns voluntary compliance and legitimacy. Enforcement can raise expected costs of evasion, but taxpayers' willingness to comply also depends on whether they view procedures as fair, predictable, and connected to legitimate public purposes. Cummings et al. (2009) find that institutional quality and tax morale help explain cross-country differences in compliance, while Alm et al. (2019) show that appeals to social norms can produce modest positive effects. Indonesian research finds that trust in government and tax administration, national pride, knowledge, perceived fairness, and enforcement perceptions are associated with tax morale (Daneshwara & Riandoko, 2023; Erina et al., 2024; Fitriandi et al., 2026). Administrative modernization should therefore include transparent dispute resolution, clear taxpayer communication, service reliability, and visible safeguards over data use, because a technologically advanced system can still generate resistance if taxpayers perceive it as arbitrary or unstable.

Coretax highlights the importance of operational reliability, but this study does not evaluate platform performance directly. System integration could improve record continuity, whereas migration difficulties or unstable workflows could increase filing costs; those are competing hypotheses requiring operational evidence. Indonesian research on electronic invoices and Coretax-based filing discusses associations with VAT compliance, mainly from taxpayer-level analyses rather than national revenue estimates (Cahyani & Triwarti, 2025). A future evaluation should obtain observable measures such as successful filing rates, outage duration, error resolution, refund timeliness, and the share of invoices successfully matched to returns. These metrics would permit testing whether service and information improvements accompany changes in compliance outcomes instead of assuming that digital rollout increases fiscal capacity.

The fifth requirement is extensive-margin expansion. Digital tax administration is most powerful where economic transactions already leave formal traces, but Indonesia's informal sector contains businesses and workers whose activities may not pass through payroll, standardized accounting, or invoicing systems. Research on IT-led tax reform warns that technology can be constrained when large parts of the economy remain unregistered or when institutional corruption and fragmented information systems persist (Joshi et al., 2020). This is why broader formalization policy matters for tax capacity. Business licensing, digital payments, procurement, credit records, and local government registries can help identify active economic units, but the objective should be to create low-friction pathways into formal taxation rather than simply expanding punitive enforcement. Formalization is more durable when firms perceive benefits from legal status, finance, market access, and simplified compliance.

Table 6. Administrative Diagnostic for Sustainable Revenue Mobilization

Constraint	Observable fiscal signal	Priority response
Fragmented third-party information	Persistent self-reporting gaps	Integrated taxpayer profiles and cross-matching
Weak risk selection	High audit cost per case	Analytics-supported risk-based compliance management
High compliance cost	Threshold clustering and informality	Simplified digital workflows and prefilled returns
Low trust / procedural uncertainty	Weak voluntary compliance	Transparent rules, dispute resolution, service reliability
Informal economic activity	Narrow registered base	Low-friction formalization linked to licensing and digital records

Source: Authors' literature-derived diagnostic framework; proposed signals are not measured in this study.

Table 6 translates the five channels specified in the methods into prospective administrative indicators. Its rows were derived by matching literature-identified mechanisms to observable constraints: unmatched third-party records for information gaps, audit cost and yield for risk selection, filing burdens and threshold clustering for compliance costs, dispute handling and trust for procedural legitimacy, and registration coverage for informality. The table reports no newly observed administrative dataset; its 'signals' are hypotheses to be evaluated using tax-authority records or suitable surveys. Possible measures include the proportion of invoice records successfully matched, additional liabilities per audit hour, median time to file, time to resolve objections, and the proportion of economically active firms registered for tax. Such measures would need consistent definitions and pre/post or comparable-group observations before policy impacts could be inferred. The priority responses are consequently proposed evaluation directions, not proven remedies from the current fiscal analysis.

The administrative discussion offers a literature-based explanation of why improvements in digital services might coexist with a persistently low aggregate tax ratio. The descriptive fiscal data cannot establish whether digital benefits have been offset by exemptions, informality, or macroeconomic conditions, because these channels were not estimated. Indonesian taxpayer studies suggest that digital practices can matter for compliance in particular groups, whereas international studies describe mechanisms under different institutional conditions; neither type of evidence directly measures a national tax-ratio effect here. The article's administrative contribution is therefore a transparent set of hypotheses and indicators for future testing. The Ministry of Finance's preliminary 2025 budget outcome reinforces the need for multi-year monitoring but cannot be spliced into the OECD 2015–2024 series (Ministry of Finance, 2026).

