A JOINT PRODUCT OF

SOVERTY
AND EQUITY
COMMENTS
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E BADAN
KEBIJAKAN
FISKAL (BKF)
PF THE
MINISTRY OF
EINANCE

REVISITING
THE IMPACT
OF GOVERNMENT
SPENDING
& TAXES
ON POVERTY
& INEQUALITY
IN INDONESIA









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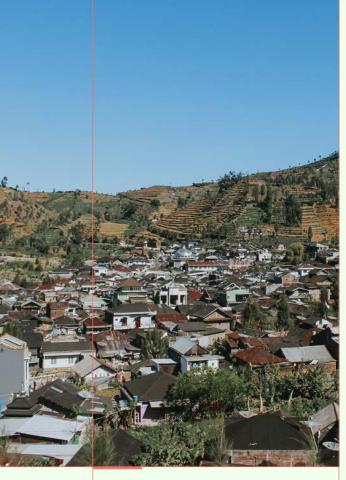
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INDONESIA HAS UNDERTAKEN VITAL FISCAL REFORMS, SIGNIFICANTLY REDUCING SUBSIDIES AND EXPANDING INVESTMENTS IN INFRASTRUCTURE, HEALTHCARE AND SOCIAL ASSISTANCE, WHILE ENHANCING THE EFFECTIVENESS OF SOCIAL SPENDING TO MINIMIZE THE IMPACT ON THE POOR. HOWEVER, THE IMPACT INDONESIA'S FISCAL SYSTEM HAS IN REDUCING POVERTY AND INEQUALITY REMAINS ONE OF THE LOWEST IN THE WORLD AND ONLY INCREASING REVENUE TO INVEST IN PRO-POOR POLICIES CAN IMPROVE THIS.

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joint World Bank-BKF report published circa 2015 found that taxes and spending policies in Indonesia had a very modest impact on inequality relative to other countries. Specifically, the report found that the package of 2012-era taxes and public spending contributed to lowering inequality by about 2.5 percent Gini points. This was a much smaller impact in comparison to places like South Africa and Brazil for example that saw fiscal policy contribute to Gini declines of 17.5 and 14 points respectively. This was also lower than the inequality impact fiscal policy in countries such as Costa Rica, Uruguay, Mexico and Bolivia where the impact on the Gini was 6 points or higher. Indonesia at the time was spending too much on poorly targeted programs that do very little to reduce inequalities (such as energy subsidies) and too little on programs with stronger potential impact (such as direct assistance to the poor). Indonesia was also relying heavily on broad consumption-based taxes (such as VAT) that are broadly neutral, to weakly progressive across the income distribution, and not raising much from direct taxes such as personal income tax, which have stronger progressivity.

1 World Bank (2015b). "Taxes and Public Spending in Indonesia: Who Pays and Who Benefits?" World Bank Indonesia



While the revenue picture has not changed too much. there have been several reforms on the spending side since 2012. For example, after decades of heavily subsidizing fossil fuel energy, the GoI implemented ambitious reforms in 2014-15. Supported by low crude oil prices at the time (US\$51/bbl), the Gol removed budgetary subsidies for low octane gasoline (RON 88/Premium) and applied a fixed subsidy of IDR 500 per liter for diesel. It also announced that domestic retail fuel prices would be adjusted periodically according to global oil prices. Electricity tariffs were also adjusted for 12 categories of non-subsidized customers and later excluded for nonpoor households with 900 volt-ampere (VA) connections. The fiscal gains from the reduced outlay on energy subsidies - which declined from 3.3 percent of GDP over the 2012-14 period to 0.9 percent over 2015-18 - freed up considerable scope to expand expenditure on social assistance, health and infrastructure. For example, the conditional cash transfer program, the PKH has expanded from 3.5 beneficiaries circa 2012 to 10 million in 2017.

This paper revisits the topic and updates the analysis applying the same methodology to data from 2017. The fiscal reforms that took place during the period covered in the analysis (2012-2017) make this a particularly interesting context for a comparative evaluation of the relative efficacy of the various instruments of fiscal policy on outcomes such as poverty and inequality. The analysis covers indirect taxes such as VAT and excise that accounted for 22 and 27 percent of overall revenue in 2012 and 2017 respectively. On the expenditure side, this analysis covers some of Indonesia's major social assistance programs (PKH, PIP and Rastra/BPNT), energy subsidies (both fuel and electricity) as well as spending on education and health. Together, these accounted for 54 percent of the primary government spending in 2012. In 2017, largely because of the rolling back of energy subsidies, the number had declined to 40 percent.



THE VITAL
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The main finding is that the vital reforms Indonesia has made on spending better have had some positive results... Eliminating energy subsidies enabled the Government of Indonesia to maintain the overall impact of fiscal policy on poverty and inequality reduction on a much smaller outlay. Taxes and spending policies in Indonesia became marginally more equalizing in 2017 relative to 2012 while the overall impact on poverty was lower (-1.5 pp) than in 2012 (-3.0 pp) as the expansion in social assistance was not large enough to cover the loss of benefits from energy subsidies, which, despite their mistargeting, were salient for the poor who received them. To the extent that the savings from the poorly targeted subsidies help lay foundation for stronger and equitable growth in the future (e.g., by facilitating investment in infrastructure) this should be considered an overall win for fiscal policy.

But the impact Indonesia's fiscal system has in reducing poverty and inequality remains one of the lowest in the world and only increasing revenue to invest in pro-poor policies can improve this. Despite the the small improvement in the redistributive capacity of fiscal policy, Indonesia does poorly in comparison to other countries for which similar analyses have been done. Countries such as Argentina, South Africa and Brazil record a much higher impact of fiscal policy on inequality. Even countries such Armenia and Ethiopia who start out with similar levels of market income, and similar levels of spending do better on inequality reduction through fiscal policy. Despite recent increases, Indonesia's spending on targeted social assistance programs is still lower than countries with similar levels of income. Likewise, its expenditure on health is still half of the averages in other ASEAN countries and lower middle-income countries more generally. While the expansion of subsidized health insurance has boosted public service utilization and demand, low spending hamstrings supply side readiness to handle this demand and deliver the benefits to users especially at lower ends of the distribution.

"ELIMINATING ENERGY SUBSIDIES ENABLED THE GOVERNMENT OF INDONESIA TO MAINTAIN THE OVERALL IMPACT OF FISCAL POLICY ON POVERTY AND INEQUALITY REDUCTION ON A MUCH SMALLER OUTLAY."



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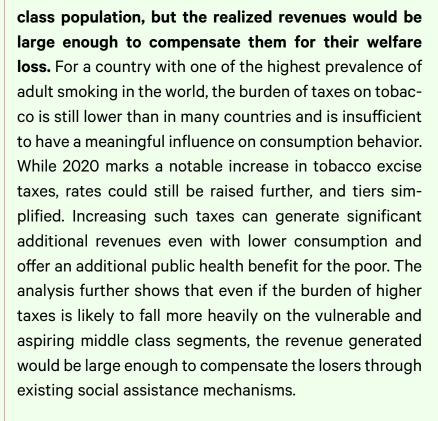
ENERGY SUBSIDIES STILL GO TO HOUSEHOLDS IN THE MIDDLE AND UPPER CLASSES There are opportunities within the existing revenue envelope to better allocate and use resources... One concrete way of doing that could be doubling down on energy subsides. Despite the sharp decline in 2015, estimates from 2018 suggest that they are starting to increase and at IDR 153.5 trillion or equivalently 1 percent of GDP, remain sizable. More than 56 percent of these subsidies still go to households in the middle and upper classes suggesting further reallocation away from these subsidies could free up more resources to fill coverage gaps and increase generosity of targeted transfers such as PKH and BPNT.

...but ultimately given its low revenue base, Indonesia needs to collect more in order to be able to spend more and better. Indonesia has whole host of other opportunities for Indonesia to generate new resources through strengthened revenue mobilization. These recommendations are covered in detail in other documents. (see World Bank, 2018 for example)

This report focuses on two specific opportunities that have important distributional consequences: tax expenditures through exemptions on VAT and tobacco excise. The statutory rate for VAT is set at 10 percent on most goods and services, with many exemptions. In addition, small firms are exempted from paying VAT even for non-exempt goods and services, as the cost of administration required to enforce compliance is deemed to be higher relative to expected revenue. Analysis presented in this report finds that at the current structure of VAT exemptions and payment thresholds translates to 90.6 trillion rupiah or USD 21.6 billion (in 2011 PPP terms), which is 0.67 percent of GDP.

VAT tax expenditures disproportionately benefit the rich and even though they are worth more to the poor, the additional revenue generated by eliminating these exemptions would be large enough to amply compensate them. Exemptions on goods and services may be granted for a variety of reasons, but most commonly they are justified on equity grounds (e.g. food items). However, these exemptions can have a blunt and even regressive incidence - just as price subsidies do. Currently, around half of all tax expenditures are in place with the objective to 'improve the welfare of the people'. However, like price subsidies, these exemptions are often enjoyed more by the wealthier classes than by the poor, rendering these tax expenditures regressive in their (absolute) incidence across the welfare distribution. For example, 48 percent of the tax expenditures associated with VAT exemptions are currently benefiting households in the top three deciles. In relative terms, as a share of market incomes, VAT exemptions are more important for the poor. But the findings from this report suggest that the removal of these exemptions would generate significant additional revenues that could be used to compensate the poor using any of Indonesia's several social assistance programs.

Second, the burden of higher taxes on tobacco fall more heavily on the vulnerable and aspiring middle



Finally, the COVID-19 pandemic and its economic fallout further underscores the need to double down on this agenda and highlights the continued relevance of the fiscal incidence analysis of the kind presented in this report also in the coming days. While a bulk of the work in this report was completed prior to the COVID-19 pandemic, the way the pandemic has unfolded the world over, including in Indonesia, and specifically how governments have responded to the pandemic has some relevance for this work. Estimates suggest that conditional on how long the containment measures need to be applied, the impact on poverty in Indonesia could be between 2.0 to 2.9 percentage points. This would translate into about 5.5 million to 8 million COVID-induced poor in 2020.2 If the worst-case macroeconomic scenario currently projected (GDP contracts by 2.0 percent) were to materialize, these estimates imply a complete wiping out of accumulated gains in poverty reduction achieved over the last seven years.

The Indonesian government response to COVID-19 has been significant. With a doubling in both spending and coverage, there is a good chance that most of the poor



COVID-INDUCED POOR IN 2020 COULD BE BETWEEN

5.5m —8millioп and vulnerable will be nominally protected from welfare losses due to COVID. However, in addition to the duration of the crisis itself, this depends crucially on several intersectional aspects that include, among others, the ability to reach the poor and vulnerable households that are not already captured in the system, and the extent to which the newer programs, especially the unconditional cash transfer programs that have been deployed, successfully avoid overlaps. Nonetheless, given the sheer size of the fiscal response that has been deployed, a question that is likely to emerge inevitably post recovery is how it is to be paid. Irrespective of which taxes are raised and what spending cut, the distributional consequences are likely to be large. As such, updating this kind of analysis in the coming years is going to continue to remain important.

"WITH A DOUBLING IN BOTH SPENDING AND COVERAGE, THERE IS A GOOD CHANCE THAT MOST OF THE POOR AND VULNERABLE WILL BE NOMINALLY PROTECTED FROM WELFARE LOSSES DUE TO COVID"



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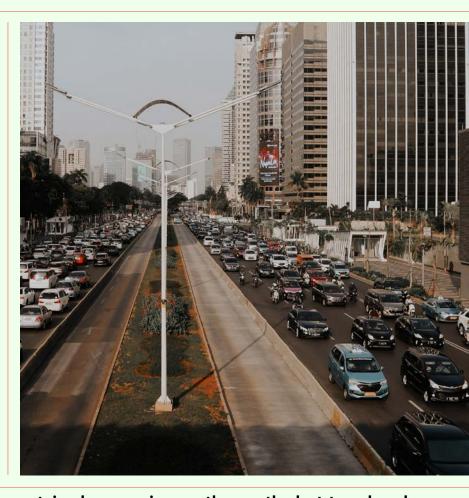
# INTRODUCTION

**PAGE** 

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BETWEEN 2000
AND 2018, FASTER
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INCOME COUNTRY."





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- 3 The average lower middle-income country grew by 4.9 percent per year on average during this period.
- 4 The standard deviation of GDP growth declined from 2.0 percent over 1979-1996 to 0.7 percent over 2000-18.
- 5 Gross national income (GNI) converted to U.S. dollars using the World Bank Atlas method divided by the mid-year population. Source: World Bank World Development Indicators, updated July 2019.

ustained economic growth over the last two decades has brought about significant improvements in the living standards of most Indonesians. The Indonesian economy grew by an average 5.3 percent annually between 2000 and 2018, faster than the average lower-middle income country.3 The volatility of growth also declined.4 At the same time, the economy created over 30 million service and industrial jobs over this period, replacing lower-productivity agricultural jobs and raising household incomes. As a result, Indonesia made huge gains in poverty reduction: the poverty rate fell from 19.1 percent of the population in 2000 to 9.4 percent of the population in 2019. Gross national income (GNI) per capita<sup>5</sup> rose more than six-fold from US\$580 to US\$3,840 over the same period, ushering millions of Indonesians into the middle class.



6 Standard and Poor's (BBB), Fitch (BBB), Moody's (Baa2), and the Japan Credit Rating Agency (BBB).

**7** World Bank (2015a). Indonesia's Rising Divide

A stable macroeconomic environment underpinned by. among others, prudent fiscal management, has been the cornerstone of this progress. Since the enactment of State Finance Law in 2003, Indonesia has adhered to legal limits on the fiscal deficit at 3 percent of GDP and the general government public debt ratio at 60 percent of GDP. Between 2000 and 2018, fiscal deficits averaged 1.5 percent of GDP. The public debt-to-GDP ratio declined sharply from 83 percent in 2000 to 30 percent of GDP in 2018. This achievement is largely thanks to a resilient recovery in growth, helped by the commodity boom, low or negative real interest rates (including through concessional financing), a relatively stable exchange rate and primary fiscal surpluses up until 2012. Four major credit ratings agencies<sup>6</sup> consider Indonesia's sovereign credit investment grade, corroborating the country's improved economic environment, fiscal management, and overall creditworthiness.

