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The enterprising archipelago: Propelling Indonesia's productivity

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April 2025

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At a glance

To become a high-income country by 2045, Indonesia needs to create the right conditions for productivity growth and enable larger companies to thrive through capital deepening.

— **Achieving high-income status by 2045 would require Indonesia to increase productivity growth by 1.6 times.** GDP would need to grow at 5.4 percent a year and productivity play a bigger part—accelerating its growth rate from 3.1 percent a year since 2000 to 4.9 percent, because of changing demographics. Other countries that started with comparable per capita GDP achieved high-income status within 15 to 30 years.

— **A radical scaling of investment by tripling the number of medium-size and large companies could deliver.** Indonesian business is dominated by informal microenterprises that give livelihoods to millions. But to reach high income, the economy would need to more than triple nonfarm capital per worker, boosting wages. To deliver that, more medium-size and large companies would be needed amid healthy competition. Looking at other economies near the high-income threshold suggests that Indonesia would need half of the nonfarm workforce to be employed in companies with more than 50 employees—from one-quarter today.

— **All sectors would need to contribute to GDP growth, but about 70 percent could come from services.** Indonesia could expand services sectors by making the most of tourist attractions, modernizing operations, and developing skills. It could also revive manufacturing by taking advantage of global value chain reconfigurations and capitalizing on rapidly growing domestic demand. Developing sustainable, livable cities could enable 40 million more people to move to urban areas—and into formal, productive jobs.

— **Unleashing five forms of capital in a synchronized way can enable 'enterprising Indonesia.'** Indonesia is bursting with potential, but faces many challenges to growth, including ineffective urbanization, regional disparity and fragmentation, and underdeveloped capital markets. To overcome these hurdles, Indonesia would need to transform its ability to attract, grow, and deploy financial, human, institutional, infrastructural, and entrepreneurial capital. By doing so, it could increase productivity and scale, boost new businesses, and enable companies to pay higher wages.



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Executive summary

For Indonesia to meet an ambition of becoming a high-income economy by 2045, it would need to create the right conditions for productivity growth and to enable larger companies to thrive.[1] Other economies have trodden this path to high-income status from comparable levels of per capita GDP as Indonesia today. For Indonesia to match their trajectory would require it to triple the number of medium-size and large companies and, by doing so, increase capital stock per worker in a process of rapid capital deepening. Pulling this off would need the full range of productivity enablers to be in place, namely financial, human, institutional, infrastructural, and entrepreneurial capital. With several precedents of fast-growth economies in Asia over recent decades, is it now Indonesia's time? If so, what will it take?

This report describes one scenario for what Indonesia would need to do to achieve the 2045 aspiration. To develop this scenario, we looked at how other countries have navigated their journey to becoming high-income economies from a similar base to Indonesia. Our focus is on companies and the important role they play in capital deepening, which provides workers with more and better tools to boost productivity, as observed in other economies that have made this journey. The analysis aims to complement extensive studies on structural factors that deliver on productivity by offering a perspective on the corporate ecosystem that would be required to enable more households to benefit from a high-income economy. It identifies key milestones that Indonesia may encounter along this journey.

In 2012, the McKinsey Global Institute (MGI) described the potential of Indonesia—which we dubbed the "archipelago economy"—to become the seventh largest economy in the world by 2030.[2] While Indonesia has not reached that milestone yet, its income has grown 60 percent, and it is currently an upper-middle income country. But growth has slowed, and many substantial barriers to growth and prosperity remain. Now comes the next phase of Indonesia's journey.

Indonesia can realistically become a high-income country by 2045

The Indonesian government has set multiple goals for the country's economic growth, including achieving high-income status before 2045 and accelerating the pace of growth over the coming years toward 8 percent.[3] To become a high-income economy by 2045, that is, to reach $14,000 per person in income, would mean accelerating GDP growth from an average of 4.9 percent a year since 2000 to a CAGR of 5.4 percent in real terms between now and 2045.[4]

To help chart Indonesia's potential path toward a higher growth rate, we draw on the experience of 16 reference economies that have substantial populations and have traversed at least some portion of the journey from $4,000 GDP per capita, just below Indonesia's level in 2024, toward or beyond the high-income threshold relatively recently. Countries that became high-income economies from a base similar to Indonesia's varied in the time they took—and their average growth rate—to reach that status. The top quartile of these economies, Chile, China, Poland, and South Korea, achieved real GDP growth rates of 4 to 10 percent over two decades. South Korea achieved high-income status the quickest of any of the economies—from where Indonesia is today—expanding GDP at over a CAGR of 9 percent for 14 years (see Box 1, "Methodology: Using other countries' journeys to high income to plot a way forward for Indonesia").

The experience of these economies indicates that it is certainly within the bounds of possibility for Indonesia to reach high-income status before 2045. Since 2000, Indonesia's GDP has grown at an average of 4.9 percent a year. This is two percentage points above the global average and faster than 80 percent of countries classified as upper-middle income today. Indonesia has reduced extreme poverty from 70 percent in 1984, when reliable measurement started, to less than 2 percent in 2023.[5]

Box 1. Methodology: Using other countries' journeys to high income to plot a way forward for Indonesia

This research uses reference economies to assess a possible route to high-income status and a range of potential economic outcomes for Indonesia. The reference economies differ from each other, of course, but they have similar characteristics and markers of development. While we favor using the same countries as examples, all else being equal, each type of analysis lends itself to a particular set of reference points or is affected by different data constraints.

For the core analyses, we used economic metrics that correlate with growth in per capita GDP, including the distribution of companies of varying sizes and levels of different forms of "enabling capital": financial, human, institutional, infrastructural, and entrepreneurial. We also considered broad patterns of urbanization and changes in the sector mix, such as growth in services and the nonfarm economy. In all these cases, since we are describing a high-income scenario, we used the reference cases close to that threshold today or historical cases of countries from the time they crossed that threshold.

The four main types of analysis are:

Growth and productivity. This analysis covers countries with per capita GDP above $4,000 (Indonesia was at $4,900 in 2023) and populations of more than 20 million people (Indonesia's was approximately 280 million in 2024).[1] We excluded countries that achieved high-income status more than 40 years ago, such as Australia, Japan, and the United States, but included middle-income countries within reach of high-income status in the next decade, such as China and Malaysia. Sixteen countries in our sample meet these criteria, and we looked at the growth of the top quartile (Chile, China, Poland, and South Korea) to set a comparison for Indonesia. Note that throughout the report we generally use real dollars as it is the simplest way to track progress toward the World Bank-defined category of high income. In purchasing power parity (PPP) terms, Indonesia has a much higher GDP per capita and productivity, which we use in places for cross-country comparisons and data availability, with similar implications for growth.

Company size and factor inputs. Due to data limitations, we matched Indonesia's landscape to specific countries, clearly indicating and contextualizing examples. For distributions of companies of different sizes, we used countries for which we have data on company-size distribution and that are closest to the high-income threshold (Brazil, Mexico, Poland, and Portugal).

Sector and enabler metrics. For sector analyses, we took advantage of metrics that are available for most countries in the world and looked at the high-income threshold for countries that have crossed it. Besides sector employment, this includes key indicators of enablers that support Indonesia's path to high-income status, such as financial depth, number of researchers, and share of formal economy.

Comparison countries in Asia. Wherever possible, we compared Indonesia with countries within its region, including China, India, Malaysia, Thailand, Singapore, and Vietnam. This is because they share similar economic growth opportunities, trade geography, and institutional contexts.

[1] "Mid-year population (thousand people) 2022–2024," BPS-Statistics Indonesia, June 28, 2024.

In the early years of the period between now and 2045, while demographic trends are more favorable and Indonesia is at a level of development where the ceiling for fast productivity growth is higher, it may need to achieve more than 5.4 percent annually.[6] Many of our reference economies hit much higher peaks than their average growth rate. For instance, Chile's annual GDP growth averaged 5.6 percent with the highest five-year rolling average at 7.9 percent in 1987 to 1991.

Yet, Indonesia's record on productivity growth has weakened. Growth slowed from about 3 percent per year from 2002 to 2016 to about 2 percent per year since then, and ineffective

urbanization and regional disparities remain considerable challenges. Indonesia's economy has not improved its standing since 2012 and still ranks as the 16th largest economy in the world.[7] There are also indications that growth of the middle class has slowed.[8] Is Indonesia stuck in a so-called "middle-income trap"?[9]

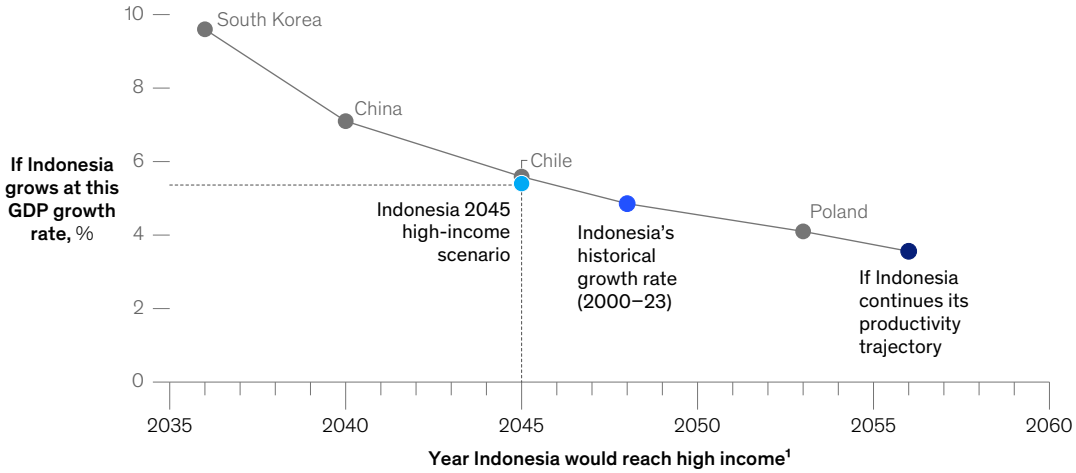
Accelerated productivity is needed for Indonesia to achieve faster economic growth

If Indonesia is to achieve the high-income aspiration by 2045, productivity growth would need to be the primary driver of its 5.4 percent annual GDP growth (Exhibit 1). The contribution from population and participation factors would be lower in the years ahead, likely accounting for about 0.5 percentage points of GDP growth—less than one-third of what it has been since 2000 at 1.8 percent.[10] The balance would need to come from productivity growth, which would have to increase 1.6 times from the 3.1 percent CAGR that Indonesia achieved between 2000 and 2023 to 4.9 percent.

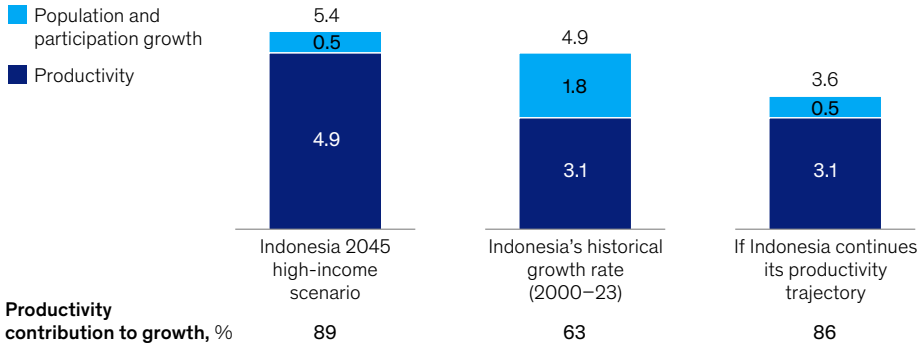
Exhibit 1

The year in which Indonesia reaches high-income status depends on how fast it can accelerate growth, especially productivity growth.

Year reaching high-income status based on benchmarks' annualized GDP growth rate, %



Implied real GDP growth rate decomposition, percentage points



[1]In RPJPN 2025–45, BAPPENAS estimated that Indonesia will enter high-income band around 2038–41.
Source: Oxford Economics; World Bank; McKinsey Global Institute

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A common pattern in the economies that achieved fast productivity growth to reach the high-income threshold was a high rate of capital deepening that enhanced labor productivity and produced positive spillovers across the economies. To deliver on the 4.9 percent productivity growth that Indonesia would require—using our best performing reference economies as a guide—capital stock per worker would need to grow at a compound annual rate of 5.8 percent.[11] This would be nearly double the 3.6 percent observed from 2010 to 2023.[12] To avoid a "middle-income trap," such investment would need to be increasingly complemented by the infusion of technologies to support a more complex economy and innovation closer to the technology frontier as high-income status approaches.[13] This can be done effectively by companies, and typically, large companies. Hence, in this report we drill down from the macroeconomic goal of high income to the proximate goal of capital deepening, and to the main driver of that, which is company formation and growth.

Indonesia's size, geographic dispersion, and scale of urbanization pose a challenge to growth
Indonesia has many unique strengths and endowments. However, it also has unique challenges stemming from an unusually large, highly dispersed population, fragmented geography, and the sheer volume of people moving to cities.

Indonesia is an archipelago: It has about 6,000 inhabited islands, and, as such, its population is widely spread. This has contributed to large disparities in per capita GDP. At the top end, the per capita GDP of Jakarta is 14 times higher than that of Nusa Tenggara Timur at the bottom.[14] For comparison, the difference between Malaysia's top and bottom states is eight times, and in China, four times. Indonesians are not only far apart in traveling distance; they are far apart in living standards, too.

Indonesia's geography has also resulted in high logistics costs incurred when forging connections between people, businesses, and markets. This makes it difficult for businesses to scale efficiently across the nation. But there is a significant opportunity to use the country's extensive network of ports to streamline trade and logistics, connect remote regions, and enhance economic integration. Furthermore, Indonesia's large labor force, diverse population, varied regional endowment, and economic profile provide scale, complementarity, and innovation capacity. And its proximity to major economies in Southeast Asia positions it as a strategic hub for regional trade and investment.

Urbanization is a particular challenge: As is typical of middle-income countries, Indonesia is undergoing rapid urbanization, but its large population and the scale of the shift to cities makes urbanization a significant challenge. Over the past two decades, new arrivals to cities from the countryside have largely been employed in low-wage, often informal jobs that tend to have low productivity. From 2010 to 2018, agriculture's share of employment declined by 8.5 percentage points, while the trade services subsector experienced a 3.6 percentage point increase in employment share—the largest of any subsector. The productivity of trade services is 1.1 times higher than that of the agriculture sector, but well below the economy's average.[15]

In some fast-growing economies, as people moved into cities, better infrastructure and more buildings were developed.[16] The growth in the construction industry meant that these economies were better able to absorb the newly urbanized, while creating the needed infrastructure. For example, in China, India, and Vietnam, the share of employment in construction increased by five to seven percentage points from 1999 to 2019.[17] For urbanization to be effective in Indonesia, planning and building the right—and sustainable—infrastructure will be vital. If the country is able to handle its large-scale urbanization effectively, four million additional urbanites per year could be a tailwind for productivity growth.

All these distinctive characteristics mean that, while global lessons provide valuable insights, Indonesia will need to shape its own growth model. Lessons from the lesser-populated Asian Tigers—economies that relied heavily on manufacturing and exports—or from resources-rich nations such as Chile may not apply directly or will only inform one part of a multifaceted growth model.[18]

Indonesia faces global complexities: It is also worth noting that Indonesia is trying to traverse its journey to high-income status not only in the face of the country's challenging characteristics, but also in a changing global context. Geopolitical uncertainty is on the rise, and global supply chains and trade routes are reconfiguring.[19] The world also faces the complex task of transitioning the energy system from high greenhouse gas emissions to a low-emissions system in order to tackle climate change. For developing economies that have to grapple with less advanced power systems, as well as the need to continue to expand access to energy for those who currently are underserved—still while transforming the energy system—the transition is an even more demanding prospect.[20] Like other middle-income countries, Indonesia also faces the challenge of adapting to climate change, overcoming relatively high exposure, while closing an infrastructure resiliency gap relative to high-income countries.[21] At the same time, technology is evolving rapidly.[22]

In light of these major forces at play, past development models are unlikely to be sufficient, and new approaches are needed. There may be multiple pathways for Indonesia's growth, but two interrelated ingredients have been common to successful journeys to high-income status: (1) the presence of larger and more productive companies in sufficient numbers; and (2) capital deepening in the form of more physical and intangible assets for each worker in the economy. These are the aspects that we explore most deeply in this report.

High-income status has come with larger, more productive companies and capital deepening

Around the world, large companies have played a key role in fast-growing, developing economies by boosting productivity, attracting capital, and driving innovation, technology, global flows, skills training, and R&D, among others.[23] In this report, large companies are defined as having more than 250 employees (following most national statistics agencies), medium-size companies as having 50 to 249 employees, and small companies, ten to 49 employees. Productivity is higher among large companies and the share of employment in medium-size and large companies tends to rise with the level of an economy's per capita income.[24]

This shift occurs as the informal and self-employed and the generation coming into the workforce seek higher-paying jobs in larger, formal companies, and as some microenterprises formalize and scale. The growth of small and large companies is also interconnected. Many large companies are the anchor to corporate ecosystems that help small and medium-size companies to thrive and scale.[25] In short, amid healthy competition, companies can become the agents for investment in capabilities and people that lead to productivity growth and higher wages.

If Indonesia is to triple its productivity level and reach high-income status, it will need a greater number of larger and more productive companies that have higher capital per worker. Microenterprises—defined as having fewer than ten employees—currently account for an overwhelming share of employment. Indonesia's 2016 business census (excluding agriculture), which is conducted every ten years, showed that more than 97 percent of companies in Indonesia are microenterprises.[26] Fifty-nine percent of Indonesia's workforce is employed in these microenterprises—41 percent self-employed, and almost all informal.[27] A high share of employment in informal enterprises is common among developing economies, averaging 70 percent, and they tend to have low productivity—accounting for just one-third of GDP.[28] While they provide livelihoods in the absence of other opportunities, these businesses not only have lower productivity, but less access to finance and slower physical and capital accumulation.[29]

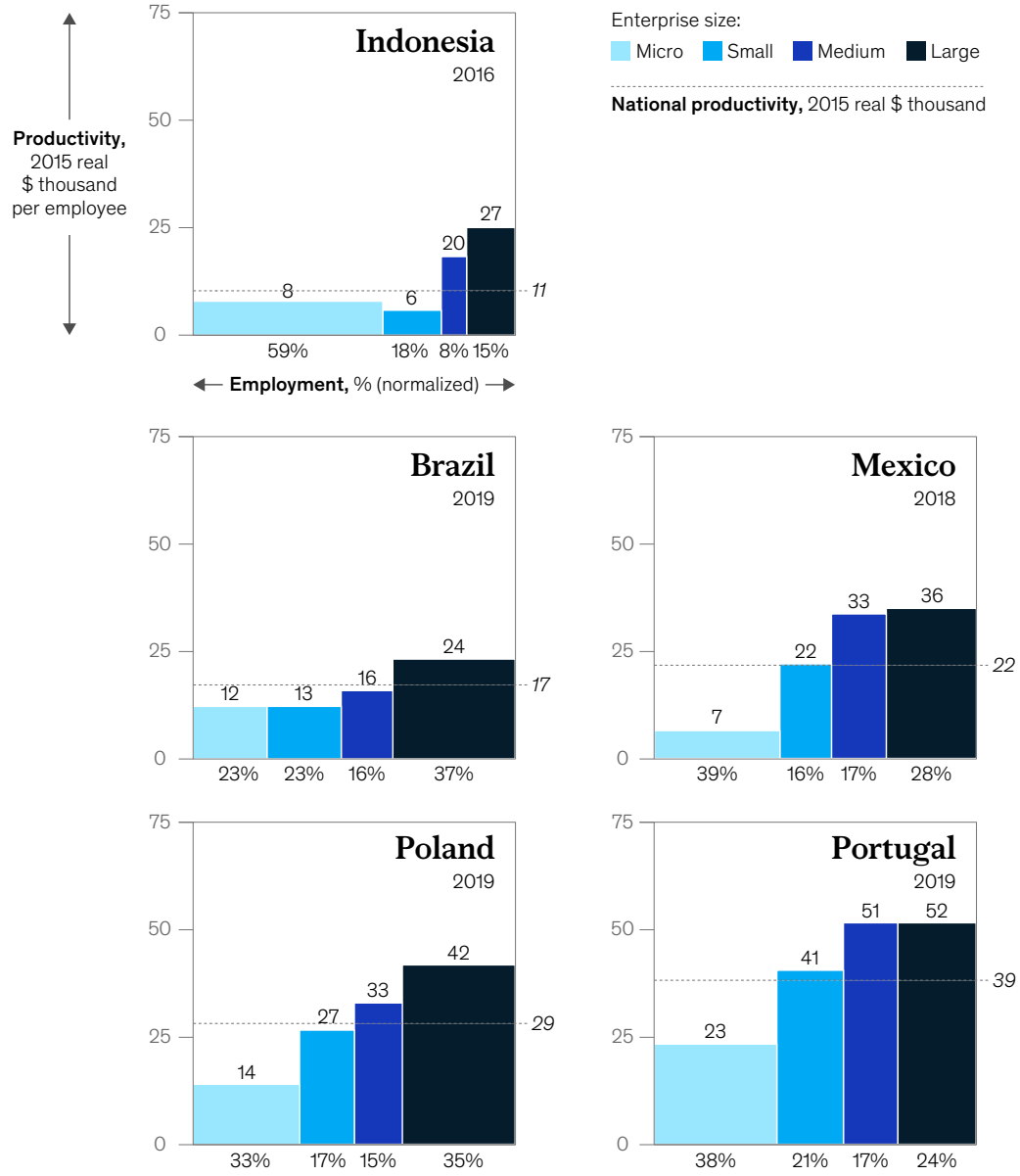
As economies develop on their journey toward high-income status, there is a shift toward more larger companies that are also more productive. Consider Brazil, Mexico, Poland, and Portugal, the four economies in our sample that have available data and are closest to the high-income

threshold: In Indonesia, large companies account for 15 percent of employment, much lower than 37 percent in Brazil, 35 percent in Poland, 28 percent in Mexico, and 24 percent in Portugal (Exhibit 2).

Exhibit 2

Indonesia has a low share of employment and productivity in medium-size and large companies compared to reference economies.

Productivity and employment,[1] by enterprise size[2]



Note: Figures may not sum to 100%, because of rounding.
[1]Excluding agriculture; latest available data except for Indonesia (2016) and Mexico (2018); all productivity values are shown in 2015 real $ thousand rather than purchasing power parity terms for consistency with our high-income scenario.
[2]Microenterprises: fewer than 10 full-time employees (FTE); small companies: fewer than 49 FTE; medium-size companies: fewer than 249 FTE; large companies: more than 250 FTE.
Source: Aggregated databases (eg, Eurostat, ILOSTAT, OECD); BPS-Statistics Indonesia; country-level economic and business censuses; MGI Productivity Analytics Database; McKinsey Global Institute analysis

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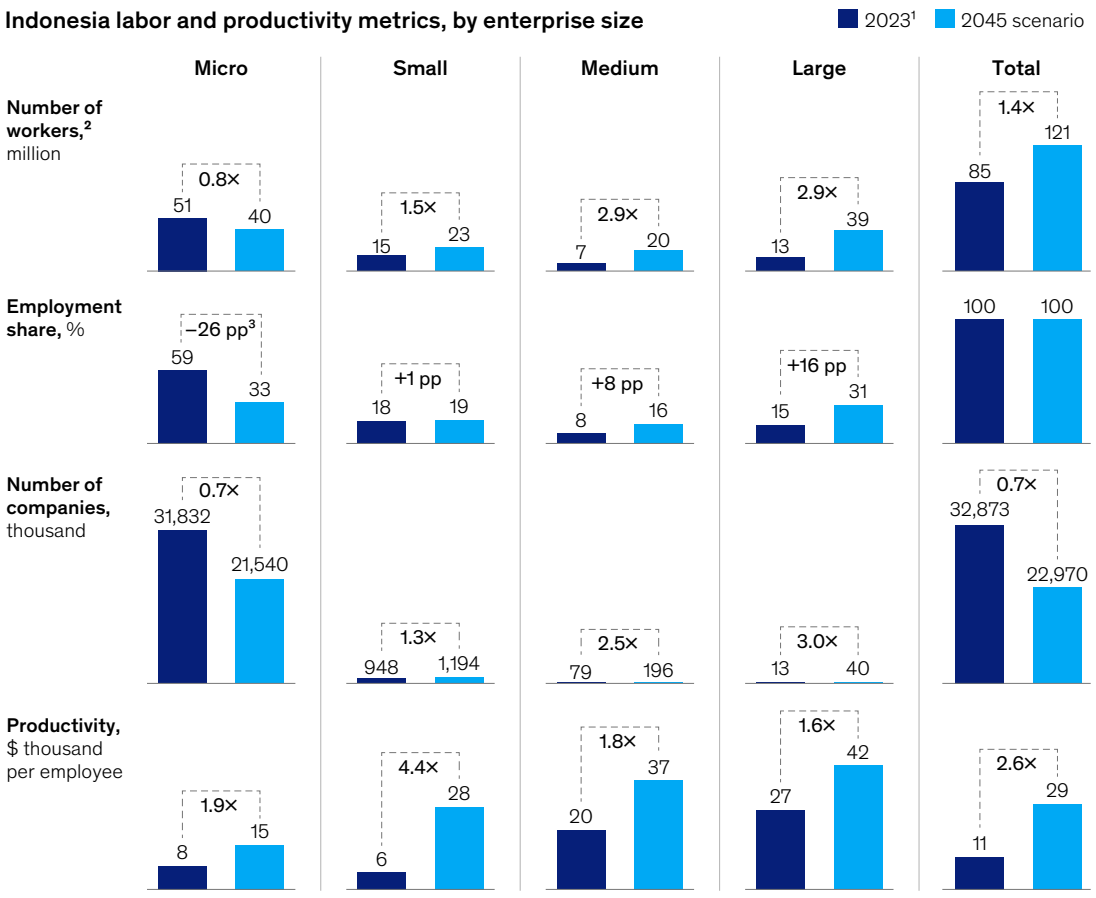
Based on a comparison with our sample economies, to achieve high-income status by 2045, Indonesia would need both a step change in the productivity of companies in each size class *and* a profound shift in the corporate landscape and employment structure toward larger enterprises. In our 2045 scenario, competition would need to increase, which would come about by tripling or more the number of medium-size and large companies to 200,000 and 40,000, respectively. In the scenario, each of these categories of companies double their productivity, and their share of employment increases from 8 to 16 percent and 15 to 31 percent, respectively. The share of employment accounted for by microenterprises falls by 26 percentage points as work shifts to higher productivity companies that pay higher wages (Exhibit 3). As a result, overall productivity triples. All categories of company by size increase productivity, but notably more than one-quarter of the economy-wide increase comes from jobs moving from microenterprises to other companies. The rest comes from productivity gains within each category.

Exhibit 3

Indonesia's employment would shift from microenterprises to larger companies in a 2045 high-income economy scenario.



Note: Figures may not sum, because of rounding.
[1]Number of workers and companies taken from latest available data (2016 BPS-Statistics Indonesia economic census data).
[2]Nonagriculture, nongovernment employees.
[3]Percentage points.
Source: BPS-Statistics Indonesia; MGI Productivity Analytics Database; McKinsey Global Institute analysis

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Growth in the number of larger companies and their share of employment would mean that more people would have improved access to technology and capital, such as advanced tools and infrastructure. Such an increase in capital per worker would rise, making workers more productive, especially in comparison with smaller, informal companies. If Indonesia were to follow a scenario based on where Brazil, Mexico, Poland, and Portugal stand today, it could increase nonagricultural capital four times to $14 trillion and grow nonfarm capital per worker from $31,000 to $100,000.

Capital per worker correlates strongly with productivity across economies. In our scenario, productivity increases with company size, and we would expect a similar pattern of increasing capital per worker across company size. Taking the same proportional increases across company-size categories, we model a doubling of capital per worker among the medium-size and large companies. In combination with their doubling of employment share, the medium-size and large company share of capital increases from 51 to 65 percent.

As a result, larger companies are the pivotal agents in fostering capital deepening and productivity growth throughout the Indonesian economy (Exhibit 4). They also serve as critical nodes in a more sophisticated ecosystem surrounding small companies that are enmeshed in their supply chains, talent pools, and adjacent markets. To achieve a CAGR in capital per worker of 5.8 percent in the overall economy to 2045 would also require public investment, a large portion of which would go into urban infrastructure.

This analysis illustrates that Indonesia's aspiration to become a high-income economy by 2045 is feasible, but that there would need to be a substantial evolution of the business landscape. Informal employment in Indonesia has increased from 56 to 59 percent since 2019.[30] A similar trend was evident across developing economies during the COVID-19 pandemic. Nonetheless, this trend suggests there is not enough labor demand from larger, formal companies to employ more workers and offer higher wages in comparison with what people can earn from self-employment. It also indicates that few informal businesses are formalizing and growing—graduating first into small and potentially medium-size companies, and then into large companies. Successful reforms can ease the financial burden of formalization for small companies in terms of tax and compliance costs that are essentially zero for informal companies.[31] A high-income Indonesia must be an enterprising Indonesia.

