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RAISING MORE PUBLIC REVENUE IN INDONESIA IN A GROWTH- AND EQUITY-FRIENDLY WAY

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ABSTRACT/RESUMÉ

Raising more public revenue in Indonesia in a growth- and equity-friendly way

Indonesia's government needs more revenue to fund spending that can boost GDP growth, raise well-being and reduce poverty. The tax-to-GDP ratio is low relative to other emerging market economies. The difficulty is to raise revenues without denting growth or worsening inequality. Successive reforms have modernised the tax administration and increased the number of taxpayers. Nonetheless, raising compliance is an ongoing challenge and investing in the tax administration rightly remains a government priority. There is also scope to improve the design of various taxes. Broadening the bases of income and consumption taxes would raise more revenue and reduce distortions. Expanding property taxation, if appropriately implemented, could provide additional funds for local governments. Taxes can also be used more extensively to discourage activities and behaviours with negative health and environmental externalities. Strengthening property rights and fighting illegal extraction would increase revenues from Indonesia's natural resource wealth.

This Working Paper relates to the 2018 OECD Economic Survey of Indonesia (www.oecd.org/eco/surveys/economic-survey-indonesia.htm).

JEL Classification: H23, H24, H25, H26

Keywords: Indonesia, tax systems, tax compliance, income tax, business tax, consumption tax, green taxation, property tax, natural resources taxation

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Augmenter les recettes publiques dans l'Indonésie de manière favorable à la croissance et à l'équité

Le gouvernement indonésien a besoin de plus de recettes pour financer les dépenses qui peuvent stimuler la croissance du PIB, améliorer le bien-être et réduire la pauvreté. Le ratio des impôts sur le PIB est faible par rapport à celui d'autres économies de marché émergentes. La difficulté est d'augmenter les recettes sans freiner la croissance ni aggraver les inégalités. Les réformes successives ont modernisé l'administration fiscale et augmenté le nombre de contribuables. Néanmoins, l'amélioration du respect des obligations fiscales est un défi continuel et investir dans l'administration fiscale reste à juste titre une priorité du gouvernement. Il est également possible d'améliorer la conception de diverses taxes. L'élargissement de l'assiette des impôts sur le revenu et des taxes à la consommation permettrait d'augmenter les recettes et de réduire les distorsions. L'augmentation de l'impôt foncier, si elle est correctement mise en œuvre, pourrait fournir des fonds supplémentaires aux administrations locales. Les impôts peuvent également être utilisés plus largement pour décourager les activités et les comportements ayant des effets externes négatifs sur la santé et l'environnement. Le renforcement des droits de propriété et la lutte contre l'extraction illégale augmenteraient les revenus tirés de la richesse des ressources naturelles de l'Indonésie.

Ce Document de travail se rapporte à l'Étude économique de l'Indonésie 2018 (http://www.oecd.org/fr/indonesie/etude-economique-indonesie.htm).

Classification JEL : H23, H24, H25, H26

Mots clefs : Indonésie, système fiscal, conformité fiscale, impôt sur le revenu, impôt sur des sociétés, taxes sur la consommation, fiscalité verte, fiscalité des biens, taxes sur les ressources naturelles

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Raising more public revenue in Indonesia in a growth- and equity-friendly way

By Christine Lewis[1]

Indonesia's government aims to raise the tax-to-GDP ratio by around 2 percentage points in coming years. This would finance much-needed spending on infrastructure, human capital and social protection, which would spur growth, reduce poverty and raise well-being. The 2012 OECD *Economic Survey* of Indonesia highlighted significant scope to improve the tax system by broadening tax bases, removing distortionary exemptions and improving tax administration (OECD, 2012). It also proposed ways of increasing revenues from natural resources through more efficient taxation. Six years later, this paper revisits options for tax policy, given that raising the tax-to-GDP ratio has proved difficult. The paper begins with an overview of government revenue. It then assesses the administration of the tax system and ways of enhancing tax compliance, which is a pre-condition for a sustainable increase in the revenue-to-GDP ratio. In light of the research on the effects of taxes on growth and inequality it then looks at ways of growing revenues from key taxes: on incomes, consumption and property. It finishes by considering raising revenues from Indonesia's vast natural resource wealth.

Main characteristics of the Indonesian tax system

Tax revenues have remained low

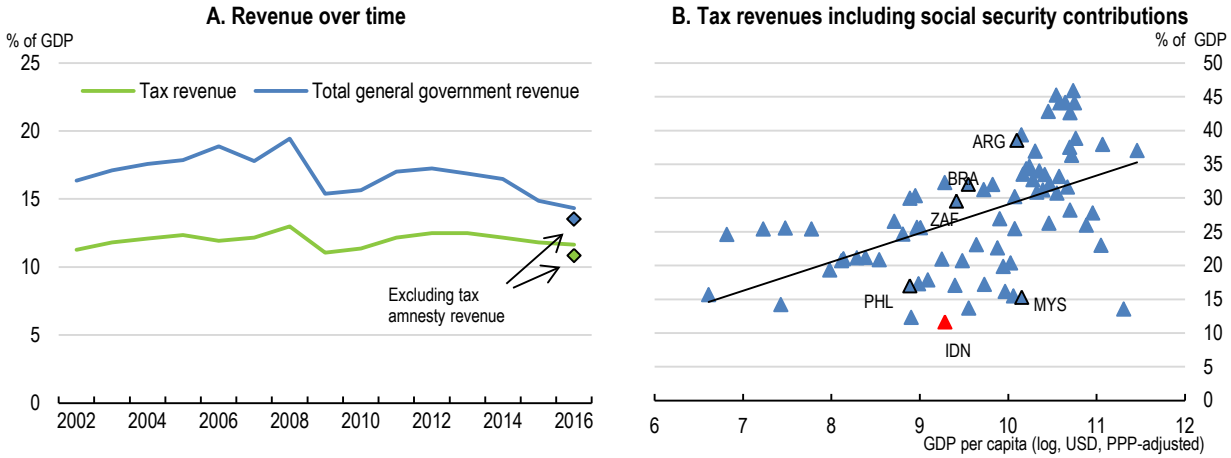
Total government revenue across all levels of government was equivalent to 14% of GDP in 2016 (Figure 1. Fiscal revenues have been low

Panel A). The decline in the ratio to GDP over 2012-16 was driven by falling oil and gas receipts, which have been growing again since 2017 thanks to higher prices. Tax revenues amount to only 12% of GDP (according to the OECD's definition), little changed since the early 2000s, despite efforts of successive governments. This is low relative to other countries at similar income levels (Panel B). A higher ratio would provide funds for government priorities and reduce dependence on volatile oil revenues.

[1] Senior Economist in the OECD Economics Department. The author would like to thank OECD colleagues who provided helpful comments and advice at various points including Alvaro Pereira, Isabelle Koske, Patrick Lenain, Peter Jarrett, Vincent Koen, Boris Cournède, Patrice Ollivaud (Economics Department), Bert Brys, Stéphane Buydens, Céline Colin, Dan Devlin, Luisa Dressler, Sarita Gomez, Tibor Hanappi, Emmanuelle Modica, Dominique Paturot, Oliver Petzold (Centre for Tax Policy Analysis), Britta Labuhn (Environment Directorate), Martin Wermelinger (Directorate for Financial and Enterprise Affairs) and Marion Devaux (Directorate for Employment, Labour and Social Affairs). Assistance from Rita Helbra Tenrini, on secondment from the Indonesian Ministry of Finance during the preparation of the *Economic Survey*, is also greatly appreciated. The paper has also benefitted from comments by Indonesian officials and by members of the OECD Economic Development Review Committee. Special thanks are due to Klaus Pedersen for excellent statistical assistance and to Elisabetta Pilati and Sisse Nielsen for excellent editorial assistance. The text incorporates available information at 2 October 2018; subsequent policy and other developments are not reflected.

Cross-country research suggests that historically when countries have raised their tax revenue above a "tipping point" of around 13% of GDP, GDP per capita has been 0.7 percentage points higher each year for the following decade (Gaspar, Jaramillo and Wingender, 2016a). This can happen if social norms improve tax compliance, and in turn higher tax revenues strengthen the government's accountability, which in turn supports growth. This result is closely related to the evidence that state capacity – better enforced property rights, growth in the formal sector and other improvements in fiscal and economic institutions – also support growth and tax revenues (Gaspar, Jaramillo and Wingender, 2016b; Besley and Persson, 2014). Overall, it suggests Indonesia can move to a better equilibrium.

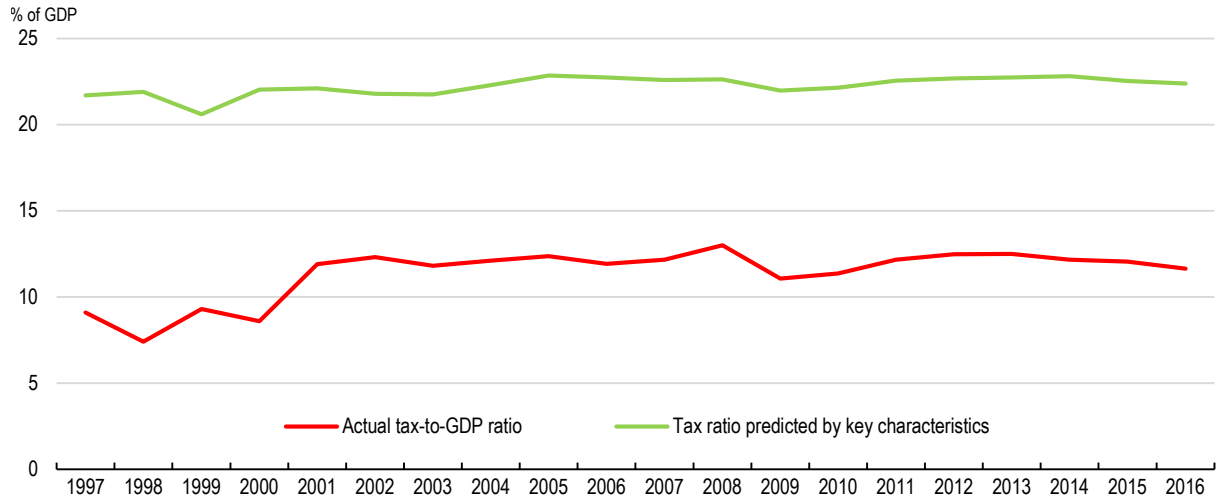
Figure 1. Fiscal revenues have been low



Note: Tax revenue data are based on the OECD's definition of tax revenues and can differ from national definitions. In Panel A the diamonds exclude revenue raised during the tax amnesty for individuals and firms that began in July 2016 (0.8% of GDP). Data for Indonesia do not include social security contributions; those that would be classified as tax revenue are estimated to total less than 0.5% of GDP. In Panel B data are for 2016 or latest available.
Source: OECD, *Revenue Statistics Database*, *OECD Economic Outlook Database*; World Bank, *World Development Indicators Database*; IMF, *World Economic Outlook Database*; World Bank (2018), *Indonesia Economic Quarterly: Towards Inclusive Growth*, World Bank, Jakarta.

One way to shed light on Indonesia's low tax-to-GDP ratio is to estimate the predicted level of tax revenues given the economy's features and compare it with actual revenue collected (following OECD (2015a)). The difference gives an indication of "tax effort" and its evolution over time as well as structural factors weighing on revenues. Indonesia's GDP per capita, agriculture's share of the economy and openness to trade imply an expected tax-to-GDP ratio of around 22%, 10 percentage points above the current ratio, while income alone predicts 25% (Figure 2; Box 1). Indonesia's high share of agriculture and low openness to trade reduce its predicted tax ratio, which means that structural transformation can be expected to support higher tax revenues. But the consistently large gap between actual and predicted revenues points to the huge effort that is still required. The gap is likely to be linked to widespread informality (with 70% of employment and half of all dependent employees estimated to be informal), as well as tax evasion and narrow tax bases, which were all highlighted in the 2012 *Survey* (OECD, 2012). Increasing the tax ratio will likely involve raising voluntary compliance, through greater willingness and strengthened administration, along with reforms to broaden bases.

Figure 2. Revenues could be considerably higher



Note: The predicted ratio is based on a fixed-effects regression using: the log of GDP per capita (in constant prices); the log of trade openness; and agricultural value-added as a share of GDP. See Box 1 and Annex A for details of the specifications.
Source: OECD calculations based on OECD, *Revenue Statistics Database*, B. Égert, P. Gal and I. Wanner (2017), "Structural policy indicators database for economic research (SPIDER)", *OECD Economics Department Working Papers*, No. 1429, OECD Publishing, Paris; World Bank, *World Development Indicators Database.*

Box 1. Tax capacity and tax effort

The potential tax revenue that an economy can generate depends on its structural features as well as its institutions. Higher levels of income per capita, greater trade openness and a lower agricultural value added share are all associated with higher tax revenues, as are public expenditure on education, less corruption and less inequality (Fenochietto and Pessino, 2013). Institutional factors such as the tax administration's resources and governance quality also influence revenue-raising potential (Besley and Persson, 2014; Akgun, Bartolini and Cournède, 2017). Tax effort and the tax design will then determine actual revenue.

Similar to OECD (2015a), the following equation is estimated for 77 countries covered by the OECD's *Revenue Statistics Database* (shown in Figure 1, Panel A), over 1997-2016, subject to data availability:

$$\frac{Tax}{GDP}_{it} = \alpha + \beta_1 \ln(GDP\ per\ capita)_{it} + \beta_2 \ln(openness)_{it} + \beta_3 Agriculture's\ share\ of\ GDP_{it} + c_i + \varepsilon_{it}$$

Predicted tax ratios and corresponding gaps depend somewhat on the model used (Annex A). Using GDP per capita alone, the predicted ratio for Indonesia is 25%, while the ratio is 22% using the model shown. These are consistent with earlier estimates of a maximum ratio of 28% based on stochastic frontier analysis (Fenochietto and Pessino, 2013). Over the period, Indonesia's revenues have been 10 percentage points below their predicted level; by contrast, South Africa has attained its predicted ratio on average, while Brazil has exceeded its by 7 percentage points.

Since 2002 there have been four successive phases of reforms focussed on raising tax effort by modernising tax administration and building administrative capacity. Reforms have sought to modernise processes and the administrative system, improve human-resource capacity, enhance the tax office's integrity, expand the number of taxpayers and reduce tax evasion. The 2015-19 medium-term plan prioritises administration and legislative reform. Over 2017-2020 reform is focussed on improving: services for taxpayers; business processes and databases; risk management; and organisation and human resource management. In 2017 a tax reform team including experts from outside the government was created to advise the Minister on reforms and their implementation. Increasing consultation and transparency during this process could help build stakeholder support for difficult reforms and enhance credibility. The reform team could be tasked with consulting stakeholders and the public on policy reforms and publishing reports on these. An example is the "Davis Tax Committee" in South Africa, which was created in 2013 to review the country's tax policy by conducting research and public consultations and has produced reports in 14 areas of revenue policy. OECD countries have used similar committees.

