Making an Impact

US–Indonesia
Investment Report

2019

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This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government

The research for this report was conducted by PT Ernst & Young Indonesia and peer-reviewed by Sampoerna University. The opinions stated in this report reflect those of AmCham Indonesia and do not necessarily reflect the views of PT Ernst & Young Indonesia or Sampoerna University.

Numbers

The US continues to be one of Indonesia's biggest and most impactful investment partners, with an estimated $36 billion invested from 2013-2017. This new figure, which adds estimated upstream oil and gas investments to the official statistics, is almost five times the $7.78 billion recorded by the Indonesian government, making the US likely the top source of FDI in Indonesia during that period.

Impact

Beyond the dollar figures, over many decades US companies have helped lay the foundation for growth in key industries, from the extractives sector in the past to the digital economy today.

Challenges

The $36 billion figure is significantly less than the $61 billion in new investment projected in our 2013 report, which could partly be due to continued investment restrictions, regulatory hurdles and operational challenges. Interviews with key stakeholders reveal that many of the government's reform efforts so far have focused mostly on the entry phase of investment. More fundamental operational issues remain, constraining much-needed investment growth.

Executive Summary

More than a hundred years ago, the predecessors of today's energy giants, Chevron and ExxonMobil, began marketing and exploration activities in Indonesia with pioneering investments that eventually led to the country becoming a world-class energy producer.

In the process, these companies and many other foreign investors transferred the technology and expertise necessary for Indonesia to develop its own home-grown workforce and energy industry. The skills and scale of these multinational energy companies, in partnership with the people and government of Indonesia, helped spur massive economic growth over many decades.

That partnership continues as we found that the US, with $36 billion invested from 2013 to 2017, remains likely the largest source of FDI for Indonesia. In today's world, US investment is also helping to drive transformation in the economy as apps, Industry 4.0 and unicorns grab the attention away from still-vital extractives and commodities.

"We have to transform from a dependence on natural resources to a competitive and modern manufacturing and service-based economy that has high added value for the prosperity of the nation and social justice for all the Indonesian people," President Joko Widodo said in the inauguration speech that outlined his priorities for his second term in office.[1]

Throughout the next phase of Indonesia's journey, the US will continue to be a reliable partner and source of valuable foreign investment — both in terms of quantity and quality. We will contend in this, our 7th annual US-Indonesia Investment Report, that whether we are considering the important and continuing legacy of existing industries or the more recent role played by innovative and leading-edge tech and health companies, the US has brought true partnerships, core business values and unsurpassed technology to Indonesia.

Scale of US Investment

The full scale of US investment in the country is not often evident from official government figures. Statistics from the Indonesia Investment Coordinating Board (BKPM) only attributed $7.78 billion worth of investments to the US from 2013 to 2017.

This is far from a complete picture. First, it does not account for investments coursed through the regional headquarters of multinational companies, which are typically based in countries such as Singapore or Hong Kong and cover a wide number of sectors. Second, it does not include the upstream oil and gas sector, which has traditionally been one of the major destinations for US capital.

For this year's edition of our annual investment report, AmCham Indonesia, the U.S. Chamber of Commerce, and the United States Agency for International Development Mission to Indonesia (USAID Indonesia) commissioned Ernst & Young Indonesia to try to paint a more complete picture of the true scale and impact of US investments in Indonesia.

Our research found that once estimated upstream oil and gas activities are taken into account, US companies invested at least $36 billion into Indonesia from 2013 to 2017 — almost five times the official government figure. This also means the US was likely the leading source of foreign direct investment (FDI) in Indonesia during that five-year period.

The figures below show the official FDI number from the government plus estimated oil and gas investments

Indonesia's Top Sources of FDI (2013-2017)[2]

No	Countries	In USD Mn
1	**USA**	**35,978**
2	Singapore	34,026
3	Japan	20,692
4	United Kingdom	14,367
5	China	9,400
6	France	8,805
7	Malaysia	8,433
8	South Korea	7,636
9	Netherlands	6,927
10	Hong Kong	6,336

Investment That Makes an Impact

Beyond the numbers, interviews with government officials and industry leaders also show that US companies contributed far more than investment dollars. Directly and indirectly, they have served as catalysts for the growth of new sectors, provided invaluable training and knowledge and assisted countless entrepreneurs.

US companies tend to enter the country with a "win-win" attitude and create mutually beneficial business relationships, according to Sarwi H. Notoatmodjo, the director of leading Indonesian oil and gas service provider IMECO, which has worked with both ExxonMobil and Chevron Pacific Indonesia over the past decade.

They empower local companies, ranging from SMEs that can take advantage of innovative small business solutions offered by digital platforms such as Google and Facebook, to those that benefit as contractors for major US firms like Qualcomm, HP and Caterpillar.

They also build a skilled workforce, transfer knowledge and technology and advocate for an improved business environment that benefits all. Companies like Cargill and Philip Morris help build skills and capacities in the agriculture sector, which is still the country's biggest employer. Tech industry giants like IBM, HP, Microsoft, Facebook and Apple help provide key tools in the digitalization of Indonesia.

Taken together, this leaves a profound intangible impact on the country, as evidenced by comments from both Indonesian companies and government officials interviewed for this report.

Challenges to Investment Growth

Despite the significant value of existing investments by US companies, the reality is that they could be doing much more. In 2013, we reported on the basis of interviews with US companies that roughly $61 billion worth of investments were planned for Indonesia in the next three to five years. The $36 billion investment figure for 2013-2017, unfortunately, falls significantly short of that.

We conducted dozens of interviews to try to understand why this is the case. Our analysis resulted in a key insight: Though the government has been deregulating to attract more foreign investors, most improvements have only been in the entry phase. Once the permits are issued and the businesses are set up, the usual operational and even more fundamental problems remain lack of skilled workers, contract and regulatory uncertainty, corruption preventing further investment and painting a discouraging tale for potential investors.

President Widodo himself recognizes this, emphasizing in his inauguration speech that the government will make the development of human resources its main priority. We are hopeful this includes a reform of the country's outdated labor law, which restricts the ability of companies to manage their workforce due to costly procedures for layoffs and a politicized minimum wage structure, consequently affecting productivity.

Indonesia's productivity-to-cost ratio was the lowest among five ASEAN countries (Indonesia, Malaysia, Thailand, the Philippines and Vietnam) in 2017, largely because growth of labor productivity in the four other countries balanced out the increases in their respective minimum wages.

We note that the government has issued a number of tax holidays and other incentives to attract FDI, but, as the World Bank pointed out in a recent report,[3] none of these are enough if operational issues are not addressed. Among these issues AmCham has been told repeatedly by investors is the high cost of doing business in Indonesia, mainly because of logistics and land acquisition, but also due to persistent corruption, including demands for "facilitation" payments, which, even if they are not paid, can result in significant delays.

The president has also ordered his ministers to simplify, cut and trim all regulatory constraints, but a mindset that recognizes the need for long-term regulatory certainty is required to attract major investments that will stay in the country for decades. The country remains mired in the practice of introducing new laws and regulations that can significantly change the way companies must run their businesses, including demands for greater local content or rules that require taking on local partners. It is time-consuming and expensive to cope with new regulations that sometimes are issued without sufficient public consultation. The cumulative effect of these practices is to paint a less attractive picture of Indonesia as an investment destination.

Recommendations

President Widodo launched his second term in office with a strong focus on bureaucratic and economic reform and an ambitious goal of making Indonesia one of the world's top five economies by its centennial in 2045.

To contribute to the government's efforts, we would like to add our learnings from our assessment of the challenges faced by investors in Indonesia today.

1. Require public consultations prior to the issuance of regulations. Governance experts have long contended that a systematic and effective system of public consultations not only leads to better regulations, but also improves compliance and reduces enforcement costs.

2. Create a dedicated government body for regulatory impact analysis. Having a government body dedicated to this, according to the World Bank, is recognized by most developed countries as a key instrument to improve the quality of regulatory decision-making and can help to substantially reduce unforeseen problems or unintended consequences of otherwise well-intentioned regulations. This includes mapping of potentially overlapping regulations.

3. Improve coordination and communications between government bodies. Across various industries, this issue is consistent. Even if a regulation is good, inconsistent implementation and communication between government bodies can diminish its potential impact.

4. Focus on long-term goals over short-term gains. A common observation by industry players and analysts alike is how policymaking in Indonesia is often "reactive" to needs and issues, instead of being a well-thought-out plan for the future. With the government focus on 2045, we are hopeful that long-term planning will guide policymaking moving forward.

Armed with a fresh mandate, the president's second term has the opportunity to put in place meaningful reforms that could guide Indonesia out of the middle-income trap before 2045. To do this will require vision, political courage and a willingness to challenge corrupt or inefficient practices, special interests and entrenched bureaucracy. As they have over the past century, US companies will be here and be ready to invest time and money to support Indonesia's development goals in ways that make a lasting impact.

1 https://www.thejakartapost.com/news/2019/10/20/the-main-thing-is-not-the-process-but-the-result-jokowis-full-inauguration-speech.html

2 Source: BKPM, SKK Migas, EY Analysis. Does not include investment in the financial sector and SMEs

3 World Bank, Global Economic Risks and Implications for Indonesia, 2019

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US companies invested at least $36 billion in Indonesia from 2013 to 2017 — almost five times the official figure recorded.

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Chapter 1

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Our previous investment reports have consistently pointed out that official foreign direct investment (FDI) figures do not paint a complete picture of the scale and impact of US investments in Indonesia.

In 2013, we estimated that US FDI in Indonesia totaled $65 billion from 2004 to 2012, once capital expenditures as well as mergers and acquisitions are taken into account. This figure stood in sharp contrast with official statistics from Bank Indonesia, which showed only $7 billion in net investment flow from the US over the same period.[4]

In 2016, we set out to try and quantify the totality of the US-Indonesia economic relationship, to include not just FDI, but also trade, domestic sales, finance and government revenue. Our analysis at the time resulted in a staggering figure: $90.1 billion for 2014 alone, equivalent to 10.1 percent of Indonesia's total GDP that year.[5]

For this year's report, we sought to estimate how much US companies invested in Indonesia from 2013 to 2017 by taking into account economic activities excluded by official government figures.

According to the Indonesia Investment Coordinating Board (BKPM), which the Indonesian government refers to for official FDI statistics, US companies invested a total of $7.78 billion over that five-year period, making them the country's seventh-largest source of FDI. However, this figure does not include investments in either the upstream oil and gas sector or the financial sector, or in small and medium-sized enterprises (SMEs).

The oil and gas sector, however, has traditionally been one of the major destinations of US capital, helping power years of strong resource-driven economic growth. In 2018, the sector accounted for 7.7 percent of Indonesia's GDP.[6] Therefore, to get a better sense of how much the US has actually invested in Indonesia, we sought to estimate how much each country has poured into the upstream side of the industry, where roughly 90 percent of oil and gas investments go.

Our calculations resulted in a total of at least $36 billion in US investments from 2013 to 2017 — almost five times the BKPM figure — illustrating the scale of economic activity not captured by official numbers.

4 Partners in Prosperity: US Investment in Indonesia, 2013
5 Vital & Growing: Adding Up the US-Indonesia Economic Relationship, 2016
6 EMIS Industry Insight, Indonesia Oil and Gas Sector Report 2019/2020

FDI Limitations

To explain how we arrived at the $36 billion figure for US investments, we have to first understand the limitations of official FDI figures. In Indonesia, two government agencies compile these numbers: Bank Indonesia and BKPM. However, their methodologies differ so significantly that their figures are incompatible.

Table 1	How Indonesian government agencies calculate FDI	
	BKPM	**BI**
Definition of FDI	The sum of realized investments as reported by companies to BKPM every quarter	Net flow of equity, reinvested earning flow and other capital flows to the country
Percentage of Ownership Recognized	Any percentage	10 percent or more
Sectors Covered	All sectors except financial markets, upstream oil and gas, and SMEs	All sectors
Stream	Direct investment, does not account for investment through third countries	Direct investment, does not account for investment through third countries

Source: BKPM, BI

Bank Indonesia follows the International Monetary Fund (IMF) methodology, which only considers investments that involve a 10 percent or more ownership stake in its records. It defines FDI as the direct flow of equity, reinvested earnings and other capital flows to the country.

According to the central bank, it relies on reports from banks, corporations, external resources and surveys to derive the investment data it uses in its calculations. If it finds inconsistencies between any of the sources, it will contact the company in question to resolve it.

While this method encompasses all sectors, including foreign investments made through financial markets, it also takes into account investment outflows and presents only the final net figure. This resulted in negative US figures for 2014, 2016 and 2017, following outflows from the mining and quarrying sectors.

On the other hand, BKPM, which oversees promoting investment in Indonesia, considers any percentage of ownership by foreign investors as FDI. It defines realized FDI as the sum of realized investments as reported by companies to BKPM every quarter and validated by its internal unit.

However, it is also limited in that it excludes investments in financial markets, which it sees as temporary by nature, and in the upstream oil and gas sector, where no country-aggregated data was available until this year.

Table 2

Bank Indonesia FDI Figures (in USD Mn)

Countries	2013	2014	2015	2016	2017	2018
Singapore	10,723	12,090	8,847	8,407	9,413	9,662
Japan	5,836	5,793	4,010	2,499	3,913	4,842
China	67	1,068	324	355	1,994	1,922
USA	741	−1,098	603	−335	−2,458	1,208
Hong Kong	416	290	1,239	1,564	548	1,167
Malaysia	−281	755	330	869	976	787
Netherlands	−767	−555	−57	−574	4,059	447
South Korea	866	953	228	199	16	114
United Kingdom	1,108	764	−148	1,858	469	−2,600
Others	108	1,750	1,266	−10,921	1,649	3,925
Total	**18,817**	**21,810**	**16,642**	**3,921**	**20,579**	**21,474**

Table 3

BKPM FDI Figures (in USD Mn)

Countries	2013	2014	2015	2016	2017	2018
Singapore	4,672	5,832	5,901	9,179	8,442	9,193
Japan	4,713	2,705	2,877	5,401	4,996	4,953
China	297	800	628	2,665	3,361	2,377
Hong Kong	376	657	937	2,248	2,117	2,011
Malaysia	711	1,776	3,077	1,116	1,214	1,775
South Korea	2,205	1,127	1,213	1,066	2,025	1,605
USA	2,436	1,300	893	1,162	1,993	1,218
British Virgin Islands	786	624	731	1,157	845	1,043
Netherlands	928	1,726	1,308	1,475	1,489	943
United Kingdom	1,076	1,588	503	307	775	271
Others	10,400	10,395	11,207	3,188	4,984	3,919
Total	**28,600**	**28,530**	**29,276**	**28,964**	**32,240**	**29,308**

Both BI and BKPM methodologies are also limited by their inability to trace investments made through third countries back to their ultimate investing country (UIC).

It is common for US multinationals to course investments to Indonesia through regional offices based, among others, in Singapore or Hong Kong. Data from the US Bureau of Economic Analysis shows that as of the end of 2018, nearly half of the overall investment position of the US was highly concentrated in holding companies.

US agricultural firm Cargill, for instance, has asked its European and Singaporean branches to co-invest in a new manufacturing facility in Indonesia. In this case, both BI and BKPM would attribute that investment to Singapore and Europe.

When Caterpillar first entered Indonesia in the 1970s, it was through a dealership agreement with Sime Darby Bhd of Malaysia. A more recent example involves the Sidrap Wind Farm project in South Sulawesi, Indonesia's first utility-scale wind farm. The project was constructed by UPC Renewables in collaboration with a local firm. UPC Renewables is a US company but is headquartered in Hong Kong.

While both the IMF and the Organisation for Economic Co-operation and Development (OECD) recommend recording investments by UIC on a supplementary basis, there is no confirmation whether Indonesia — or any country, for that matter — is following this idea.

New FDI Estimates

To get a better sense of how much US companies have been investing in Indonesia, we took a look at the oil and gas sector.

The Ministry of Energy and Mineral Resources records investments in the sector on a per project basis, while the Upstream Oil and Gas Regulatory Special Task Force (SKK Migas) only began recording investments by source country in January 2019.

In order for us to estimate how much the US has invested in the sector, SKK Migas suggested using oil and gas production figures as a proxy. Our calculations (refer to the Annex) revealed a total of $28.2 billion in upstream oil and gas investments from US companies from 2013 to 2017, more than double the second-highest source of investments in this sector.