While the somewhat conservative fiscal stance has by and large served Indonesia well, continuing challenges in sharing prosperity more broadly raise the question of whether specific instruments of fiscal policy could be utilized better. Indonesia witnessed one of the fastest escalation of inequalities seen in the East Asia region during the decade of the 2000s. Inequality - measured by the Gini index of per capita consumption - jumped from 30 in 2000 to 41 in 2015. Though it has moderated somewhat since, coming down to 38.1 in 2018, a key fact about welfare improvements in Indonesia is that the growth has been top heavy: the bottom 40 percent as a group have continued to witness much slower growth in comparison to the rest of the distribution. This has roots in deep inequality of opportunities (contributing up to a third of the total inequality), inequalities in the labor market, uneven protection from shocks, and increasing wealth concentration.7 How the government collects revenues - especially from taxes - and how and on what it spends can have a considerable impact on these drivers of inequality.

A joint World Bank-BKF report found that taxes and spending policies in Indonesia had a very modest impact on inequality relative to other countries in 2012. Specifically, the report found that the package of 2012-era taxes and public spending contributed to lowering inequality by about 2.5 percent Gini points. This was a much smaller impact in comparison to places like South Africa and Brazil for example that saw Gini declines of 17.5 and 14 points respectively. This was also lower than the inequality impact fiscal policy in countries such as Costa Rica, Uruguay, Mexico and Bolivia where the impact on the Gini was 6 points or higher.

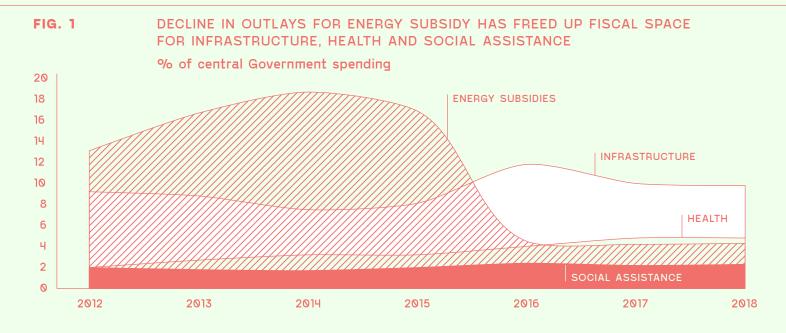
Indonesia at the time was spending too much on poorly targeted programs that do very little to reduce inequalities (such as energy subsidies) and too little on programs with stronger potential impact (such as direct assistance to the poor). Indonesia was also relying heavily on broad consumption-based taxes (such as VAT) that are broadly neutral, to weakly progressive across the income distribution, and not raising much from direct taxes such as personal income tax, which have stronger progressivity.

While the revenue picture has not changed too much, there have been several reforms on the spending side since 2012. For example, after decades of heavily subsidizing fossil fuel energy, the GoI implemented ambitious reforms in 2014-15. Supported by low crude oil prices at the time (US\$51/bbl), the Gol removed budgetary subsidies for low octane gasoline (RON 88/Premium) and applied a fixed subsidy of IDR 500 per liter for diesel. It also announced that domestic retail fuel prices would be adjusted periodically according to global oil prices. Electricity tariffs were also adjusted for 12 categories of non-subsidized customers and later excluded for non-poor households with 900 volt-ampere (VA) connections.9 The fiscal gains from the reduced outlay on energy subsidies - which declined from 3.3 percent of GDP over the 2012-14 period to 0.9 percent over 2015-18

<sup>8</sup> World Bank (2015b). "Taxes and Public Spending in Indonesia: Who Pays and Who Benefits?" World Bank Indonesia

<sup>9</sup> The mutual characteristics of 12 (excluded) customers are all household, business, and government with electricity consumption higher than national average, except for household customers with 900 VA power. For the latter type of customer, the targeting was done by utilizing Unified Poverty Database (BDT). This resulted in the exclusion of 19.4 million non-poor from subsidy recipients (out of 25.2 million in total of 900 VA customers).

– freed up considerable scope to expand expenditure on social assistance, health and infrastructure. For example, the conditional cash transfer program, the PKH has expanded from 3.5 beneficiaries circa 2012 to 10 million in 2017. Likewise, Indonesia's the health insurance program (JKN) has expanded rapidly to cover over 80 percent of the population today. A program to subsidize premium payments (PBI-JKN) to households in the bottom 40 percent now covers close to 97 million individuals; spending allocations on the program have almost quadrupled between 2012 and 2018, going up from around IDR 7 trillion to IDR 25.5 trillion.<sup>10</sup>



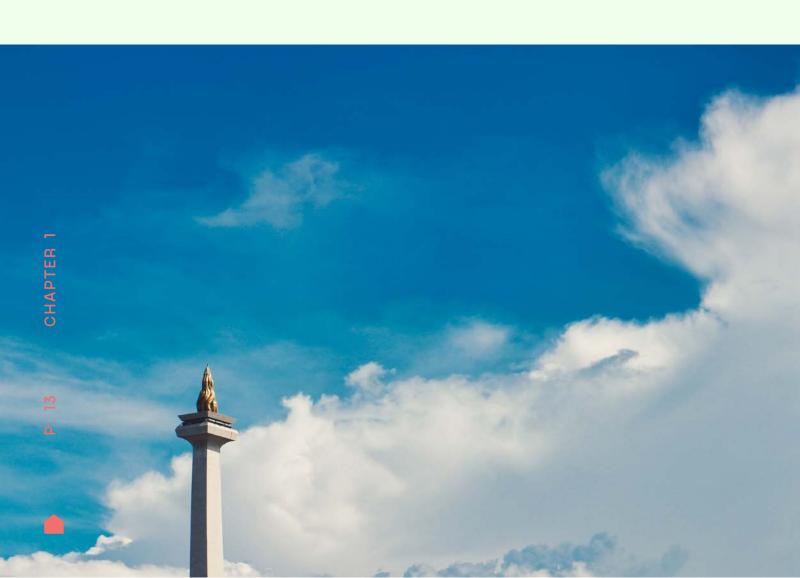
Source: World Bank staff calculations based on data from DG Budget

Against this backdrop, the main objective of report is to revisit the impact of various taxes and public spending in Indonesia, with a focus on examining if the recent reforms have enhanced impact. The work adheres to the same methodology as before, making refinements where there have been notable improvements, and revisiting old computations to ensure the validity of inter-temporal comparisons whenever appropriate and necessary. In addition, the report also extends the previous work by using the overall CEQ framework to carry out some counter-factual simulations on a few of reform scenarios related to VAT and tobacco excises. The report is a

10 This program, previously known as Jamkesmas now accounts for about 26 percent of total spending on social assistance.

culmination of several years of joint work between the World Bank and the BKF on applying the distributional lens to the analysis of fiscal policy in Indonesia.

The rest of the report is organized as follows. The following section sets up the context for the enquiry by presenting a short primer on the current state of poverty and inequality in the country and highlighting a few ways in which taxes and spending could play a role. The subsequent section presents a short summary of the data and methodology that has been used. This is followed by a section each on the description of the main results and the VAT and excise simulations. The final section summarizes with a few conclusions and directions for future work.



CHAPTER

02

# POVERTY & INEQUALITY CONTEXT

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CHAPTER

ndonesia continues to make decent progress on reducing poverty, though the pace of decline has been slowing down in recent years. Based on the internationally comparable benchmark of \$1.9 dollar a day (2011 PPP), Indonesia is among countries that have made the fastest gains in poverty reduction in the last two decades. Between 2000-2015, \$1.9 poverty rate in Indonesia declined by 2.1 percentage points a year, a rate almost comparable to India (2.4 p.p a year) and China (2.5 p.p a year). Based on the national poverty line as well, poverty has contin-

ued to decline registering 9.4 percent in March 2019. Despite the progress, the pace of poverty reduction post-2010 was about half (0.3 percentage points per year) of what it used to be between 2003 and 2010 (0.6 p.p. per year). Though there are some exceptions, the slowing down of the rate of reduction at lower rates of poverty is to be expected; it becomes progressively harder to reach the poor at low levels of poverty.

Poverty reduction in Indonesia over the past two decades has been driven by sustained economic growth that has been accompanied by robust job creation outside of the primary sector. Indonesia's GDP grew at an average of 5 percent per annum since 1990 and 5.3 percent after the Asian financial crisis at the end of the 1990s, supported by favorable international commodity markets, a large, young population, and solid macroeconomic policy framework. As a result, GDP per capita increased 6 times between 1990 and 2018. This went hand in hand with robust job creation. Between 2000 and 2014, the economy created 23 million new jobs, of which 21 million were in the services sector. The industrial sector created 3.8 million new jobs during this period (of which 3.1 million were in manufacturing), while agriculture correspondingly shed about a guarter million jobs. The employment rate reached a two-decade record high in 2018 while the unemployment rate continues to fall. Approximately half of workers in 2018 had wage-paying jobs, compared to 2001, when only 30 percent of workers were wage employees. The diversification of jobs out of agriculture and into other sectors has increased productivity and wages

At the same time, the country has also urbanized at a rapid pace during this period and some of the more productive jobs have been created in the city cores or the expanding urban periphery. Larger number of opportunities in more productive sectors of the economy and more productive places in the country (cities) provided a ticket out of poverty to many Indonesians. Al-



BETWEEN 1990 & 2018 INDONESIA'S GDP PER CAPITA INCREASED

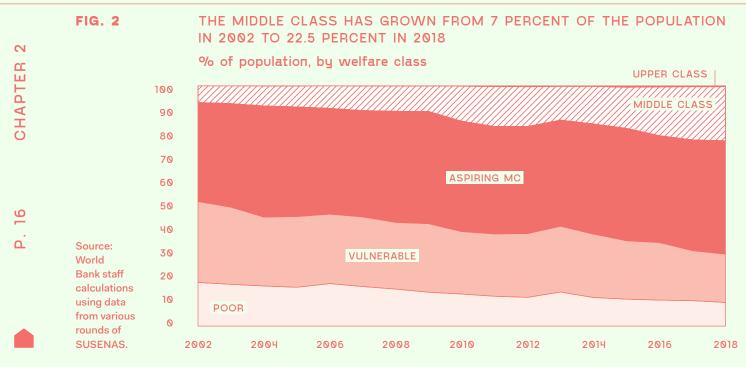




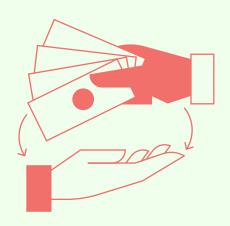
though growth has moderated in the last few years as the tailwinds of commodity prices and global financing conditions have turned to headwinds, it has still averaged 5 percent since 2014.

Sustained growth in living standards has led to the emergence of a new class of Indonesians: the middle class. As more and more Indonesians have escaped from poverty in recent decades, their children have enjoyed greater opportunities, with better access to education and health, cleaner and safer living conditions, and have entered the workforce with greater skills than their parents. The thriving Indonesian economy has created high demand for these relatively few skilled workers and rewarded them well. They now represent the emergence of a new class of Indonesians who enjoy higher incomes, more consumption, freedom from insecurity and vulnerability, and who are an increasingly confident and visible part of Indonesia. The emergence of this new middle class has occurred within a single generation. From only 7 percent of the population in 2002, the Indonesian middle class has grown to 22.5 percent of the population in 2018. (figure 2) At 59.5 million, the size of Indonesian middle-class today is just shy of the entire population of Thailand and almost twice the entire population of neighboring Malaysia.

11 World Bank (2019) is a recent report that analyzes various facets of the growth in the middle class in Indonesia.



Roughly one in two Indonesians can currently only aspire to the economic security of the middle class. 47 percent of Indonesians in 2018 belonged to the aspiring middle-class group. This is the group that is neither poor, nor vulnerable to becoming poor, yet lacks the basis to feel fully secure economically. The precariousness of this group's economic position is highlighted by the following statistic: of all Indonesians who were in this aspiring middle-class group in 2000, downward moves to poverty and vulnerability were more almost as likely (24 percent) as upward moves to join the middle class (26 percent), while most (50 percent) clung on to their positions.



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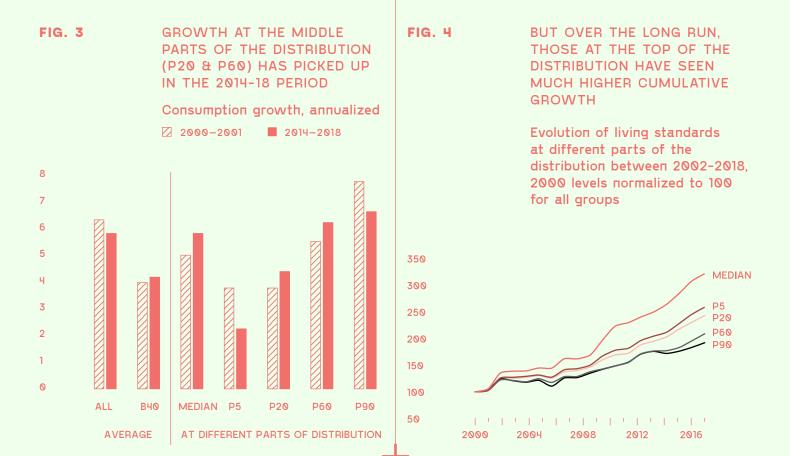
Inequality has moderated in recent years, driven largely by gains at the middle of the distribution... Indonesia witnessed one of the fastest increases in inequality ever seen in East Asia and Pacific region in the fast growth period between 2000 and 2013. Since 2015, there has been a distinct, albeit somewhat modest, downward trend in inequality. The Gini coefficient for consumption, which soared by 12 points in 2000-2013, currently stands at 38.9, 2.2 points below the peak in 2013. Most of the inequality decline has come as a result of gains made at the middle of the distribution: between 2014 and 2018, the consumption share of the middle-40 (fifth to the eighth decile of the distribution) increased from 35 percent to 37 percent while that of the top 20 decreased from 48 percent to 46 percent. The expansion of social assistance programs, both in terms of coverage as well "...CONSUMPTION GROWTH
OF THE BOTTOM 40 AS
A GROUP CONTINUES TO

LAG AVERAGE GROWTH"

as generosity, together with the significant rationalization of poorly targeted energy subsidies have contributed to this moderation.

But despite a slight bump in 2014-18 relative to earlier periods, consumption growth of the bottom 40 as a group continues to lag average growth. Average per capita consumption grew by an annual average of 5.7 percent in the 2014-18 period. This was lower than the 6.2 percent growth in the 2000-11 period during which the economy was growing at a faster pace as well. In contrast, consumption growth of the bottom 40 increased slightly from 3.9 percent per year in 2000-11 to 4.1 percent per year in 2014-18. (figure 3) As a result, the shared prosperity premium - the difference in the growth rate of the consumption of the bottom 40 and the average narrowed but continued to remain negative. The 2014-18 period delivered higher growth rates at the middle of the distribution - the 20th and 60th percentile grew 0.6 and 0.7 percent per year faster than in 2000-11 - and lower growth rates at the tails. Most notably, households at the 5th percentile (roughly corresponding to the average poor household in 2018 terms) experienced a sharp reduction in consumption growth during this period.





