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BROADENING THE BASE: IMPROVING TAX ADMINISTRATION IN INDONESIA, 2006–2016

SYNOPSIS

In the mid 2000s, Indonesia's Directorate General of Taxes (DGT) was still struggling to recover from the shock of the Asian financial crisis of the previous decade. Tax revenue had plummeted during the crisis, and the collection rate remained well below accepted standards, as well as below the standards of many peers in the region. In 2006, the directorate's new leaders launched a nationwide overhaul, drawing lessons from a successful pilot program that had reorganized the DGT's biggest offices and enabled large taxpayers to settle all of their tax-related affairs with a single visit to one office rather than having to go through multiple steps. Expanding that pilot to more than 300 locations across a 3,000-mile archipelago presented no small challenge. The implementers built a digital database that linked all offices to a central server in the capital of Jakarta, developed competency testing and training that bolstered the quality of staff, and created new positions to improve relationships with taxpayers. Other measures aimed to reduce corruption and tax fraud. When political and practical crosswinds frustrated the DGT's efforts to build the workforce its leaders thought it needed, the agency turned to big-data analytics to improve compliance and broaden the tax base. By 2018, domestic revenue mobilization had plateaued, but the changes introduced had produced important improvements. The question was then what to do to broaden the base further without decreasing incentives for investment or raising administrative costs to unsustainable levels.

Leon Schreiber drafted this case study based on interviews conducted in Jakarta in January and February 2018. Case published April 2018.

INTRODUCTION

In 2010, Gayus Tambunan became a cause célèbre for Indonesians fed up with Indonesia's tax system. A junior official at the Directorate General of Taxes (DGT), Gayus had become rich by doctoring tax returns for hundreds of companies and wealthy individuals and colluding with the Southeast Asian nation's tax courts to help his benefactors avoid steep penalties. His bribery trial captivated the country as he testified about a web of graft that involved some of the country's biggest companies and most powerful families.

Although Gayus was convicted and received a seven-year prison sentence, the affair was emblematic of the tumult that marked the first decade of the twenty-first century in Indonesia, the home of 220 million people at the time. Public confidence in government was low, and inefficiency and corruption confounded tax collection and other government programs. In

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1998, the Asian financial crisis had caused GDP to plunge by more than 13%,[1] and as the economy contracted, tax revenues fell to just 8.6% of GDP.[2] That cash crunch forced Indonesia to accept from the International Monetary Fund (IMF) a series of bailouts totaling $43 billion.[3]

By 2005, poor administration remained a problem, and Indonesia's tax collections still lagged behind those of some of its regional peers. Excluding customs revenues, the DGT—the finance ministry agency that collected taxes—struggled to collect taxes equivalent to even 11% of GDP during the early 2000s. Such countries as the Philippines (12.4%), Malaysia (15%), Singapore (15%), and Vietnam (21%) were all performing better, although Indonesia was broadly in line with the average for the East Asia–Pacific region, which stood at 11.3% in 2005.[4]

Indonesia had never managed to reach the 15% tax-to-GDP threshold that the IMF often recommended,[5] though high non-tax revenues provided some slack, and in December 2005—five years before the Gayus case exploded onto the front pages of Indonesian newspapers—President Susilo Bambang Yudhoyono recognized the need for action. Yudhoyono, who had won election the previous year on a pledge to build prosperity and fight corruption and government inefficiency, appointed respected economist Sri Mulyani Indrawati as finance minister. One of Mulyani's first significant moves came in April 2006, when she appointed fellow economist Darmin Nasution as director general of taxes. Nasution, who held a doctoral degree in economics from Paris-Sorbonne University, and his senior leadership team took on the daunting task of cleaning up the tax office, increasing efficiency, and building public confidence. The Gayus incident underscored the challenges that confronted Nasution and his successors during the following decade.

THE CHALLENGE

In theory, Indonesia had an adequate foundation for an effective tax system. IMF expert Carlos Silvani, a former head of Argentina's revenue service, recalled that the framework "wasn't top-of-the-line, but it wasn't all that bad. . . . It had all of the typical pillars of a [functioning] tax system: value-added tax [VAT], corporate tax, and individual income tax."

Text box 1: Taxes in Indonesia

Personal tax and corporate income tax constituted the biggest sources of domestic revenue in Indonesia, accounting for 56.97% of taxes collected in 2016. Excluding exemptions, most companies paid a flat 25% corporate income tax rate for income generated both domestically and abroad. Personal income tax rates were divided into four bands: People earning less than 50 million rupiah (US$3,600) per year paid 5% income tax; those earning Rp50 million (US$3,600) to Rp250 million (US$18,000) paid 15%; those earning Rp250 million (US$18,000) to Rp500 million (US$36,000) paid 25%; and those earning more than Rp500 million (US$36,000) per year paid 30%.

The second-biggest source of domestic revenue came from value-added tax (VAT) and other consumption taxes, which accounted for 37.27% of taxes collected by the DGT in 2016. Companies were eligible to pay the VAT rate if their turnovers exceeded Rp4.8 billion (about US$340,000) per year. Generally, the VAT rate was fixed at 10%, but some goods attracted VAT rates of either 5% or 15%, and certain exports were zero VAT rated. In addition to VAT, certain luxury goods attracted an additional tax of 10 to 125%. Import duties on the customs value of imports ranged from 0 to 40%.

Taxes on oil and gas—composed largely of the 25% corporate rate, plus 20% profit tax—amounted to 3.26% of total revenues in 2016; property taxes constituted a further, 1.76%. Selling a property attracted a 5% flat tax levied on the seller, and annual property taxes ranged from 0.01% to 0.30% based on property value.

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Still, Indonesia's DGT lacked crucial capacity—in a number of ways—to do its job effectively. First, the organization suffered from a disjointed structure. Alongside its head office in Jakarta and 15 regional offices charged with overseeing administration in different parts of the country, the organization had 303 field offices. The tax office had divided its field operations into three parts: 141 district offices dealt only with VAT and income tax; a separate group of 107 offices handled property and land taxes; and the remaining 55 offices audited the work of the other offices.[6] The 141 district offices also had separate sections for registration, services, and debt collection; and the three types of tax offices (VAT and income, land and building, and audit) operated largely independently of each other.

A 2008 IMF working paper that Silvani coauthored concluded that "headquarters was not organized in a manner that would allow it to effectively manage ongoing operations and develop new tax administration programs."[7]

The DGT's administrative and management processes constituted a second major capacity restraint: Because of the splintered organizational structure, supervision was weak or nonexistent. Outdated systems and procedures magnified the problem. And the tax office's woefully outdated IT system reflected a lack of skilled personnel. Harry Gumelar, a tax specialist with an IT Master of Science degree he earned in the United Kingdom during the mid 1990s, said, "At the time, no other person in this big organization had a degree in IT."

The tax office had neither a central server nor a database, and each regional office stored its data on local computers by using a software platform introduced in 1990. Twice a month, employees in local offices uploaded their data onto disks that they physically transported to the headquarters in Jakarta. The lack of a modern, standardized, and centralized database undermined information sharing and exacerbated the head office's lack of control over operations outside Jakarta.