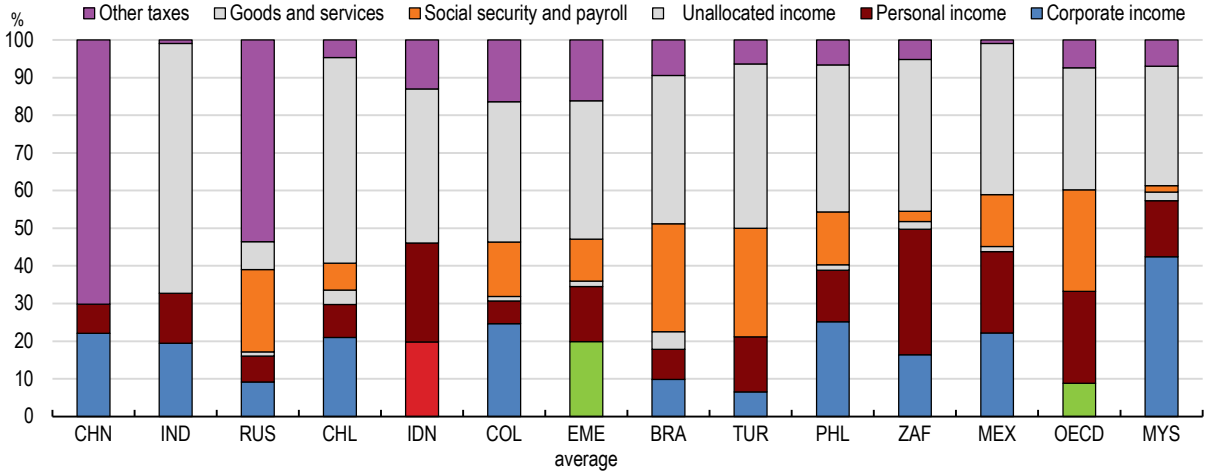
Most tax revenues are from income and consumption taxes raised by the central government

Around half of all tax revenue is raised from income taxes and a further 40% from taxes on goods and services (Figure 3). Overall, the share of revenues from key tax bases – corporate income, labour and goods and services – is similar to an average emerging-market economy but the level of revenues relative to the size of the economy is lower. The single-largest source of revenue is the value-added tax (VAT) – which is considered to be a less harmful tax for growth than income tax (Akgun, Cournède and Fournier, 2017; Acosta-Ormaechea and Yoo, 2012; Arnold et al., 2011). Taxes on labour (personal income tax and social security contributions) were around one-quarter of tax revenue in Indonesia and other emerging economies, whereas OECD countries rely more heavily on these taxes. The low share partly reflects the difficulties of taxing individual incomes in economies with a sizeable informal sector. Corporate income tax, which is more harmful from a growth perspective, has declined in importance since the 2012 *Survey* (from almost 30% of revenue to 20% in 2016), partly due to the commodity price cycle.

Despite a high degree of decentralisation in spending policy, taxation is relatively centralised. Sub-national governments raise little tax revenue directly, even though they are responsible for half of all spending (Figure 4) (OECD, 2016a). Provinces raise more of their own revenue than districts; capacity is heterogeneous but weaker at lower levels of government (*ibid.*). Legislative changes in 2000 increased sub-national governments' tax-raising powers, but these were partly unwound in 2009 and a prescribed list of taxes was established to address concerns that a proliferation of taxes and user charges was harming the business environment (National Legal Development Board, 2013). Consequently, funding for services continues to be through central government transfers and, to a lesser extent, equalisation funds that share revenues from natural resources across governments. Further decentralisation is still constrained by lower levels of administrative capacity at the local level (OECD, 2016a). Indeed, after some taxes were transferred from districts to provinces, the total share of sub-national tax in total tax revenue increased from 7% in 2009 to 10% in 2017. Ultimately, additional revenue should be raised by sub-national governments to strengthen local responsibility and accountability, taking into account administrative constraints and principles of local taxation (OECD, 2016a). Options are discussed in the tax design sections below.

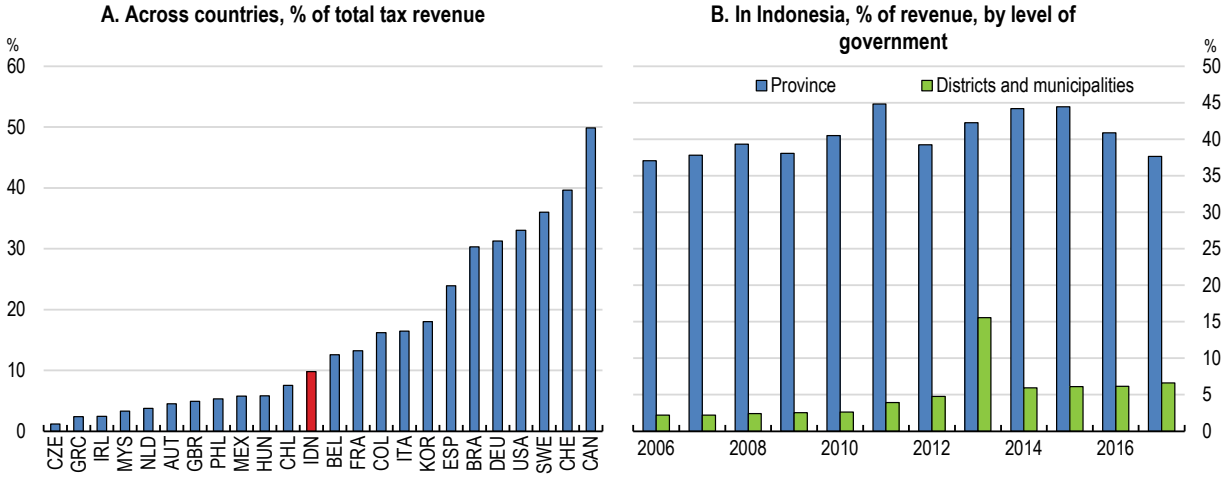
Figure 3. Most tax revenue is from income and consumption taxes

Tax revenue by type, % of total tax revenue, 2016 or latest



Note: EME average is the unweighted average of countries shown. "Other taxes" include property taxes and local government taxes that could not be allocated to revenue types. Countries are ordered by the share of income taxes and social security contributions and payroll taxes in tax revenues. Social security contributions are not included for Indonesia but these are estimated to amount to less than 0.5% of GDP.
Source: OECD, *Revenue Statistics Database*, *OECD Economic Outlook Database*.

Figure 4. Sub-national governments raise relatively little tax revenue



Note: Data in Panel A are for 2016 or latest available. Panel B shows tax revenues relative to total revenue at that level of government.
Source: OECD (2017), *Revenue Statistics in Asian Countries: Indonesia, Japan, Kazakhstan, Korea, Malaysia, the Philippines and Singapore;* OECD (2017), *Revenue Statistics: 1965-2016*, OECD et al. (2018), *Revenue Statistics in Latin America and the Caribbean 2018*; Statistics Indonesia.

Administrative reform remains a priority

Reforms to tax administration are improving performance

The authority for administering the bulk of tax revenue lies with the Ministry of Finance's Directorate General of Taxes. The other key authorities are the Directorate General of Customs and Excise and sub-national levels of government. The government has made major efforts to increase registration and filing rates, including through better co-operation

between parts of the government, new mobile tax units, e-registration, same-day registration service, e-filing options and amnesties on penalties for not previously registering. A high-profile tax amnesty from July 2016 to March 2017 saw IDR 4 884 trillion (USD 329 billion) of assets declared and resulted in 52 700 new taxpayers (Box 2). Reflecting these efforts, the number of registered taxpayers has been growing steadily (Figure 5, Panel A). Nonetheless, registration levels remain low by international standards (Table 2). Filing rates have risen, particularly for individuals with non-wage income (Panel B). The share of income tax returns filed electronically reached 82% in 2017 but still lags behind Brazil, Chile and Mexico where rates approach 100%.

Box 2. The 2016-17 tax amnesty

The aims of the amnesty were to raise revenue via a "clearance levy", to help reduce future tax evasion and to boost repatriation of assets for investment in Indonesia. Key elements were:

- A "clearance levy" was calculated as a rate applied to net asset values. Funds that were repatriated in the first phase were subject to a levy of just 2%. The rate increased twice during the programme (in October 2016 and January 2017). It was lower for firms and self-employed individuals with gross turnover below IDR 4.8 billion (USD 323 000). It was higher if the assets were not repatriated.
- Assets that were repatriated must be kept in an approved vehicle for three years. Domestic assets may not be transferred out of Indonesia for three years. A breach would lead to income tax obligations of 30% on the declared assets.
- Participation conferred protection from investigation by other parts of the government, including from law enforcement agencies.

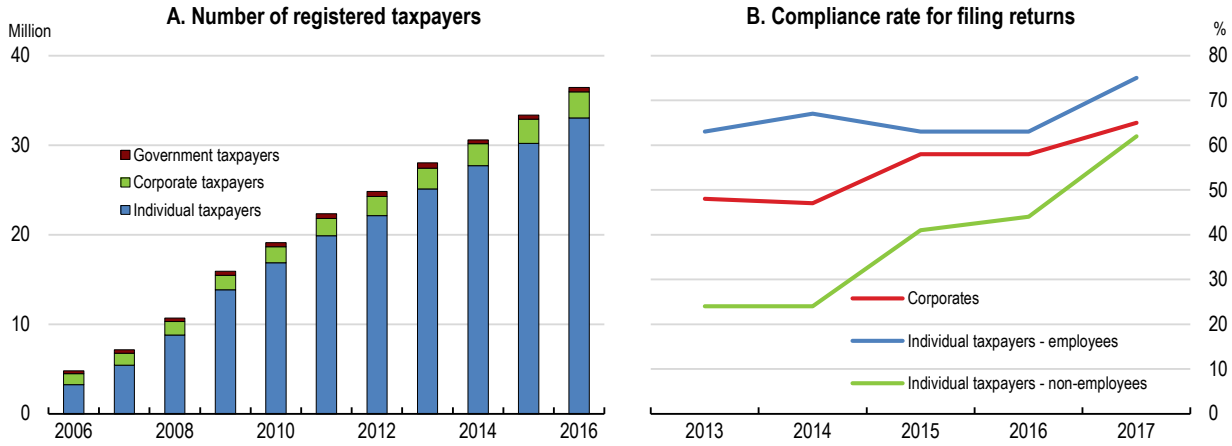
The amnesty collected IDR 135 trillion (USD 9 billion) in payments and saw IDR 4 884 trillion (USD 329 billion) of assets declared, although only 3% of that was repatriated (Table 1). Three-quarters of offshore assets were in Singapore. In terms of assets declared raised it was the world's most successful campaign (World Bank, 2017a). However, there were only 52 700 new taxpayers, which was below expectations. The bulk of assets declared and income raised was from individuals (87% of income). Large firms accounted for a further 13% of income raised.

Table 1. Value of the tax amnesty

	IDR trillion	% of GDP
"Clearance levy"	135	1.1
Total declared assets	4 884	38.4
Declared domestic assets	3 701	29.1
Repatriated assets	147	1.2
Declared foreign assets	1 037	8.2

Source: Directorate General of Taxes.

Figure 5. Registration and compliance have improved



Note: Married couples typically pay tax as a household using the same taxpayer number. Compliance rates are calculated as the number of annual income tax returns filed in a fiscal year as percentage of those obliged to file a return at the beginning of that year. Unregistered taxpayers are not included. "Non-employees" are individuals with non-wage income, including professionals.
Source: Directorate General of Taxes.

Besides registration and filing rates, the tax administration can be assessed against other core functions including effectiveness of assessment, collection of overdue payments and dispute resolution (OECD, 2017a). Data are limited, but on available metrics Indonesia's performance is still mixed. In 2015 around 40% of personal and corporate income tax returns were filed late, which is similar to the rates in the average OECD emerging market economy (Table 2). Tax debt is low relative to revenue, and the rate of disputes is also comparatively low. Yet, the tax office wins a relatively small share of cases compared to other countries, suggesting that it may have inadequate legal resources or documentation (OECD, 2012). Darussalam (2017) argues that the nature of disputes indicates a lack of "co-operative compliance" and that dispute-resolution mechanisms like mediation are needed. Therefore, key reforms should include strengthening the tax administration, lowering compliance costs and increasing enforcement as discussed below. Investing in the tax administration could reap dividends: evidence from OECD countries highlights a positive relationship between expenditure on the tax administration and tax capacity and therefore revenue (Akgun, Bartolini and Cournède, 2017).

The current reform agenda rightly focuses on improving human resources and information systems. Spending on staff has risen to be comparable with other non-member countries by 2016 (Table 3). The administration has been expanding and now has around 40 000 staff, but in 2015 there were still almost 5 000 adults per staff member compared to 3 000 in the average non-OECD country with such data (Table 3). The relatively low number of active taxpayers mitigates the number of staff currently needed; as the tax base expands, exploiting economies of scale and greater use of technology may slow staffing needs. As well as hiring, the tax administration has been upskilling existing staff. Nonetheless, important employees such as auditors, analysts and IT professionals are still in short supply. New units, such as the Centre for Tax Analysis, can concentrate expertise. Further training will be crucial in strengthening the administration and enabling staff to adapt to new technologies and challenges. Building a reputation for staff integrity can help raise taxpayer morale, which is particularly important following high-profile cases of corruption. Recent steps to limit staff meeting taxpayers outside the tax administration reduce the risk of

corruption; such reforms should continue so that taxpayers' confidence in the system increases.

Table 2. Tax administration performance indicators

	Indonesia	Non-OECD average	OECD emerging market economies	OECD average
Registered personal income taxpayers (% of population aged 15+)	Between 17.8[1] and 35.7	56.1	73.6	87.6
On-time filing (%)				
- Personal income taxpayers	60.6	78.6	63.5	90.6
- Corporate income tax	57.6	71.9	59.8	84.5
On time payment – VAT (%)	86.0	90.4	..	93.3
Tax debt (% of revenue)	8.6	30.3	42.6	23.4
Disputes				
- Number of cases initiated per 1000 active taxpayers	0.7	4.4	1.8	12.4
- % of cases resolved in favour of tax office	32.5	61.6	58.3	69.3

Note: Data are for 2015 except for on-time payment, which is 2014 for Indonesia. The number of countries covered varies with response rates to the questionnaire, up to 54 countries. "OECD emerging market economies" is the average of Chile, Hungary, Mexico, Poland and Turkey; the average is not shown where there is only data for one country.

1. Calculated from data provided by the Directorate General of Taxes. Registered taxpayers are at end 2016. Note that married individuals typically pay tax at the household level; the lower bound is calculated by adjusting the number of taxpayers for the share that file tax jointly and the upper bound assumes that every taxpayer represents a two-taxpayer household.

Source: OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, OECD Publishing, Paris; Directorate General of Taxes; OECD calculations.

Transformation has been hampered by the administration's lack of power to change its organisational structure and skill mix. All changes to its structure must be approved by the Ministry of Administrative and Bureaucratic Reform and it does not have the power to dismiss staff. One option is to establish the tax administration as an agency outside the Ministry, as is the case in many OECD countries, although the powers of such agencies vary across countries (OECD, 2017a). An alternative would be to temporarily give the tax administration more autonomy to make the transformation it needs, with appropriate oversight. Skills gaps can be filled through a combination of hiring, training and reallocation. Attention should be also be given to human resources at sub-national level, where constraints are even larger. The central tax administration has a help desk and provides training. Further initiatives could include secondments to the central tax administration and more sharing of best practices within provinces. Technology could deliver more training and also be used to upgrade processes.