When added to the BKPM figure of $7.78 billion, we arrived at a total of $36 billion in US investments over that five-year period, making the US potentially the top source of FDI in Indonesia from 2013-2017, overtaking Singapore, which often tops official lists of Indonesian investors.

$ 36 billion

US investments from 2013-2017, with estimated upstream oil and gas figures

Table 4

Indonesia's Top 10 Investors from 2013-2017, Based on Adjusted FDI Amount (in USD Mn)

Rank	Countries	Investment realized recorded by BKPM	Investment in Upstream O&G	Total investment*
1	USA	7,783	28,195	35,978
2	Singapore	34,026	–	34,026
3	Japan	20,692	–	20,692
4	United Kingdom	4,249	10,118	14,367
5	China	7,752	1,649	9,400
6	France	581	8,224	8,805
7	Malaysia	7,894	540	8,433
8	South Korea	7,636	–	7,636
9	Netherlands	6,927	–	6,927
10	Hong Kong	6,336	–	6,336

Source: BKPM, SKK Migas, EY Analysis

*Does not include investment in the financial sector and SMEs

Though our new FDI estimate is already almost five times the official BKPM figure, this is still not a complete picture. It does not take into account investments in the financial sector and SMEs, and it still does not include US investments made through regional offices or holding companies in third countries. This only means we have yet to see the full scale of US investments in the country.

Chapter 2

Imp

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When US companies invest in a country, they do not just create jobs: they build a skilled workforce, transfer knowledge and technology, support local businesses, and advocate for an improved business environment that benefits all.

While foreign investment is often assessed in terms of numbers—dollars invested, jobs created, economic activity generated—it also brings benefits that go far beyond these figures.

FDI brings advanced technology, superior management practices and assured markets to ASEAN member states, according to the Economic Research Institute for ASEAN and East Asia (ERIA).[7] It improves access to international markets through participation in global value chains, the Organisation for Economic Co-operation and Development (OECD) said in an interview for this report. As FDI increases competition, resources are reallocated to more productive firms and a country's aggregate productivity consequently increases in the long run, the World Bank said in its 2018 Global Investment Competitiveness Report.

Given that the US is home to several pioneering companies that lead their respective industries globally, it follows that US FDI has had a profound intangible impact on local industries, as evidenced by comments from both Indonesian companies and government officials interviewed for this report.

7 Jusoh, S., S. Hamanaka, I. Ramli, and D. Narjoko (2019), "Towards a Strong Services Sector and an Open Investment Environment in ASEAN," in Intal, P. and M. Pangestu, Integrated and Connected Seamless ASEAN Economic Community, Jakarta, ERIA, pp. 96–126.

pact

2.1 Technological Contributions

Bambang Prijambodo, the deputy head for economic affairs at the Ministry of National Development Planning (Bappenas), said the government recognized the contributions of US FDI in terms of technology transfer.

"American investors help drive the economy, from technology and manufacturing to services. Indonesia has 'actors' for the digital sector, however, it still needs improvements in technology," he said.

Information technology giant IBM, for example, has long played an integral role in helping shape Indonesia's IT industry in support of government goals. It has contributed to the development of Indonesia's digital transformation road map, and worked with major Indonesian firms — including 19 of the top 20 banks in the country — to provide bespoke IT solutions.

The Industry Ministry's secretary general, Achmad Sigit Dwiwahjono, said the ministry is in talks with several US companies on how they can support digitalization in Indonesia. The government is also working with leading US chipmaker Qualcomm to help address the circulation of illegal smartphones in the black market.

In the oil and gas sector, long a staple destination for massive amounts of US FDI, the impact has been substantial over many decades. "We owe a lot to US technology, especially in oilfield services," said Sarwi H. Notoatmodjo, the director of leading Indonesian oil and gas service provider IMECO, which has worked with both ExxonMobil and Chevron Pacific Indonesia over the past decade.

This includes, he said, wireline logging and perforating technology, directional drilling and well cementing, among others. Chevron is also known for developing the plans for Indonesia's first ultra-deepwater natural gas project, as well as bringing in enhanced recovery technologies to maximize oil potential and significantly prolong the life of mature fields.

In terms of renewable energy, Indonesia's first wind farm project — the Sidrap Wind Farm in South Sulawesi, which will produce 75 megawatts (MW) of electricity to power up to 70,000 households — was constructed by UPC Renewables, a US company now headquartered in Hong Kong, in collaboration with a local firm. The $150 million project was also financed by the US Overseas Private Investment Corporation along with Japan's Sumitomo Mitsui Banking Corporation.[8]

There is more that US firms can and want to do to help Indonesia reach its goal of increasing renewable energy use to 25 percent of its energy mix by 2025, once issues related to regulatory uncertainty and a cumbersome bureaucracy are addressed.[9] Foreign companies had been expecting a boom in renewable energy in recent years because of the 25 percent goal, but the difficulties of accommodating investment within a traditional national power strategy rooted in coal and diesel have been substantial.

> American investors help drive the economy, from technology and manufacturing to services. Indonesia has 'actors' for the digital sector, however, it still needs improvements in technology
>
> **—Bambang Prijambodo,** the deputy head for economic affairs of the Ministry of National Development Planning (Bappenas)

8 https://www.rambuenergy.com/2017/04/baker-mckenzie-advises-on-development-and-financing-of-indonesias-1s-wind-project/

9 https://www.eastasiaforum.org/2019/02/07/indonesias-struggle-with-renewable-energy/

2.2 Developing Local Businesses

With improved skills to run their businesses, the owners of *warung* stores grow and generate jobs, consequently benefitting their respective communities

US companies have also been empowering local companies, ranging from SMEs that can take advantage of innovative small business solutions offered by digital platforms such as Google and Facebook, to companies that benefit as suppliers or distributors for major US firms.

The direct licensees that work with Qualcomm in Indonesia, for example, get access to the chipmaker's technology and technical support. This access allows the licensees to create unique solutions and customize software installation, leading to local innovation. In addition, Qualcomm trains its licensees on how to use and leverage the technology.

Device manufacturer HP also works with more than 5,000 local business partners across the country for the sale and maintenance of its products in Indonesia, providing them with training and certification that raises skills and competencies.

The same story is seen in other industries. The long-running Sampoerna Retail Community program is operated by tobacco producer HM Sampoerna, owned by Philip Morris International, in cooperation with tens of thousands of small shopkeepers throughout the country. The owners of these *warungs* receive assistance and training in various business skills, including marketing and human resource development. With improved capacities to run their businesses, these small shops grow and generate jobs, benefitting their respective communities.

Sampoerna and major US agricultural firm Cargill also both invest heavily in educating the local farmers they source raw materials from. Oil palm farmers in South Sumatra, for example, experienced a 58 percent increase in revenue compared to the average earnings of local farmers in Indonesia after participating in Cargill's development program in 2013.[10]

IMECO's Notoatmodjo noted that US companies tend to enter the country with a "win-win" attitude and create mutually beneficial business relationships.

"Most US corporations understand the principles and values of affirmative action through the hiring of local people, establishment of joint ventures and/or the appointment of local agents," he said.

PT Rekayasa Industri, a contractor for the Banyu Urip oil field operated by ExxonMobil Cepu, echoed this.

"It's a milestone for PT Rekayasa Industri to be involved in the development of the Banyu Urip field project, from end to end. The mooring tower that we built was the first ever built completely by Indonesians. We also built the reservoir and other facilities, such as housing and a highway within this area," its former president director, Firdaus Syahril, said.

58%

Oil palm farmers in South Sumatra experienced a 58 percent increase in revenue compared to the average earnings of local farmers in Indonesia after participating in Cargill's development program in 2013

10 https://kalimantan.bisnis.com/read/20151203/99/498401/javascript and https://www.cargill.co.id/id/perkebunan-dan-pabrik-pt-hindoli

2.3 Knowledge Transfer

When US companies invest in a country, they do not just create jobs: they build a skilled workforce. Freeport alone spends $10 million annually to train its staff in underground mining activities — the only source of this kind of skill training in Indonesia.

Companies like IBM and Citibank are well-known training grounds for IT and banking experts, respectively. Having work experience in these companies immediately increases the marketability of Indonesian professionals, who gain world-class skills and become highly in-demand talents when they later work for local companies or even the government.

Former State-Owned Enterprises Minister Rini Soemarno and former Energy and Mineral Resources Minister Ignasius Jonan, for example, are both former Citibankers, while former Inalum president and new deputy minister for SOEs, Budi Gunadi Sadikin, used to work for IBM. It is not unusual to be with a group of senior Indonesian bankers or technology executives and realize many of them got their starts in Citi or IBM.

The knowledge transfer recipients are not limited to employees. Qualcomm provides telecommunications training workshops for government officials, university students and employees of local telecom companies. In health care, Pfizer and Merck Sharp and Dohme (MSD) have been helping improve the skills of health care professionals across the country.

Pfizer's EduCare program has helped improve the skills of more than 17,000 health care practitioners as well as the capacity of some 46 hospitals in 20 cities. MSD has also trained more than 2,000 health care professionals through scientific roundtable discussions, and this year significantly expanded access to its scientific seminars through the use of webinars.

Pfizer Indonesia, along with AmCham, also organized a healthcare summit this year for the private sector, policymakers and various stakeholders to discuss ways to enhance access to and the availability of innovative therapies for improved health outcomes in Indonesia.

"Our goal is to engage the government on how we collaboratively develop new innovative healthcare access schemes through public and private partnerships leveraging emerging technologies, creative patient assistance programs, as well as breakthroughs in supply-chain mechanisms," said Anil Argilla, the president director of Pfizer Indonesia.

To help build the foundations of Indonesia's digital economy, leading US companies are also helping provide the hard skills needed for Indonesians to fully take advantage of and benefit from internet-based industries.

Facebook's Developer Circles program, launched in 2017, seeks to equip local developers with world-class skills and help them network faster and more effectively. The program now has 25,000 members across 10 cities in Indonesia, with each Developer Circle headed by local community leaders, trained by Facebook in Silicon Valley or Singapore.

Facebook's Laju Digital and #SheMeansBusiness programs have also provided digital outreach and marketing training for more than 40,000 entrepreneurs and 5,000 students, government officials and community members in 41 cities across Indonesia. Its Instagram Academy has trained 1,300 entrepreneurs under the age of 35 using a curriculum designed to empower young businesses to grow their sales both domestically and abroad.

> Strengthening human capital through education is a very meaningful investment from the US.
>
> —**Achmad Sigit Dwiwahjono,** the Industry Ministry's secretary general

Apple also opened three Developer Academies this year in Indonesia — the first in Southeast Asia — in collaboration with BINUS University in Jakarta, Universitas Ciputra in Surabaya and Infinite Learning in Batam. The 10-month program includes 200 people in each cohort and is free to participants. It is intended to inspire and train the next generation of app developers by teaching not just the technical side of app development, but also business and design skills, allowing the participants to own the intellectual property they develop and giving them access to potential customers or backers. The program is open, not age-restricted nor does it require previous coding experience, and thus aims to boost the entire app economy in Indonesia.

"Becoming a developer and creating innovative apps for Indonesian society and global customers is a positive step toward building a strong digital literacy and ecosystem for the future," BINUS University Rector Harjanto Prabowo said during the Jakarta academy's launch in March.

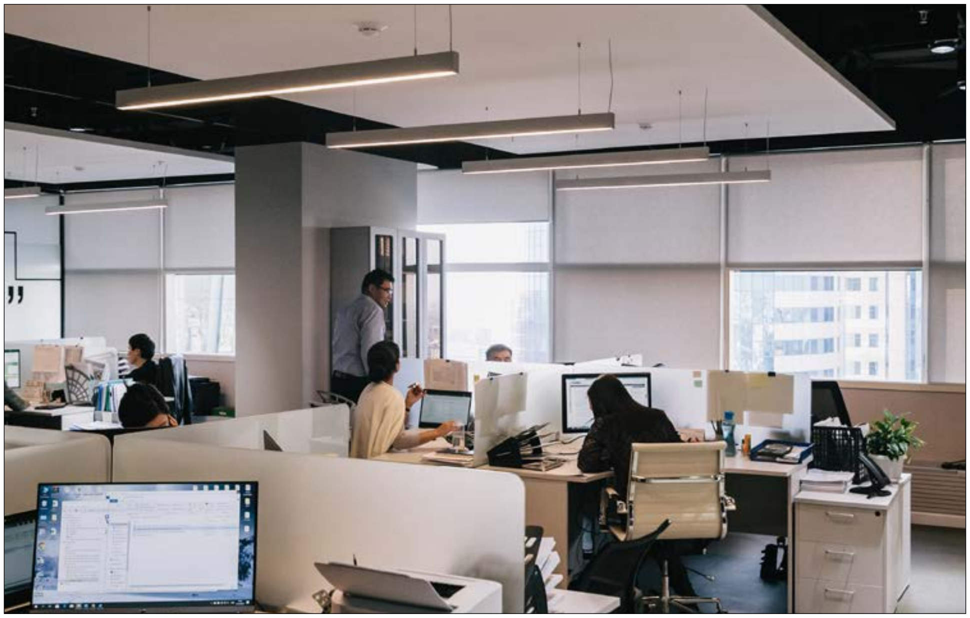
Pointing to Indonesia's goal of building an economy rooted in Industry 4.0, Industry Ministry Secretary General Achmad Sigit Dwiwahjono said, "Strengthening human capital through education is a very meaningful investment from the US."

In financial services, US ratings agencies have long helped connect Indonesia with international market participants abroad. By providing insights regarding Indonesian rated companies and debt securities, ratings agencies like S&P Global Ratings give international investors confidence to understand the risks involved, as well as ensure that Indonesian issuers can diversify their funding and optimize their financing costs.

Beyond that, S&P Global Ratings in recent years has also been working closely with Indonesia's sole credit rating agency, PT Pemeringkat Efek Indonesia (PEFINDO). By providing technical training and other capacity-building initiatives, S&P Global Ratings has been helping strengthen the foundations of the domestic debt capital market.

"We have always been a bridge between Indonesia and international investment opportunities," said Matthew Batrouney, head of South & Southeast Asia and Pacific for S&P Global Ratings. "We are committed to Indonesia in the long term and look forward to helping open up the local bond market to greater opportunities."

2.4 Management Practices



Perhaps one of the more intangible benefits US companies bring to Indonesia is their influence on corporate practices.

"Personally, I have been learning a lot in terms of the values of integrity, good business conduct and upholding customer trust through quality performance," IMECO's Notoatmodjo said.

The drive for higher standards of governance, both inside and outside corporate structures, creates an impact that extends far beyond the bottom line.