Staffing posed a third capacity challenge—in terms of both quantity and quality. The DGT was acutely understaffed, with only 32,000 employees in a country of 220 million people spread across 6,000 inhabited islands, many of which were remote. The country of Mexico, for instance, had the same number of tax officials for about half the population of Indonesia. Neighboring Malaysia had just under 1,400 tax officers serving a labor force of fewer than 15 million people. Japan had 56,000 for 128 million people. Italy had 55,000 for 58 million people. And Poland had 67,000 tax officers serving a population of only 38 million. At the top end of the spectrum, France and Germany had more than 110,000 officials serving populations that were only about one-third the size of Indonesia's.[8]

Similarly, staff training and competence were problematic. Many tax offices, particularly in rural areas, lacked skilled staff to respond to client queries. In some cases, different tax officers would give taxpayers conflicting information. And as a result of those capacity gaps, corruption flourished. Tax employees sometimes took bribes in exchange for helping people avoid paying taxes, and companies often colluded to reduce their corporate taxes, or they worked with so-called invoice mills that enabled them to claim fraudulent VAT refunds.

The perception that powerful people dodged taxes and that DGT officials pocketed public money undermined trust in the government and made ordinary taxpayers less willing to comply.[9] That perception, fueled by incidents like the Gayus affair, undermined the government's efforts to improve tax morality and compliance. A 2001 survey of households and businesses ranked Indonesia's tax office as the fifth most corrupt of 33 government institutions, and in 2006, the *Jakarta Post* reported that the DGT "had long been seen as the country's most corrupt institution."[10]

As a result, the DGT struggled to get people to register to pay tax, and levels of compliance

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were low. In 2005, for example, an estimated 44 million people were eligible to pay personal income tax,[11] but only 3.8 million were even registered with the DGT.[12] Only one of three people who were registered bothered to file a tax return, and even fewer paid the full amount they owed.[13] Government estimates showed that the country collected less than half of the money it could potentially collect under the existing legal framework.[14]

The DGT's poor public image exacerbated its problems. Effective communication had the potential to improve compliance by cultivating a culture of tax morality, and persuading citizens of their tax-paying responsibilities could reduce the need to enforced compliance.[15] However, in the mid 2000s, the tax office did not even have a public relations department, which left the DGT flat-footed when corruption scandals like the Gayus affair erupted.

FRAMING A RESPONSE

The IMF-supported pilot project launched in 2002 provided a framework for action. During the project, the DGT opened three large-taxpayer offices (called LTOs) in central Jakarta to handle the tax affairs of the country's 200 largest companies. The new offices represented a significant shift in the DGT's approach to doing its job—from inward looking (organizing and defining work in terms of its internal needs) to outward facing (organizing and defining work to meet the needs of its clients: taxpayers). Rather than having separate offices to deal with VATs and income taxes, land and building taxes, and auditing, each LTO handled matters involving *all* of Indonesia's taxes. One of the new offices dealt exclusively with private companies in the high-value banking and mining sectors; the second served private manufacturing companies; and the third handled supervision and monitoring.

The LTO business process was designed around the "know-your-taxpayer" model—whose goals were to provide better and more-personalized service and to identify taxpayers who were underreporting their revenues—by understanding taxpayers' financial affairs in greater detail. LTO workers had to observe a strict and detailed code of conduct that, for example, prohibited any one-on-one private meetings with taxpayers.

The integrated LTO model created the new high-skill position of account representative, whereby one account representative would work with an individual taxpayer rather than a system wherein different people handled different aspects of each taxpayer's affairs. Account representatives had to have at least a three-year accounting diploma as well as broad knowledge of the different kinds of taxes. The government agreed to fund higher salaries for all LTO personnel, but account representatives received even better pay, which quickly made it a coveted position even among LTO staff members.

Mekar Utama, a senior DGT administrator who served on the committee that launched the pilot LTOs, explained that the organizers administered strict competency tests to recruit LTO staff from the ranks of current tax office workers. The tests not only supported the selection of candidates but also helped match employees with the right types of tasks.

The DGT also designed and built a new software system that enabled the LTOs to avoid using the outdated and inefficient system the old offices used. According to Gumelar, the tax office outsourced the development of different components to private contractors. Gumelar's team then installed the software in time for the LTOs' launch in July 2002. It took another year to adapt the system to the needs of users, he added. In 2004, the DGT expanded the pilot project by creating two new offices in central Jakarta: one to serve medium-sized companies and moderately wealthy individuals who lived or registered in central Jakarta, and the other to serve small taxpayers in central Jakarta who were not assigned to either the large or medium offices. The medium

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Text box 2: Piloting a new organizational model

The genesis of the 2002 pilot project dated as far back as 1999, when the IMF first began working with the DGT. The tax office's senior leadership at the time appointed a committee to work with the IMF team, led by Carlos Silvani. After the DGT undertook study visits to tax agencies in Australia and New Zealand, the committee ran a diagnostic assessment of the DGT's performance by means of a tool developed by the IMF's fiscal affairs department. The assessment confirmed that Indonesia faced a substantial tax gap—the difference between how much potential revenue the DGT could collect and how much it actually collected. The report also recommended that in order to significantly improve its performance in administering Indonesia's tax system, the DGT would have to fundamentally reorganize its business process.

The committee decided that a pilot project was the best way to ignite a reform process. Mekar Utama, a senior DGT administrator who served on the reform committee, explained that some tax officers had long favored the creation of large-taxpayer offices (LTOs) to serve the country's biggest companies and wealthiest individuals. Because the richest 10% of Indonesians owned about 77% of the country's wealth, Utama and others argued that creating such offices would give a big boost to overall revenue collection. In addition, the LTOs would be ideal testing grounds for a new organizational structure. "The IMF gave us cover [to implement the idea] at the higher level. They talked to ministers to help convince them" of the need for LTOs for the piloting of a new organizational setup, Utama said.

The country's cabinet approved the plan and also agreed to change an onerous but long-standing regulation that required a separate division within the finance ministry for review and approval of payments made to the DGT. The finance minister at the time, Boediono (like many Indonesians he had only one name), also formed a task team dedicated to the establishment of LTOs.

The government's support of the proposed reforms sowed the seeds of change. As tax specialist Harry Gumelar later recalled: "The [reform] story started when we created the large-taxpayer offices. That's when we began moving away from the old, corrupt system." But the team first had to provide tangible proof that the DGT could perform better under the new organizational structure it planned to introduce at the LTOs. Silvani stressed that "we always said this was just a first step. [The LTOs had to be] examples of what can be achieved." The DGT task team selected Achmat Alsah, head of tax regulations, to lead the new offices and appointed Utama as deputy head. It fell to Alsah and Utama to demonstrate that a new tax administration model could work in Indonesia. Utama relished the challenge: "Our aim was to create better services for taxpayers—and better career paths for our staff."

and small-taxpayer offices operated the same way as the LTOs did. Both administered competency tests to recruit skilled personnel from within the tax office, used the same database software, processed all the different kinds of taxes, and relied on account representatives as the key points of contact with taxpayers.

The DGT task team closely monitored the large, medium, and small offices in Jakarta that worked according to the new model, and the results were encouraging. A customer satisfaction survey carried out by the AC Nielsen company in June 2005 found that 81% of large taxpayers that used the LTO were satisfied with its services.[16] According to the 2008 IMF working paper coauthored by Silvani, the score indicated "an exceptionally high level of satisfaction."[17] The medium and small offices also achieved scores

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(78% and 74%, respectively) that compared favorably with overall taxpayer satisfaction with the tax systems in Australia (66%), Hong Kong (75%), and Singapore (76%).