The current modernisation programme aims to replace ageing IT infrastructure through a seven-year programme beginning in 2018. This is crucial, given the enormous amounts of data being generated from electronic reporting and third-party systems and the need to improve monitoring of the tax administration and taxpayers. The new "core tax administration" system is expected to capture all business processes including compliance system management, taxpayer account management, internal knowledge-management systems and managing new sensitive data, for example arising from exchange of information. Investment appears overdue: the recurrent IT budget is small compared to other countries, suggesting past under-investment (Table 3). (Although in 2015 capital expenditure from external suppliers increased 3.5-fold (OECD, 2017a)). The new system

is estimated to cost around IDR 3.1 trillion (USD 209 million). Managing important risks, especially procurement of new IT systems and their implementation, will be critical for realising the potential benefits. The procurement process should be clear, transparent and adhere to good procedures. Training will need to be stepped up so that staff can adapt to these new technologies.

Table 3. Indicators of tax administrations' resources

	Indonesia	Non-OECD average	OECD emerging market economies	OECD average
Citizens (15 + years) per staff member	4 893	3 030	1 917	1 269
Active personal income taxpayers per staff member	446	562	1 065	635
Total budget as % GDP	0.08	0.12	0.14	0.19
Staff costs as % total recurrent budget	61.0	64.3	74.9	72.6
Training budget as % total recurrent budget	0.4	0.3	1.2	0.5
Recurrent IT budget as % total recurrent budget	3.3	11.0	3.8	13.4

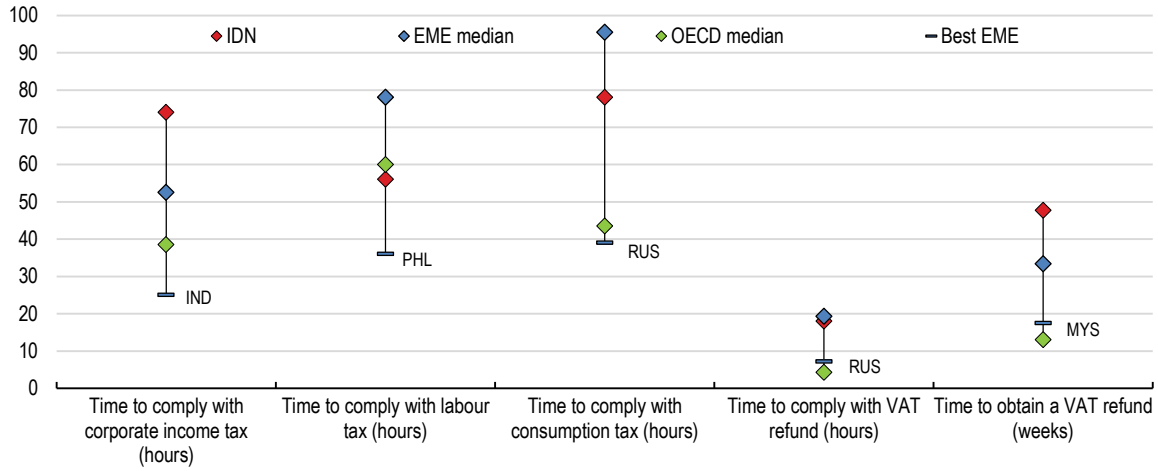
Note: Data are for 2015 except for staff costs, which are 2016 for Indonesia to improve comparability. The number of countries covered varies with response rates to the questionnaire. "OECD emerging market economies" is the average of Chile, Hungary, Mexico, Poland and Turkey.
Source: OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, OECD Publishing, Paris; Directorate General of Taxes; OECD calculations.

Voluntary compliance and enforcement should be raised together

Compliance costs for businesses appear high relative to other countries, although progress has been made in recent years. For instance paying some taxes is still time-consuming (Figure 6). Payments are monthly, whereas many countries allow less frequent payments for small firms, for example (OECD, 2017a). High compliance costs can deter formalisation and, due their fixed nature, disproportionately burden small firms. Greater use, and ease, of online filing could reduce these costs. The refund process has been especially burdensome, which can particularly affect SMEs' cash flows. In general, refund requests trigger a compulsory audit, which can take up to 12 months. Until 2018, only relatively few "golden taxpayers" that were deemed low risk received refunds automatically. In 2018 reforms provided for certain low-risk taxpayers to receive VAT refunds within one month and income tax refunds within three months, with audits later. To be effective the group of eligible taxpayers will need to be sufficiently broad but with monitoring to guard against fraud. Technology should be used to expand risk-based auditing.

Indonesia uses withholding taxes extensively to shift the compliance burden from more risky taxpayers to designated taxpayers, with the aim of increasing overall compliance. Tax is withheld on wages, interest, royalties and dividends, as is common, as well as rental income and 62 types of business activities (for example, accounting, consulting, mining support, gardening and childcare services). Withholding taxes are also imposed on imports, which are credited against company income tax liabilities; in 2018 these were raised as part of the government's policies to reduce the current account deficit. In addition, construction activities are subject to final withholding tax at rates of 2-6%, depending on firm size and the type of activity. Lower-income countries often use withholding taxes to shift the burden of compliance to more trusted taxpayers, as do some OECD countries, for particular business activities, SMEs or self-employed taxpayers (OECD, 2017a; Joshi, Prichard and Heady, 2014; OECD, 2009).

Figure 6. Complying with taxes takes firms longer than elsewhere



Note: Emerging market economies (EMEs) comprise Brazil, Chile, China, Colombia, India, Malaysia, Mexico, Philippines, Russia, and Turkey. The time required is based on a case study company.
Source: World Bank / PwC (2018), *Paying Taxes 2018*.

Empirical evidence on the overall effectiveness of withholding taxes on business income is still patchy (Joshi, Prichard and Heady, 2014). In the near-term the priorities are to ensure that businesses are aware of their obligations, to minimise the associated compliance burden and to ensure that penalties for administrative mistakes are not disproportionate (Darussalam, 2018). The current pilot programme of e-withholding returns is being extended progressively and is a step in the right direction. Looking ahead, growing capabilities to monitor actual and potential taxpayers may reduce the need to cover so many business activities, as well as for differential treatment of income from construction-related activities. The costs and benefits of these business withholding taxes should be evaluated in light of other administrative reforms, and revisions made accordingly.

Complexity and uncertainty add to compliance costs and create opportunities for tax evasion. The tax regime is perceived as more contradictory and less consistently enforced than in most regional comparators but is perceived to have improved in recent years (Deloitte, 2017). Investors highlight uncertainty surrounding the tax environment as one of their concerns in Indonesia (IMF/OECD, 2017). Legislative ambiguity and overlaps create multiple interpretations and lead to different advice from tax administration staff. This uncertainty generates costs when firms seek advice and dispute interpretations. Frequent and hasty policy changes have added to uncertainty and caused implementation problems, which must be redressed. For example, the requirement to record an electronic identification number for all customers was initially announced with only three weeks for implementation, but an outcry led to its delay. Government plans to revise the income tax legislation to clarify key ambiguities are welcome. It should consult widely, ideally allowing public comments. A more stable environment could be established by focussing more tax changes in an annual window (e.g. following the budget) and standardising procedures for public consultation, as in South Africa.

Technology is easing compliance costs, for example through online filing and more payment options. Electronic invoice systems that report data automatically have been piloted since 2015 and will be rolled out nationwide in 2018. The tax administration uses multiple platforms, including social media, to increase the reach of its communication, and offers assistance via its call centre and live chat service. Planned changes to the tax administration's website are expected to make it more user-friendly. Clear and simple

explanations of current obligations and online calculators, for example, would assist taxpayers in complying. However, alternatives to online processes will need to be retained while ICT infrastructure and internet connectivity are still developing. Greater use of technology can further reduce administrative burden, for instance online verification systems could validate data as they are submitted (OECD, 2017a). Systems for monitoring firms more closely can predict payment difficulties and facilitate early intervention. Using third-party data to pre-fill returns would lower the compliance burden. Risk-based auditing should continue to be expanded as it is an effective way of allocating limited resources.

Increasing registration and compliance of self-employed workers is an ongoing challenge, as in many emerging economies. Self-employed workers account for 40% of all employment, and around 70% appear to be informal. Reducing informality and under-reporting requires increasing the probability of detecting non-compliance as well as inducing voluntary compliance. The tax administration is raising the probability of detection of evasion by using third-party data, such as bank accounts and social media presence. Other countries have reported success in fighting under-reporting of income through e-invoicing and campaigns against cash payments in sectors such as construction (in Canada and New Zealand) (OECD, 2017b). Some have found that incentives for taxpayers to adopt e-invoicing paid for themselves (OECD, 2017b). Several European countries, Mexico, Uruguay and India limit the value of cash payments (OECD, 2017c; Sands et al., 2017). The Chilean government provides online accounting software that allows small businesses to record transactions and generate pre-filled tax returns. In Indonesia, a turnover tax for SMEs (discussed below) aims to encourage formalisation but it should be linked more closely to access to additional non-financial benefits.

Fighting tax evasion by wealthy individuals remains a priority, particularly to reinforce the success of the tax amnesty. Indonesia's participation in the Automatic Exchange of Information under the Common Reporting Standard contributed to the credibility of the amnesty and will provide the tax administration with significant amounts of data. As at late September 2018 86 countries had activated the Multilateral Competent Authority Agreement with Indonesia, including Singapore, which is particularly important, as almost three-quarters of offshore assets declared under the tax amnesty were there. The first Automatic Exchange of Information was in September 2018. In addition, in 2017 the tax administration gained access to domestic bank account information. The challenge is therefore to use these new tools effectively, as they will create huge demands on staff and IT systems. Setting up dedicated units within the tax administration in high-risk areas would concentrate valuable expertise.

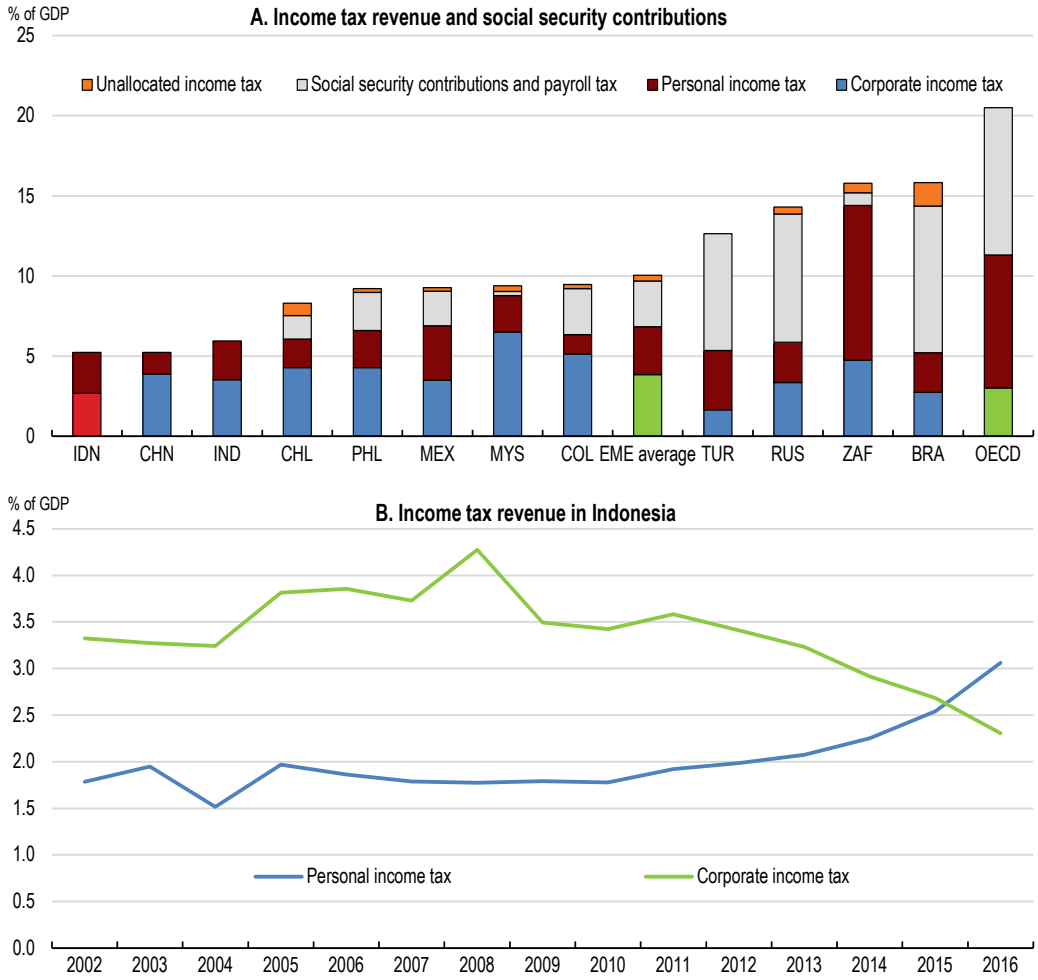
Given the low rate of registration, enforcement efforts should be complemented by developing a stronger culture of voluntary compliance built on fairness and trust. The administration is shifting in this direction with the ending of the "gizjeling" practice (imprisoning taxpayers until they paid their taxes) and greater use of behavioural nudges like reminding people by SMS to pay their tax. Other penalties should be reviewed to ensure that they are appropriate and are not preventing formalisation. Fairness can be increased by making the tax legislation gender-neutral: it is written for a household headed by a man, which means that women must complete paperwork to change their taxpayer type and file returns as an individual. Women cannot claim the dependent allowance unless they prove that their husband has no income. Continuing to invest in service centres for taxpayers, including staff training, and enhancing taxpayer rights through a stronger ombudsman would help to create a culture of co-operative compliance (Darussalam, 2017).

Education and awareness campaigns are expanding. Tax literacy has been introduced into education curricula through programmes like "Pajak Bertutur". In 2016 eight tax offices began offering business development services to SMEs. From July 2018 all regional offices must offer such services, although they have discretion over the content. Services have included fairs bringing SMEs and large retailers together, as well as seminars on paying taxes and account keeping. Regional tax offices may also use private providers. SMEs are being targeted for participation based on the tax administration's databases although some offices use other methods, such as social media, to advertise these events. Monitoring and evaluating these programmes will enable the services to be better targeted over time. The range of services should also be expanded based on lessons learned across the country.