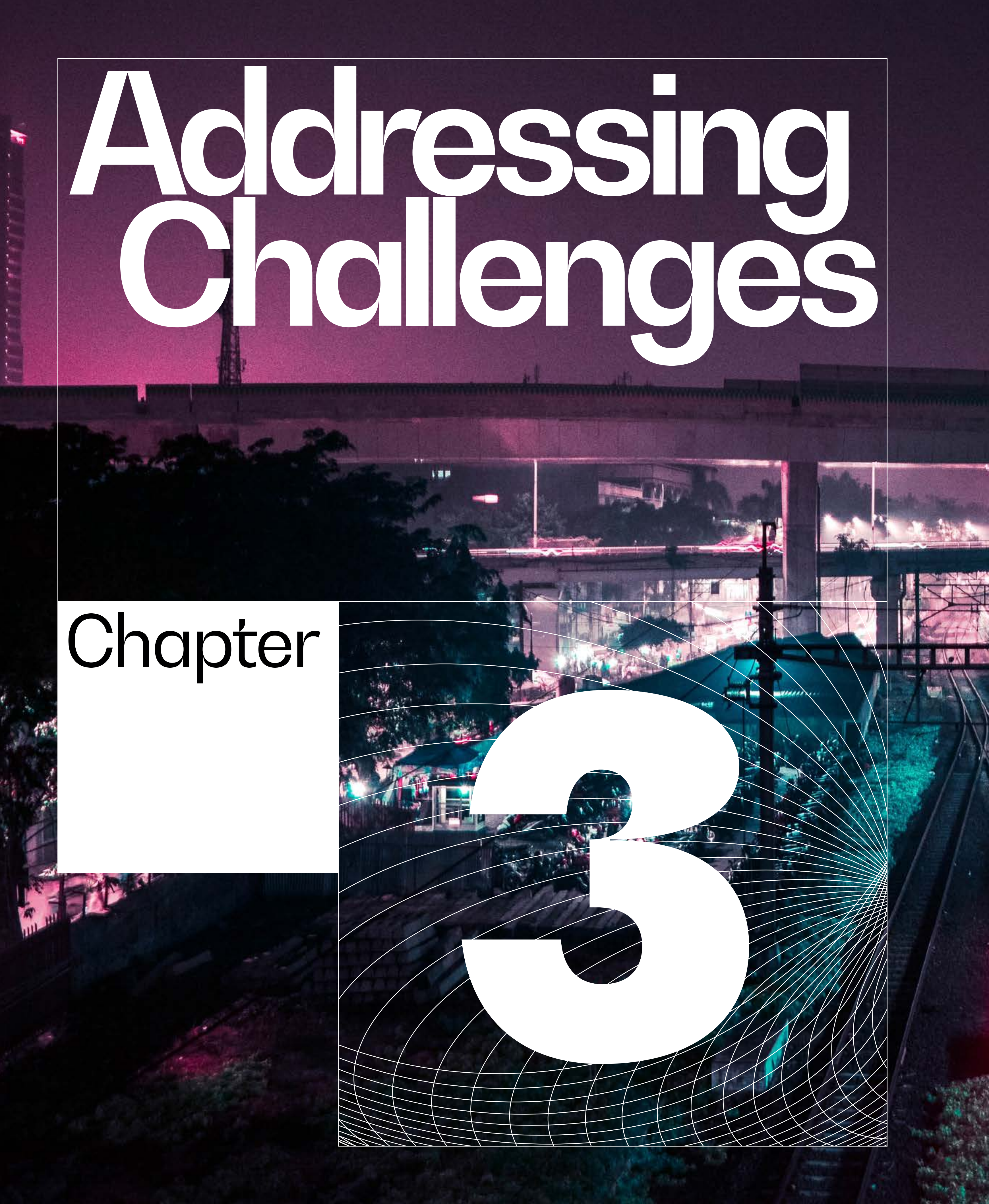
"We think one of the big ways US companies coming into Indonesia, investing and doing business here, beneficially affects not only SSEK and the work we do, but all foreign investors here, is through their advocacy for improvements in the regulatory and investment regimes," said Ira A. Eddymurthy, a founding partner of SSEK Legal Consultants and one of Indonesia's most experienced and highly regarded lawyers.

She cited as an example the recent Minister of Manpower decree on positions open for expatriate workers. The US business community, she said, used its experience and perspective to push for changes that helped produce the best possible decree for all stakeholders. Indeed, working with AmCham Indonesia and the U.S. Chamber of Commerce, SSEK and numerous companies greatly expanded the scope of the new decree.

"An improved regulatory environment, an improved investment environment benefits SSEK just as it benefits everyone," she said.

Addressing Challenges

Chapter 3



When President Joko Widodo was inaugurated for his second term in October, he reiterated the goal he has been working toward over the past five years: For Indonesia to escape the middle-income trap through economic transformation and bureaucratic reform.

But this time, informed by years of experience, he added a new emphasis: "Our work should no longer be process-oriented; we have to be results-oriented."

That distinction is key, as Indonesia struggles to attract the foreign investment it expects and needs, despite the 16 economic reform packages launched during Widodo's first administration. Investors were not bowled over by the packages — they wanted results.

Though our study shows that US FDI from 2013-2017 is already significantly higher than what official figures indicate, the fact is that US companies had been prepared to pour tens of billions of dollars more into the country. In our 2013 report, we wrote that interviews with US companies revealed they had $61 billion worth of investments planned over the next three to five years.

Total FDI figures from BKPM reflect the same story, fluctuating between $28.6 billion and $32.2 billion over the past five years, and struggling to reach the government target of $35.6 billion in 2018. Total upstream oil and gas investment figures were similarly on a downward trend from 2013-2017, largely due to nationalist resource policies that have steadily limited the space for foreign investment in favor of local companies.

From a regional perspective, while Indonesia accounts for a third of ASEAN's GDP, it only has about 10 percent of the region's FDI pie, according to OECD figures.

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Table 6	Indonesia's Investment Figures (in USD Mn)					
	2013	**2014**	**2015**	**2016**	**2017**	**2018**
Official Recorded FDI (BKPM)	28,600	28,530	29,276	28,964	32,240	29,308
Upstream Oil & Gas Investments (SKK Migas)	17,335	17,762	14,370	10,670	18,930	11,209
Total	**45,935**	**46,292**	**43,646**	**39,634**	**51,170**	**40,517**

In a world that is full of risk, very dynamic and very competitive, we have to continue to develop new methods, new values. We should not allow ourselves to get trapped in a monotonous routine.

—President Joko Widodo

The same struggle to achieve the desired investment results is seen in Indonesia's performance on global indicators that serve as benchmarks of economic competitiveness.

In a ranking comprising Indonesia, Malaysia, Thailand, Vietnam and the Philippines, Indonesia sits in 4th place in terms of the World Bank's Ease of Doing Business ratings, which the government has been paying special attention to since Widodo came to office space (see Table 7).

From 2013 to 2018, Indonesia made an impressive climb on the Ease of Doing Business chart, rising from ranking 128th in the list to 72nd place, showing not only the largest but the most consistent overall improvement among the five countries. During that period, the government released 15 economic policy packages that revised or revoked around 300 regulations. The World Bank said starting a business, getting electricity, registering property, getting credit, paying taxes, trading across borders and enforcing contracts all became easier.

However, Indonesia's progress stagnated after the 2018 report, slipping to number 73 in 2019 and 2020 — a long way from the president's goal of breaching the top 40.[11]

In terms of the competitiveness of the overall economy, Indonesia's performance is also slipping. In the World Economic Forum's recently published 2019 Global Competitiveness Index, the country dropped five places to rank 50th — its lowest position in the past seven years — largely due to poor performances in the categories of Information, Communication, and Technology (ICT) adoption, financial system and innovation capability.

By contrast, Vietnam climbed 10 spots to number 67 in the latest report. Overall, Indonesia has consistently ranked somewhere between Malaysia and Thailand ahead of it, and the Philippines and Vietnam below it (see Table 8).

These indicators clearly matter to the country, and they are watched closely by the highest levels of government. In his inauguration speech, the president emphasized that the old ways of doing things can't continue.

"In a world that is full of risk, very dynamic and very competitive, we have to continue to develop new methods, new values. We should not allow ourselves to get trapped in a monotonous routine," he said.

This is a direction we fully support. Decades of protectionist policies have proven counterproductive to sustainable economic growth, only holding Indonesia back from increased productivity and innovation.

Despite all the efforts to polish Indonesia's image with investors by making it easier to set up a business and obtain permits, the reality remains that the country is still relatively closed off to foreign investors, especially relative to Malaysia and Vietnam (see Table 9).[12]

"The reform with the greatest potential impact would be to substantially revise the negative list of sectors where FDI is restricted," OECD experts said in an interview for this report. "Indonesia is one of the most restrictive countries under the OECD Regulatory Restrictiveness Index." A more open revision of the DNI, the negative investment list, was prepared in 2018 with substantial input from local and foreign investors. But before it could be issued, it was pulled off the table, apparently due to political considerations ahead of the 2019 elections. It has yet to see the light of day.

3.1 How Indonesia Ranks Against Other ASEAN Countries

Table 7

Ease of Doing Business Ranking

The Doing Business report measures regulations affecting 11 areas of business life, from starting a business to resolving insolvency. The indicators are used to analyze economic outcomes and identify what regulatory reforms have worked, where and why. The 2020 report ranks a total of 190 economies.

Country	2013	2014	2015	2016	2017	2018	2019	2020
Malaysia	12	6	18	18	23	24	15	12
Thailand	18	18	26	49	46	26	27	21
Vietnam	99	99	78	90	82	68	69	70
Indonesia	128	120	114	109	91	72	73	73
Philippines	138	108	95	103	99	113	124	95

Source: World Bank, Doing Business Report 2013-2019

Table 8

WEF Global Competitive-ness Index Ranking

The Global Competitiveness Index aggregates 103 indicators to provide a detailed map of the factors and attributes that drive productivity, growth and human development. Countries that score better and rank higher are seen to have fewer constraints to productivity growth. The 2019 report ranks a total of 141 economies.

Country	2013	2014	2015	2016	2017	2018	2019
Malaysia	24	20	18	25	23	25	27
Thailand	37	31	32	34	32	38	40
Indonesia	38	34	37	41	36	45	50
Philippines	59	52	47	57	56	56	64
Vietnam	70	68	56	60	55	77	67

Source: World Economic Forum, Global Competitiveness Report 2013-2019

Table 9

OECD Regulatory Restrictiveness Index

The OECD FDI Regulatory Restrictiveness Index gauges the restrictiveness of a country's FDI rules through four types of restrictions: foreign equity restrictions; screening or approval mechanisms; restrictions on key foreign employment; and operational restrictions. Restrictions are scored on a range from 0 (open) to 1 (closed).

Country*	2013	2014	2015	2016	2017	2018
Vietnam	0.281	0.281	0.132	0.132	0.132	0.130
Malaysia	0.255	0.254	0.253	0.253	0.252	0.252
Indonesia	0.321	0.335	0.335	0.313	0.313	0.313
Philippines	0.417	0.406	0.406	0.390	0.390	0.374

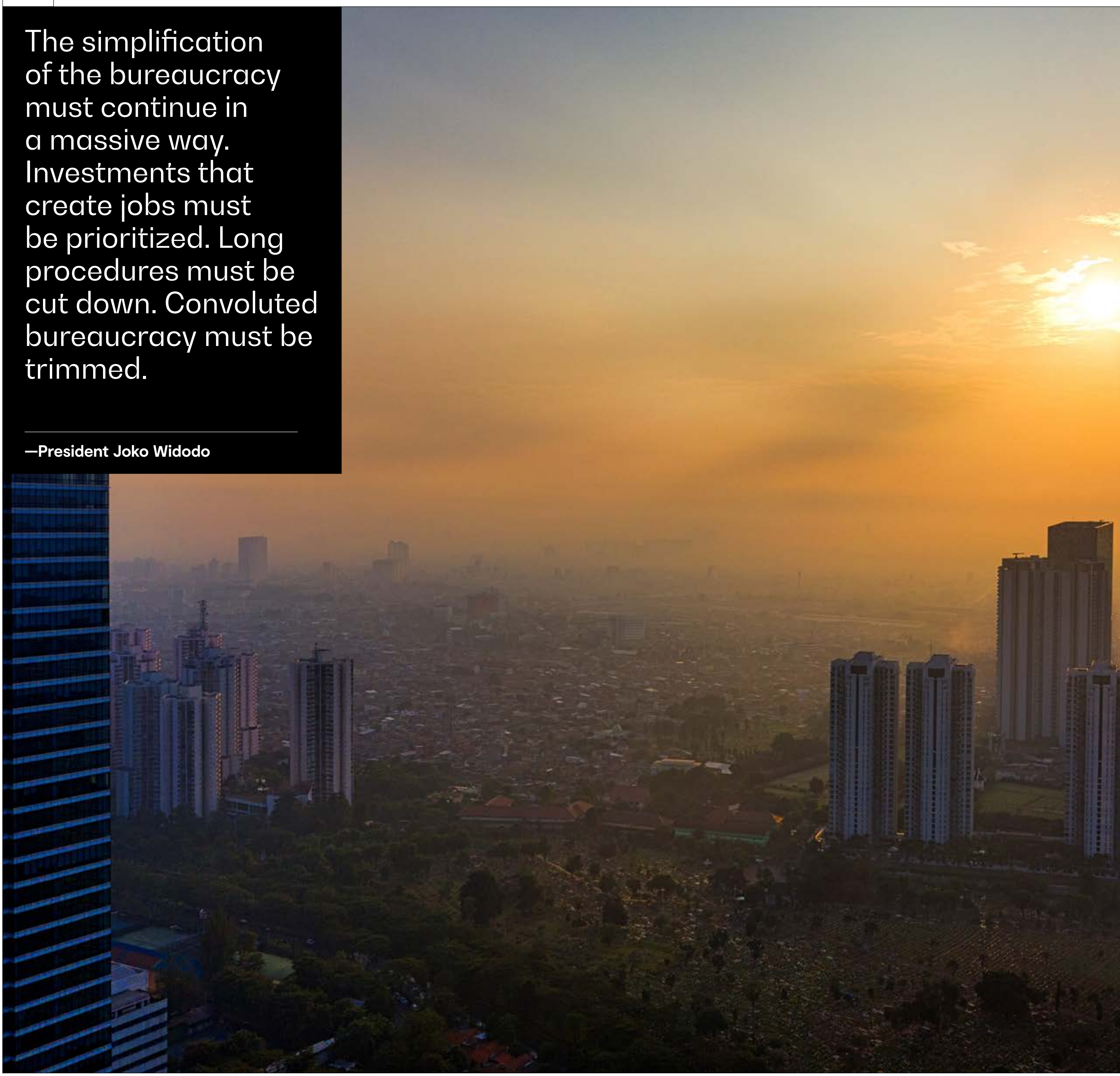
*Index for Thailand is not available in OECD

Source: Organisation for Economic Co-operation and Development (OECD) Stat, OECD FDI Regulatory Restrictiveness index, https://stats.oecd.org/Index.aspx?datasetcode=FDIINDEX# (accessed Oct. 15, 2019)

11 https://www.thejakartapost.com/news/2019/10/24/indonesia-remains-at-73rd-in-world-banks-ease-of-doing-business-rankings.html

12 OECD iLibrary, FDI REGULATORY RESTRICTIVENESS INDEX, https://bit.ly/2NiBfiu

> The simplification of the bureaucracy must continue in a massive way. Investments that create jobs must be prioritized. Long procedures must be cut down. Convoluted bureaucracy must be trimmed.
>
> **—President Joko Widodo**



3.2 Looking for Real Results

The president's first administration justly deserves praise for many major infrastructure improvements and key bureaucratic reforms, particularly the launch of the Online Single Submission (OSS) system. Armed with a fresh mandate, his second term should now turn its attention toward deepening bureaucratic reforms to make a greater impact on the business operating environment, and reaching its investment targets.

As helpful as some of the initiatives are from Widodo's first term, they are far from complete. A common theme that emerged from our interviews is the need for the government to follow through on its plans and commitments — something the president himself noted during his inauguration.

"Oftentimes bureaucrats will report to me, saying that the program has been carried out, that the budget has been spent, that the accountability report has been completed," Widodo said.

"When asked, they reply, 'The program has been carried out, Pak.' But when I check in the field, when I ask the people, it turns out that the public have not received the benefits [of the program]. It turns out that the people have not felt the results."

This is a tale most businesses, whether foreign or local, can relate to. Once the permits are issued and the businesses are set up, the usual operational and even more fundamental problems remain — lack of skilled labor, low productivity, tax uncertainty, high logistics costs, overregulation, inefficient bureaucracy, corruption, regulatory inconsistency — slowing down further investment and painting a discouraging tale for potential investors. Importantly, negative experiences in the field reverberate strongly back at corporate headquarters, where Indonesia is just one country among many competing for the investment dollars of any given multinational company. Regulators need to understand that investors talk to one another and share their experiences. Missteps can have long-lasting results.

Government officials themselves recognize this. "After the OSS and tax holidays are done, problems in the operational stage — land acquisition, electricity, other aspects of the supporting environment — also need improvements," the Industry Ministry's Achmad Sigit Dwiwahjono said.

Our interviews with corporate executives and analysts revealed three main areas where deeper reforms are needed for Indonesia to achieve its targets.

Skills & Productivity

The shortage of skilled workers consistently comes up as a pain point for investors. It was therefore encouraging to see human resource development at the top of the president's list of priorities for his second term, with an emphasis on improving skill levels and inviting global talents. The appointment of Gojek founder Nadiem Makarim as minister of education and culture further created optimism that new innovations in the education sector can be found.[13] Makarim breaks the mold for education ministers because of his business background and the fact that he does not represent a traditional constituency for the bureaucracy. It will be fascinating to see if Makarim, one of the most innovative businessmen in Asia, can make progress on reforming and modernizing the conservative and entrenched education bureaucracy. Both local and foreign investors have consistently told AmCham that the national curriculum, with its emphasis on rote learning, is out of date with international trends that emphasize problem solving, collaboration and intellectual exploration.