Source: World Bank staff calculations based on various rounds of SUSENAS

Note: In both figures, P5, P20, P60 and P90 refer to the fifth, twentieth, sixtieth and the ninetieth percentiles of the consumption distribution in the base year 2000.

The slight pick-up in growth for the middle-income households notwithstanding, the long-term narrative on inequality and shared prosperity remains broadly unchanged: those at the higher ends of the income distribution continue to experience faster growth in their living standards. Wealthier Indonesians have fared much better relative to those at the lower parts of the distribution. Between 2000 and 2018, the median household in Indonesia saw its living standards (measured by per capita household consumption) grow cumulatively by 143 percent. (figure 4) During the same period, households at the 90th percentile of the income distribution experienced more than a three-fold increase (221 percent) in living standards. In contrast, the cumulative growth in living standards experienced by households in the 5th percentile was a more modest 92 percent. As most household surveys, Indonesian household surveys do not measure income reliably. But as poorer households are likely to save smaller shares of their income relative





to the rich who generally have higher savings rate, it is plausible that the evolution of income growth for the different groups over this period would show even wider divergence.

While equity is one of several objectives of fiscal policy, in the context described above, fiscal policy can enhance the impact on poverty inequality in several important ways. For example, a well-functioning and responsive social assistance system can protect poor and vulnerable households against risks and shocks along the lifecycle and minimizes negative coping behaviors (e.g., sacrificing productive investments to maintain minimum consumption) contributing to beneficiaries' human and financial capital in the long run. By putting a consumption floor on the chronic poor, these policies can help maintain living standards of those who are not otherwise positioned to benefit from other economic opportunities. Likewise, in the medium to long run, spending on things like education, health, water and sanitation services etc.

- to the extent they are designed to close gaps between

12 Another issue is also the question of how well household surveys such as Indonesia's SUSENAS capture households that are truly at the top end of the income distribution. Even when selected in nationally representative samples, the rich are disproportionately more likely to refuse interviews (unit non-response), respond only partially (item non-response), or understate incomes or consumption severely. There is an ongoing effort to examine this issue using creditor database from Bank Indonesia and finds that inequality in Indonesia might be severely under-estimated by failure to appropriately capture top-income households in these surveys. Preliminary findings suggest that the Gini index could be higher by as much as 5 points and that the consumption share of the top 1 percent could be around 23 percent, which would be three times what is currently estimated. Wai-Poi et al (2020).



individuals in different income classes or in different geographic parts of the country – can help overcome foundational inequality of opportunities that limit life chances of many Indonesians. Likewise, for a far-flung archipelago, connectivity infrastructure can play an important role in strengthening market linkages, facilitating factor mobility, boosting productivity in the leading places and helping share the prosperity of cities to rural hinterland.

Likewise, how the government utilizes its tax policies and how the burden of these taxes falls on households at different parts of the income distribution can also have implications on inequality. Consumption based taxes such as VAT and excise, particularly on tobacco products, have been found to be relatively neutral in relative terms. The report will revisit that. But as the economy formalizes, and an increasing number of Indonesians become more prosperous and join the ranks of the middle-class, taxes on personal income start to become important sources of revenue. Being inherently progressive in nature, these taxes naturally also boost the redistributive potential of fiscal policy. To what extent is this happening in Indonesia? What needs to be done to change this?

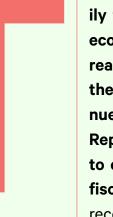


# DATA & METHODOLOGY

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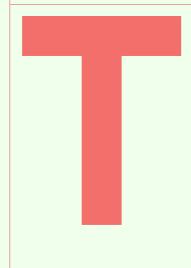
#### DATA



he analysis presented in this report uses data primarily from the 2012 and 2017 rounds of National Socioeconomic Survey (Susenas) conducted by Central Bureau of Statistics (BPS), data from national accounts, the Unified Database (UDB), data on government revenue and spending from Central Government Financial Reports (LKPP), and various administrative records to elicit information on the recipients of government fiscal programs. We allocate taxes paid and transfers received for each household based on information from SUSENAS and other government administrative records for each specific program. As is typical for any household socio-economic survey, the SUSENAS surveys record household expenditure on various food and non-food

commodities, various forms of social assistance received by households, utilization of education and health facilities within the one-year recall period, and consumption of various subsidized goods. In some instances in which the total number of program beneficiaries captured in the survey does not match with the number of beneficiaries in the administrative data – something that can happen in cases in which the program expansion is still being rolled out at the time of enumeration – we use the PMT formula applied for the national UDB registry together with information on beneficiary numbers at the district level to simulate additional beneficiaries. Finally, as is standard in the literature, we also make use of the 35 sector I-O table of the Indonesian economy to incorporate the indirect impact of subsidies and tax burden.

#### METHODOLOGY



work methodology to assess how government fiscal programs affect poverty and inequality in Indonesia. Originally developed by researchers affiliated with the CEQ Institute at Tulane University, this methodology has become quite standard over the last five years and has now been applied to several countries across the world.<sup>13</sup> This is also exactly the same methodology that was used

his study uses the Commitment to Equity (CEQ) frame-

in the earlier vintage of this work in Indonesia which makes this report essentially an extension of that appli-

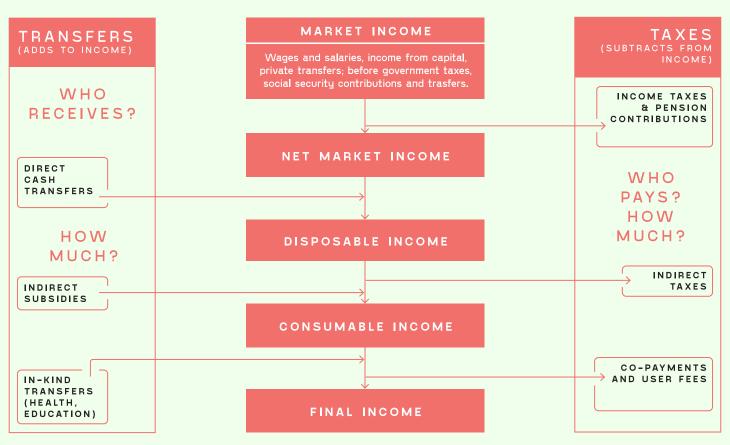
cation to a newer fiscal context.  $^{14\;15}$ 

The method entails generating counterfactual income distributions at various nodes of interaction between different instruments of taxes and public spending with household income and computing poverty and inequality indices based on the distribution of each of these income concepts. The analysis starts with market income which is income that is earned either in the form of wages and salaries or profits from enterprises, self-employment activities or as returns on capital. Net market income is what would be left behind after

- **13** Lustig (2018).
- 14 Details of the methodology are described in Jellema, Wai-Poi, and Afkar (2017). The Distributional Impact of Fiscal Policy in Indonesia.
- 15 World Bank (2015b)

all relevant income taxes are paid and households and the necessary deductions and withholdings have been taken out. If the household is a recipient of any direct cash transfer from the government, this would be added to net market income to arrive at disposable income. At this stage, depending on the consumption basket of the household various indirect taxes (VAT and excise) as well as subsidies (energy subsidies) would be paid or accrued. Adding or subtracting these as appropriate would yield consumable income or post-fiscal income. Finally, accounting for any in-kind benefits received from the government on things like education and health and discounting associated co-payments and user fees would yield final income.

FIG. 5 OVERVIEW OF THE CEQ METHODOLOGY

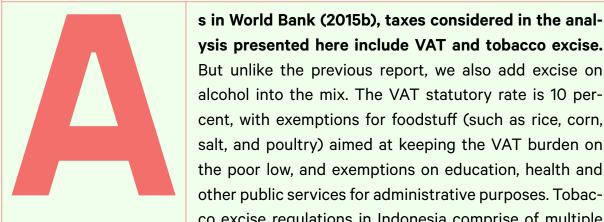


Source: Lustig (2018)

Since Indonesian household surveys do not measure income but household consumption, the logic of the flow is slightly different in practice. The analysis proceeds by equating household consumption to disposable income and working backward and forward to determine the other income concepts. Once these income concepts have been calculated, the "impact" on poverty and inequality is essentially the difference between the relevant measures. For example, the impact of fiscal policy on inequality is the difference between the Gini of market income (arguably untainted by fiscal policy) and the Gini of final income when all the relevant fiscal instruments have been applied.

It is important to recall that the CEQ methodology is essentially a partial equilibrium analysis and the use of the word impact is more in an accounting sense than a true causal one. The correct interpretation of the difference in Gini between market income and final income, for example, would be the amount by which inequality would have been higher (or lower) without all of the existing instruments of fiscal policy being applied to market income. This is different from an interpretation that might suggest that that package of fiscal policies reduces inequality by the given amount.

#### TAXES

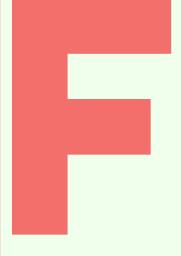


ysis presented here include VAT and tobacco excise. But unlike the previous report, we also add excise on alcohol into the mix. The VAT statutory rate is 10 percent, with exemptions for foodstuff (such as rice, corn, salt, and poultry) aimed at keeping the VAT burden on the poor low, and exemptions on education, health and other public services for administrative purposes. Tobacco excise regulations in Indonesia comprise of multiple tiers for different type of cigarette. In 2012, there were 15 different excise tiers. By 2017, these had been simplified to 12. The average excise rate for 2017 was around 57.4

percent, with higher rates for machine made white cigarettes and preferential rate for hand-rolled cloves cigarette. Indirect taxes such as VAT and excise together accounted for 22 percent of total government revenues in 2012 and 27 percent in 2017.

Contrary to indirect taxes that are often based on consumption, personal income taxes are generally highly progressive in all settings and are one of the most potent instruments of redistribution in the fiscal toolkit for any government. For a lower middle-income country like Indonesia which has a growing proportion of people in the affluent middle class, personal income taxes would also be an important source of revenue that could help expand the fiscal envelope available for effective poverty and inequality reducing instruments. In Indonesia, personal income taxes account for just 7 percent of the overall revenue, suggesting a significant under-utilization of this tool. While it would be highly desirable to include personal income taxes into this kind of analysis, we opt not do so because the thresholds for eligibility to pay imply that only a small number of households in the consumption survey would be eligible payers based on their derived market income. This is the approach that was also taken in previous version of this work. (See Jellema et al (2017) for a detailed discussion of this)

#### SPENDING



Following the previous vintage of this work, the analysis of spending includes several elements of Indonesia's social assistance program, subsidies on energy, both fuel and electricity and government spending on education and health. Together, the spending items included in the analysis account for 54 and 40 percent of primary government spending respectively in 2012 and 2017. The reduction in coverage largely comes from the reduction of energy subsidies.

PKH (Program Keluarga Harapan), Indonesia's main conditional cash transfer program provides cash assistance to poor families with pregnant or breast-feeding mothers or school-age children. PIP (Program Indonesia Pintar), an improved version of the old BSM (Bantuan Siswa Miskin/Assistance for Poor Student), is a cash transfer program for poor and vulnerable families with students enrolled in up to secondary education level or in vocational training to acquire specific skills. In 2017, the amount of annual benefits received by families with children in primary school (SD) was IDR 450,000, while the benefit for those with children in junior high school (SMP) and senior high school (SMA) were IDR 750,000, and IDR 1,000,000 respectively. The coverage of both PKH and PIP has been expanding, with the number of beneficiaries seeing a tenfold increase between 2010 and 2018.16 Outlays for these two major cash transfer programs (PIP and PKH) in the 2018 budget accounted for 34 percent of spending on permanent SA programs, compared to 18 percent in 2012.<sup>77</sup>

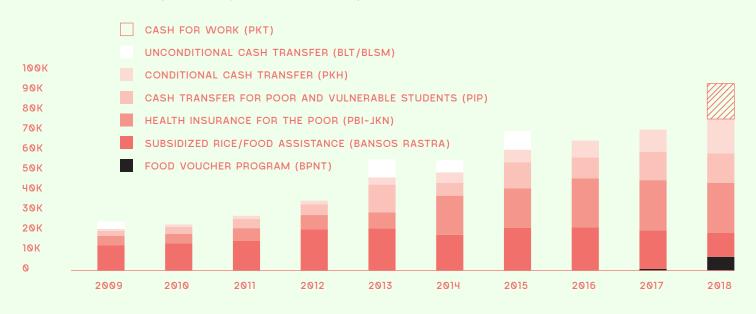
Rastra, previously known as Raskin, was initially rolled out as a basic food protection program for the poor during the Asian Financial Crisis. The program remained by and large in the same form until 2017 and allowed beneficiaries to buy subsidized rice. However, since 2017, the Government of Indonesia began phasing out this program and replacing it with BPNT (Bantuan Pangan Non-Tunai), a subsidized food voucher program catering to the food and nutritional security of the poor and vulnerable population.<sup>18</sup> As a result, the spending on Rastra started declining since 2017<sup>19</sup>. (figure 6) Whereas, Rastra made up 60 percent of spending on permanent social assistance programs in 2012, it only accounted for 7 percent in 2018. To make consistent comparisons between 2012 and 2017, this report considers both Rastra and BPNT recipients as beneficiaries from the food subsidy program in 2017. There were 14.5 million Rastra recipients and 1.1 million BPNT recipients respectively in the year 2017. By 2019, BPNT recipients had reached 15.9 million and Rastra phased out completely.20

- 17 Permanent social assistance programs include PKH, PIP, JKN-PBI, BPNT, Rastra, PKT + PKSA, ASLUT, JSPACA. The temporary unconditional cash transfers (BLSM) are excluded.
- **18** While Rastra only covered rice, BPNT program recipients are eligible to redeem their vouchers for eggs.
- 19 BPNT covered 10 million house-holds as of early 2019 and the Gol plans to phase out Rastra by the end of 2019.
- **20** World Bank (2020). "Spending for Better Results: Indonesia Public Expenditure Review"

<sup>16</sup> The number of PKH beneficiaries has gradually increased each year from 2.8 million families in 2014 to 10 million families in 2018-19.



Expenditure (IDR billion, nominal)



Note: 2009-18 refer to audited actual expenditures except for PIP, PBI-JKN and PKT in 2018, where budgeted numbers are used.

Source: MoF Financial Note and World Bank calculations.