Income taxes are levied on narrow bases

At 5% of GDP, income tax revenues are low relative to other emerging-market and OECD economies (Figure 7, Panel A). Other emerging market economies and OECD countries

Figure 7. Income tax and social security collections are low



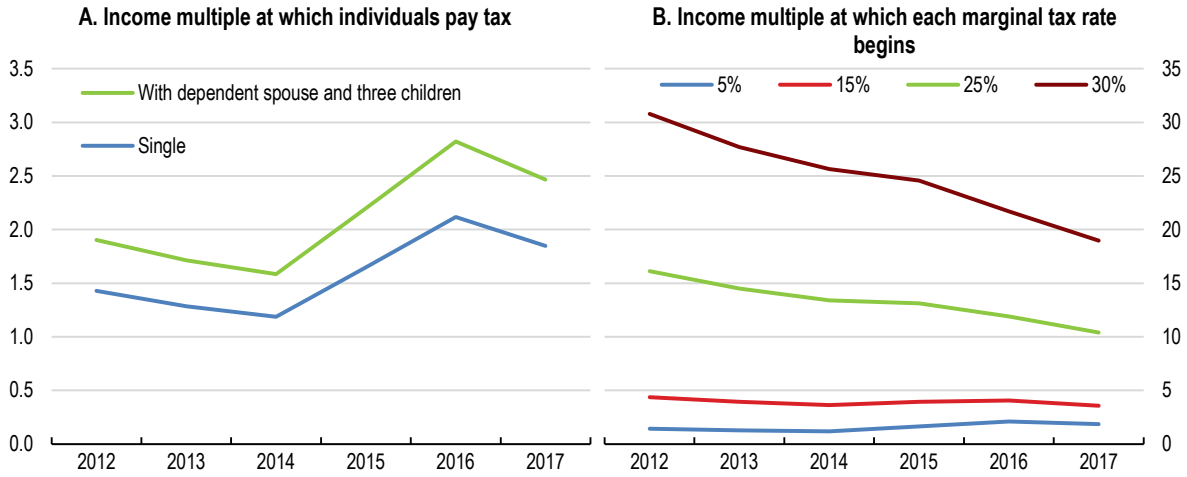
Note: "EME average" is the unweighted average of emerging-market economies shown. Indonesia's income tax data for 2016 includes revenue from the tax amnesty, of which individuals contributed the equivalent of 0.7% of GDP and companies 0.1% of GDP. Social security contributions are not included for Indonesia; those that would be classified as tax revenue are estimated to be equivalent to less than 0.5% of GDP in 2016.
Source: OECD, *Revenue Statistics Database*; CEIC; OECD calculations.

also typically rely more heavily on social security contributions and payroll taxes. The prevalence of informal employment and micro-enterprises in Indonesia makes for a narrow tax base: labour force data suggest that just under half of all employees and 28% of self-employed were formally employed in 2017. By some estimates, 93% of firms are informal (Rothenberg et al., 2016). There has been some progress in raising personal income tax revenue, even abstracting from the tax amnesty, which likely reflects the rise in the number of taxpayers (Panel B). On the other hand, corporate income tax revenue has grown more slowly than GDP.

Relatively few individuals must pay personal income tax

Personal income taxes are charged on income at progressive marginal rates of 5%, 15%, 25% and 30%, typically at the household level. There is a standard tax allowance of IDR 54 million (USD 13 000 PPP-adjusted) and additional allowances for dependents (up to one spouse and three children). In 2015 and 2016 the tax allowances were increased sharply to stimulate consumption: the threshold for beginning to pay tax jumped from 1.2 times average employee earnings in 2014 to just over twice by 2016, (and almost three times for taxpayers with a dependent wife and three dependent children) (Figure 8, Panel A). This substantially reduced the number of personal income taxpayers as well as effective tax rates. The top tax rate is not payable until high multiples of income – around 20 times the average wage – although bracket creep has reduced this ratio over time (Panel B).

Figure 8. The threshold for paying tax increased but tax brackets have narrowed overall



Note: There is a standard allowance of IDR 54 million and a further allowance of IDR 4.5 million for each dependent up to one spouse and three children. Panel B shows the rates for a single taxpayer. Data shown are based on the ILO harmonised measure of mean nominal monthly earnings of employees. The general trend over time also holds if average income is proxied by GDP per capita.
Source: ILO, *ILOSTAT Database*; OECD calculations.

The social security system has been expanding, most recently in 2015 with a new pension plan. Employees must now pay 2% of their monthly gross salary towards health insurance and pension contributions and employers pay 6.54-8.04% of the salary (contributions for work-accident insurance vary across sectors). Health insurance and pension contributions are capped. Even after recent changes to increase social security contributions, the average (and marginal) tax wedge for average income earners is still low in international comparison, partly because workers with average earnings do not pay tax (Table 4). (Employees and employers also contribute a combined 5.7% of the salary to compulsory old age insurance but as this is a defined contribution scheme it is not included in the tax

wedge.) The low tax wedge helps reduce the disincentive to work in the formal sector. The government's drive for universal health coverage with contributions from all but the poorest individuals will, in principle, contain the gap between taxes on informal and formal employment for low-income earners. However, in practice, registering all informal workers will be challenging (Dartanto, 2017).

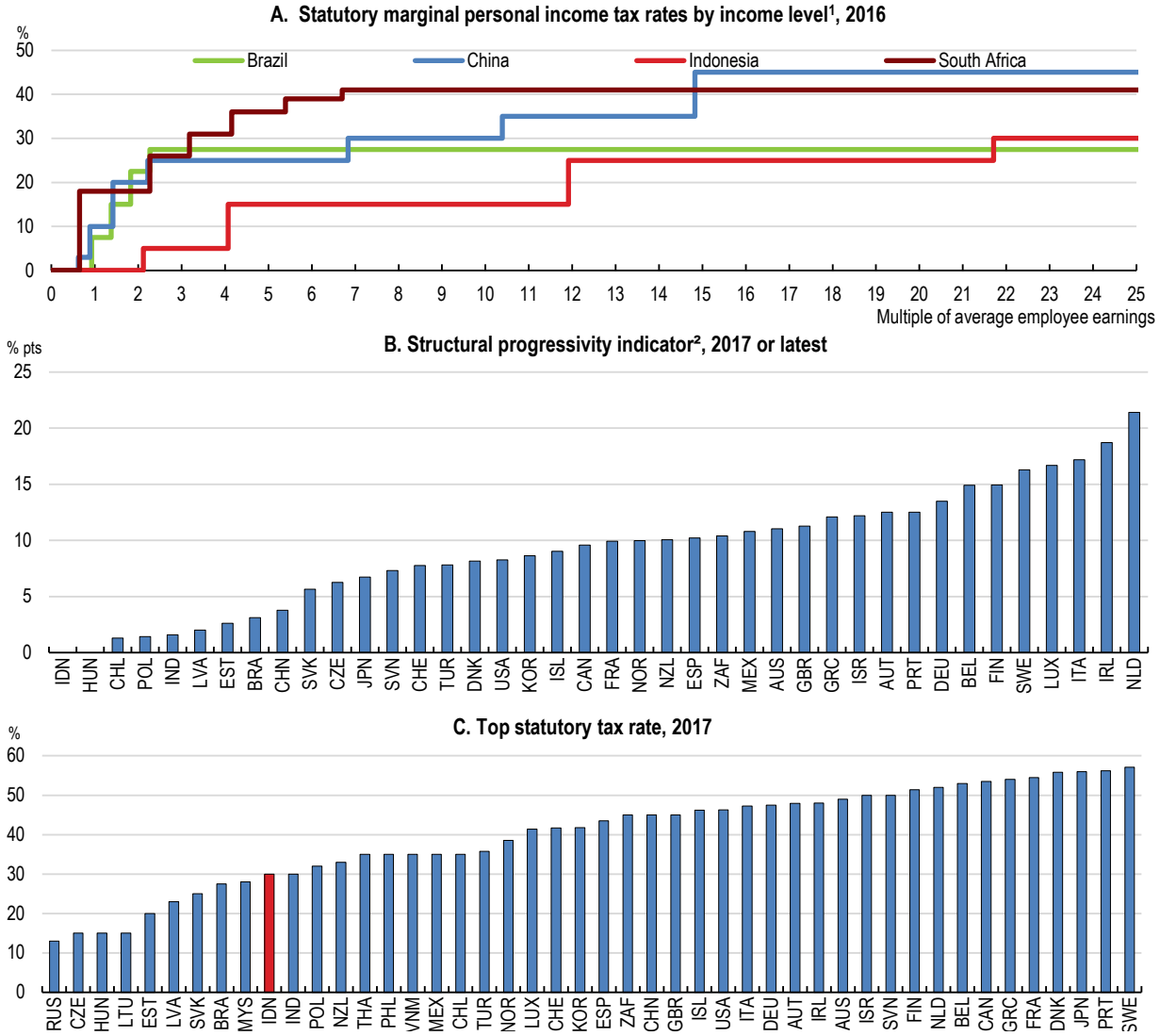
The distribution of income, together with the current personal income tax rate structure means that relatively few individuals must pay income tax. Only 20 million taxpayers were obliged to file a return in 2016. This is a small fraction of the adult population (even if some taxpayers represented two-income households rather than individuals). In 2012 over half of all personal income tax revenues were paid by less than 0.5% of households (Jellema, Wai-Poi and Afkar, 2017). Data for 2016 suggest the distribution remains highly skewed. Each taxable income bracket is reached at a much higher multiple of income than in Brazil, China or South Africa (Figure 9, Panel A). The relatively high thresholds for paying higher marginal rates of tax make the system less progressive than in many other countries, including emerging economies (Panel B). Moreover, the top statutory tax rate is relatively low compared to the OECD average and other emerging economies, although it is closer to other Asian countries' rates (Panel C). A more progressive tax structure with lower tax thresholds, for example, would be closer to that in other emerging economies and help address distributional concerns by increasing the effective tax rate of higher income earners.

Tax exemptions and deductions also narrow the tax base. Fringe benefits paid to workers and employer allowances (for transport, for example) are not included as taxable income, which benefits high-income earners relative to low-income earners (OECD, 2012). (These benefits are taxed at the company level as they are non-deductible expenses for employers.) Such benefits account for 2% of income among the top 5% of earners in the labour force survey compared to 0.8% among the top 15% (according to 2017 labour force survey data). Other allowances include a 5% tax allowance for employees' expenses (which is almost a basic tax allowance in practice) and for contributions to approved pension or saving funds. These are capped, which limits the fiscal cost of these allowances but they are still likely to be regressive across taxpayers. Estimates of forgone revenues would inform such assessments. These estimates should be published annually in future tax expenditure reports. Discussions are underway to recognise fringe benefits as personal taxable income and as expenses for corporate income tax. Incorporating non-monetary compensation in the tax base would broaden it and improve horizontal and vertical equity.

Options for raising more revenue include lowering the standard tax allowance, narrowing the brackets or increasing rates. Lowering the standard tax allowance would increase the number of taxpayers but may be difficult in practice, given that the allowance has recently been raised. It should therefore be held constant in nominal terms for several years: if the average wage grew by 10% per year, the allowance would return to the average wage after five years. Lowering the top threshold to be IDR 300 million (10 times average earnings in 2017), for example, could raise an additional 0.9% of total tax revenue, under simplifying assumptions including that there was no behavioural response. Lowering the second-highest threshold to be IDR 150 million (5 times average earnings) could raise a little more (2.7%). Increasing marginal tax rates can be ineffective in the presence of a large informal sector (Besley and Persson, 2014). High-income earners can more easily engage in tax planning than those with lower incomes. In both cases, the elasticity of tax revenue may be low (*ibid*). Simulations of similar reform combinations also highlighted the potential drag on economic growth from raising rates (Nugroho and Tenrini, 2014). The administration

would need to monitor the effects of such changes to ensure they do not increase informality or avoidance.

Figure 9. Top personal income tax rates bite at high levels of income



1. Calculations are for a single earner. Rates shown are statutory rates. They take into account the basic tax allowance but do not include other tax allowances that reduce effective tax rates.
2. The structural progressivity indicator shown measures the percentage point change of the average effective tax rate for a single person with no children if their income increases from 67% to 167% of the average wage.
Source: OECD, *Taxing Wages Database*, *Tax Database*; ILO, *ILOSTAT Database*; EY (2016), *Worldwide Personal Tax and Immigration Guide 2016-17*; PwC, *Worldwide Tax Summaries Online*, OECD calculations.

Table 4. The average tax wedge is low

Income tax plus employee and employer contributions less cash benefits (% of labour costs, 2016)

	Family type						
	Single, no children			Married, 2 children			Married, no children
Wage level (% of average wage of each earner)	*67*	*100*	*167*	*100-0*	*100-33*	*100-67*	*100-33*
Brazil	32.5	32.5	36.3	32.5	30.4	32.5	32.3
China	32.4	32.9	35.2	32.9	34.8	32.7	34.8
India (if no social security contributions)	0.0	2.2	1.6	2.2	1.7	1.3	1.7
India (with social security contributions)	26.1	8.3	7.7	8.3	13.1	15.9	13.1
Indonesia	**7.8**	**7.8**	**7.8**	**7.8**	**7.8**	**7.8**	**7.8**
South Africa	11.4	15.2	20.7	15.2	12.1	13.7	12.1
OECD unweighted average	32.3	36.0	40.4	26.6	28.2	30.9	32.8

Note: Social security contributions are defined as a tax if they are compulsory unrequited payments to general government.
Source: OECD, *Taxing Wages Database.*

Investment income is currently taxed at different rates depending on its source and to whom it is paid. Resident individuals typically face a final withholding tax, at rates of 10% (on dividends and rental income from land and buildings), 15% (on interest income from bonds) and 20% (on interest from bank accounts). Foreign-sourced capital income is taxed as ordinary income. Non-residents are subject to higher rates of taxation unless their country of residence has a tax treaty with Indonesia. Individuals' capital gains are taxed as ordinary income, except the sale of Indonesian real estate (taxed at 2.5% of the property's value) and listed shares (0.1% of the value). Such large differences in tax rates distort saving decisions and open up tax planning opportunities. For instance, combined marginal tax rates for high-income earners range from 10% for rental income to 32.5% on dividend income (including the 25% corporate income tax rate). While effective tax rates will depend on holding periods, in general this differential creates incentives to invest in real estate, diverting funds from Indonesia's already thin capital markets. The tax rates should be reviewed and adjusted to minimise such distortions.

Corporate income taxation can be broader and more growth-friendly

Slower economic growth, lower commodity prices and policy decisions have weighed on corporate income tax revenues. Between 2008 and 2010 the standard statutory rate was lowered in two steps from 30% to 25%, which is around G20 and OECD averages. A raft of tax incentives were introduced and expanded, including an import duty facility (2009), tax allowances for specific investment (2011 and 2016) and tax holidays (2011, 2015 and 2018). The number of special economic zones is increasing. In April 2018 eligibility for tax holidays was broadened and the process simplified to try to attract more investment. New incentives are planned, including for smaller investments that do not qualify for tax holidays, R&D investment and provision of vocational education and training.

There is now a long list of tax incentives aimed at attracting investment, especially to particular locations (special economic zones and free trade zones) and sectors (Table 5). Indeed, even before the latest changes Indonesia's tax incentives were relatively generous for certain investments (OECD, 2018a). Under specific assumptions, tax incentives would reduce the effective average tax rate that a manufacturing firm could face by 13 percentage

points (Figure 10). The Investment Coordinating Board is promoting these incentives to investors together with regulatory reforms and faster licensing processes.

