Master's Project

Strengthening Indonesia's VAT System: Balancing Revenue and Equity

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Abbreviations

ADB	: Asian Development Bank
DGT	: Directorate General of Taxes
GDP	: Gross Domestic Product
IMF	: International Monetary Fund
VAT	: Value Added Tax

Executive Summary

Indonesia faces a persistent challenge in strengthening its Value Added Tax (VAT) system to enhance revenue collection while addressing equity concerns and navigating significant political and social sensitivities. Despite VAT being a major contributor to state revenue, Indonesia significantly underperforms in collections compared to its potential, evidenced by a low C-efficiency rate (52.8% average from 2016-2021) driven by substantial policy and compliance gaps. This revenue shortfall diminishes public investment, while attempts to increase the standard VAT rate face strong public resistance due to concerns about regressivity and impacts on low-income households, particularly within a context of rising post-pandemic inequality.

This paper analyzes the distributional impact of Indonesia's current VAT system and evaluates potential reform options using a VAT microsimulation model based on the 2018 National Socio-Economic Survey (Susenas). The analysis finds that Indonesia's current VAT system is only slightly progressive (Kakwani index of 0.023). Through the same model, several reform options were simulated, including maintaining the status quo, applying VAT to food, increasing the standard rate, implementing higher rates for specific goods (tobacco, alcohol, durables, vehicles), and extending VAT to currently exempt services (education, health, finance). Each option was evaluated based on weighted criteria prioritizing political/social feasibility, followed by equity (progressivity), and revenue generation.

Based on the analysis, the paper recommends increasing the VAT rate specifically on durable goods and vehicles to 12%. This option ranked highest, offering a politically and socially feasible approach that enhances progressivity by targeting consumption patterns more prevalent among higher-income households, minimizing the burden on the poor, and avoiding backlash

against taxing necessities. Implementing this reform requires careful stakeholder engagement, regulatory adjustments, and robust monitoring, acknowledging that further measures, including addressing compliance gaps and potentially refining welfare transfer mechanisms, will be necessary for long-term fiscal sustainability and equity.

Policy Question and Client

Policy Question	:	How much can Indonesia's government increase the state revenue through value-added tax without raising inequality?
Client	:	Minister of Finance of the Republic of Indonesia

1. The Background

History offers valuable insights into the dynamics of tax policy and public reaction. In 1765, the phrase "no taxation without representation" was coined by the American Colonists to express their resentment of having taxes levied upon them without having any legislators to represent them in Parliament in London, escalating tensions between the British Government and the American Colonists, provoking the American Revolution (Bomboy, 2022, p. 3; Keen & Slemrod, 2021, p. 10). Meanwhile, several decades later, across the Atlantic, the inflexibility of the French Monarch's tax structure and collection system, which failed to collect enough tax to finance the government, accompanied by excessive money printing, causing hyperinflation, led to a convoluted and almost limitless financial problem, causing public discontent in the years preceding the French Revolution (Chanel, 2016, pp. 77-79; Keen & Slemrod, 2021, p. 48). These cases underscore how taxation perceived as extravagant or unjust can ignite backlash, and the

inability to collect adequate taxes to run the country can drive a sovereign state into uncontrolled turmoil.

In Indonesia, public reactions to tax changes mimic these lessons. When the government decided to raise its consumption-based tax rate -namely, value-added tax or VAT- from 11% to 12% starting in 2025, it faced notable resistance. The policy's opponents argue that the increased rate can depress low and middle-income purchasing power in light of the post-pandemic deteriorating economic environment and deepen social inequality (Sulaiman, 2024). This accusation is based on the notion that VAT, just like any consumption-based tax, is economically inefficient (Shome, 1995, p. 25) and inherently regressive since the poor consume more of their income than the rich (Alavuotunki et al., 2019, p.490; Itriago, 2011, p.4; Swistak & de la Feria, 2024, p.6). Thus, although the VAT-rate-increase policy proponents had tried to convince the public that the effect of the VAT hike on economic growth and inflation would be insignificant and that a cushion in the form of government transfers to people with low incomes would be provided, the backlash persisted, and the government conceded.

In response to the concern about the adverse economic impact, the Indonesian government finally agreed to scale back the planned VAT hike at the end of 2024 (Nugraha & Basyari, 2024). As of January 1, 2025, the 12% VAT rate was implemented only for the domestic sales and imports of luxury motorized vehicles and other luxury goods subject to the Sales Tax on Luxury Goods[1]. Although this adjustment eases the negative sentiments about the VAT rate hikes, it impedes the government's ability to meet its revenue targets and address broader inequities since

[1] Officially, beginning January 1, 2025, the VAT rate will rise to 12% for all goods and services. However, the applied VAT remains unchanged due to leeway in the tax legislation and mathematical adjustments by multiplying the initial tax base by 11/12 to determine the new tax base. Therefore, calculating the new tax base at 12% will yield an equivalent of 11% of the original tax base as the VAT liability. (MoF. (2025). *Ketentuan Nilai Lain Sebagai Dasar Pengenaan Pajak dan Besaran Tertentu Pajak Pertambahan Nilai*. Jakarta)

it will fail to collect the planned additional Rp. 75 trillion, equivalent to approximately 3% of the 2025 central government budget, from the increased rates. The expected revenue shortfall and plans to launch a $900 billion state-owned sovereign wealth fund compel the central government to slash 8.5% of its budget, leading to another criticism.

The budget cuts canceled dozens of roads, dams, and bridges across the country, along with the maintenance of 29,000 miles of roads (Economist, 2025). The critics accuse the policy of being poorly designed because it contradicts the President's priority of food sufficiency, as the government abandoned thousands of hectares of irrigation projects (Thejakartapost, 2025). However, had the government collected the taxes adequately, these criticisms would not have been in place.

According to the World Bank (2025, p. 3), Indonesia significantly underperforms in tax revenue collection. The VAT policy gap[2] alone accounts for an average of 0.9 percent of GDP between 2016 and 2021(p.14), which almost covers the recent 1.3% of GDP budget cuts[3]. This means that Indonesia's tax authority's ability to narrow the VAT compliance gap can reduce the undesired cuts.

The resistance to raising VAT rates and public dissatisfaction with budget cuts raised several questions that need to be addressed: Does Indonesia's VAT system promote inequality? If so, can the system be more equitable? Are there other options to increase VAT revenue without raising inequality?

[2] The policy gaps refer to the difference between the potential revenue that could be collected in a tax system with a uniform base and the broadest possible base and the total tax liability under the current system (WorldBank, 2025, p.6)

[3] The $18.8 billion budget cuts divide by $1.492 trillion expected GDP in 2025 (IMF, 2025)

Before answering those questions, we need to understand Indonesia's income inequality status quo, Indonesia's VAT revenue collection performance, the political economy, social, and legal context of Indonesia's VAT system, assess the progressivity of Indonesia's current VAT system, and analyze the relevant stakeholders' interest in Indonesia's VAT policy.

Through this policy paper, I will specifically utilize the expenditure approach VAT microsimulation model based on the Tax-Calculator model (James, 2025; PSL, 2025), which relies heavily upon Indonesia's 2018 national household survey data (Susenas) to assess Indonesia's VAT system's progressivity (or regressivity) and explore policy options to increase VAT revenue progressively.

2. The Context

2.1 Income Inequality in Indonesia

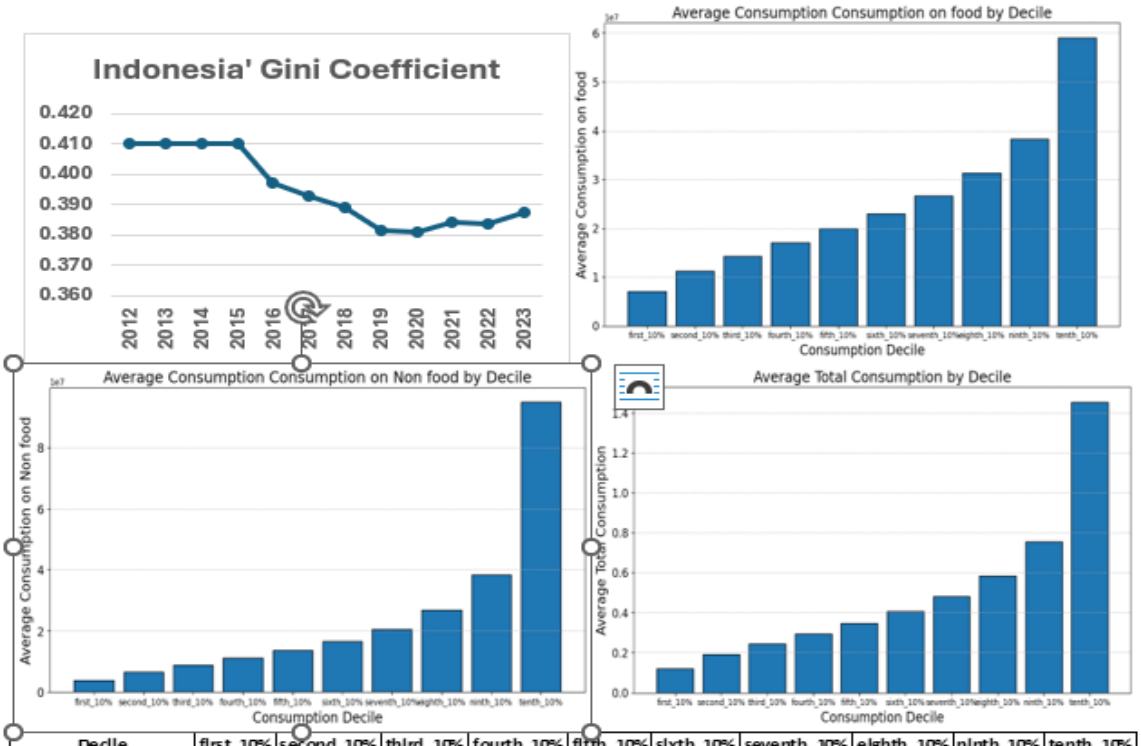
Although it has successfully reduced the poverty headcount ratio[4] from 19.1% in 2000 to 9.4% in 2023 (WorldBank, 2024), the fallen Gini coefficient trend before the pandemic has risen again in the post-pandemic era, implying increased inequality in Indonesia. The Gini coefficient[5] (or index) is the most widely used to analyze the size distribution of income and wealth (Kakwani, 1980, p. 69), where zero means perfect equality and one implies perfect inequality. According to the World Bank (2016), two of the four main drivers of inequality in Indonesia are high wealth concentrations and unequal resilience to shocks, and a fairer taxation system is one of the options to reduce these two drivers. However, Indonesia's current tax system and structure, including the

[4] National poverty headcount ratio is the percentage of the population living below the national poverty line(s) (World Bank, 2024)
[5] See Annex 6 for the calculation of the Gini coefficient using the VAT microsimulation model.

VAT, have been unable to reduce income inequality (Sari & Qibthiyyah, 2022, p.155) and have failed to generate enough funds to reduce inequality (Oxfam, 2017, p. 3).

High earners can also consume more goods and services, implying that the income gap between higher earners and low-income households can be defined by their consumption differences. In Indonesia, consumption-based income inequality is severe, where the top 10% of earners accounted for 29.8% of total consumption in 2018, or 5.2 percentage points higher than the bottom 50% of households. The top 10% of earners also consume 39.5% of total non-food goods and services consumption, six percentage points higher than the bottom 70% of households, indicating the rich relish education, health, and transportation more than the low-income households, and the poor spend most of their income to purchase food.

Figure 2.1 Indonesia's Gini Coefficient and Consumption Distribution



Decile	first_10%	second_10%	third_10%	fourth_10%	fifth_10%	sixth_10%	seventh_10%	eighth_10%	ninth_10%	tenth_10%
Total Consumption Distribution	2.45%	3.94%	5.00%	6.03%	7.11%	8.34%	9.87%	11.97%	15.49%	29.79%

Source: Consumption distribution: calculated based on Indonesia's 2018 National Social Economic Survey (BPS, 2018). Gini coefficient: BPS-Statistics Indonesia (2025)

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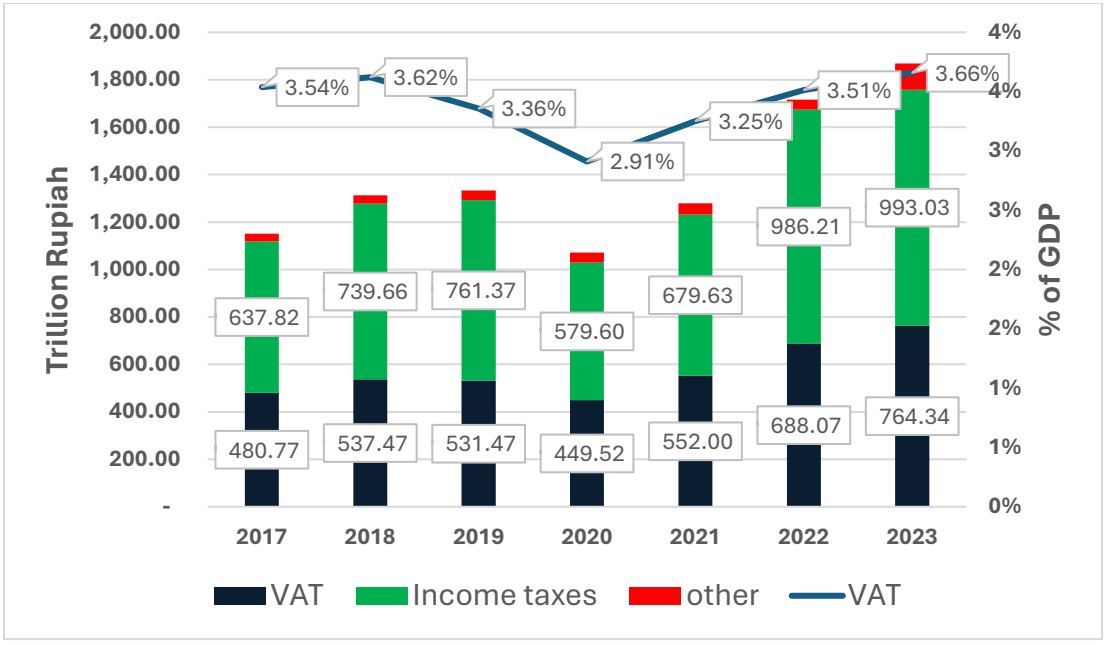
2.2 Indonesia VAT collection performance

Over the past several years, VAT revenue has played an increasingly vital role in supporting Indonesia's state budget, contributing 41.13% of total tax revenue or 3.42% of GDP from 2017 to 2023. The amount collected from VAT has shown steady growth, reaching its highest level in recent years. This upward trend reflects not only the expanding tax base but also the effectiveness of VAT as a reliable source of government income. Even during periods of economic challenge, VAT revenue has demonstrated resilience, quickly rebounding and contributing a larger share of the national budget. As a result, VAT has become one of the most significant contributors to public financing, helping to fund essential services and promote fiscal stability as Indonesia's economy continues to develop.

