# THE POTENTIAL DISTRIBUTIONAL AND ECONOMIC WIDE IMPACT OF THE NEW INDONESIA'S VAT LAW IMPLEMENTATION

Rus'an Nasrudin Djoni Hartono Faizal Rahmanto Moeis Andhika Putra Pratama Raka Rizky Fadilla Rustam Effendi

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© 2022, September Institute for Economic and Social Research Faculty of Economics and Business Universitas Indonesia (LPEM-FEB UI)

Salemba Raya 4, Salemba UI Campus Jakarta, Indonesia 10430

Phone: +62-21-3143177
Fax: +62-21-31934310
Email: lpem@lpem-feui.org

Web : www.lpem.org

# The Potential Distributional and Economic Wide Impact of the New Indonesia's VAT Law Implementation

Rus'an Nasrudin<sup>1,2,★</sup>, Djoni Hartono<sup>2</sup>, Faizal Rahmanto Moeis<sup>1,2</sup>, Andhika Putra Pratama<sup>1,2</sup>, Raka Rizky Fadilla<sup>1,2</sup>, and Rustam Effendi<sup>3</sup>

#### **Executive Summary**

This article summarises the distributional and economic-wide impact of several policy scenarios of recent tax policy changes in Indonesia. Some of the scenario's designs are directly drawn from the changes in the new Indonesian tax law or UU HPP (Law on Harmonization of Tax Regulations) concerning broadening the value-added tax (VAT) base. We use a Computable General Equilibrium (CGE) and Microsimulation approach to calculate the impact of these scenarios on economic growth, inflation, government revenue, poverty and inequality. All the scenarios intended to make the tax system simpler and more efficient, with less distortion, and broaden the tax base resulting in low to moderate effects on both macro and distributional indicators accompanied by a significant increase in the government revenue. Our results provide an ex-ante impact evaluation of the current VAT Law Implementation.

JEL Classification: H20; K34

### **Keywords**

VAT — Indonesia — tax reform — growth — poverty — inequality

- <sup>1</sup> Institute for Economic and Social Research, Faculty of Economics and Business, Universitas Indonesia, Indonesia
- <sup>2</sup> Department of Economics, Faculty of Economics and Business, Universitas Indonesia, Indonesia
- <sup>3</sup> The Fiscal Policy Agency, Ministry of Finance, Republic of Indonesia
- \*Corresponding address: Ali Wardhana Building, LPEM FEB UI, Kampus UI Salemba, Jalan Salemba Raya 4, Jakarta Pusat, DKI Jakarta 10430, Indonesia. Email: r.nasrudin@ui.ac.id.

# 1. Introduction

A variety of issues afflict the Indonesian tax system. Most importantly, due to various aspects of the tax system, the tax system generates an extremely low level of revenue. Significant amounts of tax evasion have been indicated in the literature, see for example (Alm & Embaye, 2013). Deliberate tax structure decisions, particularly the choice of thresholds in the corporate income tax, the massive exemptions in the value-added tax, and the broad system of fiscal incentives available in both taxes, have also lowered the tax base.

Since its introduction into the Indonesian tax system in 1983, VAT (Value Added Tax) has been one of taxation's most important revenue sources. In the last ten years, VAT accounted for an average of 38 percent of overall tax revenue, or 3.9 percent of GDP. VAT accounted for 43.5 percent of overall tax income in 2021, or 3.1 percent of GDP. The VAT revenue collection has had an up and downtrend with the influence of the tax system, and incentive structure is believed to dominate the dynamic more than the economic cycles.

Due to broad exemptions, the Indonesian VAT system is less adaptable to changes in consumption patterns. As a result, the VAT system's revenue mobilization is suboptimal. For example, while the manufacturing sector remains the engine of the Indonesian economy, there is a noticeable shift in the contribution of services to the economy (see, for example, Findlay & Pangestu, 2016). Ideally, the growing service sector should be reflected in the tax base and the tax collection structure. However, a substantial number of

services are still VAT-free, so that in contrary, the VAT growth collection does not in line with the service sector's expansion. By removing exemptions in the sector or at least its major subsectors like education and health, Indonesia is expected to generate more income.