Table 5. Overview of tax incentives

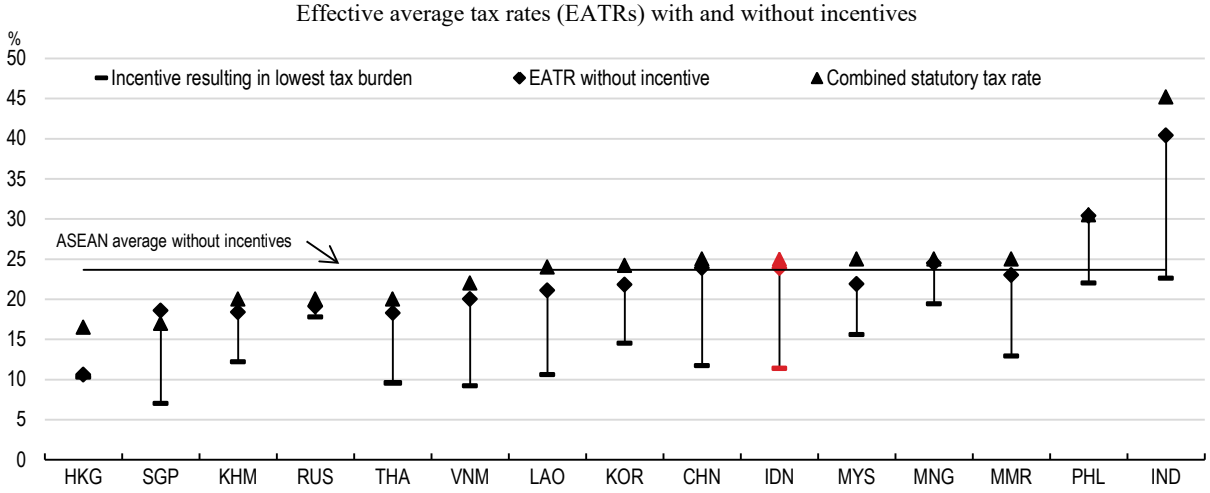
Type of incentive	Description
Tax allowance incentive	Targets new investment or expanding a current business. Eligible investments: 71 categories of business sectors and 74 other categories of industries in certain locations may qualify for the tax incentives. Industries include subsectors of agriculture, power generation, oil & gas and manufacturing. Instruments: • Accelerated depreciation and amortisation • Extended period of 10 years for the carry-forward of a tax loss (normally 5 years). • Reduced tax rate of 10% for dividends paid to non-residents (normally 20%). • Investment allowance: reduction of net income by 30% of the amount invested in land and buildings, and plant and equipment. Claimed over six years at 5% per year. Other requirements include: investment value or export orientation, labour intensity, local content and project location.
Tax holiday	Targets new taxpayers in "pioneer industries", defined as having a wide range of connections to other parts of the economy, providing additional value and high externalities, introducing new technologies, and having strategic value for the national economy. 17 industries are specified but a taxpayer may still qualify if approved by the Ministry of Finance, other relevant Ministries and the Investment Co-ordinating Board (BKPM). Industries include: upstream metal; refinery; petrochemicals; chemical industry; types of manufacturing; economic infrastructure. 100% corporate income tax holiday for 5-20 years depending on the size of the investment, with a minimum investment of minimum capital investment of IDR 500 billion (USD 34 million).
Special economic zones and other special locations	Special economic zones allow for incentives such as additional corporate income tax deductions for up to 25 years, VAT exemptions on imports of raw materials and duty-free importation. Other zones also benefit from exemptions on trade taxes and VAT and tax holidays in some cases.
Other incentives	A reduction of the withholding rate on dividends paid to non-residents to 10%. Reduced CIT rate of 20% for companies that are publicly listed (at least 40% traded). A reduced CIT rate of 12.5% for qualifying SMEs on the first IDR 4.8 billion of income. Income earned by venture capital companies in the form of profit sharing from investments in Indonesia is permanently exempt from tax (under some conditions).

Source: OECD (2018), *OECD Investment Policy Reviews: Southeast Asia*; EY (2018), *Worldwide Corporate Tax Guide*; Ministry of Finance.

International experience cautions against tax holidays and income tax exemptions, particularly for specific sectors (IMF et al., 2015; IADB, 2013; IMF, 2011). Sector- and location-specific tax incentives, particularly tax holidays, can be costly in fiscal and economic terms by eroding the revenue base, creating tax-planning opportunities, distorting competition and creating the potential for policy capture (OECD, 2018a; OECD, 2012). Other sectors and locations face a competitive disadvantage. Moreover, tax holidays are inefficient, as they do not address the non-tax related factors that are often more important determinants of investment decisions. For instance, executives cite corruption and inefficient government bureaucracy as the most problematic factors for business in Indonesia, well ahead of tax rates (7th) or tax regulations (9th) (World Economic Forum, 2017). A lack of infrastructure has also hampered investment by adding to transport costs, for example. The current incentives also impose a heavy administrative burden, even after the recent changes, for instance due to the need to monitor attached conditions.

Figure 10. Incentives substantially reduce corporate income tax bases

Effective average tax rates (EATRs) with and without incentives



Note: The effective average tax rate is based on a manufacturing firm with assets in the form of buildings, intangible assets, machinery, financial assets and inventory (20% each). Finance is from retained earnings (55%), new equity (10%) and debt (35%). The real interest rate is 5%, pre-tax real rate of return is 20% and the inflation rate is 2%.
Source: V. Wiedemann and K. Finke (2015), "Taxing investments in the Asia-Pacific region: the importance of cross-border taxation and tax incentives", *ZEW Discussion Papers*, No. 15-014.

Rethinking tax incentives could broaden the tax base and be more effective in encouraging investment. The publication in late September 2018 of detailed tax expenditure estimates for 2016-17 increases transparency and is a welcome first step in evaluating the incentives. The tax expenditure report should be published annually, as planned. Because many countries in the region offer tax holidays, Indonesia could lead a co-ordinated approach within ASEAN. It would be preferable to shift away from tax holidays to cost-based incentives (tax deductions or credits) linked to investment in capital or skills (OECD, 2018a; IMF et al., 2015). Cost-based incentives could include the planned R&D tax credit, or allowances or credits for providing workplace training or for incorporating SMEs in supply chains, as in Malaysia (OECD, 2018a). Such incentives would better target new investment by more effectively lowering the cost of capital, even when profitability is low (IMF et al., 2015). They would still require ensuring sufficient administrative capacity to oversee them.

All incentives should be monitored carefully to detect abuse and subject to a sunset clause to ensure regular reviews. Investor concerns related to the regulatory environment would be better addressed directly rather than through the tax system. The special economic zones should focus on promoting a more business-friendly regulatory and legal environment, as in the new tourism economic zones, or piloting less stringent employment regulations, as previously recommended (OECD, 2016a).

A final turnover tax was introduced in 2013 for firms with turnover up to IDR 4.8 billion (USD 323 000) to encourage formalisation and increase voluntary compliance. By 2017 the regime had attracted 1.5 million registrants, of which 205 000 were incorporated businesses and 1.3 million were individuals. While this growth is impressive, the sheer number of SMEs in Indonesia means that increasing registration remains a challenge (Table 6). The rate was initially 1% but was halved in July 2018 to further encourage formalisation. This will, however, generate windfall gains for firms that were already registered. In addition to awareness and willingness amongst businesses, take-up is

hindered by the large standard tax allowance in the personal income tax scheme which is an alternative for unincorporated micro enterprises and that many professions are excluded from the scheme. From July 2018 access to the turnover tax is limited to three years for incorporated firms and to up to seven years for individuals. Larger SMEs with turnover below IDR 50 billion (USD 3.4 million) pay half the statutory corporate income tax rate – 12.5% – on income up to IDR 4.8 billion; this smooths the transition to the standard regime somewhat.

Table 6. Micro enterprises dominate the business landscape

	Cut-off values for each category (IDR)		By number		By employment	
	Net assets (excluding premises)	Annual revenue	Thousand	% of total	Thousand	% of total
Micro enterprises	50 million	300 million	23 864	89.3	41 032	58.4
Small enterprises	500 million	2.5 billion	2 399	9.0	12 609	17.9
Medium enterprises	10 billion	50 billion	412	1.5	8 132	11.6
Large enterprises			35	0.1	8 547	12.2
Total			26 711		70 320	

Note: Data are for establishments in 2016 and exclude the agriculture, forestry and fisheries sector, government administration, defence and social security sector, and household activities as employers or own production sector. Unregistered businesses are included.
Source: Statistics Indonesia, *Economic Census 2016.*

A presumptive turnover tax has the advantage of simplifying taxation for start-ups and for small firms that have low growth prospects. But it has two drawbacks: (i) that the effective tax rate is higher for low-profit firms than their more profitable counterparts; and (ii) that any size-related incentive can reduce incentives to grow, reducing productivity (Benedek et al., 2017). In Indonesia's case, these effects are mitigated by the fact that firms can choose whether to opt into this scheme or the regular system and that there is a time limit on the scheme. Nonetheless, the threshold is high compared to those in other countries with turnover taxes, which adds to the fiscal cost of the scheme (Box 3). The threshold should be lowered so that the scheme better targets very small firms, which would also contain its cost. Estimated costs of the scheme should be included in forthcoming tax expenditure reports. The time limit will disadvantage firms that do not have the capacity to comply with the standard tax system. Micro enterprises could be allowed to remain on the simplified scheme. Firm behaviour should be monitored, particularly to ensure that firms are not being "reborn" to avoid joining the regular corporate income tax regime or bunching just below the turnover threshold.

The trade-off for registration should be improved by offering more benefits linked to registration for the turnover tax. Such benefits include further simplifying processes (for example allowing quarterly filing of tax and social security contributions) and clearly linking registration to access to additional services such as account-keeping applications and business development programmes. In Brazil, Mexico and Colombia such non-tax benefits appear to have helped increase formalisation. A more lenient approach to honest mistakes may also lower barriers to formalisation. The cross-country evidence suggests that measures to broaden the tax base to small firms are unlikely to generate substantial short-term revenue, they can form part of a longer-term strategy to encourage firms to grow (Joshi, Prichard and Heady, 2014). To further smooth firms' transition to the standard regime, all small firms could be allowed to make less frequent payments.

In Indonesia, as in many countries, the growing digital economy is challenging the effectiveness of the existing income tax system to deal with new business models. This may raise equity issues across firms if income from such models and from more conventional models are not taxed similarly. It may also lead to misalignments between the location in which profits are taxed and where value is created because of the difficulties in determining where and how much value is being created. Countries are working toward a consensus-based solution within the OECD's Inclusive Framework on Base Erosion and Profit Shifting (BEPS). Indonesia and some other countries are considering moving ahead with unilateral non-income tax measures in the interim (OECD, 2018b). However, there is no consensus in the Inclusive Framework on the need or merit of taking such action.

Box 3. Examples of simplified tax schemes from other countries

Many OECD and non-OECD countries offer simplified tax regimes to lower the burden on firms that may otherwise operate informally. Two common approaches are a lump-sum tax, which typically targets the smallest firms, or a turnover tax. The appropriate thresholds must then be determined based on the targeted group of firms. Some examples of these are:

Brazil has three presumptive tax schemes, targeted at micro, small and medium-sized businesses. A lump-sum tax is available for individuals with up to one employee and revenue below BRL 60 000 (USD 14 000). This replaces other taxes and contributions and offers other benefits including social security. At the other end, a turnover-based scheme with rates varying by sector (an indicator of profit margins) is available for firms with turnover up to BRL 78 million (USD 19 million).

Hungary has a lump-sum scheme for very small self-employed taxpayers with revenue up to HUF 8 million (USD 29 000). This replaces income taxes and social security contributions. Firms with turnover below HUF 30 million (USD 107 000) can calculate taxable income as 37% of turnover. This replaces value-added tax and income taxes. Firms with up to 25 employees and both turnover and assets below 500 million (USD 1.8 million) may pay a reduced tax rate of 13% of the tax base, which is based on cash-flow profit and increased by staff costs.

Italy has a turnover tax for businesses with revenue thresholds varying by sector, from EUR 15 000 (for professionals) to EUR 40 000 (for trade and hospitality) (USD 17 000 to 46 000). This replaces all other taxes for businesses.

Source: A. Thomas et al. (2017), "Taxation and investment in India", *OECD Economics Department Working Papers,* No. 1397, OECD Publishing, Paris; OECD (2015), *Taxation of SMEs in OECD and G20 Countries*, OECD Publishing, Paris.

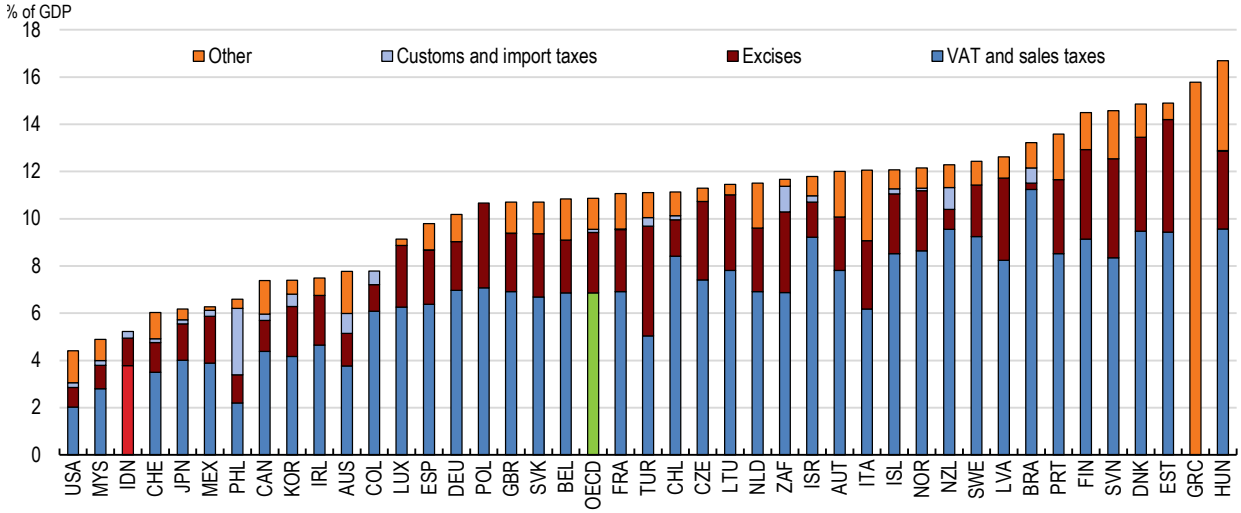
The Inclusive Framework on BEPS Interim Report on tax challenges arising from digitalisation includes guidance on design principles that need to be taken into account by countries considering taking immediate unilateral measures, such as Indonesia's planned tax on some e-services. These principles include that the measure should be temporary and targeted and should minimise over-taxation, compliance burdens and the effect on start-ups (OECD, 2018b). To ensure fair treatment of firms (and also employees) that earn income through online platforms, the authorities could follow the examples of Estonia, Finland, Mexico and Ecuador, where governments have worked with platforms to obtain access to their data (*ibid.*).

More generally some international tax challenges, including base erosion and profit shifting, are of particular concern in emerging economies, where corporate income tax is a more important revenue source (Thomas et al., 2017). Indonesia has committed to implementing the minimum standards of the Inclusive Framework on BEPS. This is a key step in the fight against cross-border tax planning and will help to level the playing field between domestic and multinational firms (OECD, 2018b). Incorporating more measures from the Inclusive Framework on BEPS could yield substantial benefits (IMF, 2017). But more broadly, the complicated and intricate nature of cross-border taxation means that building up core teams of highly skilled staff is crucial, both in tax policy-making and administration. A transfer pricing taskforce was established to work on policy, but a unit could be established in the tax administration. The Tax Reform Team could conduct a study of international taxation. Given the complexity of the topic, an OECD study may be helpful.

Taxes on goods and services have further potential

Taxes on goods and services are the largest source of revenue – raising almost 5% of GDP in 2016 – but their GDP share is only half that of other emerging-market and OECD countries (Figure 11). This is partly because value-added tax, the most important, raises a small amount of revenue relative to most other countries. Excise taxes are the next largest type. As in many emerging economies, trade taxes are not negligible; Indonesia levies import tariffs as well as export taxes on some unprocessed commodities. There is also a luxury goods sales tax of 10-125% depending on the product, but it raises little revenue (0.2% of GDP). Revenues from local government taxes on goods and services totalled around 0.5% of GDP in 2016, primarily due to motor fuel and cigarette tax at the provincial level and district and municipal taxes on restaurant and hotel sales and on electricity consumption ("street-lighting tax").