2.2 Indonesia's VAT Contribution

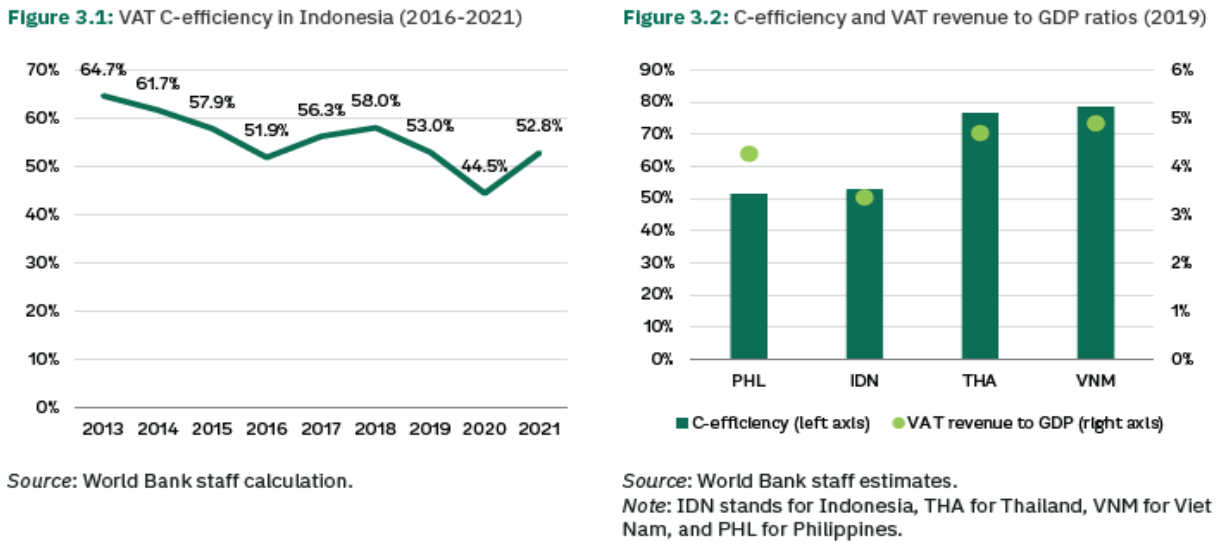


Source: Indonesia's tax authority internal data

However, despite its significance, Indonesia's VAT revenue collection is far from its potential, which is shown by the C-efficiency value. C-efficiency measures the difference between the VAT

that an authority collects[6] and the tax levied at a uniform rate on all consumption (Keen, 2013). The measure's values could range from zero to one[7]; however, values larger than 65% are rarely observed (World Bank, 2025, p.7). Based on a World Bank calculation (p. 10-11), Indonesia's VAT C-efficiency averaged 52.8% between 2016 and 2021, or 17 percentage points lower than its regional peers' average, suggesting that the country collects only 52.8% of its potential VAT revenue compared to a benchmark where all consumption is taxed uniformly at the standard rate. The low C-efficiency was due to the policy and compliance gaps,[8] which account for 0.9% (p.14) and 2.6% (p.11) of GDP, respectively.

Figure 2.3 Indonesia's VAT C-Efficiency



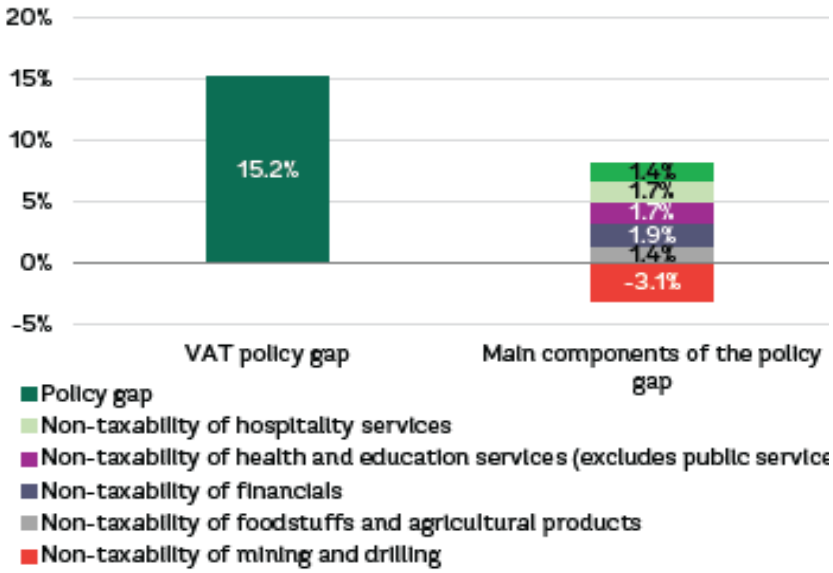
Source: World Bank (2025, p. 11)

From 2013 to 2023, VAT revenue averaged 3.52% of GDP, contributing up to 29% of the central government's revenue. Combined with the policy gap (0.9% of GDP) and the compliance gap (2.6% of GDP), Indonesia's tax authorities could potentially collect as much as 7.02% of GDP in

[6] See Annex 1 for further explanation of the adopted VAT system in Indonesia.
[7] The value of one means all domestic consumption is taxed. Further explanation is in Annex 2.
[8] The compliance gap refers to all sources of noncompliance, including underreporting, evasion, fraud, insolvencies, bankruptcies, administrative errors, and legal tax optimization (World Bank, 2025, p. 5)

VAT revenue, equivalent to 67.45% of Indonesia's state budget in 2023, implying the significance of VAT revenue in public good provision in Indonesia. According to the World Bank (2025, p. 22), one main reason for Indonesia's policy gap is the revenue forgone from tax expenditures caused by the sizeable exemptions and exclusions under the current VAT regime. The major sources of forgone revenue were non-taxability of financial and insurance services, private education and health services, and food and agricultural products (p.15). The VAT exclusions and exemptions account for 15.2% of the notional ideal VAT revenue in 2021.

Figure 2.4 Core Components of Indonesia's 2021 VAT Policy Gap



Source: World Bank (2025, p. 11)

2.3 Political Economy of VAT Policy in Indonesia

VAT policy in Indonesia is heavily influenced by political considerations, as seen with the 2025 VAT increase, which drew criticism from the public and opposition from interest groups, especially labor unions and academics (Sulaiman, 2024), pressuring the president to reverse the

whole VAT hike abruptly. On the other hand, the deficit cap of 3% of GDP[9] hinders the government's ability to run several new projects requiring massive funding, including the $900 billion state-owned sovereign wealth fund and free lunch for every student across the country (Economist, 2025). Thus, politically, VAT policy is a tug-of-war between fiscal responsibility and populist sensitivity.

The government also considers the economic aspects of shaping Indonesia's VAT policy, which is mainly driven by macroeconomic goals. The first consideration is economic growth, both in the short and long run, motivating the government to exempt financial services, health and education provision, climate mitigation, and national priority projects. The second is the economic trade-off: more VAT revenue vs. potentially lower consumption in the short run[10]. In a post-pandemic recovery phase with high global uncertainty, there were fears that VAT might pinch domestic demand. Lastly, introducing a higher VAT can cause a one-off price increase, leading to inflation.

2.4 Social Aspects of VAT Policy in Indonesia

The regressive nature of VAT means it takes a larger share of income from the poor than from the rich, absent mitigating measures. This is a critical social issue in Indonesia, with a high Gini coefficient (0.38), and where poverty and inequality remain policy concerns. Public opposition to VAT hikes is often rooted in the fear of higher prices for necessities. Civil society and labor unions have been vocal that a higher VAT could increase hardship for low-income families and the "aspiring middle class." There is also the social context of what taxpayers get in return (Luttmer & Singhal, 2014, p.3) – **t**ax morale in Indonesia can be low if people feel government

[9] The fiscal rule is regulated in bill No. 17 Year 2003 about the State Finances.
[10] A VAT-induced price hike could lead to lower goods and services consumed, depending on income elasticities.

services are inadequate or corruption is wasting tax funds (Rosid et al., 2018, p. 30). When citizens do not see direct benefits (like reliable public services or social safety nets), they are less supportive of taxes. A recent observation by a government poverty reduction team member pointed out that Indonesia's middle class contributes significantly to tax revenue but "receives limited social assistance" in return (Llewellyn, 2024). Finally, there is a social justice element in ensuring the tax burden is shared. People are more accepting of VAT if they believe the wealthy are paying their fair share through income taxes or evaders are being punished. It may be seen as unfair if VAT increases without visible efforts to clamp down on wealthy tax evaders or improve progressive taxes (Luttmer & Singhal, 2014, p.3). In summary, socially, the success of the VAT policy in Indonesia hinges on perceptions of fairness and equity.

2.5 Legal Aspects of VAT Policy in Indonesia

VAT is governed by parliament-approved law (primarily VAT Bill No. 42/2009, amended by the 2021 Tax Harmonization Bill), which sets the tax base, rate, exemptions, and enforcement provisions. However, the bill allows the government to alter several regulations, including arranging VAT-exempted goods and services lists. One is the extensive list of specific sectors/products, such as unprocessed food, public education, health services, financial services, and, until recently, some mining outputs, further shrinking the base (BKF, 2024, p. 44-53). These legal provisions mean that significant economic activity is not subject to VAT, leading to lower VAT revenue.

3. The Analysis

3.1 The progressivity (regressivity) of Indonesia's current VAT system

Indonesia's VAT system adopts both the traditional and modern approaches[11] to address VAT regressivity. Indonesia's tax system has forty-nine VAT exemptions, exclusions, and rate reductions, costing Rp. 206.3 trillion[12] (0.99% of GDP) in 2023. At the same time, Indonesia's government spent Rp. 156.6 trillion (0.75% of GDP) in welfare transfers to fulfill basic needs, improve welfare, and reduce the burden on people who experience economic difficulties or are vulnerable to social risks. However, do the exemptions promote equality (progressive) in Indonesia?

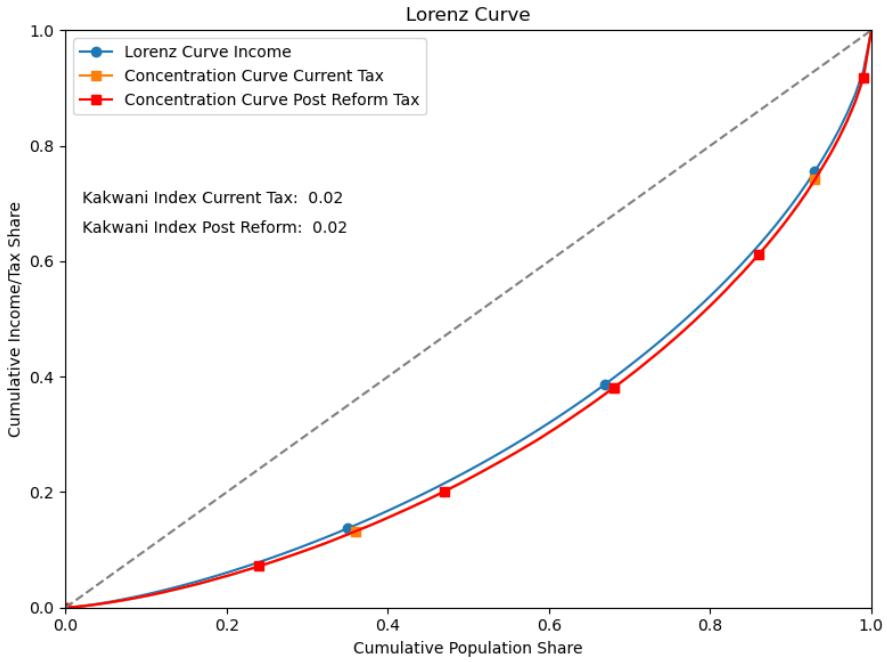
Kakwani (1977, pp. 72-73) developed a progressivity (or Kakwani) index to assess the progressivity of a tax system. The index compares the Gini coefficient of taxes (or concentration index) and the Gini coefficient of income (consumption) before taxes[13]. Counterintuitive to the Gini coefficient of income, a higher Gini coefficient of taxes implies the tax system's progressivity. Thus, a positive Kakwani index value infers a progressive tax system and vice versa; a negative value means the tax system is regressive.

Based on calculations using Indonesia's 2018 national household survey (BPS, 2018), Indonesia's VAT concentration and Gini coefficient of income in 2018 were 0.419 and 0.396, respectively. This suggests that higher-income households pay higher VAT than lower-income

[11] See Annex 3 for a detailed explanation on this issue.
[12] See Annex 7 for detailed exemptions and exclusions and the revenue forgone caused by them.
[13] See Annex 6 for a detailed explanation of the Kakwani index calculation using the VAT microsimulation model.

households. By subtracting the VAT concentration index from the Gini coefficient of income, we get a VAT Kakwani index of 0.023, implying the slight progressivity of Indonesia's current VAT system.