There are three main aspects in the taxation policy that circumvent the objective of broadening the base around VAT: a relatively high threshold at the international standard, a relatively low rate compared to most developed and developing countries, and generous exemptions provided. Prior to April 2022, the statutory rate of VAT has been at 10%. This rate is low in comparison to Organization for Economic Co-operation and Development (OECD) countries which now is almost 18%, and its neighboring country of the Philippines (12%) but is higher than Thailand and Singapore (7%) (OECD, 2017). The VAT registration threshold was increased by Ministry of Finance Regulation No. 197/PMK.03/2013 and it was effective from January 2014 from IDR600 million to IDR4.8 billion of gross turnover. This cutoff is higher, in absolute terms, than any other country in the region except Singapore and among the highest in the world relative to per capita income. With a threshold this high, firms tend to choose to stay small as indicated by evidence of the bunching effect (see Saputro, 2020 for detailed analysis).

On the extensive exemptions, many food items, mining and drilling products, food and beverages supplied in hotels and restaurants, and money, gold, and securities are all exempt under the previous VAT law. Transportation, medical services, social, banking, insurance, education, art, and entertainment are among the services that are exempt. A list of

implementing Government rules modifies the existing VAT law's application. For example, Government Regulation No. 81 the Year 2015 establishes a list of "strategic goods" that are exempt from VAT. It includes, among others, agricultural, livestock, and fisheries products, capital goods such as machinery and factory equipment, electricity consumption by households with a power capacity of fewer than 6,600 Watts, low-income housing, and silver.

There have been several proposals on VAT tax reform concerning these three issues specifically to: (i) raise the basic rate without putting Indonesia at a competitive disadvantage, (ii) lower the threshold, and (iii) limit the Ministry's discretionary power to grant new exemptions (Alm, 2019; The World Bank, 2015).

In 2021, the Indonesian parliament enacted UU No. 7/2021 on a harmonized taxation system (UU HPP), making significant changes to various tax regulations including VAT policies. The first of the important major key policy changes in UU HPP is to raise the VAT rate from 10% to 11% in April 2022. It is expected that it has a further hike to 12% in January 2025 at the earliest. Second, it eliminates several items from the negative list for VAT, including white crystal sugar, piped water, electricity, agricultural product, low-income group housing, LNG and gas, and financial services. Through further implementing legislation, such erasing opens the possibility of new taxable revenue from goods and services.

While these changes have the potential to improve efficiency and eliminate existing distortions, there is a need to assess the distributional consequences of some proposed scenarios in the implementing regulations of VAT. Conventional wisdom states that the elimination of preferential treatments and more broadly, broadening the base can improve both vertical and horizontal fairness. Moreover, the positive distributional and poverty effects are also evident. See for an example Warwick et al. (2022). In this report, we assess the potential distributional effects of (i) the increase of VAT statutory rate from 10% to 11% and (ii) the seven exemption removal scenarios as requested by the Fiscal Office (BKF) Ministry of Finance Republic of Indonesia.

Overall, the economic wide impact and the distributional effect of the assessed scenarios justify most proposals to be implemented. The poverty and inequality impact of the increase in the VAT rate from 10 to 11% is mild. Based on the CEQ model, the poverty rate increases by 0.19 pp. from the baseline of 11.14%. As for broadening the base, the analysis covers: white crystal sugar, piped water, electricity, agricultural product, low-income group housing, LNG and gas, and financial service as per the request of BKF. Overall, the growth contraction impact of the various simulations of those items showed a tendency of low to moderate impacts with the scenario of the agricultural product being removed from exemption having the largest impact (-0.31 pp) followed by the financial service sector (-0.26 pp). Meanwhile, removing exemptions on utilities such as piped water and electricity for the high-income group have a minor growth effect which was less than 0.01% contraction level. Similar effects have been found for the rest of the items. Moreover, the largest inflation effects also come from removing agricultural products (0.51 pp) and the financial sector (0.35 pp) from the exemption list.