An overall shift to larger, more productive companies would also mean expanding the number of very large companies, defined as earning more than $200 million a year in revenue in 2022. These are the enterprises that invest the most in capital, technology, and skilled jobs, and have higher productivity. Very large companies in Indonesia have a total revenue equivalent to 50 percent of GDP.[32] This is a significant share considering that today there are fewer than 400 companies in this category, compared with 10,000 "regular" large companies (defined as having more than 250 employees).[33]

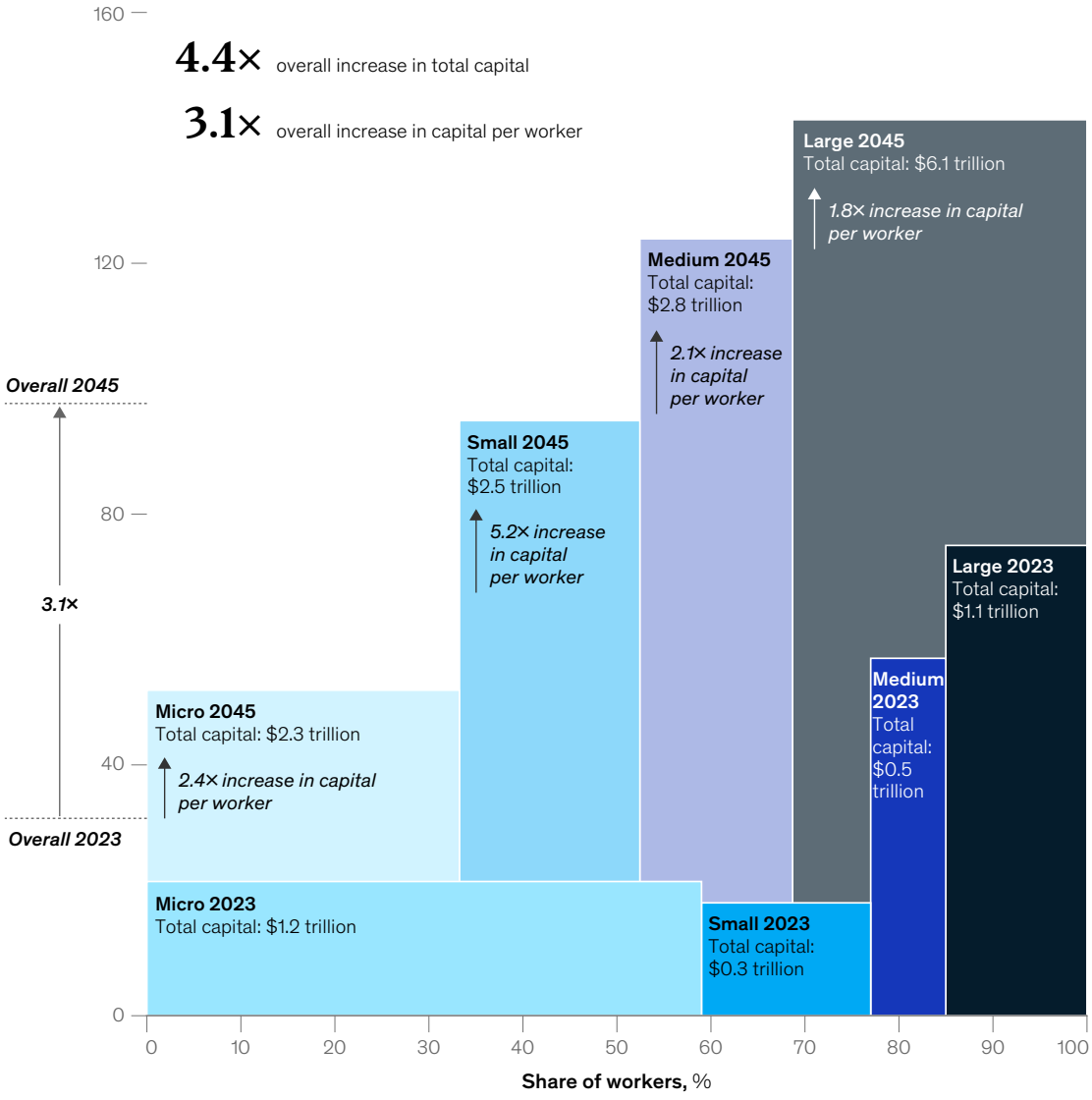
Nonetheless, the aggregate size of supersize companies in Indonesia is still comparatively lower than in several reference economies, for example, Chile and Poland, where the revenue (including overseas revenue) to GDP ratio is at 100 percent, and Brazil and Mexico at 74 and 52 percent, respectively.[34] If Indonesia were to match Chile's number of companies, and company size remained constant, it would need to boost competition and develop approximately 1,000 additional very large companies in various sectors.

Indonesia would need to develop enterprises of this scale beyond the resources and industrial sectors where very large companies are heavily concentrated today. In 2022, these sectors accounted for about half and one-fifth, respectively, of the revenue of very large companies. And, of course, if very large companies are to be developed in a broader range of sectors, the funnel of small, medium-size, and large companies would need to be wider.

Exhibit 4

In a 2045 scenario where capital increases proportionally with productivity, medium-size and large companies account for most of capital deepening.

Shift in employment and capital in Indonesia, by business size, 2023 vs 2045 scenario



Source: BPS-Statistics Indonesia; Oxford Economics; McKinsey Global Insitute analysis

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Companies can raise value added across sectors with the largest share likely to come from services

To achieve a shift toward larger companies with more capital and technology, new opportunities would need to be unlocked across sectors, especially in services and manufacturing. If Indonesia were to shift employment across sectors to reach distributions typical of countries when they cross the high-income threshold, the country would experience a 15 percentage point shift in employment share away from agriculture, mainly into services. One path based on these typical trajectories would be an increase in the services and manufacturing sectors of 13 percentage points and two percentage points, respectively, while the share of employment in the resources sector would remain constant.[35]

The shift in employment to services would be the most significant

Indonesia's services sector is its fastest growing and already employs more than half the country's workforce—with most employment in microenterprises. To match the trajectory of other economies that have achieved high-income status, Indonesia may need to quadruple the GDP generated by services. If this were to happen, services could account for about 67 percent of GDP by 2045 from 61 percent today. But the services sector's productivity is low compared to reference economies in real dollar terms. And, while the gap is smaller in purchasing power parity (PPP) terms, three ways to improve productivity stand out.

Formalize and modernize sectors such as wholesale and retail trade, transportation and storage, and food services. These sectors account for a significant share of employment in Indonesia (for instance, 20 percent in wholesale and retail trade). Yet their productivity lags that of peer countries such as Malaysia and Thailand. Investments in technology, shifts in retail formats, and workforce training could raise productivity.

Boost sustainable tourism, including to the country's beautiful beaches, ancient temples, and tropical climate. Accommodation and food services, which forms an important category of the tourism sector, has a productivity of $6,700 per worker per year. That is far lower than Thailand's $26,300, for instance. Improving infrastructure, digital accessibility, and service quality could help Indonesia attract more international visitors and boost this sector's contribution to GDP. This could have potential spillovers to the productivity of broader sectors, such as food and accommodation services, transportation, construction, and the creative economy.

Improve the talent pool to grow high value-added sectors, such as professional services. Sectors that include high value-add services such as finance, insurance, real estate, and communications technology employ less than 9 percent of Indonesia's workforce, compared with 19 percent in Poland and 17 percent in Malaysia.[36] Moreover, Indonesia's professional services and administrative activities have a productivity level of just $20,000 a year, lagging far behind Mexico at $90,000 a year and Poland at $50,000 a year. Expanding access to education and vocational training could drive growth in these sectors and enhance overall productivity.

Across sectors, technology could play a transformative role, but particularly in services. For instance, our analysis of 63 gen AI use cases suggests a significant potential impact on productivity in industries, such as banking (ranging from 2.8 to 4.7 percent of industry revenue per year); healthcare (1.8 to 3.2 percent); travel, transportation, and logistics (1.2 to 2.0 percent); and retail (1.2 to 1.9 percent) globally.[37] Developing and deploying AI could help Indonesia's businesses improve sales and marketing, customer operations, and R&D and engineering capabilities, thus boosting productivity.

The manufacturing sector can be revitalized to meet domestic and global demand

Manufacturing was once an engine of growth for Indonesia. Its value added peaked at 32 percent of GDP in 2002, but then dropped to 19 percent by 2023, largely replaced by resources.[38] Moreover, the "economic complexity" of Indonesia's manufacturing is relatively low, at −0.1, in comparison with Vietnam at 0.2 or India at 0.6, as shown by the Economic Complexity Index.[39] Indonesia's low reading reflects that it still relies on the export of raw materials and commodities, such as palm oil and coal, rather than goods further down the value chain.[40] A higher reading on the index indicates a country's ability to produce and export complex goods. Such complexity—with more diverse products and sophistication—tends to accompany higher productivity and can happen incrementally even by adopting existing technologies and taking advantage of a large labor force and favorable geography for trade.

Moreover, Indonesia's participation in global value chains is relatively limited in comparison with other economies.[41] That participation—the share of exports that involves more than one country in production that tends to create higher value-added goods—fell from 36 percent in 2000 to 32 percent in 2020, lower than in most reference economies over the past 20 years.[42]

Indonesia could revive domestic manufacturing businesses and increase higher-value-added exports by taking the following measures (Exhibit 5):

Boost specialization in high-export sectors where domestic markets are growing. In sectors where Indonesia has a significant export share and growing domestic production, it could infuse additional existing technology to capture more of the value chain. Rather than focusing solely on commodities such as palm oil or base metals (for example, nickel that is used in electric vehicle [EV] batteries), Indonesia could develop higher-value products within these sectors, such as processed palm-based bioplastics or advanced nickel alloys for industrial uses. Indonesia has about 20 percent of the global reserves of nickel—the largest share of any economy—and therefore will be a pivotal player in the decarbonized economy. But to make the most of its position, Indonesia would need to shift toward producing higher-purity "Class 1" nickel required for lithium-ion batteries as opposed to "Class 2" nickel that is mainly used for steel production.[43]

Strengthen products that have solid growth in domestic markets and take them onto the export stage. Indonesia's domestic production of chemicals, food and beverages, and leather goods is growing, but these sectors do not yet feature large in world exports. As they grow domestically, they could become more competitive, enabling exports to generate higher margins and further boost competitiveness. Well-being products could also grow with targeted investment and innovation in niche markets. Examples include herbal or traditional medicine products in which Indonesia already has a competitive advantage.

Take advantage of global value chain reconfiguration. Global value chains are starting to reconfigure as economies seek to build their resilience in the face of geopolitical uncertainty. Indonesia could potentially take advantage of such shifts by ramping up capabilities in subsectors where global trade is growing faster than in domestic markets and in which Indonesia does not yet have a high export share. These currently include electronics, textiles, and vehicles.

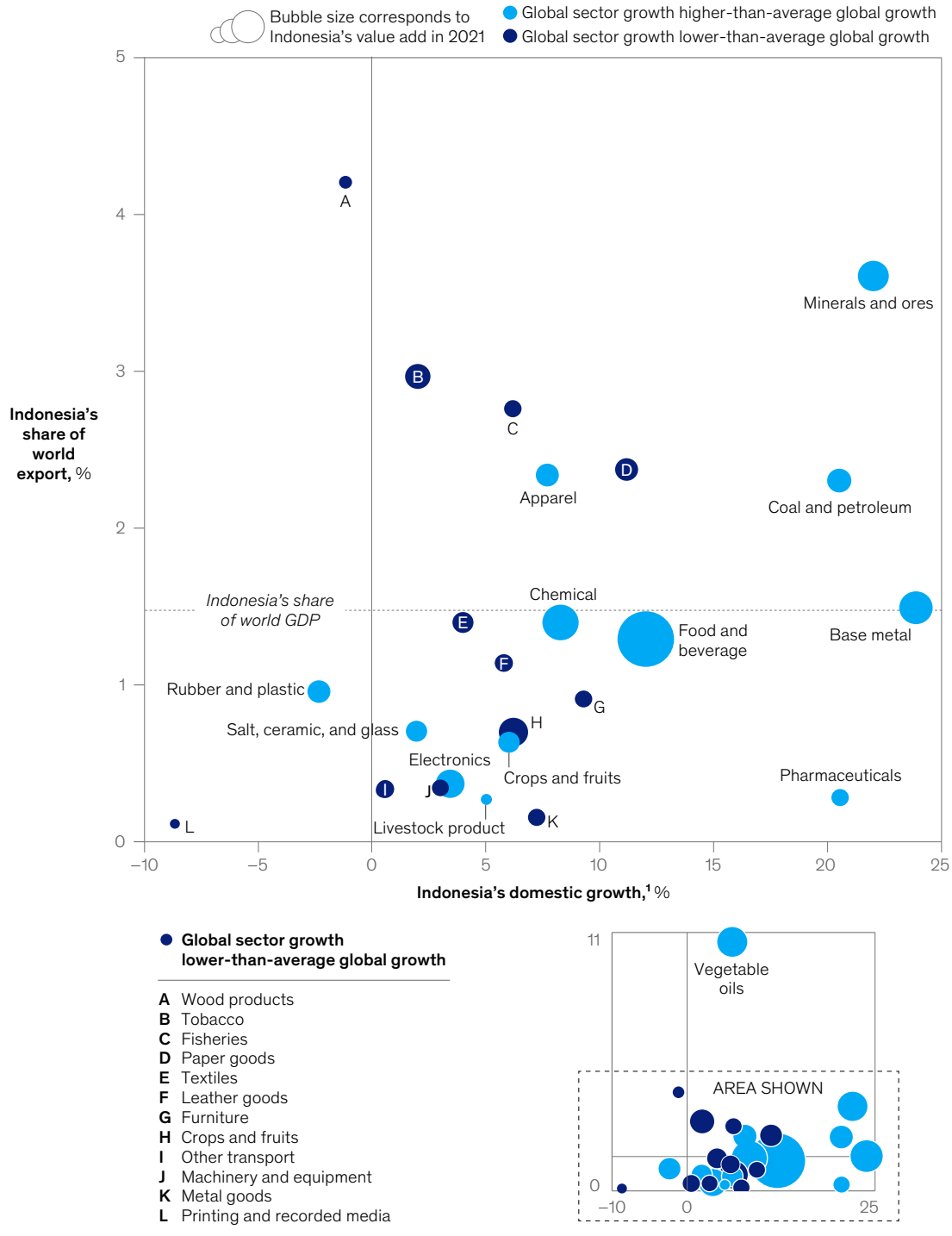
Unlocking agricultural productivity can enhance people's livelihoods if paired with effective urbanization

Labor productivity growth in agriculture would enable employment shifts to services and manufacturing while increasing output and incomes for farmers. Farming still provides a vital source of income for many Indonesians, and there are opportunities to raise its output and productivity further. Output rose by 36 percent from $70 billion in 2013 to $95 billion in 2023 (at 2010 constant prices). But 99 percent of Indonesia's landowners are smallholders with an

Exhibit 5

Domestic market growth and global value chain reconfigurations could help enable new subsectors in Indonesia to grow more competitive.

Indonesia's domestic growth vs share world exports, by sector



[1]Value-added CAGR, 2016–21.
Source: BPS-Statistics Indonesia; UN Comtrade; McKinsey Global Institute analysis

McKinsey & Company

average farm size of 0.6 hectares. This limits the scope to modernize and mechanize, both of which are critical for higher productivity. Moreover, the cultivation of high-yield seeds and the adoption of advanced technologies have been minimal. To address these challenges and lift agriculture labor productivity, farmers in Indonesia could take the following measures:

— *Mechanize and digitize.* Capital deepening is needed in agriculture, through investments in farm equipment and irrigation, for instance. Such investments would be more viable with larger farm sizes. Digital tools can enhance agricultural practices, too, helping farmers to plant the best crops, monitor irrigation precisely, and harness climate information. However, currently only about 2 percent of Indonesian farmers use some form of e-commerce platforms to buy and sell goods, and more than 55 percent are not willing to consider newer technologies, such as drone applications.[44] Only 18 of the country's 34 provinces have agencies providing agricultural resources.[45]

— *Increase the use of high-yield seeds*. Hybrid rice amounts to less than 1 percent of the rice planting area in Indonesia, and this share has stagnated for several years.[46] Higher productivity could be achieved by planting hybrid rice seeds that have been shown to increase productivity compared with inbred rice.[47]

With employment shifting from agriculture to urban areas, managing urbanization is a significant challenge for highly populated developing countries such as Indonesia. By 2045, an additional 70 million people could migrate to cities, raising the urban population to 73 percent from 59 percent in 2023.[48] Many urban migrants, hindered by low education and skill levels, struggle to find formal jobs and often turn to the informal sector for work. Improving urban infrastructure—such as roads, public transportation, and communication networks—could create connections between urban hubs and surrounding areas. This, in turn, could contribute to a better quality of life and provide social infrastructure, such as universities, hospitals, and recreational facilities—all important factors for attracting and retaining a skilled workforce. This urban infrastructure is also part of the capital deepening in the overall economy that can raise the productivity of businesses that use public infrastructure.

One urban planning approach to achieve effective urbanization is the "x-minutes city." This model promotes an urban lifestyle that allows mobility within x number of minutes. Several countries have successfully used this approach. Barcelona's Superblock maximizes public spaces for local businesses and reduces carbon emissions by allowing only EVs to be used within it, and Singapore modified this concept to a "20-minutes town" and "45-minutes city" that reduce travel time and improve the efficiency of public facilities, such as pedestrian tracks and public parks.[49]

Five types of enabling capital are essential ingredients of an enterprising Indonesia

The road to national prosperity is paved with thousands of decisions to start, grow, and improve great companies. We emphasize capital deepening—the accumulation of physical and intangible assets—productively deployed by companies. But companies do not invest in isolation. There must be ample amounts of five types of enabling capital: financial, human, institutional, infrastructural, and entrepreneurial. All five are underdeveloped and, to some extent, stalled in Indonesia, and would require resolute attention to enable an enterprising Indonesia. Our analysis shows ways in which each of the five types of capital could be developed.

Channel more savings into financial capital to support businesses of all sizes to invest and expand

Indonesia has a relatively high savings rate. It has averaged about 33 percent of GDP since 2010 and stood at 38 percent in 2023. This compares with Thailand's 28 percent and Poland's 24 percent. But Indonesia's savings have not been harvested effectively into a well-functioning financial system. In 2022, the ratio of financial assets to GDP was low at 72 percent, compared with Brazil's 194 percent, for example. On the International Monetary Fund's Financial Development Index, Indonesia's financial institutional depth—private sector credit, pension fund assets, mutual fund assets, and insurance premiums relative to GDP—has a score of 0.16, lower than in other emerging markets.[50]

Domestic savings matter—as does mobilizing them effectively. In recent decades, domestic savings contributed the bulk of investment financing in growing Asian economies.[51] Some economies have implemented measures to improve access to financial services, mobilize (compulsory) pension plans, and establish state-managed funds. These channels pooled domestic savings for investment into strategic sectors. Institutional investors, including pension funds, sovereign wealth funds, insurance companies, and mutual funds, also played a crucial role by gathering and channeling capital into long-term assets, which supported economic growth.

The other advantage of domestic savings is that they help build resilience in the face of external monetary shocks and prevent the current account deficit from rising too high. In Indonesia, a large amount of capital is held in the informal economy, and this limits the use of long-term savings instruments, such as pensions and life insurance. Neither of these is mature in Indonesia.[52] Banks account for three-quarters of financial assets and private credit is typical for Indonesia's level of development; however, insurance and pension fund assets are equal to only 9 percent and 2 percent of GDP, respectively.[53] Channeling more savings into such long-term formal instruments, and capital market reforms to diversify savings and investment instruments, could encourage more investment in small, medium-size, and large companies and potentially reduce their cost of capital.

Improve human capital by focusing on educational quality and matching skills to the jobs of a high-income economy

Indonesia faces challenges across the educational system and in matching skills to jobs. Educational outcomes on the Programme for International Student Assessment (PISA) and Harmonized Learning Outcomes (HLO) scores have been declining and the share of the population attaining secondary school completion is low.[54] Early childhood education is a proven enabler of higher educational outcomes, yet remains underdeveloped in Indonesia, particularly in rural areas. This perpetuates disparities in secondary and tertiary attainment. Indonesia's education system is hindered by a severe shortage of teachers as well as inconsistent quality—again, especially in rural regions. Compounding this issue, Indonesia's higher education system is not globally competitive—it has no universities in the global top 100 rankings.[55]

Educational shortcomings are exacerbated by a pronounced mismatch between jobs and skills. Two-thirds of unemployed people in Indonesia are vocational and tertiary graduates, but they do not have skills that match industry and business needs.[56] Improvements could be made within the education system—the government and private sector could usefully collaborate to address these issues by, for example, creating internships and raising workers' skills. As well as plugging current skill gaps, Indonesia could focus on cultivating the next generation of leaders—individuals who are not only equipped with technical expertise, but also with adaptability, innovation, and the leadership skills necessary to drive the nation's economic transformation.

Enhance institutional capital to improve governance and support a more productive and competitive business landscape

Indonesia's bureaucracy can often be complex and this can increase costs for businesses, potentially constraining their agility and growth. Investors may face some inconsistencies between central and subnational governments, particularly regarding permitting processes and operational control. For example, various government agencies have developed around 20 different digital strategy road maps, leading to overlapping initiatives for internet expansion and creating challenges in data integration and development.[57] Smaller companies in particular may lack the resources to navigate the regulatory environment.

Building stronger institutions is often influenced by broader economic, social, and political factors. To support a proliferation of larger companies and more competition, regulatory bodies must be knowledgeable and engaged on the one hand, and independent, transparent, and even-handed on the other.[58] This can take time and strong leadership. However, there are opportunities to streamline functions and increase transparency, enhancing institutional effectiveness. Investments in digital infrastructure and supportive collaborative relationships between all stakeholders could also help strengthen institutional capital in Indonesia.

Boost infrastructural capital to connect Indonesia's vast archipelago and enable seamless business operations

Infrastructure is the backbone that connects Indonesia's many far-flung islands and has the power to enhance citizens' quality of life and facilitate business. But the nation's geographic fragmentation poses considerable challenges for land, sea, and air logistics infrastructure.

The government has responded to these challenges by clustering key infrastructure initiatives, such as constructing roads and airports, under a National Strategic Projects (PSNs) umbrella.[59] There has been notable progress in developing essential infrastructure, but the pace of progress has arguably not been fast enough. On the World Bank's Logistics Performance Index, which assesses factors such as the efficiency of customs and border management, the quality of trade and transportation infrastructure, and the timeliness of deliveries, Indonesia fell from 46th to 61st place between 2018 and 2023.[60]

Indonesia's fragmented geography and infrastructure gap has consequences, one of which is inflated logistics costs, which are equivalent to 24 percent of GDP. This compares with 14 percent in Thailand, for instance. The relative lack of infrastructure and inefficiencies lead to longer delivery times and compromise the reliability and effectiveness of service delivery across sectors.[61] This ultimately affects customer satisfaction and economic competitiveness.

Data-backed, integrated infrastructure planning executed across parties could improve the quality, objectivity, and transparency of infrastructure projects. In addition, using public–private partnerships (PPP) could potentially be effective in increasing the involvement of private finance in infrastructure development and help to close Indonesia's current infrastructure gap.[62]

Raise entrepreneurial capital to create more formal businesses, adopt better technology, and invest at a bigger scale

Entrepreneurial capital is needed to foster new ideas, stimulate competition, and drive the economic development needed for Indonesia to reach high-income status by 2045. But entrepreneurial activity, measured as the formation of new formal businesses, is low in Indonesia. The country produces only 0.33 new registered businesses per 1,000 working-age people per calendar year. This is lower than in reference economies—such as Brazil, which has a score of 5.1—where the economy has a much higher level of formality than Indonesia.[63] On the funding side, private equity (PE) and venture capital (VC) investments in Indonesia also remain limited.

Total funds deployed were about $1.7 billion in 2023—only 0.1 percent of GDP, compared with the average of 0.5 percent in the economies of the Association of Southeast Asian Nations (ASEAN).[64]

In their early lives, start-ups can often struggle with inexperience and lack of guidance. Incubators and accelerators can address these challenges by offering crucial support and mentorship. Indonesia has a substantial number of incubators and accelerators, but an Asian Development Bank survey found that many of these programs face significant obstacles, including a lack of staff, funding inconsistencies, and weak connections within the ecosystem.[65]

A range of measures could help to address Indonesia's lack of entrepreneurial capital. Digital platforms and tools, and potentially gen AI, could play a transformative role, enabling incubators and start-ups to overcome limitations by providing data-driven insights, automating repetitive tasks, and offering tools for rapid prototyping and innovation at scale.[66] Start-ups could thereby gain access to advanced problem-solving capabilities and market analysis, empowering them to make informed decisions faster and reduce their time to market.

In addition, collaboration with large, established companies could cultivate essential competencies in start-ups, expand their supplier networks, and develop social impact funds to provide the initial capital for these companies, which have high capital requirements but the potential to create meaningful social value. For example, Singapore's GoBusiness initiative provides financial support for all businesses that adopt technology solutions to improve their business processes.[67] Europe's Small Business, Big World program offers guidance on customs procedures, trade regulations, and market entry requirements to enable small and medium-size enterprises to expand their export activities.[68]

Indonesia needs to shift from aspiration to action

Indonesia's aspiration of becoming a high-income economy by 2045 is ambitious, and the task ahead is multifaceted and challenging. It is vital that it moves from aspiration to action. A guiding principle is good governance of the business sector. An engaged yet independent public sector could foster a more formal, competitive, and productive business sector. Broad public understanding and support could also be an indicator of the success and sustainability of policy reforms. Clear performance metrics and accountability could ensure institutions adapt and succeed.

Tracking progress is important. A benefit of our company-up approach to envisioning Indonesia's development is that it yields a detailed and concrete set of markers. Two types of indicators can help guide efforts to build a vibrant and enterprising ecosystem. The first set aims to measure progress in developing more larger companies and the capital and employment trends that go with that. The second set is indicators that map progress against efforts to develop the five kinds of enabling capital that we have discussed. The two sets of indicators go hand in hand; while we emphasize that growing the five enabling forms of capital accelerates the growth of larger and more productive companies, the converse is also possible.

The reference metrics and targets presented here are potential markers on a journey to a place where entrepreneurs want to and can start their companies, and then grow and effectively run successful small, medium-size, or large companies. The measures show that Indonesia has a long way to go, and it is not yet on track.

Productivity growth and business building metrics

The first set of indicators tracks progress against key indicators of productivity growth and business building in the scenario where Indonesia achieves high income by 2045. Since these are based on the scenario developed in this report, we indicate the corresponding 2045 levels (Exhibit 6).

Per capita GDP: In our scenario, per capita GDP reaches the threshold of high income by 2045, increasing from $4,900 today to $14,000. This implies an annual overall GDP growth rate of 5.4 percent. However, precedents show high year-to-year variation on the journey; it may require faster growth in the earlier years as the rate of growth tends to decelerate as economies approach high income, and Indonesia's demographic dividend is likely to diminish over time.

Exhibit 6

Indonesia can monitor progress toward milestones for achieving a high-income 'enterprising Indonesia.'

Summary of key indicators for a potential high-income scenario

Key economic indicators		Unit of measurement	2023	2045 scenario
GDP	GDP per capita	$	4,900	14,000
	GDP annual growth	%	4.9[1]	5.4
Productivity	Overall	$ thousand per full-time equivalent	9	26
	Microenterpise		8	15
	Small company		6	28
	Medium company		20	37
	Large company		27	42
Employment share	Agriculture	% of total population	28	14
	Manufacturing		14	16
	Services		55	68
	Resources		2	2
Capital[2]	Total capital	$ trillion	3	14
	Capital per worker	$ thousand per worker	31	100
Number of companies	Microenterpises	thousand	31,800	21,500
	Small companies		950	1,200
	Medium companies		80	200
	Large companies		13	40
	└ Very large companies		0.4	1.4

[1]2000–23 historical.
[2]Nonagricultural.
Source: BPS-Statistics Indonesia; Oxford Economics; MGI Productivity Analytics Database; McKinsey Global Institute analysis

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Productivity growth and company contributions: Productivity growth would need to increase at an average CAGR of 4.9 percent and be the primary driver of Indonesia's 5.4 percent annual GDP growth, given that the contribution from a growing labor force will diminish. The largest contribution would come from medium-size and large companies as they double their employment share (across company sizes) and level of productivity.

Number of companies: If Indonesia is to triple its productivity and reach high-income status, it would need a greater number of larger and more productive companies. The number of medium-size and large companies would more than triple to 200,000 and 40,000 respectively. Almost 80 percent of these companies would come from the services sector.

Capital deepening by companies: In a high-income-by-2045 scenario, Indonesia would increase nonagricultural capital fourfold to $14 trillion and grow nonfarm capital per worker from $31,000 to $100,000. In a scenario in which capital scales with productivity growth across company sizes, medium-size and large companies would increase their capital share of nonfarm business from about half to almost two-thirds. Companies of all sizes would need to at least double their capital per worker.