Figure 3.1 Indonesia's Lorenz curve and Kakwani index



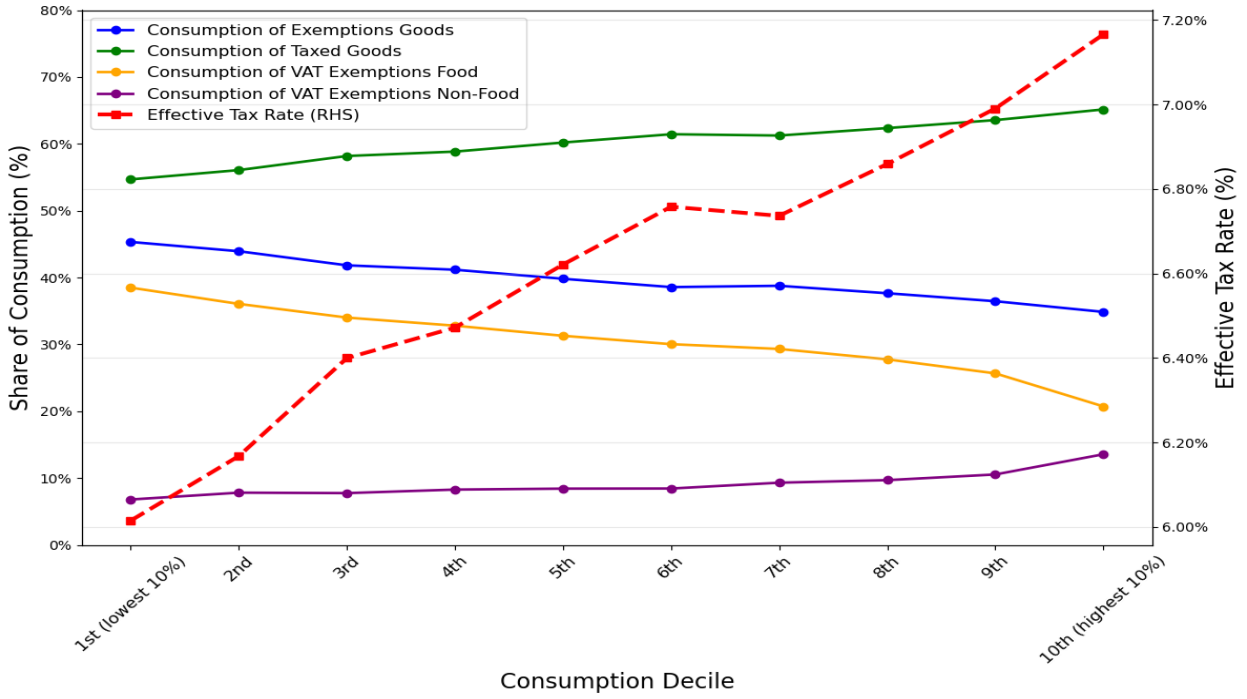
Source: Calculated using VAT microsimulation model from Indonesia's 2018 National Social Economic Survey (BPS, 2018) data.

Another way to measure the tax system's progressivity is by assessing the household consumption patterns and distributional impact of VAT base exclusions (Swistak & de la Feria, 2021, p.8). The household consumption patterns of exempted and taxed goods and services were considerably homogenous in Indonesia, where, on average, households spent a higher proportion of their income (60.17%) on taxed goods, particularly the higher-income households. On the other hand, lower-income households spent a higher portion of their consumption on food. However, since, on average, the consumption of taxed and exempted goods and services were homogenous, the average effective VAT rate[14] ranged from 6.01% to 7.17% with a meager

[14] The portion of VAT remitted of total consumption.

0.36% standard deviation from the mean, suggesting that the wedge between the top 10% of households' effective VAT rate and the lowest 10% effective VAT rate is only 1.16%. Thus, we can conclude that Indonesia's VAT system has room to improve its progressivity.

Figure 3.2 Average Household Consumption of Goods and Effective Tax Rate by Income Decile



	Consumption of exempted goods	Consumption of taxed goods	Consumption of exempted food	Consumption of exempted food	Effective Tax Rate
Standard Deviation across income groups	**3.27%**	**3.27%**	**5.17%**	**1.91%**	**0.36%**

Source: Calculated from Indonesia's 2018 National Social Economic Survey (BPS, 2018) data.

3.2 Stakeholder analysis

There are at least eight identified stakeholders who have different interests, concerns, and influences, which are divided into four groups: key, primary, secondary, and external[15]. The key stakeholders are the President of the Republic of Indonesia, the Minister of Finance, and the

[15] See Annex 8.

Directorate General of Taxes (DGT), who need to raise revenue to fund development without increasing inequality, and the concerned parliament members of the impact of the VAT policy change on their constituents. However, the government has a minuscule risk of parliament rejecting any proposed policy, as the government coalition party controls 60.17% of parliament (Nababan & Salam, 2024).

On the other hand, consumers and the public are concerned about the impact of regressive VAT and the rising cost of living due to the VAT policy. As the primary stakeholders, their impacts are influential and can drive political decisions. Like the consumers, businesses also have a significant influence on political decisions, particularly via associations. Large businesses care about the potential decline in demand due to VAT policy and competition from the informal economy. At the same time, small and medium enterprises worry about the administrative burden and the compliance costs.

Given Indonesia's large and impactful VAT policy, a range of external stakeholders actively shape the country's tax landscape. International organizations like the World Bank, IMF, and ADB typically focus on Indonesia's fiscal health, equity, and sustainable development, often highlighting ongoing concerns about the low tax-to-GDP ratio and inefficiencies in VAT collection. Meanwhile, civil society groups and advocacy organizations emphasize the importance of equity, social protection, and government accountability, voicing concerns about deepening inequality and inadequate public services despite continued tax payments. Tax consultants and advisors advocate for greater regulatory clarity and consistency but frequently encounter challenges from complex rules and frequent policy changes. While these external actors generally exert moderate to high, though often indirect, influence, they shape Indonesia's

VAT policy through technical support, public mobilization, and by influencing the broader compliance environment.

4 The Problem Statement

Indonesia continues to face a persistent challenge in strengthening its VAT system, as the government seeks to increase revenue while addressing concerns over equity and public acceptance. VAT remains one of the most significant contributor to Indonesia's tax revenue, yet actual collections fall short of their potential due to policy and compliance gaps. This shortfall has led to significant budget cuts, forcing the government to scale back on critical infrastructure and public investment. At the same time, the regressive perception of VAT has fueled resistance among the public, who worry about the impact on low- and middle-income households. The complexity of the VAT system, with its many exemptions, adds to the administrative burden and undermines both efficiency and fairness. Therefore, although challenging, it is necessary to explore policy options and recommend one option to bridge revenue and equity, where Indonesia's government increases the state revenue through value-added tax without raising inequality.

5 VAT Reform Options

Utilizing a microsimulation model, I compare the results of the calculations of the changes in total VAT revenue and Gini, Concentration, and Kakwani coefficient from each proposed reform. Based on the results, I evaluate the reform options based on their political and social feasibility, progressivity, and revenue mobilization to determine the recommendations.

5.1 Policy options

I. **The status quo.** Under the current law, Indonesia adopts a single standard VAT rate of 11%, with an extensive range of exemptions and exclusions on several goods and services, including unprocessed foods, education, health, and financial services. This policy option will not generate an incremental increase in tax revenue, but it will minimize disruption for businesses and households, ensuring that sudden tax changes do not hinder economic recovery and growth.

II. **Applying VAT on food.** Extending VAT to food items could significantly broaden the tax base and generate additional revenue for the government, as food constitutes a large share of household spending, especially in Indonesia. At the same time, the government can apply the modern approach through welfare transfer provisions to maintain the purchasing power of vulnerable households.

III. **Increase the standard VAT rate to 12%.** Raising the standard VAT rate to 12% is a straightforward way to boost government revenue without overhauling the existing system. This option piggybacks the current VAT system and spreads the adjustment across all taxable goods and services, making it administratively efficient. Although the public has rejected this scheme, it is still beneficial to calculate the impact of this reform on revenue and equity to make it comparable or more appealing to the public's eyes.

IV. **Increase the VAT rate of tobacco and alcohol to 15%.** Increasing the VAT rate on tobacco and alcohol to 15% targets products with negative externalities, aligning tax policy with public health objectives. This approach not only raises additional revenue but also discourages consumption of these goods, supporting broader health and social goals.

V. **Increase the VAT rate of durable goods and vehicles to 12%.** Applying a higher VAT rate to durable goods and vehicles is logical since higher-income households generally purchase these items. This targeted approach can enhance the progressivity of the VAT system, generating more revenue from those with greater ability to pay while minimizing the burden on essential goods and services.

VI. **Combination of options 4 and 5**. Combining higher VAT rates on tobacco, alcohol, durable goods, and vehicles maximizes revenue potential while maintaining the progressivity in the tax system. This dual approach targets discretionary and non-essential spending, ensuring that the increased tax burden falls more heavily on luxury and harmful goods than everyday necessities.

VII. **Applying VAT on education, health, and financial services.** Extending VAT to education, health, and financial services would further broaden the tax base. While this option could generate significant revenue, it would require careful implementation to avoid undermining access to essential services, particularly for vulnerable populations. Paralleling this reform with free public education and universal healthcare provisions will mitigate the adverse impact of the VAT policy on the poor.

5.2 Simulation results

A. The impact of reforms on total VAT revenue

All reform options suggested an increase in the total nominal VAT revenue in 2025. Applying VAT on foods generates the highest increase of 47.51% in estimated VAT revenue, while increasing the VAT rate of durable goods and vehicles triggers the lowest increase of 2.84% in

estimated VAT revenue. However, the estimated revenue is only one aspect of reform considerations and, apparently, a lesser one based on recent political turmoil.

Table 5.1 The Estimated Tax Revenue based on Microsimulation Results

In trillion Rupiah

No.	Policy Options	Estimated revenue based on current system	Reform's estimated revenue	Increase in Revenue (Trillion Rupiah)	% increase in Revenue
1	Current System	898.05	898.05	-	0.00%
2	Applying VAT on Food	898.05	1,315.72	417.67	46.51%
3	Increase the standard VAT Rate to 12%	898.05	979.69	81.64	9.09%
4	Increase the VAT rate of Tobacco and Alcohol to 15%	898.05	960.32	62.27	6.93%
5	Increase the VAT Rate of Durable Goods and Vehicles to 12%	898.05	923.59	25.55	2.84%
6	Combination of Option 4 and 5	898.05	969.54	71.50	7.96%
7	Applying VAT on Education, Health, and Financial Services	898.05	1,003.93	105.88	11.79%

Source: Calculated using the microsimulation model.

B. The impact of reform on progressivity

The microsimulation results show how different VAT policy options would impact Indonesian households across the income spectrum. Applying VAT on food would disproportionately burden lower-income households, with their VAT contribution jumping by over 64%. In contrast, higher-income households relish a much smaller increase, making this option regressive (as reflected by the negative Kakwani coefficient). In contrast, raising the VAT rate on durable goods and vehicles to 12% would have a minimal effect on the bottom 40% of households, but a more noticeable impact on the top 10%, suggesting a more progressive outcome. Increasing the standard VAT rate to 12% or raising VAT on tobacco and alcohol leads to a more even

distribution of the tax burden, while extending VAT to education, health, and financial services would significantly increase contributions from higher-income groups, as shown by the highest Kakwani coefficient of 0.033.

Table 5.2 The Distribution Analysis based on Microsimulation Results

No.	Policy Options	%Change of VAT contribution of households with consumption less than $2,000/year (bottom 40% of the sample)	% Change VAT contribution of households with consumption more than $7,000/year (top 10% of the sample)	Kakwani Coefficient
1	Current System	0	0	0.023
2	Applying VAT on Food	64.30%	30%	-0.02
3	Increase the standard VAT Rate to 12%	9.09%	9.09%	0.023
4	Increase the VAT rate of Tobacco and Alcohol to 15%	7.17%	3.85%	0.018
5	Increase the VAT Rate of Durable Goods and Vehicles to 12%	1.83%	4.22%	0.027
6	Combination of Option 4 and 5	7.32%	6.26%	0.022
7	Applying VAT on Education, Health, and Financial Services	8.98%	15.34%	0.033

Source: Calculated using the microsimulation model.

5.3 Evaluation criterion of the Policy Options

When weighing VAT policy options, political and social acceptability must come first. Any reform that faces strong public resistance or sparks political backlash is unlikely to succeed, regardless of its technical merits. Policies that directly impact essential goods or services—like food, education, or health—tend to be the most sensitive, as they touch the daily lives of ordinary Indonesians. Public perception, stakeholder support, and the ability to implement changes smoothly ensure that reforms are adopted and sustained over time.

The next key consideration is equity, or the tax system's progressivity. A fair VAT policy should avoid placing a disproportionate burden on lower-income households and, ideally, should ask more from those with greater means. The Kakwani coefficient in the table helps measure this, with higher values indicating a more progressive outcome. Finally, revenue generation remains an important goal, as the government needs to ensure that any changes will deliver the additional funds required for public investment and services. The best policy will strike a careful balance—earning public and political support, promoting fairness, and meeting Indonesia's fiscal needs.

Therefore, considering recent socio-political developments, I apply a weight score of 2 points for political and social feasibility, 1.5 points for equity, and 1.2 points for revenue generation to determine the best reform option.

5.4 Ranking the Policy Options

Based on the microsimulation results and considering the pros and cons of each policy option, I calculated the total score and ranked the policy options accordingly[16], with the following results.

1) **Increase the VAT rate of durable goods and vehicles to 12%**, with a total score of 23.4.
2) Applying VAT on education, health, and financial services, with a total score of 21.7.
3) Current system, with a total score of 21.2.
4) Increase the standard rate to 12%, with a total score of 19.5.
5) Increase the VAT rate on tobacco and alcohol to 15% and on durable goods and vehicles to 12%, with a total score of 17.3.
6) Increase the VAT rate of tobacco and alcohol to 15%, with a total score of 16.6.

[16] See Annex 8 for ranking calculations.

7) Applying VAT on food, with a total score of 11.9.

6 Policy Recommendation

Based on the weighted criteria of political and social acceptability, equity, and revenue generation, the most suitable policy recommendation is to increase the VAT rate on durable goods and vehicles to 12%. This option has strong performance across all criteria, earning the highest total score of 23.4. It is politically and socially acceptable since it targets non-essential, higher-value items typically purchased by higher-income households, minimizing the burden on the poor and avoiding direct impact on daily necessities. This option highlights the equity benefit, with the lowest increase in VAT contribution for the bottom 40% of households (1.83%) and a higher impact on the top 10% (4.22%), as well as a relatively high Kakwani coefficient (0.027), indicating a progressive outcome. This approach generates additional revenue without provoking public resistance to taxing essential goods or services.

However, while this policy is more progressive and publicly acceptable, its revenue potential may be lower than that of more broad-based options, such as applying VAT to food or essential services. Targeting durable goods and vehicles could also impact sales in those sectors and may not fully close Indonesia's revenue gap. Policymakers should weigh these factors carefully, recognizing that the chosen approach balances fairness, feasibility, and fiscal needs. Therefore, other measures may need to be implemented in the future to achieve long-term fiscal sustainability.