However, Silvani and his coauthors cautioned that the high scores could have resulted partly from the "novelty" that taxpayers, who had been accustomed to poor service, experienced when they interacted with the new offices for the first time.[18] Nonetheless, according to the paper by Silvani et al., the survey showed that the strength of the LTO model lay in its "professional integrity, as well as its taxpayer services, simplicity and efficiency, and information resources. These findings are noteworthy since they provide evidence that the [new] governance framework (involving a careful vetting of staff, higher wages, and a rigorously applied code of conduct) helped promote integrity amongst tax officers."[19]

Revenue data also indicated the pilot model worked well. Whereas total tax revenues collected at other, non-modernized offices remained steady at 7.2% of GDP in 2002 and 2003 before falling to 4.1% in 2005, revenue shares collected by the LTOs in Jakarta steadily increased from 1.54% of GDP in 2002 to 1.80% in 2003 and 2.34% in 2005.[20] From 2002 to 2005, Indonesia's overall tax-to-GDP ratio increased by 1.2 percentage points to 13.5% overall—more than half of which increase came directly from the new offices created under the pilot.[21]

Mulyani and Nasution were impressed by the pilot project's efficacy, and in the hope of reproducing the success of the pilot offices in Jakarta, they decided to implement the same reforms at all of the more than 400 tax offices throughout the country. Gumelar recalled that Mulyani "wanted every office to move to that model. That was the start of change."

GETTING DOWN TO WORK

In mid 2006, the DGT had a mountain to climb. Under the LTO model, the organization had to transform its entire business process from a system segmented by tax type to one segmented according to taxpayers' income levels and needs. The transformation required reorganizing and empowering every tax office in the country to not only process individual income taxes, VATs, corporate taxes, and property taxes but to also carry out its own audits.

New lines of responsibility and management came first. Nasution transferred some of the people who had set up the country's first LTOs, including Utama, to the DGT's head office to lead a new business process transformation directorate. Based on the LTO experience, the process team knew that upgrading the tax office's IT infrastructure was vital. They recommended to Nasution that the tax office's IT directorate be split into two parts: one to handle day-to-day operations and the other to develop and roll out new IT infrastructure in regional and local offices.

To help regional and local offices with staffing and capacity building, the head office created a new internal affairs and human resources transformation directorate, which drew up clearer rules to guide decisions involving promotions and transfers between offices. The changes at headquarters enabled the DGT to "copy and paste the LTO model to the rest of the [local tax] offices," Utama said.

Under the guidance of the three new directorates, the DGT had to reassign and train employees for new roles and hire more staff. The tax office also had to roll out the new IT system to all of its offices, which meant it had to equip each office with new computers and internet infrastructure. Gumelar said it was an urgent task: "We originally said it would take until 2011 [to reconfigure the organization]. But [finance minister] Sri Mulyani said, 'No, I want it by 2009.' Because 2009 was an election year."

Whereas the LTO pilot project had produced encouraging signs that a new organizational structure could help promote integrity among officials, the tax office had to do more to fix internal corruption. In the same vein, if the DGT

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wanted to send a message that it was serious about enforcing compliance, it would have to come down hard on fraud in the forms of either false refund claims or outright tax avoidance.

As the Gayus affair later substantiated, the DGT also had to radically improve both internal and external communication.

Boosting pay, revamping the organization

The tax office's reform drive kicked off when, shortly after Nasution's appointment, DGT employees received hefty pay raises as part of a ministry-wide salary increase engineered by Mulyani and funded by the government budget. Mulyani's personal popularity, as well as her sustained emphasis on the need for higher pay to mitigate corruption risks, helped convince the country's legislature to pass the pay hikes.

The aims of the sweeping increase were to boost morale and efficiency in the finance ministry and to reduce incentives for corruption by aligning pay more closely with market wage rates. The ministry's lowest monthly salary rate, which applied to guards and office assistants, rose by about 75% to 1.33 million rupiah, or US$920, from Rp760,500, or US$530. Top-level pay rates soared, closing the substantial gap that had existed between the compensations of senior managers in the finance ministry and those in the private sector.[22] At the highest levels, pay climbed more than eightfold to Rp46.95 million (US$3,200) from Rp5.5 million (US$380).[23]

Next, Nasution and his senior leadership team developed a plan to roll out the new model nationwide by opening some new offices and converting all existing offices into a province-based framework. Thirty-three regional offices, one for each province (excluding the Jakarta capital region), would oversee the operations of local offices in their areas. The local offices consisted of 16 for medium-size taxpayers—mainly businesses and moderately wealthy individuals—and 330 existing offices converted to small-taxpayer offices that handled everyone else. The DGT opened only 16 medium taxpayer offices because some of the poorest regions of the country did not have enough qualifying individuals and businesses in their service areas. There was no immediate need for additional large-taxpayer offices, because the three LTOs set up during the pilot project covered the 200 biggest private companies in the country. However, in later years, the tax office created two more LTOs to cover state-owned companies and wealthy individuals.

In the selected provinces, the tax offices that had generated the highest revenues under the old system became medium-size-taxpayer offices. Many of the officials who had gained experience at the LTOs in Jakarta were appointed to lead the 16 new offices, and all DGT employees working in the region served by the office could apply to work at them.

All DGT employees had to abide by the code of conduct, but those who held the newly created position of account representative received special attention. Utama said the business process transformation team provided "cultural change management training" that underscored the representatives' role in providing service for taxpayers. A thorough understanding of the entire tax system was also important because account representatives had to not only provide comprehensive information for all taxpayers but had to also recognize instances of underpayment or other errors. Whereas most tax officers had specialized in one specific type of taxation, "we needed [to train] account representatives to become generalists. . . . They basically became like private bankers," Utama said. The training provided by the DGT head office also focused on developing the personal skills required for face-to-face dealings with taxpayers.

From 2006 to 2008, the DGT converted every tax office in Indonesia into either a large-, medium-, or small-taxpayer office, each of which handled every kind of tax. And on July 1, 2008, the government celebrated the opening of its revamped revenue system by offering a temporary

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sunset policy to businesses and citizens who owed money. The policy permitted both unregistered taxpayers and registered taxpayers who had failed to file tax returns to declare their assets and pay any outstanding taxes owed—without incurring additional penalties for late payment or failure to file returns on time. The offer, which expired at year-end, succeeded in generating revenue of Rp7.46 trillion (US$813.14 million) and in registering 5.6 million new taxpayers.[24]

Rolling out a new IT system

Although the temporary amnesty served as a welcome kick start, the tax office still had a long way to go to improve its administration. The government had installed internet connections in many of the tax offices, but some still used the DGT's old system, which required them to save their data on disks and physically transport the disks to Jakarta twice a month. The bottleneck hampered the tax office's ability to analyze compliance data and slowed its responses to taxpayers' queries.

In 2007, Nasution selected Gumelar, the first senior tax official to earn an IT degree, to lead the DGT's effort to roll out the new software system to every regional-, medium-, and small-taxpayer office—about 400 in total. In contrast to the old system, "the new application was entirely web based by using the Oracle finance platform. . . . The data were also completely centralized on one server," Gumelar said. The new system "was a big jump because it could automatically generate notices for taxpayers who were late or owed money," and it could perform other operations.