# 2. VAT Policy Changes in the HPP Law

Many commentators believe the HPP law was passed to give the government room or an additional "source of funding" to help the state budget back to 3% of GDP – deficit rule amidst massive stimulus and incentives given by the public budget due to the Covid-19 outbreak. The strategy can be seen as a novel and non-traditional method, especially when compared to other countries' tax policies at the time. While there is a substantial element of the change in the Law to overhaul the tax system, some major changes expected have not taken place. It includes lowering the VAT (and CIT) threshold and to limit the Ministry's authority in granting new exemptions.

In this report, we focus on key policies that are deemed to be strategic in terms of distributional effects and economic wide impact; and are requested by the Ministry of Finance as the priority of analysis in designing the implementing regulation.

The first major VAT policy change concerning mobilizing state revenue is the gradual increase in the statutory rate. The rate increase from 10% to 11% will be effective as of 1 April 2022, and the increase from 11% to 12% will be effective no later than 1 January 2025. The rate can be changed to a minimum of 5% and a maximum of 15%. The changes in rate shall be regulated by a Government Regulation after discussion with the Parliament. [Articles 7(1) and 7(3)]. With this rate increase milestone, by 2025, Indonesia's VAT statutory rate would be among the highest in ASEAN, with the same rate as the Philippines.

The second expected source of revenue mobilization is broadening the base policy. The Law broadens the VAT base in those certain goods which are currently exempt from VAT will become VAT-able. It covers mining and drilling products, which are taken directly from their sources, and essential goods (i.e., staples currently exempted), which are mostly required by people, except that for essential goods, which are considered strategic. Money, gold bullion for the country's foreign exchange reserves, and securities remain exempted from VAT. [Articles 4A (1) and 4A (2)].

Also, the following services are proposed to become subject to VAT (currently exempt from VAT): medical services; social services; courier services with stamps; financial services; insurance services; education services; broadcasting services that are non-advertisement; land and water transportation services as well as domestic air transport services of which is an integral part of the international air transport services; employment services; public telephone services that use coins; and remittance services by postal money order.

While other services such as general governmental services, religious preacher services, as well as other services that are subject to local taxes and retributions (e.g., restaurant, hotel, parking, and entertainment) are still exempted from VAT. [Article 4A (3)].

Despite the removal of essential services and the services mentioned above from not being subject to VAT so that they become VAT objects, the elucidation of Article 16B(1a) (j) reinstates certain essential goods and services as VAT exempt. The essential goods or "bahan kebutuhan pokok" that are exempted from VAT are rice, grain, corn,

sago, soya bean, salt, fresh meat, egg, milk, fruits, and vegetables. The essential services that are exempted from VAT are medical services; social services not for profit such as orphanage and nursing homes, firefighting, rendering assistance to accidents, rehabilitation institutions, funeral services and crematorium, and services in the sports field; financial services; insurance services; education services, and labor services.

# 3. The Distributional and Economic Wide Impact Assessment

The analysis covers: white crystal sugar, piped water, electricity, agricultural product, low-income group housing, LNG and gas, and financial service\*. And the outcomes of interest in this report are poverty, inequality, tax incidence by income group, growth, inflation, employment, and sectoral output.

To simulate the poverty, inequality, and tax incidence from various designated scenarios of VAT policy changes, we used a microsimulation based on the consumption module of the socio-economic survey (Susenas) 2019. We follow the standard approach of equity analysis of fiscal incidence, namely CEQ (Commitment to Equity Assessment) developed by CEQ Institute (Lustig, 2018). For an example of a similar fiscal incidence analysis about Indonesia using the model, please see Jellema et al. (2017).

The CEQ is a micro-simulation model of household data to simulate how fiscal policies, specifically taxation policies, social assistance, and subsidies affect household income based on the incidence of each program. The approach taken with this CEQ is to elaborate on the components of transfers and taxes received/paid by individuals, which will then have a direct impact on changes in their final income. Through the CEQ model, the study is able to simulate the impacts of fiscal policies on national poverty (P0) and inequality (Gini).