7 The Implementation Plan

The implementation plan for increasing the VAT rate on durable goods and vehicles to 12% starts with a clear objective setting, where the primary goals are to boost government revenue, improve

the progressivity of the tax system, and keep the burden on lower-income households to a minimum. Next, impact analysis should be carried out using data-driven tools like microsimulation, as shown in the table, to estimate how the reform will affect different income groups and anticipate unintended consequences. Engaging stakeholders is the third step, which means actively involving business associations, consumer groups, civil society, and other relevant parties to gather input, address concerns, and build broad-based support for the new policy.

Once the initial framework is laid, the implementation phase will focus on changing tax regulations, preparing administrative systems, and providing guidance and training for tax officials and affected businesses. Monitoring and evaluation are essential to track the policy's performance in practice, using key metrics such as revenue collection, compliance rates, and the distributional effects on households. Finally, transparency and accountability must be prioritized through regular public updates, open channels for feedback, and precise reporting mechanisms. This comprehensive approach helps ensure the reform’s success, builds public trust, and keeps the process responsive to future challenges.

8 Limitations

Through this policy paper, I only measure the impact of changing the rate of goods and services or removing exemptions for specific products, aiming to reduce the policy gaps. I do not discuss or take any measures to address the compliance gap. The model also employs a limited behavioral effect of the VAT rate change by segregating the income elasticity of lower-income, middle-income, and higher-income households. The model does not account for the price

elasticity of each product and service in calculating the impact of the change in price because of the imposed tax.

Furthermore, it is important to acknowledge the established role of welfare transfers in mitigating the regressive tendencies often associated with VAT systems. This modern VAT approach addresses equity concerns more directly and potentially more efficiently than complex exemptions or reduced rates systems. Although evaluating the optimal design and impact of such transfer mechanisms falls outside the scope of this paper, their potential to offset regressivity is a critical factor in the broader assessment of any VAT reform's overall fairness and social impact.

9 Conclusion

The recent VAT rate reversal policy emphasizes Indonesia's political and social sensitivity to consumption tax adjustment within the country. This policy paper has tried to dissect this complex environment, addressing the persistent challenge of strengthening Indonesia’s VAT system to meet revenue needs while tackling equity and public acceptance concerns. This paper also evaluates various reform options' distributional consequences and revenue implications by employing a microsimulation model on household expenditure data. The findings confirm that while Indonesia's current VAT system is slightly progressive, significant policy gaps curtail its revenue potential and limit its capacity to enhance fairness.

Based on a weighted evaluation prioritizing political and social feasibility, followed by equity and revenue generation, I recommend increasing the VAT rate specifically on durable goods and vehicles to 12%. This reform ranked highest as it enhances progressivity by concentrating the additional tax burden on higher-income households, minimizing the risk of widespread public resistance associated with taxing essential goods. Despite yielding more modest revenue gains

than a broader VAT base alternative, this reform recommendation nonetheless represents a pragmatic and politically viable approach to address Indonesia’s VAT policy gap. It offers a way to incrementally improve Indonesia's fiscal position without disproportionately affecting vulnerable populations or exacerbating existing inequalities. However, future considerations should ideally integrate this with compliance improvements and potentially compensatory welfare mechanisms.

Annexes

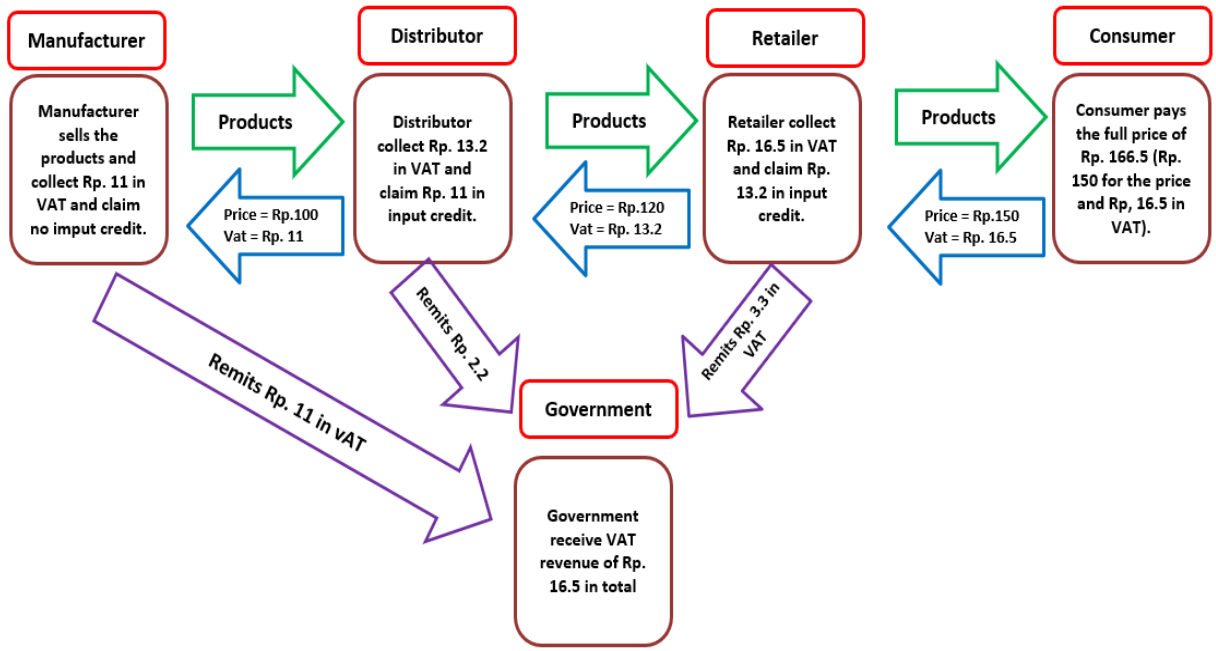
Annex 1. Indonesia's VAT system and structure

Indonesia adopts a credit-invoice mechanism, where VAT is collected in stages along the supply chain, with businesses charging tax on their sales but receiving credits for the VAT paid on their inputs. Thus, the final consumer pays the tax. This multi-stage process can be illustrated as follows:

1. Manufacturer to distributor: A manufacturer sells a product to a distributor for Rp. 100 (exclusive of VAT) and adds Rp. 11 in VAT (11% VAT rate). The distributor pays Rp. 111 in total, and the manufacturer must remit Rp. 11 to the government (assuming the manufacturer has no input tax).
2. Distributor to retailer: The distributor then sells the product to a retailer at a markup. If the distributor's selling price (excluding VAT) is Rp. 120, the retailer must pay Rp. 133.2 in total (selling price with additional Rp. 13.2 in VAT). However, with Rp. 11 input credits, the distributor only needs to remit Rp. 2.2 to the government (Rp. 13.2 – Rp. 11).
3. Retailer to consumer: When the retailer sells the product to a consumer with a markup (let us say the selling price, excluding VAT, is Rp. 150), the consumer must pay Rp. 166.5 (Rp. 150 plus Rp 16.5 in VAT) in total at checkout. The retailer then remits Rp. 3.3 to the government (Rp. 16.5 minus Rp. 13.2 of input credits).
4. Government and consumer: In total, the government receives Rp. 16.5 in VAT from this supply (Rp. 11 from the manufacturer, Rp. 1.2 from the distributor, and Rp. 3.3 from the retailer), matching 11% of the final consumer price. The consumer ultimately bears the tax, whereas each business in the chain simply passes on the tax and remits the collected

tax to the government. Notably, if an item is exempt from VAT, no tax is charged at that stage – but then the seller cannot claim credit for input VAT, which can either break the chain of credits or shift the tax to an earlier stage. In general, however, the VAT system ensures that the tax on value-added at each stage is collected, and the total tax equals a percentage of the final consumer price. This example illustrates that VAT is effectively a consumption tax: consumers pay more for goods/services at the tax rate, while businesses act as intermediaries collecting and remitting the tax.

VAT Credit Invoice Mechanism



Source: Own interpretation

Annex 2. C-efficiency calculations

C-efficiency indicates the VAT from a perfectly enforced tax levied at a uniform rate on all consumption (Keen, 2013, p. 3). One way of approaching C-efficiency (p. 6) is by decomposing VAT revenue (denoted *V*) in percent of GDP (*Y*) as

$$\frac{V}{Y} = \tau_s E^c \left(\frac{C}{Y}\right)$$

where τ_s denotes the standard rate of VAT, *C* denotes consumption (private and public, exclusive of VAT), and

$$E^c = \frac{V}{\tau_s C}$$

denotes 'C-efficiency': the ratio of VAT revenue to the potential revenue had all consumption, without exclusion and exemption, been taxed.

Annex 3. Understanding the Regressivity impact of VAT

Generally, any taxes reduce the citizens' (or residents') welfare in two ways: directly through a transfer of resources to the government and indirectly through any consumption of goods and services (i.e., VAT and sales tax), where the latter has an (indirect) income effect reflecting the tax-induced price hike (Shome, 1995, p. 25). Assuming that we only tax normal goods[17], the tax-induced income effect forces the quantity purchased to move in the opposite direction of the price (a price increase will lead to a smaller quantity purchased, and vice versa) (Frank, 2015, p. 101). This is due to the fall in purchasing power caused by the price increase due to tax, implying that consumers become relatively poorer compared to when taxes are not imposed. Consumption taxes, like VAT, have a more adverse income effect on lower-income households as they spend a proportionately higher share of their income on consumption than the high earners, making them poorer than in the absence of taxes. Nevertheless, is there any possible way to address VAT regressivity?

The common perception is that tax policy can be progressive by forcing the rich to pay a relatively larger share (compared to the poor) of their income to the government in taxes (Duncan & Sabirianova Peter, 2016, p. 763), hence a decline in income inequality (Kakwani, 1977, p. 72). However, another common perception accuses consumption taxes, like VAT, of being regressive since the poor consume more of their income than the rich (Itriago, 2011, p. 4). The latter conviction is valid in developed countries but not in most developing countries (Alavoutunki et al., 2019, p. 504), including Indonesia (Sari & Qibthiyyah, 2022, p.170), where inequality has not increased or decreased following VAT adoption, implying the neutrality of

[17] Normal goods are goods consumers buy more of as their income rises.

VAT in Indonesia. However, based on the recent public rejection of the VAT rate increase, VAT remains perceived as the culprit of regressivity in Indonesia.

Every VAT-levied country in the world applies the traditional approach to address VAT regressivity using exemptions and zero or reduced rates (Swistak & de la Feria, 2021, p.7), especially to essential products, protecting low-income households from price shocks. However, the distributional effect of VAT exclusions is limited because consumption, even of essential items, is overwhelmingly made by the highest income households (p.8). Using microsimulation models and survey data on income and consumption to estimate the impact of VAT base design on revenue, poverty, and distribution, several recent papers found that to address VAT regressivity through a system of exclusions, one would have to target inferior goods[18], which is hard to attain as very few such goods are in countries' consumption baskets.

Given the traditional approach's significant limitations, an alternative approach, the modern approach, was developed to address VAT regressivity by broadening the VAT base and utilizing welfare transfers to lower-income households (p. 9-10). In this method, the higher-income households pay more VAT as they consume more, and welfare transfers provide a cushion for the lower-income households to absorb the price shocks. Apparently, this approach has two major inherent problems: targeting difficulties and political dynamics. Some countries (typically middle and low-income countries) lack the capacity to target those with lower income constraints on using welfare instruments to address VAT regressivity. On the other hand, it is generally unreasonable to expect voters to fully understand the tax system and its legal, economic, and distributional impacts (p. 11, Alt et al., p. 1265). The information asymmetry between the public

[18] Inferior goods are goods consumers buy more of as their income declines.

and policymakers could be a fertile ground for special interest groups who prefer different VAT regimes (Swistak & de la Feria, 2021, p.11), making it more challenging to implement the modern approach.

Annex 4. Indonesia's VAT revenue

In percentage of GDP

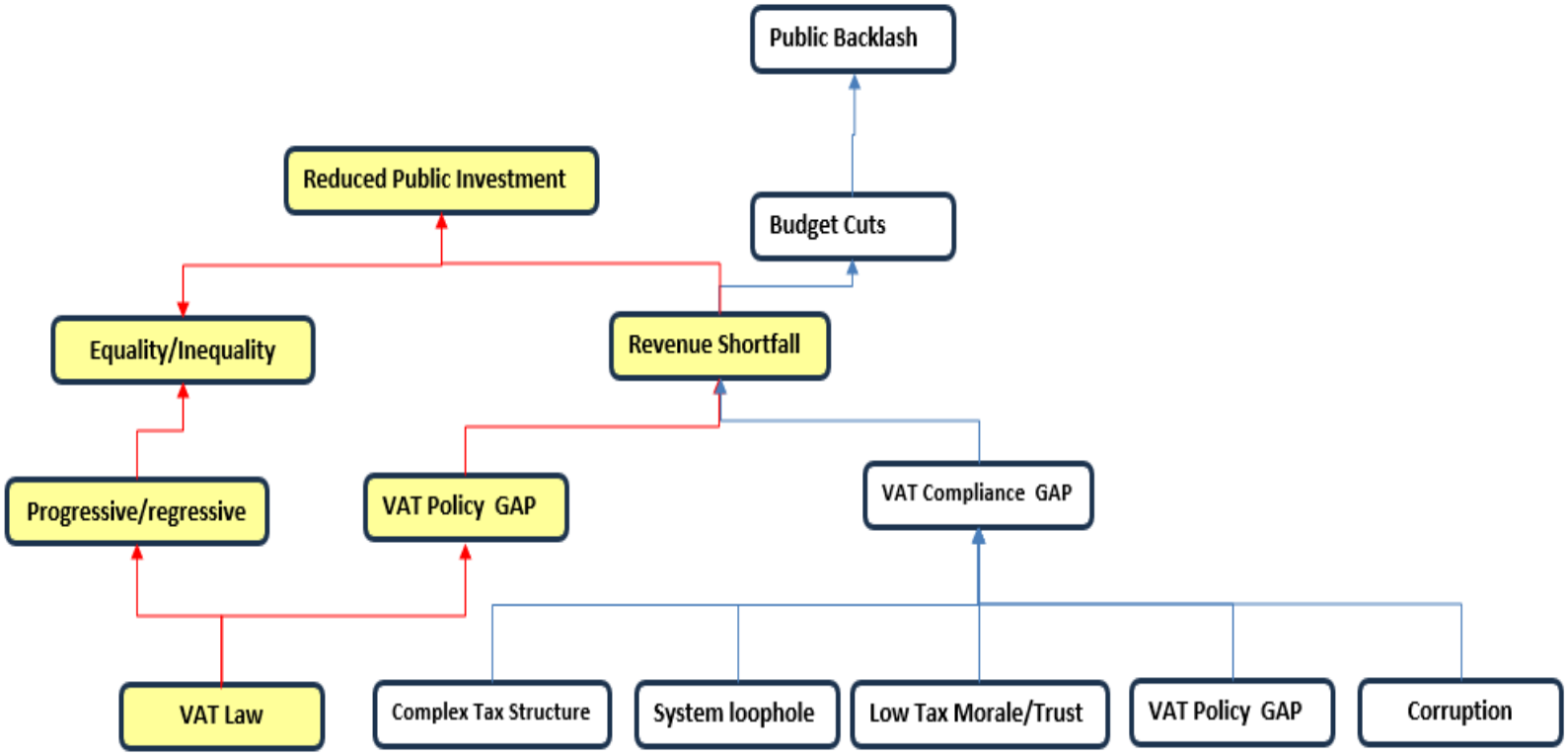
Tax types	2017	2018	2019	2020	2021	2022	2023
VAT	3.54%	3.62%	3.36%	2.91%	3.25%	3.51%	3.66%
Income taxes	4.69%	4.98%	4.81%	3.75%	4.00%	5.03%	4.75%
other	0.24%	0.24%	0.25%	0.28%	0.28%	0.22%	0.54%
Total	8.47%	8.85%	8.42%	6.94%	7.53%	8.76%	8.95%

in trillion Rupiahs

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
VAT	383.45	408.85	423.14	412.27	480.77	537.47	531.47	449.52	552.00	688.07	764.34
Income taxes	496.63	537.64	589.23	656.88	637.82	739.66	761.37	579.60	679.63	986.21	993.03
other	33.98	35.43	42.95	36.52	32.45	36.19	39.99	42.92	46.94	42.49	111.86
Total	914.05	981.92	1,055.31	1,105.66	1,151.04	1,313.32	1,332.82	1,072.04	1,278.56	1,716.76	1,869.23

Source: Indonesia's Tax Authority's internald data.