Figure 11. Goods and services tax revenues are low and rely on value-added tax



Note: Data are for 2016 or latest available year. The VAT for Indonesia includes the luxury goods sales tax, but this is just 3% of the VAT amount shown. Other taxes include taxes on exports, investment goods, specific services and the use of goods.
Source: OECD, *Revenue Statistics Database, OECD Economic Outlook Database*; Ministry of Finance; OECD calculations.

A more efficient value-added tax would raise more revenue

Indonesia's VAT has only two rates: (i) 10% applied to domestic supplies of goods and services and imports of goods and certain services, and (ii) 0% applied to exports of goods and certain services. By comparison, the OECD average standard rate is 19%, but countries with high rates typically have reduced rates on some goods and services, which aim to increase equity but in fact create distortions. A zero rating on exports is in line with the destination-based principle of VAT (although in other countries a wider range of services have a zero rating than is the case in Indonesia).

Despite having a single standard rate, the design of the VAT is relatively complicated. There are numerous exemptions (that remove the right to deduct input tax), which limit its efficiency and add to its compliance costs. Exemptions include:

- "basic necessities" (rice and some other grains, corn, table salt, soybean, meat, eggs, milk, fruit, vegetables, sago, tubers, sugar and spices);
- financial and insurance services (fundraising, mortgages, insurance, money orders);
- social-type services (education services, medical services, orphanages, funerals, religious services, public transport, public services, postal services);
- "strategic goods" (plant machinery and equipment, livestock, poultry, fish feed, seeds, clean piped water, low-wattage electricity);
- services for which there are local government sales taxes (entertainment, restaurants, hotels, parking);
- goods and services delivered inside free-trade areas;
- other goods and services such as: money and valuable documents; coal, oil and other raw mining or drilling products; catering services; and services supplied to local shipping companies.

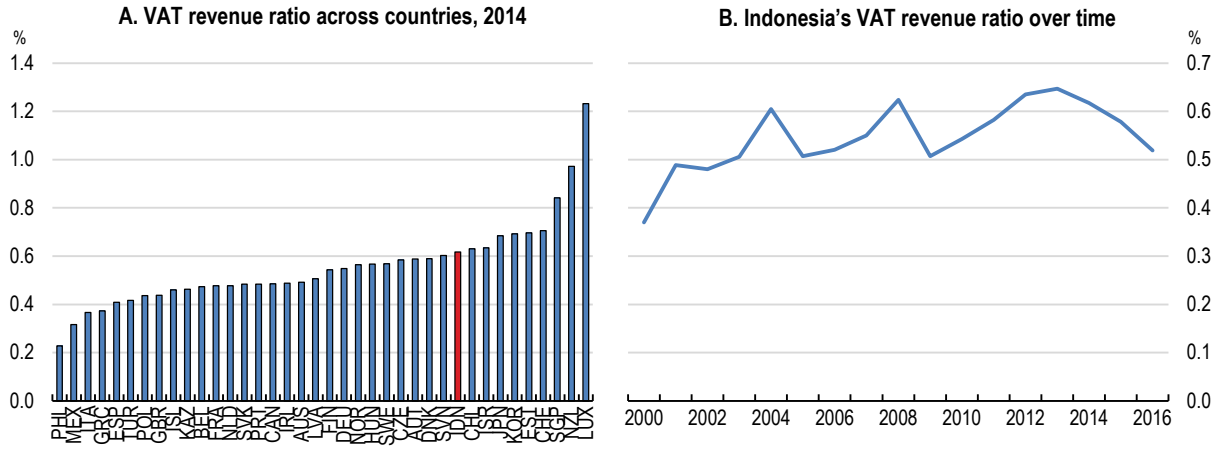
While many countries exempt financial and insurance services and meritorious services like education and health care from VAT, the application of exemptions in Indonesia is particularly broad. Not only do exemptions narrow the tax base but they also weaken the self-enforcement mechanism of the VAT, because customers of VAT-exempt suppliers of goods or services cannot claim back VAT paid on their inputs, which reduces their incentive to demand compliance from their suppliers. Exemptions on intermediate inputs generate distortions, because non-deducted tax is passed on at each step of the supply chain ("cascading") (OECD, 2016b). In terms of revenues, this leads to overpayment of VAT, which may slightly offset the losses from the exemptions on final consumption (by 0.1% according to IMF estimates) (IMF, 2017). But because exemptions also indirectly reduce revenue by weakening compliance, the net revenue effect of reducing exemptions could be positive overall.

One way of assessing the VAT is to compare revenue collected to potential revenue. By this measure – the VAT Revenue Ratio – Indonesia's performance was above the median of OECD and other Asian economies in 2014, although it has fallen since (Figure 12). This measure is an approximation; overpayment due to exemptions on intermediate consumption and difficulties in obtaining refunds discussed above inflate the revenue ratio. With more detailed data on consumption and tax expenditures this recent decline could be apportioned to: (i) reduced compliance; (ii) policy changes; and (iii) changes in consumption patterns; or (iv) changes in VAT refund policy on exported goods and services.

One factor behind the decline is the eight-fold increase in the turnover threshold for VAT registration and collection in 2014 to IDR 4.8 billion, which considerably reduced the

number of firms covered by the VAT (IMF, 2018). The expansion of exemptions to include "strategic goods" has also likely played a role. So has the decline in the international oil price: the VAT revenue ratio is strongly correlated with the US dollar oil price, which is consistent with the link between oil prices and import VAT highlighted by World Bank (2017b) but also implying that an improvement is likely in 2018. National accounts data suggest that shifts in consumption towards goods taxed at lower rates do not explain the decrease.

Figure 12. The performance of the VAT is reasonable but has deteriorated



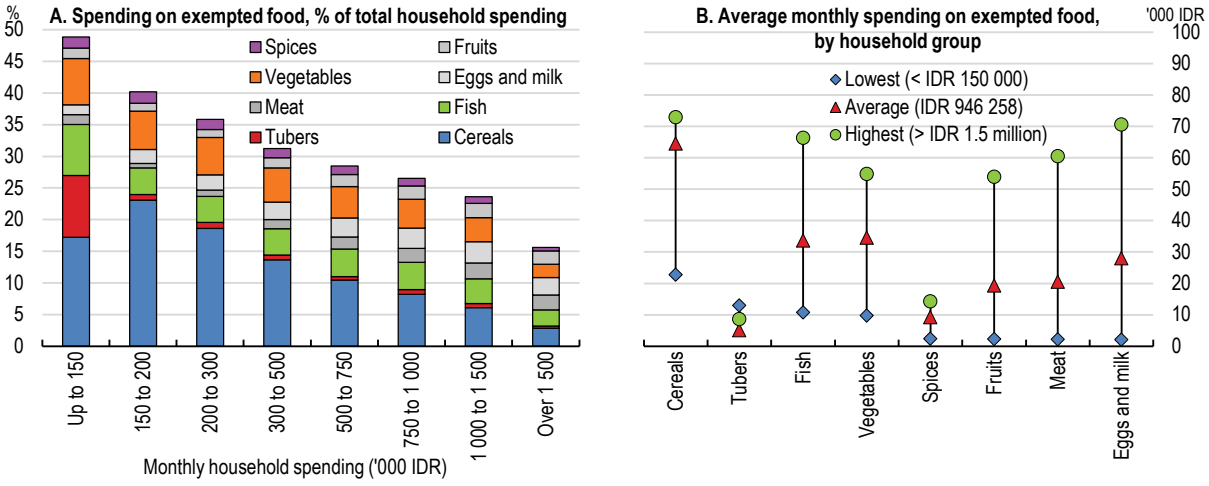
Note: The VAT revenue ratio is calculated as the ratio of VAT revenues collected to the potential tax base (total consumption less VAT revenues multiplied by the standard VAT rate).
Source: OECD (2016), *Consumption Tax Trends*; OECD (2017), *Revenue Statistics in Asian Countries: Trends in Indonesia, Japan, Kazakhstan, Korea, Malaysia, the Philippines and Singapore*; OECD, *OECD Economic Outlook Database*; Directorate General of Taxes (2017), *Laporan Tahunan 2016* [Annual Report 2016]; OECD calculations.

The near-term priority is to broaden the VAT base by removing exemptions and lowering the threshold for VAT registration. Such changes would harness the efficiency of the VAT and raise more revenue without increasing the rate. The VAT exemptions for strategic goods and other intermediate inputs are not an effective or efficient way of raising investment. However, the exemptions on basic food necessities appear reasonably well targeted. Expenditure data (from Susenas) show that poorer households spend a larger share of their budgets on items such as cereals and tubers than the better-off (Figure 1.13). However, affluent households spend much more on meat, suggesting that this particular tax exemption is regressive. Overall, the expenditure pattern for "basic necessities" is consistent with research that finds that Indonesia's VAT has a broadly neutral distributional effect (Jellema, Wai-Poi and Afkar, 2017). Imposing a reduced VAT rate, or even a 0% rate, on necessities would be a "second best" way of supporting low-income households until coverage of social protection systems is more complete (OECD/KIPF, 2014). It would also create incentives for VAT compliance, because input tax credits could be claimed. The definition of basic necessities could be narrowed (for example, excluding meat), but this may be difficult in practice.

Making restaurant, hotel, entertainment and parking expenditure subject to VAT rather than sales tax would improve efficiency and may increase overall revenue through better compliance, even though VAT on inputs could be deducted. Over 90% of local governments now impose hotel and restaurant tax, but the proceeds are modest compared

to consumer spending, suggesting that compliance is low. In 2016 revenues were the equivalent of 1.2% of consumer spending on hotels and restaurants (based on national accounts data), which was barely changed from 2010 (1.1%). Replacing these taxes with VAT would strengthen compliance by creating an incentive for hotels and restaurants to pay tax. It could therefore increase overall revenues. Transfers to local governments could be increased to compensate for lost revenue from the removal of sales taxes. Local governments could also be allowed to supplement their revenue with a small occupancy (accommodation) tax, as proposed in Ollivaud (2019) to incentivise them to encourage tourism. Compliance costs associated with switching to VAT (and e-invoicing) would be mitigated by the VAT registration threshold, but a transition period could also be allowed.

Figure 13. VAT exemptions for food generally benefit poorer households



Note: Data are for 2016. Salt and soybeans are also exempt from VAT but are not shown here. In Panel B food items are ordered by the spending of the poorest households.
Source: Statistics Indonesia.

As elsewhere, there are concerns that digitalisation and the growth of international e-commerce are eroding the VAT base. Over the last decade e-commerce transactions are estimated to have grown by 17% annually (The Jakarta Post, 2018). While they are only 1.3% of household consumption, further rapid growth is expected (*ibid*). Indonesia currently uses a reverse-charge mechanism, in line with the OECD's *International VAT/GST Guidelines*, for business-to-business transactions in services and intangibles. However, business-to-consumer transactions have proved more difficult to capture. The OECD's *Guidelines* point to ways of taxing such transactions. Such measures are usually supported by simplified supplier registration. These measures have boosted VAT revenues where they have been implemented: for instance, South Africa collected ZAR 585 billion USD 39 million) through these measures (OECD, 2018b). The 2015 BEPS Action 1 Report outlines options to facilitate collection of VAT on the importation of low-value goods via online sales (OECD, 2015b). In addition to levelling the playing field with other retailers, the revenue gains could be sizeable.

Lowering the threshold for VAT registration would strengthen the self-reinforcing nature of the VAT. The turnover threshold of IDR 4.8 billion is around USD 323 000 at market exchange rates, or USD 1.1 million at 2017 purchasing power-adjusted exchange rates. This threshold is well above those applied in OECD countries (which range from zero in Chile and Mexico to USD 119 000 in the United Kingdom). It is also well above the

USD 100 000 that is typically prescribed to leave firms who are unable to keep adequate accounts outside the VAT system (IMF, 2011). Broadening the VAT base by lowering the threshold could also reduce the risk of "bad" VAT chains forming, whereby firms have incentives to buy inputs from other vendors outside of the system (de Paula and Scheinkman, 2007). Evidence from Chile shows that the self-enforcing mechanism of VAT is important up the VAT chain (Pomeranz, 2015). Small businesses in upstream industries (e.g. manufacturing and wholesale trade) in the Indian state of Karnataka were found to be willing to bear an administrative cost of 1% of turnover to be part of the VAT regime rather than the simplified turnover tax regime (Rios and Seetharam, 2017).

A combination of changes that lifted the efficiency of the VAT by 13 percentage points (equivalent to raising the VAT Revenue Ratio to its 2013 level) would have increased VAT collection in 2016 by IDR 100 trillion, or 0.8% of GDP. Some estimates of revenue forgone due to exemptions and zero-rated goods and services have recently been published. They should continue to be improved and expanded to assist policymakers in evaluating VAT performance in coming years. After the design of the tax regime is made more efficient, further revenue could be raised by increasing the VAT rate. Assuming the same performance as in 2016, a 1 percentage point increase would have raised an additional IDR 41 trillion – 0.3% of 2016 GDP. The effect of the VAT increase on poor households could be mitigated using existing cash or non-cash transfers.

Higher excise taxes can raise revenue and improve health outcomes

As in most OECD countries Indonesia is increasingly using excise taxes to influence consumer behaviour to achieve health outcomes as well as raise revenue. Almost all excise collected is from tobacco tax (1.2% of GDP in 2016). Local governments may also impose tobacco tax, although the rate is capped; such revenues amount to around 0.1% of GDP. Revenue from alcohol excise tax is comparatively low, at 0.04% of GDP, reflecting low consumption (OECD, 2017d). Both alcohol and tobacco are also subject to import duties. Empirical research based on OECD countries suggests that there is no growth penalty of excise tax (Akgun, Cournède and Fournier, 2017). This may result from the relatively inelastic tax base, which makes the tax efficient. The distributional impact depends on consumption patterns but is mitigated by the distribution of health costs, which are often higher for poorer individuals as well.