> As figure 6 also shows, the subsidized health insurance program, PBI-JKN accounts for a lion's share of the increase in overall central government spending on social assistance. Spending allocations to PBI-JKN increased significantly from IDR 7 trillion in 2012 to IDR 25.5 trillion in 2018, and now accounts for 26 percent of spending on permanent SA programs.<sup>21</sup> The increase is due both to an expansion of coverage since the introduction of JKN in 2014 and an increase in the per-capita premium. One way to treat subsidized premium payments in fiscal incidence analyses would be to assign these as benefits to households directly. Each member in an eligible household receives a premium waiver for a Class 3 package that is equivalent to IDR 25,000 per month (~US\$1.7). Another way would be to let the real benefit of the program get realized in the form of reduced out of pocket expenditures required to access and utilize outpatient services. We take the latter approach opting not to assign of the value of the premium payments as benefits to the households, but to let the benefit work its way



<sup>21</sup> This refers to the 10 SA programs in footnote 2 (PKH, PIP, PBI-JKN, BPNT, Rastra, PKT + PKSA, ASLUT, JSPACA), excluding temporary unconditional cash transfers (BLSM).

through household spending on health. This also helps us maintain comparability with 2012.

Energy subsidies on fossil fuel as well as electricity are also included in the analysis and the assignment of these benefits to households is done using standard methodology. As noted earlier, these have seen a sharp decline between 2012 and 2017 and thus provide an interesting contrast to the picture on social assistance that has expanded significantly. (Annex 1 presents a summary of the main revenue and spending items included in the analysis)

Among programs that have not been included, Indonesia's fertilizer subsidies are a notable one. Fertilizer subsidies were originally introduced in 1971 and partly intended to encourage farmers to take advantage of the new seeds technology that brought about the green revolution in Asia and increased rice yields and total production. The fiscal cost of these subsidies grew from IDR 18 trillion in 2009 to IDR 29 trillion in 2018, and accounts for roughly 36 percent of the spending on agriculture. Meanwhile, aside from irrigation, the share of spending on other public goods (i.e., for agricultural innovation or risk management) has been less than 5 percent. Studies have found that: (i) fertilizer subsidies in Indonesia are regressive (60 percent of the subsidies benefit the largest 40 percent of farmers); (ii) they are abused by distributors: in 2015, there were 40 cases processed by law enforcement where distributors were charged with price collusion and selling subsidized fertilizers at higher prices; and (iii) subsidy costs, both fiscal and economic, outweigh the benefits from higher rice yields.<sup>22</sup> The question of whether subsidizing fertilizer remains a cost-effective way to achieve intended objectives looms large in discussions about the effectiveness and equity objectives of public spending in Indonesia, but the analysis presented in this report is unable to weigh in on that.

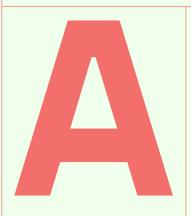
Likewise, several other social programs that have equity objectives have also been not been included in the

analysis. The most important one is probably the village funds or Dana Desa. In 2014, the government of Indonesia (GoI) passed the Village Law (Law No. 6 of 2014), to support poverty reduction, improve service delivery, promote community harmony, and bring citizens and the state closer together. The law significantly increased the fiscal resources of villages, or desa, the fourth-level administrative unit. In 2014-19, fiscal transfers to villages rose from Rp 16.8 trillion to Rp 122 trillion (almost 6 percent of the national budget). These flows, or village funds, consist of Dana Desa, about 60 percent coming directly from the central government, and Alokasi Dana Desa, about 40 percent coming from district governments. Village governments control village assets, revenue and expenditure budgets, produce their own development plans, and create their own village businesses, or BUMDesa. While these are significant resources going directly to the villages, they have not been included in the analysis mainly because of the difficulty in determining how these benefits get allocated within the villages and how benefits accrue to households of different types.

"IN 2014-19, FISCAL TRANSFERS TO VILLAGES ROSE FROM RP 16.8 TRILLION TO RP 122 TRILLION" **O**H

31 48

# FISCAL REFORM AND IMPACT ON POVERTY & INEQUALITY



s described in the previous section, there has been a fundament shift in the composition of government expenditures between 2012 and 2017. Driven to a large extent by coverage expansions of key, targeted SA programs, there has been a shift of permanent-program expenditures toward better targeted and thus more propoor programs. Concurrently, there has been a distinct retrenchment of poorly targeted energy subsidies. The savings for the fiscal system has enabled the Government of Indonesia to not only finance the expansion of the social assistance programs, but also expand investments in infrastructure which has a longer-term benefit of facilitating growth and greater equity. This section summarizes how these shifts have affected households, looking at benefits accruing at different parts of the income distribution, as well as aggregate impacts on poverty and inequality.

THE FISCAL REFORMS HAVE ENABLED THE GOVERNMENT TO REDIRECT RESOURCES FROM THE RELATIVELY RICHER SEGMENTS OF THE POPULATION TO THE RELATIVELY POORER ONES AND WHILE MORE INDONESIANS BECAME NET PAYERS INTO THE FISCAL SYSTEM IN 2017 RELATIVE TO 2012, MOST INDONESIANS ARE STILL NET BENEFICIARIES.

"BETWEEN 2012 & 2017,
POORER SEGMENTS OF THE
POPULATION EXPERIENCED
AN EXPANSION OF BENEFITS
RECEIVED FROM THE
FISCAL SYSTEM, WHILE
THE RICHER SEGMENTS
(HIGHER DECILES) SAW A
DECLINE, DRIVEN MOSTLY BY
THE SHARP REDUCTION IN
SUBSIDIES."



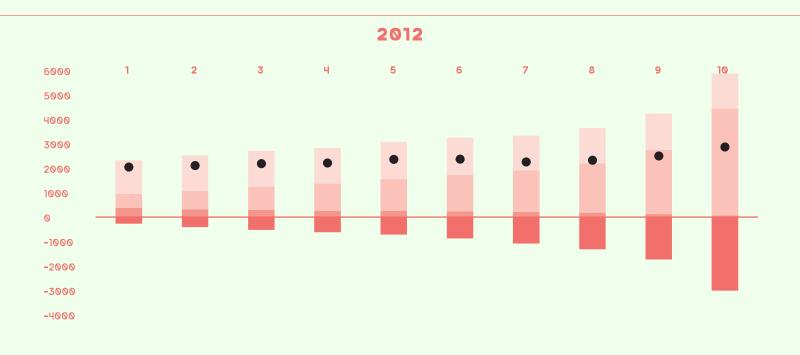
The first result of note is the significant change in the net-benefit position of households at different parts of the distribution. Figure 7 presents the average IDR values of overall benefits received by Indonesian households through the public expenditure system as well as the payments made by households to access these benefits. Benefits included cover education and health related benefits, direct social assistance through the PKH, PIP, Rastra and BPNT programs and energy subsidies (fossil fuel and electricity). Payments include indirect taxes such as VAT and excise.

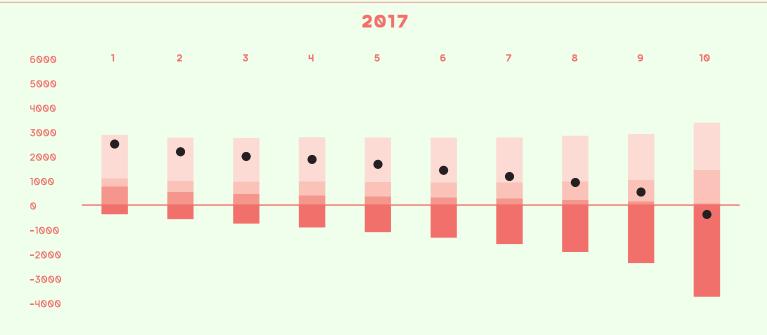
Consistent with the overall fiscal picture, the results show that between 2012 and 2017, poorer segments of the population experienced an expansion of benefits received from the fiscal system, while the richer segments (higher deciles) saw a decline, driven mostly by the sharp reduction in subsidies. Indirect tax payments increased for all deciles, but the increase was higher for the upper deciles. While all Indonesians were net beneficiaries with almost about the same level of benefits from fiscal system in 2012, in 2017 the net benefit position started tapering off across the income distribution, with the top decile becoming net payers into the system. (figure 7)

### FIG. 7 BENEFIT LEVELS ACCRUING TO RICHER SEGMENTS OF THE POPULATION CAME DOWN SIGNIFICANTLY, AND HOUSEHOLDS IN THE TOP DECILE WAS NET-PAYERS IN 2017

Value of taxes and spending accruing to different parts of the distribution, in billions of IDR

- NET SUBSIDY WITHOUT OOP
- SOCIAL ASSISTANCE
- HEALTH AND EDUCATIONAL SERVICES
- ENERGY SUBSIDY
- INDIRECT TAXES AND EXCISE







The question that often arises in these analyses is how to deal with out-of-pocket expenditures. In many cases, households must incur out-of-pocket expenditures to gain access to subsidized government services. Such spending extends beyond the cost-recovery contributions which are typically netted out in the calculation of net subsidies. There are two main reasons why this spending should be factored in. First, it provides a complete accounting of benefit incidence. Experience has shown that households contribute substantially to service provision despite the large government subsidies involved, and that this contribution increases with income. Second, the burden of these costs (especially to low-income households) can discourage the use of the services, and lead to poor targeting of the government subsidy.

The picture of household's net position vis-à-vis the fiscal system considering out-of-pocket expenditures could also be of interest to policymakers. The equivalent of figure 7 with out-of-pocket expenditures is presented in Annex 2 and it suggests that out of pocket expenditures on education and health (primarily health) also increased across the distribution. Whereas only households in the top decile were net payers into the system accounting for out of pocket expenditures in 2012, in 2017 almost half of all households had become net payers.

Even though the benefit of net government spending was somewhat similar across the entire distribution in 2012 and moderately progressive in 2017, they were worth more to poorer households who have lower income to begin with in both years. In relative terms, the poorer segments of the population continued to benefit more than others. But the extent to which they benefitted was greater in 2017 than in 2012. As a share of market income, net benefits for households in the lower half of the distribution increased and net benefits for households in the upper half of the distribution decreased during

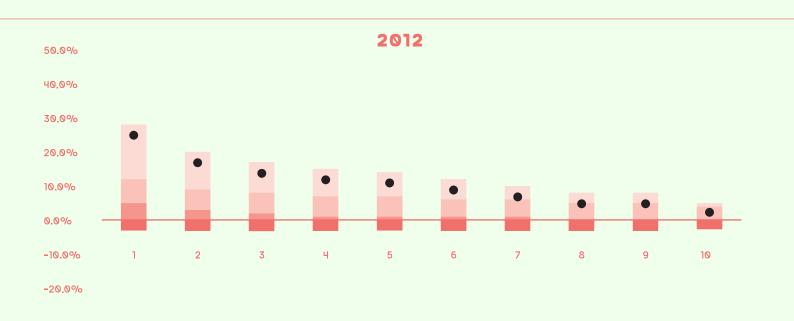
this period. For example, for households in the lowest decile net benefits increased from 23.5 percent of market income in 2012 to 37.2 percent in 2017. Conversely, for households in the ninth decile, net benefits declined from 4.2 percent of market income to 1.2 percent. This foreshadows the detailed discussion to follow on the specific elements of taxes and spending, but as figure 8 shows, expansion in the value of social assistance and in-kind benefits (health, particularly) played important roles in the increasing benefits for those in the lower half while the reduction in subsidy benefits drove the decline in benefits at the top. The same essential picture holds with out of pocket expenditures as well (see Annex 3 for details).



FIG. 8 NET OF INDIRECT TAXES, BENEFITS RECEIVED BY THE POOR AND VULNERABLE AS A SHARE OF THEIR MARKET INCOME INCREASED BETWEEN 2012 AND 2017

value of benefits as a share of market income, by market income decile

- NET SUBSIDY WITHOUT OOP
- HEALTH AND EDUCATIONAL SERVICES
- ENERGY SUBSIDY
- SOCIAL ASSISTANCE
- INDIRECT TAXES AND EXCISE



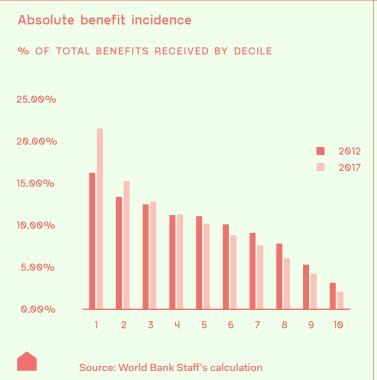


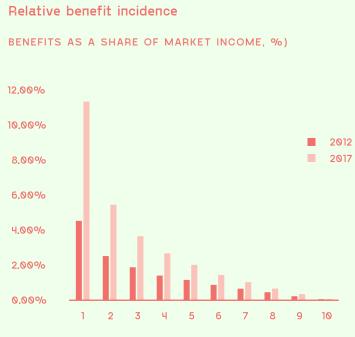
THIS WAS DRIVEN TO A LARGE EXTENT BY THE EXPANSIONS IN SOCIAL ASSISTANCE PROGRAMS SUCH AS THE PKH AND PIP WHICH ALSO BECOME MORE PRO-POOR

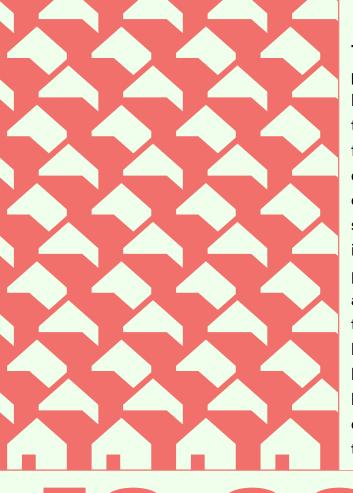
As described in the earlier section, the Government of Indonesia made a big push on several social assistance programs during the period being analyzed here.

The number of households receiving at least one form of government social assistance program increased more than three folds from 5.3 million households in 2012 to 17.3 million households in 2017. The proportion of benefits accruing to the bottom 40 percent through the package of social assistance of the population also increased from 53 percent to 61 percent during this period. (figure 9) suggesting that the expansion went hand in hand with some improvements in targeting. As a package, these social assistance programs were already quite progressive in 2012 with the value of the benefits relative to market income being higher for the poorer deciles. In 2017, this progressivity improved even further as social assistance benefits accounted for a much larger share of market income and the gradient across the income distribution became steeper. For the poorest decile, social assistance accounted for 4.5 percent of market income in 2012. In 2017, this grew to 11.4 percent.