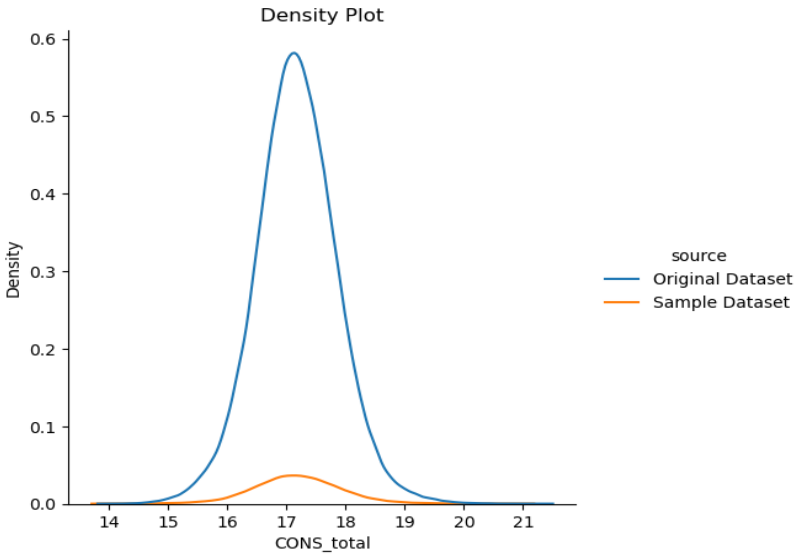
Annex 5. The Problem Tree



Annex 6. Data and Methodology

This paper utilizes a tax microsimulation model based on the Tax-Calculator model (James, 2025; PSL, 2025) with the expenditure approach, using Indonesia's 2018 national socio-economic survey (BPS, 2018), which captured the consumption of 290 types of goods and services from 295,155 households, representing 70.1 million households in Indonesia. Before utilizing the model, a sample of 20,000 households was generated to make processing the model more efficient and manageable. The sample dataset specifications are as follows

Description	Result
Total population	70,102,195
Consumption survey observation	295,155
The model sample observation	20,000
Consumption survey mean for the value of consumption	Rp 38,040,872
The model mean for the value of consumption	Rp 38,133,560
Sampling error for the mean of consumption	0.24%



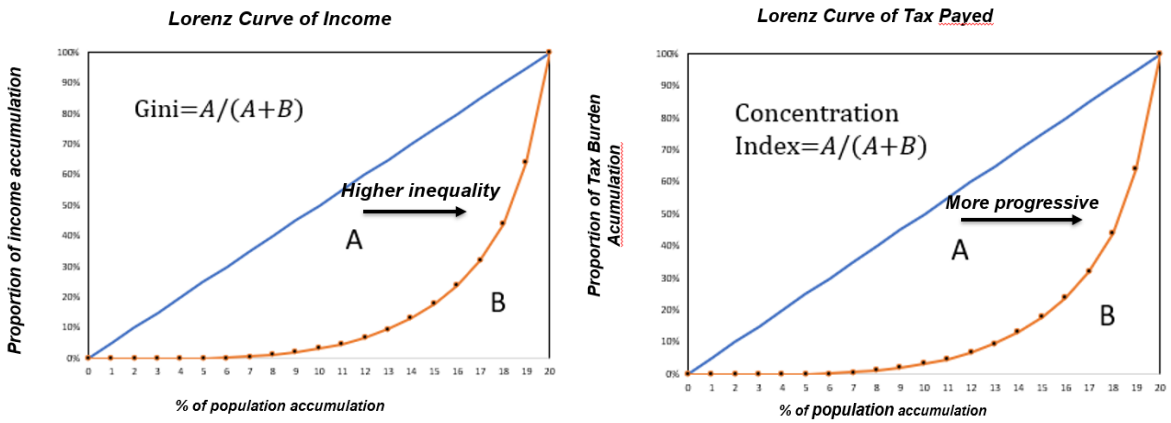
Source: calculated from 2018 national socio-economic survey data (BPS, 2018).

Afterwards, the microsimulation model was employed using the sample dataset to measure the total VAT revenue, Gini and Concentration index, and Kakwani coefficients. The specification for VAT revenue calculation is as follows

$$TR_t = \sum_j \sum_{i=1}^{n} C_{it}^j * r_t^j * W_{it}$$

Where TR_t denotes total tax revenue at time *t*, C_{it}^j represents exclusive of tax consumption of goods and services *j* by household *i* at time *t*, r_t^j is the VAT rate of goods and services *j* at time *t*, and W_{it} is the sampling weight of every household *i* represent at time *t*.

The Gini index of income measures inequality, while the concentration index of taxes measures the progressivity of a tax system (Kakwani, 1977, p. 72). Both the Gini and concentration indices are defined as the area between the 45-degree line and the Lorenz curve divided by the total area below the 45-degree line (perfect equality line).



In mathematical terms, the Gini coefficient is calculated as follows

$$G_i = \frac{2\sum_{i=1}^{n}(i * x_i)}{n\sum_{k=1}^{n} x_k} - \frac{n+1}{n}$$

where G_i is the Gini coefficient of income/expenditure, n denotes the number of observations (households), x_i is the expenditure of the i-th household after sorting the data non-decreasingly, and i is the household's rank (from i to n) based on the sorted expenditure.

On the other hand, the Concentration coefficient is calculated as follows

$$G_c = \frac{2\sum_{i=1}^{n}(i * T_i)}{n\sum_{k=1}^{n} T_k} - \frac{n+1}{n}$$

where G_c is the Concentration coefficient of tax paid, n denotes the number of observations (households) , and T_i denotes the VAT paid by the i-th household after sorting the data non-decreasingly.

After determining the Gini and concentration index, the Kakwani coefficient is calculated as follows

$$K = G_c - G_i$$

where a positive value of Kakwani coefficient implies the progressivity of a tax system, and vice versa, a negative Kakwani coefficient suggests the regressivity of a tax system.

Annex 7. Indonesia's VAT Exemptions List and Revenue Forgone

(billion Rupiahs)

No.	Special Treatment	Estimated Value				Projected Value	
		2020	2021	2022	2023	2024	2025
1	PPN not collected, deposited, and reported by small businesses	40,600	46,564	49,039	52,430	56,539	61,226
2	VAT not imposed on religious services	96	114	138	158	177	218
3	VAT not imposed on public transportation	9,180	11,204	14,265	17,211	19,235	23,385
4	VAT not imposed on catering services	-	-	-	-	-	-
5	VAT and PPnBM not collected on gift items	106	16	11	15	17	18
6	VAT and PPnBM not collected on research imports	6	5	54	4	4	5
7	VAT and PPnBM not collected on museum imports	-	-	-	0	0	0
8	VAT and PPnBM not collected on disability imports	1	1	3	0	0	0
9	VAT and PPnBM not collected on coffins	-	-	-	-	-	-
10	VAT and PPnBM not collected on migrant worker goods	-	-	-	-	-	-
11	VAT and PPnBM not collected on passenger goods	63	-	-	-	-	-
12	PPN not collected on imports by international bodies	0	0	0	0	0	0
13	VAT exempted on general educational books	338	331	324	418	436	497
14	VAT exempted on public housing delivery	563	593	807	1,129	1,192	1,374
15	VAT exempted on public apartment rentals						
16	VAT exempted on public apartment ownership						
17	PPN exempted on construction services for religious and disaster purposes	174	225	283	302	328	390
18	VAT exempted on marine and fisheries products	14,009	17,460	20,188	22,189	23,213	26,661
19	PPN exempted on electricity, except for homes with power above 6600 VA	5,971	6,313	7,872	8,785	9,414	12,070
20	VAT exempted on clean water	787	1,093	1,308	1,449	1,573	2,033
21	VAT exempted on deliveries in Free Zones	814	1,079	1,167	1,278	1,382	1,631
22	VAT exempted on imports by International Bodies	57	99	47	63	67	59

23	VAT not imposed on basic necessities	27,676	33,087	38,616	40,952	43,539	50,465
24	VAT not imposed on medical services	2,679	3,329	4,374	3,279	3,602	4,320
25	VAT not imposed on social services	192	227	277	317	355	435
26	PPN not imposed on postal services using stamps	11	7	5	5	4	5
27	VAT not imposed on financial services	9,570	11,681	14,049	15,258	16,312	19,124
28	VAT not imposed on insurance services	5,197	6,089	6,755	6,968	7,449	8,733
29	VAT not imposed on educational services	15,103	17,513	19,176	19,754	21,938	26,010
30	VAT not imposed on labor services	-	-	189	231	258	307
31	PPN not imposed on money transfer services using postal money orders	176	147	236	138	203	202
32	VAT not imposed on public phone services	-	-	-	-	-	-
33	Self-use of taxable goods/services with other values	1	2	4	2	3	2
34	Free provision of taxable goods/services with other values	3	1	1	2	1	1
35	Delivery of tobacco products with other values	-	-	-	-	-	-
36	Delivery of package services with specific amounts	915	1,232	1,520	1,545	2,103	2,562
37	Delivery of travel agency services	171	108	364	767	922	1,098
38	Delivery of freight forwarding services	3,461	5,450	6,680	5,182	6,648	7,375
39	Specific amount for building costs	291	289	333	299	325	382
40	Delivery of specific agricultural products	38	158	192	111	154	152
41	Lower PPN for hybrid vehicles	0	-	50	845	1,058	2,116
42	Delivery of religious pilgrimage services	0	0	0	3	3	3
43	Delivery of marketing services using vouchers	0	0	0	2330	2851	3449
44	VAT borne by the government on land houses	0	0	0	387	2,062	0
45	VAT borne by the government on electric vehicles	0	0	0	506	901	0
46	VAT borne by the government on Covid-19 supplies	1,936	4,460	1,720	1,320	0	0
47	VAT borne by the government on Newsprint and or Magazine Paper	0	0	0		0	0
48	VAT borne by the government on the delivery of landed houses and residential units of flats	0	287	1524	709	0	0
49	VAT borne by the governmenton rent of room or building	0	173	15	0	0	0

Source: MoF Fiscal Policy Agency (BKF, 2024)

Annex 8. Stakeholder analysis

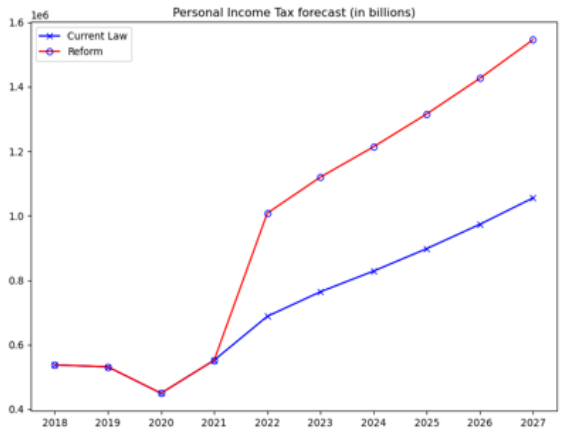
Stakeholder	Interest	Concerns	Influence
Key			
President, Ministry of Finance, and DGT	Raise revenue to fund development; reduce inequality	Enforcement limitations; political resistance; maintaining social stability	High – implements and enforces tax policy
Politicians & Parliament	Public approval; political survival	Unpopularity of VAT hikes; impact on lower-income constituents	High – required for legislative approval
Primary			
Consumers & General Public	Affordable prices; fair and transparent use of tax revenues	Regressive tax impact; rising cost of living; distrust in the tax system	High (indirect) – public sentiment drives political decisions
Secondary			
Large Businesses (Corporations)	Predictability; fairness; simple compliance	Complex procedures; declining demand; competition from the informal economy	Significant – major tax contributors, influence via associations
Small and Medium Enterprises (SMEs)	Avoid heavy compliance costs; maintain affordability for consumers	Administrative burden; potential VAT threshold reduction	Moderate – large in number, socially influential
External			
International Organizations (e.g., WB, IMF, ADB)	Fiscal sustainability; equity; development financing	Persistently low tax-to-GDP ratio; inefficient VAT collection	Moderate to High – influence via technical and financial support
Civil Society & Advocacy Groups	Equity; social protection; government accountability	Worsening inequality; lack of public services despite tax payments	Moderate to High – can shape public discourse and mobilize resistance
Tax Consultants & Advisors	Clear, consistent regulation; professional guidance	Overly complex rules; frequent policy shifts	Moderate – indirect influence through compliance ecosystem