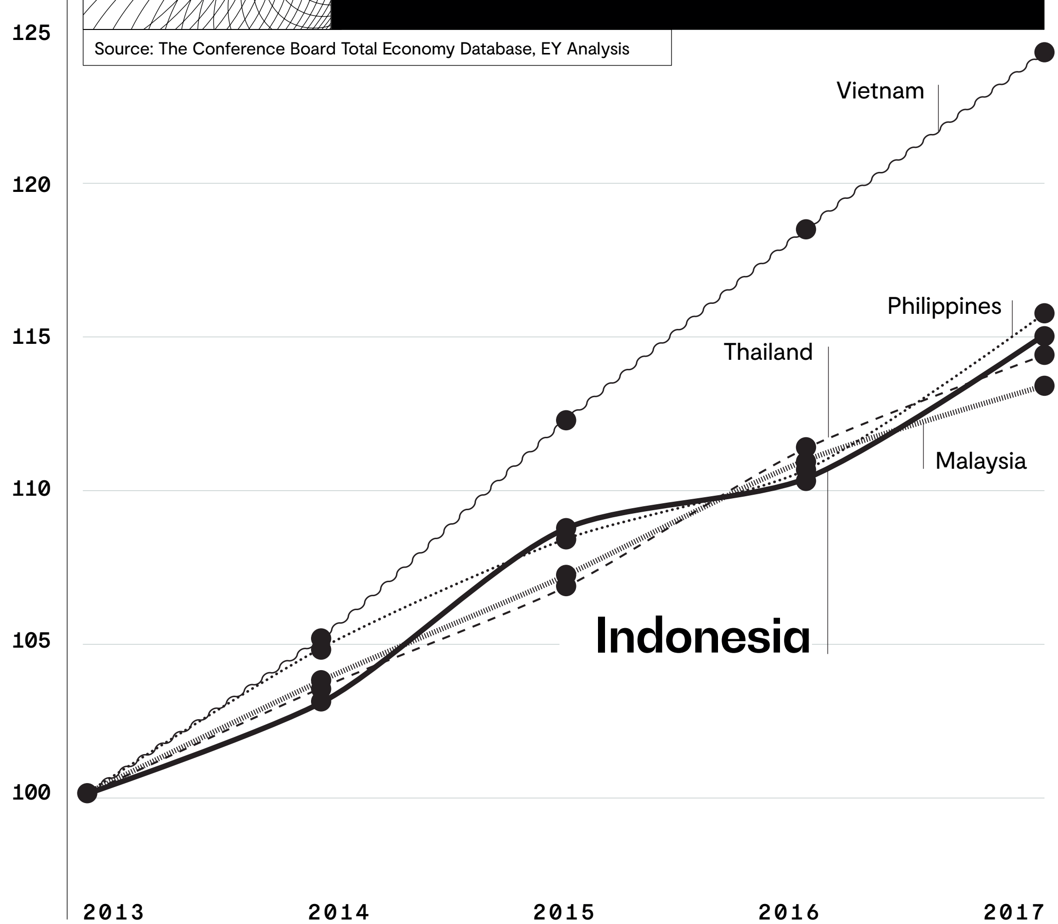
Reforms are also needed to address perennial issues of low productivity and legal constraints that make managing a workforce in Indonesia more difficult than in neighboring countries.

Though Indonesia's output per worker in 2017 ranked above the Philippines and Vietnam, its five-year productivity compounded annual growth rate (CAGR) for 2013-2017 fell below those two countries (see Figure 1). Vietnam's productivity per employed person saw a 5.51 percent CAGR during that period, followed by the Philippines with 3.66 percent. Indonesia came in third with 3.39 percent, slightly above Thailand's 3.36 percent and Malaysia's 3.14 percent.

Once wages are brought into the analysis, Indonesia's productivity ratio falls to last place among the five comparative ASEAN countries (see Figure 2). This is largely because the growth of labor productivity in the four other countries has been able to balance out the increase in their respective minimum wages.

Figure 1 | **Productivity Growth per Employed Person in 5 ASEAN Countries**

Source: The Conference Board Total Economy Database, EY Analysis



3.39%

Indonesia's productivity per employed person from 2013-2017 was lower than Vietnam and the Philippines

13 https://semarang.kompas.com/read/2019/10/24/16445931/forum-rektor-optimistis-nadiem-makarim-mampu-ciptakan-ide-out-of-the-box

> In its latest Doing Business report, the World Bank highlighted Indonesia's rigid employment system, particularly in terms of hiring, and minimum wage regulations as issues to address

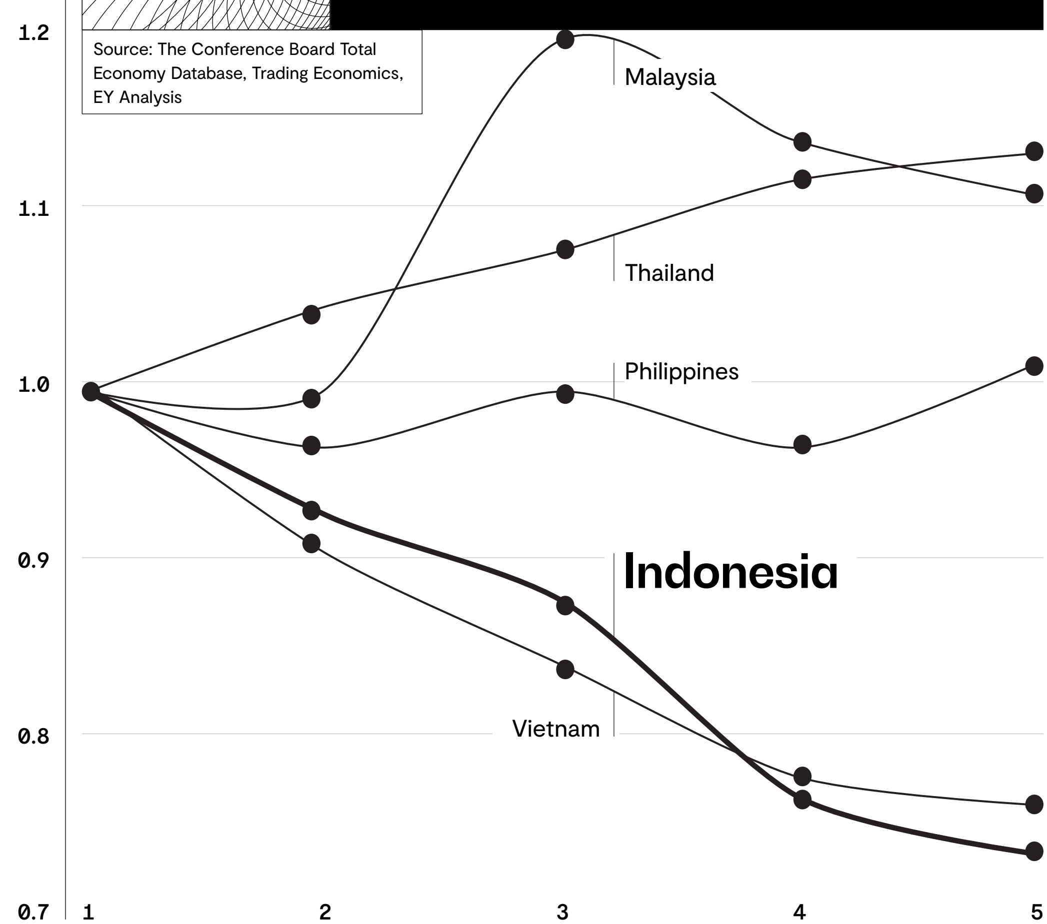
The World Bank also measures the potential productivity of a country's next generation through the Human Capital Index (HCI), which looks at the knowledge, skills and health that people accumulate throughout their lives, enabling them to realize their potential. Since 2015, Indonesia's HCI score has remained stagnant at 0.53, and ranks below Vietnam with 0.67 and Thailand with 0.60.

Compounding the problem are a host of additional constraints that both foreign and local companies agree make it more difficult to manage a workforce, such as inefficient and expensive procedures for hiring and firing, stringent severance requirements, and highly political discussions to set minimum wage rates.

In its latest Doing Business report, the World Bank highlighted Indonesia's rigid employment system, and minimum wage regulations as issues to address. The report found that the introduction of minimum wage increases resulted in a reduction in both hours of work and employment in the country. For example, a 10 percent increase in the minimum wage was associated with a 0.8 percent decrease in employment on average in a given province.

Figure 2 Productivity-to-Cost Ratio in 5 ASEAN Countries

Source: The Conference Board Total Economy Database, Trading Economics, EY Analysis



Overregulation & Bureaucracy

As with labor issues, it is encouraging to see the president prioritize changing regulatory constraints and continuously reforming the bureaucracy.

"All regulatory constraints must be simplified, cut and trimmed," the president said in his inauguration speech.

"The simplification of the bureaucracy must continue in a massive way. Investments that create jobs must be prioritized. Long procedures must be cut down. Convoluted bureaucracy must be trimmed," he added.

Between 2006 and 2015, the Ministry of Finance eliminated 1,474 regulations, or about 60 percent of the total.[14] It has also announced 25 new regulations to simplify business processes and tax identification number registration. The Ministry of Energy and Mineral Resources, for its part, has also removed 186 irrelevant or redundant regulations.[15]

But more needs to be done. The World Economic Forum index on the burden of government regulation, which measures the difficulties companies face in complying with public administration requirements (i.e. permits, regulations, reporting), showed Indonesia improving only slightly from 4.0 in 2013 to 4.1 in 2018. Much of the improvement has so far focused on the early investment phases, while significant hindrances to growth and expansion during the operational stages remain. In other words, it is one thing to attract investment, it is quite another to treat existing investors well.

It was again therefore encouraging to hear President Widodo push for a new omnibus law that will override several regulations that hamper job creation, business operations and overall investment. But a mindset that recognizes the need for regulatory certainty is crucial. Increasing divestment requirements imposed on foreign companies in the oil and gas, mining and even the EPC (engineering, procurement and construction) sectors are already serving as cautionary tales for other foreign companies considering entering Indonesia.

While the government focuses on issuing tax holidays and other incentives to attract foreign investors, companies increasingly say these are not key deciding factors for investment decisions because competing countries offer the same lures. The World Bank's recently released report, Global Economic Risks and Implications for Indonesia, points out that no amount of tax incentives or holidays is enough to attract FDI if operational issues are not addressed.

"Indonesia must surprise investors with bold reforms that create credibility that Indonesia is really open for business, certainty that rules are predictable and not discretionary, and compliance with the President's policy," it said.

More important, executives say, is the certainty that they would have room to grow, control their own business decisions, manage their labor forces and make long-term plans without fear of sudden regulatory shifts that might result in forced divestment or other changes.

1,474

Between 2006 and 2015, the Ministry of Finance eliminated 1,474 regulations, or about 60 percent of the total

14 Media Keuangan Volume XIII/ No. 128/ Mei 2018, Kemenkeu

15 http://ebtke.esdm.go.id/post/2018/03/05/1902/menteri.esdm.regulasi.dan.perizinan.yang.menghambat.investasi.kembali.dicabut

Cost of Business

All the factors so far discussed contribute to uncertainty surrounding the cost of conducting business in Indonesia. While tax incentives mean reduced costs at the start, it is often not enough to outweigh the high costs of business operations.

For instance, land acquisition is considered the most challenging phase of infrastructure development, with the Coordinating Ministry for the Economy acknowledging that 44 percent of problems surrounding infrastructure projects concern land acquisition.[16] If even the government struggles with land acquisition, then no wonder costs are sharply higher for private enterprises.

The president has emphasized that the government will continue to prioritize infrastructure construction, due to the country's logistics costs remaining persistently high, even after the $400 billion infrastructure program during the first Widodo term.

While Indonesia's spot in the World Bank's Logistics Performance Index (LPI), which measures a country's performance on trade logistics, climbed 17 places to 46th in 2018 from 63rd in 2016, it still lags behind Malaysia, Thailand and Vietnam, the latter of which jumped 25 places to rank 39th in 2018.

This is because the LPI not only measures infrastructure, but also looks at international shipments, logistics quality and competence, tracking and timeliness. Among the components of LPI, Indonesia scored below most of the other large ASEAN countries on customs and logistics quality and competence in 2018.

Corruption, including "facilitation" payments, also raises business risks and costs. Indonesia's efforts to reduce graft have so far had limited overall impact, with its performance on the Corruption Perception Index ranking at 89th out of 180 countries in 2018. The September 2019 passage by the outgoing legislature of the amended Corruption Eradication Commission (KPK) law has also raised concerns that the body is being substantially weakened.

16 https://www.thejakartapost.com/news/2019/01/02/land-acquisition-hampers-construction-west-java-reservoirs.html

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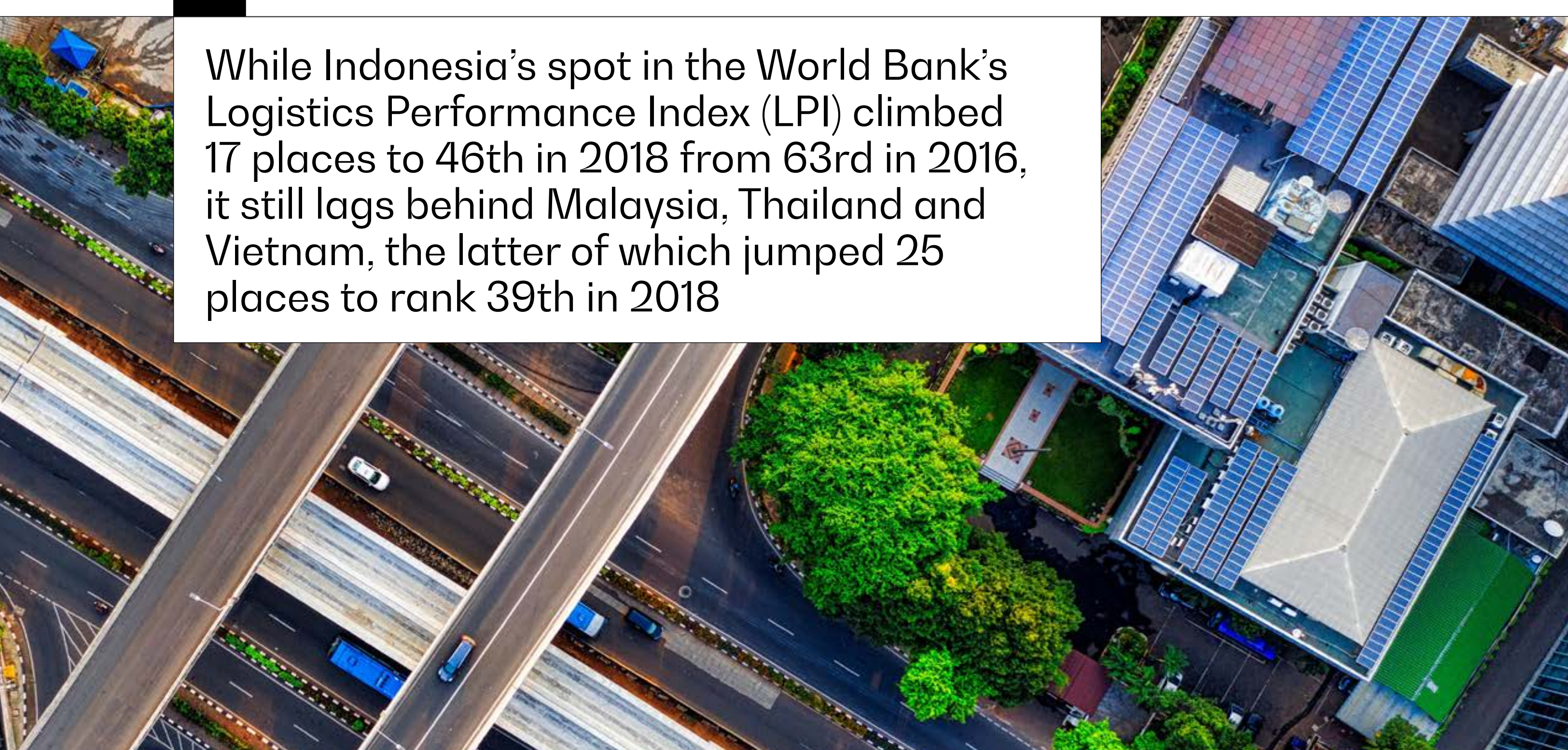

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Chapter 4

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P.23—40

4.1 Technology

Indonesia can become a valuable part of the technology industry's global supply chain if it addresses human capital needs, eases regulatory constraints and strengthens protection of intellectual property rights. If it fails to do these things, it risks missing out on being a key part of the global supply chain.