CONCLUSION

The descriptive evidence establishes a divergence between collections and the tax share of national output: OECD total tax revenue rose from IDR 1,395.96 trillion in 2015 to IDR 2,620.67 trillion in 2024, while the tax-to-GDP ratio changed from 12.0% to 11.8%. The ratio fell to 10.1% in 2020, briefly reached 12.1% in 2022, and subsequently declined. Indonesia's 2023 ratio also remained below those of the four selected Southeast Asian comparators and the Asia-Pacific average. The study's specific academic contribution is an integrated, reproducible account of nominal revenue trends, revenue composition, regional gaps, and possible administrative mechanisms, while distinguishing observed patterns from untested explanations. Neither the ratios nor the cited taxpayer studies identify a causal effect of individual reforms or a quantified cause of the regional gap.

The findings support a sequenced research and policy agenda rather than a definitive ranking of reform effects. First, assess the productivity and coverage of the largest existing bases—income taxes and VAT—using disaggregated receipts, exemptions, and verified third-party reporting. Second, evaluate digital administration through reliability, invoice matching, filing burden, and risk-based enforcement outcomes before claiming an aggregate revenue benefit. Third, examine property taxation

and formalization measures with attention to subnational institutions and the costs faced by smaller firms. These priorities are proposals informed by the observed structure and literature, not impacts demonstrated by the present design. The selected benchmark years, one-year regional comparison, definitional differences with budget data, and absence of taxpayer-level or causal estimates limit generalization, especially from international evidence to Indonesia. Future work should use complete annual and sectoral series, matched country characteristics, administrative microdata, and quasi-experimental reform evaluations to determine which mechanisms produce durable and equitable revenue gains.

REFERENCES

Ali, M., Shifa, A. B., Shimeles, A., & Woldeyes, F. (2021). Can ICTs increase tax compliance? Evidence on taxpayer responses to technological innovation in Ethiopia. Journal of Economic Behavior & Organization, 189, 172–193. https://doi.org/10.1016/j.jebo.2021.06.007

Alm, J. (2019). What motivates tax compliance? Journal of Economic Surveys, 33(2), 353–388. https://doi.org/10.1111/joes.12272

Alm, J., Schulze, W. D., von Bose, C., & Yan, J. (2019). Appeals to social norms and taxpayer compliance. Southern Economic Journal, 86(2), 638–666. https://doi.org/10.1002/soej.12374

Bellon, M., Dabla-Norris, E., Khalid, S., & Lima, F. (2022). Digitalization to improve tax compliance: Evidence from VAT e-invoicing in Peru. Journal of Public Economics, 210, 104661. https://doi.org/10.1016/j.jpubeco.2022.104661

Benitez, J. C., Mansour, M., Pecho, M., & Vellutini, C. (2023). Building tax capacity in developing countries. IMF Staff Discussion Notes, 2023(006). https://doi.org/10.5089/9798400246098.006

Bird, R. M., & Zolt, E. M. (2008). Technology and taxation in developing countries: From hand to mouse. National Tax Journal, 61(4, Part 2), 791–821. https://doi.org/10.17310/ntj.2008.4S.02

Cahyani, T. N., & Triwarti, H. (2025). The effect of electronic tax invoice implementation, tax return submission in the Coretax system, and tax penalties on VAT compliance with taxpayer awareness as a mediating variable. Amkop Management Accounting Review, 5(2), 727–743. https://doi.org/10.37531/amar.v5i2.2968

Cummings, R. G., Martinez-Vazquez, J., McKee, M., & Torgler, B. (2009). Tax morale affects tax compliance: Evidence from surveys and an artefactual field experiment. Journal of Economic Behavior & Organization, 70(3), 447–457. https://doi.org/10.1016/j.jebo.2008.02.010

Daneshwara, R., & Riandoko, R. (2023). Determinants of tax morale: Empirical study on micro, small and medium enterprises in Java. Scientax, 5(1), 24–33. https://doi.org/10.52869/st.v5i1.494

Directorate General of Taxes. (2024). Annual report 2024. Ministry of Finance of the Republic of Indonesia.