Annex 9. Pros and Cons Analysis

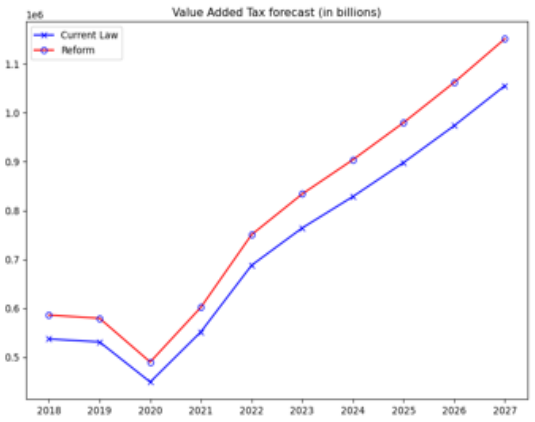
Policy Option	Pros	Cons
Current System	- Maintains stability and predictability	- Does not address revenue shortfalls
	- No new administrative burden	- Misses opportunity for greater equity or efficiency
Applying VAT on Food	- Significantly increases revenue	- Highly regressive, disproportionately impacts low-income households
	- Broadens the tax base	- Likely low public support
Increase the Standard VAT Rate to 12%	- Boosts revenue across the board	- Evenly impacts all households, including low-income
	- Simple to implement	- May face moderate public resistance
Increase the VAT Rate of Tobacco and Alcohol to 15%	- Targets goods with negative externalities	- Reduce the progressivity and highly impact the vulnerable households
	- May reduce the consumption	- Already subject to high excise tax
		- May encourage illicit trade or tax evasion
Increase the VAT Rate of Durable Goods and Vehicles to 12%	- Highly progressive, impacts higher-income households more	- Revenue gains may be modest
	- Minimizes burden on poor	- May affect sales of durable goods and vehicles
Combination of Option 4 and 5	- Balances progressivity and revenue	- Administrative complexity increases
	- Targets non-essential/luxury goods	- Revenue still less than taxing essentials like food
Applying VAT on Education, Health, and Financial Services	- Most progressive option	- Could restrict access to essential services
	- High revenue potential from top earners	- Likely to face strong social and political pushback

Annex 10. The Microsimulation Results for Policy Options: Total VAT Revenue Projection

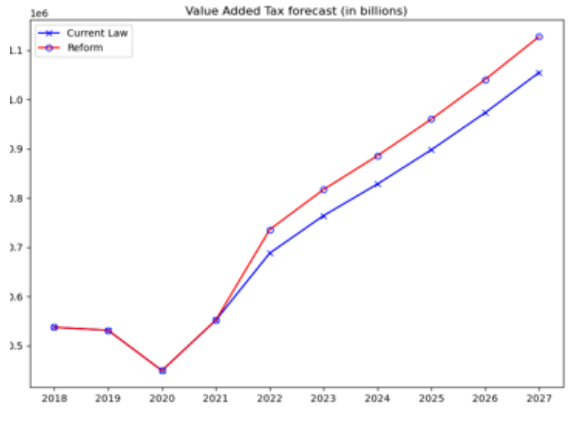
Policy Option 2. Tax on Food



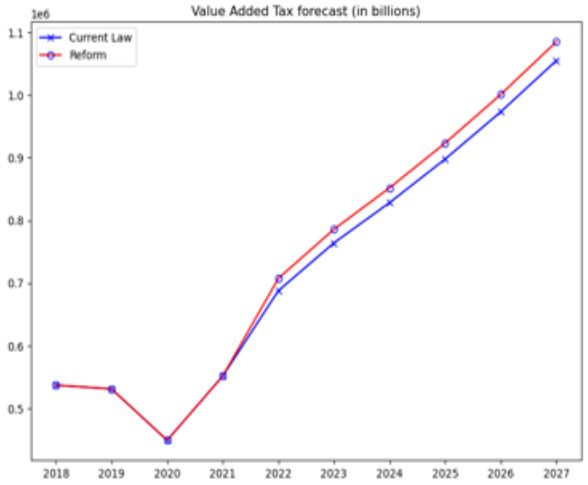
Policy Option 3. 12% Rate



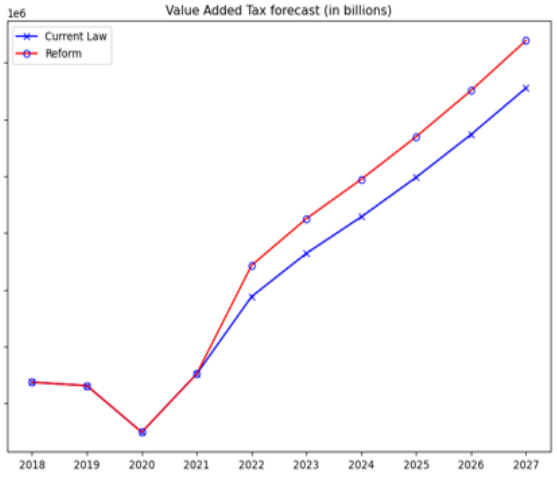
Policy Option 4. 15% on Tobacco and Alcohol



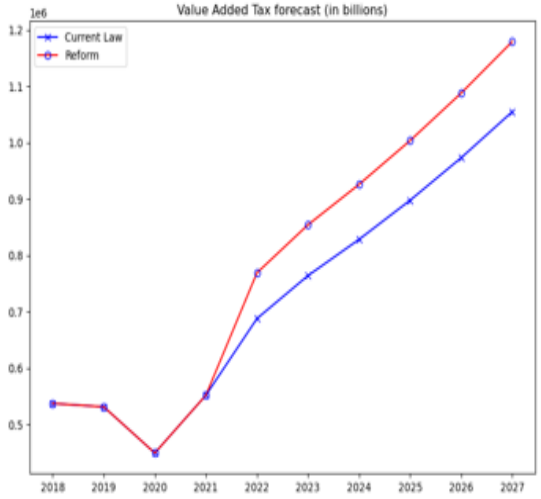
Policy Option 5. 12% on Durable Goods and Vehicles



Policy Option 6. Combination of 4 and 5

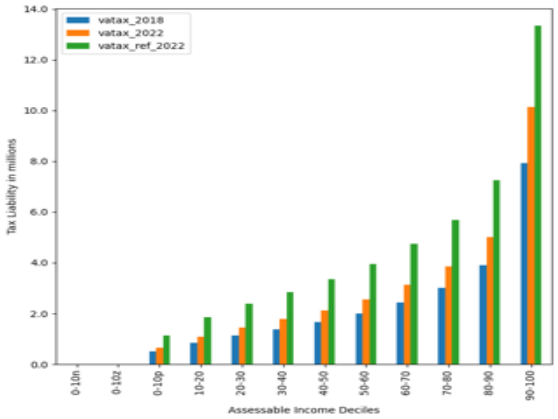


Policy Option 7. Taxing Education, Health, and Finance

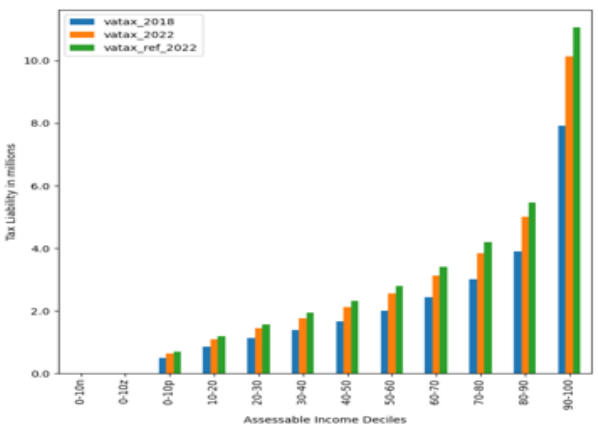


Annex 11. The Microsimulation Results for Policy Options: Tax Burden Distribution

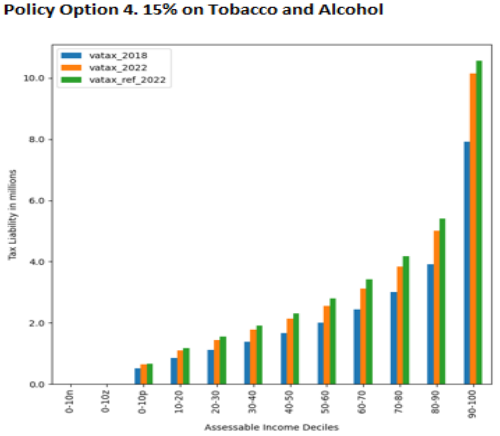
Policy Option 2. Tax on Food



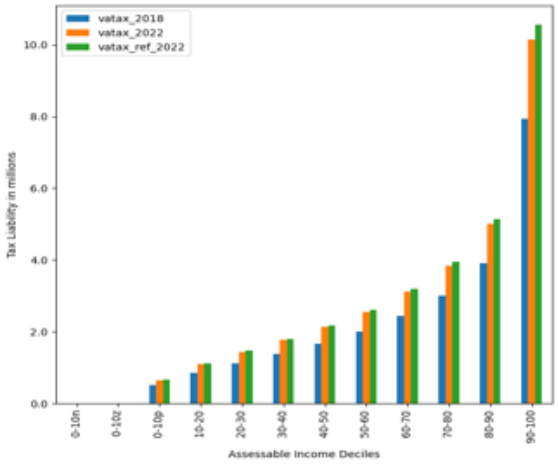
Policy Option 3. 12% Rate



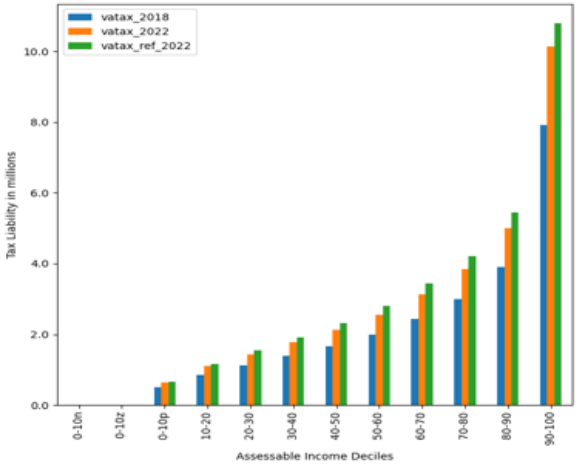
Policy Option 4. 15% on Tobacco and Alcohol



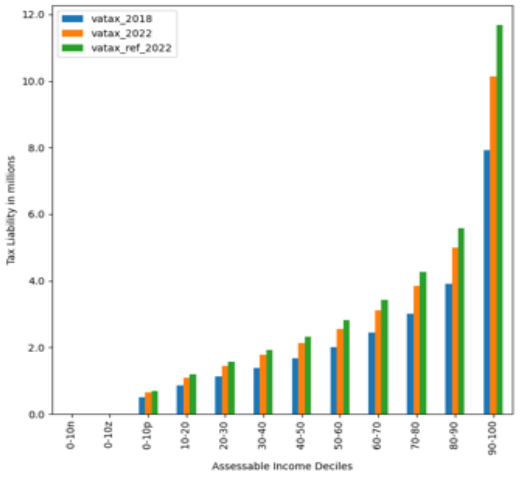
Policy Option 5. 12% on Durable Goods and Vehicles



Policy Option 6. Combination of 4 and 5

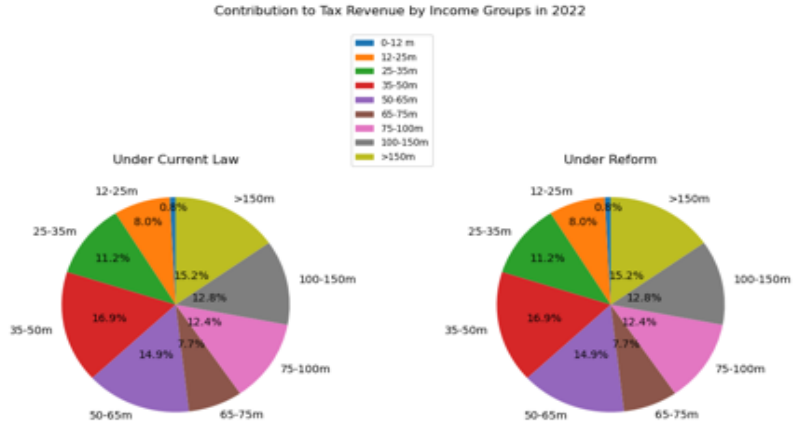


Policy Option 7. Taxing Education, Health, and Finance

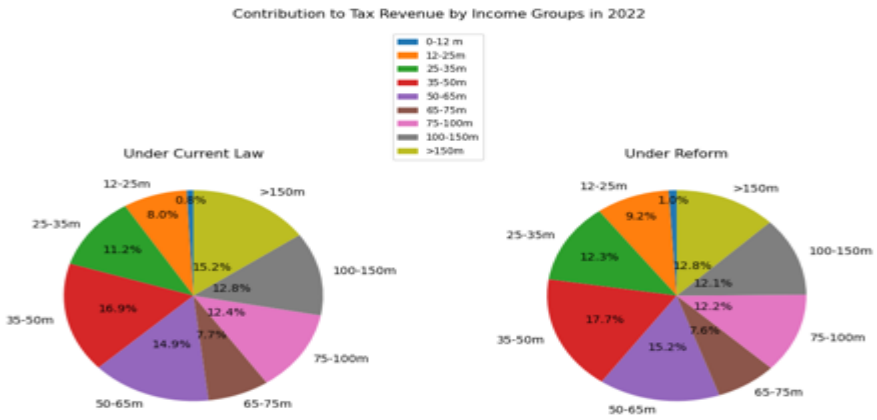


Annex 12. The Microsimulation Results for Policy Options: Tax Burden Contribution