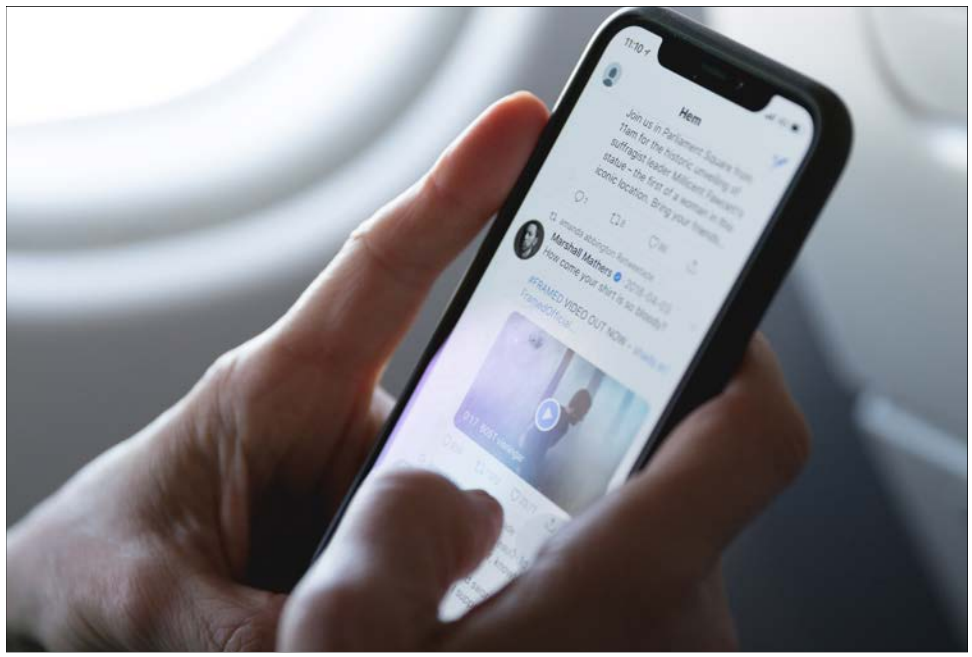


Table 10 Investments in Transportation, Storage and Communication (in USD Bn)

2013	2014	2015	2016	2017	2018	Total (2013-2017)	5Y CAGR (2013-2017)
2.0	1.9	1.6	2.1	0.5	29,308	8.1	-28%

Source: EMIS Industry Insight. Indonesia ICT Sector Report 2019/2020

Key Recommendations

1	2	3	4
Address shortage of specialized work-force (e.g. engi-neers, technicians) through systemic improvements in the educational system and easing of foreign worker permits	Review and ad-dress regulatory constraints related to import permits, duties and taxes for information and communications technology (ICT) companies	Conduct public consultations for the revision of the 2016 Patent Law	Provide stronger intellectual property rights ecosystem and protection

Amid the government's strong push to expand the manufacturing sector and increase the focus on all thing tech, investments in the sector have struggled to grow. In fact, government data show that investments in transportation, storage and communications have declined by a five-year compounded annual rate of 28 percent.

Our interviews with various stakeholders revealed that despite the imposition of local content requirements to force more domestic manufacturing, limitations in terms of skilled labor, logistics and research capabilities as well as regulatory constraints weigh more on investor decisions to enter or expand in Indonesia.

This is largely because most electronic devices today are manufactured through global supply chains that span several countries. However, Indonesia's costlier and inefficient logistics, along with import duties and restrictions, make the country less competitive as a base for production than others like Thailand and Vietnam.

For instance, there has been an increase in the withholding import tax rate on electronic products to protect domestic producers.[17] However, a number of products that saw higher taxes are not available domestically, which means the goal to protect domestic producers instead resulted in higher local prices for consumers. Consequently, this encouraged consumers to purchase electronic products overseas and smuggle them into Indonesia, resulting in a loss of tax income for the government.

While a 2018 Ministry of Finance regulation on government-borne import duties for certain industries allows tech companies to file for tax refunds, the lack of clarity in the requirements has so far meant industry players have been unable to take advantage of it. In practice, the refunds can be delayed for years and result in costly audits that are difficult to resolve.

In terms of permits, companies need a letter of recommendation from the Ministry of Industry before importing electronic products, which needs to be renewed every six months. This creates a "blackout" period during the renewal process when no importation can be done. By contrast, other Southeast Asian countries have a system for automatically renewing import licenses to prevent these kinds of situations, creating an operating environment more conducive to doing business.

Indonesia also requires that imports of electronic products are inspected at the source country — a procedure not seen in other countries with large electronic manufacturing industries — which often creates delays. While we understand that many of these restrictions are aimed at forcing companies to manufacture locally, Indonesia does not yet have the high technology environment needed to support the fabrication of specialized components, such as semiconductors. Absent a well-developed supply chain, Indonesia is not generally attractive to high-tech manufacturers. Additionally, the goal of generating tens of thousands of jobs through more domestic electronics manufacturing is challenging, as many of these tasks are increasingly being done by robots.

However, the industry's experience over the last few years with how local content requirements were redefined and relaxed in some cases to address the realities of the industry has created some optimism that these constraints could be addressed by the government.

In 2017, the Ministry of Information and Communications Technology decided to exempt non-smartphone devices from local content requirements following feedback from industry players. They argued that the restrictions would have made several products more expensive or unavailable in the local market.

The ministry also redefined "local content" beyond hardware and software to include innovation development. This allowed Apple, for example, to open a developer academy and use it to comply with the local content requirement on iPhones.

Aside from production issues, tech companies in Indonesia also face challenges protecting their intellectual property. A stronger ecosystem to protect intellectual property rights is needed.

For instance, there are concerns that Article 4 of the 2016 Patent Law could be read to significantly limit the range of products that can be patented in Indonesia and made available to Indonesian consumers, including new forms of software. More clarification is needed to anticipate the growing number of innovations in the digital economy era from both local and international start-ups.

Enforcement is also weak, which means that regardless of existing legal protections, the reality is that it remains very difficult for companies and individuals to go after those who infringe on their intellectual property rights.

In the latest Special 301 Report from the Office of the US Trade Representative on the protection of intellectual property rights, Indonesia remains on the priority watch list due to the lack of adequate and effective IP protection and enforcement.

17 https://www.ey.com/gl/en/services/tax/international-tax/alert--indonesia-releases-new-regulations-on-import-taxes

4.2 Digital Economy

Given the potential of Indonesia's digital economy, the government should take the lead in adjusting its regulatory approach to adapt to the sector's fast-changing needs.

Key Recommendations

1	2	3
Undertake progressive education reform to prepare graduates for tech-driven jobs	Establish strong and sound regulations on cybersecurity, data protection and data transfer	Identify and amend regulations that serve as roadblocks to the development of digital economy

With Indonesia home to the fourth-largest population in the world, it's easy to see why the digital economy holds so much promise for the country.

The market value of the country's digital economy could grow almost fourfold from $27 billion in 2018 to at least $100 billion by 2025, according to a study by Google and Singaporean sovereign wealth fund Temasek. A McKinsey report adds that the sector could produce 3.7 million new jobs by then.[18] On his first day on the job, Indonesia's new minister for information and communications technology (ICT), Johnny G. Plate, said he believed Indonesia could produce more tech unicorns and even a hectocorn — a start-up valued at $100 billion.[19]

Indonesia definitely has the momentum. Between 2014 and 2018, the internet penetration rate grew from 29 percent to 46 percent.[20] In October, just before Widodo's first term as president ended, the massive Palapa Ring project was officially launched, connecting the capitals of 514 districts and cities across Indonesia to high-speed internet.

Despite several delays, the amendment to the data localization requirements under Government Regulation (GR) No. 82/2012 was also issued after a multi-year process of advocacy and discussion. The regulation, GR71, removes a key regulatory constraint by allowing private companies, in most cases, to maintain their data centers offshore. The revision process also showed that the government is increasingly willing to engage and listen to industry players.

Despite this progress, there is still much to be done. While Indonesia's internet penetration rate is projected to grow to 77 percent by 2025, that would still put it behind the 2019 numbers of neighbors like Malaysia at 80.1 percent and Thailand at 82.2 percent, according to figures contained in a 2018 report from the communications ministry. Internet access is also uneven, with only 21 percent of people in poor areas connected to the web, in contrast to 91 percent in more affluent regions.

This disparity has an impact on the country's digital literacy, and could be one of the reasons Indonesia is not producing enough programmers and tech engineers. With Gojek founder Nadiem Makarim heading the Ministry of Education and Culture, there is optimism that the mismatch between the country's graduates and the jobs of the future can eventually be reduced. President

18 https://www.mckinsey.com/~/media/McKinsey/Locations/Asia/Indonesia/Our%20Insights/Unlocking%20Indonesias%20digital%20opportunity/Unlocking_Indonesias_digital_opportunity.ashx

19 https://en.tempo.co/read/1263684/kominfo-to-boost-unicorn-startups-eyes-the-birth-of-hectocorn

20 https://www.mckinsey.com/~/media/McKinsey/Locations/Asia/Indonesia/Our%20Insights/Unlocking%20Indonesias%20digital%20opportunity/Unlocking_Indonesias_digital_opportunity.ashx

77%

Indonesia's projected internet penetration rate by 2025, which is still behind the 2019 numbers of Malaysia and Thailand

Widodo has reportedly asked him to amend the curriculum to ensure that it is flexible enough to keep pace with the changing labor market.

Even with increased access to the internet, cybersecurity and data privacy concerns are holding back consumers from fully adopting digital e-commerce and financial services, according to the Indonesian Internet Service Providers Association. This lends urgency to the need for the legislature to pass comprehensive personal data protection and cybersecurity laws, but ideally after extensive consultation with stakeholders and industry players.

It is therefore encouraging to hear the new ICT minister name among his key priorities the passage of a comprehensive personal data protection law, the further development of IT infrastructure, and the improvement of digital skills.

In addition, a wider review to identify regulatory roadblocks to the development of the digital economy is needed, such as those related to data sovereignty, the balance between data protection and data innovation, the adoption of digital signatures and analogue rules governing data access by law enforcement (see related box).

We are hopeful that the new administration will build on the gains of the past five years and create a a more flexible regulatory environment that is comfortable with constant innovation, where new products and services like digital platforms and super-apps that do not fit into any existing categories will not have to spend years waiting for regulators to catch up with them.

Redefining data access principles for the digital era

As regulators around the world struggle to keep pace with the needs of the digital economy, a progressive approach to data governance that redefines how information is accessed in the digital era is winning investor confidence.

While it has long been a right for law enforcers to demand access to information needed for investigations — such as financial records or corporate correspondence — the advent of cloud storage has changed the way things work. With more and more companies storing their data with third-party providers of digital storage services or data centers, the question of how that information can and should be accessed by law enforcers must be revisited to keep pace with modern technology.

If the Corruption Eradication Commission needs a record of emails exchanged between an executive and a government official, can they compel a third-party tech company that is merely hosting the data to disclose and decrypt the data? If the police need to access financial records involved in a money laundering case, can they demand these from the data center where the suspect's bank stores its information? Or should the police only be able to demand this information directly from the bank — as they have done in the past?

A number of governments around the world are now agreeing that how law enforcers access data for evidence has to be aligned with the new nature of information in the digital era. To do so, data centers are being designated as "trusted data zones/areas," a neutral space where customers can be reassured that law enforcers do not use third-party cloud service providers as an inappropriate loophole to access that information without legitimate companies having notification.

The principles underlying these "trusted data zones/areas" recognize that data center operators do not own any of the data entrusted to them for safekeeping. Its customers retain ownership and rights to that information. The principles also recognize that law enforcement access needs should be directed at the rightful owners of that data, and that governments would not demand backdoor access or encryption keys.

A commitment from the government to these principles can already unlock millions of dollars in potential investments in data centers, which would help improve Indonesia's digital infrastructure, and in turn power the growth of smart cities and create more unicorns.

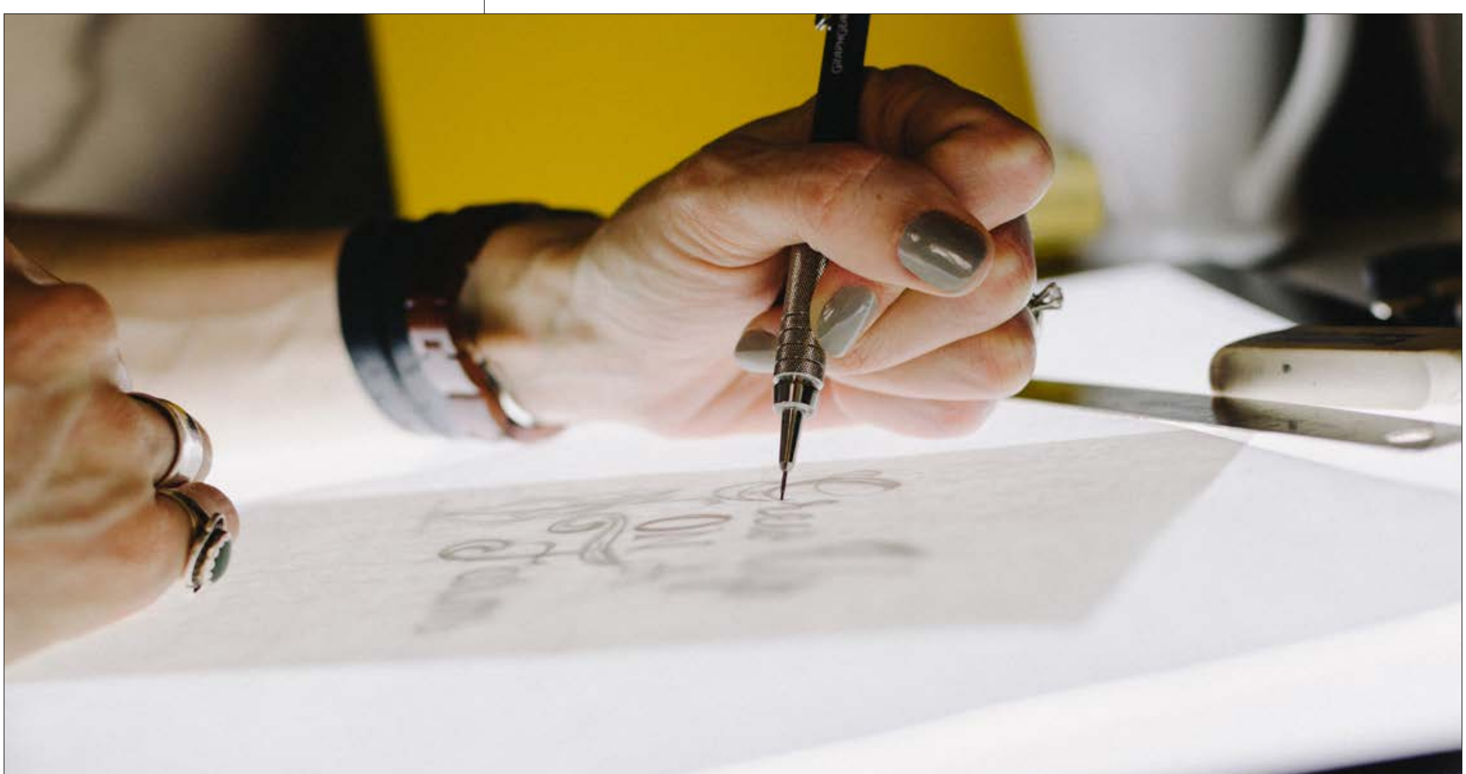
"Analogue ways of doing things have to be reviewed to see if they still work in the digital era," AmCham Managing Director A. Lin Neumann said. "It would be difficult for Indonesia to achieve its digital economy goals without progressive policies that recognize that access-to-data rules need to change."

4.3 Creative Economy

Intellectual property protection and market access barriers continue to be the two key factors constraining investments into this sector.

Key Recommendations

1	2	3
Further strengthen intellectual property enforcement	Reconsider plans to impose a local film screen quota of 60 percent	Streamline regulations surrounding the production of foreign films in Indonesia



Indonesia's creative economy could receive a much-needed boost following President Widodo's decision to upgrade the sector's regulator to a ministerial level. The Ministry of Tourism is now the Ministry of Tourism and Creative Economy, as it was under the administration of former President Susilo Bambang Yudhoyono; it is now headed by Wishnutama Kusubandio, a former journalist and founder of NET TV.