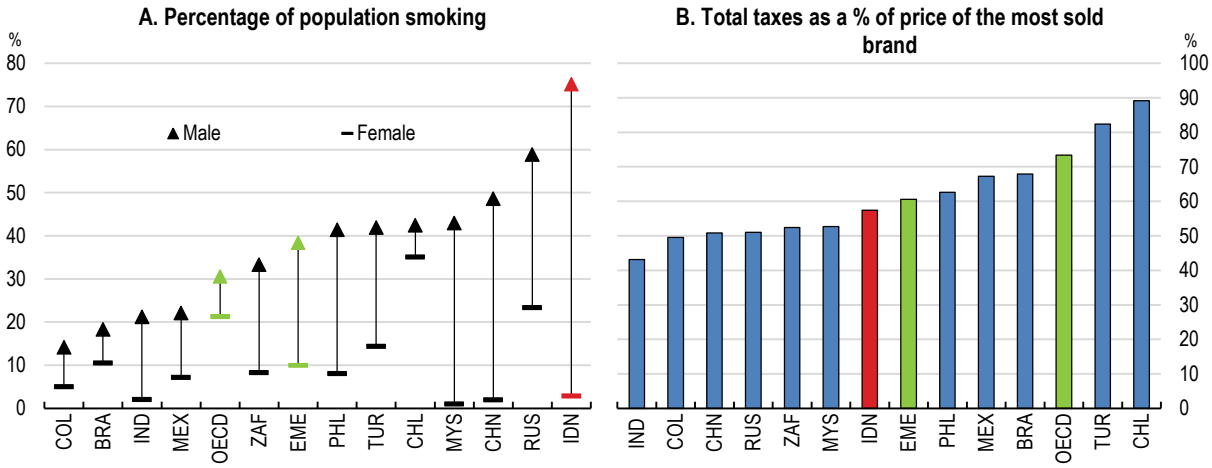
There is a strong case to increase the taxation of tobacco. Indonesia has one of the highest rates of smoking and tobacco use – three-quarters of men smoke, though few women do – and is one of the few countries where rates of smoking have increased in the past decade (Figure 14, Panel A) (OECD, 2017d). Moreover, taxation has proved to be a cost-effective means of reducing smoking (WHO, 2017). Indonesia's tax rates are still below the World Health Organisation's recommended level of 70% of the retail price and other countries' rates (Panel B). The number of levels in the excise structure was reduced from 12 to 10, but it should be simplified further, as planned, to limit substitution across products and tax avoidance more generally. Tobacco tax appears less regressive than may be expected: spending on tobacco and betel accounted for a lower share of the poorest households' budgets (5% for those spending less than USD 48 PPP-adjusted monthly), than for households with incomes of USD 119-239 PPP-adjusted (9%). Tobacco excise increased by 10% on 1 January 2018, but the rate could be raised further. Providing a predictable path for excise would help farmers to adjust.

The government is considering implementing a sugar tax, which is an increasingly common tool to fight obesity in OECD and emerging economies, including Hungary and Mexico

(OECD, 2017e; OECD, 2018c). Indonesia's obesity rates are still comparatively low (at 5% for men) (OECD, 2017d). But the incidence of being overweight or obese has almost doubled over two decades to one-quarter in 2014 (Aizawa and Helble, 2016). The incidence of diabetes and other non-communicable diseases linked to lifestyle are rising (Fountaine et al., 2016). Stronger preventative action is needed to contain future human, economic and fiscal costs. Policy tools include regulatory measures, education, voluntary initiatives with agreed targets and taxes that increase the price of these goods (Sassi, 2016).

A simple tax on sugar-sweetened beverages could reduce consumption of taxed products and, if the tax is sufficiently high, can have positive health outcomes (Thavorncharoensap, 2017). Studies from Mexico's tax on sweetened beverages shows a correlation with lower consumption when healthier untaxed alternatives were available (OECD, 2018c). Lower socio-economic groups would likely experience greater health improvements (Sassi et al., 2014). The soft drink market (excluding consumption at restaurants and hotels) was estimated at 0.8% of GDP in 2015, implying that a 20% tax would raise around 0.2% of GDP in revenues (but less to the extent that consumption falls or producers reduce the sugar content of their drinks).

Figure 14. Tobacco use is high, and taxes are relatively low



Note: "EME" is an unweighted average of the emerging market economies shown. Data in Panel A are for 2015 and in Panel B for 2016.
Source: World Health Organisation (2017), *WHO Report on the Global Tobacco Epidemic 2017*, Appendix IX and X.

Well-designed environmental tax reform could work toward several goals

Environmentally related tax revenue is relatively low in Indonesia. OECD estimates suggest that it is equivalent to less than 1% of GDP, compared to an average of 2.3% across OECD and non-OECD economies. Revenue is mostly from sub-national government taxes on motor vehicles (around 0.5% of GDP), in contrast to most countries where taxes on transport fuels are the largest source. As Indonesia's economy grows, environmental pressures will intensify. By increasing the price of pollution or of other negative environmental externalities, taxes and charges can reduce their production in a cost-effective way by creating incentives for behavioural change, as well as raising revenues (OECD, 2017f).

Air pollution is already an environmental and health challenge, with three-quarters of Indonesia's population exposed to pollution levels above World Health Organisation

guidelines ($PM_{2.5}$ concentrations). Exposure to particulate matter and ozone is projected to cause around 115 000 premature Indonesian deaths annually by 2060 (OECD, 2016c). According to OECD estimates accounting for direct and indirect effects, air pollution could lower annual GDP by 0.8% in 2060 (*ibid*). Likewise water pollution and waste are growing (OECD, 2016d; OECD, 2014). To address the threat of climate change the government has committed to lowering greenhouse gas emissions by 29% by 2030 compared to "business as usual", which will require bold measures. There is scope to use existing taxes more effectively to address these challenges, as well as to introduce new taxes and charges.

Motor vehicle taxes are paid at the time of purchase as well as annually. They include luxury goods sales tax, transfer fees and annual registration fees (Table 7). The government has started incorporating environmental objectives into the design of these taxes. In 2013 it lowered the rate of luxury goods sales tax for "low-cost green cars" (with small engines and minimum fuel efficiency) that meet local-content requirements. But focusing on fuel efficiency (or CO_2 emissions) can favour diesel cars, which often emit more air pollutants. Moreover, higher rates on imported vehicles (including hybrids and electric vehicles), along with import tariffs, mean that environmental and industry protection objectives are working at cross purposes. The Ministry of Finance and the World Bank estimate that aligning motor vehicle taxes better with negative environmental externalities by converting the luxury goods sales tax on vehicles to a specific tax and changing the rates according to environmental impacts could raise the equivalent of 0.6% of GDP (World Bank, 2018). This would also reduce opportunities for tax avoidance (due to the current structure).

Annual registration fees vary with the assessed value of the car. In Jakarta there is a 0.5% surcharge for each additional car after an individual's first car to deter car ownership and an additional charge for SUVs. Using the car's assessed value as the tax base means that the tax declines over time, discouraging fleet renewal. Converting the tax to a flat tax that varies based on car types and their emissions would provide a more effective signal. For instance, it could be based on cylinder volume (which would exempt electric cars and provide a reduction for hybrids). Higher fees could be charged for additional cars, as in Jakarta.

Tax rates on energy and associated CO_2 emissions, and associated revenues, are among the lowest across OECD and G20 countries (OECD, 2018d). There is no fuel excise tax at the national level and only a low tax at the provincial level, which is charged on fuel for road transport and capped to maintain competitiveness. There is also a small sub-national electricity tax ("street lighting tax") with a capped rate. Indonesia has made important progress in reducing energy subsidies, which is a first step towards better pricing of the externalities associated with its use, including carbon emissions. But subsidies for production and consumption, price caps and tax exemptions still serve to lower the relative price of energy. Because of the close link between the carbon content of fuels and the associated CO_2 emissions, higher fuel taxes would be an efficient tool to reduce these emissions. In the near term the cap for regional governments could be raised. Coverage could eventually be extended to off-road fuel usage, taking into account effect on poorer households. Congestion charges or distance-based driving charges are efficient tools for addressing other driving-related externalities like congestion, air pollution and road damage (van Dender, forthcoming).

Table 7. Key environmentally related taxes

Tax	Tax base	Level of government with the taxing power	Revenue sharing across government (central/regional/local)	Maximum tax rate allowed	2016 revenue as % of GDP
Vehicles					
Motor vehicle taxes (annual registration fee, transfers)	Vehicle value	Province	0 / 70 / 30	5% for annual registration fee, 10% for transfers	0.52
Luxury goods sales tax	Vehicle value	Central	n.a.	200%	0.01
Energy use					
Motor vehicle fuel tax	Fuel consumption excluding VAT	Province	0 / 30 / 70	5%, 7% in some regions	0.13
Street lighting tax	Electricity consumption, excluding VAT	Local		1.5% for self-produced, 3% for industry, 10% for households	0.08
Other					
Surface and ground water extraction taxes	Water consumption	Province	0 / 30 / 70	10% and 20%	0.01
Parking tax	Parking fees	Local		30%	0.01
Swallows nest tax		Local			0.00

Note: Import tariffs on motor vehicles are not included.
Source: A. Nasution (2016), "Government decentralization program in Indonesia", *ADBI Working Paper Series*, No. 601; L. Hakim, (2016), Pajak *Daerah - Pajak Penerangan Jalan (Regional Tax and Regional Levies: Local Taxes - Street Lighting Tax)*, http://padjakdaerah.blogspot.com/2016/04/pajak-penerangan-pajak.html; Ministry of Finance; OECD calculations.

As proposed in the 2012 OECD *Economic Survey*, a carbon tax could be introduced to ensure prices better reflect climate-change-related externalities and help put Indonesia on a low-carbon growth path. Although the government began considering a carbon tax in 2009, there has been little progress since. Meanwhile, numerous emerging market economies have introduced a carbon prices, including Mexico, Chile and Colombia and others, such as South Africa and Thailand, plan to. Introducing a carbon tax at a modest level initially, scaling up over time, could help overcome resistance to the tax and allow firms to adjust. To be effective and efficient, the tax should ideally apply a uniform marginal rate across all sources of emissions, particularly within the same sector. Competitiveness concerns are mitigated by the growing threat of border taxes and the rising number of countries levying carbon taxes. Acting sooner, while the economy is less carbon-intensive, would help reduce the carbon intensity of Indonesia's growth at lower cost. Recent OECD research suggests that income-related transfers are the most efficient tool to address energy affordability concerns (Flues and van Dender, 2017). Accordingly, a combination of current social assistance programmes and income tax credits could be used.

There is scope to broaden taxation of other environmental "bads" to simultaneously reduce harmful behaviour and raise revenue. Because many environmental externalities are local (e.g. water pollution), these could be sub-national taxes. Poorer local populations would likely benefit disproportionately from lower pollution. Environmentally related taxes could include taxes on plastic bags, chemicals (especially pesticides) and waste, such as tyres, in line with the polluter-pays principle. Indeed, the 2018 national budget proposed a plastic bag tax, which could raise around IDR 1.9 trillion; although this is equivalent to only 0.01% of GDP it could mitigate the growing problem of plastic marine pollution, which has propelled Indonesia to be the world's second-largest marine polluter (Jambeck et al., 2015). Such reforms should be reinforced by regulatory measures and complemented with

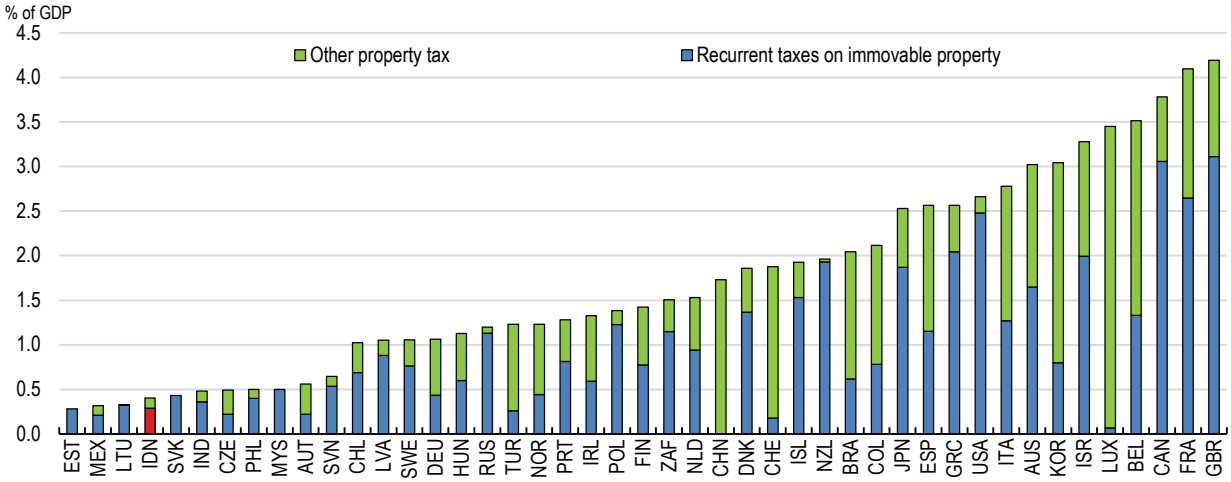
increased enforcement (OECD, 2005). Enforcement of existing taxes should be stepped up. The Jakarta government is increasing enforcement of water abstraction fees, which will also bring lessons for other governments. Fees for wastewater could also be charged but would need to be well regulated. The relationship between taxation, regulation and enforcement underscores the importance of involving environmental authorities in planning the expansion of environmentally related taxes.

Property tax is currently low

Property taxes raise around 3.5% of tax revenue (0.4% of GDP), well below other countries' shares (Figure 15). Recurrent taxes on immovable property account for around three-quarters of property tax revenue, but, unlike many other countries, they come mostly from taxes on plantations, mining and forestry properties, and are collected by the central government. Following devolution of responsibilities over 2009-13, local governments levy recurrent taxes on urban and rural land and buildings and transfer taxes on motor vehicles and real estate. These taxes each raise revenue equivalent to 0.1% of GDP, or around one quarter of total district and municipality tax revenues.

The low level of revenues from property taxation suggests that there is considerable unexploited potential to increase revenues, particularly given the empirical evidence that some types of property tax are less harmful for growth than taxes on incomes or consumption (Akgun, Cournède and Fournier, 2017; Blöchliger, 2015; Acosta-Ormaechea and Yoo, 2012). In particular, recurrent taxes on immovable property are considered least distortionary, whereas transaction taxes deter households from moving to another location for work, for example, or individuals or firms from reallocating assets to their most valuable use (Arnold et al., 2011). Property taxes can also help address high levels of wealth inequality: the wealthiest 1% of Indonesian households are estimated to hold 45% of total wealth (Credit Suisse, 2017).

Figure 15. Revenue from property tax is low in Indonesia



Note: Data are for 2016 or latest. Data for Indonesia are from national sources. Data for China, India and Russia are for 2009, 2009-10 and 2010, respectively and taken from Prakash (2013).
Source: OECD, *Revenue Statistics Database*; Ministry of Finance; P. Prakash (2013), "Property taxes across G20 countries: can India get it right?", *Oxfam India Working Papers Series*, XV, January; OECD calculations.

Recurrent taxes on immovable property are underused

For recurrent taxes levied on land and buildings which are the responsibility of sub-national governments, the tax is typically levied at low and progressive rates. But their application appears heterogeneous. National legislation sets a minimum exemption of IDR 10 million (USD 673) and a maximum rate of 0.3% on the taxable value. This cap limits the revenue that can be raised in some areas. But local property taxes have also been found to be far below their revenue-maximising level given current legislation (von Haldenwang et al., 2015). There are strong arguments for raising more revenue from recurrent tax on immovable property by increasing the cap on tax rates: it can in principle raise additional revenues for local governments in an economically efficient way, and increase local government accountability; moreover, evasion is difficult. Allowing a higher rate would also mitigate the incentive for governments to inflate property values to raise additional revenues. With 88% of Indonesians' wealth held in real, rather than financial, assets according to Credit Suisse (2017), greater use of this tax would also be progressive.

Updating property registers and establishing systems for fair and predictable valuations would lay the foundation for higher rates but to do this, local governments still need more support. Because there is no national cadastre, the property tax registers are at the local level. But when taxing powers were decentralised and the register transferred to local governments, the valuations and taxpayer information in the register were out of date (von Haldenwang et al., 2015). This means that even though regulations prescribe that valuations be undertaken every three years with a mass valuation method, there are likely to be many errors in the records. Moreover, in rural areas where property rights are less clear, raising taxes may be difficult. Smaller districts also appear more likely to struggle to manage arrears than larger districts (von Haldenwang et al., 2015). This can make the administrative costs of the tax outweigh the benefits and may explain why some governments appear unwilling to raise taxes (*ibid.*).