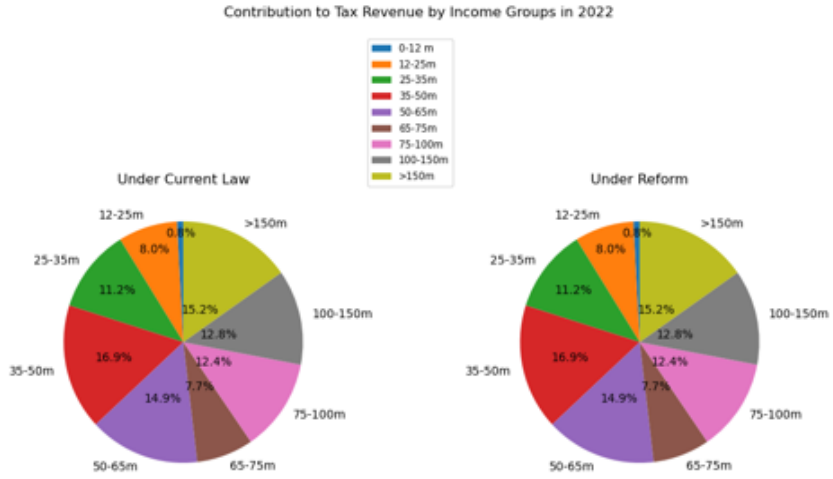
Policy Option 1. Current System



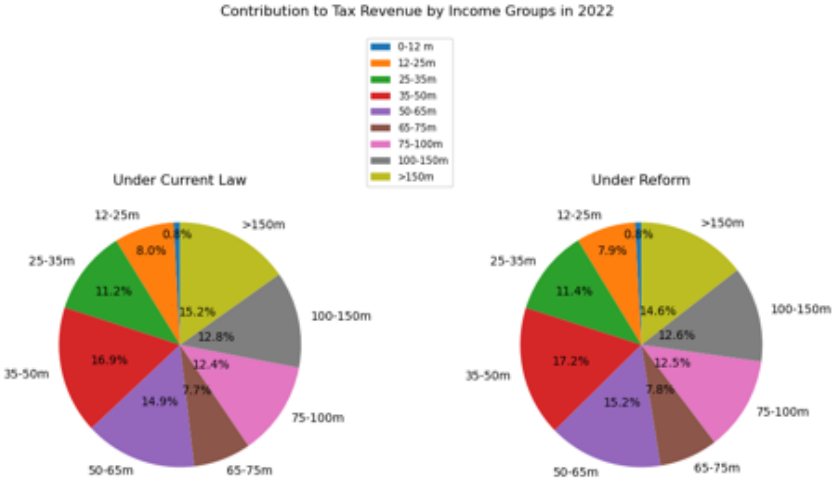
Policy Option 2. Tax on Food



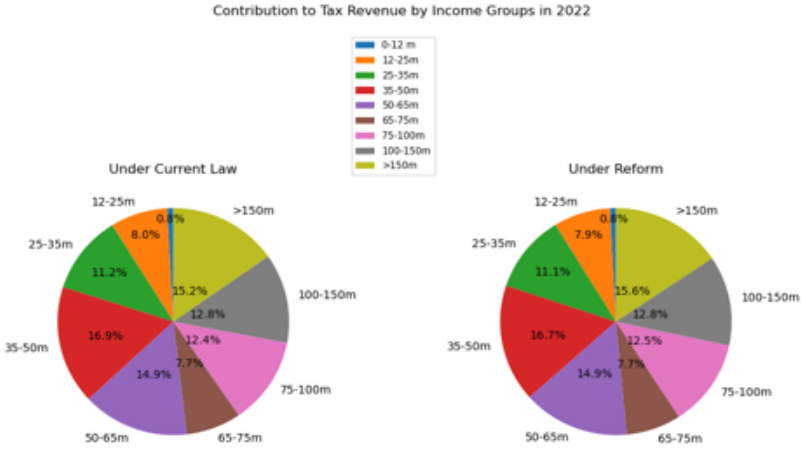
Policy Option 3. 12% Rate



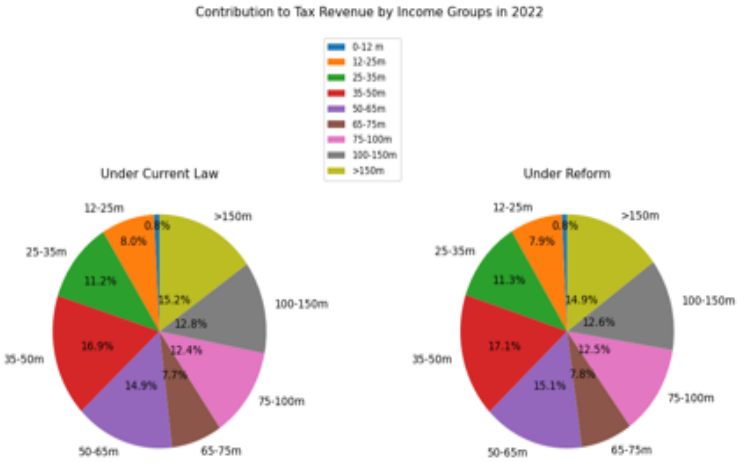
Policy Option 4. 15% on Tobacco and Alcohol



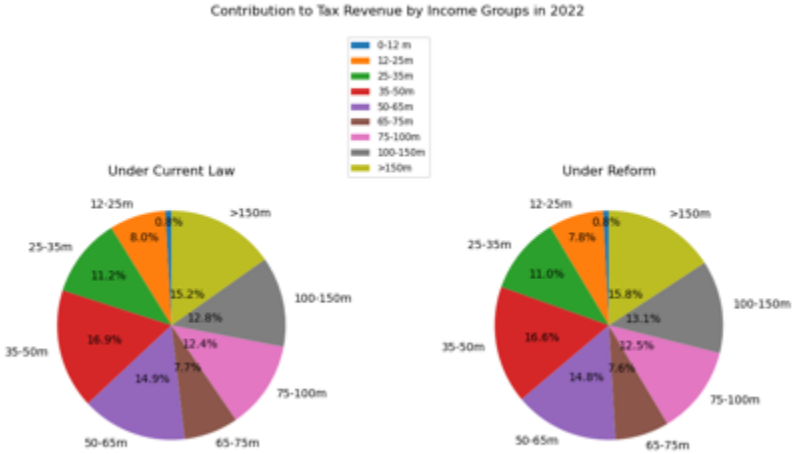
Policy Option 5. 12% on Durable Goods and Vehicles



Policy Option 6. Combination of 4 and 5

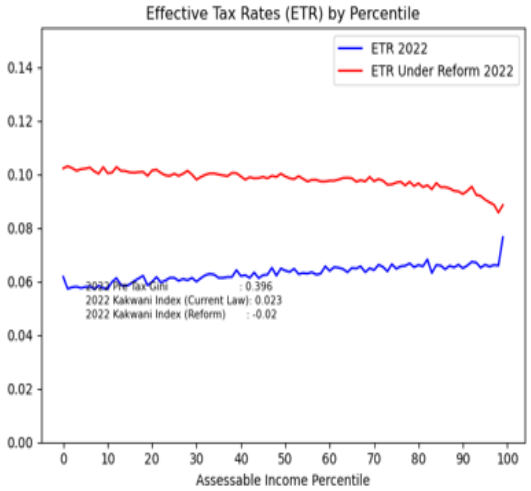


Policy Option 7. Taxing Education, Health, and Finance

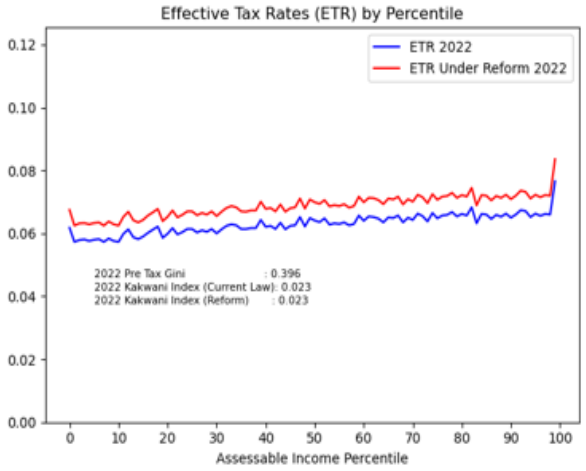


Annex 13. The Microsimulation Results for Policy Options: Effective Tax Rate

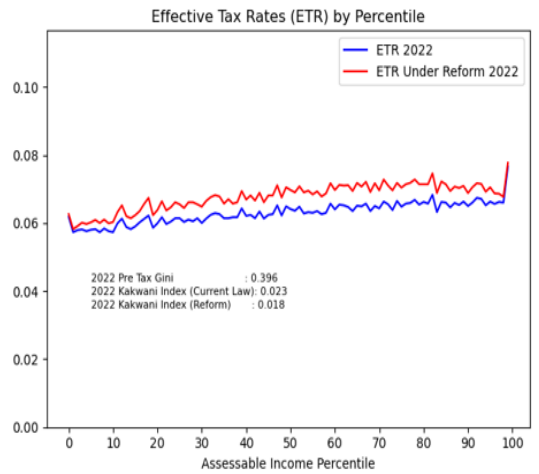
Policy Option 2. Tax on Food



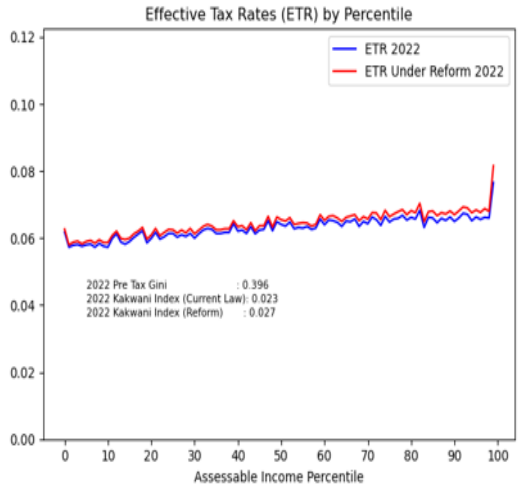
Policy Option 3. 12% Rate



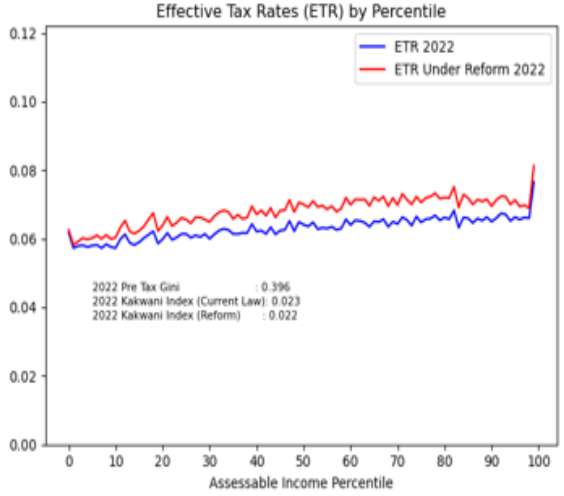
Policy Option 4. 15% on Tobacco and Alcohol



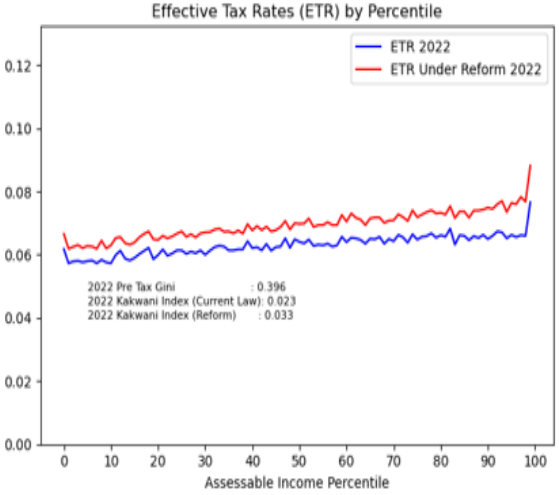
Policy Option 5. 12% on Durable Goods and Vehicles