The new system was designed around the principle of case management, which meant that it automatically saved and logged any changes in each individual taxpayer's account, recorded who made the changes, and enabled tax officers to quickly check the status of any taxpayer. And to protect the data from tampering or accidental changes, the system permitted local staff to input only new information. IT staff at the head office had sole access to full datasets and sole authority to make changes. The system enabled the DGT to track taxpayer behavior more closely, and auditors could more precisely target noncompliant taxpayers.

Staff training was important for ensuring the system worked in the new locations. In addition to using members of his team, Gumelar said, he also relied on people from the large and medium offices who were already accustomed to working with the new application. After installing the software, IT trainers usually spent about two weeks embedded in regional and local offices to train staff members in its use. According to Gumelar, the training succeeded easily: "Almost everyone who works for the DGT graduated from the State College of Accountancy in Jakarta. They all know computers, and they are good students," he said.

The project to migrate all offices to the new IT system hit a snag in 2009, when Nasution left the tax office and Gumelar transferred out of the head office. Some offices continued using the old IT system until 2011, when a new director general, Fuad Rahmany, brought Gumelar back to the headquarters. Rahmany, an economist credited with reforming Indonesia's financial services supervisory board, was determined to get the IT project back on track. Rahmany recalled: "At the time when I became director general, I didn't know why the project was stopped. But when I had a first informal meeting with my IT director, I found out he was not an IT guy but an accountant. I asked, 'How come in this big office where we think IT is very important, [the head of IT] has no basic knowledge of IT?'" During a meeting with his senior leadership team, Rahmany learned that Gumelar was one of the few senior DGT employees with an IT background. He quickly appointed Gumelar as his new IT development director and instructed Gumelar to move to the IT directorate certain other DGT employees who had studied at the Bandung Institute of Technology, one of Indonesia's top technical universities.

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The DGT finished installing the software system in the remaining offices in 2012—a decade after work had first begun on developing a new database backbone. The pause in the project from 2009 to 2011 had slowed progress toward boosting revenue and limited the impact of some of the related initiatives. But with all 400 of the country's regional-, large-, medium-, and small-taxpayer offices connected to the centralized database stored on servers in a tower building next to its headquarters in central Jakarta, the organization finally had access to real-time information on transactions that took place across the country.

Tackling corruption

The DGT had taken steps against corruption before Rahmany took charge. In 2009, the country's anticorruption commission, known as the KPK, had submitted a set of recommendations to the tax office on how to minimize tax-office corruption risks. The commission's assessment gave the DGT a score of 6.95 out of 10 for its efforts to implement the recommendations, which was higher than the average score of 6.18 out of 10 achieved by other government departments. The assessment measured such aspects of the DGT's work as strength and implementation of its code of conduct, improvement in the transparency of human resources management, increased transparency in procurement, improvement in public access to information, and efforts to promote anticorruption awareness.[25]

Deni Purwana, a research and systems assessment specialist at the KPK, said that "most of the KPK's recommendations were implemented" but added that he regarded the recommendations as "pretty basic," with too much focus on operational issues "like minimizing contact between staff and taxpayers" and too little attention to policy changes.

Heru Iswahyudi, a researcher and head of tax arrears collection in the West Kalimantan regional office, said the DGT benefited from a number of improvements in the political environment in Indonesia. The KPK, created in 2002, began to show real teeth by the mid 2000s. "And then the press also became significantly more open and free, with many front-page stories on corruption at the DGT," Iswahyudi said.

Shortly after becoming director general, Rahmany partnered with the KPK to sniff out corruption among the DGT's auditors. "Usually the corruption is done by auditors when they go [to examine companies]. They collude with the taxpayers," Rahmany said. In response, he resolved to begin "auditing the auditors"—an approach he had used as head of the financial services supervisory board. Using the KPK's equipment and expertise, the DGT monitored and scrutinized the work of auditors suspected of collusion. "We caught several people like that. It was meant to create a deterrent effect," he said.

Rahmany realized that a single deterrent tool was not enough, however. Aside from the work conducted in partnership with the KPK, "I also put together a dream team in my office—the best auditors and the most honest people," he said. The team analyzed audit records from across the country, and when they came across something suspicious, they audited the auditor who had compiled the records. The extent of the crackdown on audit fraud "made everyone in the tax office feel that there's a chance they could get caught," Rahmany said.

But Rahmany said he was frustrated in his efforts to bolster the DGT's auditing capacity. After creating his team for auditing the auditors, he found that the tax office lacked qualified people but had no power to hire any. Another arm of the government—the bureaucratic reform ministry—had the authority to approve or deny government agencies' requests to hire new employees, and, with the influential Mulyani's term as finance minister having ended in 2010, it rejected most of Rahmany's appeals to significantly expand the DGT's workforce. In the end, the auditing plan did not work as well as it could have "because I didn't have the people to do it," Rahmany

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lamented. "We audit only 0.3% [of taxpayers] because we simply lack people."

In another significant innovation, Rahmany introduced an internal whistle-blower system that enabled DGT employees to report suspected corruption anonymously by using an internal web page. If Rahmany's team considered a specific report credible, it contacted—through an anonymous messaging system on the secure website—the person who had submitted the complaint, and it asked to meet with the person. "If we wanted to take a case to court, we needed someone who was willing to testify," Rahmany said. He conceded, however, that only half of those who reported suspected corruption were willing to reveal their identities.

As Iswahyudi saw it, the combination of external pressure and internal measures had turned corruption "from a systemic problem to a sporadic issue." But legal hurdles prevented the DGT from going further with its crackdown. "The law protected civil servants, so sometimes [officials accused of corruption] just sat there and smiled," Rahmany said. Because the tax office could fire employees only if they had been caught in a criminal act, most punishments involved only demotions or reassignments to less-important administrative work.

Cracking down on fraud

Not all of the tax revenue lost through corruption involved DGT staff. Two of the biggest sources of fraud involved companies that filed false returns so as to minimize their tax burdens, as well as companies or small businesses that colluded with invoice mills to submit false invoices and claim bogus VAT refunds. Although the DGT had created an intelligence and investigations sub-directorate in 2007 and the organization's auditing teams had the authority to impose financial penalties, the organization continued to lose revenue to fraud.

In 2009, the DGT upgraded its intelligence and investigations operation to a full directorate with the power to pursue criminal charges through the courts. Nasution appointed Pontas Pane, a senior tax official with more than 20 years' experience in tax auditing, to lead the new directorate. Pane moved quickly to bolster his team. He evaluated the credentials and suitability of his 20 holdover investigators and requested the director general to move 13 of them out of his office. After making his case that improved investigations capacity was key to improving tax compliance, Pane eventually obtained a bigger budget for the directorate and hired 13 replacements whom he described as "passionate about investigation, who had knowledge about tax crimes, and who were willing to work 24/7 under pressure." Over time, he increased the size of the investigations team at the head office in Jakarta to 36.

In Pane's first months as director, he also lobbied for greater flexibility in dealing with cases of taxpayer malfeasance. He persuaded the finance minister to amend a regulation so it would allow the DGT to drop an investigation if the taxpayer in question agreed to pay all outstanding taxes as well as interest and a 400% penalty. The change represented an important shift in the relationship between the DGT and taxpayers. "What we want is not for them to go to jail," Pane said. "We want them to pay tax."