Employment share by sector: As is typical in countries crossing the high-income threshold, Indonesia could shift its employment share away from agriculture by 15 percentage points, mainly into the services sector, which would grow 13 percentage points in our scenario—and is the main source of growth. The manufacturing sector would increase by two percentage points, while the share of employment in the resources sector would remain about constant.

Enabling capital metrics

The set is not exhaustive but aims to cover the critical components. The reference economies provide a range for these metrics, since structural factors could affect what "good" means in any given country. The range is meant to inform planning, not establish a precise target (Exhibit 7).

Financial capital: Financial depth, measured as private credit by banks and stock market capitalization, indicates whether the financial system is expanding and allocating more capital. It is the most direct measure of increasing financial capital. Stock market capitalization in Indonesia is 47 percent of GDP, while in neighboring economies such as Malaysia and Thailand, it reached 130 to 109 percent of GDP.[69] Financial inclusion measures the share of the population using modern financial services—bringing more savings into the financial system increases financial depth. The share of pension assets can indicate the development of institutional financial systems and long-term instruments for domestic savings. These are important for growth and are particularly low in Indonesia. In 2023, pension assets were only 2 percent relative to GDP, while other reference economies reached a range of between 4 to 76 percent.

Human capital: Secondary-education attainment is a simple and accurate measure of the level of education that is needed to support skill levels of high-income economies. In 2023, 40 percent of those between ages 25 to 34 had completed upper-secondary school in Indonesia, compared with a range of 48 to 57 percent in top-quartile reference economies.[70] The number of researchers in a country is another targeted quality measure that identifies higher skill potential. Indonesia only has 400 researchers per million people, compared with a range of 500 to 4,000 people in reference economies.

Institutional capital: The cost and time required to open a new business are key indicators of government efficiency. They are also proxies for deeper factors such as trust and rule of law. In 2023, the average cost of opening a business in Indonesia was $1,300, compared with $28 in the low end of reference economies. Opening a domestic business averages 43 days, similar to the longer end of the reference range, and three times longer than Singapore.

Infrastructural capital: Infrastructure is the backbone of citizens' activities and business operations. Key metrics include road density, mobile download speed, and median time spent in port. These all affect business operations and quality of life, and the different dimensions vary in importance depending on the sector. Indonesia's road density and average mobile download speed are low relative to reference countries, though road density is affected by Indonesia's expansive geography. However, it performs in the middle range on median time in port at 25 hours, compared with a range between 18 to 41 hours in reference economies.

Entrepreneurial capital: New formal business density is crucial in the creation of larger, more productive companies, and, in turn, in growing Indonesia's overall formal economy. Indonesia's value of 0.3 per 1,000 working-age people is near the low end of the observed values in reference economies. Indonesia's employment in the informal economy is relatively high at 80 percent, by the ILO's measure, while other economies reached as low as 25 percent.[71]

Exhibit 7

Indonesia can monitor the progress of key enablers using a comprehensive set of key indicators.

Summary of key indicators for a potential high-income scenario

Maximum in observed countries[1]
Minimum in observed countries[1]
Indonesia

Key economic indicators		Unit of measurement			
Financial capital	Private credit by deposit money banks	% relative to GDP	33	21	121
	Pension assets	% relative to GDP	2	4	76
	Financial inclusion	account (% age 15+ population)	75[2]	69	88
Human capital	Above upper-secondary educational attainment	% of population (age 25–34)	40	48	57
	Researchers in R&D	number per million people	400	519	4,021
Institutional capital[3]	Cost of opening a new domestic business	$	1,305	28	603
	Time to open a new domestic business	calendar days	43	33	45
Infrastructural capital	Road density	km/surface area	100	100	250
	Mobile broadband download speed	megabits per second	42	79	207
	Median time in port for container ships[3]	number of hours	25	18	41
Entrepreneurial capital	Informal employment	% of total employment	80	18	50
	New business density	per 1,000 working-age population	0.3	0.2	6.0

[1]Based on latest available data. Private credit by deposit money banks, 2019; pension assets, 2020; financial inclusion, 2021; above upper-secondary education attainment, 2023; researchers in R&D, 2020; cost and time of opening a new business, 2024; road density, 2021; mobile broadband download speed, 2024; median time in port for container ships, 2021; informal employment, 2023; new business density, 2016. Reference countries are countries with GDP per capita within a +/– 20% range of $14,000 (high-income threshold) in 2023, and population above 10 million, unless otherwise stated, due to limited data.
[2]Based on 2024 National Literacy and Financial Inclusion Survey by OJK (Financial Services Authority) and BPS-Statistics Indonesia. World Bank Global Financial Inclusion 2021 data is used for reference country range and indicates Indonesia's financial inclusion rate at 52%. An updated figure is shown for Indonesia, given that financial inclusion was one of the most disrupted metrics during COVID-19, with small differences in methodology from World Bank.
[3]We limit metrics here to 2 operational efficiency metrics from World Bank Business Ready 2024 because they are directly measurable; World Bank indices for all 3 pillars—regulatory quality, transparency, and operational efficiency—can also be used to track and compare progress as can broader World Bank Governance Indicators that go beyond conditions for opening new businesses.
[4]Referencing against China, Russia, and South Korea.
Source: Pitchbook; TestMy.net; World Bank; MGI Productivity Analytics Database; McKinsey Global Institute analysis

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Indonesia's government has set an ambitious aspiration of attaining high-income status by 2045. Our analysis suggests a path forward by analyzing the trajectories of other economies that started from a similar base to Indonesia's today. The scenario we have developed implies that Indonesia would need to increase GDP by more than 5 percent per annum. This would only be possible with an increase of productivity growth of 1.6 times, which would require creating more medium-size and large companies; enabling considerable capital deepening; encouraging entrepreneurship; and shifting employment from the low-productivity informal sector to higher-paying jobs.

If Indonesia were to achieve these elements of a productivity-focused plan for the next 20 years, it could not only enhance the growth and resilience of its economy but also expand the ranks of the middle class across all regions and improve its people's well-being. Indonesia would develop from being the archipelago economy that MGI described in 2012 to being the "enterprising archipelago" that can thrive well into the future.[72]


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CHAPTER ONE

Indonesia's high-income goal

Indonesia has made significant progress in its economic development over the past five decades. There have been major milestones along the way, such as cofounding the Asia–Pacific Economic Cooperation (APEC) in 1989, joining the World Trade Organization in 1995, and establishing the Financial Services Authority in 2011, among others.[73] MGI has categorized the country as a long-term outperformer by virtue of the fact that Indonesia's per capita GDP has grown by more than 3.5 percent a year for a half century.[74] Since 2000, Indonesia's GDP has increased at an average of 4.9 percent, two percentage points above the global average and faster than 80 percent of countries classified as upper-middle income today.[75] Furthermore, Indonesia reduced extreme poverty from 70 percent in 1984 when reliable data became available to less than 2 percent in 2023—equivalent to 190 million people today being lifted out of extreme poverty.[76]

While this is remarkable progress, many Indonesians remain economically vulnerable. In 2023, about one in six households remained below the lower-middle-income poverty line of $3.65 per person per day.[77] About 60 percent of Indonesians currently live below the $12 (purchasing power parity) per person per day "empowerment" threshold at which families can meet basic needs and access more educational and economic opportunities.[78] There are also indications that growth of the middle class has slowed.[79]

Several economic factors have limited greater prosperity over the decades since the Asian financial crisis in 1997–98. These include a slowdown in productivity despite rapid urbanization, a low level of economic complexity in manufacturing and exports, and a poor translation of a high savings rate into productive capital investment. Indonesia's low manufacturing complexity reflects the fact that it relies on raw materials and commodities exports, such as palm oil and coal, instead of intermediate goods or more specialized products, as part of the global value chain. Indonesia's large size and unique geography complicate effective urbanization—including integrating the newly urbanized into productive jobs or educational paths—and closing the large regional disparities with a more integrated domestic market. Successful, sustainable urbanization would enable better connections between urban hubs and surrounding areas, which are important factors for attracting and retaining a skilled workforce.

Now, the government has set the ambition of achieving high-income status for the country before 2045 and accelerating the pace of growth over the coming years toward 8 percent.[80] To attain that, Indonesia's economy needs to grow by 5.4 percent annually versus historical growth of approximately 5.0 percent.[81] This poses a challenge as Indonesia has previously benefited from favorable demographic tailwinds driven by its young population—an advantage that is expected to diminish in the near future.[82]

In this report, we describe one main scenario that lays out how Indonesia could achieve this aspiration. To develop this scenario, we have looked at how other countries have navigated their journey to becoming high-income economies—countries that began in a similar position to Indonesia today with per capita GDP of $4,900. We considered 16 countries with populations of more than 20 million that had per capita GDP greater than $4,000, but had not yet reached high-income status as of 1985. Every country's path to this status has been different, but the broad direction and milestones have been similar.

Some may question whether a country with a population as large as Indonesia can match the trajectories of others with smaller populations. However, China has grown rapidly, partly by emulating the wave of growth achieved by Japan, Singapore, and South Korea before them.[83]

Is it now Indonesia's time? And, if so, what will it take?

Our research has a particular focus on the role of capital investment to lift productivity and the role of companies as the primary transmission mechanism for capital deployment to work. The aim is not to describe how companies and their role in capital investment prompt economic development—that topic is much broader than our scope. Rather, our research complements the extensive research on structural factors by providing a view of the scope and scale of entrepreneurship needed to enable many more households with much more human capital to benefit from a high-income economy, thus establishing some of the markers Indonesia will pass along the way.

Indonesia's high-income aspiration depends on how quickly it can accelerate productivity growth

A high-income country is defined by the World Bank as having a gross national income per capita of $14,000 or more, which usually translates into lower poverty rates, a higher level of well-being for the population, and an improved ability to tackle climate adaptation and sustainability, among others.[84]

Precedents set by other economies suggest that a 2045 high-income scenario for Indonesia is certainly within the bounds of possibility. Starting from a similar level of per capita GDP to Indonesia's economy today, the top quartile of the 16 economies we looked at achieved the necessary growth rates of 4 to 10 percent over two decades (Exhibit 8).

South Korea was the fastest-growing country on its path to becoming a high-income economy, with a GDP CAGR of more than 9 percent and per capita GDP of more than 8 percent over 14 years. China's CAGR of GDP per capita was approximately 7 percent—it remains just below the high-income threshold at this stage—followed by Chile at 4 percent. Poland reached the high-income milestone, albeit at a slower CAGR of 4 percent over 24 years (see Box 2, "Methodology: Using other countries' journeys to being high-income to plot a way forward for Indonesia").

For Indonesia to reach the government's 8.0 percent growth goal in the coming years, a pathway to high income that averaged 5.4 percent annually would not be atypical.[85] Among the reference economies we looked at, many hit much higher peaks than their average growth rate during their journey to high income. For instance, Chile's annual GDP growth averaged 5.6 percent, with the highest five-year rolling average at 7.9 percent in the 1987 to 1991 period (Exhibit 9).

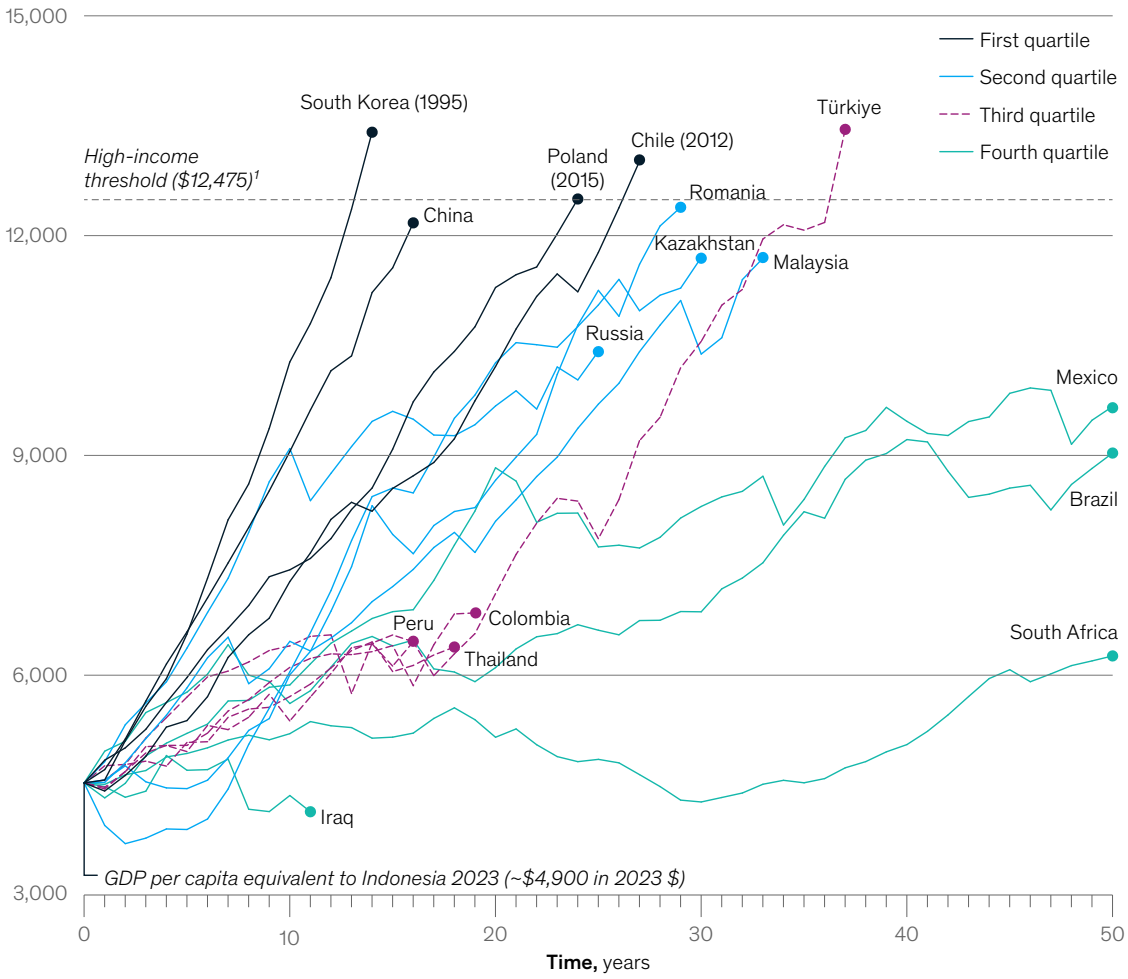
The year in which Indonesia could potentially achieve its high-income goal from its starting point of $4,900 per capita GDP in 2023 will depend on how fast it can accelerate its productivity growth. That is because growth is the combination of the size of the labor force and the productivity of that labor force. The size of the labor force has historically grown as Indonesia's population increased from when it had a large young population. The labor participation rate in the country has grown to almost 70 percent. That "tailwind" is slowing down and by 2037 to 2039, the labor force relative to population is anticipated to decrease.[86] At projected trends, growth in the labor force would likely account for only about 0.5 percentage points of GDP growth, aboutf one-third of what it has been since 2000 at 1.8 percent.[87] The balance would have to be made up of productivity growth—at an annual rate of 4.9 percent.

Exhibit 8

Top-quartile economies closed the equivalent of Indonesia's current gap to high income in 14 to 27 years.

GDP per capita and progress toward high-income status, selected economies,[1] 2015 real $

Starting point is when GDP per capita is equivalent to Indonesia 2023 (~$4,900 in 2023 $); ending point is 2023 (except as noted)



GDP per capita, CAGR,[1] %

First quartile		Second quartile		Third quartile		Fourth quartile	
South Korea	8.5	Romania	3.7	Türkiye	3.1	Mexico	1.4
China[2]	6.7	Russia	3.4	Colombia	2.5	Brazil	1.3
Chile	4.2	Kazakhstan	3.3	Peru	2.4	South Africa	0.6
Poland	4.1	Malaysia	3.1	Thailand	2.1	Iraq	–0.5

[1]In our calculations, we use GDP per capita at 2015 real $ and assume the high-income threshold in 2015 ($12,475). Türkiye's 2023 GDP per capita (constant 2015 $) exceeds $12,475; however, Türkiye is still below World Bank's high-income threshold of $14,005 gross national income per capita ($11,650 in 2023).
[2]CAGR for middle-income economies assumed from starting point to 2023, except for Chile, Poland, and South Korea.
Source: World Bank; McKinsey Global Institute analysis

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Box 2. Methodology: Using other countries' journeys to being high-income to plot a way forward for Indonesia

In this research, we use a sample of countries that have become high-income economies over time to assess a possible journey toward that milestone for Indonesia and a likely range of Indonesia's potential economic outcomes. This approach is based on our judgment that economies that have already achieved high-income status, or middle-income economies that have potential to become high-income in the coming decade, can be used as a reference for Indonesia.

These economies are naturally different from each other, but they have similar characteristics and markers of development. In addition to human development indicators, we have used economic metrics that correlate with growth in per capita GDP, including the distribution of companies of varying sizes and levels of different forms of capital. In this report, beyond the physical and intangible capital assets of companies, we consider five of them: financial, human, institutional, infrastructural, and entrepreneurial capital. We also look at general patterns of urbanization and changes in the sector mix, such as growth in services and the nonfarm economy.

Of course, we recognize that no two countries have followed the same growth path, and that growth does not correlate perfectly with these factors. We address these challenges in two ways. First, we state clearly which countries shape the scenario we describe, which is not necessarily countries that have outperformed. Second, depending on the number and variation of the examples, we have established ranges for likely 2045 values. These are not statistically determined outcomes nor claims about what causes economic growth, but scenarios with a clear basis for what needs to be believed—what precedents must be followed—to get to a certain point.

The report uses four main types of analysis. While we favor using the same countries as examples, all else being equal, each of the four types lends itself to a particular set of reference points.

Growth and productivity. For the analysis of growth and productivity in chapter 1, comparison countries are those that have per capita GDP above $4,000 (Indonesia stood at $4,900 in 2023) and have populations of more than 20 million people (Indonesia has a population of approximately 280 million as of 2024).[1] Countries that achieved high-income status more than 40 years ago are excluded, such as Australia, Japan, and the United States. Sixteen countries have met the criteria defined in this research, and the top quartile of these provides the basis on which we anticipate that the 2045 high-income aspiration for Indonesia is plausible. Note that throughout the report we generally use real dollars as it is the simplest way to track progress toward the World Bank-defined category of high income. In purchasing power parity (PPP) terms, Indonesia has a much higher GDP per capita and productivity, which we use in places for cross-country comparisons and data availability, with similar implications for growth.

Company size and factor inputs. We analyze these elements in chapters 2 and 3. Here, we are more limited in terms of data, particularly on the distribution of companies, and therefore generally match Indonesia's landscape to specific countries, which we indicate clearly and contextualize. For example, for the distributions of companies of different sizes, we estimate differing scenarios using Brazil, Mexico, Poland, and Portugal as they are the countries closest to the high-income threshold among countries for which we have consistent data. With a small sample and differing country patterns, we find a wide range for some variables.

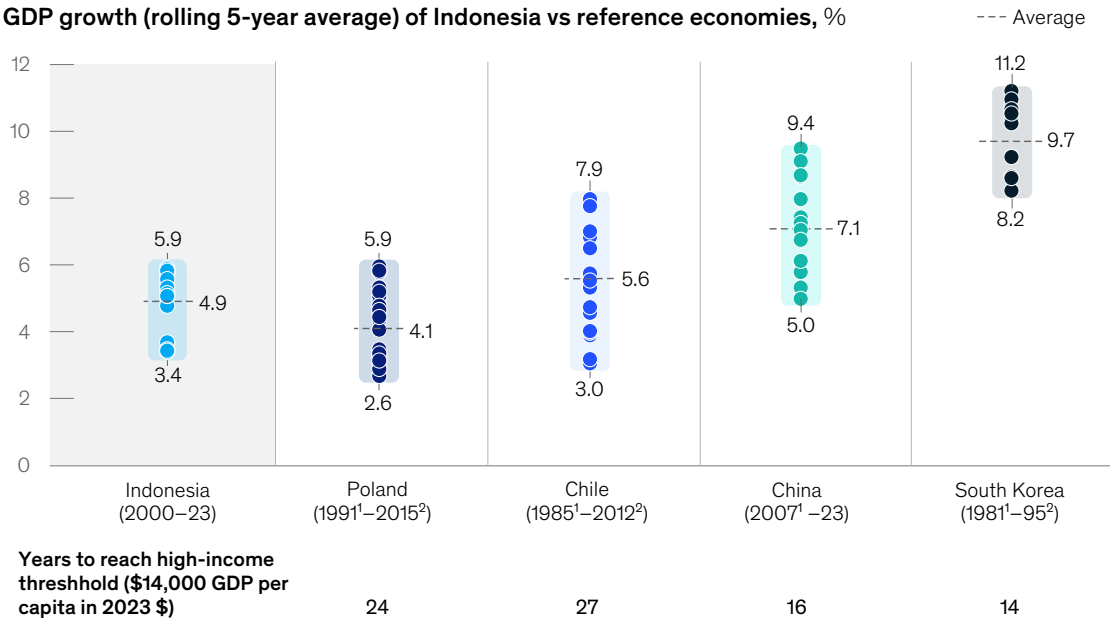
Sector and enabler metrics. The sector analyses generally draw on metrics—one example being employment by sector—that are available for most countries in the world, and which can be assessed at the high-income threshold for all countries that have crossed it. Besides sector employment, this includes key indicators of enablers that support Indonesia's path to high income, such as financial depth, number of researchers, and share of formal economy.

Comparison countries in Asia. Wherever possible, we also compare Indonesia to other countries in the region, such as China, India, Malaysia, Thailand, Singapore, and Vietnam. Our reasoning is that they are commonly used as comparisons for Indonesia and have similar opportunities and challenges for economic growth, geography of trade, and institutional context.

[1] "Mid-year population (thousand people) 2022–2024," BPS-Statistics Indonesia, June 28, 2024.

Exhibit 9

Reference economies spanned a wide range of growth rates around their annualized average on their path to high income.



[1]Year economy with similar GDP per capita to Indonesia in 2023 (~$4,900 in 2023 $).
[2]Year economy reached high-income threshold; in our calculations, we use GDP per capita at 2015 real $ and assume the high-income threshold in 2015 ($12,475).
Source: World Bank; McKinsey Global Institute analysis

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That would be a significant increase over the productivity improvement rate of between 2 percent and 4 percent that Indonesia has achieved since 2000 (Exhibit 10).

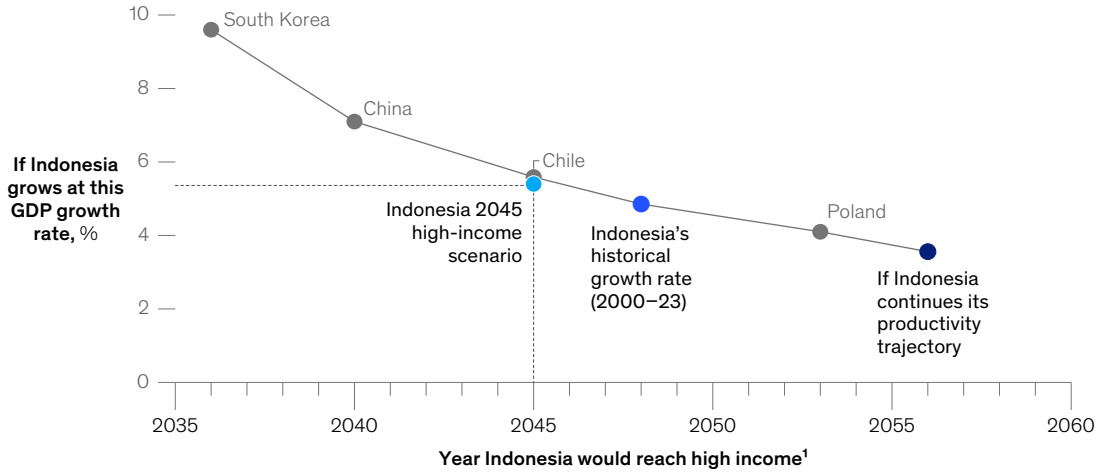
In other words, if Indonesia is to achieve its ambition by 2045, productivity will have to account for almost 90 percent of GDP growth compared with just over a 60 percent share since 2000—a challenging ask.

Precedents suggest that this increase in productivity growth is possible, but it would require a big step-up in the short term. Prior MGI research has shown that the "fast lane" of productivity growth for countries at Indonesia's level of development can reach 8 percent of annual productivity growth, while outperformance near to high-income status decreases to closer to 5 percent (Exhibit 11).[88] To put it another way, a trajectory that can average 4.9 percent productivity growth per year to 2045 would likely require an increase in the near term to well above that level before subsequently coming down.

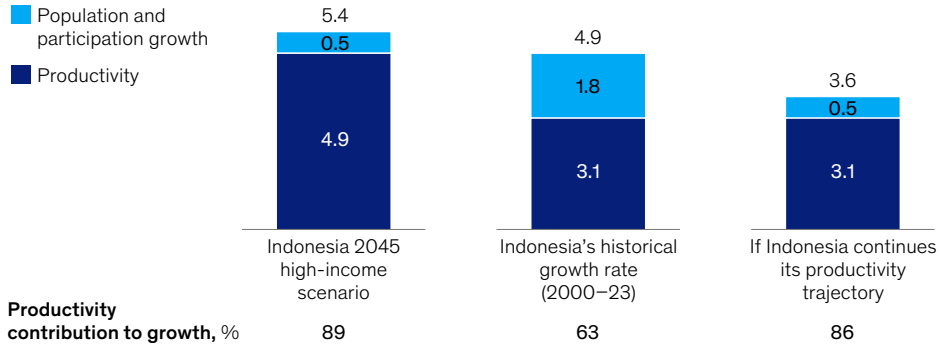
Exhibit 10

The year in which Indonesia reaches high-income status depends on how fast it can accelerate growth, especially productivity growth.

Year reaching high-income status based on benchmarks' annualized GDP growth rate, %



Implied real GDP growth rate decomposition, percentage points



[1]In RPJPN 2025–45, BAPPENAS estimated that Indonesia will enter high-income band around 2038–41.
Source: Oxford Economics; World Bank; McKinsey Global Institute

McKinsey & Company

The biggest boost to Indonesia's productivity would come from capital deepening

If Indonesia is to achieve the high-income aspiration by 2045, productivity growth would be the primary driver of its GDP growth. In turn, following a typical development path of "fast lane" developing economies, the primary boost to productivity for Indonesia would come from capital deepening.[89] Indonesia has low levels of physical capital, and capital deepening could enhance labor productivity and result in spillovers across the economy.

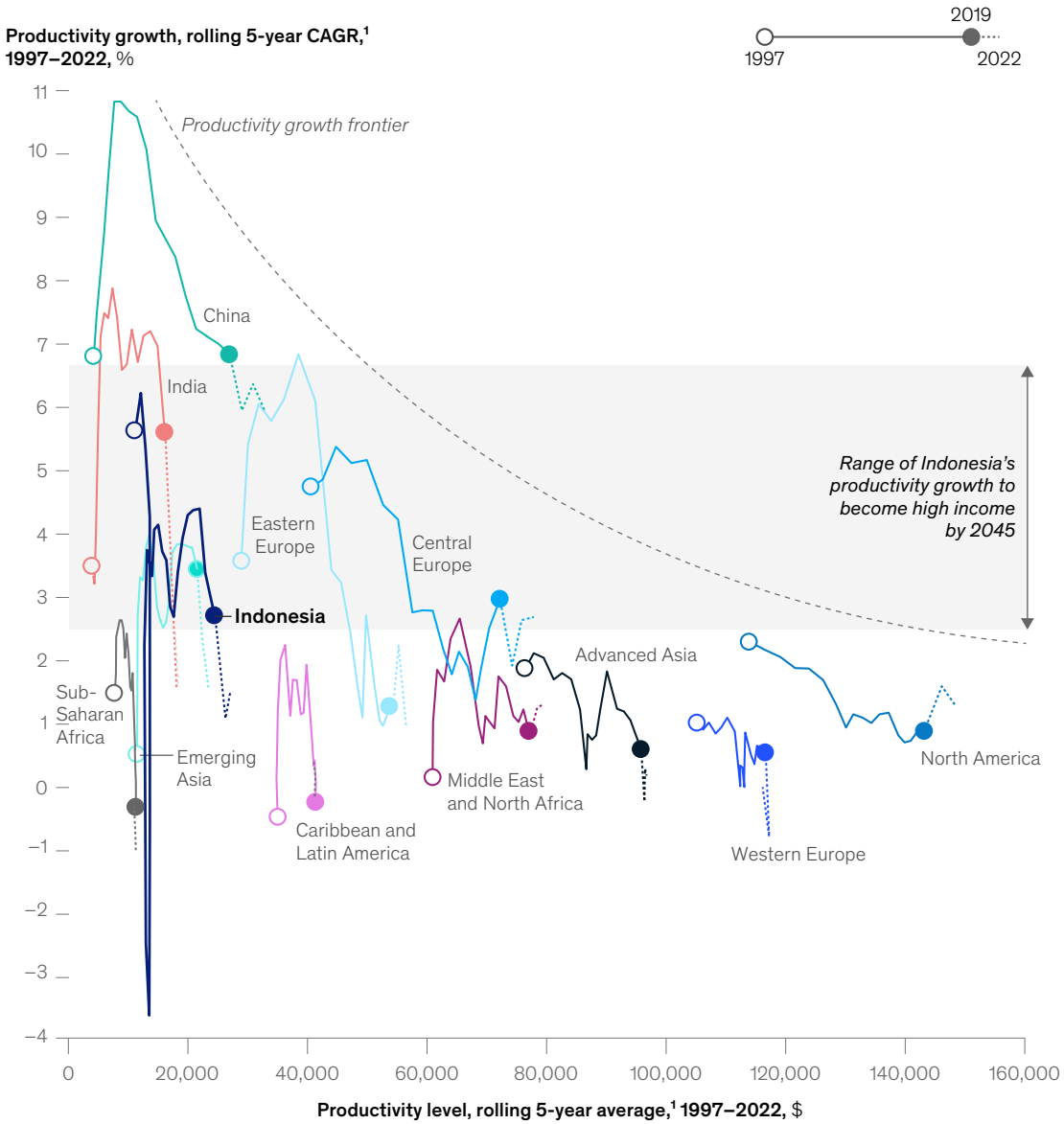
This relationship appears to be particularly strong in developing economies (Exhibit 12).[90] In Indonesia, it could mean more advanced machinery—from traditional types to new, sophisticated

robots—and automated assembly lines to enable workers in the manufacturing sector to produce more output in less time, and improved transportation networks to reduce the costs and time of logistics, thereby facilitating trade.[91] Developing IT infrastructure and attracting investments in companies to enhance their digital capabilities could boost growth.