The move has both advantages and disadvantages. Triawan Munaf, the former head of the Indonesian Creative Economy Agency (BEKRAF) during the president's first term, said the body only acted as a facilitator with limited powers. A ministry, on the other hand, has the authority to create or remove regulations as needed. However, a ministry is also often seen as a standalone entity, which can make coordination difficult. This means that greater emphasis on coordination among government agencies is crucial.

In his initial interviews, Wishnutama discussed the needs and potential of the country's tourism sector — a key area the government wants to develop. The risk, however,

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30%

The United States was the top export destination for Indonesia's creative products at 30.25 percent in 2018, followed by Japan at 6.79 percent

is that less attention could be paid to the creative economy, which still faces a number of challenges.

Foremost among these challenges is copyright protection. While there have been gains over the past few years, it is evident there's more work to do.

A joint effort by various government agencies spearheaded by the ministries of law and human rights and communications and information technology led to the blocking of over 480 copyright-infringing websites between 2015 and 2018. These resulted in significant reductions in visits to illegal video and music piracy sites, with the second most popular site shutting down in November 2018.[21]

A report from the Office of the US Trade Representative also noted industry-led efforts to develop an Infringing Website List to help prevent the placement of advertisements on such websites. After acceding to the Madrid Protocol for the international registration of trademarks in 2018, it also noted that Indonesia has issued implementing regulations.

However, government agencies have so far been unable to address "domain hopping," a common tactic used to evade government-ordered site-blocking by redirecting domains. Two of the most popular infringing websites, indoxxi and lk21, frequently change their domain names to evade government efforts to block them, posing a big threat to the development of the motion picture and television industries.

Aside from this, an article in the Copyright Law provides a broad internet exception that could undermine the ability of copyright holders to control the manner and means by which they authorize the availability and dissemination of their content.

Criminal case structure and penalties under the Copyright Law have also been weakened, with minimum mandatory statutory criminal penalties removed. Article 95 of the law also appears to mandate mediation before a piracy case can be prosecuted, leading to fewer prosecutions.

Market access barriers also continue to deter foreign investment in the creative economy. Although Indonesia now allows 100 percent foreign direct investment in the production of films and sound recordings, as well as in film distribution and exhibition, the US trade report notes that content restrictions continue to undermine growth. Planned implementing regulations to the 2009 Film Law include a local film screen quota of 60 percent, which negatively impacts film distribution due to a lack of local films with wide audience appeal. Even the Association of Indonesian Film Producers (APROFI) does not support the quota.[22]

In terms of local content production, the industry is hampered by the usual problems related to skilled workers and access to funding. Few formal educational institutions cater to the needs of creative industries, while the entrepreneurs and SMEs that venture into the sector often struggle with limited access to capital. According to BEKRAF and Statistics Indonesia (BPS) data in 2017, many of these SMEs are not eligible for financial loans because they are neither registered as limited liability companies nor possess intellectual property rights.[23]

While foreign investments in movie screens have gone up as a result of the removal of film distribution from the negative investment list in 2016, film production has not taken off. A complex and cumbersome series of regulations, censorship hurdles, conflicting ministries to deal with and a deep suspicion of foreign filmmakers have combined to keep Indonesia an unattractive destination for Hollywood productions. It is hoped that the new ministry can streamline what could be an important source of both revenue and skills transfer for the local industry — not to mention showcase Indonesia's natural beauty for Hollywood audiences.

US companies are eager to support Indonesia's creative economy, and in fact the United States was the top export destination for Indonesia's creative products — such as fashion, crafts and food products — at 30.25 percent in 2018, followed by Japan at 6.79 percent.[24] If the new minister for tourism and creative economy leverages his office's greater powers to address regulatory constraints and enforcement issues, Indonesia's creative industries could truly flourish.

21 2019 Special 301 Report on Copyright Protection and Enforcement

22 https://www.amcham.or.id/en/news/detail/newsmaker-interview-fauzan-zidni

23 BEKRAF, "Opus - Creative Economy Outlook 2019"

24 https://www.thejakartapost.com/news/2019/07/01/bekraf-pushes-for-more-trade-deals-to-boost-creative-exports.html

4.4 Health Care & Pharmaceuticals

Indonesians can gain tremendous benefits from leading health care innovations around the world if regulatory constraints to foreign investment in this sector are eased.

Table 11 FDI in Health Care & Pharmaceuticals* (in USD Bn)

2013	2014	2015	2016	2017	2018	Total (2013-2017)	5Y CAGR (2013-2017)
3.14	2.32	1.96	2.89	2.58	12.9	-5%	-28%

Source: BKPM
*Includes manufacturers and distributors of cheap generic products, OTC medicine, traditional treatments, and medical devices

Key Recommendations

1	2	3	4	5
Create a roadmap to develop pharmaceutical research and development capacity	Remove constraints in Material Transfer Agreements to allow cross-border transfers of samples	Ease bureaucratic procedures involved in the introduction of new medical products	Consult with key stakeholders for the revision of the Patent Law	Review the public health implications of the Halal Law and its implementing regulations

On the back of Indonesia's impressive effort to bring hundreds of millions of people under the national health insurance scheme, the country's pharmaceutical sector saw a strong 8.3 percent compounded annual growth rate between 2014 and 2018 — a competitive performance compared to countries like Thailand and China, which recorded CAGRs of 9.5 percent and 8.2 percent, respectively, during the same period.[25]

This same strong growth, however, was not reflected in foreign investment numbers, despite government efforts to develop local manufacturing for active pharmaceutical ingredients (API). From 2013 to 2017, investments in the manufacturing and distribution of generic and over-the-counter medicine, as well as traditional treatments, declined by 5 percent CAGR.

The downward trend was seen even after 2016, when the government opened up API manufacturing to 100 percent foreign ownership in order to reduce imports. While that move may have brought in a few millions of dollars of investments to establish API factories, bigger challenges and considerations are weighing down investor decisions.

As with other industries, most modern medicines are manufactured through a global supply chain linking key production centers in various parts of the world. In terms of API — the raw materials that go into a drug — India and China dominate the global market, backed by decades of experience and massive economies of scale that would be difficult to replicate.[26]

This does not mean, however, that there is no room for growth in Indonesia's health care industry. In fact, pharmaceutical companies have long campaigned for Indonesia to fo-

8.3%

Indonesia's pharmaceutical sector saw a strong 8.3 percent compounded annual growth rate from 2014-2018

cus its attention on developing its clinical research sector. In 2018 alone, $179 billion was spent globally on clinical research and development, and this figure is expected to grow to $213 billion by 2024.[27]

Indonesia hardly gets a share of this spending because it has regulated itself out of the market. In addition to a lack of trained and experienced clinical researchers and doctors, there are crippling prohibitions — known as Material Transfer Agreements — on local blood samples being exported or analyzed abroad. In effect, Indonesians cannot participate in global clinical research trials.

While the Ministry of Health asked the pharmaceutical industry association three years ago to create a road map for clinical research in Indonesia, no subsequent steps to implement it have since been taken.

There is renewed optimism among investors that the new health minister, Dr. Terawan Agus Putranto, who is known for conducting his own research into new treatments for stroke patients, will recognize the importance of clinical research for Indonesia and lead efforts to build an environment that is conducive for this.

These issues, however, again just concern Indonesia's ability to attract new investment. Equally, if not more, important to investors is regulatory certainty once they are operating in the country.

For example, bureaucratic procedures involved in the introduction of new medical products — ranging from getting permits to importing and distribution — have discouraged foreign pharmaceutical companies from bringing in innovative health solutions that could otherwise benefit Indonesians.

Two major laws introduced over the past five years—the 2014 Halal Law and the 2016 Patent Law—have also raised substantial concerns over certain provisions and created regulatory uncertainty that has discouraged further investment. These issues were partially addressed after years of discussions between government officials, industry stakeholders and associations like AmCham Indonesia.

The Halal Law, which went into effect in October 2019, mandates that all pharmaceuticals and medical devices be certified halal, or permissible under Islam. Fortunately, the law's implementing regulations include grace periods of up to 15 years before all drug and medical device manufacturers have to comply. Rules on recognizing certifications by foreign halal bodies were also eased. With active debate still under way on the full implementation of the Halal Law, it is too early to analyze the full impact it may have on the health care industry.

While more clarity is needed in terms of how the grace period will be implemented, the fact remains that the Halal Law could impede the ability of Indonesians to access the best treatments available. Some critical drugs and vaccines *do* contain porcine enzymes and it is unlikely that drug companies will be able — or willing — to develop entirely new products just for the Indonesian market. There are concerns halal certifications could dictate treatment options, instead of a drug's suitability or efficacy. While non-halal products may still be sold under the law, the requirement to label such products as non-halal is expected to have major market repercussions.

For the Patent Law, the Ministry of Law and Human Rights is preparing an academic paper to serve as the basis for an amendment to be tabled in parliament next year that would hopefully correct onerous local manufacturing language and rules on compulsory licensing that are out of step with international best practices. Compulsory licensing is when a government allows a third party to produce a patented product or process without the consent of the patent owner. In practice globally, this only done under extraordinary circumstances; the current Indonesian language is vague and unclear.

In the meantime, the ministry has been responsive to industry and introduced workarounds as a stopgap measure, such as allowing patent holders to apply for a five-year postponement of the local manufacturing requirement. Nevertheless, the long and complex discussions over both laws have had an impact on the attractiveness of Indonesia as an investment destination.

25 Marketline Report. Indonesia – Pharmaceutical. March 2019

26 http://www.pharmabiz.com/ArticleDetails.aspx?aid=78233&sid=21

27 https://www.statista.com/statistics/309466/global-r-and-d-expenditure-for-pharmaceuticals/

4.5 Financial Services

Increasing financial inclusion and financial literacy in Indonesia begins with providing investors the regulatory environment they need to safely operate and grow.

Table 12 **Net Insurance Inward from Abroad (in USD Bn)**

2013	2014	2015	2016	2017	Total (2013-2017)	5Y CAGR (2013-2017)
0.04	0.05	0.05	0.08	0.08	0.3	12%

Source: EMIS Industry Insight

Key Recommendations

1	2	3	4
Review and address complex regulations that restrict capital market growth	Remove protectionist policies that constrain the development of the insurance industry	Establish strong and sound regulations in line with global best practices on cybersecurity, data protection and data transfer	Undertake educational reform to address shortage of skilled workers and ease hiring process for foreign workers

Powered by a young population with a growing middle class, Indonesia's financial services sector could be poised for significant growth.

For decades, the story of the financial services sector in Southeast Asia's largest economy has been one of underperformance: banking and insurance penetration rates were among the lowest in the region, capital markets were underdeveloped and financial illiteracy was high.

As of 2017, less than 40 percent of Indonesia's adult population had a bank account, less than 7 percent had credit cards and only 2.5 percent owned insurance policies. The Indonesian stock market only accounted for 47 percent of GDP in 2018, compared to 113 percent for Malaysia and 98 percent for Thailand.[28]

But market conditions are changing, with a fast-growing middle class demanding growth in both personal and corporate financial services. From 2017 to 2018 alone, peer-to-peer lending platforms say they have witnessed a 680 percent increase in disbursed loans to $1.4 billion.[29]

Our interviews with key stakeholders reveal that progressive policymaking responding to the changing nature of the industry and reflecting well-tested global experience will help ensure that financial services will meet demand. This means addressing complex and ever-increasing regulations and protectionist policies that have been keeping investors away and constraining growth. It also means increasing financial literacy, such as by educating the public regarding the required mindset change on insurance from the no-longer-viable belief in "family protection" to trusted, well-regulated "institutional protection."

According to Fitch Ratings, for instance, cumbersome regulations mean that bond issuance in Indonesia normally takes six months, as opposed to two to three weeks in countries like Malaysia, Thailand and Singapore.

28 IMF & World Bank, "Financial Sector Assessment- Republic of Indonesia 2017". http://documents.worldbank.org/curated/en/104191505745150824/pdf/Indonesia-FSAP-Update-FSA-07072017.pdf

29 https://www.kr-asia.com/indonesian-p2p-lending-transactions-hit-1-4-billion-in-2018

Powered by a young population with a growing middle class, Indonesia's financial services sector could be poised for significant growth.

In the capital-intensive insurance industry, the 80 percent cap on foreign ownership[30] makes it difficult for multinational firms to enter Indonesia, because of difficulties in finding a suitable local partner. The cap also makes it difficult for the company to eventually grow, since the local partner might not be able to support the additional capital requirements – persistent challenges that have been confirmed in our interviews.

Existing local licenses, held by companies holding out for offers from potential foreign investors, can be very expensive. Often, major issues in terms of professionalism and quality of operations are hidden during discussions, requiring a detailed understanding of a potential partnership that could contribute to the 20 percent local ownership requirement. The lengthy return-on-investment period involved also attracts little interest from other Indonesian entities.

From 2016, Indonesian insurers have also been required to reinsure all "simple risks" — life insurance and most property and casualty insurance — only with domestic reinsurers. While the move was aimed at helping develop the local industry — another "local content" requirement — it has instead raised overall risk by forcing companies to retrocede their businesses to those with lower credit ratings, low capitalization and questionable transparency.

A sustainable approach would focus on building a skilled workforce that is ready to respond to the growing needs of financial services companies. There are only about 200-300 certified actuaries in Indonesia, a figure that is growing slowly,[31] but work permits for foreign workers have been limited and difficult to secure. While the government has been easing work permit regulations for expatriates in general, these efforts have not yet extended to the insurance sector.

Policies that create a more organic increase in demand will also contribute to sounder development. A strictly enforced mandatory third-party insurance coverage requirement, such third-party liability automobile insurance for example, would help fuel the growth of the industry. It would not only increase appreciation and demand for insurance products in general, it would also create a more secure environment for the general public.

Finally, ensuring that all these financial services have a safe space to grow through the passage of sound data protection and cybersecurity regulations is critical both from the consumer's and investor's perspectives. Multinational financial services companies have to be assured that the local companies they work with have sufficient data protection policies in place, and that they can easily move data across borders as needed.

President Widodo's first term saw a marked improvement in consultative policymaking, such as in accommodating the views of the private sector on the implementing regulations of the 2014 Insurance Law. Financial regulators have also been open to new technologies such as cloud storage and blockchain, and created regulatory sandboxes to test innovative fintech solutions. If the same approach can be applied and amplified to other issues in the financial services sector, the next five years could see tremendous progress toward Indonesia's financial inclusion goals.

30 http://www.gbgindonesia.com/en/main/legal_updates/new_government_regulation_on_foreign_ownership_in_the_insurance_sector.php

31 https://finansial.bisnis.com/read/20190612/215/933099/pasokan-aktuaris-asuransi-cukup

4.6 Agriculture

Addressing the sector's fundamental issues, like low productivity and limited land and labor resources, in addition to reliable production data and ensuring a fair playing field, are needed to encourage investment.

Table 13 FDI in Agriculture, Hunting, Fishing and Forestry (in USD Bn)

2013	2014	2015	2016	2017	Total (2013-2017)	5Y CAGR (2013-2017)
1.9	4.0	4.0	2.8	3.6	13.9	23%

Source: EMIS Industry Insight, Indonesia Agriculture Sector 2019/2020

Key Recommendations

1	2	3
Shift from drive toward food self-sufficiency to food supply security	Prioritize need to produce accurate agricultural data	Increase rate of adoption of modern farming techniques to increase productivity

Strengthening the agriculture sector has always been a priority for President Widodo. In 2016, the government eased foreign investment rules in the sector. Over the past five years, it worked on improving irrigation infrastructure, increased farmer subsidies for seeds and fertilizers, and provided modern farming tools to increase productivity.

And the efforts appear to have been paying off: Between 2010 and 2017, the sector's GDP grew an average of 3.7 percent per year, according to BKPM, exceeding the government target of 3.5 percent.[24] From 2013 to 2017, investment in the sector also grew by a compounded annual growth rate of 23 percent.

But significant challenges remain, according to industry players, which could affect the country's capacity to attract further investment in agriculture.

One recurring issue is the lack of reliable and accurate data on production and consumption of agricultural products, which often leads to misguided policies in terms of import quotas or restrictions that then lead to shortages and price spikes.

Is there enough corn produced domestically to supply industry and consumers? The government says yes and restricts imports; industry says no and is frustrated by barriers to imports. The net result? Investments have been cancelled that require an assured supply of corn as a raw material. In one recent instance, the government imposed restrictions on corn imports after the Ministry of Agriculture claimed the country had a surplus.[33] However, this claim was later found to have been based on faulty data, leaving companies short of supply for the domestic feed industry. The same problem has been seen in rice and other food products, with each case ending in a pledge from government officials to address the data issue.