With a skilled team and new leverage tools, Pane began investigating 14 of the 200 biggest companies in the country on suspicion that they were engaged in tax evasion and fraud. "Previously, many big companies had very low compliance. They were basically seen as untouchable, and the [investigations] staff had never even [looked into] the biggest companies," he said.

Pane's investigators turned up evidence of massive tax evasion at Indonesian company Asian Agri Group, one of Asia's largest palm oil producers. The DGT alleged that the company systematically misstated the tax liability of all 14 of its subsidiaries from 2002 to 2005. A series of

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high-profile court cases had dragged on through the justice system, but in late 2012, Indonesia's Supreme Court ruled that Asian Agri owed the tax office $260 million in taxes and penalties;[26] in January 2014, the company agreed to pay the full amount;[27] and Asian Agri's tax manager went to prison for two years.[28]

Although publicity surrounding the case helped burnish the DGT's image in the wake of the Gayus affair, Pane knew that enforcing tax compliance would be an ongoing task. At the same time that the investigations team was in pursuit of Asian Agri, the tax office was tackling VAT fraud, which had plagued the team's efforts to increase revenue collection. Invoice mills had sprung up to facilitate VAT fraud, and they constituted an industry of their own. Certain companies, as well as certain self-employed individuals, had paid the mills to generate fake invoices for sales of goods or services the companies used in production. The supposed buyers would enter the nonexistent purchases into their financial records and submit the documents to the DGT as part of claims for VAT input-tax refunds.

Pane aimed to expose not only fraudulent taxpayers but also the invoice mills that enabled the fraud. Working with regional offices, tax investigators began trawling through thousands of company records "looking for taxpayers with lots of transactions but very little profits," he said. If the team uncovered suspicious numbers, it analyzed company records for reported purchases of products unrelated to the firm's core business, which was often a marker of VAT fraud. When the team became convinced a company was cheating, it used the names and contact details listed on the company's fake invoices to identify the invoice mills. After those identifications, Pane's team combed through its records to identify other companies that had reported purchases from the same mills. Pane estimated that his team secured 200 to 300 convictions from the analysis.

Although Pane said he felt that the crackdown on fraudulent taxpayers "increased compliance and made them afraid of severe punishment," some changed the way they cheated the system by purchasing more cheap goods on the black market, where unregistered, informal businesses did not charge the 10% VAT. A 2006 study by Indonesia's statistics agency estimated that small, mostly informal, enterprises accounted for 38% of the country's GDP.[29] To bring the transactions onto their books, the purchasers then bought fake invoices from the invoice mills, Pane said. That type of VAT evasion was harder to uncover because the buyer actually did pay for the products listed on the invoice—but skirted VAT by buying the cheaper, black market goods.

In response, the DGT developed an electronic invoicing system, and after a successful pilot project on the islands of Java and Bali in June 2016, the tax office changed its regulations to require all registered enterprises to upload their invoices to a central database on a continuing basis. The DGT assigned unique identification numbers to all companies registered on the system and unique serial numbers to all invoices.

Improving outreach and communication

Public fallout from the 2010 Gayus affair starkly revealed the tax office's lack of capacity to manage its public image and to communicate the importance of tax compliance. Ani Pinem, who became deputy director of public relations in 2015, explained that before 2007, when the DGT established a public affairs sub-directorate, "communications had been handled by the general affairs directorate, but they did not even have standard operating procedures. . . . When the [Gayus] case broke, there was no crisis communications strategy." The tax office struggled to persuade Indonesians that most of the corruption had actually involved the tax courts. The crisis abated only after Mulyani began using

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her personal credibility to spread the message that "we're not all like him," recalled Pinem, who was a tax accountant by training.

In the immediate aftermath of the Gayus scandal, "we started with internal communications because we really had to get back on our feet and boost morale," said Pinem, who was with the new sub-directorate. The public relations team launched a DGT-wide effort to create and disseminate a set of organizational values. The team inundated staff working in the head office in Jakarta with messages about the DGT's core values of integrity and professionalism. It even installed video screens in the building's elevators to broadcast the latest news about the DGT throughout the day, and it opened an exhibit on the building's ground floor that documented the history of the tax office.

Over time, the public affairs team began working more strategically. According to Pinem, the DGT carried out public opinion surveys that revealed that most taxpayers wanted to work with the organization as a partner rather in a game of "cops and robbers." At the most fundamental level, the DGT had to build public trust by changing the perception that most tax money was pocketed by government officials and by persuading Indonesians that tax money benefited society. Recognizing the importance of marketing those ideas, the team came up with a slogan that it used in all advertising of its campaigns—"Our taxes are for us"—and it posted at government construction sites signs that read "Built with our tax."

Because surveys also showed that most taxpayers did not understand certain important aspects of the tax system, the team launched a nationwide taxpayer education effort. Employees in regional offices canvassed taxpayers through meetings and local business forums to determine specific gaps in taxpayers' knowledge. If, for example, staff in one office concluded that businesses in their region needed more information on how to file tax returns, the team hosted seminars for business owners on the topic. Under Rahmany's leadership, the DGT also opened a call center dedicated to assisting taxpayers.

The tax office recognized the need to also educate Indonesia's future taxpayers. As Pinem explained, "It's far too late if people find out about taxes only by the time they start working." As part of the education drive, the DGT published an introductory handbook on the purpose and process of taxation and made the handbook available to every university student. Pinem said a future goal was to implement tax education classes at all schools in Indonesia.

The DGT intensified its public outreach efforts ahead of the annual March 31 deadline for filing tax returns in Indonesia. The organization set up tax corners in shopping malls, where taxpayers could get answers to questions and drop off tax returns. By pooling their resources, regional offices in Jakarta also worked with the head office to introduce in the capital city an annual Spectaxcular event—an outdoor festival where people could also take care of all of their tax affairs. Pinem said the event was part of the tax office's drive to convince Indonesians that "we are not scary; we are nice people, and paying your taxes can even be fun."

The public affairs team used social media to reach Indonesia's young and tech-savvy population. The team regularly uploaded videos to a dedicated YouTube channel, and the DGT's Instagram, Facebook, and Twitter accounts shared photos and other media "in the language spoken by young people" to a combined audience of more than 350,000 followers, Pinem said.

Based on results from DGT opinion surveys, the public's perception of the tax office improved over time. From 2013 to 2016, the average score that taxpayers assigned to the tax office improved from 3.08 to 3.22 on a four-point scale before further increasing to 3.37 in 2017.[30] Although it was hard to compare the DGT's performance with that of other government departments, it was clear

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that the tax office had made progress. Significantly, the 2016 survey found that respondents who had been paying taxes for five years or less gave the DGT a better rating than did older taxpayers—another indicator that recent perceptions of the DGT were moving in the right direction.[31]

OVERCOMING OBSTACLES

The political complications and systemic shortcomings of Indonesia's system of taxation frustrated the DGT's efforts to achieve significant improvements with regard to tax collection. Despite making progress toward improving its public image, building its internal systems and controls, and smoothing relations with taxpayers, the organization failed to make inroads on a key metric: the country's ratio of overall taxes-to-GDP. The ratio did not show sustained improvement after 2006, and it even declined in some of those years as the tax office implemented its new organizational model across the country.