Exhibit 11

Productivity growth would need to increase significantly for Indonesia to reach high-income status by 2045.

Productivity level and productivity growth per employee

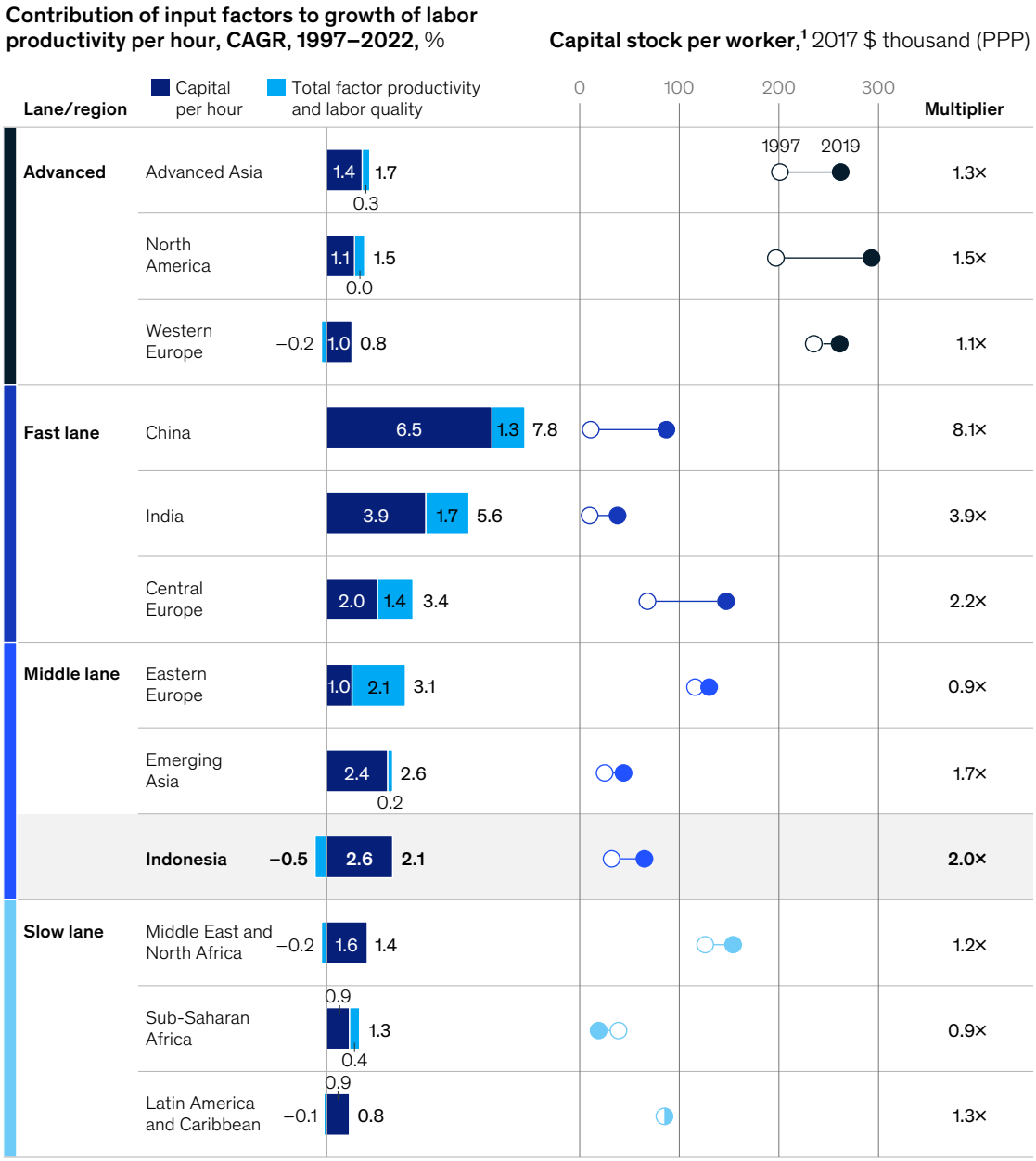


[1]Weighted averages for 11 regions in 21 rolling 5-year periods.
Source: *Investing in productivity growth,* McKinsey Global Institute; Total Economy Database—output, labor, and labor productivity 2023; McKinsey Global Institute analysis

McKinsey & Company

Exhibit 12

Following a typical development path of 'fast lane' economies, the primary productivity uplift would come from capital deepening.



Note: n = 125 economies, excluding Democratic Republic of Congo, Iraq, Syria, Taiwan, Venezuela, and Yemen. Figures may not sum to listed totals, because of rounding.
[1]Capital stocks (public and private), International Monetary Fund (IMF), constant 2017 $; calculated by dividing total capital stocks by total employment. We compare 1997 to 2019 because that is the latest year available in the IMF data set.
Source: *Investing in productivity growth,* McKinsey Global Institute; Total Economy Database—output, labor, and labor productivity 2023; McKinsey Global Institute analysis

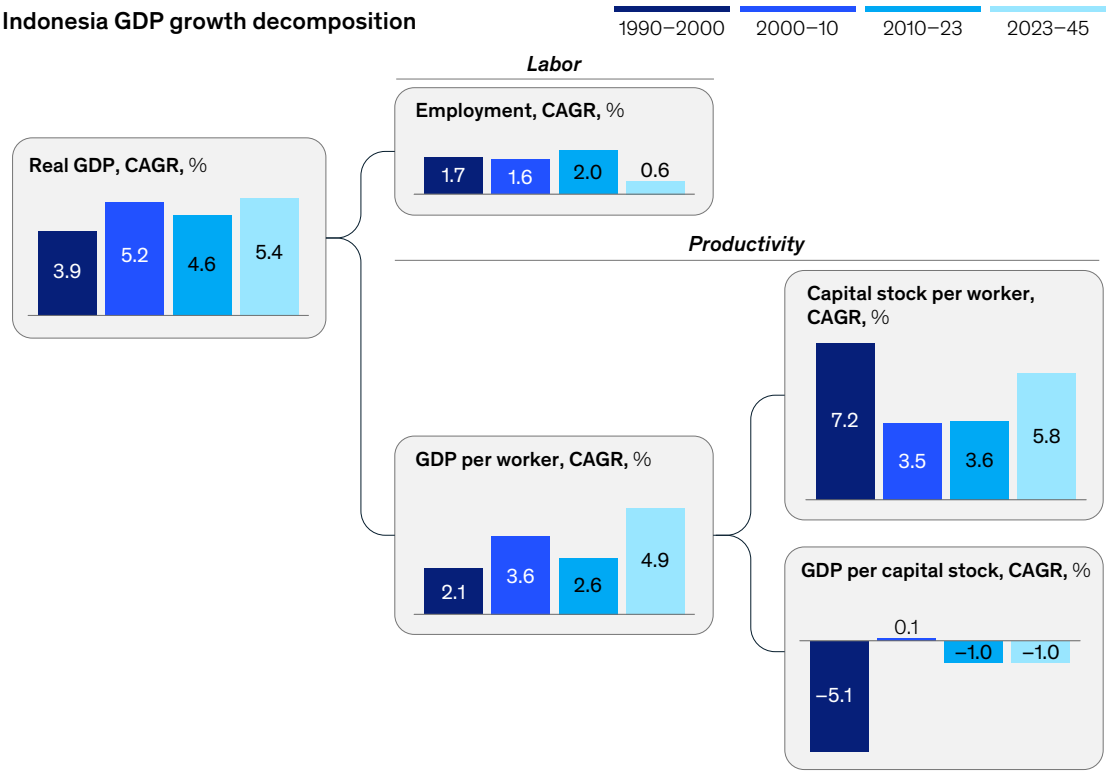
McKinsey & Company

Growth could further be encouraged by building residential and commercial sustainable property as Indonesia continues to urbanize. Such capital deepening is particularly critical at the beginning of the middle-income journey. To avoid a "middle-income trap," such investment must be complemented by the infusion of frontier technologies to support a more complex economy, followed by more genuine innovation as high-income status approaches.[92]

Given the 4.9 percent productivity growth in a 2045 high-income scenario, and again using the paths of Chile, China, Poland, and South Korea as a guide, that productivity growth would come from a 5.8 percent CAGR in capital stock per worker, while capital effectiveness (GDP per capital stock) would decrease by 1.0 percent CAGR from 2023 to 2045 (Exhibit 13).[93] Such a drop-off in capital productivity comes with the rapid accumulation of capital, which is partly why an infusion of more technology and innovation can become more important over time.[94] While there is ongoing debate about the relative contributions of capital and technology to growth, it is clear that, at Indonesia's stage, a high rate of capital deepening is important to growth, discussed further in chapter 2.[95]

Exhibit 13

In a high-income-by-2045 scenario, Indonesia's productivity would increase by around 5 percent per year, driven by capital deepening.



Note: Figures may not sum to listed totals, because of rounding. Summing of components is an approximation valid for this range and precision.
Source: Oxford Economics; World Bank; McKinsey Global Institute analysis

McKinsey & Company

Indonesia's scale of urbanization and geographic dispersion poses a challenge to growth

Indonesia has many unique strengths and endowments. However, in a global context, Indonesia's economy has not improved its standing since 2012 and still ranks as the 16th largest economy in the world.[96] Among other factors that are shaping its economic growth, Indonesia faces two challenges common to economies on the path to becoming high income: making sustainable urbanization work and addressing regional disparities. With Indonesia's large, highly dispersed population and fragmented geography, these challenges are amplified and even more important for the country to overcome—and, if possible, turn into advantages.

Indonesia continues to urbanize, but urban infrastructure and employment lag

As is typical of middle-income countries, Indonesia is undergoing rapid urbanization, but its large population and the sheer scale of the shift to cities make urbanization a challenge.

Since 2012, four million people a year have moved from rural environments to cities in Indonesia.[97] However, robust economic development requires that rapid urbanization works smoothly and that it caters to the needs of citizens and businesses—and is sustainable. Cities need sufficient infrastructure and more productive jobs, including at the lower end of the productivity spectrum where most new or recent people coming to cities initially tend to work.

Over the past two decades, new urbanites have mainly been employed in low-wage and informal services, where there is no formal agreement between employer and employee, and businesses and self-employed don't abide by all permitting and tax regulations. These services are known to have low productivity.[98] For example, in Indonesia, as labor moved away from agriculture, agriculture's share of employment declined 8.5 percentage points from 2010 to 2018.[99] On the other hand, the trade services subsector had a 3.6 percentage point increase—the largest of any subsector. The productivity of trade services is 1.1 times higher than that of the agriculture sector, but well below the economy's average.

In some fast-growing economies, infrastructure and buildings developed as people moved into cities.[100] Growth in the construction industry meant that these economies were better able to absorb the newly urbanized, while also creating the needed infrastructure. For example, in China, India, and Vietnam, the share of employment in construction increased by five to 12 percentage points. This increased construction led to better infrastructure, commercial buildings, and residential homes. However, effective urbanization relies heavily on careful planning and infrastructure development to ensure that building these physical capital assets translates into productivity improvements in the economy; this, in turn, can benefit from productivity improvements in the construction sector itself.[101]

Indonesia has made progress in building infrastructure. The country achieved an electrification rate of 99 percent in 2022 compared with 85 percent in 2014.[102] It has built an additional 2,100 kilometers of toll roads, 6,000 kilometers of national roads, and 27 new airports in the past ten years.[103] As a further example, in October 2023, the country launched Southeast Asia's first high-speed rail, Whoosh, which connects Bandung and Jakarta in 45 minutes, a journey that previously took three hours.[104]

Infrastructure growth will need to keep pace with urbanization to accommodate the increase of economic activity in cities and be sustainable in line with the country's energy transition commitments. If it does, the rapidly expanding consuming class—currently 120 million people (triple that of Italy), and up from 45 million in 2012—can be an engine of growth, allowing Indonesia's large domestic markets to support more specialized and higher value-added production and services.[105] For urbanization to be effective in Indonesia, planning and building

the right—and sustainable—infrastructure will be vital. If it is able to handle its large-scale urbanization effectively, four million additional urbanites per year could be a tailwind for productivity growth.

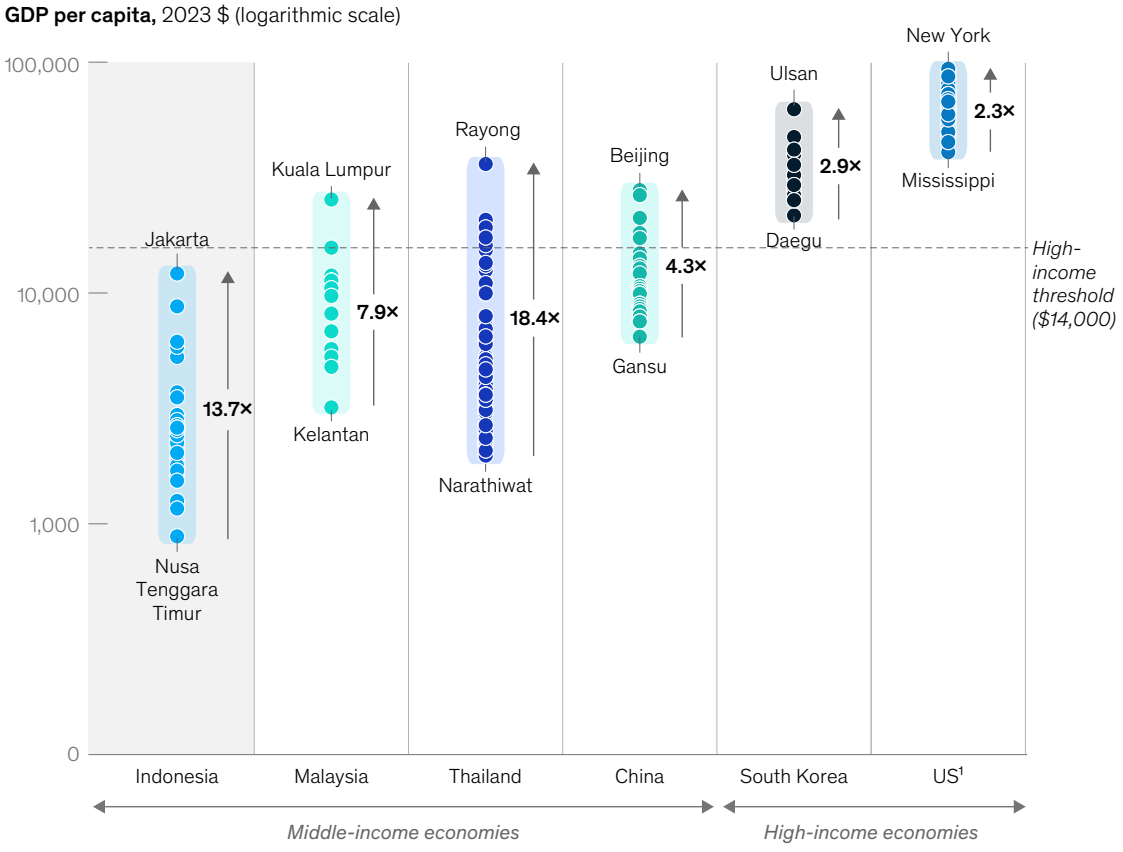
Indonesia is a large, geographically and economically dispersed country

Indonesia is an archipelago with approximately 6,000 inhabited islands, and, as such, its population is widely spread. This has contributed to large disparities in per capita GDP. At the top end, the per capita GDP of Jakarta is 14 times higher than that of Nusa Tenggara Timur at the bottom. For comparison, the difference between Malaysia's top and bottom states is eight times, and in China, four times. To give more context, Jakarta is as wealthy as Malaysia at approximately $11,000 per capita, while Nusa Tenggara Timur is closer to the Gambia or Mali at $800 per capita (Exhibit 14).[106] Indonesians are not only far apart in traveling distance; they are far apart in living standards, too.

Exhibit 14

Indonesia's highest- and lowest-income regions have a 14-times GDP per capita gap—much larger than most reference economies.

Distribution of Indonesia regional GDP vs reference economies



[1]For US, District of Columbia is excluded given GDP per capita is 2.4x higher than New York.
Source: BPS-Statistics Indonesia; Bureau of Economic Analysis of the US Department of Commerce; Department of Statistics Malaysia; National Bureau of Statistics of China; Office of the National Economic and Social Development Council Thailand; Statistics Korea; McKinsey Global Institute analysis

McKinsey & Company

The geographical fragmentation also means that the logistics needed between dense cities, on the one hand, to a dispersed population in rural areas, on the other, are high-cost. This reflects in the increased cost of transporting goods over long distances and through less efficient routes, as well as the added challenges of maintaining supply chains across geographically diverse regions.[107] Such differences make it difficult for businesses to scale efficiently across the nation; it is vital to prioritize the most impactful infrastructure projects to connect regions and cities—alongside making urbanization more effective.

The country's unique geography and demography also affect Indonesia's human capital indicators. At the national level, these indicators are typical for Indonesia's current level of economic development. For instance, 19 percent of the population has tertiary education; the child mortality rate is 11 per 1,000 births; life expectancy is 68 years; and 94 percent of the population has access to clean water.[108] Based on historical country trajectories, these numbers would improve as Indonesia progresses toward high-income status. At that threshold, tertiary graduates would comprise approximately 36 percent of the population (equivalent to an additional 55 million tertiary graduates); over 10,000 additional children's lives potentially would be saved per year (although such outcomes are influenced by multiple factors and aren't guaranteed); life expectancy would increase to 76 years; and approximately 1.7 million more people would be able to access clean water, from 94 to 95 percent.

Progress in such human development indicators would not be automatic, of course, and could exceed these markers. The rate and extent of progress also vary widely. For instance, Indonesia has made significant strides in addressing childhood malnutrition across the nation, from 37.6 percent in 2013 to 21.5 percent in 2023 (as measured by linear growth failure), but there remains disparity among its regions. As an example, in Papua Tengah, linear growth failure occurs in 40 percent of children aged five and under, while it is less than 7 percent in Bali.[109] In education, Jakarta has 87 percent enrollment at the upper-secondary level (high school equivalent), but Papua has only 38 percent.

Disparities in per capita GDP and human capital can be addressed in various ways, including, for instance, fiscal policy or the movement of people and goods (which depends on connecting infrastructure). There is also potential to turn the nation's divergences and disparities into advantages: Different endowments and strengths in some regions could be complementary in terms of driving productivity growth, as observed in China and Vietnam (Exhibit 15).[110]

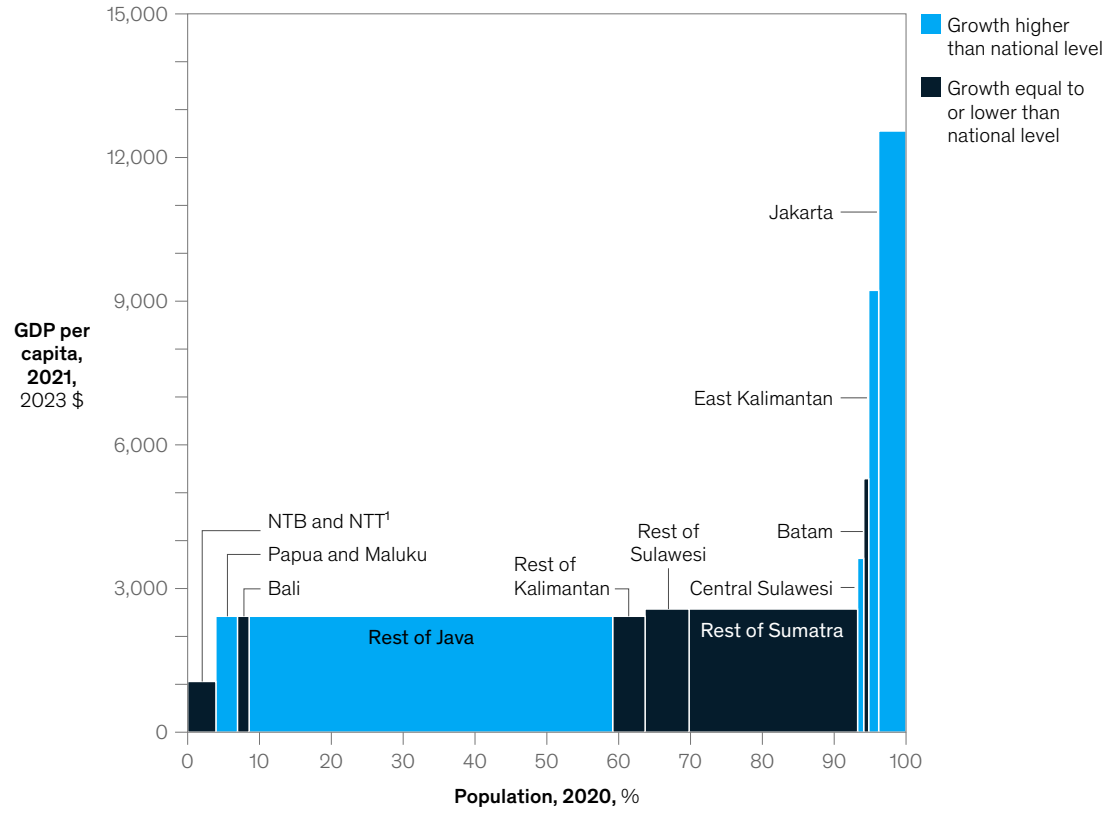
For regions within Indonesia with lower per capita GDP, a combination of approaches would likely be needed for them to converge with wealthier ones. A multifaceted economy needs multifaceted growth engines, and it is unlikely that a single playbook would suit all of Indonesia. Global lessons provide valuable insights, but Indonesia will need to shape its own growth model. It can draw from the industrialization-led growth of economies such as Mainland China and the lesser-populated Asian Tigers (Hong Kong, Singapore, South Korea, and Taiwan, China), which relied heavily on manufacturing and exports on the journey to high-income status.[111] But, it can also learn from the economic growth and structural transitions of resources-rich nations such as Chile.[112] These economies successfully expanded their services sectors while managing shifts from farm to nonfarm economies and moving toward high-value-added industries.

It is also worth noting that Indonesia is trying to traverse its journey to high-income status not only in the face of the country's challenging characteristics, but also in a changing global context. Geopolitical uncertainty is on the rise, and global supply chains and trade routes are reconfiguring.[113] The world faces the complex task of transitioning the energy system from high greenhouse gas emissions to a low-emissions system in order to tackle climate change.

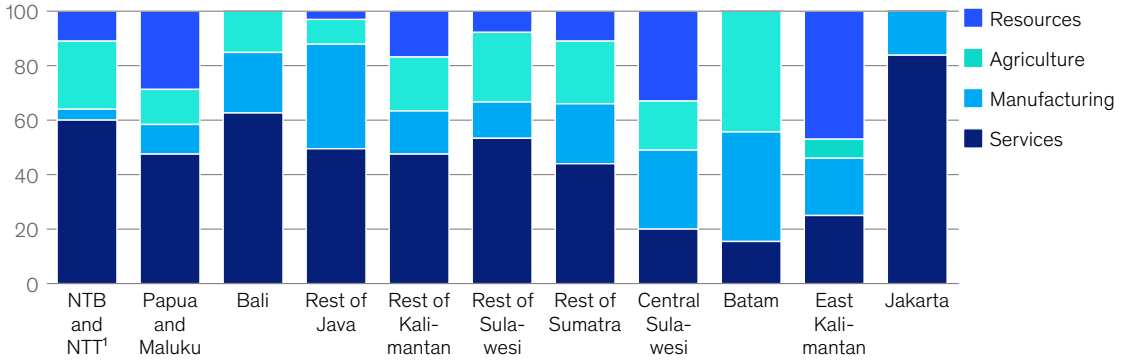
Exhibit 15

Each of Indonesia's regions has its own economic profile and potential sources of productivity growth.

Indonesia GDP per capita vs population



GDP breakdown by sector, %



[1]NTB = West Nusa Tenggara; NTT = East Nusa Tenggara.
Source: BPS-Statistics Indonesia; McKinsey Global Institute analysis

McKinsey & Company

For developing economies that have to grapple with less advanced power systems, as well as the need to continue to expand access to energy for those who currently are underserved—still while transforming the energy system—the transition is an even more demanding prospect.[114] Like other middle-income countries, Indonesia also faces the challenge of adapting to climate change and overcoming relatively high exposure, while closing an infrastructure resiliency gap relative to high-income countries.[115] At the same time, technology is evolving rapidly.[116] MGI has highlighted that Asia may be on the brink of a new era, driven by these overlapping disruptions and the shifting macroeconomic environment with lower growth, higher inflation, and elevated interest rates.[117]

In light of these major forces at play, past development models are unlikely to be sufficient, and new approaches are needed. There may be multiple pathways for Indonesia's growth, but two interrelated ingredients have been common to successful journeys to high-income status: (1) the presence of larger and more productive companies in sufficient numbers, and (2) capital deepening in the form of more physical and intangible assets for each worker in the economy. These are the aspects that we explore most deeply in this report.

The path to becoming a high-income economy by 2045 would require Indonesia to accelerate productivity growth, while addressing key obstacles to prosperity that arise from its size, geography, and the global economic environment. Our analysis of other countries that have trodden a path to high-income status reveals many differences, but they all achieved improved productivity growth. In the next two chapters, we look at the primary agents of that productivity growth—companies.



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CHAPTER TWO

Larger and more productive companies

Around the world, large companies have played a key role in fast-growing, developing economies by boosting productivity, attracting capital, and driving innovation, technology, global flows, skills training, and R&D, among others.[118] For the purposes of this report, large companies are defined (following most national statistics agencies) as having more than 250 employees; medium-size, 50 to 249 employees; and small ones, ten to 49 employees. Productivity is higher among large companies and the share of employment in medium-size and large companies rises with the level of an economy's per capita income.[119] Similarly, larger companies tend to pay higher wages because they are more productive and have higher capital per worker.[120] As a result, the shift to larger companies occurs as the informal and self-employed, as well as the generation joining the workforce, seek higher-paying jobs in larger, formal companies and as some microenterprises formalize and scale.

To have more large companies requires an expansion of the number of companies in the middle, too, which can account for a large share of capital investment and productivity growth.[121] The increase of small and large companies is also interconnected. Many large companies are the anchor to more sophisticated corporate ecosystems that help small and medium-size companies to thrive and scale.[122] These patterns suggest that companies can be the agents of a productivity growth flywheel—companies investing capital, building company and worker capabilities, and, in a competitive environment, spurring the growth and proliferation of more and larger companies (Exhibit 16).[123]

In the scenarios we explore in this chapter, which use a variety of reference cases of countries near the high-income threshold, Indonesia will need to both step change the productivity of companies in each class size *and* profoundly shift the corporate landscape and employment structure toward larger enterprises. We estimate that for Indonesia to reach its 2045 ambition, it would have to create 1,000 very large, productive companies (with over $200 million in revenue), triple the number of large (over 249 employees) and medium-size (over 49 employees) companies, and see a shift in employment of 26 percentage points from the mainly informal economy of microenterprises into small, medium-size, and large companies by 2045. By raising the size profile of companies across the board, it is more likely that Indonesia would have the potential to channel more productive capital into the economy, employ more skilled workers, and lift wages across the workforce.

A range of catalysts—five other types of capital—could accelerate larger companies to grow, invest, and proliferate. These include a deeper financial system with more of Indonesia's domestic savings flowing through it to facilitate financial capital deployment and allocation; a step change in education, reskilling employees, and health outcomes, especially among children, to develop human capital; institutional capital to ease the regulatory process of doing business, while attracting new investments; a more extensive and efficient connectivity infrastructure to encourage exports and integrate the domestic market; and entrepreneurial capital marked by new formal entrants and scaling of start-ups (see further discussion in chapter 4).