Underneath this persistent problem is the desire to be self-sufficient in food production without addressing underlying productivity issues like land supply and technology. The result has instead been food supply instability that ends up hurting consumers. Self-sufficiency may sound good as a slogan but given interconnected global supply chains and scarce arable land as urbanization increases, it is both impractical and virtually impossible for most countries to attain.

Indonesia's crop and livestock productivity remains significantly low due to the lack of research and development, as well as slow adoption of modern farming techniques.[34]

Bigger challenges, however, include the declining amount of land and labor resources for the sector. While agriculture continues to be Indonesia's biggest employer, research has shown a shift in the structure of the sector's workforce as farmers age and youth show little interest in farming.

Data from Statistics Indonesia (BPS) also shows that land available for farming declined by 8.4 percent in 2018 from 7.1 million hectares a year earlier, as farmers sell their land for industrial purposes. While agricultural land is still available outside Java, food production is still heavily dependent on crops from Java, which has the most fertile soil. Farming in the regions also comes with higher risks due to logistical difficulties.

Improvements are also needed to the traditional agriculture value chain, which involves multiple informal intermediaries between farmers and consumers that lead to higher costs — in other words, powerful and shadowy domestic cartels that control production and prices illegally. Supporting infrastructure for food products is also in short supply, especially cold storage facilities for processed meat and seafood.

For example, Indonesia's seafood industry requires 14 million tons of cold storage capacity per year, almost double the current capacity of 7.5 million tons. Although the government has relaxed foreign investment rules for cold storage, foreign companies have been hesitant to enter the market due to infrastructure issues, such as unstable electricity supply and an underdeveloped road network, especially outside Java.[35]

Consistent with the findings in other sectors, government efforts to attract investors into the agriculture industry have so far focused on the entry phase — easing permits and licenses, as well as foreign investment caps. It is now time to pay more attention to fundamental operational needs, like labor and productivity issues, in addition to trustworthy production data, addressing domestic cartels that restrain trade, and ensuring the fair playing field that would provide business certainty over the longer term.

32 See https://www.thejakartapost.com/news/2019/08/02/bkpms-thomas-lembong-bullish-over-services-sector.html and https://ipb.ac.id/news/index/2019/09/minister-amran-indonesia-enters-the-world-s-no-5-exporter/62fc59039790f351fd3e4d760a3c4a20

33 https://www.liputan6.com/bisnis/read/3695590/klaim-surplus-jagung-kementan-dipertanyakan

34 EMIS Insights Industry Report: Indonesia Agriculture Sector 2019/2020

35 https://www.indonesia-investments.com/id/news/todays-headlines/weak-infrastructure-blocks-investment-in-indonesia-s-cold-storage-industry/item6830

4.7 Consumer Goods

In the face of continued consumer headwinds, further investments in the consumer goods sector can be encouraged by easing the regulatory hurdles that complicate the operating environment.

Table 13 FDI in Consumer Goods* (in USD Bn)

2013	2014	2015	2016	2017	Total (2013-2017)	5Y CAGR (2013-2017)
1.0	1.9	1.1	2.0	4.6	10.6	46%

Source: EMIS Industry Insight, Indonesia Consumer Goods & Retail Sector 2019/2020
*Includes FDI in wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods

Key Recommendations

1	2	3
Reduce import tariffs and remove import restrictions on raw materials needed by manufacturers of consumer goods	Conduct public consultations during the drafting of the implementing regulations for the Water Resources Law	Address uncertainties in the implementation of the Halal Law through upcoming ministerial decrees

The past few months saw two of the biggest regulatory issues facing the consumer goods industry achieve some resolution: the passage of the new Water Resources Law, and the issuance of the implementing decree for the 2014 Halal Law.

In September, the House of Representatives passed the new Water Resources Law, ending years of legal uncertainty created by cancellation of the 2004 Water Law by the Constitutional Court in 2015. The new law aims to create a better balance between the constitutional need to recognize water as a public commodity, and the needs of the business community to access this resource to provide the public with other basic needs.

It achieves this by still allowing private businesses to access surplus local water supply, after the needs of state enterprises are met, and only upon receiving licenses from relevant government bodies. Earlier plans to require companies to allocate 10 percent of their profits to water conservation were dropped, showing that the government is listening to the inputs of the business community.

The next challenge is ensuring a similar consultative process will be adopted in the drafting of the implementing decree for the new law.

The sweeping 2014 Halal Law has also raised significant concerns over increased regulatory burdens and higher compliance costs for a wide range of companies. But after years of consultations and discussions, the implementing regulation from the Ministry of Religious Affairs was finally signed on Oct. 16, just a day before the law was due to formally come into effect.

The government showed considerable flexibility in addressing the implementation of the new law, working with industry to adopt a phased approach that should give companies time to adjust to the new environment.

Unfortunately, the initial phase of halal implementation under the government's new Halal Certification Body has been marked by confusion and a lack of capacity, according to numerous companies and other stakeholders. Companies have been faced with looming deadlines and a massive new bureaucracy that may not be ready. The old system, under the Indonesian Council of Ulema (MUI), has not been fully integrated into this new official agency, and in the initial phases companies are having difficulty registering new products.

There are already requests from industry for the government to step in to avoid any economic setbacks from the implementation of one of the most all-encompassing halal regulations in the world. There are also concerns over exactly how cross-certifications from foreign halal bodies will work. Timelines have been written into the regulation but questions remain. vMore ministerial decrees are expected to outline which food, beverage, cosmetic and pharmaceutical products must be certified halal, and by when.

These regulatory issues complicate an operating environment for consumer goods companies already facing consumer headwinds.

At the start of the year, perhaps buoyed by the election season, 75 percent of respondents in a survey by Nielsen said they were more optimistic about their financial condition compared to five years ago.[36] But for the most part, consumers are still holding back spending on fast-moving consumer goods and allocating more of their budgets to transportation, education, health care and savings or loans.

The threat of slower sales growth is compounded by import restrictions on certain commodities used as raw materials, as well as higher import tariffs imposed last year on more than a thousand consumer goods.

While Finance Minister Sri Mulyani Indrawati said the policy was issued to address the country's ballooning trade deficit, she agreed earlier this year to review it if it disrupted the supply chain for exports — a concern raised by local and foreign industry players alike.[37]

36 https://www.nielsen.com/id/en/press-releases/2019/indonesia-is-in-the-top-3-markets-with-the-most-positive-financial-sentiment/

37 https://www.thejakartapost.com/news/2019/02/19/finance-ministry-to-review-import-tax-hike-for-1147-consumer-goods.html

4.8 Extractives

President Widodo began his new term saying he is dedicated to removing constraints to new investments. For the extractives sector, the lack of long-term regulatory certainty remains the biggest constraint.

Table 14 — **FDI in Extractives Industry (in USD Bn)**

Sector	2013	2014	2015	2016	2017	Total (2013-2017)	5Y CAGR (2013-2017)
Mining	4.8	4.7	4.0	2.7	4.4	20.6	-2%
Oil and Gas	16.4	16.8	12.7	8.6	6.9	61.5	-19%
Heavy Machinery	2.6	2.6	2.6	2.8	3.0	13.8	4%

Sources: BKPM, ESDM, SKK Migas, WAVTEQ

Key Recommendations

1	2	3
Review gross-split production-sharing scheme to improve attractiveness to foreign investors	Review implementation of requirement to process minerals prior to exportation to consider cases where it creates inefficiencies	Ease restrictions on imports of parts and components for heavy machinery

After a challenging decade as Indonesia sought to redefine its relationship with its extractive industries, prospects for the mining and oil and gas sectors may be looking up, particularly as strong commodity prices globally helped boost the industry in 2018.

President Widodo began his new term indicating he is dedicated to removing constraints to new investments and arresting the continuous decline in the country's oil and gas production. The coordinating minister for maritime affairs and investment, as well as the energy and mineral resources minister have both been told to help reduce the country's oil and gas imports — and consequently the trade deficit — by raising domestic oil and gas production levels.

Environment and Forestry Minister Siti Nurbaya Bakar also said the president asked her to support a massive deregulation package comprising 74 laws to boost investment without abandoning environmental preservation.

These are challenging but not impossible tasks. Indonesia's proven oil and gas reserves are still globally significant, according to the Indonesian Petroleum Association, and half of the basins in the country have yet to be explored.

Indonesia's mineral resources are likewise still considered superior to those of many other countries. However, practically no exploration is being done, largely due to laws that call for forced local processing and divestment. Indonesia received less than 2.5 percent of the global exploration budget from 2006 to 2014, and just around 1 percent from 2015 to 2018.[38]

Clearly, Indonesia's natural resources are still attractive, and there are global investors keen on helping Indonesia maximize the potential of these resources. But our interviews with key stakeholders show the country's regulatory environment is a major stumbling block.

In the oil and gas sector, the gross-split production-sharing scheme that replaced the former cost-recovery approach in 2017 is seen to place a much greater risk on the side of investors, making Indonesia less attractive as an investment destination compared to other countries.[39]

In mining, continuing uncertainty regarding exports and the mandatory processing of mineral ore, contract extensions and divestments have muted interest by many new investors and led some major players to leave, such as Newmont, which sold its stake in the Batu Hijau mine in 2016 to a local group, partly due to government pressure to build a smelter and other issues.

While mining companies can be established with 100 percent foreign ownership, the mandatory divestment required by the 2009 Mining Law during the 5th to 10th years of operations at unclear valuations creates a big risk for multinationals to undertake.[40] Additionally, the divestment requirement could also result in higher costs to the government for environmental rehabilitation after exploration/exploitation.[41] The huge investment required to build a modern mine calls for long-term certainty, which Indonesia has been unable to grant.

The inconsistent policies over the years regarding a ban on exports of mineral ore to support the development of a domestic processing industry have also contributed greatly to the uncertain environment. In the latest iteration, the Ministry of Energy and Mineral Resources has announced that Indonesia will stop nickel exports beginning Jan. 1, 2020 — two years ahead of schedule — to ensure continuing local supply for new smelters being constructed.

In an industry that operates under long-term plans spanning at least 10-15 years, these frequent policy changes again create a level of uncertainty.

The slowdown in the oil and gas and mining sectors has also significantly hit the heavy machinery industry, which is grappling with its own set of regulatory issues. Most heavy equipment companies in Indonesia are factories catering to both domestic and export demand. However, regulations on the import of required parts are often either inconsistent or subject to frequent and sudden changes. Often, the non-tariff barrier to import spare parts and components is linked to local industries making similar products. However, in many cases the local products do not meet international companies' quality and/or quantity demands.

Dwelling times at Indonesian ports still average 3.45 days — longer than the 2.3 days in Vietnam and Thailand and 1.5 days in Malaysia[42]— creating an issue for exporters. Worse, Indonesia's port handling fees total $9,627 on average, more expensive than $5,052 in Singapore, $4,493 in Manila and $5,511 in Hong Kong.[43] Industry players do, however, recognize the efforts made by the government to partially ease the regulatory burden over the past few years. The Ministry of Energy and Mineral Resources has revoked more than 180 regulations, leading to an improvement in Indonesia's performance in the Fraser Institute's 2018 Investment Attractiveness Index from 84th (out of 91) to rank 70th (out of 83).

Industry players have also noted the government's increased efforts to discuss issues with them before making policy decisions. But these efforts only remove a small chunk from the boulder of regulatory issues that investors see when they look at Indonesia.

Though the government has increased efforts at consultation, little of the industry feedback is reflected in the actual policies and regulations issued. While the Ministry of Energy and Mineral Resources is making an effort to listen to companies, inconsistences are also found in the implementation of regulations between the central and local governments, and even between ministries. The net result is that Indonesia is losing out on tens of billions of dollars in potential foreign investment in both oil and gas and mining.

In fact, regulatory uncertainty has long been raised by industry players as the key problem in the mining and oil and gas sectors. With the government's renewed thrust to bring investors back in, we are cautiously hopeful that this concern will truly be heard. There are numerous pending major investments, some of which we noted as far back our 2013 investment report, which could yet be realized — if companies are given clear and fair rules and the opportunity to operate free from the threat of forced divestment or the potential premature loss of concessions before a fair return on investment is realized. Unfortunately, by the very nature of the business, companies do not like to discuss their future plans in public, nor to disclose investments that were not made.

38 pwc.com/id/en/energy-utilities-mining/assets/mining/mining-guide-2019.pdf

39 EMIS Insight Industry Report, Indonesia Oil and Gas Sector 2018/2019

40 Indonesian Mining Institute, "Report on Indonesia Mining Sector Diagnostic"

41 https://bisnis.tempo.co/read/1177999/sudirman-said-sebut-divestasi-freeport-merugikan-ini-hitungannya/full&view=ok

42 https://www.cnbcindonesia.com/news/20190219194803-8-56496/insa-dwelling-time-saat-ini-sudah-baik

43 https://indoshippinggazette.com/2019/fakta-biaya-pelabuhan-di-indonesia-dibanding-negara-asean-hongkong/

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S

Chapter

5

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Steps

President Joko Widodo began his second term in office with a clear focus on economic and bureaucratic reform to propel Indonesia toward its dream of becoming an advanced economy.

"Our dream is that by 2045, Indonesia's gross domestic product will have reached $7 trillion. Indonesia will have become one of the top five world economies with a poverty rate nearing zero percent," the president said in his inauguration speech. "That is what we must head toward."

With the five priorities he outlined all related to economic and bureaucratic reform, it is clear the president recognizes the crucial role of the business community in achieving this dream. Developing Indonesia's human resources to create a better skilled workforce, continuing the construction of much-needed infrastructure, simplifying or cutting down unconstructive regulations, massive reform of the bureaucracy, and economic transformation toward a modern manufacturing and service-based economy are all important initiatives that would address many of the concerns raised by investors.

To contribute to the government's reform efforts, we would like to add our assessment of the challenges faced by investors in Indonesia today. Across various sectors, we found a number of similar underlying issues: the need to systematize consultations with key stakeholders and regulatory impact assessments, to improve coordination and communications between government bodies, and to focus on long-term goals over short-term gains.

$ 7 trillion

Our dream is that by 2045, Indonesia's gross domestic product will have reached $7 trillion. Indonesia will have become one of the top five world economies with a poverty rate nearing zero percent. That is what we must head toward.

—President Joko Widodo

Require public consultations prior to the issuance of regulations.

1

The president has raised the need for public consultations several times before, and a number of government agencies have shown improvement in this regard.[44] But consistency in implementation could be strengthened by systematizing the consultation process, such as through a government regulation, similar to what advanced countries like the US and Japan do.

In fact, according to the OECD, the public notice-and-comment system is seen as particularly important for lower-level rules and regulations, because it provides scrutiny of the regulatory processes inside ministries.[45] It not only leads to better regulations, but also improves compliance and reduces enforcement costs.

Create a dedicated government body for regulatory impact analysis.

2

The government should regularly conduct assessments of the real impact of new regulations before signing them. Many well-meaning regulations have created unintended consequences because of a lack of comprehensive understanding of their wide-ranging impact. Regulatory impact assessments, which, according to the World Bank, are recognized by most developed countries as a key instrument to improve the quality of regulatory decision-making, involves conducting cost-benefit analyses and recognizing that doing nothing or maintaining the status quo are available options as well.

The Ministry of National Development Planning (Bappenas) recognizes this need and agrees it would be good if Indonesia had a designated task force assigned to oversee the links between existing and new regulations, and to analyze the overall impact of new regulations on the country as a whole.[46] In other countries, task forces such as this exist as government bodies dedicated to this function. Indonesia could demonstrate its commitment to reform by following suit.

Improve coordination and communications between government bodies.

3

Across various industries, this issue is consistent and has been communicated regularly to AmCham by member companies. The clear delineation of responsibilities between government bodies is needed because inconsistent implementation even of good regulations can diminish positive results. Ministries still produce regulations that contradict each other, the tax regulator and the sector regulators often disagree on the interpretation of tax rules, one ministry will refuse to issue a permit for a project that another government agency has cleared, or the local government will release new regulations that contradict those from the central government.

The role of the coordinating ministries becomes more important in this regard. It is encouraging to hear the president give his new coordinating ministers the power to veto regulations within their domain that contravene the policies of the president or other ministries.[47]

This is a good start that could eliminate many of the inconsistencies that unnecessarily increase the burden on business players. We hope a similar approach can be adopted to improve the consistency between the central government and local governments as well.

Focus on long-term goals over short-term gains.