An important factor was the legislature's longtime tradition of creating loopholes in Indonesia's tax code in order to curry political and financial support from influential companies and individuals. The DGT was unable to persuade legislators to stop the practice, and Silvani suggested that the tax office was trying to swim upstream against a strong current. "As the tax system became more efficient, powerful people could put political pressure on lawmakers to grant them exemptions," he said. "Paradoxically, in extreme cases, improved tax administration may actually lead to a decrease in the tax-to-GDP ratio because of more exemptions."

The business-as-usual granting of tax exemptions helped fuel many Indonesians' disdain for a system they viewed as unfair and as skewed in favor of special interests. After he was appointed director general in 2011, Rahmany ran a six-month study to determine why the DGT was failing to significantly improve revenue collection despite major procedural reforms. He concluded that "compliance was so low that I [came to consider] Indonesia a tax haven. The system was so unequal. Some people overpaid, and others paid nothing. It was really concentrated in some sectors but not in others."

While it was difficult to say whether the legislature granted tax exemptions out of a genuine desire to stimulate economic growth, or whether exemptions were simply aimed at appeasing powerful constituents, the effect of the exemptions severely distorted the tax system. A February 2018 IMF report concluded that "Indonesia has several distortionary incentives and exemptions in its tax system."[32] The IMF noted that the distortionary exemptions included "not only internationally common practices. . . . but also many Indonesia-specific distortions."[33] This included exemptions to the corporate income tax that lowered the general 25% rate (which was in line with the OECD average) to only 1% for some small and medium-sized businesses, potentially encouraging businesses to remain small; another exemption that cut the corporate rate by half for certain other firms; as well as an exemption that reduced the rate to only 20% for publicly-listed companies.

The government granted similarly generous VAT exemptions to particular industries. The IMF concluded that "despite a modest VAT statutory rate [of only 10%], a long list of exemptions have been granted to final and intermediate goods and services [in] mining, staple goods, tourism, transportation, employment services, banking and insurance, art and entertainment services, education, and medical and social services, capital goods, agricultural, plantation, and forestry products, electricity, distributed piped water, cattle, poultry, and seeds, weapons for the army, educational books, ships, trains, aircraft and their spare parts, and low-cost housing."[34]

The IMF's February 2018 report suggested that "reducing such distortions. . . . to the level of the top performing countries in the same income group could deliver substantial benefits." Aside from boosting the country's tax-to-GDP ratio, eliminating exemptions "could encourage firms to

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grow [and] lead to an increase in real GDP growth of 1.3 percentage points in the long run."[35]

Aside from exemptions that eroded the tax base, weak compliance was partly also a function of inadequate DGT staffing—at least in comparison to staffing in other countries. Indonesia's civil service and budgeting rules made it difficult to markedly expand the DGT's workforce. Rahmany was frank about the problem: "People often accused us of 'hunting in the zoo,'"—that is, trying to extract more money from existing taxpayers. But, he said, the main reason for the failure to expand the tax base was that "we simply lacked the capacity. [After Mulyani left office in 2010], I constantly asked for a bigger budget to hire more people, but I knew I wouldn't get it and that it would take a long time" to sufficiently expand the DGT's workforce.

With insufficient political clout to curb the legislature's largesse towards powerful companies and individuals, and a budget too small to bolster its staff sufficiently, the DGT had to focus its work elsewhere. To plug the gaps caused by exemptions and its own lack of capacity, the tax office began designing new data analysis tools aimed at improving existing taxpayers' compliance while widening the tax base by inducing unregistered taxpayers to start filing.

Iwan Djuniardi, head of IT transformation, said that in addition to introducing services like electronic tax filing and invoicing, the DGT had shifted its focus from "descriptive analytics that only captured transactions to predictive analytics using big data." A team of developers built a sophisticated set of tools that enabled the tax office (1) to analyze internal as well as external data so it could track down potential taxpayers who were not registered and (2) to improve registered taxpayers' compliance. In a reflection of the priority attached to the new IT project, the tax office redirected funding toward the hiring of teams of data analysts to run directorates for tax intensification and extensification.

The DGT's shift toward better data usage benefited from a government regulation—introduced in 2012 and updated later—that compelled 67 different government institutions and state-owned companies to share data with the tax office. Another step forward came in June 2017, when, under pressure from an international community increasingly focused on clamping down on tax avoidance and improving transparency, Indonesia's legislature finally passed a law that mandated banks and other financial institutions to share information with the tax office. However, the law failed to apply to most taxpayers because it compelled banks to share data only on accounts that had balances of at least Rp1 billion (US$75,000).[36]

To handle the increased flow of information, the DGT set up a processing office whose sole purpose was the cleaning of data received from various financial institutions and government departments to facilitate digital analysis. Djuniardi's ultimate hope was that the matching of external data with the tax office's internal information would reveal the identities of unregistered people and companies that should be paying tax, as well as registered taxpayers who failed to pay all they owed. For example, the DGT could use information from the country's land agency to determine whether unregistered potential taxpayers owned property and then cross-reference that with information from banks to see whether the banks were receiving regular payments into their accounts. If a person or company owned property and apparently received a salary but paid no taxes, the DGT had a strong indication of tax avoidance.

Ahmad Zamani, section head in the compliance directorate, explained that measuring what he called the *compliance gap* was no easy task. "You need to know how many people should be registered, filing tax returns, accurately reporting their income, and paying taxes," he said. "We have a gap in all four aspects. . . . Our job is to connect

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the dots." To begin quantifying those gaps, the compliance team built a user-friendly computer interface, or dashboard, that updated internal data in real-time. The system then compared the dashboard's information with external data, and in cases in which a registered taxpayer fell behind, the system automatically sent out a warning letter. "It gives us more ammunition because people are more likely to pay if you tell them exactly how much they owe and how long overdue they are. It sends a signal that the tax office knows a lot about them," Zamani said.

The extensification directorate, which was charged with widening the tax base by identifying unregistered taxpayers, began following a similar data-driven model in 2014. Director Dasto Ledyanto said one of the group's central aims was to create a map of Indonesia that indicated areas with many businesses and other potential taxpayers in the country. Using digital maps created as part of a separate government-wide OneMap initiative, the extensification team used data from banks and institutions like the land agency to examine areas where many potential taxpayers were not registered.

The DGT retrained existing staff members to become extensification account representatives in certain smaller local offices. Using the data from the maps, the thousand officials reassigned to the new positions found areas where unregistered businesses and individuals clustered, and they approached those unregistered taxpayers to offer them business development and financial management seminars. "During the seminars, we don't talk too much about tax; we focus more on financial skills," emphasizing the responsibility to pay taxes as only one aspect, Ledyanto said.

For the new, data-driven approach to work, the DGT had to build or acquire a new software processing platform. Gumelar's original software system became quickly outdated. Over time, the DGT added new functions to the software, but the different datasets were not integrated, which meant that analysts had to revise data formatting, a time-consuming task. Ledyanto pointed out another problem: that "the data [from different institutions] is not standardized. Going forward, we need to make it mandatory that all institutions use the same tax identification numbers on all transactions" registered on the new system. As of 2017, no new system was yet in place.