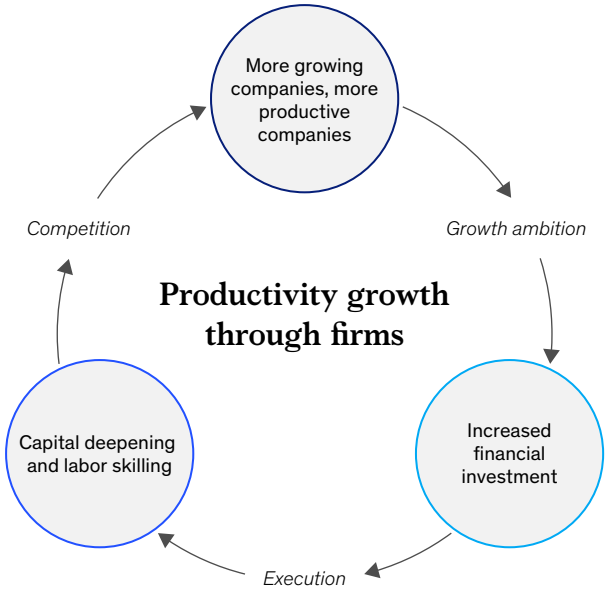
Indonesia needs to increase the number of medium-size and large companies to grow productivity

If Indonesia is to grow its productivity at almost 5 percent and reach high-income status, it will need a greater number of larger and more productive companies that have higher capital per worker.

Exhibit 16

Indonesia's companies can unleash its productivity potential to transform the country into an 'enterprising archipelago.'

Illustrative enterprising archipelago



Five capitals

- **Financial capital** to facilitate capital deployment and allocation
- **Human capital** development that boosts wages through reskilling for growth, education step change, and healthy families
- **Institutional capital** through supportive regulations and policies to deconflict regulations and increase speed of doing business
- **Infrastructural capital** for connectivity in facilitating export and integrating domestic market
- **Entrepreneurial capital** to drive innovation and a dynamic business environment

Source: McKinsey Global Institute analysis

McKinsey & Company

Small businesses, including informal microenterprises and the self-employed, often predominate in developing economies. For example, more than 80 percent of employment in Kenya and Nigeria is in micro-, small, and medium-size enterprises (MSMEs).[124] In Indonesia, microenterprises—defined as having fewer than ten employees—currently account for an overwhelming share of employment. Indonesia's 2016 business census (excluding agriculture), which is conducted every ten years, showed that more than 97 percent of companies in Indonesia are microenterprises.[125] Fifty-nine percent of Indonesia's workforce is employed in these microenterprises—with 41 percent self-employed.[126]

Almost all of these are informal businesses. Over 59 percent of Indonesia's employment is in informal enterprises, based on the latest National Labor Force Survey.[127] The International Labor Organization (ILO) reports an even higher value at 81 percent in 2023.[128] A high share of employment in informal enterprises is common among developing economies, averaging 70 percent, and they tend to have low productivity—accounting for just one-third of GDP.[129] While they provide livelihoods in the absence of other opportunities, these businesses not only have lower productivity, but also less access to finance and slower physical and capital accumulation.[130]

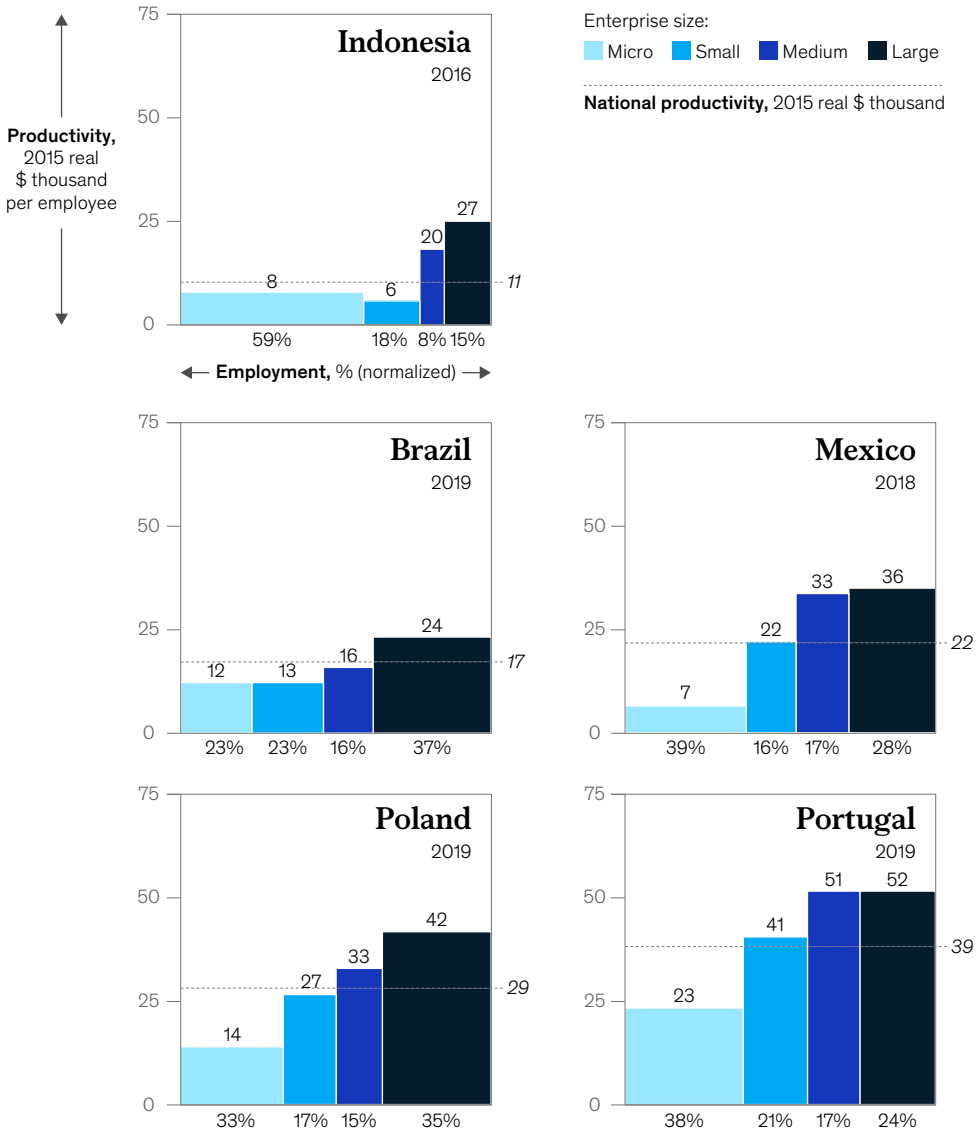
As economies develop on their journey toward high-income status, there is a shift toward more larger companies that are more productive. Consider Brazil, Mexico, Poland, and Portugal—the four economies in our sample that have available data and are closest to the high-income threshold. In Indonesia, large companies account for 15 percent of employment, much lower than

37 percent in Brazil, 35 percent in Poland, 28 percent in Mexico, and 24 percent in Portugal.[131] In each reference case, average productivity has increased with company size category, highlighting the correlation between company size distribution and Indonesia's path to high-income status (Exhibit 17).

Exhibit 17

Indonesia has a low share of employment and productivity in medium-size and large companies compared to reference economies.

Productivity and employment,[1] by enterprise size[2]



Note: Figures may not sum to 100%, because of rounding.
[1]Excluding agriculture; latest available data except for Indonesia (2016) and Mexico (2018); all productivity values are shown in 2015 real $ thousand rather than purchasing power parity terms for consistency with our high-income scenario.
[2]Microenterprises: fewer than 10 full-time employees (FTE); small companies: fewer than 49 FTE; medium-size companies: fewer than 249 FTE; large companies: more than 250 FTE.
Source: Aggregated databases (eg, Eurostat, ILOSTAT, OECD); BPS-Statistics Indonesia; country-level economic and business censuses; MGI Productivity Analytics Database; McKinsey Global Institute analysis

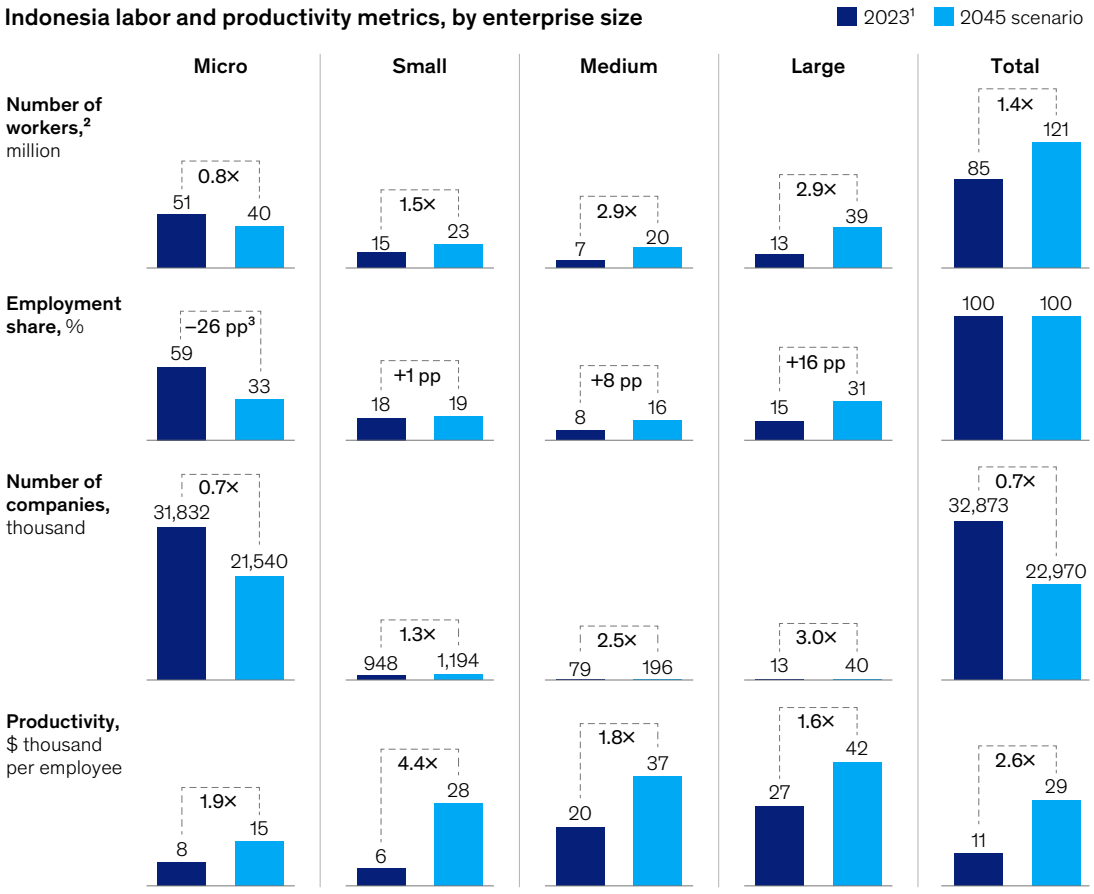
McKinsey & Company

Based on a scenario for Indonesia that averages today's levels in Brazil, Mexico, Poland, and Portugal, to achieve high-income status by 2045, Indonesia would need both a step change in the productivity of companies in each size class *and* a profound shift in the corporate landscape and employment structure toward larger enterprises.

In our scenario, there is more than a tripling in the number of medium-size and large companies to 200,000 and 40,000, respectively, implying a boost in competition (Exhibit 18). The results are sensitive to the specific profile adopted. For example, if we look exclusively at Brazil where large companies have a higher employment share (37 percent), the number of large companies in Indonesia would need to increase 4.5 times. Looking at Portugal, which has a much lower employment share in large companies (24 percent), the number of large companies in Indonesia would only need to increase 3.2 times.

Exhibit 18

Indonesia's employment would shift from microenterprises to larger companies in a 2045 high-income economy scenario.



Note: Figures may not sum, because of rounding.
[1]Number of workers and companies taken from latest available data (2016 BPS-Statistics Indonesia economic census data).
[2]Nonagriculture, nongovernment employees.
[3]Percentage points.
Source: BPS-Statistics Indonesia; MGI Productivity Analytics Database; McKinsey Global Institute analysis

McKinsey & Company

However, in all cases, the shift of the distribution from microenterprises toward medium-size and large companies in Indonesia to match the reference economies would be significant. The average productivity of both the medium-size and large company categories doubles and their share of employment increases from 8 to 16 percent and 15 to 31 percent, respectively. The share of employment accounted for by microenterprises falls by 26 percentage points as work shifts to higher productivity companies that pay higher wages. As a result, overall productivity triples.

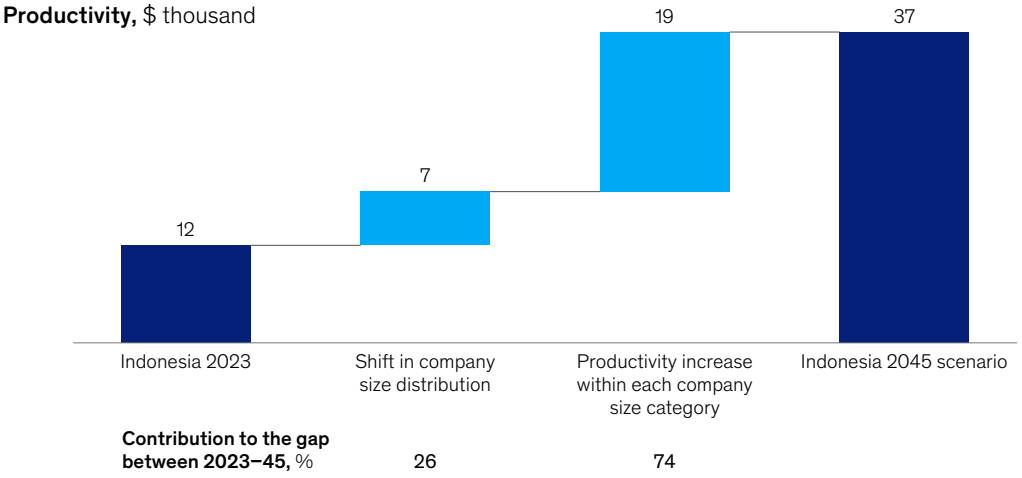
Notably, all categories of company by size increase productivity, but more than one-quarter of the economy-wide increase comes from jobs moving from microenterprises to other companies (a "mix" effect). The rest comes from productivity gains within each category (Exhibit 19).

Capital per worker correlates strongly with productivity across economies. Again, if Indonesia were to achieve a scenario based on Brazil, Mexico, Poland, and Portugal, the country's nonagricultural capital overall would increase four times to $14 trillion, with a growth in capital per worker from $31,000 to $100,000.[132]

In our scenario, productivity also increases with company size, and we would expect a similar pattern of increasing capital per worker across company size (see Box 3, "The relationship between larger companies and capital deepening"). Taking the same proportional increases across company-size categories as productivity, we model a doubling of capital per worker among the medium-size and large companies. In combination with their doubling of employment share, the medium-size and large company share of capital increases from 51 to 65 percent (Exhibit 20).

Exhibit 19

Three-fourths of the productivity increase in a 2045 high-income scenario would come from productivity increases within each company size.



Source: MGI Productivity Analytics Database; McKinsey Global Institute analysis

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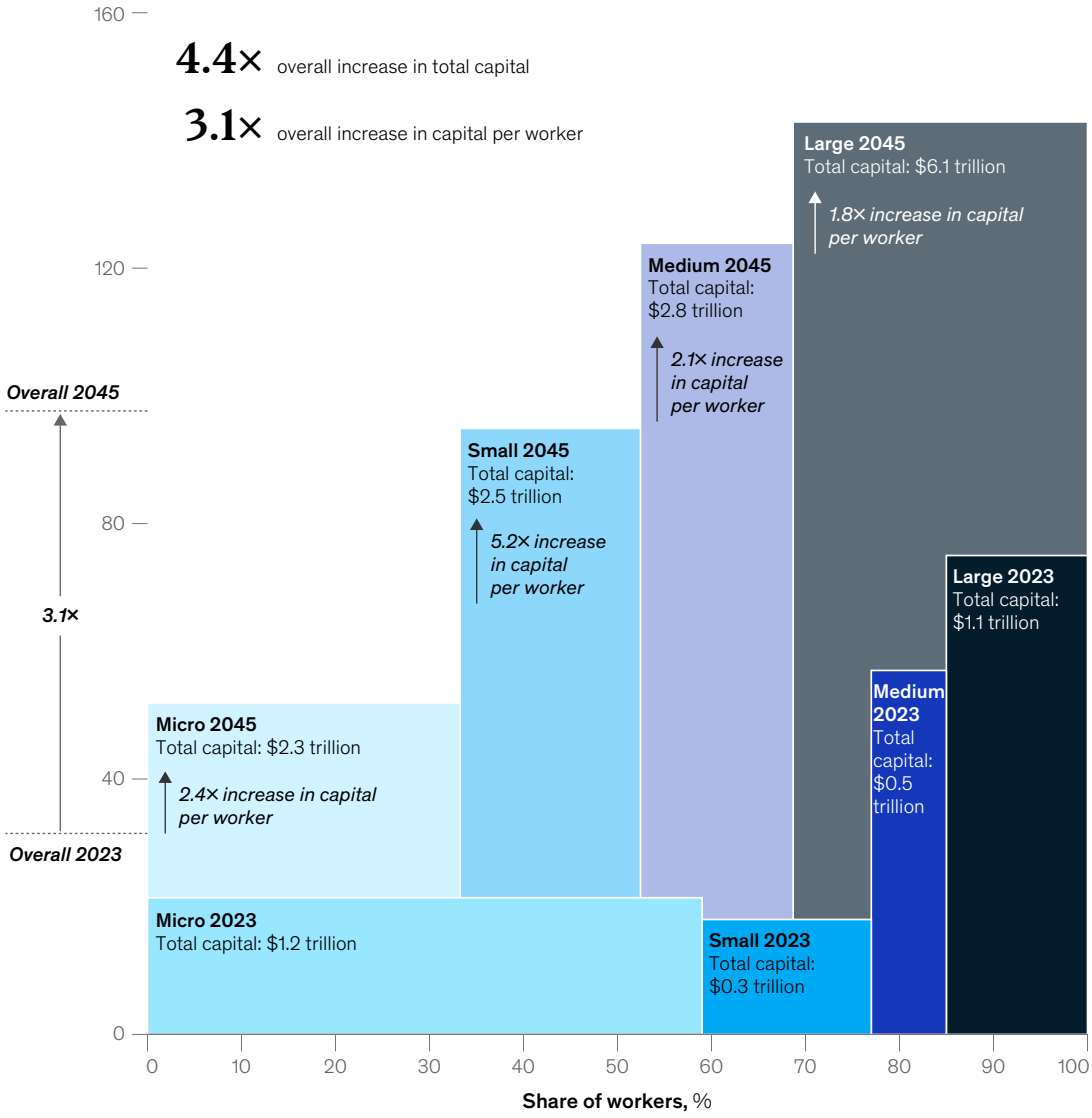
Exhibit 20

In a 2045 scenario where capital increases proportionally with productivity, medium-size and large companies account for most of capital deepening.

Shift in employment and capital in Indonesia, by business size, 2023 vs 2045 scenario



Source: BPS-Statistics Indonesia; Oxford Economics; McKinsey Global Insitute analysis

McKinsey & Company

As a result, growth in the number of larger companies and their share of employment would mean that more workers would have better access to capital and technology, making workers more productive. To achieve a CAGR in capital per worker of 5.8 percent in the overall economy to 2045 would also require public investment, a large portion of which would go into urban infrastructure.

Box 3. The relationship between larger companies and capital deepening

Part of the increase in capital per worker in Indonesia's high-income scenario would come from the shift toward more larger companies. Across economies, capital per worker correlates with productivity and with the economy's employment share in larger companies, and, as shown above, larger companies are on average more productive than smaller ones within economies. Furthermore, some types of capital incentivize scale to payoff and capital is often cheaper for larger companies, which would make them a more likely channel for capital deepening.[1]

At the same time, direct measurement of capital per worker by company size across economies is sparse and attributing causality is difficult.[2] In particular, it is hard to measure how much of the higher level of productivity in larger companies comes from more capital per worker versus more human capital, technology, or other forms of managerial or organizational capital that may be higher in larger companies.[3]

The important point for developing a view of Indonesia's high-income scenario is that capital deepening is a critical part of growth for companies of all sizes, and an increasing share of capital will accumulate in medium-size and large companies as productivity growth of the economy overall increases. We make the simple assumption in our scenario that capital per worker increases proportionally with productivity across company sizes to fix ideas and, further, with the intuition that diverging too far from this assumption would put the marginal productivity of factor inputs out of equilibrium.

[1] Añón Higón et al., "Firms' distance to the European productivity frontier," *Eurasian Business Review,* Volume 12, 2022.
[2] For a study that examines the relationship between capital intensity, company size, innovation, and productivity, see Frank Crowley and Philip McCann, "Innovation and productivity in Irish firms," *Spatial Economic Analysis,* Volume 10, 2015.
[3] Barry B. Bosworth and Susan M. Collins, "The empirics of growth: An update," *Brookings papers on economic activity,* Volume 2, 2023.

Shifting the mix of companies in Indonesia would rely on change at both ends of the size spectrum

With the building blocks of our scenario, a picture emerges of how fast the flywheel of company and productivity growth would need to spin in Indonesia to reach the high-income goal by 2045. What obstacles would need to be overcome for larger and more productive companies to proliferate in Indonesia at this pace? Some explanation is found at either end of the size spectrum—the very large companies and microenterprises—where most of Indonesia's value added is currently generated.

The revenue of Indonesia's very large companies, defined as companies with more than $200 million in revenue in 2022, is 50 percent relative to GDP.[133] This is a big share considering that there are fewer than 400 companies in this category, compared with 10,000 "regular" large companies that have more than 249 employees. Nonetheless, the aggregate size of supersize companies in Indonesia is still comparatively lower than in several reference economies, for example, Chile and Poland, where the revenue (including overseas revenue) to GDP ratio is at 100 percent, and Brazil and Mexico at 74 and 52 percent, respectively. In terms of the density of very large companies, Indonesia has 0.3 very large companies per $1 billion of GDP against Malaysia's 1.9 and Thailand's 1.8.

If Indonesia were to match Chile's number, and company size of the category remained constant, it would need to boost competition and develop approximately 1,000 additional very large companies in various sectors: In services, it would need 4.5 times more, in manufacturing 3.0 times more, and 1.2 times more in resources.

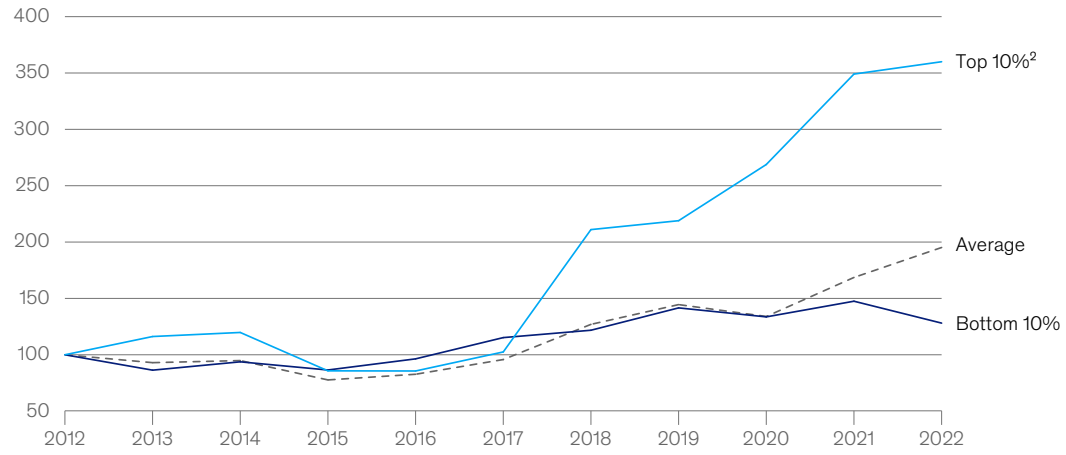
As long as there is sufficient competitive pressure, these very large companies could play an especially important role in driving productivity growth in Indonesia. Such companies tend to be vital for boosting R&D; speeding up the adoption of technology, including through foreign direct investment (FDI); and attracting and training top talent.[134] Very large companies' productivity in Indonesia has doubled over the past decade, although this growth has predominantly been driven by the most productive 10 percent of companies contributing about 90 percent of the productivity increase (Exhibit 21).

Exhibit 21

Very large firms' productivity doubled over the past decade, driven by the top 10 percent of companies, mostly in energy, materials, and industrials.

Productivity profile among very large firms (sales above $200 million)

Productivity growth,[1] 2012–22, index (2012 = 100)



Sector[3]	Total revenue, 2022, $ billion	Growth in productivity vs 2012, multiple	Number of firms
Energy and materials	277	2.1×	100
Industrials	125	2.1×	51
Consumer staples	73	1.2×	62
Consumer discretionary	47	0.9×	43
Utilities	37	3.0×	7
Communication and services	23	3.0×	19
Healthcare	9	1.4×	12
Information technology	4	1.5×	10
Real estate	4	2.5×	8

Note: Excluding outliers from calculation.
[1]Calculated based on revenue per full-time employees.
[2]Top 10% in 2022.
[3]Excluding financial sector companies.
Source: McKinsey Value Intelligence; McKinsey Global Institute analysis

McKinsey & Company

Around 50 percent of these very large companies' revenue comes from the resources sector. The industrial sector is the second-highest revenue contributor, at 20 percent, including automotive, food and beverage, and textiles. Cultivating more highly productive, very large companies in other sectors would be an important mechanism for lifting the level of technology within them, enabling more complex manufacturing and higher value-added services—important opportunities that are explored in chapter 3.

At the other end of the scale, the long tail of microenterprises—almost all of which are informal—is a well-known challenge for developing economies, and Indonesia is no exception. Informal employment has increased from 56 to 59 percent since 2019, and compared with pre-COVID-19 pandemic levels.[135] The existing regulations could be an incentive for microenterprises and small companies to stay informal and therefore not grow. For example, companies with annual revenues below 4.8 billion rupiah ($300,000) and a certain minimum operational period (seven years for individual enterprises and four years for corporate entities) are eligible for a reduced final income tax rate of 0.5 percent.[136] Those not eligible for these incentives are required to pay progressive tax rates ranging from 5 to 35 percent for individuals or a flat rate of 22 percent for corporations. In addition, microenterprises and small companies operating without legal status can incur lower transaction costs than their legal counterparts.[137] Successful reforms ease the financial burden of formalization for small companies in terms of tax and compliance costs that are essentially zero for informal companies.[138]

Another mechanism for lifting the productivity and capabilities of start-ups and MSMEs is collaboration with large companies. With greater access to resources, large companies can support smaller businesses by sharing knowledge and expertise to enhance skills and drive growth.[139] And being part of a supply chain with large companies can elevate MSMEs' performances and accelerate growth—a study of small companies in Belgium showed that after companies became suppliers, productivity increased by 8 percent in four years.[140]

Large companies can also offer financial assistance to MSMEs. DuPont, for example, secured working capital credit for its suppliers through its relationship with a financial institution.[141] In Indonesia, Astra's corporate social responsibility initiative, Yayasan Dharma Bhakti Astra, offers training programs, mentoring, and marketing and financing facilitation. Its Foster Parent program helps MSMEs produce goods based on the parent's quality standards, with the potential to become long-term suppliers.

MSMEs are often challenged by limited access to reachable markets, which can hinder overall growth. The Thai government has addressed this through One Tambon One Product (OTOP) that sets up a ranking mechanism from one to five, in which businesses with high ratings (five) are featured in the official website as a promotional effort.[142] The OTOP further promotes local culture to attract tourists.[143] Canada's CanExport exposes small businesses to export opportunities, providing funding to attend trade shows and develop marketing materials to tap into international markets.[144] The European Commission's Small Business, Big World initiative offers guidance on customs procedures, trade regulations, and market-entry requirements to enable small and medium-size enterprises to expand their export activities.[145]

Access to advanced technology is another accelerator of MSME business growth. India's Ministry of Commerce and Industry has initiated the Open Network for Digital Commerce (ONDC), an e-commerce platform that small businesses can use to network, access simplified digital transactions, and reach untapped markets.[146] Another example is Singapore's GoBusiness, which has set up a licensing portal with a simplified licensing process for small businesses to ensure they obtain their business permits easily.[147] Pacific countries such as Fiji, Papua New Guinea, and Samoa have developed national policies with a focus on strengthening MSMEs.[148]

An increase in the number of larger companies that facilitate capital and technology deepening is likely to be a key marker of progress toward a 2045 high-income economy in Indonesia. Creating the conditions for entrepreneurship and investment and expanding the range and dynamism of very large companies would lift competitiveness and technology adoption, accelerating the productivity growth flywheel for the country. Small, medium, and large company sizes would then be where the bulk of capital deepening and productivity growth would happen. For this cycle to speed up, however, companies and new entrants must be exposed to new sector opportunities. This is explored in chapter 3.