FIG. 9 SOCIAL ASSISTANCE PROGRAMS (PKH, PIP, RASTRA AND BPNT) COVERED MORE HOUSEHOLDS AND BECAME MORE PROGRESSIVE





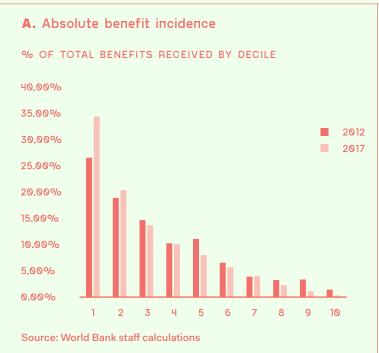


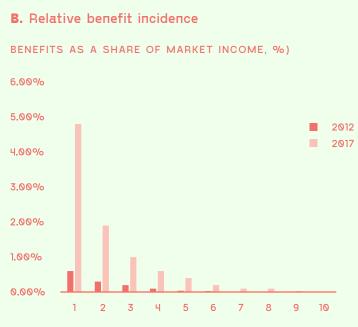
The PKH program was the key driver of the overall expansion of social assistance. In 2017, there were 10 million household receiving PKH. This was more than ten times the number of recipients when this program was first initiated in 2007. During this period, the budget allocated to this program saw a twelve-fold increase. A bulk of this expansion happened between 2012 and 2017, the second half of the decade. There was a marked increase in share of total PKH benefits going to households in the poorest two deciles: 26.6 to 34.4 percent for first decile and 18.9 to 20.4 for second one. (figure 10a). At the same time, coverage expansion and the expansion of benefit levels also meant that size of the benefits relative to market income also increased. For example, average PKH benefits for households in the poorest decile was 0.6 percent of market income in 2012; this increased eight-fold to around 4.8 percent in 2017. (figure 10b)

# 10,000,000

"IN 2017, THERE WERE 10 MILLION HOUSEHOLD RECEIVING PKH"

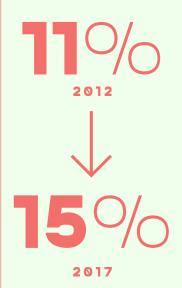
FIG. 10 EXPANSION OF PKH WAS THE PRIMARY DRIVER





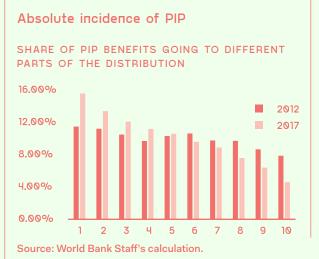


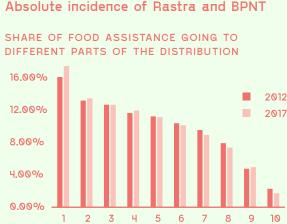
TOTAL PIP BENEFITS
WERE ACCRUING
TO FAMILIES IN THE
BOTTOM DECILE



PIP, the national scholarship program for families in the bottom 25 percent who have children enrolled up to the secondary level, expanded during this period and became more pro-poor. Whereas 11.5 percent of total PIP benefits were accruing to families in the bottom decile in 2012, this number increased to 15.6 percent in 2017. Correspondingly, the share of benefits going to wealthier households declined. For the top decile, the share of benefits declined from 7.9 percent in 2012 to 4.6 percent in 2017. (figure 11) Some of this was due to coverage expansion at the bottom of the distribution and some due to improvements in targeting eligible households. Likewise, as Rastra began transitioning to BPNT, there are emerging signs of the food subsidy program becoming more pro-poor (with the share of benefit going to the bottom decile increasing from 16.1 to 17.5 percent). The distribution of rice subsidy under Rastra granted village heads quite a bit of discretion and this affected targeting. The e-voucher based distribution introduced by the BPNT program revamped the process and should, in principle, enhance targeting. But 2017 was the year this transition had only just started to happen. Data from 2019, by when Rastra had, by and large been phased out, and BPNT fully taken its place, shows that targeting of food assistance has indeed improved under BPNT, but only marginally. (Annex 4)

FIG. 11 THE SCHOLARSHIP PROGRAM FOR POOR STUDENTS
AND THE FOOD ASSISTANCE PROGRAMS BECAME
MORE PRO-POOR AS WELL





AT THE SAME TIME, ENERGY SUBSIDIES DECLINED AND BECAME BETTER TARGETED IN THE CASE OF ELECTRICITY SUBSIDIES

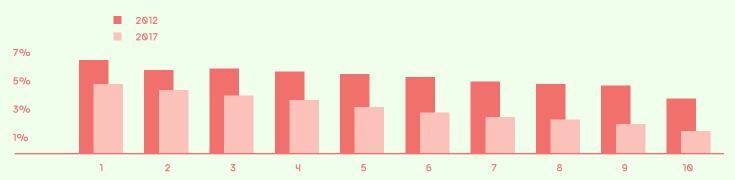
> 23 Although global crude oil prices increased by 60 percent over 2016-18, domestic retail prices of RON 88 and diesel have barely changed since April 2016. Electricity tariffs too have not been adjusted since early 2017. The burden of higher energy prices and exchange rate depreciation has been borne by Pertamina (for fuel) and PLN (for electricity) rather than being passed on to consumers. Although GOI pays these SOEs in arrears, such implicit subsidies have increased to an estimated IDR 59 trillion for fuel and 71.3 trillion for electricity in 2018. In short, rather than full elimination of subsidies, these have been passed on to the balance sheets of these SOEs which hamstrings their ability to invest.

After decades of heavily subsidizing fossil fuel energy, the GoI implemented ambitious reforms in 2014-15. Supported by low crude oil prices at the time (US\$51/ bbl), the GoI removed budgetary subsidies for low octane gasoline (RON 88/Premium) and applied a fixed subsidy of IDR 500 per liter for diesel. It also announced that domestic retail fuel prices would be adjusted periodically according to global oil prices. Electricity tariffs were also adjusted for 12 categories of non-subsidized customers and later excluded for non-poor households with 900volt-ampere (VA) connections. These reforms generated direct fiscal gains. Energy subsidy outlays significantly declined from an average of 3.3 percent of GDP over 2012-14 to 0.9 percent of GDP over 2015-18, freeing up space for spending more on infrastructure, health, and social assistance.

These subsidy reductions have been felt directly by households. In 2012, across all deciles, energy subsidies accounted for 5.4 percent of average household income. In 2017, the number had declined to 3.2 percent. The reduction has been sharper for households in the higher deciles relative to the poorer ones. For the poorest decile, average subsidy value went down from 7.0 percent to 4.9 percent (a 30 percent decrease). In contrast, the richest decile saw the value of the subsidy decline from 4.0 percent of market income to 1.6 percent (a 60 percent decrease. (figure 12)

FIG. 12 THE VALUE OF ENERGY SUBSIDIES DECLINED ACROSS THE DISTRIBUTION WITH SHARPER PROPORTIONAL DECLINES IN THE UPPER DECILES

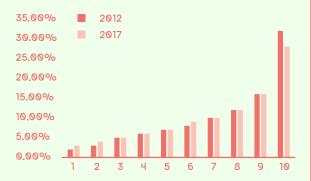
Value of energy subsidies as a share of market income



Source: World Bank staff calculations from Susenas March 2012 and 2017  $\,$ 

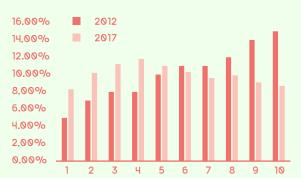
Note: Energy subsidies included in this analysis are fuel, diesel, electricity, kerosene, and cooking gas.

## A. Absolute incidence of fuel subsidies SHARE OF TOTAL FUEL SUBSIDIES ACCRUING TO DIFFERENT DECILES



#### B. Absolute incidence electricity

SHARE OF TOTAL ELECTRICITY ACCRUING TO DIFFERENT DECILES



Source: World Bank staff calculations, based on SUSENAS 2012 and 2017

CHAPTER 4

P. 4

Still, fossil fuel subsidies continue to disproportionately benefit the richest households while there is a clear indication of improved targeting performance on **electricity subsidy.** The share of overall fuel subsidies going to the richest decile declined between 2012 and 2017, but as a group, the top 20 percent of the population still benefit from 44 percent of the overall fuel subsidy benefit in 2017 (figure 13a) This is down just marginally from the 48 percent in 2012. On electricity on the other hand, there are clear signs of improvements in targeting performance. In 2012, all households with 450VA and 900VA connections were entitled to electricity subsidy. However, starting in 2016, the Government of Indonesia decided to redirect the subsidy for 900VA connection by making only the households in the poorest 40 percent eligible. This not only translated into a decline in spending on electricity subsidy from 6.3 percent of total government spending in 2012 to 2.5 percent in 2017, but also changed the progressivity of the subsidy. Whereas the subsidy was clearly a regressive one in 2012, the share of benefits accruing to the richest deciles has seen a distinct drop with a corresponding increase in benefit shares going to the bottom 40.

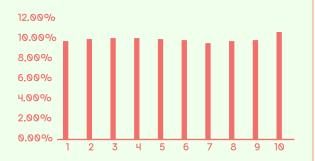


THE PROGRESSIVITY OF IN-KIND BENEFITS FROM EDUCATION HAS LARGELY BEEN MAINTAINED, KEEPING THE PROGRAM AN EFFECTIVE INSTRUMENT FOR INEQUALITY REDUCTION IN THE SHORT RUN

FIG. 14
EDUCATION BENEFITS REMAIN
PROGRESSIVE, 2017

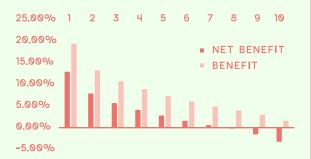
## **A.** Absolute benefit of education spending

SHARE OF TOTAL BENEFITS ACCRUING TO DIFFERENT DECILES



## **B.** Relative benefit of education spendingspending

SHARE OF TOTAL BENEFITS AS A SHARE OF MARKET INCOME



CHAPTER 4

Source: World Bank staff calculations, based on SUSENAS 2012 and 2017

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Education has been one of the top priorities for the GOI and this is reflected in the mandate to maintain education spending at 20 percent of the overall central government spending envelope. Richer households largely receive similar levels of education benefits as poorer households, despite having fewer children than the poorer households. (figure 14a) This is because children from the relatively better off households are more likely to enrolled at more expensive secondary and tertiary levels.

Given their low income, what the poor receive in in-kind education benefits is worth more to them. Considering the amount of benefits relative to the market income and net of out of pocket expenditures, households in the poorest decile receive a value of as much as 13 percent of the market income from in-kind education benefits. Households in the top three deciles incur higher out of pocket expenditures on education relative to the benefit they receive. (figure 14b) This strong progressivity in education spending makes it an effective inequality reducing instrument in Indonesia

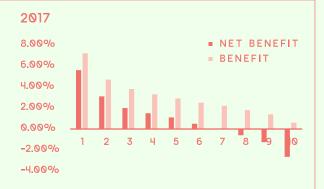
EXPANSION OF HEALTH INSURANCE AND THE ASSOCIATED INCREASE IN OUTPATIENT SERVICE UTILIZATION AMONG HOUSEHOLDS IN THE BOTTOM 40 LED TO AN INCREASE IN THE VALUE OF HEALTH BENEFITS ACCRUING TO THE POOREST

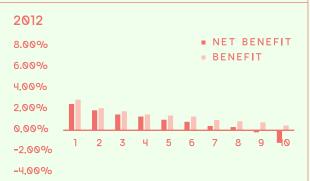
Spending on health increased from 6 percent of the central government budget to about 7.4 percent between 2012 and 2017. But in absolute terms, most Indonesians continue to receive the same health benefits, with the rich paying more into the health system than the poor. Relative to market income, in-kind health benefits are worth more to the poor, making the spending on health progressive and inequality reducing. What has changed and changed quite dramatically between 2012

#### FIG. 15

EVEN AFTER ACCOUNTING FOR OUT OF POCKET EXPENSES, THE VALUE OF HEALTH BENEFITS INCREASED WITH HIGHER INCREASES AMONG HOUSEHOLDS IN POORER DECILES

Value of in-kind health benefits as a share of market income





Source: World Bank staff calculations, based on SUSENAS 2012 and 2017

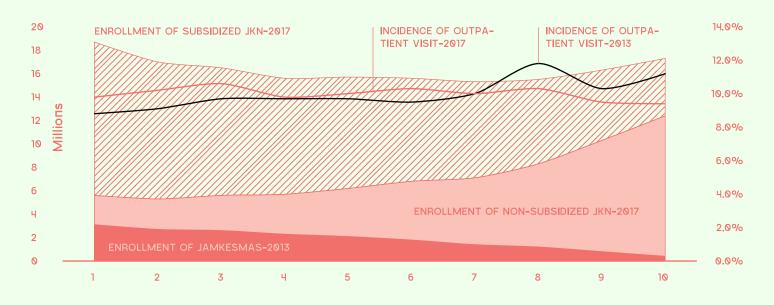
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and 2017 is the value of these benefits. Net of out-of-pocket expenses, health benefits accruing to the poorest decile in 2012 was around 2.5 percent. This more than doubled to 5.6 percent in 2017. Not just the poorest decile, all households below the sixth decile experienced an increase in the value of health benefits relative to their market income during these years. An increase in the out-of-pocket expenses among the households in the top 40 percent offset the value of the benefits they receive, making them net payers into the system. (figure 15).