ASSESSING RESULTS

From 2005 to 2016, the number of registered taxpayers in Indonesia jumped to 36 million from 3.8 million, and the number of people who filed annual tax returns grew to 12 million in 2016 from 1.2 million in 2005.[37] Despite its clear progress in broadening the country's tax base, the DGT's estimates showed that in 2016, 44 million people ought to have been registered for taxes and that 16.5 million were required to submit tax returns.[38] It meant that 9 million of the 44 million people who had to be registered were still outside the system and that 4.5 million out of 16.5 million taxpayers failed to submit their returns on time.

In addition, from 2007 to 2012, total tax revenues collected annually by the DGT nearly doubled in real terms (US$ constant 2010) to $108.8 billion from $60.5 billion before dropping to $100.2 billion in 2017.[39] But the increase in revenues barely managed to keep up with the country's overall economic growth rate, which averaged more than 5.5% during the same period. Indonesia's overall tax-to-GDP ratio thus did not show significant and sustained increases. The initial creation of the LTOs—the large-taxpayer offices—which in some years had accounted for more than 40% of total taxes, contributed to an increase in the tax-to-GDP ratio to 13% from 11% during the mid 2000s. Revenues reached 14.2% of GDP in 2008 following the sunset tax-amnesty policy but then declined again to just 11.8% in 2015.[40]

The most-clear-cut example of success from the tax office's reform effort was the office's creation of highly efficient LTOs in Jakarta during the mid 2000s. The LTOs immediately improved

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the tax office's ability to collect taxes from Indonesia's wealthiest companies and individuals. The DGT's decision to apply the LTO organizational model across the country also enabled the tax office to move away from a system wherein different offices dealt with different tax types and toward a framework wherein all offices managed all taxes. A World Bank *Doing Business* report showed that the change reduced the burden on taxpayers. From 2008 to 2016, the time that businesses spent in complying with tax requirements shrank to 221 hours per year from 266 hours and that the number of required payments per year fell to 43 from 51.[41] However, Mekar Utama, senior DGT administrator, acknowledged, "the attempt to copy and paste the LTO model in smaller offices did not fully succeed."

Carlos Silvani, who headed the IMF's tax team in Indonesia in the early 2000s, agreed: "It was a mistake to copy and paste the account representative model [from the large to the small offices]. Of course it was good to have the model in mind, but it needed to be customized more [to the context of small offices]." The problem was exacerbated by the DGT's lack of autonomy, which prevented the tax office from hiring more staff and radically expanding its footprint across the country.

Increasingly concerned about its inability to significantly and sustainably improve the tax-to-GDP ratio, the government launched a nine-month tax amnesty program in 2016—less than a decade after the earlier sunset policy—that aimed to encourage nonpayers to come forward and pay their fair shares. Although the tax amnesty was more sweeping than the sunset policy in that the tax amnesty imposed very low penalties and exempted tax dodgers from criminal prosecution, the DGT's repeated use of such amnesties led to criticism—in publications such as the *Jakarta Globe*—claiming the government was so desperate for tax money that Indonesia was willing to protect criminals from prosecution.[42]

Indonesia's need for amnesty programs starkly illustrated that the DGT still had much work remaining before it could significantly and sustainably increase public revenues in Indonesia.

REFLECTIONS

Silvani, the former IMF representative, identified two factors that were essential to securing support for the 2006 effort to scale up certain pilot reforms begun four years earlier. The first was that because the large-taxpayer-office (LTO) pilot project "was able to produce results in terms of [boosting] revenues, we could use that as a model to encourage people to continue with the reforms." But, he added, "political will was an absolutely key factor." Silvani pointed out that Sri Mulyani had supported the pilot since its inception in the early 2000s, when she was still planning minister and not directly responsible for the tax office. When she became finance minister in 2006, Mulyani continued her support of the tax office's work to replicate the LTOs' efficiency at every tax office in Indonesia.

However, as the DGT expanded the new model, the organization's leaders became aware that the reforms were unbalanced. Although Indonesia's large and medium taxpayer offices delivered mostly world-class services to select groups of high-wealth customers, many of the smaller offices that served thousands of lower-income taxpayers struggled to keep up. Because civil service rules made it difficult to fire unskilled staff or hire sufficient numbers of new employees, many of the small-taxpayer offices were understaffed and lacked capacity, with a single account representative sometimes serving up to a thousand taxpayers. The result was that even though the new model worked well at bigger and

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better-resourced offices, in many of the smaller offices, the DGT was struggling to live up to the aim of knowing your taxpayer.

DGT officials and advisers held differing views about the potential for technological innovations to compensate for the tax office's low coverage ratio. Former director general Fuad Rahmany was skeptical: "What we need is to hire more people and build more offices, because IT cannot convince people to comply. You need a person to convince you to pay tax." He also pointed out that some banks in Indonesia had 10,000 branches serving 65 million customers, whereas the DGT still had only 400 offices trying to reach 44 million potential taxpayers.

Silvani and Iwan Djuniardi, head of IT transformation at the DGT, were more optimistic. Silvani said that computerization of most of the routine work done by administrative staff "could save the DGT a lot on labor . . . and overcome Indonesia's geographic challenges." And even though it was still too early to tell in early 2018 whether the DGT's pivot to big data would pay off, Djuniardi said he hoped that once a new IT system was in place, "we could partner with banks and other institutions to set up tax kiosks," where Indonesians could take care of all of their tax affairs without having to visit a tax office.

The stakes were high. Even though by early 2018 the Indonesian parliament had launched an investigation into a proposal to assign the DGT more operational autonomy to hire staff and give it a bigger say in tax policy decisions like the granting of exemptions, many DGT leaders doubted the proposal would be adopted.

In lieu of a fix of counterproductive policy decisions and lack of manpower, the technology solution simply had to work. "When we get to a point where all the services are handled by IT, it will free up our staff to migrate to auditing," Djuniardi said. "We know we don't have enough coverage [of tax officials], but technology can reduce the demand for manpower."

References

[1] "GDP growth (annual %)," *World Bank Data*, accessed February 20, 2018; https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2016&locations=ID&start=1992&view=chart&year_high_desc=false.

[2] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001–07)," *IMF Working Paper 08/129*, May 2008, accessed February 20, 2018; https://www.imf.org/external/pubs/ft/wp/2008/wp08129.pdf.

[3] "Asian Financial Crisis in Indonesia," *Indonesia-Investments*, accessed February 20, 2018; https://www.indonesia-investments.com/culture/economy/asian-financial-crisis/item246.

[4] "Revenue Mobilization and International Taxation: Key Ingredients of 21st-Century Economies by IMF Managing Director Christine Lagarde," International Monetary Fund, February 22, 2016, accessed February 22, 2018; http://www.imf.org/en/News/Articles/2015/09/28/04/53/sp022216#P54_7862 and "Tax revenue (% of GDP)," World Bank, accessed February 22, 2018; https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS?locations=ID-VN-ZA-MY-PH-Z4-SG.

[5] "Revenue Mobilization and International Taxation: Key Ingredients of 21st-Century Economies by IMF Managing Director Christine Lagarde."

[6] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001-07)," *IMF Working Paper 08/129*, 2008, accessed February 20, 2018; https://www.imf.org/external/pubs/ft/wp/2008/wp08129.pdf.

[7] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001-07)."