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CHAPTER THREE

A sector view of opportunities for companies

To achieve a shift toward larger companies with more capital and technology, new opportunities would need to be unlocked across sectors, especially in services and manufacturing. In this chapter, we consider the sector opportunities that could open the door for the growth and proliferation of larger companies with associated employment shifts. Again, we look at other economies that have made the journey to high-income status from where Indonesia currently stands. We also consider the characteristics specific to Indonesia that could shape today's opportunities for companies across its sectors.

Indonesia can forge a path to becoming a high-income economy by expanding both services and manufacturing

If it were to shift employment across sectors to reach distributions typical of countries when they cross the high-income threshold, Indonesia would experience a 15 percentage point shift in employment share away from agriculture, mainly into services. One path based on these typical trajectories would be an increase in the services and manufacturing sectors of 13 percentage points and two percentage points, respectively, while the share of employment in the resources sector would remain constant (Exhibit 22).[149]

The manufacturing sector could have the greatest variance in employment share at the high-income threshold, in part because it involves more tradable goods that can be imported and exported to different degrees across countries. For example, 30 percent of South Korea's employment was in manufacturing when it was close to reaching a high-income status, while Chile's was 12 percent. In the resources sector, shifts in employment are not as correlated with per capita GDP because endowments play a big role. However, output would increase as productivity increases even if employment shares remain constant.

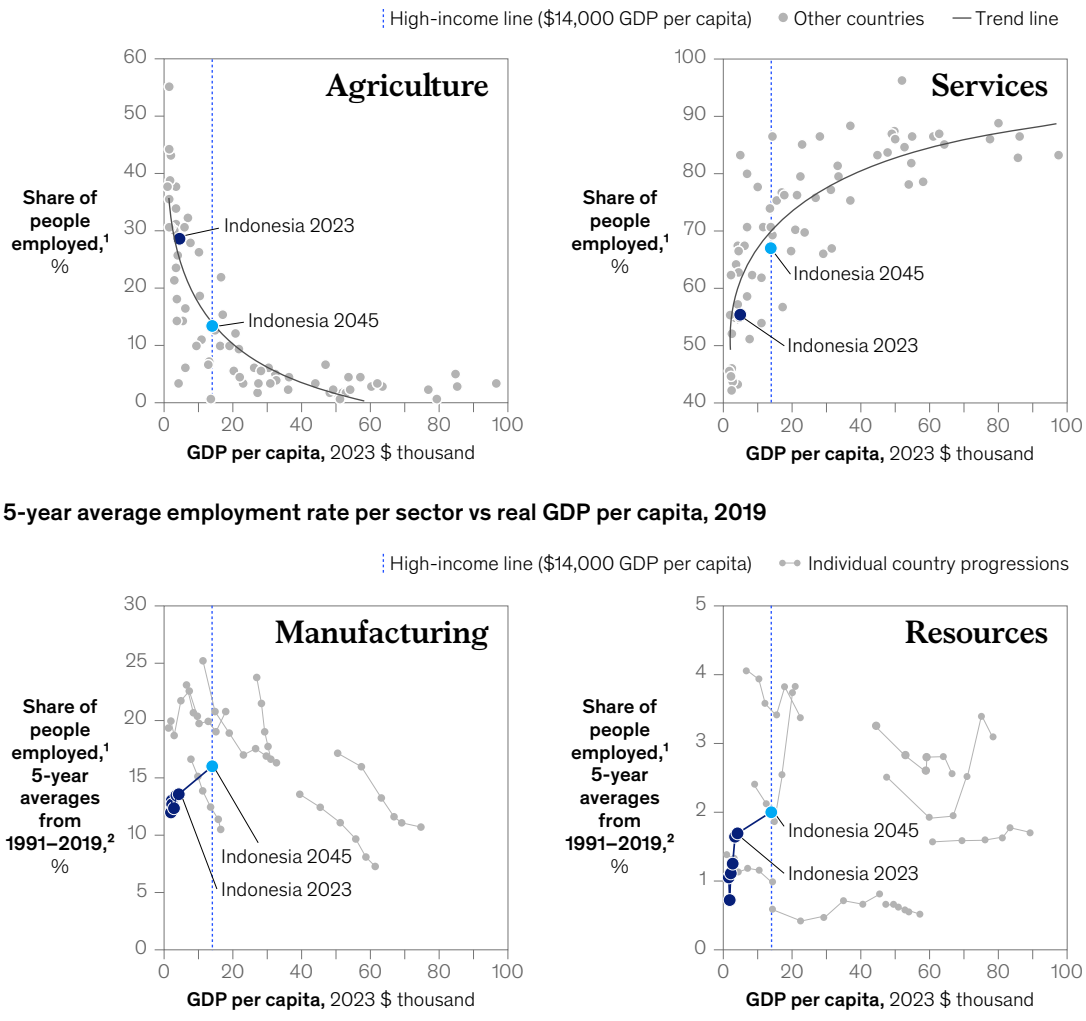
Based on this analysis, the increase in workers in the services sector is greatest in absolute terms. However, it has a similar increase proportionately as manufacturing, at 1.4 times.[150] Based on capital accumulation patterns by sector in fast-growing reference economies (Chile, Poland, China, and South Korea) when they reached high-income, Indonesia's capital per worker in the resources and utilities sector could increase up to 7.4 times, followed by the services sector with capital per worker increasing up to 3.6 times, the agriculture sector up to 2.1 times, and the manufacturing sector up to 2.0 times (Exhibit 23).

The company distributions by size, described in chapter 2, and sector patterns are also connected. Most employment in micro and small enterprises in Indonesia is in the services sector, which accounts for 80 percent of those jobs due to the lower capital investment and quicker income generation that these businesses provide.[151] The services sector could experience the greatest shift in size distribution as informal businesses gradually migrate toward the formal economy or the self-employed seek higher wages in larger companies.

There are multiple plausible pathways for shifts in employment as workers seek higher wages in more productive jobs. One pathway would entail workers transitioning between sectors, especially from agriculture to services or manufacturing. In China, agriculture fell from 60 to 25 percent of the workforce between 1991 to 2019, while in Vietnam, the share dropped from 71 to 37 percent in the same time frame.[152] In fast-lane economies, the employment share—and often even total employment—in agriculture decreased, yet total agricultural output nearly doubled.

Exhibit 22

Employment in middle-income economies typically shifts from agriculture to services and manufacturing.



[1]n = 75.
[2]Only includes first quartile economies and some high-income economies.
Source: MGI Productivity Analytics Database; McKinsey Global Institute analysis

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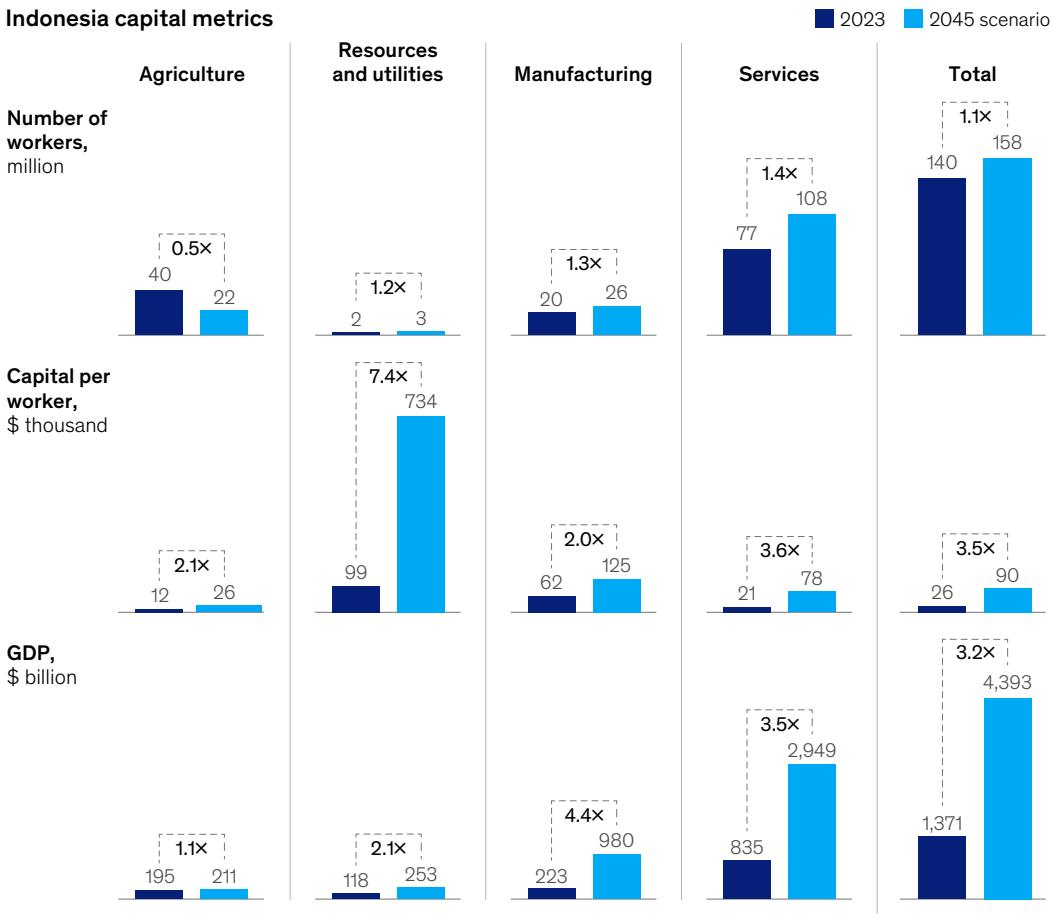
Exhibit 23

In a high-income-by-2045 scenario, Indonesia's capital deepening would almost quadruple.



Note: Figures may not sum, because of rounding. Sector breakdowns are approximated based on proportions from fast lane economies.
Source: BPS-Statistics Indonesia; World Bank; MGI Productivity Analytics Database; McKinsey Global Institute analysis

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This shift would also likely entail fewer self-employed farmers and more employment in larger companies, particularly in manufacturing, which tends to have a larger company size distribution (Exhibit 24).[153]

Another pathway would involve the workforce moving to more productive subsectors within the same broad sector. For example, retail workers might transition to wholesale distribution where productivity is higher. A third pathway would entail people becoming more productive within their given sectors. For instance, instead of providing ride-hailing services informally, individuals could begin engaging in goods deliveries through e-commerce or ride-hailing platforms.

Exhibit 24

Indonesia's employment landscape today is concentrated in self-employed agriculture and microenterprise wholesale and retail trade.

Employment landscape by sector and firm size

Low High

Current employment by business model, % of total workers

Sector	Description	Self-employed	Micro	Small	Medium	Large	Total
Agriculture	Agriculture, livestock, fishery	28.9	<0.1				**29**
Manufacturing	Manufacturing	2.3	5.8	2.0	1.4	4.6	**16**
Resources	Mining and quarrying	0.2	0.3	0.2	<0.1	0.3	**1**
	Electricity, gas, steam, and AC supply	<0.1	<0.1	<0.1	<0.1	<0.1	
	Water supply	<0.1	<0.1	<0.1	<0.1	<0.1	
Services	Construction	<0.1	1.0	1.6	0.4	0.8	**54**
	Wholesale and retail trade	8.3	10.2	1.7	0.8	1.7	
	Transportation and storage	1.2	0.4	0.4	0.2	0.3	
	Accommodation and food service activities	3.1	3.4	0.7	0.3	1.0	
	Information and communication	0.5	0.3	0.1	<0.1	0.2	
	Financial and insurance activities	<0.1	0.4	0.7	0.4	0.2	
	Real estate activities	0.4	<0.1	<0.1	<0.1	0.2	
	Professional, scientific, and technical activities	0.1	0.5	0.2	0.1	0.3	
	Administrative and support service activities	<0.1	0.2	0.1	0.1	0.2	
	Education	<0.1	1.5	3.6	1.0	0.4	
	Human health and social work activities	0.2	0.2	0.3	0.4	0.5	
	Arts, entertainment, and recreation	0.6	0.5	0.3	<0.1	0.2	
	Other service activities	0.2	0.3	0.1	<0.1	0.1	
	Total	**46**	**25**	**12**	**6**	**11**	

Note: Total workforce = 97.7 million; this exhibit covers a different and narrower dataset of nongovernmental employment than the full employment dataset used elsewhere in this report. Figures may not sum to listed totals, because of rounding.
Source: BPS-Statistics Indonesia 2016 and 2023 (agriculture); McKinsey Global Institute analysis

McKinsey & Company

With these sectoral shifts, the services sector could account for approximately 70 percent of Indonesia's GDP by 2045 (including many government services), up from 60 percent today, and manufacturing could account for about 22 percent, up from the current 16 percent. This could put the country on track to achieve its aspirational goal of becoming a high-income economy by 2045. To deliver the projected productivity gains of a high-income pathway, companies in Indonesia would need to invest to unlock opportunities that add high-value economic activities across sectors, but especially in services and manufacturing.

Three sector opportunities could be seized to enable capital investment and boost productivity growth

Previous MGI research highlights three sector-related themes through which capital investment and productivity growth in the fast-lane scenario can occur: (1) achieving distinctive productivity growth within expanding services sectors where capital deepening is instrumental to creating formal, productive jobs; (2) making manufacturing more sophisticated and global, driving its output and value-added beyond commodities, although often not adding employment; and (3) building effective, sustainable cities and mechanizing agriculture, so that workers can move off the farm and into the urban construction and services sectors.[154] Indonesia would need to take similar actions to bring about productivity growth and capital investment, and has specific opportunities to do so.

Expanding higher value-added services sectors can create formal, productive jobs across skill levels

In general, as economies transition from agriculture and manufacturing, the services sector becomes much larger, driving growth and providing essential support to other sectors, facilitating economic activity.[155] For example, logistics, financial, and professional services are critical for the performance of the manufacturing and agriculture sectors. A well-functioning services sector can enhance people's well-being, for instance, through access to quality healthcare, education, and recreational services.

Other developing economies have shown comparative advantages in tradable services sectors—India in computer and information services, Thailand and Türkiye in travel services, and Singapore in financial and transport services.[156]

Services have raised value added in Indonesia, but productivity remains below average

The services sector constitutes a significant share of Indonesia's GDP, contributing roughly 60 percent of total value added and employing about half of Indonesia's workforce.[157] The sector has seen the most employment growth as employment in agriculture has decreased. However, the shift in Indonesia's labor market toward services-based employment has been distributed unevenly across subsectors, and there has been a marked concentration in lower value-added services with lower productivity.[158] Employment in agriculture declined from 40 percent in 2009 to 28 percent in 2019, while employment in wholesale and retail trade, accommodation, and food service activities rose from 21 to 25 percent during the same period.[159] Meanwhile, employment in finance, insurance, real estate, and professional services increased from 1 to 4 percent.[160]

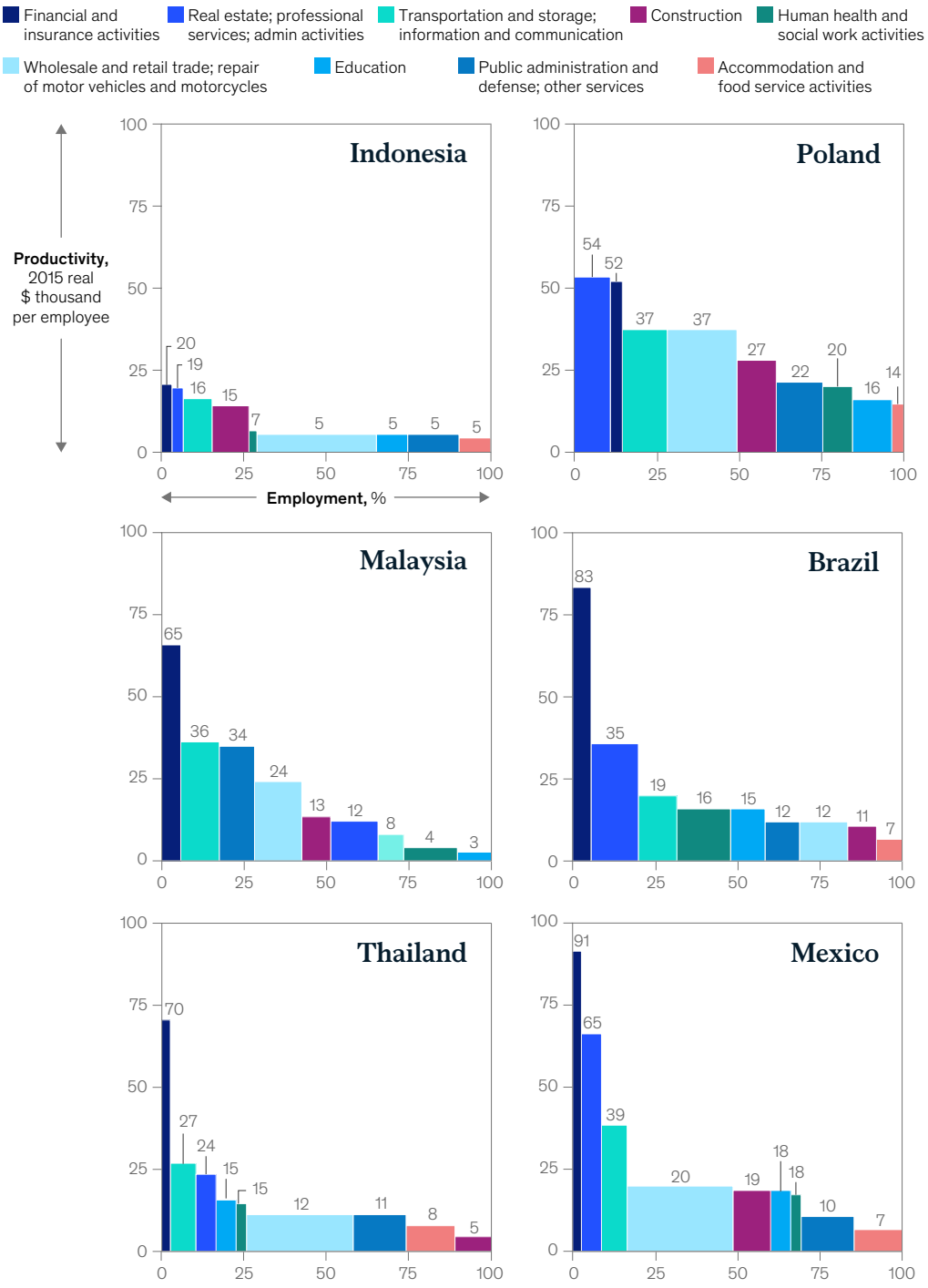
This pattern helps explain why the share of employment in services rose from 46 to 55 percent between 2009 and 2019, while the sector's output increased only from 57 to 61 percent of real value add during the same period. Workers in lower value-added services in hotels, retail, and restaurants, for example, tend to have lower skill levels. For instance, fewer than 50 percent of employees in accommodation and food services activities have attained an upper-secondary or vocational education, compared with 93 percent in financial and insurance services. Productivity in services subsectors in Indonesia remains lower than in reference economies in real dollar terms and significantly lags that of more advanced economies such as Poland, though Indonesia's productivity is higher and the gaps are generally lower in purchasing power parity terms (Exhibit 25).

A large share of employment in Indonesia's accommodation and food services, and wholesale and retail trade sectors remains informal, at 88 and 86 percent, respectively—well above the national average of 59 percent across all sectors.[161] High informality in these sectors creates challenges as informal employment is typically associated with lower wages, limited job security, and barriers to sustained economic growth. While reforms to reduce the costs of formalization can help (as discussed in chapter 2), the large informal services sector is as much a symptom as a cause of slower economic growth. This is because workers can only move into formal jobs if they have the right skills and there are enough formal companies offering higher value-added jobs to employ them and grow.

Exhibit 25

Indonesia's services subsectors lag peers in productivity, especially those with a high employment share.

Productivity and employment share of services subsectors in different geographies, 2019



Source: MGI Productivity Analytics Database; McKinsey Global Institute analysis

McKinsey & Company

There is room for Indonesia to increase the level of productivity in the services sector in a few ways. These include:

Modernizing operations in sectors such as wholesale and retail trade, transportation, and storage and food services. These sectors have potential to increase productivity. For example, the wholesale and retail trade sector accounts for more than 30 percent of employment in the services sector in Indonesia, and in 2019, averaged about $5,000 per worker—that's half the productivity level of Thailand.[162] Only 23 percent of value comes from "modern" grocery stores.[163] Many retail stores are informal, small, family-run *warungs* that offer limited product choices and do not make much use of the benefits of technology. Low entry barriers can make opening such stores an easy option for those unable to find jobs elsewhere, and this can hamper investment—many informal stores' owners regard opening a shop as a temporary measure and do not consider investing in them in the long term.

Despite this, greater productivity could potentially be unlocked in the retail sector, such as moving away from the small-store format and modernizing the grocery subsector. A second way to grow retail productivity could be to increase e-commerce penetration, currently sitting at about 24 percent, with 70 percent concentrated in major cities such as Jakarta, Semarang, and Surabaya.[164] Bridging the gap between Jakarta's high penetration and other cities presents a significant growth opportunity. A third potential lever could be to improve the country's logistics' performance score, which is currently 3.0, compared with 3.7 in China or 3.6 in Malaysia.[165] Such an improvement could positively impact supply chain efficiency and costs.

Boosting sustainable tourism, including to the country's beautiful beaches, ancient temples, and tropical climate. Tourism generates 2.4 percent of Indonesia's GDP, still lower than neighboring countries, such as Thailand (5.8 percent) and Vietnam (4.1 percent).[166] Tourism is ranked as the second-highest foreign exchange earner after oil and gas and is recognized as a priority program for the government, with the potential to lift productivity in the accommodation and food service industries more broadly.

Improving the talent pool to grow high value-added sectors such as professional services. Sectors that include high value-add services, such as finance, insurance, real estate, and information and communications technology, employ less than 9 percent of Indonesia's workforce, compared with 19 percent in Poland and 17 percent in Malaysia.[167] Moreover, Indonesia's professional services and administrative activities have a productivity level of just $20,000, lagging far behind Mexico ($90,000) and Poland ($52,000). Expanding access to education and vocational training could drive growth in these sectors and enhance overall productivity. The number of professional services jobs in the country remains relatively low, despite Indonesia being a global top five producer of STEM graduates (by volume).[168] However, these graduates do not necessarily have the skills needed for some services subsectors. To illustrate, Indonesia has 600 physicians per one million people, compared with 3,600 in the United States and 2,400 in China, and 400 researchers per one million people, compared with 4,500 in the United States and 1,700 in China.[169]

Across sectors, technology can play a transformative role, but particularly in services. For instance, our analysis of 63 gen AI use cases suggests a significant potential impact on productivity in industries such as banking (ranging from 2.8 to 4.7 percent of industry revenue annually through 2040); healthcare (1.8 to 3.2 percent); travel, transportation, and logistics (1.2 to 2.0 percent); and retail (1.2 to 1.9 percent) globally.[170]

Developing and deploying AI could help Indonesia's businesses to improve sales and marketing, customer operations, and R&D and engineering capabilities, thus boosting

productivity. We estimate that automation and AI adoption could increase productivity by up to two percentage points annually in emerging Asia–Pacific (APAC) through 2040, with nearly one-fifth of this growth driven by gen AI.[171] This trend is not limited to large companies, as start-ups are increasingly adopting these technologies.

Indonesia can invest in more advanced manufacturing to meet both local and global demand

Many developing countries have promoted economic growth by integrating into the global economy through international trade, particularly in manufacturing and services exports, thereby developing competitive advantages in certain products.[172] Manufacturing remains crucial for economic development due to its role in job creation, the production of highly tradable goods, and the advancement of skills and technology. However, debates about premature deindustrialization persist due to the increasing adoption of technology and automation in manufacturing. As a result, developing economies today may not derive as much value from industrialization as rapidly industrialized economies did in the past.[173]

Yet the manufacturing sector still matters. It can be a source of middle-class jobs, employing the largest number of workers with wages above the consumption threshold of a middle-class population.[174] The sector in particular provides jobs for low-skilled workers who are transitioning from other sectors such as agriculture. Manufacturing can have a multiplier effect that extends to related sectors, such as logistics and services, further enhancing employment opportunities.[175] In addition, as manufacturing capabilities grow, countries can move up the value chain, producing higher-value products in global markets.

Manufacturing value added has dropped over the past 20 years due to the shift from industrial- to resources-based exports

Manufacturing was once an engine of growth for Indonesia. From the late 1980s to the early 2000s, value added from manufacturing nearly doubled from 17 percent in 1986 to 30 percent in 2001.[176] The three major exports in the 2000s were mineral products, machinery (including computers and office machine parts), and textiles (for example, nonknit women's suits and synthetic woven fabric). However, by 2021, the top three exports were predominantly natural, resources-based, such as mineral products, animal and vegetable products (for instance, palm oil and coconut oil), and metals (such as ferroalloys and stainless steel).[177]

Indonesia's Economic Complexity Index (ECI) score for trade has increased in the past ten years, but remains relatively low at –0.1, compared with 0.6 for India and 0.2 for Vietnam (Exhibit 26). A higher ECI indicates a country's ability to produce and export complex goods, and Indonesia's low reading reflects that it relies on the export of raw materials and commodities, such as palm oil and coal, which limits its economic complexity.

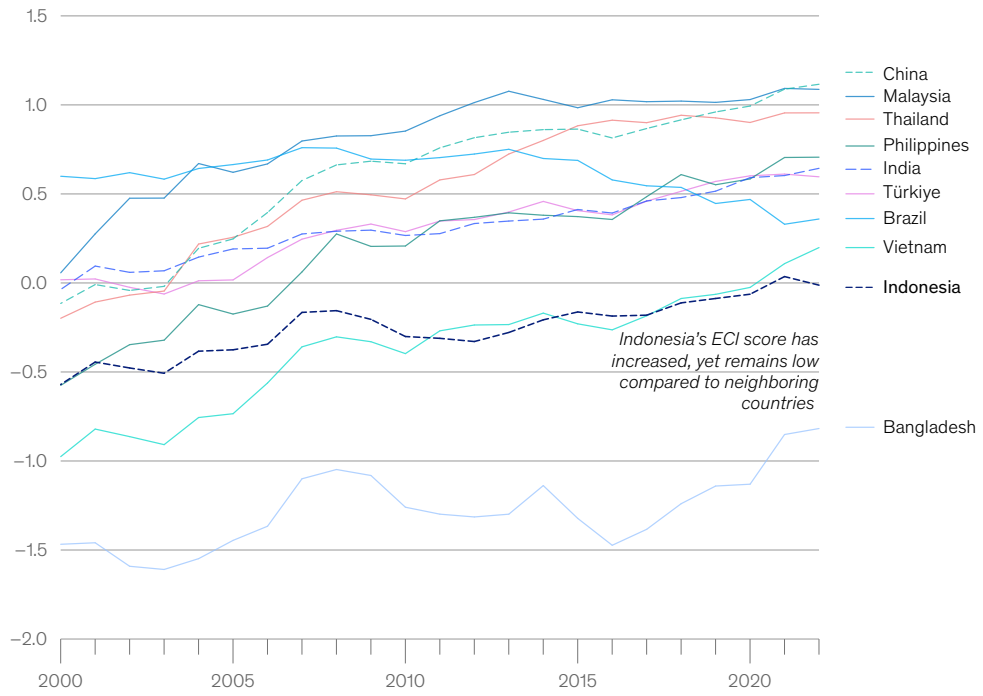
The country's participation in global value chains decreased from 36 percent in 2000 to 32 percent in 2020.[178] This reflects how much of a country's exports are linked to international production processes, with higher participation signaling deeper integration into the global economy. This metric is decreasing, while forward-linked products currently account for more than three-quarters of Indonesia's participation in global value chains, indicating that these activities are mostly upstream.[179]

Indonesia's participation has also been lower than most reference economies over the past 20 years.[180] Vietnam saw its participation rise significantly from 44 percent of exports in 2000 to 59 percent in 2020 amid rapid industrialization around the 2010s, coupled with a strong growth rate of approximately 18 percent in the high-tech segment. Over the same period, the Philippines' participation increased from 38 percent to 44 percent; Türkiye's from 28 percent to 39 percent; and India's from 29 percent to 35 percent.[181]

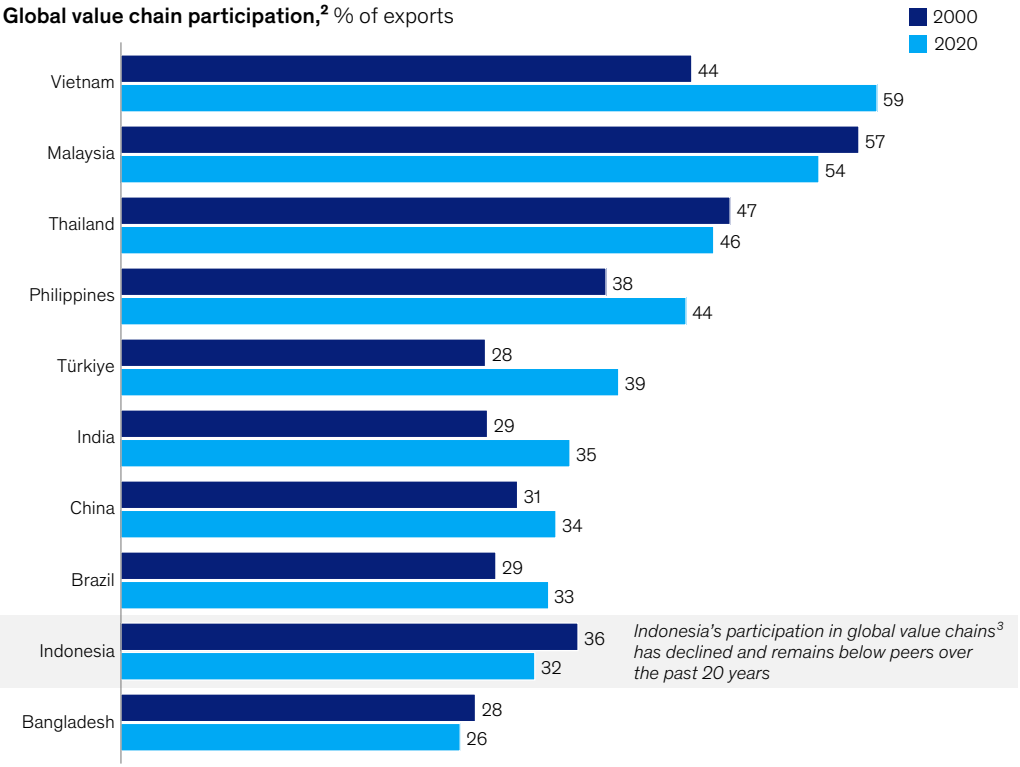
Exhibit 26

Indonesia's global value chain participation has been under pressure over the past 20 years.