What explains this? Indonesia has embarked on a major health policy reform during the last five years. The national health insurance program, initiated in 1994 as kartu sehat (health card) to target the poorest segments of the population was reintroduced as Jamkesmas in 2005, and later repackaged as a subsidized portion of the Jaminan Kesehatan Nasional for the poor (or JKN-PBI) in 2015. The revamped program has targeted coverage that is much larger than the program it replaces. The national health insurance program provided health cover for a significantly larger share of those in the bottom 40 percent in 2017 than in 2012. Expansion of insurance coverage also led an increase in the utilization of public health services. For example, outpatient visits in 2013 had a clear positive income gradient suggesting the richer segments of the population sought outpatient care at a higher rate than the poorer ones. However, in 2017, the income gradient had started to flatten out with a marked increase in outpatient care utilization among households in the bottom 40 percent. (figure 16)

Enrollment in millions, LHS; Service Utilization as % of HHs in decile in RHS



Source: World Bank staff calculations using Susenas 2013 and 2017

TAXES AND SPENDING IN INDONESIA BECAME MORE EQUITABLE IN 2017 BUT LED TO A SMALLER REDUCTION IN POVERTY IN COMPARISON TO 2012.

energy subsidies and the countervailing effects of indirect taxes such as VAT and excise, headcount poverty rate would have been about 3 percentage point higher. In 2017, this overall poverty reducing effect halved to 1.5 percentage points (figure 17a). Breaking down the overall impact into components attributable to direct transfers on the one hand and indirect taxes and subsidies on the

other generates two additional insights. First, the poverty reducing impact of direct transfers was moderately higher in 2017 than in 2012, consistent, but somewhat

Overall, taxes and spending in Indonesia continue to remain poverty reducing. In 2012, without government spending on headings such as social assistance and

smaller in magnitude than what we might expect given the expansion in coverage and increase in benefit levels

described earlier. This points to the possibility of doing

HAPTER 4

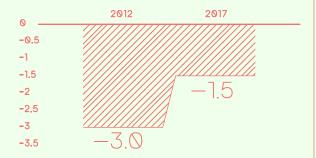
P. 44



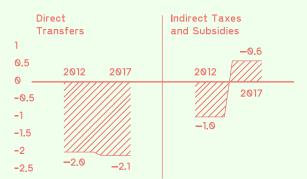
FISCAL POLICY REMAINED POVERTY REDUCING, BUT THE MAGNITUDE OF IMPACT WAS LOWER IN 2017 THAN IN 2012

% point difference between headcount poverty rate calculated on market income vs. consumable and disposable incomes

## A. Overall Impact



### B. Impact on poverty broken down by direct transfers & indirect taxes & transfers



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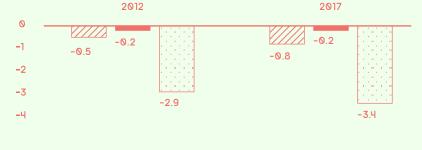
Source: World Bank staff calculations, based on SUSENAS 2012 and 2017

Note: The numbers for 2012 presented here are different from those published in World Bank (2015b) and Jellema et al (2017) due to changes that needed to be made to the original 2012 methodology to ensure consistency and comparability with 2017. A detailed note on methodological concordance has been prepared separately.

more in terms of generosity of some of these programs. But, second, this was more than offset by the net poverty-increasing effects of indirect taxes and subsidies. (figure 17b) While indirect taxes and subsidies were poverty reducing in 2012 - driven perhaps by energy subsidies, which, despite their regressive incidence, were salient for the poor who received them - they had become impoverishing in 2017. In sum, fiscal policy contributed to a smaller reduction in poverty in 2017 than in 2012. Elimination of subsidies was a step in the right direction in improving the allocative efficiency of government spending, but the result also implies that the poor have not been adequately compensated for this loss.

The impact on inequality, however, was distinctly stronger in 2017. In 2012, inequality as measured by Gini of per capita consumption would have been 2.9 points higher without the combined effective of taxes and spending considered in the analysis. In 2017, that number increased to 3.4 percent suggesting that fiscal policy became more equitable. (figure 18) The expansion of social assistance programs, including and especially the PKH that goes to the poorest segments of the population, played a key role in this with the impact on Gini increasing from 0.5 to 0.8 points. But increasing progressivity of health benefits also contributed. In 2017 as in 2012, a bulk of the inequality reducing effect in Indonesia came from in kind health and education benefits that households can access.

FISCAL POLICY BECAME MORE FIG. 18 **EQUITABLE IN 2017** 



**DIRECT TRANSFERS** 

INDIRECT TRANSFERS AND SUBSIDIES OVERAAL IMPACT, WITHOUT PIT



THE REDISTRIBUTIVE POTENTIAL OF INDONESIA'S FISCAL POLICIES REMAINS MODEST DUE TO LOW AMOUNTS THE COUNTRY SPENDS ON THE MOST EFFECTIVE PROGRAMS

The results so far show that the fiscal reforms have enabled the government to safeguard the ability of its fiscal policy instruments to have a positive impact on poverty and inequality on smaller outlays. The results also show that the impact on poverty is almost half of what it was in 2012. However, the main conclusion reached by World Bank (2015b) using data from 2012 remains just as valid and relevant now. The overall impact is modest in relation to other countries. Though now somewhat dated, country comparators on the CEQ country set such as Argentina, South Africa and Brazil showed much higher impact of fiscal policy on inequality.<sup>24</sup> Even countries such Armenia and Ethiopia who start out with similar levels of market income, and similar levels of spending envelopes do better on inequality reduction through fiscal policy. (figure 19)





# FIG. 19 FISCAL POLICY AND REDUCTION IN INEQUALITY, A CROSS COUNTRY COMPARISON

Marginal changes in Gini points

GINI POINT	-18 -16 -14 -12 -10 -8 -6 -4 -2 0
Argentina (20	
Suth Africa (20	
United States (26	
Costa Rica (20	
Brazil (20	
Panama (26	
Uurguay (20	
Mexico (20	
Iran (2	
Mexico(20	
Mexico (20	
Tunisia (20	
Chile (20	
Ecuador (2	
Colombia (20	
Colombia (2	
Venezualea (2	
Bolivia (26	
Russia (20	
Albania (20	
Diminican Republic (2	
Tanzania (2	
Paraguay (2	
Nicaragua (26	
Armenia (2	
El Salvador (2	
Реги (2	
Ghana (2	
Indonesia (20	
Uganda (20	
Sri Lanka (20	
Indonesia (20	
Honduras (2	
Guatemala (2	
Jordan (20	
Guatemala (201) Jordan (2016 Ethiopia (2016	

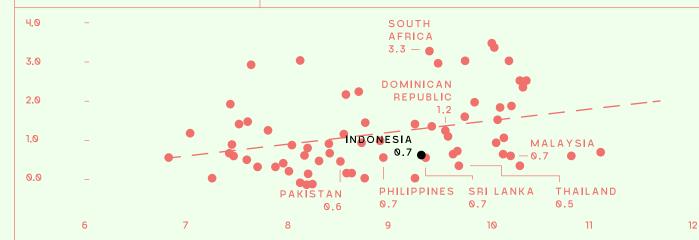
While reforms to spend better has enabled the government to maintain the impact of fiscal policy on poverty and inequality on smaller outlays, the impact could be enhanced if Indonesia could spend more. At 16.6 percent of GDP, overall public spending is low relative to 32 percent of GDP in other emerging developing market economies. Despite recent increases, spending on social assistance is still just 0.7 percent of GDP. This is much lower for its level of income and lower also in comparison to an average of 1.4 percent of GDP for lower middle-income countries. (figure 20).

Likewise, the 1.4 percent of GDP that Indonesia spends on health is almost half of the 2.6 percent average among countries that constitute the ASEAN-5 and 2.8 percent average for lower middle-income countries. With the expansion of health insurance coverage, including subsidized coverage for the poor and vulnerable segments of the population, there are emerging signs of increased uptake of public health services among the poor. Meeting this demand by boosting spending to improve supply side readiness of the public health system would significantly enhance the impact on the poorer segments of the population. More affluent households belonging to Indonesia's growing middle class have plenty of other private options, and data shows that they have been increasingly exercising these options. But for the poor and the vulnerable, publicly provided health is often the only available option.

FIG. 20 SPENDING ON SOCIAL

ASSISTANCE IS LOWER THAN COUNTRIES WITH COMPARABLE LEVELS OF INCOME

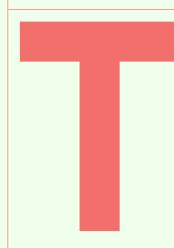
Social assistance spending as a share of GDP (%), selected countries, 2019



Source: World Bank Aspire Database

Note: Selection based on data availability and being recent enough. Countries shown are neighboring countries and several other middle-income countries.

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he extent to which Indonesia can spend more, including on social assistance programs that are highly effective in helping reduce poverty and inequality, is limited by the revenues it is able to generate. The scale up of programs such as the PKH has been achieved primarily by reallocating expenditures from lower priority areas such as subsidies. As large as these subsidy savings were, they will not be enough to support the growing needs, not just in the social protection space but also to address other priorities. Besides, the extent to which the subsidies will remain sustainable is also under question. Preliminary estimates are beginning to show that energy subsidies have increased and are currently at 1 percent of GDP.<sup>25</sup>

In order to expand its social protection system reach, Indonesia will simply need to collect more revenues. Indonesia's revenue-to-GDP ratio stood at 12.2 percent in 2017, which is less than half of the emerging economy average of 27.8<sup>26</sup>) (figure 21) Tax collections lag regional peers and other countries at similar level of development. Given the important role natural resources and commodities continue to play in the country's economy, cyclical moves in the global commodities market have important bearing on the country's tax collection. For example, following the oil price collapse in 2014, annual tax collections as a share of GDP declined every year since 2013 reaching 9.9 percent in 2017 (World Bank, 2018).(figure 22)

25 World Bank (2020) Public Expenditure Review. forthcoming

26 World Bank (2018). "Towards Inclusive Growth". Indonesia Economic Quarterly, March 2018

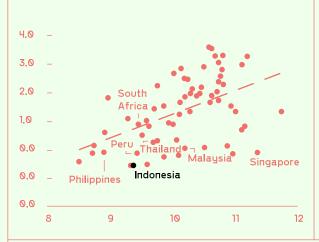




FIG. 21

## INDONESIA SUFFERS FROM LOW REVENUES

Y-axis: General government revenue percent of GDP; X-axis: log GDP per capita in 2011 PPP



Source: For the chart in the left panel Indonesia Economic Quarterly March 2018.

#### FIG. 22

TAX COLLECTION IS LOWER THAN REGIONAL PEERS AS WELL AS COUNTRIES WITH SIMILAR LEVEL OF DEVELOPMENT

#### Percent of GDP

■ TOTAL REVENUE
☑ TOTAL TAX

Indonesia's tax ratio 2015

10.75



Note: Figure 23 uses data from 2015. Total revenue includes social security contributions. Total tax excludes social security contributions but includes taxes from resources.

#### FIG. 23

VAT REGISTRATION THRESHOLD IN INDONESIA IS AMONG THE HIGHEST IN THE WORLD

VAT threshold as a share of GDP per capita

VIETNAM: 0.0
THAILAND 9.7
MALAYSIA
SINGAPORE
PHILIPPINES 19.3
INDONESIA 94.1

Indonesia's low revenue performance has a lot to do with some of the policy choices the government has made. First, very few firms have to actually register to pay value-added-tax or VAT. Mandatory filing for the purposes of charging VAT is only required for business with annual gross turnover in excess of IDR 4.8 billion. Registration and filing is voluntary for all businesses with turnover below this threshold. Relative to per capita GDP, the size of this threshold is among the highest in the world (figure 23). This coupled with exemptions on number of goods and services also contributes to keeping the base lower than what it could be. For these reasons, despite having a VAT rate that is 30 and 40 percent higher than Thailand and Malaysia respectively, Indonesia collects the same share of GDP in VAT revenues as these countries.

Source: World Bank (2018)

Note: GDP per capita is 2016 PPP; Philippines ratio is calculated using the threshold of PHP 3 million, which only came in effect in January 2018; previous threshold was PHP 1.9 million; Vietnam has no minimum VAT threshold.

In addition, Indonesia also underutilizes taxation on commodities, that have clear externalities on public health and the environment. This includes commodities such as plastic and tobacco. For a country with one of the highest prevalence of adult smoking in the world, the burden of taxes on tobacco is still lower than in many countries and insufficient to have any meaningful influence on consumption behavior.<sup>27</sup> Similarly, direct taxes such as those on income are collected off of a very low base. At the current level of annual non-taxable income (PTKP) threshold, only a few percentages of citizens would be eligible to pay any tax. Further, compliance rates among those eligible is low, which really makes this

Together with policy, there is room for improvement in tax administration as well. This includes boosting of IT capacity, staff expertise, and simplifying registration, filing and payment procedures. Moving to a risk-based approach for auditing VAT refunds – as opposed to the current system that requires audits on every request for refund – would not only significantly lower the administrative burden on officials at the Directorate General of Taxes (DGT) but potentially also encourage more firms to register thereby boosting revenue.

really an underutilized instrument of tax policy.

Against the backdrop of these broad challenges and opportunities to raise more by reforming tax policy and administration in Indonesia, this report takes a deeper dive into a couple of specific opportunities in VAT and tobacco excise. Specifically, some counterfactual policy simulations are carried out and examined from the perspective of the additional revenue these might generate as well as any distributional consequences of such policies. The objective of the exercise will be to demonstrate possible ways in which some of the policies (such as exemptions on VAT, low tobacco excises) that may be currently in place to protect the poor, could be reconsidered to increase revenues while simultaneously protecting the poor through other instruments including some of Indonesia's existing social programs.

## VALUE ADDED TAX

## Indonesia adopted the value-added tax (VAT) in 1984.

Currently, the statutory VAT rate stands at 10 percent on most goods and services with some exceptions. Items such as printed books, medical supplies, real estate, domestic energy, livestock and agriculture products are exempted from VAT. This implies that vendors cannot charge VAT on their output but they cannot reclaim any VAT paid on their inputs either. In addition, VAT on items such as capital manufacturing equipment, construction services and exports are zero-rated, which means that the products are not VAT-able but the producers can reclaim any VAT paid on the inputs.

There are various reasons why countries like Indonesia may wish to implement exemptions and preferential rates on VAT. First, when it comes to small firms, the cost of administration required to enforce compliance can be much higher relative to expected revenue. Second, when the market price of the services in question is not clearly observed, it is difficult to impose a tax on it. Examples are public services that are often used for free by users but financed by taxes or contributions or financial services which are paid for by interest rate differentials rather than explicit fees. (Harris et al 2018)<sup>28</sup>. Third, considerations for equity may drive these decisions. For example, many low, low-middle income and even high-income countries have exemptions or reduced rates on primary goods such as foods, which are items to which the poor allocate a relatively high fraction of their overall expenditures.

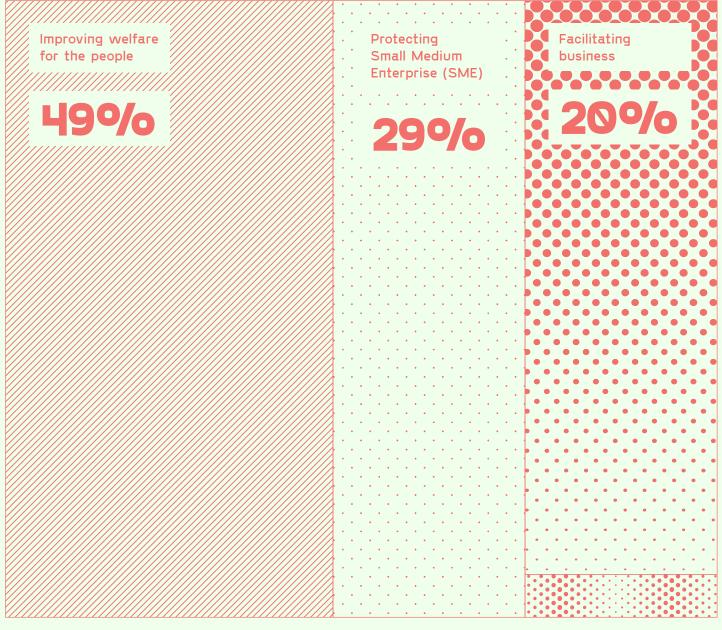
Almost half of the tax expenditures currently in place are motivated by the stated objective of "improving the welfare of the people" (BKF 2018). <sup>29</sup> Protecting SMEs and facilitating business and investment are other objectives that the government is trying to meet. (figure 24) The report also estimates that the exemptions in place imply Rp. 154.6 trillion or equivalently 1.14 percent of GDP in forgone revenues. The reported tax expendi-

28 Harris, T., D. Phillips, R. Warwick, M. Goldman, J. Jellema, K. Goraus and G. Inchauste (2018). "Redistribution via VAT and Cash Transfers: An Assessment in Six Low- and Middle-Income Countries".