In defining the market income components (see Figure 1), due to SUSENAS data not providing information related to household income, we use consumption expenditure as a proxy, which is equivalent to disposable income (Jellema et al., 2017). In this case, we exclude variable fiscal intervention (pension contributions and the imputed rental value of owner-occupied housing). Hence, we can see the direct impact if there is a fiscal intervention on the Gini index and poverty.

The dataset for the model was built from the nationally representative household survey (Susenas) 2019. The survey data contains very detailed information on expenditures of households that its weights add up to 226.7 million individuals and 71 million households.

The key formula in the simulation, on top of other incidences of fiscal policy such as direct and indirect subsidies and transfers, is the VAT effective rate. To calculate Indonesia's VAT effective rate, we follow the formula prescribed by Warwick et al. (2022). With the formula, we incorporate the three main structures of the VAT rates regime, namely normal rate, exempt VAT, and zero-rated, as the result of the exemptions list.

We also integrate the VAT threshold and the composition of household consumption of domestic and imported goods and services in the calculation. We use the Economic Census 2016 data of Statistics Indonesia (BPS) which contains more than 26 million business entities, to estimate the distribution of micro, small and medium enterprises (MSMEs) that belong below the threshold of IDR4.8 billion of the annual turnover. The structures of import and domestic consumption composition are obtained from the Input-Output Table 2016 of BPS.

As for the CGE analysis, the model structures follow the standard CGE model from the International Food Policy Research Institute/IFPRI (Löfgren et al., 2002) and Partnership for Economic Policy (PEP), which consists of the production block, institutions block, commodity market block, factor market block, and macro-economic balance.

In this study, the standard model for Indonesia (see Sobri et al. 2020) is applied as the CGE model, which assumes Indonesia as an open economy. This is similar to a model developed by (Resosudarmo et al., 2009) for regional analysis that can be seen in the Inter-Regional Model System of Analysis for Indonesia in 5 regions (IRSA-INDONESIA 5).

Referring to the standard model for Indonesia (see Hartono et al., 2017; Hutagalung et al., 2017; Resosudarmo et al., 2009; Sobri et al., 2020), this model has several equation systems, divided into four blocks of equations: production block, which represents the structure of production activity and producers' behavior; consumption block, which represents the structure of households' behavior and other institutions; export-import block, which describes a country's decision to invest in economy, as well as goods and services, demand that was used on the new capital formation; and market-clearing block, which determines market-clearing conditions for labor, goods, and services in the economy, also as national payment balance.

To obtain as precise as possible of the designated simulation, we conducted the subsector breakdown or imposing necessary proportionality assumptions with the standard sectoral SAM (Social Accounting Matrix) data which had been updated for 2019 and more refined. For example, for household consumption of sugar, we use the proportionality assumption reflecting the household consumption of sugar share in the national total sugar consumption (including industry) since SAM only contained a single sector, namely sugar.

## 4. Results

The poverty and inequality impact of the increase in the VAT rate from 10 to 11% is mild<sup>1</sup>. Based on the CEQ model, the poverty rate increases by 0.19 pp. from the baseline of 11.14%. Comparable estimate results by The World Bank (2021) suggest the impact of 0.27 pp. Moreover, the inequality measure represented by the Gini coefficient changes by -0.00004 from the baseline level of 0.3793. While the World Bank's estimate suggests a change of -0.02. The resulting minor inequality impact is because of the evenly distributed Indonesia's effective VAT rate by expenditure decile. This

<sup>&</sup>lt;sup>1</sup>For the simulation of VAT product exemptions, we use the baseline of statutory VAT tax rate of 11%. Whereas for the simulation of the change of the statutory VAT tax rate from 10% to 11%, the baseline is the statutory VAT tax rate of 10%.

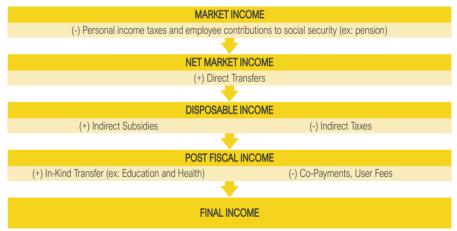


Figure 1. The Income Concepts of the Microsimulation Approach

pattern is part of generally mixed structures (neither progressive nor regressive) found in other developing countries in which Indonesia's pattern is in line with the pattern of Ethiopia or Zambia (Warwick et al., 2022).