4

A common observation by industry players and analysts alike is how policymaking in Indonesia is often "reactive" to needs and issues, instead of being based on plans for the future.

Long-term planning for policymaking, for example, would have led the government earlier on to draw up a progressive education reform program to anticipate the workforce needs of the future instead of clinging to an outmoded curriculum that leaves students unprepared for today's world.

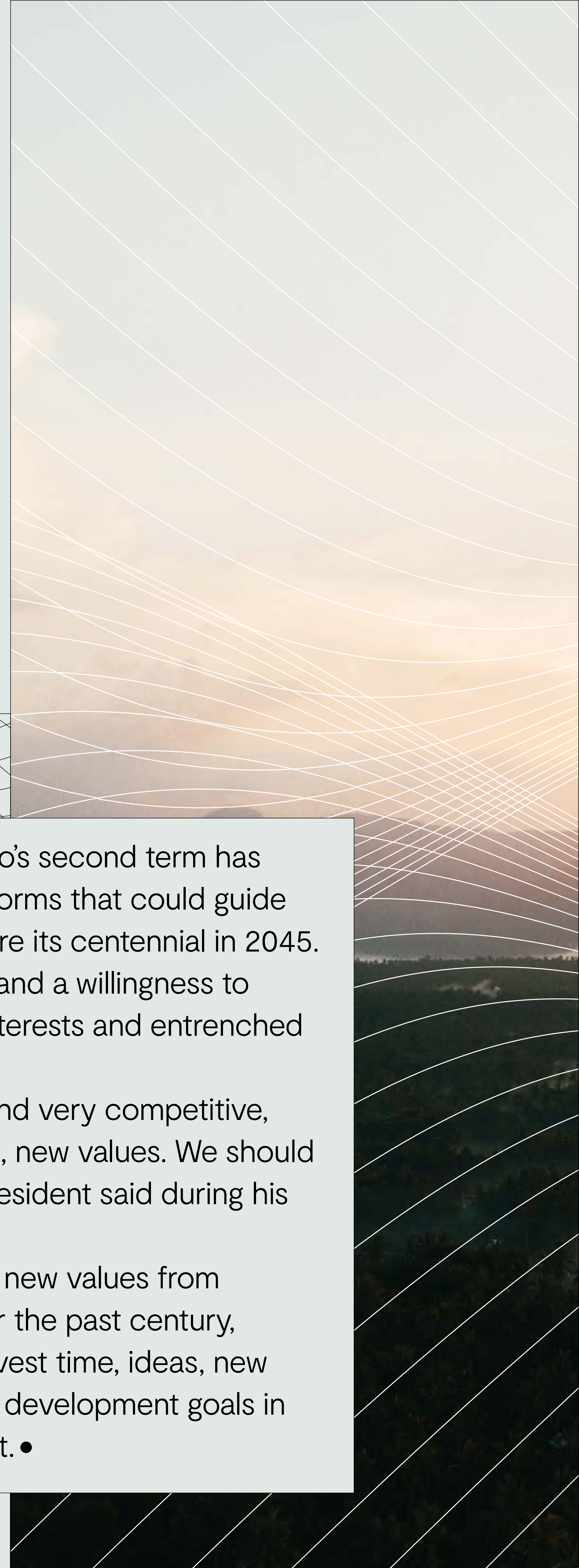
With the government's focus on 2045, we are optimistic again that long-term planning would guide policymaking moving forward, laying the groundwork for sustainable prosperity in the decades to come.

44 https://www.thejakartapost.com/news/2017/11/07/indonesia-requires-ministers-officials-to-report-new-regulations.html
34 See OECD Background Document on Public Consultation https://bit.ly/2rk8OZ1

45 See OECD Background Document on Public Consultation https://www.oecd.org/mena/governance/36785341.pdf

46 Interview with Bappenas

47 https://www.thejakartapost.com/news/2019/10/24/jokowi-gives-coordinating-ministers-veto-power-to-streamline-regulation.html



Armed with a fresh mandate, President Widodo's second term has the opportunity to put in place meaningful reforms that could guide Indonesia out of the middle-income trap before its centennial in 2045. To do this will require vision, political courage and a willingness to challenge current corrupt practices, special interests and entrenched bureaucracy.

"In a world that is full of risk, very dynamic and very competitive, we have to continue to develop new methods, new values. We should not get stuck in a monotonous routine," the president said during his inauguration.

We look forward to these new methods and new values from the Indonesian government. As they have over the past century, US companies will be here and be ready to invest time, ideas, new technology and money to support Indonesia's development goals in ways that make a significant and lasting impact. •

Methodology to Estimate Oil & Gas Investments from Each Country

Annex

The official foreign direct investment (FDI) statistics per country from the Indonesia Investment Coordinating Board (BKPM) does not include the oil and gas (O&G) sector because this type of data was not available until January 2019.

Prior to 2017, the responsibility for recording investments in the O&G sector fell under the Ministry of Energy and Mineral Resources (MEMR), which had the authority to license projects. However, it only recorded investments per project, and not in terms of the source country.

At the beginning of 2017, this task was delegated to BKPM under MEMR Regulation No. 14/2017. BKPM subsequently requested the Upstream Oil and Gas Regulatory Special Task Force (SKK Migas) to start recording investments by country, which the latter began doing in January 2019.

To come up with the investment figures in the oil and gas sector, we adopted the following approaches:

1. To provide a fair comparison, we excluded investments made in the exploration stage, because there is little-to-no recent exploration activity in Indonesia and the majority of current oil production (and investment) is from existing fields.[48]

2. Following consultations with SKK Migas, we decided to use O&G production figures as a proxy to determine the contribution of each country to upstream O&G investments. This is because most upstream investment goes to production, ranging from approximately 50 to 70 percent (taken from the years 2013 – 2017), while the rest goes to other activities such as development, exploration and administration.

3. We also took into account the time period for an upstream investment to be realized in the production stage. According to O&G experts, this could take approximately two to three years for existing fields and up to six years for a new field.[49] Therefore, the proportion of O&G production and the top producers in each subsector are taken two years after the investment period. This means we used the 2015 numbers for O&G production and top producers to derive the upstream investment in 2013.

48 https://sumatra.bisnis.com/read/20181017/451/849916/kegiatan-eksplorasi-migas-tren-produksi-minyak-terus-turun

49 https://www.energyfunders.com/blog/oil-gas-investing/

A Amount of Investment in Indonesia's Oil & Gas Subsectors

Starting with the amount of investment in the upstream O&G sector each year, excluding investment made in exploration, we used the percentage of production to derive a proxy amount for annual investments in the oil subsector and the gas subsector

Table 15 Investment in Oil and Gas Sector (in USD Mn)

	2013	2014	2015	2016	2017
Investment Amount in Upstream O&G	17,335	17,762	14,370	10,670	18,930
Investment Amount in Downstream O&G	1,995	1,347	2,644	1,150	774
Total Investment Amount in O&G	**19,330**	**19,108**	**17,014**	**11,820**	**19,704**

Table 16 Proportion of Oil and Gas Production (in %)

	2015	2016	2017	2018	2019*
Percentage of Oil Production	39%	44%	43%	36%	36%
Percentage of Gas Production	61%	56%	57%	64%	64%
Total O&G Production	**100%**	**100%**	**100%**	**100%**	**100%**

*Data for 2019 taken from 2018 since it is not available yet

Table 17 Investment in Oil Subsector (in USD Mn)

	2013	2014	2015	2016	2017
Total Investment in Upstream O&G	17,335	17,762	14,370	10,670	18,930
Percentage of Oil Production	39%	44%	43%	36%	36%
Total investment in Upstream Oil	**6,761**	**7,815**	**6,179**	**3,841**	**6,815**

Table 18 Investment in Gas Subsector (in USD Mn)

	2013	2014	2015	2016	2017
Total Investment in Upstream O&G	17,335	17,762	14,370	10,670	18,930
Percentage of Gas Production	61%	56%	57%	64%	64%
Total investment in Upstream Gas	**10,574**	**9,947**	**8,191**	**6,829**	**12,115**

Source: SKK Migas

B Determining the Top Oil Producers in Indonesia

We then sought to determine the top producers in the oil subsector by country using data sourced from the Ministry of Energy and Mineral Resources. We referred to reports published by SKK Migas and market research firms, such as EMIS. The numbers were also checked against data from other consulting firms, which showed similar proportions. Limitations were found in 2019 (Table 16), as data is not available yet. Therefore, we applied the same method by using the prior year's numbers.

Table 19 List of Top Producers in Upstream Oil Subsector*

2015

Company	Country	Production (percentage of total)
Chevron Pacific Indonesia	US	35%
Mobil Cepu Ltd	US	23%
Chevron Indonesia Company	US	2%
ConocoPhillips Ind. Ltd	US	2%
Total E&P Indonesie	France	8%
CNOOC SES	China	4%
PetroChina Int. (Jabung) Ltd.	China	2%
Petronas Carigali Ketapang II	Malaysia	3%
Pertamina EP	Indonesia	15%
PHE-ONWJ	Indonesia	6%
Total		**100%**

2016

Company	Country	Production (percentage of total)
Chevron Pacific Indonesia (Rokan Block)	US	33%
Exxon Mobil (Cepu Block)	US	28%
Total E&P Indonesie	France	9%
Pertamina EP - Operation Areas	Indonesia	12%
PHE ONWJ	Indonesia	5%
Other Blocks		13%
Total		**100%**

2017

Company	Country	Production (percentage of total)
Chevron Indonesia	US	30%
Mobil Cepu Ltd.	US	25%
VICO	US	2%
Total E&P Indonesie	France	7%
CNOOC SES	China	4%
Petronas Carigall Ketapang	Malaysia	2%
Pertamina EP	Indonesia	10%
Pertamina Hulu Energi ONWJ	Indonesia	4%
Medco Natuna	Indonesia	2%
Others		14%
Total		**100%**

2018 & 2019**

Company	Country	Production (percentage of total)
Chevron Indonesia	US	29%
Mobil Cepu Ltd.	US	27%
PetroChina International Jabung Ltd.	China	2%
Petronas Carigali (Ketapang) Ltd.	Malaysia	2%
Pertamina EP	Indonesia	10%
Pertamina Hulu Mahakam	Indonesia	6%
Pertamina Hulu Energi OSES	Indonesia	4%
Pertamina Hulu Energi ONWJ	Indonesia	4%
Medco E&P Naatuna	Indonesia	2%
Others		15%
Total		**100%**

*Percentages may not total 100 due to rounding.
**Data for 2019 taken from 2018 since it is not available yet

Source: SKK Migas, Industry Reports

C Determining Oil Investments by Country

Based on the nationalities of the companies identified above, the US, China, Malaysia, France and Indonesia emerged as the top producers in the oil subsector.

Table 20 Percentage of Upstream Oil Production by Country

	2015	2016	2017	2018	2019*
US	62%	61%	57%	56%	56%
China	6%	0%	4%	2%	2%
Malaysia	3%	0%	2%	2%	2%
France	8%	9%	7%	0%	0%
Indonesia	21%	17%	16%	26%	26%
Others	0%	13%	14%	15%	15%

*Data for 2019 taken from 2018 since it is not available yet

We used these proportions to derive an estimated amount of investment for each country using the figures derived in Table 16.

Table 21 Investment Amounts in Upstream Oil Per Country (in USD Mn)

	2013	2014	2015	2016	2017	Total per country
US	4,192	4,767	3,522	2,113	3,748	**18,342**
China	406	0	247	77	136	**866**
Malaysia	203	0	124	77	136	**540**
France	541	703	433	0	0	**1,677**
Indonesia	1,420	1,329	989	999	1,772	**6,507**
Others	0	1,016	865	576	1,022	**3,479**
Total	**6,761**	**7,815**	**6,179**	**3,841**	**6,815**	

D Determining the Top Gas Producers in Indonesia

Similarly, the list of top producing companies in the gas subsector was classified in terms of their home country.

Table 22 List of Top Producers in Upstream Gas Subsector

2015

Company	Country	Production (percentage of total)
ConocoPhillips Indonesia	US	5%
Kangean Energy Indonesia	US	4%
Virginia Indonesia Company (VICO)	US	4%
ConocoPhillips (Gresik) Ltd.	US	17%
BP Berau	UK	14%
BP Muturi Holdings	UK	4%
Premier Oil Natuna Sea	UK	3%
Total E&P Indonesie	France	26%
Pertamina EP	Indonesia	17%
Medco E&P Tomori Sulawesi - JOB	Indonesia	6%
Total		**100%**

2016

Company	Country	Production (percentage of total)
ConocoPhillips (Corridor PSC)	US	17%
Kangean Energy Indonesia (Kangean Block)	US	4%
VICO (Sanga-sanga Block)	US	3%
BP Tangguh	UK	22%
Premier Oil Natuna Sea Block A	UK	4%
Total E&P Indonesie (Mahakam Block)	France	22%
Pertamina EP Operation Areas	Indonesia	12%
Medco E&P Senoro Toili Joint Operating Body (JOB)	Indonesia	6%
Medco E&P South Natuna Sea Block B	Indonesia	4%
Other Blocks		6%
Total		**100%**

2017

Company	Country	Production (percentage of total)
ConocoPhillips	US	13%
Kangean Energy Indonesia	US	3%
Total E&P Indonesie	France	20%
BP Tangguh	UK	14%
Premier Oil Natuna Sea BV	UK	4%
PetroChina International Jabung	China	3%
Eni Muara Bakau	Italy	3%
Pertamina EP	Indonesia	13%
JOB Pertamina - Medco Tomori Sulawesi	Indonesia	5%
Medco Natuna	Indonesia	3%
Others		20%
Total		**100%**

2018 & 2019*

Company	Country	Production (percentage of total)
ConocoPhillips (Gresik)	US	13%
Kangean Energy Indonesia	US	3%
BP Bureau	UK	17%
Premier Oil Indonesia	UK	4%
Eni Muara Bakau	Italy	10%
PetroChina International Jabung	China	3%
Pertamina Hulu Mahakam	Indonesia	13%
Pertamina EP	Indonesia	13%
JOB Pertamina - Medco Tomori Sulawesi	Indonesia	5%
Medco E&P Natuna	Indonesia	3%
Others		18%
Total		**100%**

*Percentages may not total 100 due to rounding.
**Data for 2019 taken from 2018 since it is not available yet

Source: SKK Migas, Industry Reports

E Determining Gas Investments by Country

Using the same approach as in Section C, we calculated the percentage of contribution of the top gas-producing countries.

Table 23 Percentage of Upstream Gas Production by Country

	2015	2016	2017	2018	2019*
US	30%	24%	16%	16%	16%
UK	21%	26%	18%	20%	20%
Italy	0%	0%	3%	10%	10%
China	0%	0%	3%	3%	3%
France	26%	22%	20%	0%	0%
Indonesia	23%	22%	21%	33%	33%
Others	0%	6%	20%	18%	18%

*Data of 2019 taken from 2018 since it is not available yet

We again used these proportions to derive an estimated amount of investment for each country using the figures derived in Table 18.

Table 24 Investment Amounts in Upstream Gas Per Country (in USD Mn)

	2013	2014	2015	2016	2017	Total per country
US	3,172	2,387	1,297	1,080	1,917	**9,853**
UK	2,221	2,586	1,452	1,391	2,468	**10,118**
Italy	0	0	281	714	1,266	**2,261**
China	0	0	258	189	336	**783**
France	2,749	2,188	1,610	0	0	**6,547**
Indonesia	2,432	2,188	1,682	2,250	3,992	**12,545**
Others	0	597	1,611	1,205	2,137	**5,550**
Total	**10,574**	**9,947**	**8,191**	**6,829**	**12,115**	

May not sum to total due to rounding

F Determining the Total O&G Investment of Each Country

We combined the total figures per country from 2013 to 2017 derived in Tables 22 and 24 to determine an estimate for the total investment amount of each of the top producing countries to the O&G sector. This is the figure we added to the official BKPM statistics to derive a more comprehensive picture of each country's FDI contribution.

Table 25 Investment Amounts of Top Producing Countries in Upstream Oil and Gas (in USD Mn)

	Upstream Oil	Upstream Gas	Total
US	18,342	9,853	**28,195**
UK	0	10,118	**10,118**
France	1,677	6,547	**8,224**
Italy	0	2,261	**2,261**
China	866	783	**1,649**
Malaysia	540	0	**540**
Indonesia	6,507	12,545	**19,052**
Others	3,479	5,550	**9,029**

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