Economic complexity index (ECI),[1] trade score



Global value chain participation,[2] % of exports



[1]ECI is a measure of the relative knowledge intensity of an economy. A higher ECI indicates a country's ability to produce and export complex goods.
[2]Defined as share of a country's exports that have a foreign contribution to the final product's gross value added. Backward linkage includes foreign value-added content in exports (ie, import content of export); forward linkage includes domestic value added in foreign exports (ie, exports to be used as intermediate inputs in other countries' exports).
[3]Countries can benefit from global value chains by enhancing productivity in tradable sectors via knowledge spillover, technology transfer, cost savings (Cheng et al, 2015).
Source: Asian Development Bank; International Monetary Fund; Islamic Development Bank; OECD; McKinsey Global Institute analysis

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Since 2020, evolving geopolitics has become an added concern for Indonesia, as for many countries around the world. A McKinsey survey indicated that in 2024 over 60 percent of global executives regarded geopolitical instability and conflicts as the biggest potential risks to global growth and domestic economic growth as they looked forward.[182] Geopolitical uncertainty is likely to have an impact on trade, which puts considerations such as resilience, national economic priorities, stakeholder pressures, technology, demand, and factor costs in the spotlight when corporates determine their global footprints. In fact, a reconfiguration of the global trade network is underway, and recent tariff-related events add uncertainty to the global trade landscape.[183]

Despite being faced with these global challenges, Indonesia's participation in global value chains could potentially increase with various tailwinds. First, economies in Asia are growing fast and the region's four billion consumers are creating high regional demand in an area easily accessible by sea routes. Second, global value chains are being rewired as leading global manufacturers reconfigure their operations to diversify supply chain networks and enhance resilience, and accommodate the global energy transition and countries' net-zero goals. For example, the United States has shifted its imports to Southeast Asia, particularly Vietnam (Exhibit 27).

Exhibit 27

US imports from China are mostly being substituted by other Asian markets.

Manufactured goods imported by the US

Import category	US total import, 2023, $ billion	Change in gross import share, 2017–23, pp[1]		Economy that gained most share, %	Change in gross import share of Indonesia, 2017–23, pp
		China (Mainland)	Asia–Pacific[2]		
Electronics	407	–24	14	Vietnam (5)	0.2
Wood and paper	85	–16	10	Vietnam (7)	0.9
Textiles	13	–13	8	India (3)	0.4
Machinery	420	–10	6	Korea (2)	0.5
Glass, cement, and ceramics	17	–11	4	Türkiye (4)	–0.1
Pharmaceutical products	183	1	4	Netherlands (4)	0.1
Chemicals	420	–3	3	Netherlands (2)	–0.3
Food and beverages	77	–3	3	Mexico (6)	–0.2
Rubber and plastic	84	–3	3	Vietnam (3)	–1.1
Metals	164	–6	3	Mexico (3)	–0.2
Medical and scientific	67	–2	0	Mexico (5)	–0.1
Transport equipment	494	1	–1	Mexico (4)	–0.01

[1]Percentage point.
[2]Excluding China.
Source: UN Comtrade (March 2024); McKinsey Global Institute analysis

McKinsey & Company

However, these shifts have not translated into an increase in Indonesia's participation in the US import market, despite the country's existing domestic production in many of the import categories and some structural advantages from a large labor force.[184] Vietnam has established itself as a competitive manufacturing hub, partly supported by trade agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which aims to reduce tariffs and improve market access.[185] In contrast, Indonesia has gained a marginal share in electronics, wood and paper, textiles, and machinery.[186]

Four main opportunities to revitalize the manufacturing sector

One of the hallmarks of economic expansion is building a more diverse and sophisticated economy.[187] Indonesia's economy is large enough to support growth in a range of tradable sectors within manufacturing, which has also been the most advanced sector in growing company size and formalization.[188] Depending on the sector's stage of development, the country could grow different tradable industries with good potential by leveraging both its domestic market as well as global value chain reconfigurations (Exhibit 28). Four main opportunities are possible:

Boosting specialization in high-export sectors where domestic markets are growing. In sectors where Indonesia has a significant export share and growing domestic production, it could infuse more available technology to capture more of the value chain. Rather than focusing solely on commodities, such as palm oil or base metals (for example, nickel that is used in electric vehicle [EV] batteries), Indonesia could develop higher-value products within these sectors, such as processed palm-based bioplastics or advanced nickel alloys for industrial uses. Indonesia has about 20 percent of the global reserves of nickel—the largest share of any economy—and therefore will be a pivotal player in the decarbonized economy. But to make the most of its position, Indonesia would need to shift toward producing higher-purity "Class 1" nickel required for lithium-ion batteries as opposed to "Class 2" nickel that is mainly used for steel production.

Leveraging products that have strong growth in domestic markets and take them onto the export stage. As with the above sectors, Indonesia's domestic production in chemicals, food and beverages, and leather goods is growing, but these sectors have not yet become as large of a share of world exports. As the sectors grow domestically, they can become more competitive, allowing for exports that could generate higher margins and further boost competitiveness. Well-being products could also grow with targeted investment and innovation in niche markets. Examples include herbal or traditional medicine products in which Indonesia already has a competitive advantage.

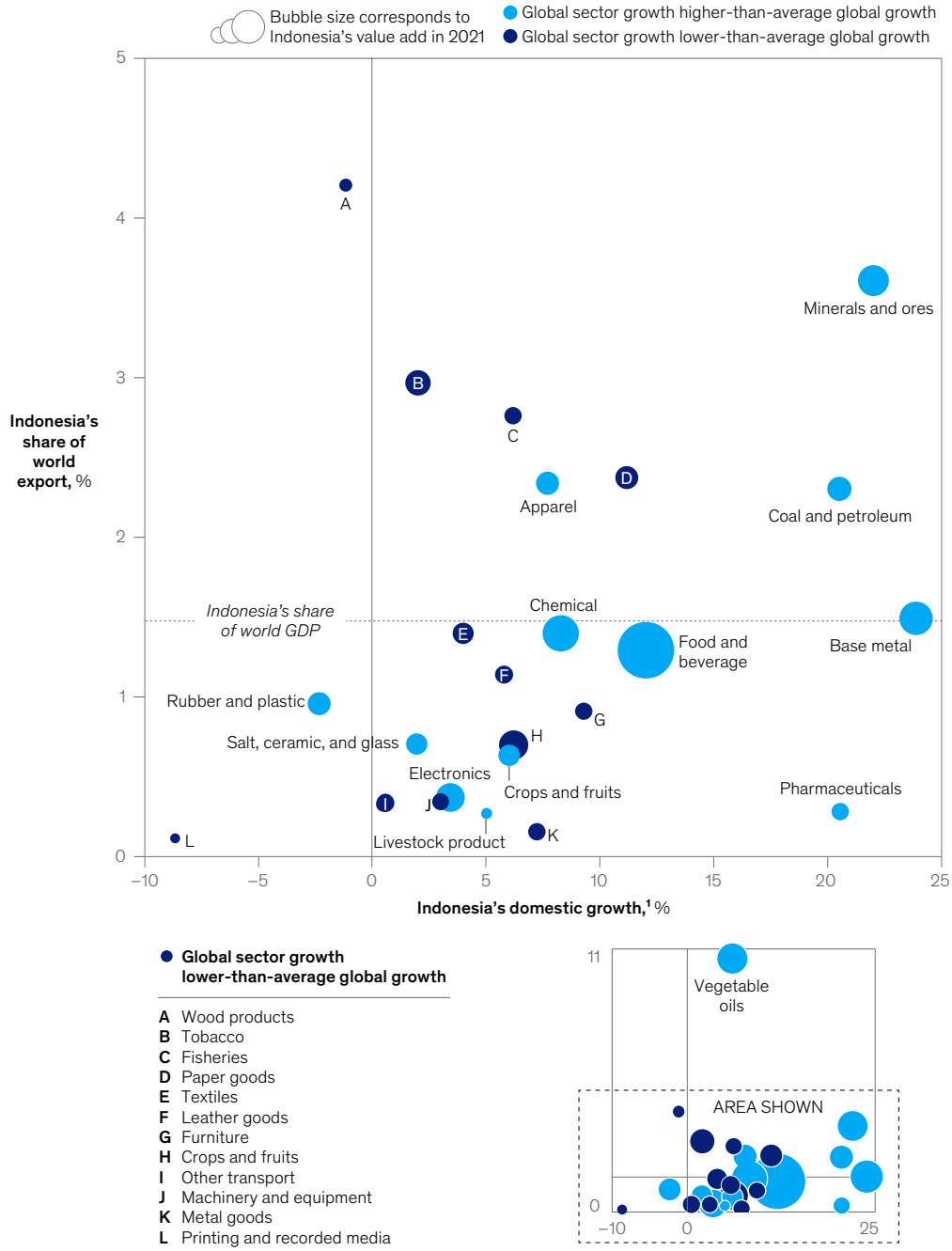
Taking advantage of global value chain reconfiguration. Global value chains are starting to reconfigure as economies seek to build their resilience in the face of more fragmented geopolitics. Indonesia could potentially take advantage of such shifts by ramping up capabilities in subsectors where global trade is growing faster than in domestic markets and in which Indonesia does not yet have a high export share. These currently include electronics, textiles, and vehicles. Pan Brothers, one of Indonesia's leading textile and garment manufacturers, is an example of a company moving in this direction. It has significant exports of more than 90 percent of its revenue and supplies garments to major international brands such as Adidas, H&M, and Uniqlo.[189]

Strengthening its local supply chain and markets in subsectors that meet local market demand. This is particularly relevant for Tier 1 and 2 suppliers around industrial hubs and services, such as machinery and equipment, transport, and medical devices. For instance, the transport sector has benefited from partnerships such as Hyundai Motor Group's investment in an EV battery plant, which fosters local supplier involvement and supports industrial hubs.[190] Similarly, the Indonesian Ministry of Industry has reported a significant increase in the number of national medical device companies, which has grown eightfold since the COVID-19 pandemic, indicating a positive trend in domestic production capabilities.[191]

Exhibit 28

Domestic market growth and global value chain reconfigurations could help enable new subsectors in Indonesia to grow more competitive.

Indonesia's domestic growth vs share world exports, by sector



[1]Value-added CAGR, 2016–21.
Source: BPS-Statistics Indonesia; UN Comtrade; McKinsey Global Institute analysis

McKinsey & Company

Unlocking agricultural productivity can enhance people's livelihoods and enable them to move to higher productivity jobs

Labor productivity in agriculture has improved in Indonesia, with output increasing from approximately $70 billion in 2013 to $95 billion by 2023 (based on 2010 constant prices), a 36 percent increase—despite agricultural employment staying consistent at about 39.5 million during the same period and declining in employment share.[192] Continuing this trend is essential to both raise the income of farmers (and their ability to send children to secondary and tertiary schools) and enable some to find higher-paying jobs in cities. More efficient land use, mechanization and technology, and higher productivity seeds and crops could help.

Fragmentation poses a major challenge to Indonesian agriculture. Smallholder farmers comprise 99 percent of landowners, and the average farm size is 0.6 hectares.[193] Not many smallholders have modernized their farming methods, with only 10 percent of them operating with a high level of mechanization; fragmentation also makes it difficult to use large machines such as tractors.[194] Small farms have limited access to financing and complementary inputs—for example, fuel and electricity to run machinery.[195]

Indonesia could consider developing a closed-loop farming program, as seen in other countries, in which larger companies provide resources-pooling and shared services, such as access to machinery, finance, bulk purchasing of input, and knowledge, to support smaller farmers in return for guaranteed supply. In China, Sinochem, in partnership with COFCO, launched a Modern Agriculture Platform (MAP) ecosystem in 2017, designed to manage farmland operations and provide shared services for agricultural modernization. This initiative aims to support 100,000 farmers and cover over 2.2 million hectares of farmland through the deployment of 700 MAP service centers across the country.[196]

Mechanization through investments in farm equipment and irrigation is a critical part of capital deepening in agriculture, boosting productivity per worker. Such investments could also be more viable with larger farm sizes, compounding the impact of reducing farm fragmentation. Furthermore, despite the role that information and communication technologies can play in improving agricultural productivity and enhancing agricultural practices, currently only about 2 percent of Indonesian farmers use some form of e-commerce platforms to buy and sell goods, and more than 55 percent are not willing to consider newer technologies such as drone applications.[197] Only 18 of the country's 34 provinces have agencies that provide agricultural resources to farmers.[198]

Digital tools could help increase Indonesian farmers' productivity by, for example, assisting them to choose the best crops to plant, monitoring irrigation precisely, or providing them with climate information. And by adopting e-commerce, farmers could eliminate intermediaries and sell their products directly to consumers through online platforms, further reducing transaction costs. Farm management apps could play a vital role by providing product- and site-specific advisory services and market information, empowering farmers to make better-informed decisions on resource allocation.[199]

Gains in productivity have not been uniform across all crops. Rice yields, for example, stagnated at 5,200 kilograms per hectare from 2013 to 2023, below the 6,000 kilograms achieved by neighboring Vietnam. In the same time period, Indonesia on average imported 1.2 million tons of rice a year.[200] Increasing rice yields could reduce this dependency on imports and help meet domestic demand for this staple without increasing prices or costly subsidies.[201] For example, while hybrid rice has shown a potential yield increase of 20 to 30 percent in countries such as Bangladesh, India, the Philippines, and Vietnam, the proportion of hybrid rice

planting area relative to the total rice planting area in Indonesia significantly decreased from 5.2 percent in 2009 to just 0.4 percent in 2017.[202]

Services and manufacturing are the sectors that could propel the most economic growth in Indonesia. Looking at the paths of high-income countries, the services sector tends to become much larger in the economy—Indonesia could transition employment into this sector to drive overall growth, while providing the necessary infrastructure for effective urbanization. Manufacturing is a source of middle-income jobs and, as manufacturing capabilities grow, Indonesia could move up the value chain by producing higher-value products for export. All of this, however, relies on developing robust enablers, which will be further examined in chapter 4.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CHAPTER FOUR

Productivity launchpads and implementation

While Indonesia has significant potential, it has several impediments to fast growth, such as the challenge of effective urbanization, regional disparity and fragmentation, and underdeveloped capital markets. The country's path to sustained economic growth hinges in part on its ability to foster a more competitive and productive business landscape that employs many more workers in jobs with higher productivity and wages.

'Enterprising Indonesia' could be achieved by strengthening five other types of capital

In addition to capital deepening in the form of the physical and intangible assets that lift the productivity of workers, as we have discussed in this report, five other forms of capital are critical to Indonesia's high-income path. The country needs to transform its ability to attract, grow, and deploy financial, human, institutional, infrastructural, and entrepreneurial capital to launch a wave of entrepreneurship and productivity growth.

Longer-term instruments and expansion of the formal financial system can help businesses of all sizes to invest and grow

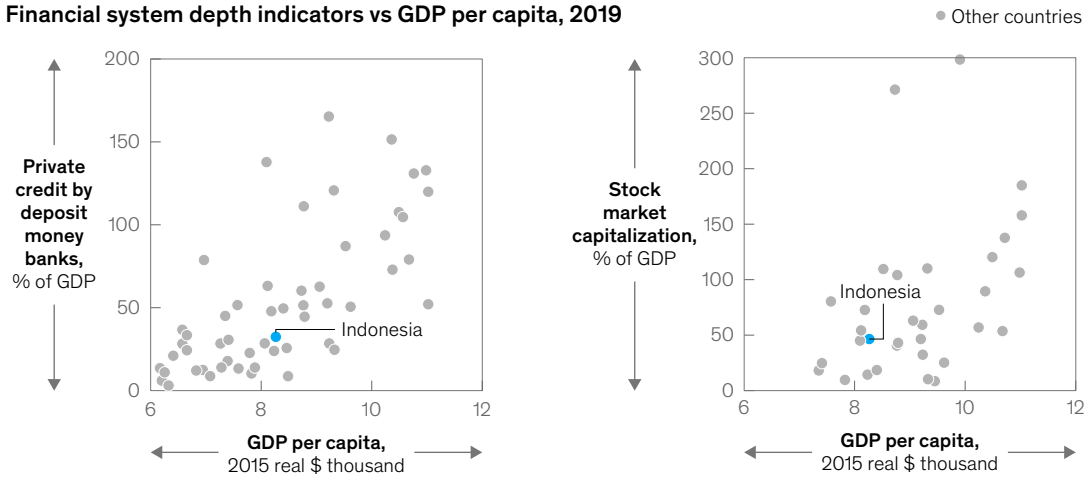
Financial capital is the lifeblood of a healthy corporate sector and therefore the economy. Investing large amounts of financial capital starts with savings. Indonesia's gross domestic savings rate is relatively high, averaging around 33 percent of GDP since 2012—compared with 28 percent in Thailand and 24 percent in Poland.

However, the depth of Indonesia's financial system is relatively shallow. In 2022, the ratio of financial assets to GDP was low at 72 percent compared with Brazil—one of our reference economies that is close to being a high-income economy—whose ratio of financial assets to GDP stood at 194 percent.[203] Indonesia's financial development index score, as reported by the International Monetary Fund (IMF), stands at 0.36 (out of a maximum score of 1.0) compared with Brazil's score of 0.67.[204] Among subindices, Indonesia's financial institutional depth, which measures private sector credit, pension fund assets, mutual fund assets, and insurance premiums relative to GDP, scores the lowest at 0.16, falling behind other emerging markets.[205]

Banks account for three-quarters of Indonesia's financial assets. Yet private credit is below what is expected for a country at Indonesia's GDP per capita, including in relation to regional peers and in light of the relatively high level of savings (Exhibit 29). According to the IMF, the corporate bond and equity markets remain shallow despite well-developed government securities markets.[206] Stock market capitalization is close to 50 percent of GDP, and, while this metric is less correlated with the level of development (and even higher-income economies can have banking-based systems, such as China and Germany), it is still low compared with Malaysia and Thailand at over 100 percent. This is in part due to relatively limited institutional investment. Insurance and pension fund assets are equal to only 9 percent and 2 percent of GDP, respectively.[207] By comparison, in Brazil, these are 16 percent and 26 percent of GDP, respectively.[208]

Exhibit 29

Indonesia's financial system depth is low compared to other countries.



Source: World Bank; McKinsey Global Institute analysis

McKinsey & Company

The heavy reliance on banking deposits rather than bonds, equity, and long-term savings instruments can also create a challenge in terms of matching assets and liabilities across different time horizons. This can constrain the amount of infrastructural assets banks can safely hold.[209] Other institutional investors, such as insurance and pension funds, can play a role in investing in infrastructure projects due to their longer tenure, stability, and rupiah denomination.[210] Diversifying the financial system through the expansion of insurance and pension fund assets could therefore boost both the depth of the financial system and the long-term capital availability and financial stability, as seen in more advanced economies.

Capital market reforms could also enhance the diversity of investment instruments and create more opportunities for investors to expand their portfolios. The Indonesia Capital Market Road Map 2023–2027, introduced by the Financial Services Authority (Otoritas Jasa Keuangan), outlines initiatives to improve the efficiency of public offerings, increase the securitization of financial assets, and broaden the availability of mutual funds, derivative products, and other investment vehicles.[211] The road map also emphasizes the acceleration of sustainable finance initiatives and the enhancement of market infrastructure by improving disclosure practices and strengthening regulatory oversight of issuers and public companies.[212] These reforms could potentially cultivate a deeper, more transparent, and resilient financial system that could boost investor confidence. They could also encourage the flow of capital from both domestic and international sources to support growth across industries.[213]

In addition to the limited availability of diverse, long-term financial instruments for investment, a second factor constraining the financial system is the prevalence of cash-based transactions, especially within the informal economy.[214] Savings that are kept as cash

or invested in the informal economy do not circulate through banks and financial institutions and therefore do not become available for investment in what may be more productive opportunities.

Indonesia has made progress in improving financial inclusion that could channel more funds into the system. In 2024, over 75 percent of the population used financial products or services, up from 60 percent in 2013.[215] Adoption of digital payments remains low, however—only 29 percent of the population performed digital transactions in 2022, compared with 71 percent in Brazil.[216] The investor base is also weak, with less than 5 percent of the population participating in the capital markets.[217]

There is evidence that in the context of a shallow financial system, not all businesses can access the capital they need. According to the 2022 World Bank Enterprise Survey, access to finance is the top constraint faced by the Indonesian private sector, significantly hindering productivity and economic growth.[218] This challenge is especially relevant to MSMEs. Although MSMEs account for over 60 percent of value added in Indonesia, they receive only 18.5 percent of total bank lending, with micro and small enterprises obtaining just 3.7 and 7.2 percent of total lending, respectively.[219] The primary challenges cited by MSMEs in securing loans include high interest rates, a lack of collateral, and insufficient information.[220] Banks tend to perceive lending to these enterprises to be high-risk, primarily due to the absence of a robust credit and collateral system leading to a higher cost of credit.[221] The situation is further complicated by a manual collateral process—such as paper-based vehicle registration—and incomplete or delayed credit bureau data.[222] For high-productivity companies in Indonesia to grow and scale, access to finance would need to be enhanced.

Many countries have programs that support small business finance from national to local levels. In the Philippines, Negosyo Centers, which fall under the remit of the Department of Trade and Industry, collaborate with private industries to provide financial loans and curated training programs through focused discussion groups and consultation.[223] In Detroit in the United States, Detroit Means Business (DMB) partners with private corporations to identify specific financial resources to help MSMEs, based on their needs.[224] And, with more than 240 members, the SME Finance Forum offers a variety of services to small and medium enterprises (SMEs) globally, including access to financial resources and a hub for SMEs to establish relationships with other enterprises. It also connects SMEs with financial institutions and large companies.[225] In Indonesia, the flagship People's Business Loan (Kredit Usaha Rakyat [KUR]) was launched in 2015. Through it, the government subsidizes interest rates and provides guarantee fees for participating banks that offer loan capital, enabling millions of MSMEs to access subsidized loans and often to receive credit for the first time.[226]

Utilizing digital financial services in Indonesia has the potential to boost digital payments significantly and enhance access to finance for businesses.[227] These services could improve transparency by generating a clear data trail, which, in turn, could help lenders assess creditworthiness more accurately and reduce operational costs due to the low marginal costs per account or transaction. For example, a pilot program in Indonesia between Amartha, a leading peer-to-peer lender, and three private banks disbursed about $85 million (1.2 trillion rupiah) in loans to female entrepreneurs, increasing the entrepreneurs' income by 14 percent.[228] Amartha used data-driven credit scoring instead of traditional fixed asset collateral, with default rates comparable to those of the banks' broader MSME portfolios.

Indonesia can strengthen human capital by focusing on educational quality and matching skills to the jobs of a high-income economy

Human capital constraints hinder Indonesia's economy. According to the Ministry of Manpower, low educational attainment is a key factor contributing to the concentration of workers in the agriculture sector—many lack the technical skills required for employment in more advanced industries.[229] Addressing these human capital constraints requires a fundamental shift, starting with improving access to quality education and skills development to prepare the workforce for the range of industries that will define the high-income economy in Indonesia.

Indonesia's outcomes on PISA tests and the World Bank's Harmonized Learning Outcomes (HLO) database are comparable to other middle-income economies.[230] However, Indonesia's scores have been stagnating and saw below average growth in the decade before the COVID-19 pandemic and in the 2018 to 2022 period, when scores declined.[231] Educational attainment in the broad population is relatively low; for example, as of 2023, 30 percent of those between ages 25 to 64 had completed upper-secondary school. That is steadily improving: 40 percent of the younger segment of 25- to 34-year-olds have completed upper-secondary school and 70 percent of Indonesians who are in the most recent cohorts—those within three to five years past expected completion—have completed secondary school.[232] Early childhood education, a proven enabler of higher educational outcomes, remains underdeveloped, particularly in rural areas, perpetuating disparities in secondary and tertiary attainment.

Rural areas present a challenge. In urban areas, a higher share of the population has completed upper-secondary education (47 percent), while 28 percent of rural dwellers have reached this level.[233] A shortage of well-trained teachers and resources is particularly pronounced in rural areas.[234] Papua has a student–teacher ratio of 20:1, compared with the national average of 15:1 in primary schools.[235] In addition, Indonesia faces challenges in higher education, as none of its universities has ever ranked in the top 100 of the World University Rankings.[236]

For low- and middle-income countries, educational outcomes are correlated with per student spending.[237] Indonesia's spending on education has averaged about 2 percent of GDP over the past ten years, lower than other countries at a similar level of development, but has a similar proportion of the government budget at between 15 to 20 percent.[238] Nonetheless, there is a wide variation in educational outcomes beyond spending per student, pointing to other factors on which to focus in Indonesia to improve education.

These potential quality improvements could include building a durable coalition of stakeholders with a focused set of educational priorities and evidence-based goals for instruction; leadership beyond the Ministry of Education; better communication between educators and families; developing plans, budgets, and timelines to improve delivery; and adapting data to focus on outcomes and policies.[239] These initiatives could not only equip children with the cognitive and social skills necessary for primary education but also foster adaptability—a key asset in an ever-evolving job market.[240] In Indonesia, such system-level change could also include a focus on teachers' career pathways and development, private sector participation to enhance teacher training, and the use of technology to improve the dissemination of materials, teaching methods, and educational outcomes.

At a tertiary level, programs could be developed to assist students, along the lines of the Indonesia Endowment Fund for Education (Lembaga Penjamin Dana Pendidikan, LPDP). This offers scholarships to postgraduate students, covering both tuition and living expenses.

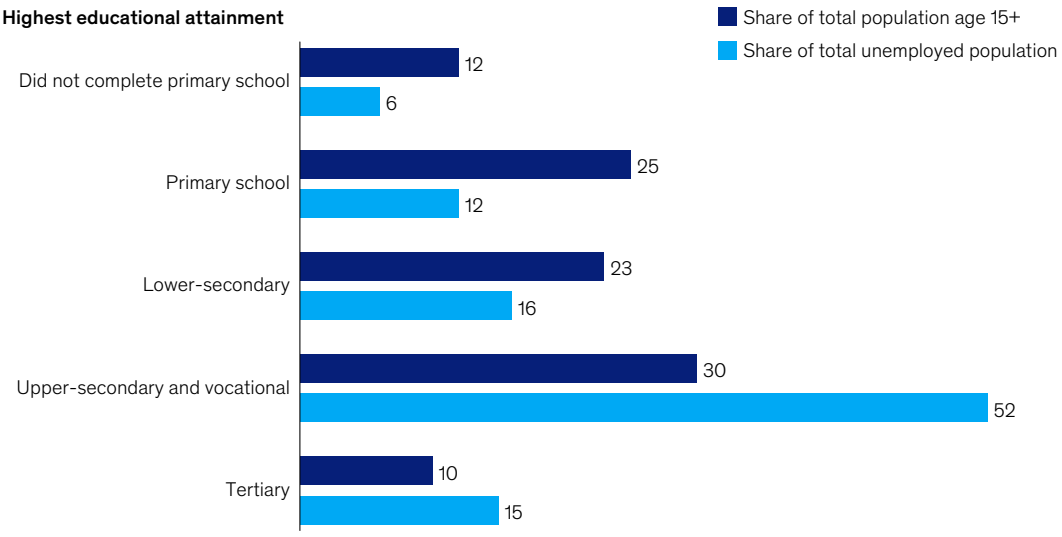
The shortfall in educational outcomes is exacerbated by challenges within the country's labor market: a pronounced skills–job mismatch. Those who do attain vocational training or tertiary education often struggle to secure jobs. A disproportionate share of unemployment is among upper secondary and vocational and tertiary graduates (Exhibit 30).[241] These high figures tend to stem from a persistent misalignment between the education system and the labor market. The lack of practical, first-hand training opportunities in schools, as well as outdated infrastructure and insufficient training facilities, can fail to prepare students for the working world.[242]

Examples of how to address skills' mismatches can be found in other countries. In Singapore, the Ministry of Manpower collaborates with the Ministry of Trade to align labor workforce needs, based on expected industry growth and investment trends. The Ministry of Education partners with universities to match educational pathways to industry needs, adjusting enrollment quotas in high-demand sectors. The SkillsFuture SG initiative provides all Singaporeans aged 25 and above with an initial credit of 500 Singapore dollars to deepen existing skills or reskill in new areas, while citizens aged 40 and over receive a midcareer top-up to facilitate significant skills upgrades. This collaborative effort ensures a workforce equipped to meet evolving industry demands.[243] Similarly, China has prioritized vocational education and training (VET) to better align workforce capabilities with industrial demands. The Chinese government supports nondegree certification programs aimed at upgrading manufacturing sector skills and fostering innovation-driven growth.[244]

Exhibit 30

Most adult Indonesians have not completed upper-secondary school, and those who have face unemployment challenges.