Our estimate with Susenas 2019 showed that the range of the effective VAT rate by households' expenditure decile is between 4.5% (D1) to 4.8% (D10). Meanwhile, The World Bank (2021) suggested the range is between 4.1 (D1) to 4.25% (D10).

Ministry of Finance, through the Fiscal Office (BKF), has proposed several policy scenarios to be examined in relation to implementing regulations related to HPP Law changes for VAT exemptions. Although some of these scenarios are not directly linked to the VAT policy changes as in HPP Law, some of them are either less politically controversial or have a significant potential for collection. It covers the examination of white crystal sugar, piped water, electricity service for low-income, agricultural products, low-income group housing, LNG and gas, and financial services. The followings are particular items' impact analyses on poverty and inequality under broadening the base theme.

As for white crystal sugar or households' consumption of sugar, our estimate with the CGE modeling suggests a minor impact on economic growth (-0.01%), inflation (0.006%), and tax collection (0.2% or equal to about IDR3.9 trillion). In the new law, consumption of sugar is no longer part of essential goods or "kebutuhan pokok". The commodity has been through changes over its status as between not- and VAT-able back to the last five years. If the government imposes changes toward reinstating the consumption of sugar to be VAT-able, then on the economic wide impact consideration the impact would be relatively small. Furthermore, the distributional impact (poverty and inequality) also suggests the same tone. According to our microsimulation model, reinstating consumption of sugar as VAT-able will increase the poverty headcount by only 0.01 percentage points and increase the Gini index by 0.00002.

Piped water is one of the essential commodities that has not been included in the list of essential goods or "kebutuhan pokok" in the new law. Yet, its potential as a VAT base is believed to be non-trivial. Our economic-wide impact assessment suggests that the inclusion of piped water as VATable good will contract the economy by only 0.004% and increase inflation by 0.038%. The collection potential

from this scenario is 0.08% or about IDR1.65 trillion. The consequence of poverty and inequality is also considered minor-. A comparable and slightly lower effect than those for sugar consumption, imposing VAT on piped water will increase poverty by only 0.002 percentage points and decrease Gini Index by 0.00001. These economic wide impact and equity assessment results suggest that imposing VAT on piped water is justifiable.

As for electricity service, the previous status postulates that all subscription of the service with below 6,000 VA is VAT exempt. The scenario being assessed in the analysis is to impose VAT on households with 1300 – 5500 VA and nonsubsidized 900 VA electricity consumption. The economic wide impact suggests that the economic contraction as the result of the scenario is minor (-0.004%) as well as inflation (0.084%). On the other hand, the potential collection from taxing electricity below 6,000 VA is quite significant, it amounts to 0.97% or equals to IDR18.16 trillion. However, the poverty impact provides interesting results in which the poverty decreases by 0.02 pp and as well as the inequality (-0.0001). With these results, the economic gain seems to outweigh the cost of such VAT policy change.

The next exemption erasing that also has minor effects is for low-income group housing. The sector inclusion of VATable commodities affects the economy by a very small effect on all indicators. The additional gain in terms of the potential collection is also low. The recommendation to the commodity is to make it status quo, i.e., exempted.

In comparison to the above items, the economic wide impact of applying VAT on LNG and gas tend to be small and comparable to sugar consumption. The economic contraction is 0.01% and the potential revenue amounts to 0.19% or it equals IDR3.72 trillion. Moreover, the impact on poverty and inequality is also minor. The increase in poverty is about 0.1% and the decrease in the Gini index is around 0.0002.