Erina, L., Martina, M., & Saptawan, A. (2024). Do happiness and corruption affect tax morale in Indonesia? An empirical analysis. Indonesian Treasury Review, 9(2). https://doi.org/10.33105/itrev.v9i2.768

Fitriandi, P., Marfiana, A., Wardana, A. B., & Zauki, I. (2026). The mediating role of tax morale in the relationship between perceived fairness, trust in government, and voluntary tax compliance. Indonesian Journal of Taxation and Accounting, 4(2), 317–332. https://doi.org/10.66053/ijota.v4i2.823

Ilahi, H. A., Anjani, H. L., Haikkal, M., & Agustina, M. (2025). Analysis of the relationship between tax service digitalization and tax administration effectiveness on the level of taxpayer compliance in Indonesia (2009–2023). International Journal of Contemporary Sciences. https://doi.org/10.55927/gkecvs71

International Monetary Fund. (2024). Indonesia: 2024 Article IV consultation—Press release; staff report; and statement by the Executive Director for Indonesia. IMF Staff Country Reports, 2024(270). https://doi.org/10.5089/9798400284588.002

Jensen, A. D., & Weigel, J. L. (2026). No taxation without administration: Bringing the state back into the public finance of developing countries. Journal of Economic Literature, 64(1), 246–280. https://doi.org/10.1257/jel.20251760

Joshi, A., Prichard, W., & Heady, C. (2020). Why information technology is constrained in tackling tax noncompliance in developing countries. Accounting Research Journal, 33(2), 307–322. https://doi.org/10.1108/ARJ-11-2018-0205

Kleven, H. J., Knudsen, M. B., Kreiner, C. T., Pedersen, S., & Saez, E. (2011). Unwilling or unable to cheat? Evidence from a tax audit experiment in Denmark. Econometrica, 79(3), 651–692. https://doi.org/10.3982/ECTA9113

Kochanova, A., Hasnain, Z., & Larson, B. (2020). Does e-government improve government capacity? Evidence from tax compliance costs, tax revenue, and public procurement competitiveness. The World Bank Economic Review, 34(1), 101–120. https://doi.org/10.1093/wber/lhx024

Lumbantobing, S. P., & Adwimurti, Y. (2026). Digital tax transformation and compliance behaviour: The moderating role of social norms in Indonesian corporate tax system. Jurnal Akuntansi dan Auditing Indonesia, 30(1). https://doi.org/10.20885/jaai.vol30.iss1.art9

Mascagni, G., & Mengistu, A. (2019). Effective tax rates and firm size in Ethiopia. Development Policy Review, 37(S2), O248–O273. https://doi.org/10.1111/dpr.12400

Mascagni, G., Dom, R., Santoro, F., & Mukama, D. (2023). The VAT in practice: Equity, enforcement, and complexity. International Tax and Public Finance, 30, 525–563. https://doi.org/10.1007/s10797-022-09743-z

Ministry of Finance of the Republic of Indonesia. (2025). Kinerja pendapatan negara tahun 2024 tumbuh positif [2024 state revenue performance grew positively].

Ministry of Finance of the Republic of Indonesia. (2026). APBN 2025 menunjukkan kinerja yang solid [The 2025 state budget shows solid performance].

OECD. (2025). Revenue statistics in Asia and the Pacific 2025. OECD Publishing.

OECD. (2026). Revenue statistics in Asia and the Pacific 2026. OECD Publishing.

Okunogbe, O., & Pouliquen, V. (2022). Technology, taxation, and corruption: Evidence from the introduction of electronic tax filing. American Economic Journal: Economic Policy, 14(1), 341–372. https://doi.org/10.1257/pol.20200123

Pomeranz, D. (2015). No taxation without information: Deterrence and self-enforcement in the value added tax. American Economic Review, 105(8), 2539–2569. https://doi.org/10.1257/aer.20130393

Rahmi, N., & Gangodawilage, D. (2022). SWOT analysis of Indonesian tax administration innovation in the digitalization era. Ilomata International Journal of Tax and Accounting, 3(1), 22–34. https://doi.org/10.52728/ijtc.v4i1.423

Restu Bagus, P., & Sulkiah, S. (2025). The impact of e-filing and digital tax administration on taxpayer compliance in emerging economies: Evidence from Lombok. Indonesian Interdisciplinary Journal of Sharia Economics. https://doi.org/10.31538/iijse.v9i1.8883

Rosyid, M. A., Pangesti, I., Hasanah, N., & Mastutik, S. (2024). The effect of digitalization on compliance and implementation of tax laws in Indonesia. Mendapo: Journal of Administrative Law, 5(3). https://doi.org/10.22437/mendapo.v5i3.32242

Slemrod, J. (2019). Tax compliance and enforcement. Journal of Economic Literature, 57(4), 904–954. https://doi.org/10.1257/jel.20181437

Waseem, M. (2018). Taxes, informality and income shifting: Evidence from a recent Pakistani tax reform. Journal of Public Economics, 157, 41–77. https://doi.org/10.1016/j.jpubeco.2017.11.003

World Bank. (2022). New support will help strengthen Indonesia's tax system, improve development spending. World Bank.