The central government already provides support to local governments and shares information from geographic information systems with them. Nonetheless, given the potential importance of the tax for local governments, the central or provincial governments should ramp up assistance so that it can be implemented well and rates can be raised. In particular local government staff need more training in using and updating their IT systems, updating business processes and improving client relations. Provincial governments could facilitate sharing of good practices and troubleshooting across local authorities. Local governments could be encouraged to use property taxes by offering matching grants and ensuring that the transfer formula does not penalise jurisdictions that enhance their revenue-raising capacity, as recommended in the previous *Survey* (OECD, 2016a).

Ensuring the tax is fair and linking it to better local services can improve its acceptance (Blöchliger, 2015). Appropriate exemptions or allowances can ensure that poor households are excluded from the tax. Many local governments appear do not appear to apply thresholds above the IDR 10 million minimum (von Haldenwang et al., 2015). It is possible to apply for tax relief due to individual circumstances, but the most vulnerable households, such as welfare recipients, could be explicitly exempted. Low-income older households could be allowed to defer their debt so that it is only payable when the property is sold (Blöchliger, 2015). In the South African City of Johannesburg there are rebates for pensioners, those below the poverty line and those temporarily without income (OECD, 2015c).

Transaction taxes are a significant local government tax

Transaction taxes on real estate and motor vehicle transfers raise one-quarter of district and municipal governments' tax revenues. A maximum rate of 5% may be charged on land and building transfers, payable by the purchaser, although some local governments, such as the city of Jakarta, have lowered this to stimulate development. There is also a central-government transaction tax of 0.1% of the value of listed shares when sold. Transaction taxes are common in emerging-market economies because they are easy to administer and perceived to affect wealthy households more than the poor. But because transaction taxes deter people from moving to take advantage of better opportunities and the reallocation of assets to more valuable uses, they should be phased out as other revenues increase.

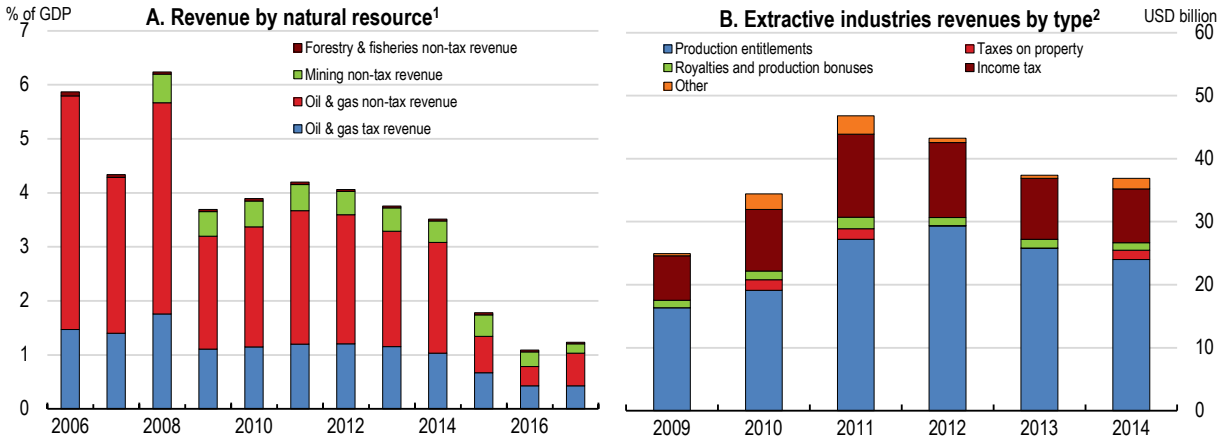
Although there are taxes on asset transactions, there is no inheritance or gift tax. Since 2016 some local governments, including Jakarta's, ruled that transfers of land and buildings through inheritance to direct relatives are no longer subject to the 5% local government transfer tax. This benefit should be reconsidered as it disproportionately benefits wealthy households.

Better management of natural resources could raise related revenues

Indonesia's large and diverse natural resource wealth is a source of tax and non-tax revenue, as well as growth, employment and environmental services. In 2015 Indonesia produced 6% of the world's coal output, 2% of its gas and 1% of its oil (International Energy Agency, 2017). It is also the world's second-largest producer of fish, crustaceans and aquatic plants (OECD, 2017h). With 48% of its land forested – representing 2% of the world's forests – Indonesia is major timber producer as well as an important carbon sink. It is also the top producer of crude palm oil and has the largest geothermal energy potential. Mining, oil and gas contribute 7% of gross value-added. The government raises revenues by developing the resources itself or selling rights to do so. Under the Constitution, resources are under the power of the state; for decades the central government controlled access and retained the revenue that assets generated, but since the decentralisation of the early 2000s sub-national governments have received a larger share and received revenue-raising powers for some resources (Nasution, 2016).

Government revenues from natural resources had been sizeable before they collapsed over the past decade (Figure 16, Panel A). Most revenue is raised from crude oil via production-sharing contracts, which is common in the petroleum sector, but income tax is also significant (Panel B). A combination of the sharp oil price fall during 2014 and 2015 and an unattractive fiscal regime has weighed on activity and revenue (OECD, 2015d). Likewise, revenues from the gas industry have fallen dramatically. Mining is the next-largest source of revenue, with royalties usually being used as an alternative to production-sharing contracts. There are also a number of state-owned mining companies. Other revenue instruments include: the reforestation fund; levies on resource extraction; permits and concessions (in forestry); and levies and cost recovery (for fisheries). There are also export taxes on some raw materials. Each sector pays income taxes and recurrent property taxes calculated using the value of the land as well as production. Some of the revenues, such as from property tax on land and structures related to oil and gas, mining, forestry and plantations, are shared with local governments, while mining royalties for non-metallic and rock minerals are levied by local governments directly.

Figure 16. Revenues from natural resources



1. Tax revenues shown comprise income tax and property tax.
2. Data are the aggregates of reconciled company data published by the Extractive Industries Transparency Initiative.
Source: CEIC; Ministry of Finance; Directorate General of Taxes, Annual Reports; Extractive Industries Transparency Initiative; OECD calculations.

The fiscal regimes for oil and gas and mining have been overhauled in recent years. In oil and gas the government has switched from a cost-recovery method to a new "gross-split" scheme whereby production is split with the government based on a pre-determined percentage. The aim is to boost exploration in the oil sector, which has been depressed by uncertainty and the previous unattractive fiscal regime (OECD, 2015d; OECD, 2012). The gross-split system aims to provide more certainty for investors and removes the incentive for producers to inflate costs (as under a cost-recovery method). Nonetheless, the regime still involves challenges, particularly setting the split at a sufficiently attractive level. After the first bidding round for exploration tracts in 2017 saw no investor interest, the government responded with more favourable terms that led to a more successful later round. Another round is underway and will be an added test of the new regime.

A new fiscal regime for mining became effective in 2014, replacing the "Contract of Work" system, which was a contract between the government and a foreign mining company setting out the latter's rights (including the automatic right to exploit a deposit following its discovery) and obligations (OECD, 2015d). The new mining business licences (*Izin Usaha Pertambangan*, or IUPs) impose obligations to add value to raw materials through onshore processing as well as partial divestment. Exports of raw materials were initially restricted, but this was scaled back. Royalty rates are 2-7% of revenue depending on the mineral but may be changed by the government. The regime and subsequent amendments have generated considerable uncertainty, hurt exports and further reduced incentives to undertake exploration activity (Sullivan, 2017).

Economic theory points to the benefits of taxing economic rents rather than output (either value or volume) as a way of ensuring that the country benefits from windfall gains when commodity prices rise while maintaining incentives to invest. However, the design and implementation of a profit-based tax on resource rents often proves difficult in practice. Instead, countries often opt for royalty (output-based) regimes or state participation. Previous *Surveys* have recommended shifting towards greater taxation of resource rents (OECD, 2015d, 2012). In the near term, however, there is little government appetite to change the fiscal regimes for extractive industries. But the government should work with

mining firms to reduce uncertainty and some of the new costs. The Corruption Eradication Commission (KPK) (2015) argues that forest royalty rates are too low to capture economic rents and "provide implicit incentives for unsustainable forest management". These should be raised. The government plans to improve fisheries management through quotas, capacity rules and multi-stakeholder institutions managing 11 maritime areas. Giving well-defined rights to the resource creates incentives to reduce costs, rather than maximise the catch, and is therefore more sustainable (OECD, 2017h).

Governance problems including insufficient enforcement and unclear property rights hamper effective resource management and revenue collection. Illegal extraction weighs on revenues as well as generating environmental costs. For instance, KPK (2015) estimates that forestry revenues were only one-quarter to one-third of their correct value over 2003-14. Moreover, land clearing and higher timber prices drove up the value of lost revenue due to unreported timber production to USD 5-7 billion in 2013 (at current exchange rates) (*ibid*). Illegal fishing has depleted fish stocks (OECD, 2014). Likewise, illegal mining generates environmental costs through poorer environmental management and failure to rehabilitate the land afterwards (OECD, 2015d). The government has stepped up its fight against illegal (and unregulated and unreported) fishing and timber production since 2014. It has banned transhipment at sea, required all large boats (over 30 gross tonnes) to use vessel-monitoring systems, initiated a controversial campaign of sinking illegal (foreign) boats, and, in 2015, doubled the budget of the Ministry of Marine Affairs and Fisheries (OECD, 2017h). The crackdown has reportedly added to revenues. Technology should be used more in monitoring, law enforcement and inter-agency co-operation.

Property rights for resources are still not clearly allocated. Only 35% of the country is covered by the cadastre and the geospatial data are not co-ordinated (Design, 2017). For example, 89% of Indonesia's forests were under no regulation or permit in 2015 (OECD, 2015d). Conflicting maps are a common cause of land disputes, including when different government agencies grant competing rights in overlapping jurisdictions (MacDonald, 2017). The government's "One Map" initiative aims to create a single map for all of Indonesia's forests to clarify landholdings. Base maps to which thematic maps will be overlaid are now freely available online, but consolidation of overlapping property rights and therefore achieving a definitive map of property rights has been slow. Co-operation across institutions should be stepped up to meet the 2019 target completion date.

Stronger law enforcement and clearer property rights are also needed to fight corruption. Indonesia's participation in the Extractive Industries Transparency Initiative (EITI) is driving governance improvements in that sector; in March 2018 the government announced that beneficial ownership of mines must be revealed. Nonetheless, there is some way to go: according to the EITI one-quarter of mining-sector contracts do not include taxpayer identification numbers. Ambiguity in the national legislation together with the decentralised property registers also widens the scope for corruption in allocating property rights (Design, 2017). Allocating property rights appropriately and enforcing them are pre-conditions for maximising revenues from natural resources. It would also pave the way for more efficient fiscal regimes in the future.

Recommendations to raise revenues

(Key recommendations are shown in bold)

Tax administration and legislation

- **Increase investment in tax administration, particularly staff, electronic services and databases.**
- Establish standard procedures for public consultations on tax legislation before implementation.
- **Make greater use of information technology to strengthen monitoring and facilitate tax compliance.** Increase use of risk-based assessment for conducting audits of all taxes.
- **Continue to expand and improve tax expenditure estimates and publish them annually, as planned.**
- Build tax capacity at sub-national government level through training and sharing of best practices.

Income taxes

- **Freeze the basic tax allowance for individuals to broaden the tax base. Gradually lower thresholds for paying the top two rates of personal income tax.**
- **Include fringe benefits and employer allowances in taxable income.** Reduce differences in the tax treatment of personal savings across sources.
- Shift from tax holidays towards cost-based tax incentives. Impose sunset clauses on all new tax incentives to ensure regular reviews.
- **Tighten eligibility for the turnover tax to very small firms and link registration to access to additional non-financial benefits.**

Goods and services taxes

- **Broaden the VAT base by removing most exemptions, especially for intermediate goods, replacing local sales tax with VAT, and lowering the threshold for compulsory registration. Compensate sub-national governments for lost sales tax revenue.** Over the medium term, raise the VAT rate.
- **Increase and harmonise tobacco excise across products.**
- Link the level of motor vehicle taxes to their carbon emissions. Continue to phase out energy subsidies, then increase taxation of energy. Introduce a simple carbon tax at a low rate.

Property taxes

- **Increase training and assistance for sub-national governments to improve the quality of property tax databases, valuation methods and tax administration. Raise the cap on property tax rates.**

Non-tax revenues

- Finalise the One Map Initiative, and step up the fight against illegal resource extraction at all levels of government.

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Annex A.

As explained in Box 1, the potential tax revenue that an economy can generate depends on its structural features as well as its institutions. Following OECD (2015a) and earlier papers, the following equation is estimated using income per capita and structural variables (X_{it}) from the OECD SPIDER database (Égert, Gal and Wanner, 2017) and country fixed effects (c_i):

$$\frac{Tax}{GDP}_{it} = \alpha + \beta \ln(GDP\ per\ capita)_{it} + \gamma X_{it} + c_i + \varepsilon_{it}$$

The equation is estimated over 1997-2016 and 77 countries with annual income per capita ranging from USD 744 to USD 94 765 (PPP-adjusted). In general the results are in line with other studies (Table 1):

- GDP per capita is consistently related to higher tax capacity.
- A larger agricultural sector is associated with lower tax capacity.
- Greater trade openness (in log form) is associated with higher tax capacity. However, this is not statistically significant when using an alternative size-adjusted measure of openness (the residual from a regression of the absolute value of exports plus imports to GDP on population).
- Greater (perceived) control of corruption is associated with higher tax capacity but with diminishing effects as income rises.

Table 1. Estimating tax capacity

Dependent variable: tax-to-GDP ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
GDP per capita (log)	4.603***	2.466*	2.958**	2.527*	2.847**	5.461***	7.133***
	(1.181)	(1.397)	(1.397)	(1.390)	(1.309)	(0.820)	(1.462)
Agriculture share in GVA		-0.286***	-0.266***	-0.272***	-0.243***		0.157
		(0.0929)	(0.0978)	(0.0870)	(0.0802)		(0.172)
Openness (log)		2.082**		1.562*	1.927**		0.130
		(0.955)		(0.936)	(0.948)		(1.979)
Openness (size-adjusted)			0.00465				
			(0.00950)				
Control of corruption				-0.540	18.40***		
				(0.664)	(6.903)		
Control of corruption x GDP per capita					-1.993***		
					(0.706)		
Constant	-17.68	-4.057	0.0303	-2.187	-5.292	-25.92***	-43.96**
	(11.33)	(15.16)	(13.98)	(15.08)	(14.13)	(7.741)	(18.05)
Observations	1,462	1,374	1,374	1,234	1,234	1,462	1,374
R-squared	0.083	0.138	0.120	0.125	0.161	0.350	0.382
Number of countries	77	76	76	75	75		
Country fixed effects?	Yes	Yes	Yes	Yes	Yes	No	No

Note: Robust standard errors in parentheses. Errors are clustered at the country level in pooled regressions. *** p<0.01, ** p<0.05, * p<0.1
Source: OECD calculations