Among the scenarios adopted in this report, there are two sectors of the case study that are considered significant in their economic wide impact and equity consequences, namely agricultural product, and financial services. Agricultural product VAT status has been through several changes since the first implementation of the VAT Law in 1983. The changes involved the revisions of the use of the production concept to the negative list concept. In the recent changes by the enactment of Law Number 7 2021 on the

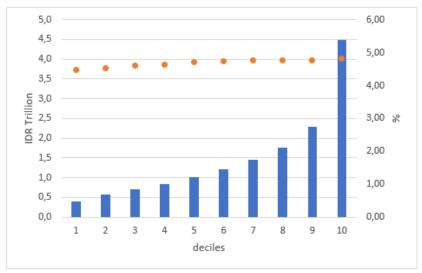


Figure 2. The Indonesia's Effective VAT Rate by Households' Expenditure Deciles

Tax Harmonization Law, agricultural products other than basic necessities are subject to VAT. They are no longer part of non-taxable items and are not exempted.

In the requested simulation by the Ministry of Finance, we examine the economic wide impact and the equity impact of the agricultural product other than basic necessities to be VAT-able. In comparison to other scenarios, the economic contraction and inflation impact of the simulation are moderate. The economic contracts by 0.32% and inflation rise by 0.52%. Among others, the economic contraction mainly comes from the food and beverages sector, which significantly uses input from agricultural products, with sectoral economic contraction at -4.4%. On the other hand, the potential collection is also sizeable which is about 14.1% or it equals IDR264.5 trillion. Moreover, the poverty effect is not trivial. The headcount index rises by 0.63 pp. as a result of the direct and indirect effects of the price changes in the scenario. The increase in the Gini coefficient is also recorded as modest at about 0.002 points.

Similar to the case of some items, financial service has been erased from the list of goods and services that are subject to VAT in the new law. Nevertheless, according to article 16B of the HPP Law, financial service is in the essential service list that makes the sector exempted from VAT. In the simulation proposed by the Ministry of Finance, we calculated the economic-wide impact and equity effect of taxing such sectors with VAT.

The economic contraction from imposing VAT on financial services is about 0.24%. The source of contraction comes mainly from sectors that are related to this service, namely the banking and insurance sectors and the impact is more pronounced in the urban and rural areas. And inflation rises by 0.36%. On the revenue side, the potential collection is expected to increase by 5.4%. The poverty effect is not as large as in the scenario of taxing agricultural products. It is expected at around 0.11 pp increase in headcount index. The inequality, however, decreases by -0.0007 points.

### 4.1 Policy Recommendation

Removing VAT exemptions is arguably a sensible broadening base policy for Indonesia, considering the current and

past performance of revenue collection. Moreover, such policy will also reduce the extent to which distortions created by the exemptions such as the cascading effects, especially in the case that consumers end up paying higher taxes when input taxes are non-creditable due to exemptions.

Overall, the growth contraction impact of the various simulations those reflecting some changes in VAT policy of the HPP Law showed a tendency of low to moderate impacts with the scenario of the agricultural product being removed from exemption having the largest impact (-0.31 pp) followed by the financial service sector (-0.26 pp). Meanwhile, removing exemptions on utilities such as piped water and electricity for the high-income group have a minor growth effect which was less than 0.01% contraction level. Similar effects have been found for the rest of the items. Moreover, the largest inflation effects also come from removing agricultural products (0.51 pp) and the financial sector (0.35 pp) from the exemption list.

Nevertheless, the cost of economic growth from these two scenarios was also compensated by a significant amount of potential collection from the indirect taxes. For an example, the wide impact of agricultural product yields a general equilibrium effect of about 44% additional indirect tax collection, or it equals to IDR287 trillion. On the poverty effects, among scenarios, the significant increase in poverty is also found in the two scenarios of removing agricultural (0.6 pp) and financial sector (0.2 pp) from exemption list. The rest of scenarios resulted in minor effect on poverty. Also, overall scenarios' effects on inequality have been minor. In sum, removing tax exemptions potentially improve the potential collection, especially for major sector such as agriculture and financial sector along with a relatively less worrying economic growth adverse effect.

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Gedung LPEM FEB UI

Jl. Salemba Raya No. 4, Jakarta 10430 Phone: +62-21 3143177 ext. 621/623; Fax: +62-21 3907235/31934310

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