Policy Option 6. Combination of 4 and 5

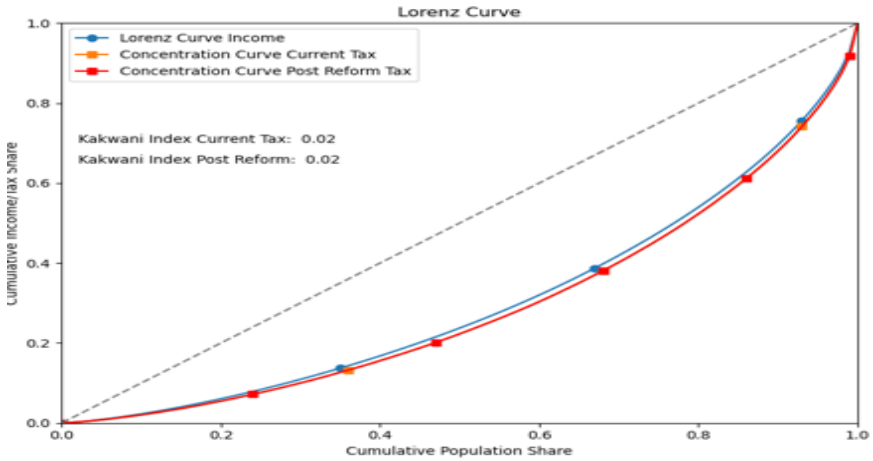


Policy Option 7. Taxing Education, Health, and Finance

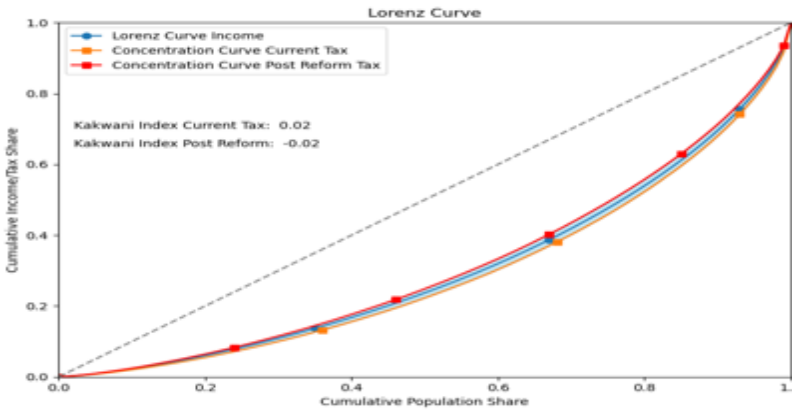


Annex 14. The Microsimulation Results for Policy Options: The Lorenz Curve

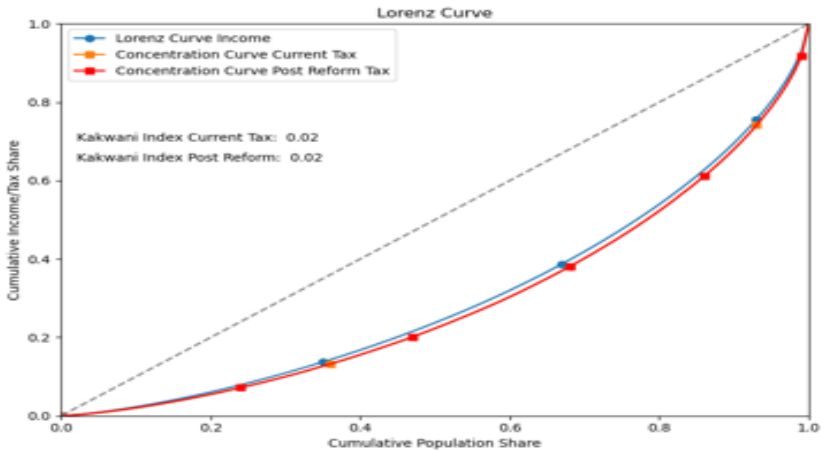
Policy Option 1. Current System



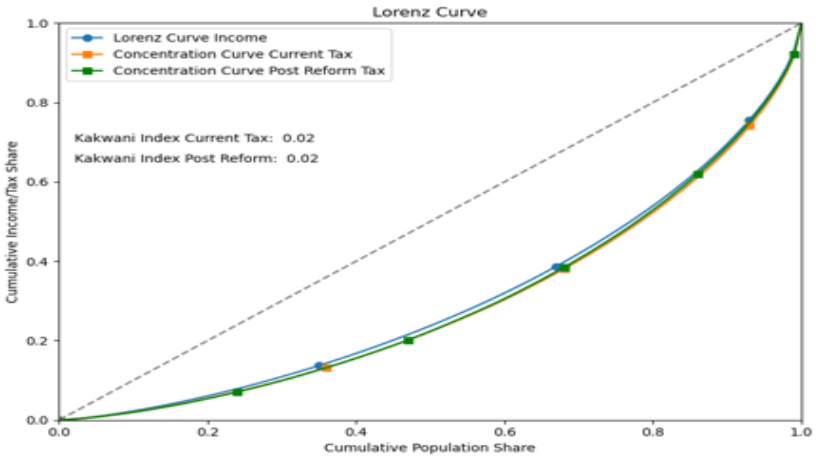
Policy Option 2. Tax on Food



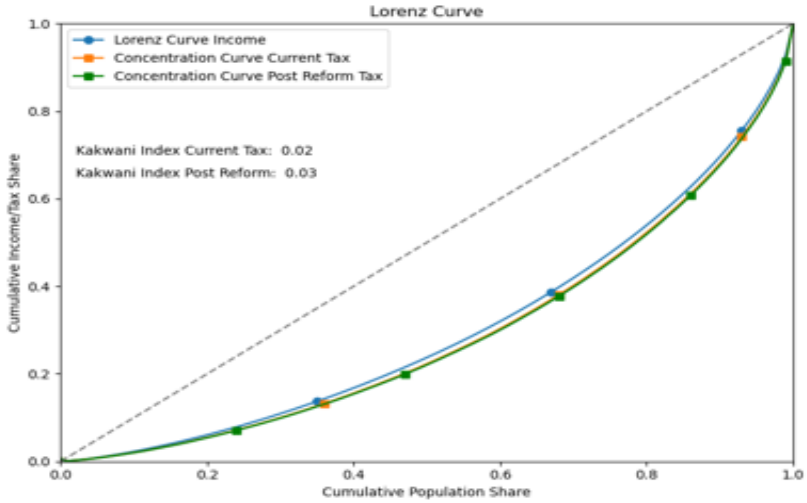
Policy Option 3. 12% Rate



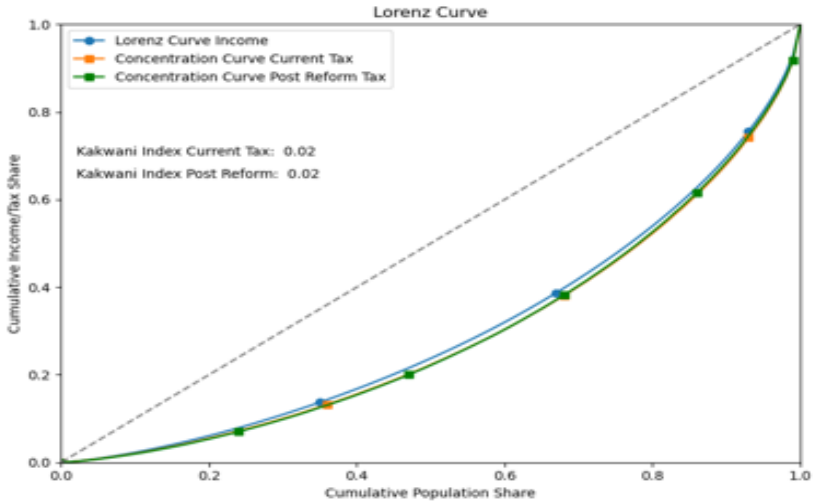
Policy Option 4. 15% on Tobacco and Alcohol



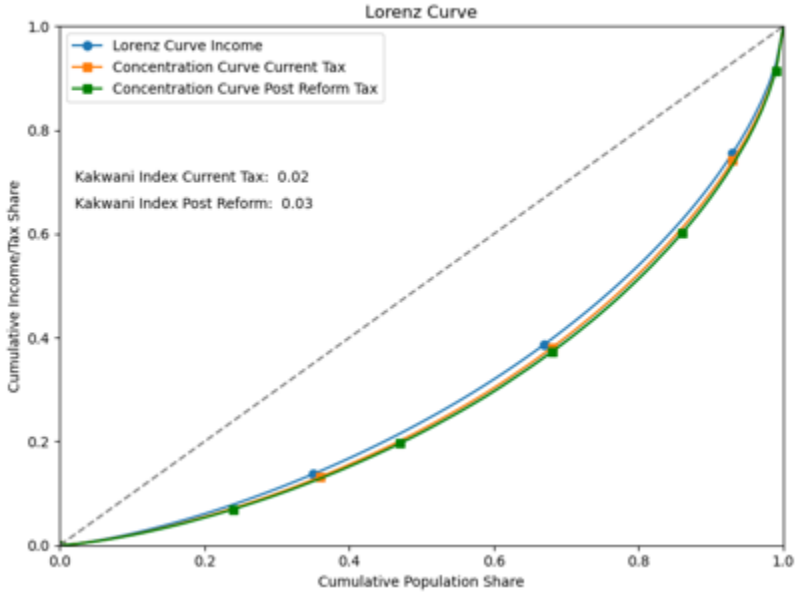
Policy Option 5. 12% on Durable Goods and Vehicles



Policy Option 6. Combination of 4 and 5



Policy Option 7. Taxing Education, Health, and Finance



Annex 15. Policy Ranking

No.	Policy Options	Revenue (1 - 7) (a)	Revenue Weight (b)	Equity (1 - 7) (c)	Equity Weight (d)	Feasibility Score (1 - 7) (e)	Feasibility Weight (f)	Total Score (g = (a x b) + (c x d) +(e x f))	Ranking
1	Current System	1	1.2	4	1.5	7	2	21.2	3
2	Applying VAT on Food	7	1.2	1	1.5	1	2	11.9	7
3	Increase the standard VAT Rate to 12%	5	1.2	5	1.5	3	2	19.5	4
4	Increase the VAT rate of Tobacco and Alcohol to 15%	3	1.2	2	1.5	5	2	16.6	6
5	Increase the VAT Rate of Durable Goods and Vehicles to 12%	2	1.2	6	1.5	6	2	23.4	1
6	Combination of Option 4 and 5	4	1.2	3	1.5	4	2	17.3	5
7	Applying VAT on Education, Health, and Financial Services	6	1.2	7	1.5	2	2	21.7	2

Bibliography

Alavoutunki, K., Haapanen, M., & Pirrrrila, J. (2019). The Efects of the Value_Added Tax On Revenue and Inequality. *The Journal od Development Studies*, *55*(4), 490-508. https://doi.org/DOI: 10.1080/00220388.2017.1400015%

Alt, J., Preston, I., & Sibieta, L. (2010). The Political Economy of Tax Policy. In S. A. e. al. (Ed.), *Dimension of Taxation*. Oxford University Press.

BKF, B. K. F. K. K. (2024). *Tax Expenditure Report 2023* (Vol. 7).

Bomboy, S. (2022, March 19, 2025). On This Day: The Stamp Act plants seeds of the revolution. https://constitutioncenter.org/blog/on-this-day-the-stamp-act-plants-seeds-of-the-revolution

BPS. (2018). *National Social Economy Survey* (https://silastik.bps.go.id/v3/index.php/mikrodata/view/cEh1YjFiYzRzMzBjVDRrc045cGRsdz09

BPS. (2025). *Distribution of Expenditure per Capita and Gini Index, 2010-2024*. BPS-Statistics Indonesia. Retrieved March 29, 2025 from https://www.bps.go.id/en/statistics-table/1/OTQ2IzE=/distribution-of-expenditure-per-capita-and-gini-index--2010-2024.html

Chanel, G. (2016). Taxation as a Cause of the French Revolution: Setting the Record Straight. *Studia Historica Gedanensia*, *6*, 65-81. https://doi.org/https://doi.org/10.4467/23916001HG.15.003.6376

Duncan, D., & Sbirianova peter, K. (2016). Unequal inequalities: Do progressive taxes reduce income inequality? *Int Tax Public Finance 23*, 762-783. https://onlinelibrary.wiley.com/doi/full/10.1002/jid.3350

Economist. (2025). *Prabowo Subianto is drastically cutting Indonesia's budget*. Retrieved March 29, 2025 from https://www.economist.com/asia/2025/02/27/prabowo-subianto-is-drastically-cutting-indonesias-budget

Frank, R. H. (2015). *Microeconomic & Behavior*. McGraw-Hill Education.

Itriago, D. (2011). *Owning Development. Taxation to fight poverty* (Oxfam Research Report, Issue. https://www-cdn.oxfam.org/s3fs-public/file_attachments/rr-owning-development-domestic-resources-tax-260911-en_3.pdf

James, S. (2025). *Tax_Microsimulation*. Retrieved January 12, 2025 from https://github.com/Duke-University-Sanford-Tax-Policy/Tax_Microsimulation

Kakwani, N. C. (1977). Measurement of Tax Progressivity: An International Comparison. *The Economic Journal*, *87*(345), 71-80. https://doi.org/10.2307/2231833

Kakwani, N. C. (1980). Income inequality and poverty : methods of estimation and policy applications. *World Bank research publication*, *xiii, 416 p.* https://documents1.worldbank.org/curated/en/456591468740159687/pdf/multi-page.pdf

Keen, M. (2013). The Anatomy of the VAT. *IMF Working Paper*, *WP/13/111*. https://www.imf.org/external/pubs/ft/wp/2013/wp13111.pdf

Keen, M., & Slemrod, J. (2021). *Rebellion, Rascals, and Revenue: Tax Follies and Wisdom Through the Ages*. Princeton University Press.

Llewellyn, A. (2024). *'We lost everything': the Indonesians falling out of the middle class*. aljazeera.com. Retrieved April 6, 2025 from https://www.aljazeera.com/economy/2024/11/15/indonesias-shrinking-middle-class-casts-shadow-on-economic-rise#:~:text=Ega%20Kurnia%20Yazid%2C%20a%20policy,had%20contributed%20to%20the%20trend

Luttmer, E. F. P., & Singhal, M. (2014). Tax Morale. *NBER Working Paper*, *20458*. https://www.nber.org/papers/w20458

Nababan, W. M. C., & Salam, H. (2024). *Koalisi Prabowo-Gibran Menguasai Parlemen*. Kompas.id. Retrieved April 6, 2025 from https://www.kompas.id/baca/polhuk/2024/04/26/koalisi-prabowo-menguasai-parlemen?loc=hard_paywall

Nugraha, D. W., & Basyari, I. (2024). Pemerintah Batalkan Kenaikan Tarif PPN 12 Persen secara Umum. https://www.kompas.id/artikel/pemerintah-batalkan-kenaikan-tarif-ppn-12-persen-secara-umum

Oxfam. (2017). Towards A More Equal indonesia. *Oxfam Briefing Paper*. https://oi-files-d8-prod.s3.eu-west-2.amazonaws.com/s3fs-public/bp-towards-more-equal-indonesia-230217-en_0.pdf

PSL. (2025). *Tax-Calculator*. Policy Simulation Library. Retrieved April 9, 2025 from https://pslmodels.org/Catalog/Tax-Calculator.html

Rosid, A., Evans, C., & Tran-Nam, B. (2018). Tax Non-Compliance and Perceptions of Corruption: Policy Implications for Developing Countries. *Bulletin of Indonesian Economic Studies*, *54*(1), 25-60. https://doi.org/10.1080/00074918.2017.1364349

Sari, D., & Qibthiyyah, R. M. (2022). Tax Revenue and Income Inequality in Indonesia: A Provincial Level Evidence. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, *VI*(2), 155-172. https://scholar.ui.ac.id/ws/portalfiles/portal/104990034/Tax_Revenue_and_Income_Inequality_in_Indonesia_A_Provincial_Level.pdf#:~:text=system%E2%80%99s%20poor%20quality%2C%20the%20informal,However%2C%20it%20must

Shome, P. (1995). *Tax Policy Handbook*. International Monetary Fund. https://doi.org/10.5089/9781557754905.071

Sulaiman, S. (2024). Business labour opposition grows to Indonesia's scheduled VAT increase. https://www.reuters.com/markets/asia/business-labour-opposition-grows-indonesias-scheduled-vat-increase-2024-11-29/#:~:text=Labour%20groups%20want%20the%20government,workers%20and%20deepen%20social%20inequality

Swistak, A., & de la Feria, R. (2024). Designing a Progressive VAT. In (Vol. 2024): International Monetary Fund.

Thejakartapost. (2025). Questioning budget cuts. https://www.thejakartapost.com/opinion/2025/02/17/questioning-budget-cuts.html

WorldBank. (2016). Indonesia's Rising Divide. *World Bank's Global Poverty Monitoring Technical Note*. https://openknowledge.worldbank.org/entities/publication/7ebb71e4-b561-5ed9-9aec-4e05f5c42742

WorldBank. (2024). *World Development Indicators* (https://databank.worldbank.org/source/world-development-indicators#

WorldBank. (2025). Estimating Value Added Tax (VAT) and Corporate Income Tax (CIT) Gaps in Indonesia. *Prosperity Insight Series. © World Bank*. http://hdl.handle.net/10986/42959