29 Laporan Belanja Perpajakan, 2016-2017 (Gol's Tax Expenditure Report). Fiscal Policy Agency (BKF) of the Ministry of Finance tures include VAT and luxury goods, personal income tax as well as excise. Tax expenditures through VAT and luxury goods alone accounts for 81 percent of the total.

FIG. 24

## MORE THAN HALF OF EXISTING TAX EXPENDITURES ARE MOTIVATED BY EQUITY CONSIDERATIONS



Source: BKF 2018 Facilitating 2% investment

A question that arises then is the following: are VAT tax expenditures the best way to protect the poor in Indonesia? Yes, the poor and the vulnerable and those generally at the bottom end of the distribution do spend a larger share of their income on primary goods such as food. In that sense, exemptions can help reduce the relative burden of VATs on the lower income households. But it is also true that in absolute terms, the richer households spend more on these necessities. This implies that the exemptions end up not being very well targeted as they benefit the richer segments of the population more than the poor. Is there a way Indonesia could achieve a win-win solution by broadening the tax base by eliminating some of these exemptions to boost revenue and at the same time find other ways of making the poor at least as well off?

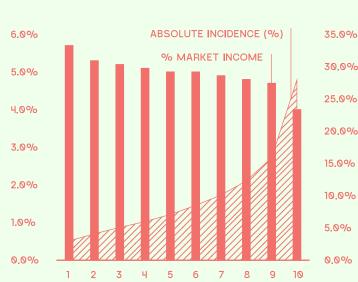
It is possible to use an analysis of the incidence of taxes and spending on households in Indonesia using the commitment to equity (CEQ) framework. Focusing specifically on the VAT component of the analysis, it is possible to simulate policy counterfactuals under which there are no exemptions except for those that are in place for administrative purposes such as for small traders, public services such as education and health and financial services. As is standard in the CEQ methodology, statutory tax rates are scaled down to account for the fact that actual collection of VAT is often lower than the stated rate due to evasion. This also allows the method to accommodate the small firms that need not register for VAT. Given Indonesia's high registration threshold, this is an important consideration. The estimated average effective rate for Indonesia in 2017 is 4.1 percent. Also embedded in the simulations are the input-output relationship between the various sectors of the economy which is modeled using the standard approach set out in Inchauste and Jellema (2018). This is important to account for the fact that eliminating exemptions on a good can have cascading effect on the prices of other goods and services that use that good as input.

The incidence of VATs in Indonesia is completely neutral in relative terms with households across the income distribution paying roughly the same share of their market income in taxes (figure 25a). But in absolute terms, the higher income groups account for larger shares of overall VAT payments owing essentially to their higher consumption base. When the exemptions are eliminated, VAT becomes more regressive; payments as a share of overall market income increases for all deciles but increase more those in the lower parts of the distribution. For example, households in the lowest decile pay about 3.4 percent of their market incomes in VAT in the baseline, but after the elimination of exemption this goes up to 5.7 percent. For the richest decile, VAT payments go up from 3.4 percent to 4.0 percent. This suggests that the tax expenditures through these exemptions currently in place do have some progressivity embedded in them and overall do help ease the burden of VATs on the poorest segments of Indonesian society.

FIG. 25 ELIMINATING VAT EXEMPTIONS WOULD INCREASE THE TAX BURDEN ON EVERYONE, INCLUDING THE POOR...

LHS: relative incidence of VAT, VAT burden as a share of market income; RHS: absolute incidence of VAT, share of total VAT collected





B. SIMULATED VAT – ELIMINATING EXEMPTIONS



Source: Estimates based on data from SUSENAS 2017.

Even though the poor would stand to become worse off after the elimination of exemptions, the policy would lead to a significant increase in revenue collection. Estimates show that the current structure of exemptions cost about 34.8 percent of the modeled revenues. This translates to 90.6 trillion rupiah or equivalently, \$21.6 billion (in 2011 PPP terms), which is 0.67% of GDP. The cost of exemptions is roughly in the ballpark of estimates from a similar exercise undertaken in a select few countries by Harris et al (2018). (Table 1). However, it is higher than the more recent estimates produced by the Government itself which puts revenue gains from the elimination of VAT exemptions on food related items at 0.25 percent of GDP but closer to the 0.78 percent of GDP estimated for the elimination of exemptions on education, health and transportation services.

TAB. 1 ESTIMATED REVENUE COST OF VAT EXEMPTIONS IN INDONESIA AND A FEW SELECT COUNTRIES

Country	% of actual VAT revenues captured	Modeled cost of exemptions (2011 PPP USD, millions)	Cost of exemptions (% of modelled VAT revenue)
Indonesia	85.9	21,623	34.8
Ethiopia	93	1,330	22.8
Ghana	106	1,843	34.5
Senegal	48	435	36.5
Sri Lanka	42	1,039	44.4
Vietnam	88	8,176	31.3
Zambia	55	336	33.5

Source: World Bank staff calculations, and Harris et al (2018)

FIG. 26

7%

A HYPOTHETICAL-UBI TYPE PROGRAM FINANCED BY THE ADDITIONAL REVENUE COLLECTED COULD MORE THAN COMPENSATE FOR THE ADDED TAX BURDEN

Net benefit, as a share of disposable income



Given the assumptions that go into these calculations, it is likely that overall quantum of revenue gains from

the elimination of exemptions may be overestimated.

But even if one assumes a 'consensus' estimate of 0.4

percent of GDP, these revenue increases could be large enough to more than offset the losses for the poor by

scaling up spending on existing social assistance programs. One hypothetical exercise would be to consider

Source: World Bank staff calculations

57

Δ.

FIG. 27 SUCH UBI PROGRAM WOULD ALSO COVER ALMOST EVERYONE IN THE POOR DECILES Proportion of households who would be net winners 00% USING 100% OF REVENUE GAIN 120% USING 75% OF REVENUE GAIN 99% 100% 80% 60% 40% 20% 0% 2 3 4 8 9 10

For example, if all the additional revenue were to be redistributed in this manner, the average net benefit (accounting also for the additional payments in VAT), to the poorest decile would be about 6.5 percent of the market income. The net benefit would decline uniformly across the distribution which is expected as the same amount accounts for lower shares for the higher income households. But, notably, it would remain positive (0.4 percent) even for the top decile. Going beyond averages and looking at the proportion of individuals within each decile who would stand to benefit or lose as a result of such a policy, it is apparent that close to 100 percent of individuals in the bottom 40 percent of the distribution would be net winners. (figure 27) There would be some losers at the higher end of the distribution, but even for the top decile, a majority (67 percent) would stand to benefit.

Now of course, such transfers are never frictionless; there is an administrative machinery required to implement it and there could be leakages. This is something even a hypothetical thought experiment would have to account for. If 25 percent of the additional VAT revenue collected were to be set aside for such administrative purposes and the remainder used in the transfer, the results remain the same qualitatively. On average, households in all income deciles would benefit and close to all households in the bottom 40 percent of the distribution would be net winners.

Two caveats are in order. First, as discussed above, given the assumptions that must be made to carry out this analysis, there is a real possibility that the revenue gains from closing VAT exemptions are overstated. Further, despite all the richness of Indonesia's household consumption survey, we only capture about 85 percent of the actual VAT revenues in the model. So, there is potential room for improvement to make the estimated quantum of revenue gain from closing VAT exemptions more precise. However, even under the assumptions that have

been made, the conclusions on the distributional aspects of the analysis remain robust qualitatively. That is, the eliminating the current structure of exemptions would increase the burden of VAT on the poor, but the additional revenue would be large enough to amply compensate the poor for the loss even with a uniform, untargeted income transfer.

Second, the use of the UBI-like instrument for compensation here is just to illustrate the point using an extreme case of a hypothetical transfer. There are several other existing programs that Indonesia already has that are poverty targeted. The same, if not better results could be achieved if the fiscal space created by closing VAT exemptions could be utilized more broadly to improve coverage and generosity of some of the existing programs.

## TOBACCO EXCISE

Excise taxes on tobacco represents another potential opportunity to raise revenues in Indonesia. Tobacco consumption in the country is among the highest in the world. 68.1 percent of men above the age of 15 and 2.5 percent of women use some form of tobacco. (Zheng et al 2018). The public health issues related to high tobacco consumption are well known. For example, the World Health Organization (WHO) estimates that more than 7 million people worldwide die of tobacco related causes such as lung cancer, stroke, ischemic heart disease and other respiratory diseases. Tobacco is the second leading cause of death and morbidity worldwide (Ng et al 2014). It is also among the most preventable causes of premature mortality globally. (Doll and Hill, 1956; Wynder and Graham 1996).

Not only are tobacco prices low in Indonesia, they have increased very little in recent years. The Indonesian government has been gradually raising excise taxes on

tobacco products over the last decade or so. This has caused prices to increase in nominal terms, but this increase has been modest relative to the overall pace of inflation; in real terms average cigarette prices barely increased between 2011 and 2017. Taxes on tobacco products – including excise and VAT – averages 57.4 percent remains well below the WHO recommended 75 percent.<sup>30</sup> In addition, Indonesia also has one of the most complex cigarette excise tax structure in the world. It currently constitutes 12 tiers with preferential rates on *kretek* (clove cigarettes), especially hand-rolled *kretek*.<sup>31</sup>

Even though the government has been considering reforming the excise tax structure by, among other things, reducing and consolidating these tax tiers, ambitious tobacco price reforms face two key challenges in the country. First, there is a concern that raising tobacco taxes, especially on kretek, might affect livelihoods of workers employed across the kretek value chain. This includes workers employed in hand-rolling factories as well as tobacco and clove farmers. Second, there is a concern that the taxes, when passed through on consumers in the form of higher prices, might disproportionately affect households at the lower end of the consumption distribution. Among all food items, tobacco is second only to rice in terms of expenditure shares. Thus, there is heightened sensitivity around any potentially impoverishing effects higher tobacco prices.

Recent research has attempted to address both concerns. First, World Bank (2018) looked at the employment dimension of tobacco price increases. The main finding was that the "gross employment impact of impact of reforming tobacco excise taxes and structure in Indonesia is not as big as previously thought". Specifically, the study finds that increasing in cigarette taxes by an average of 47 percent and concurrently simplifying the structure to six tiers reduces gross employment in the tobacco manufacturing sector by less than 0.5 percent. This implies a total of 2,914 job losses in tobacco manufacturing

**<sup>30</sup>** Indonesia also charges 9.1 percent value added tax on all tobacco products. This is collected directly from manufacturers.

<sup>31</sup> In 2018, tobacco excise on handrolled kreteks was 24 percent of minimum retail price, almost half of the excise on machine-made kreteks which stood at 45.8. Hand-rolled kretek industry dominates the overall kretek production and accounts for more than all tobacco workers in the country.

jobs, most of which are in the hand-rolled kretek sector (2,245). The study concluded that the revenue generated could easily compensate those who would stand to lose their jobs by cash transfers, expanded social safety nets or support to find alternative occupations.

Second, Fuchs and Carmen (2019) use an extended cost-benefit analysis to estimate the long-run distributional impact of tobacco price increases in Indonesia. In their method, they augment short run price impacts on households with long run benefits that are likely to kick in in the form of reduced medical expenditures and the earnings benefit of a longer productive life. The key finding is that even though the impact of higher tobacco taxes might be regressive in the short run, accounting for these longer run benefits, the policy is overall progressive.

Building on these pieces of work, two tax increase scenarios are simulated and for each of the two scenarios two sub-scenarios are accounted for. In the first scenario, demand is assumed to be perfectly inelastic in that there is no behavioral response to the higher prices. In the second, tobacco consumption can adjust based on price elasticity of demand which is different for each consumption decile as well as for white and clove cigarettes. The low-, mid- and high-elasticity scenarios correspond respectively to the short- medium- and longrun impacts accounting for the time it may take to adjust tobacco consumption behavior with respect to prices.<sup>32</sup> Excise revenue from tobacco was roughly around 1.2 percent of GDP in 2017. Using excise to increase prices of cigarettes by 33 percent - which would take the tax content of tobacco to 25 percent - and by a more moderate 13 percent would increase revenues from tobacco excise substantially. (table 2). If consumption did not adjust, a 33 percent price increase would produce tobacco excise revenues as much as 1.1 percent of GDP. The smaller price increase of 13 percent would also drive up excise to 0.8 percent of GDP if consumption did not adjust.

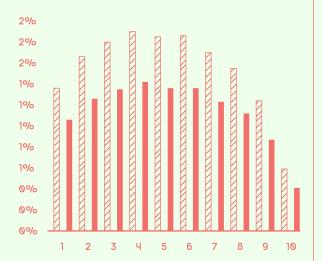
		Additional revenue (% of GDP)	
		Price iпсгеаse 33%	Price increase 18%
No bel	havioral change	1.1%	0.8%
Већач	ioral change ↓		
1	Lower bound elasticity	0.9%	0.7%
2	Medium elasticity	0.7%	0.6%
3	Upper bound elasticity	0.6%	0.5%

#### FIG. 28

THE TAX BURDEN OF AN INCREASE IN TOBACCO PRICES WOULD FALL MORE HEAVILY ON THE VULNERABLE AND THE ASPIRING MIDDLE CLASS THAN THE POOR

#### Percent of GDP

☑ 33% INCREASE■ 18% INCREASE



Source: World Bank staff calculations based on Susenas 2017

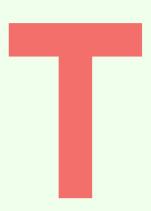
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Taking all of these variations in price elasticity of demand of white and clove cigarettes in Indonesia, the results of the simulation show that the revenue gains could be sizeable. Across all products, the poor consumers likely to have a more elastic demand relative to those that are better off. Even in the highest elasticity scenario – the best-case scenario for public health – the base of consumption remains large enough to generate 0.5 percent of additional revenue as a share of GDP. Larger, and dramatic price increases are considered more effective in reducing smoking than smaller incremental price changes as entrenched consumers often fully internalize the gradual price creep.