[8] Author's calculations based on data from the Organisation for Economic Co-operation and Development, *Tax* Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies; accessed

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April 6, 2018; https://read.oecd-ilibrary.org/taxation/tax-administration-2017/table-a-53-staff-metrics-staff-strength-levels_tax_admin-2017-table111-en#page1; and World Bank, *Labor force, total*; accessed April 6, 2018; https://data.worldbank.org/indicator/SL.TLF.TOTL.IN?locations=MY.

[9] Chris Evans, Arifin Rosid, and Binh Tran-Nam, "To get more people to pay taxes, Indonesia should stamp out corruption by officials at the top," *The Conversation*, May 1, 2016, accessed February 23, 2018; https://theconversation.com/to-get-more-people-to-pay-taxes-indonesia-should-stamp-out-corruption-by-officials-at-the-top-57512.

[10] Gordon LaForge, Rachel Jackson, Drew McDonald, Matt Devlin, and Andrew Schalkwyk, "Changing a Civil Service Culture: Reforming Indonesia's Ministry of Finance, 2006–2010," Princeton University Innovations for Successful Societies, May 2016, accessed February 23, 2018; https://successfulsocieties.princeton.edu/sites/successfulsocieties/files/GL_CC_Indonesia_MOF_FORMATTED_5May2016.pdf.

[11] Sigit Priadi Pramudito, "What Is the Problem with Tax Collection in Indonesia?" *Indonesia-Investments*, October 10, 2015, accessed February 23, 2018; https://www.indonesia-investments.com/finance/financial-columns/what-is-the-problem-with-tax-collection-in-indonesia/item6023.

[12] Abdul Rahman, *Tax Compliance in Indonesia: The Role of Public Officials as Taxpayers*, doctoral dissertation, University of Twente, January 12, 2017, accessed February 22, 2018; https://ris.utwente.nl/ws/portalfiles/portal/6046131.

[13] Abdul Rahman, *Tax Compliance in Indonesia: The Role of Public Officials as Taxpayers*.

[14] Abdul Rahman, *Tax Compliance in Indonesia: The Role of Public Officials as Taxpayers*.

[15] Till Olaf Weber, Jonas Fooken, and Benedikt Herrmann, "Behavioral Economics and Taxation," European Commission Taxation Papers, Working Paper 41- 2014, accessed March 12, 2018; https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/gen_info/economic_analysis/tax_papers/taxation_paper_41.pdf.

[16] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001-07)."

[17] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001-07)."

[18] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001-07)."

[19] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001-07)."

[20] Kristian Agung Prasetyo, *Tax Administration Reform and the Society in Indonesia: Some Lessons Learnt*, Curtin Law School, accessed February 26, 2018; https://www.business.unsw.edu.au/About-Site/Schools-Site/Taxation-Business-Law-Site/Documents/Tax_Administration_Reform_and_the_Society_in_Indonesia_Prasetyo.pdf.

[21] John Brondolo, Carlos Silvani, Eric Le Borgne, and Frank Bosch, "Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001-07)."

[22] Gordon LaForge, Rachel Jackson, Drew McDonald, Matt Devlin, and Andrew Schalkwyk, "Changing a Civil Service Culture: Reforming Indonesia's Ministry of Finance, 2006–2010."

[23] Gordon LaForge, Rachel Jackson, Drew McDonald, Matt Devlin, and Andrew Schalkwyk, "Changing a Civil Service Culture: Reforming Indonesia's Ministry of Finance, 2006–2010."

[24] Rakhmindyarto, "Evaluating the Sunset Policy in Indonesia," *International Review of Social Sciences and Humanities* 2(1), 2011, accessed February 28, 2018; http://irssh.com/yahoo_site_admin/assets/docs/18_IRSSH-124-V2N1.51195922.pdf.

[25] *Penilaian Inisiatif Anti Korupsi (PIAK) 2009*, Komisi Pemberantasan Korupsi, accessed March 14, 2018; https://acch.kpk.go.id/en/component/bdthemes_shortcodes/?view=download&id=e394968ad28c3cb33283ee3b4568eb.

[26] "Asian Agri Ordered to Pay Back Tax," *Jakarta Globe*, December 29, 2012, accessed March 1, 2018; http://jakartaglobe.id/archive/asian-agri-ordered-to-pay-back-tax/.

[27] Reuters, "Indonesian palm oil firm Asian Agri to pay $250 million tax fine," *Straits Times*, January 30, 2014, accessed March 1, 2018; http://www.straitstimes.com/business/indonesian-palm-oil-firm-asian-agri-to-pay-250-million-tax-fine.

[28] "Asian Agri Ordered to Pay Back Tax."

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Terms of use and citation format appear at the end of this document and at successfulsocieties.princeton.edu/about/terms-conditions.

[29] *The Informal Sector and Informal Employment in Indonesia*, Asian Development Bank Country Report 2010, accessed March 1, 2018; https://www.adb.org/sites/default/files/publication/28438/informal-sector-indonesia.pdf.
[30] Direktorat Jenderal Pajak, *Survei Pengukuran Kepuasan Pelayanan dan Efektivitas Penyuluhan dan Kehumasan*, 2017.
[31] Direktorat Jenderal Pajak, *Survei Pengukuran Kepuasan Pelayanan dan Efektivitas Penyuluhan dan Kehumasan*, 2016.
[32] "Indonesia Selected Issues," *International Monetary Fund Country Report No. 18/33*, February 2018, accessed April 29, 2018; https://www.imf.org/~/media/Files/Publications/CR/2018/cr1833.ashx.
[33] "Indonesia Selected Issues," *International Monetary Fund Country Report No. 18/33*, February 2018, accessed April 29, 2018; https://www.imf.org/~/media/Files/Publications/CR/2018/cr1833.ashx.
[34] "Indonesia Selected Issues," *International Monetary Fund Country Report No. 18/33*, February 2018, accessed April 29, 2018; https://www.imf.org/~/media/Files/Publications/CR/2018/cr1833.ashx.
[35] "Indonesia Selected Issues," *International Monetary Fund Country Report No. 18/33*, February 2018, accessed April 29, 2018; https://www.imf.org/~/media/Files/Publications/CR/2018/cr1833.ashx.
[36] "Minimum Threshold for Indonesia's 'Bank Openness Law' Revised," *Indonesia-Investments*, June 9, 2017, accessed March 6, 2018; https://www.indonesia-investments.com/finance/financial-columns/minimum-threshold-for-indonesia-s-bank-openness-law-revised/item7894.
[37] Abdul Rahman, *Tax Compliance in Indonesia: The Role of Public Officials as Taxpayers*.
[38] Sigit Priadi Pramudito, "What Is the Problem with Tax Collection in Indonesia?"
[39] Calculated from IMF data.
[40] Details of Tax Revenue–Indonesia, OECD.Stat.
[41] World Bank, *Doing Business 2008*, accessed March 14, 2018; http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB08-FullReport.pdf; World Bank, *Doing Business 2016*, accessed March 14, 2018; http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB16-Full-Report.pdf.
[42] Tabita Diela and Yosi Winosa, "Desperate for Tax Money, Indonesia Ready to Grant Criminals Amnesty," *Jakarta Globe*, June 5, 2015, accessed March 6, 2018; http://jakartaglobe.id/news/desperate-tax-money-indonesia-ready-grant-criminals-amnesty/.

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