Moreover, the burden of tax would increase across the entire distribution, but the largest increases would not be for those in the bottom two deciles but for those more in the middle deciles. This is for two reasons, the tobacco consumption base in the bottom two deciles is lower than those in the 30-60th percentile of the distribution. And the behavioral response among the poor is also likely also to be high. The fact that those roughly in the vulnerable and the aspiring middle-class category are likely to be the most affected also underscores why this is a difficult reform. However, as in the case of the VAT exemption removal, the size of the potential revenue generated would be large enough to compensate those that bear the brunt of additional excise.

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his paper revisits the impact of various instruments of taxes and spending on outcomes such as poverty and inequality in Indonesia. Some crucial fiscal reforms that took place during the period covered in the analysis (2012-2017) make this a particularly interesting context for a comparative evaluation of the relative efficacy of the various instruments of fiscal policy on these outcomes. The analysis covers indirect taxes such as VAT and excise that accounted for 22 and 27 percent of overall revenue in 2012 and 2017 respectively. On the expenditure side, this analysis covers some of Indonesia's major social assistance programs (PKH, PIP and Rastra/BPNT), energy subsidies (both fuel and electricity) as well as spending on education and health. Together, these accounted for 54 percent of the primary government spending in 2012. The same programs accounted for 40 percent of government spending in 2017.

The main finding is that the vital reforms Indonesia has made on spending better have had some positive result. Eliminating energy subsidies enabled the Government of Indonesia to maintain the overall impact of fiscal policy on poverty and inequality reduction on a much smaller outlay. Taxes and spending policies in Indonesia became marginally more equalizing in 2017 relative to 2012 while the overall impact on poverty was lower (-1.5 pp) than in 2012 (-3.0 pp) as the expansion in social assistance was not large enough to cover the loss of benefits from energy subsidies, which, despite their mis-

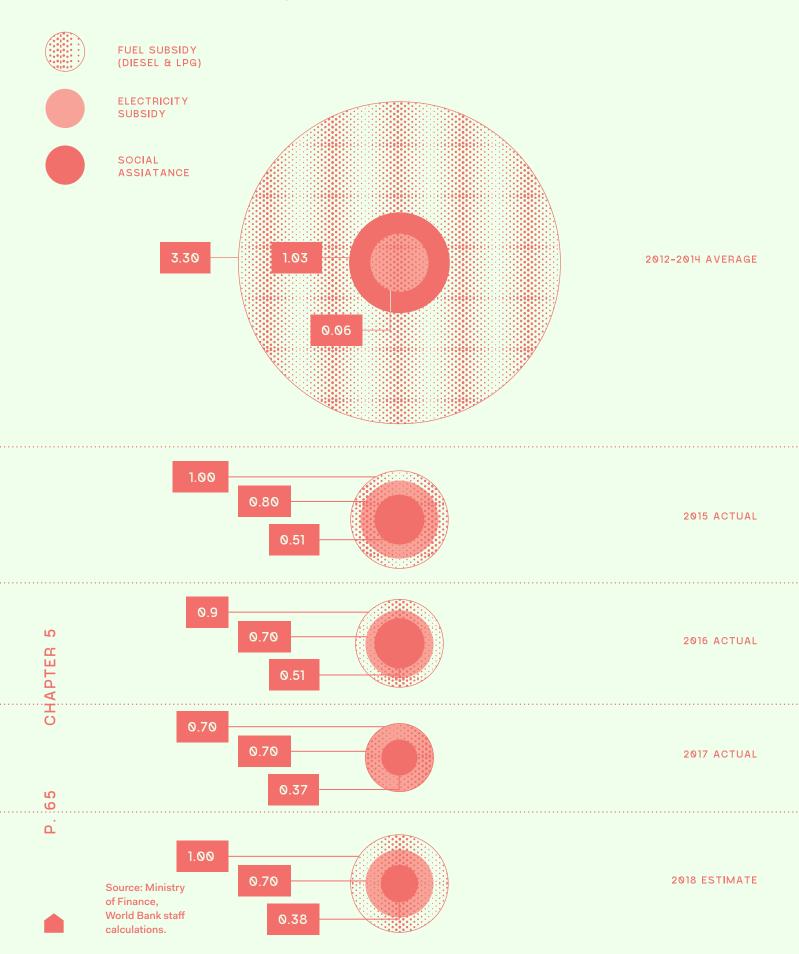
targeting, were salient for the poor who received them. To the extent that the savings from the poorly targeted subsidies help lay foundation for stronger and equitable growth in the future (e.g., by facilitating investment in infrastructure) this should be considered an overall win for fiscal policy.

But the impact Indonesia's fiscal system has in reducing poverty and inequality remains one of the lowest in the world and only increasing revenue to invest in pro-poor policies can improve this. Despite the small improvement in the redistributive capacity of fiscal policy, Indonesia does poorly in comparison to other countries for which similar analyses have been done. Countries such as Argentina, South Africa and Brazil record a much higher impact of fiscal policy on inequality. Even countries such Armenia and Ethiopia who start out with similar levels of market income, and similar levels of spending do better on inequality reduction through fiscal policy. Despite recent increases, Indonesia's spending on targeted social assistance programs is still lower than countries with similar levels of income. Likewise, its expenditure on health is still half of the averages in other ASEAN countries and lower middle-income countries more generally. While the expansion of subsidized health insurance has boosted public service utilization and demand, low spending hamstrings supply side readiness to handle this demand and deliver the benefits to users especially at lower ends of the distribution.

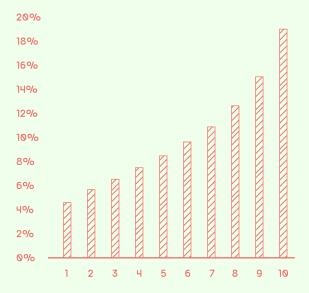
One concrete way of doing that could be doubling down on energy subsides. Despite the sharp decline in 2015, estimates from 2018 suggest that they are starting to increase and at IDR 153.5 trillion or equivalently 1 percent of GDP, remain sizable. (figure 29) More than 56 percent of these subsidies still go to households in the middle and upper classes suggesting further reallocation away from these subsidies could free up more resources to fill coverage gaps and increase generosity of targeted transfers such as PKH and BPNT.

FIG. 29 FUEL SUBSIDIES REMAIN SUBSTANTIAL, AT 1.0 PERCENT OF GDP

Fuel subsidies as percent of GDP



Share of total VAT tax expenditures, by market income decile



Source: World Bank staff calculations.

In addition, there are whole host of other opportunities for Indonesia to generate new resources through strengthened revenue mobilization. These recommendations are covered in detail in other documents. (see World Bank, 2018 for example) This report focused on two specific opportunities that have important distributional consequences.

First is the exemptions on VAT. The statutory rate for VAT is set at 10 percent on most goods and services, with many exemptions. In addition, small firms are exempted from paying VAT even for non-exempt goods and services, as the cost of administration required to enforce compliance is deemed to be higher relative to expected revenue. Analysis presented in this report finds that at the current structure of VAT exemptions and payment thresholds translates to 90.6 trillion rupiah or USD 21.6 billion (in 2011 PPP terms), which is 0.67 percent of GDP.

Exemptions on goods and services may be granted for a variety of reasons, but most commonly they are justified on equity grounds (e.g. food items). However, these exemptions can have a blunt and even regressive incidence – just as price subsidies do. Currently, around half of all tax expenditures are in place with the objective to 'improve the welfare of the people'. However, like price subsidies, these exemptions are often enjoyed more by the wealthier classes than by the poor, rendering these tax expenditures regressive in their (absolute) incidence across the welfare distribution (figure 30). For example, 48 percent of the tax expenditures associated with VAT exemptions are currently benefiting households in the top three deciles.

In relative terms, as a share of market incomes, VAT exemptions are more important for the poor. But as this report has shown, the removal of VAT exemptions would generate significant additional revenues that could be used to compensate the poor using any of Indonesia's several social assistance programs.

Second, for a country with one of the highest prevalence of adult smoking in the world, the burden of taxes on tobacco is still lower than in many countries and is insufficient to have a meaningful influence on consumption behavior. While 2020 marks a notable increase in tobacco excise taxes, rates could still be raised further. Increasing such taxes can generate significant additional revenues even with lower consumption and offer an additional public health benefit for the poor. As this analysis has shown, given their higher consumption elasticity, the burden of such a tax would fall more proportionally on the middle class. Again, the size of the potential revenue generated would be large enough to compensate those that bear the brunt of additional excise.



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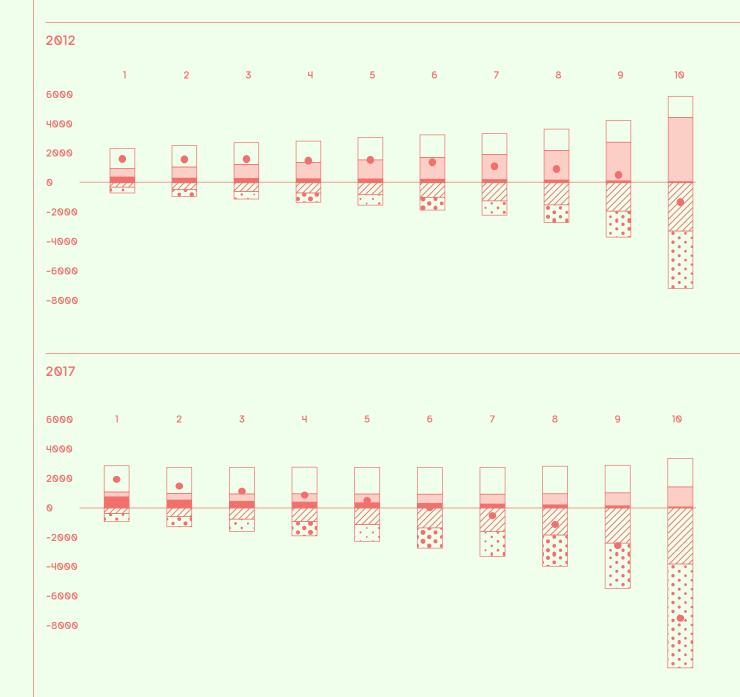
#### **ANNEX 1** SUMMARY OF THE REVENUE AND SPENDING ITEMS INCLUDED IN THE ANALYSIS

	IDR Billion, Current		As share to GDP	
	2012	2017	2012	2017
TOTAL CENTRAL GOVERNMENT SPENDING	1,491,410	2,007,352	18.10%	14.77%
∨ Non-Discretionary Govt Spending	1,293,547	1,694,623	15.69%	12.47%
TOTAL CENTRAL GOVERNMENT REVENUE	1,338,110	1,666,376	16.24%	12.26%
∑ Education Program	280,000	375,709	3.40%	2.76%
∨ Health Program	89,485	149,331	1.09%	1.10%
∨ Social Assistance	27,200	55,297	0.33%	0.41%
√ PKH	1,900	11,340	0.02%	0.08%
⅓ PIP	6,200	14,303	0.08%	0.11%
∖ Rastra	19,100	21,110	0.23%	0.16%
Tax	292,852	582,423	3.55%	4.29%
√ Value Added Tax	197,825	303,388	2.40%	2.23%
∠ Excise	95,028	153,286	1.15%	1.13%
≥ Personal Income Tax (Individuals)	98,902	125,749	1.20%	0.93%
Energy Subsidy	306,479	98,839	3.72%	0.73%
√ Premium	107,245	1,197	1.30%	0.01%
∖ Minyak Tanah	7,129	1,719	0.09%	0.01%
⅓ Diesel	64,672	6,578	0.78%	0.05%
7 Fb1	32,849	38,750	0.40%	0.29%
ע Electricity	94,583	50,595	1.15%	0.37%
TOTAL SPENDING CAPTURE IN CEQ % of Non-Discretionary Central Govern- ment Spending	54%	40%		
TOTAL REVENUE CAPTURED IN CEQ	22%	27%		



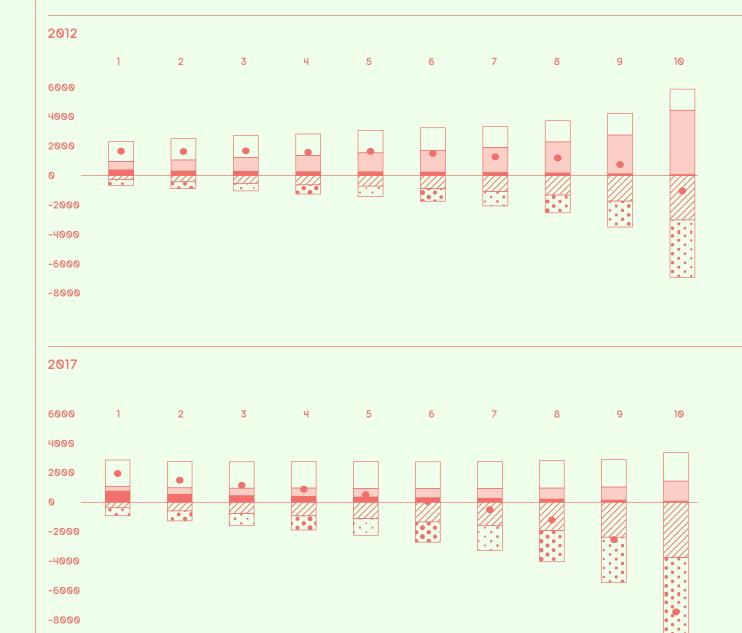
## ANNEX 2 ABSOLUTE BENEFIT INCIDENCE OF TAXES AND SPENDING, WITH OUT-OF-POCKET EXPENDITURES

- ☐ HEALTH AND EDUCATIONAL SERVICES
- ENERGY SUBSIDY
- ☑ INDIRECT TAXES AND EXCISE
- SOCIAL ASSISTANCE
- OOP HEALTH AND EDUCATION
- NET SUBSIDY WITH OOP



## ANNEX 3 RELATIVE BENEFIT INCIDENCE OF TAXES AND SPENDING, WITH OUT-OF-POCKET EXPENDITURES

- ☐ HEALTH AND EDUCATIONAL SERVICES
- ENERGY SUBSIDY
- ☑ INDIRECT TAXES AND EXCISE
- SOCIAL ASSISTANCE
- OOP HEALTH AND EDUCATION
- NET SUBSIDY WITH OOP



## ANNEX 4

## COMPARISON OF ABSOLUTE INCIDENCE BETWEEN RASTRA IN 2017 AND BPNT IN 2019

☐ INCIDENCE RASTRA 2017

☑ INCIDENCE BPNT 2019