Share of population vs share of unemployment, by educational attainment, %



Note: Figures may not sum to 100%, because of rounding.
Source: BPS-Statistics Indonesia; Sakernas; McKinsey Global Institute analysis

McKinsey & Company

Cultivating the next generation of leaders is necessary for organizations to remain competitive and drive sustainable growth, and the private sector in Indonesia could be involved in addressing training and empowering talent. To achieve this, companies could focus on identifying and nurturing the top 2 percent of talent, which could be a catalyst for transformative change and innovation.[245]

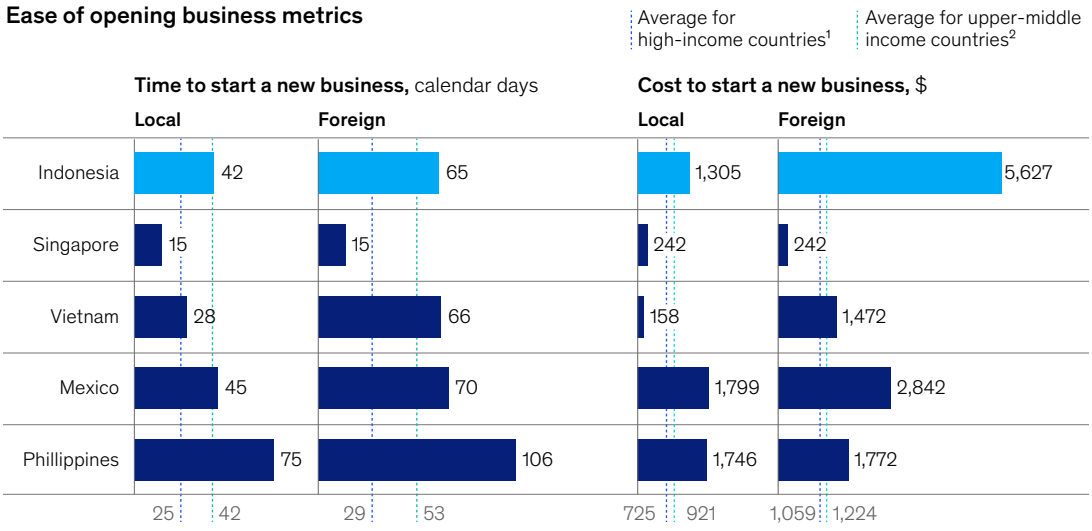
Enhancing institutional capital can improve governance and support a more certain and competitive business landscape

Indonesia has made overall progress in the World Bank's Worldwide Governance Indicators scores, particularly in government effectiveness, improving from the 44th to the 69th percentile in 2023.[246] However, there remains room for improvement in the other five governance indicators: voice and accountability, political stability and absence of violence, regulatory quality, rule of law, and control of corruption.[247]

Such institutional measures can have an impact on business. According to the World Bank's B-ready metrics, Indonesia is typical of middle-income countries with regard to the time it takes to start a new business—43 days. Still, this is over 50 percent longer than in Vietnam. The figure further rises in Indonesia to 65 days for foreign companies (Exhibit 31). In contrast, in Singapore, it takes just 15 days regardless of who is opening the business. The costs of starting a business for a local in Indonesia is five times higher than in Singapore, and 20 times higher for a foreigner—both of which are well above the average for middle-income countries.

Exhibit 31

Indonesia's time and cost to start a business lags middle-income country averages.



[1]Includes Barbados, Croatia, Estonia, Greece, Hong Kong, Hungary, New Zealand, Portugal, Seychelles, Singapore, and Slovak Republic.
[2]Includes Bosnia and Herzegovina, Botswana, Bulgaria, Colombia, Costa Rica, Georgia, Iraq, Mauritius, Mexico, Montenegro, Paraguay, Peru, Romania, and North Macedonia.
Source: Be-Ready by World Bank; McKinsey Global Institute analysis

McKinsey & Company

In Indonesia, bureaucracy can be complex. Its bureaucratic procedures in many sectors may lead to delays, make decision-making more challenging, and create regulatory overlaps that may impact a company's ability to operate smoothly. For example, around 20 different digital strategy road maps have been developed by various government agencies, leading to overlapping initiatives for internet expansion and some challenges in data integration and development.[248] Regulation of an industry sometimes appears to come under the purview of many institutions and ministries, for example, in sectors such as palm oil, mining, and oil and gas.[249] In addition, investors may face some inconsistencies between central and subnational governments, particularly regarding permitting processes and operational control.[250] Such discrepancies may lead to confusion and impact investment.

For MSMEs that lack the resources to navigate the complex regulatory landscape, these lengthy processes can slow business growth and market entry. Additionally, compliance requirements can deter foreign companies from investing due to excessive costs and administrative challenges.[251]

In the long term, institutional development depends on many interdependent and structural factors. In South Korea, for example, among the many factors that enabled fast growth was a government that was able to set policy independently on the one hand, but that was engaged with a strong private sector on the other, enabling well-informed policy to encourage investment.[252]

In the shorter term, Indonesia might explore ways to enhance its investment and innovation climate, including for FDI, through special economic zones or other tools that successfully created stable investment environments in rapidly growing Asian economies.[253] The unique geographic scale of Indonesia also focuses attention on the role of sub-national institutions in fostering an attractive investment environment.

Digital platforms could offer a solution to reduce complexity and unlock efficiency. This can be seen in the Quick Response Code Indonesian Standard (QRIS), introduced by Bank Indonesia in 2020, and designed to standardize QR code payments across varying digital payment platforms. This initiative has led to an increase in digital payment adoption, with transaction volumes reaching approximately 25.0 trillion rupiah ($1.6 billion) and with 43 million users by October 2023.[254] The integration of QRIS has not only simplified payment processes for consumers but has also empowered MSMEs by providing them with a reliable and efficient payment solution, helping foster financial inclusion and economic growth.

Effective digital governance initiatives in other countries, such as South Korea's Government 3.0, highlight the importance of using technology to foster interministerial coordination, promote transparency, and provide a clear reference for navigating regulations.[255] For Indonesia, developing a robust digital platform could require significant investment in digital infrastructure and a commitment to adapt to evolving needs.

Infrastructural capital is the backbone that connects Indonesia's vast archipelago, integrating business operations, markets, and sustainable cities

Infrastructural capital has the power to enhance the quality of life for Indonesia's 280 million residents and facilitate business across the country. As an archipelago with thousands of islands varying in size and distance from the capital, Indonesia's geography enables diverse economic hubs, rich cultural exchanges, and strong potential for maritime trade—key factors for participation in global value chains (GVCs). However, successful participation depends not only on international connectivity but also on the ability to move goods efficiently within the country. This requires robust logistics infrastructure across land, sea, and air.

The government has clustered key infrastructure initiatives, such as constructing roads and airports, under a National Strategic Projects (PSNs) umbrella, and there has been notable progress in developing essential infrastructure.[256] However, the pace of progress may not be sufficient—there is still an infrastructure gap that has contributed to a drop in service quality.[257] On the Logistics Performance Index published by the World Bank, Indonesia fell from 46th to 61st place between 2018 and 2023.[258] This is partly reflected by a fall in shipments reaching their destination within the expected delivery time due to a lack of connectivity creating obstacles for end-to-end logistics.[259] Indonesia faces a number of persistent challenges across its islands:

— In land transportation, the current state of infrastructure makes multimodal logistics planning difficult. The country ranks 70th globally on road density, with just 30 kilometers of roads per 100 square kilometers of land, compared with the average of 50 kilometers in upper-middle-income countries.[260]

— Indonesia ranks 86th on railroad density, providing only 0.27 kilometers of rail per 100 square kilometers of land—below the average in upper-middle-income countries of 1.34 kilometers.[261]

— In shipping, inadequate port infrastructure has been cited as the reason that vessels spend a median of 25 hours in port against a global average of about 20 hours, and three times longer than Norway's median performance.[262] Such issues make sea freight a suboptimal choice for transportation, despite its critical role in Indonesia's connectivity as an archipelagic nation. The prolonged dwell time may be exacerbated by poor planning. For example, Tanjung Priok Port, the main port in North Jakarta, handles over 50 percent of Indonesia's cargo flow, but the combination of heavy traffic on toll roads, mixed land use surrounding the port, and local congestion have contributed to a bottleneck at the port gate, hindering the movement of high volumes of incoming and outgoing goods.[263]

— In air logistics, challenges persist, such as low cargo throughput and extended dwelling times averaging 2.6 days. By comparison, Singapore has an average dwelling time of 1.6 days.[264]

By 2023, 157 PSN projects had been completed with a total investment of 1,087 trillion rupiah ($69.7 billion).[265] Several key projects, including the Palembang Port in Tanjung Carat, Banyuasin Regency, and the Muaro Jambi Container Terminal on the Batanghari River, have all been delayed due to persistent land procurement challenges.[266] The transfer of land from local governments to the Ministry of Transportation, coupled with protracted permitting processes, remained unresolved as of 2024, significantly disrupting timelines.

Data-backed, integrated infrastructure planning across stakeholders could improve the quality, objectivity, and transparency of infrastructure projects. Adopting consistent project execution and monitoring guidelines across ministries and local governments, providing training to strengthen project management skills at regional and local levels, and mandating systematic ex-post evaluations could also contribute to better outcomes and lessons learned.[267]

Further, mechanisms such as public–private partnerships (PPP) could help close the infrastructure gap in Indonesia. In late 2023, 42 percent of the investment required to meet infrastructure needs was unfunded, which could be bridged through increased private finance involvement via PPPs.[268] These partnerships could shift not only the financing burden to the private sector but also transfer risks related to design, construction, and maintenance, thereby enhancing overall delivery and performance.[269] For PPPs to be successful, contracts need to

be carefully designed so that they clearly outline rights and responsibilities, risk allocation, and mechanisms for managing changes.

Infrastructural capital can also enable effective urbanization that will be essential to productivity growth, good job creation, and improved quality of life. Between now and 2045, an additional 70 million people in Indonesia could migrate to cities—about 230 million people or 73 percent of the population. Even small and mid-size cities are expected to expand by a total of over 40 million people in the coming two decades (Exhibit 32).

Managing urbanization is a challenge that densely populated, developing countries have in common.[270] Because of low educational and skills levels, many people find it difficult to find employment in urban areas, especially secure, formal-sector jobs.[271] When they cannot find formal employment, they often turn to the informal sector to support their families. An example of such a role is the street vendor (*pedagang kaki lima* or PKL). Most street vendors in Kendari, the capital of the Southeast Sulawesi province, are typically villagers who have migrated to the city—albeit on the outskirts—to earn a living.[272]

This is a significant managerial challenge. Urban infrastructure, such as roads, public transportation, and communication networks, can be improved to create better connections between urban hubs and surrounding areas. Enhanced mobility can help match workers with available jobs, thus improving overall employment rates. This urban integration, in turn, can contribute to a better quality of life for people, and improve access to social infrastructure, such as universities, hospitals, and recreational facilities—all important factors for attracting and retaining a skilled workforce. Enhanced urban environments can bring in larger companies, improving access to skilled labor and fostering better infrastructure, thus boosting productivity and creating new market opportunities in sectors such as real estate, healthcare, and education.

Indonesia could follow the example of high-income countries by focusing on developing sustainable cities—well-planned urban environments that attract businesses and investments, which, in turn, encourage economic activity. The development of sustainable cities needs to prioritize the integration of green spaces into urban planning. This can strengthen people's connection to nature, enhance well-being and living conditions, and promote long-term environmental health. The electrification of vehicles is another factor that would become essential. Carbon emissions from the transportation sector in Indonesia (under a business-as-usual scenario) are projected to more than double by 2050, from around 150 metric tons of carbon dioxide equivalent ($MtCO_2$) in 2020 to approximately 350 $MtCO_2$ per year.[273] This surge would be fueled by population growth, economic growth, urbanization, and increasing preference for four-wheel vehicles to 2050.

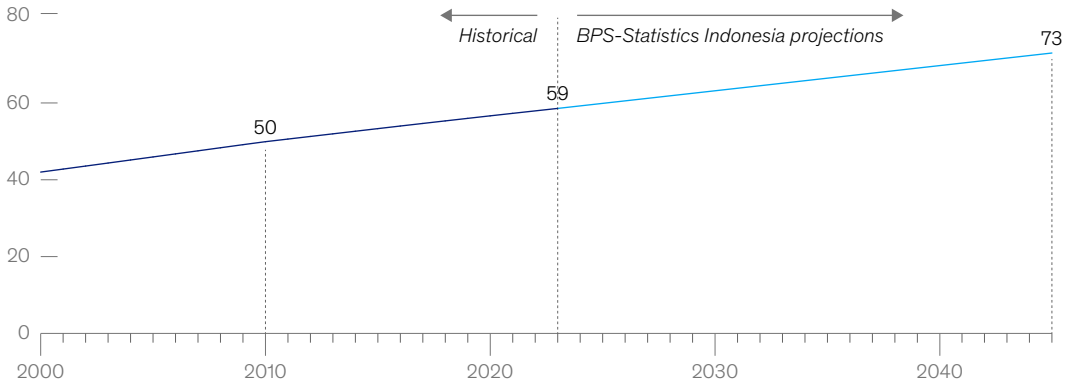
One urban planning approach to achieve effective urbanization is the "x-minutes city." This model promotes an urban lifestyle that allows mobility within "x" minutes, with the goal of reducing carbon emissions and improving people's quality of life.[274] The concept aims to boost productivity through the efficient use of time by leveraging four key areas: density, proximity, diversity, and digitalization.[275]

Several countries have successfully used this approach. Barcelona's Superblock maximizes public spaces for local businesses and reduces carbon emissions by allowing only EVs to be used within it.[276] Singapore modified the concept to a "20-minutes town" and "45-minutes city," as seen in the North-South Corridor (NSC) project that reduces travel time across Singapore and improves the efficiency of public facilities, such as pedestrian tracks and public parks.[277]

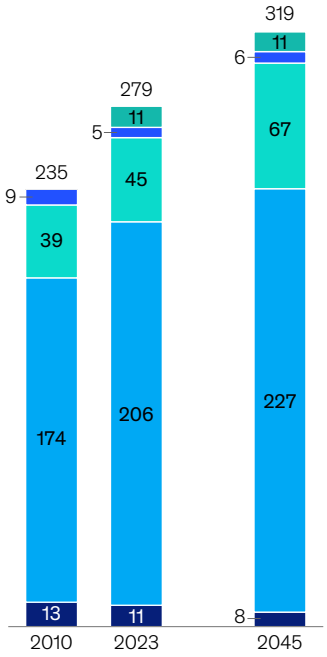
Exhibit 32

Indonesia's urban population share is expected to increase to 73 percent by 2045, with 40 million people moving to small and midsize cities.

Indonesia's urban population share, % of total population



Composition of population in cities and districts across Indonesia, million people



	CAGR, 2023–45, %	**Additional population, 2023–45,** million people
Total	0.6	9.9
Megacity (≥10 million people)	–0.3	–0.8
Large middleweights (5 million–<10 million people)	0.5	0.7
Midsize middleweights (2 million–<5 million people)	1.8	22.2
Small middleweights (150,000–<2 million people)	0.5	21.4
Small (<150,000 people)	–1.7	–3.7

Note: Each district represents a kabupaten/kota in Indonesia, and the urban categories reflect the population within each kabupaten/kota. Figures may not sum to listed totals, because of rounding.
Source: BPS-Statistics Indonesia; Indonesia's Ministry of Home Affairs; Indonesia's Ministry of National Development Planning; McKinsey Global Institute analysis

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In China, the Great City of Chengdu has been designed to ensure a 15-minute walking radius and, among other sustainability initiatives, aims to reduce landfill waste by 89 percent and carbon dioxide emissions by 60 percent.[278]

Further, urbanization is an opportunity to balance out concentrated development. Indonesia has wide disparities in per capita GDP. Economic activity is concentrated mostly in Java, which accounts for 58 percent of GDP and 56 percent of Indonesia's population.[279] The current capital, Jakarta, has a population of approximately 11 million and already faces challenges, such as high levels of congestion (commuters spent an average of 108 hours stuck in rush hour traffic annually in 2023, compared with 96 hours in Bangkok or Istanbul);[280] pollution (Jakarta was judged the most polluted city in August 2023 by IQAir); annual flooding (Jakarta is one of the top 20 major world cities with the highest flood risk by 2050); and an inadequate public transport system.[281]

To achieve a more balanced distribution of the economy, population, and development, the government plans to move the capital city to Kalimantan province, where the new capital city, Ibu Kota Negara, is expected to create new economic growth centers and maximize the potential of regional resources.[282]

Entrepreneurial capital can help create more formal businesses, adopt better technology, and invest at a bigger scale

Entrepreneurs play a crucial role in fostering innovation, stimulating competition, and driving economic development. Higher new business density reflects an increase in formal entrepreneurship activity. Start-ups and high-growth young companies are vital drivers of job creation, innovation, and competition; they inject dynamism into the economy, challenge established incumbents, and prevent market stagnation, all of which are essential for economic growth.[283] Yet Indonesia's new formal business density is 0.33, lower than Brazil's rate of 5.1, which partly reflects a much higher rate of business formality in Brazil (Exhibit 33).[284] At the other end of the spectrum, only eight large companies in Indonesia have made it to the Forbes Global 2000 list, while other countries have achieved this two to three times more compared with GDP, signaling the need to improve the quality of Indonesia's leadership pipeline.[285]

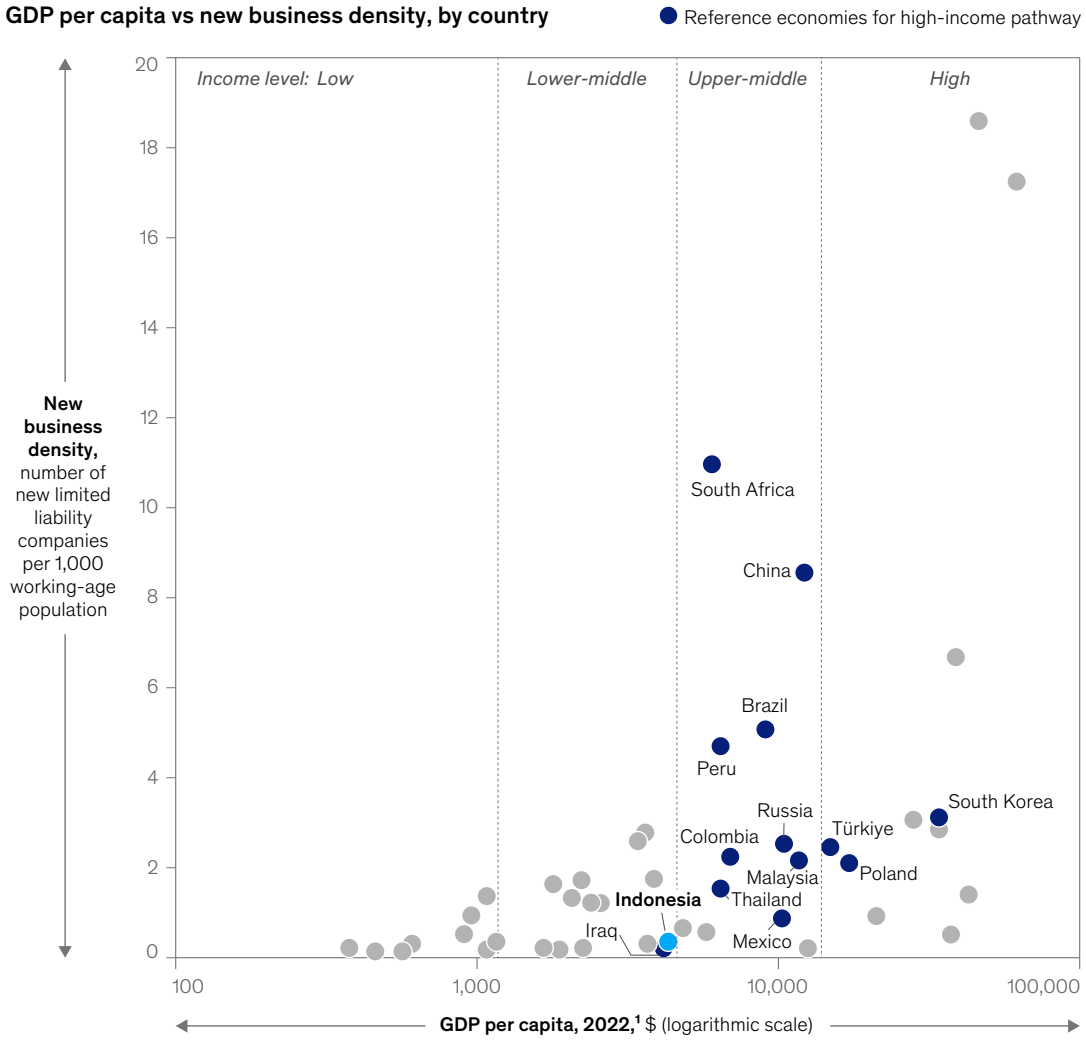
There are some positive signs of increasing entrepreneurial capital. Over the past five years, investors have funneled around $72 billion into venture funding for technology companies in the Association of Southeast Asian Nations (ASEAN) region, tripling the amount from the preceding five years. Indonesia alone has secured about $20 billion, underscoring its rise as a hub for digital innovation and entrepreneurship.[286] Yet, private equity and venture capital investments in Indonesia remain modest, totaling approximately $1.7 billion in 2023, representing 0.1 percent of GDP compared with the average of ASEAN economies of 0.5 percent.[287] This limited deployment of funds has been hampered by cautious investor sentiment with stricter investment criteria and increased expectations for profitability. Indonesia is home to 13 unicorns—private start-up companies with a valuation over $1 billion—that have a collective valuation exceeding $40 billion. However, many of these valuations have experienced significant declines post-IPO, underscoring the volatility of the market.[288]

Inexperience and lack of guidance can cause start-ups to struggle to grow, and incubators and accelerators can address these challenges by offering crucial support and mentorship to help start-ups navigate their development journeys.[289] Indonesia has a substantial number of incubators and accelerators, but a survey conducted by the Asian Development Bank found

that many of these programs face significant obstacles.[290] These included limited management capacity, insufficient full-time staff, and a lack of standardized operating procedures. The survey further highlighted challenges such as funding inconsistencies, weak ecosystem connections, and a lack of start-up expertise among local, government-run incubators. Respondents noted that government initiatives often prioritized awareness programs and youth participation over practical support for start-up growth. Compliance targets were frequently set at levels difficult for new businesses to meet, hindering their establishment. Additionally, the private sector in Indonesia faces its own challenges in running incubators profitably, particularly due to a shortage of suitable mentors to provide quality, sector-specific guidance.[291]

Exhibit 33

Indonesia has a low rate of formal new business openings.



[1]Only includes economies with adult population (ages 15–65) more than 15 million.
Source: World Bank; McKinsey Global Institute analysis

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Addressing structural challenges in Indonesia's start-up ecosystem could include more effective strategic partnerships. As noted in chapter 2, large, established companies could cultivate essential competencies in start-ups, provide the financial discipline needed to prioritize innovation, and develop scalable, monetizable businesses that address high-demand market needs.[292] This could position start-ups for high growth and long-term stability. Further, corporate venture capital can offer start-ups distinct advantages over traditional incubators, including direct market access, an established customer base, industry expertise, and a stronger emphasis on monetization and profitability driven by expectations of financial returns. In return, corporations gain access to external innovation that keeps them competitive, creating a mutually beneficial relationship. Social impact funds could provide initial capital for start-ups that are positioned to potentially create meaningful social value, but face difficulties in securing investment due to high capital requirements.[293]

The local production of renewable energy and services to boost renewables' adoption could be a useful industry for start-ups as Indonesia works toward its net-zero emissions goal by 2060, while prioritizing energy security and affordability.[294] One such example is Xurya, a solar energy start-up that assists commercial and industrial companies to adopt solar power without upfront costs. Early support from philanthropic funds and green investors has enabled Xurya to grow steadily and lead the industry with innovations. It was the first company in Indonesia to use Internet of Things (IoT) technology for remote solar operations and embed machine learning into solar processes.[295] This type of progress not only increases access to clean energy and advances Indonesia's sustainability goals but also creates high-skills job opportunities and fosters innovation that can drive economic growth.

The challenges that start-ups face point to a deeper structural issue: Indonesia's persistent underinvestment in R&D. Between 2010 and 2020, R&D spending averaged 0.38 percent of GDP, far below levels observed in countries that have successfully utilized technology for economic growth. This limited R&D investment may hinder the adoption of technology and restrict start-ups' ability to develop scalable, high-value solutions that drive productivity and long-term growth. Digital platforms and tools, and potentially gen AI, could play a transformative role, allowing incubators and start-ups to overcome limitations by providing data-driven insights, automating repetitive tasks, and offering tools for rapid prototyping and innovation at scale. Strengthening Indonesia's R&D ecosystem, including capabilities to increase the adoption of gen AI, could enable start-ups to overcome their scalability challenges and gain access to advanced problem-solving capabilities and market analysis, empowering them to make informed decisions faster and reduce their time to market.[296]

Indonesia could define key metrics for tracking and managing progress against milestones

Indonesia's aspiration of becoming a high-income economy by 2045 is ambitious, and the task ahead is multifaceted and challenging. It is vital that it moves from aspiration to action. A guiding principle is good governance of the business sector. An engaged yet independent public sector could foster a more formal, competitive, and productive business sector. Broad public understanding and support could also be an indicator for the success and sustainability of policy reforms. Clear performance metrics and accountability could ensure that institutions adapt and succeed.

Tracking progress is important. A benefit of our company-up approach to envisioning Indonesia's development is that it yields a detailed and concrete set of markers. Two types of indicators can help guide efforts to build a vibrant and enterprising ecosystem. The first set aims to measure progress in developing more larger companies and the capital and employment trends that go with that. The second set is indicators that map progress against efforts to develop the five kinds of enabling capital that we have discussed. The two sets of indicators go hand in hand; while we emphasize that increasing the five enabling forms of capital accelerates growth of larger and more productive companies, the converse is also possible. For example, good corporate governance and effective institutions go hand in hand.

The reference metrics and targets presented here are potential markers on a journey to a place where entrepreneurs want to and can start their companies, and then grow and effectively run successful small, medium-size, and large companies. The measures show that Indonesia has a long way to go, and it is not yet on track.

Productivity growth and company landscape metrics

The first set of indicators tracks progress against key indicators of productivity growth and the company landscape in the scenario in which Indonesia achieves high-income status by 2045. Since these are based on the scenario developed in this report, we indicate the corresponding 2045 levels (Exhibit 34).

Per capita GDP: In our scenario, per capita GDP reaches the threshold of high income by 2045, increasing from $4,900 today to $14,000. This implies an annual overall GDP growth rate of 5.4 percent. However, precedents show high year-to-year variation on the journey; it may require faster growth in the earlier years as the rate of growth tends to decelerate as economies approach high income, and Indonesia's demographic dividend is likely to diminish over time.

Productivity growth and company contributions: Productivity growth would need to grow at an average CAGR of 4.9 percent and be the primary driver of Indonesia's 5.4 percent annual GDP growth, given that the contribution from a growing labor force will diminish. The largest contribution would come from medium-size and large companies as they double their employment share (across company sizes) and productivity level.

Number of companies: If Indonesia is to triple its productivity and reach high-income status, it would need a greater number of larger, more productive companies. The number of medium-size and large companies would more than triple to 200,000 and 40,000 respectively. Almost 80 percent of these companies would come from the services sector.

Capital deepening by companies: In a high-income-by-2045 scenario, Indonesia would increase nonagricultural capital fourfold to $14 trillion and grow nonfarm capital per worker from $31,000 to $100,000. In a scenario in which capital scales with productivity growth across company sizes, medium-size and large companies would increase their capital share of nonfarm business from about half to almost two-thirds. Companies of all sizes would need to at least double their capital per worker.

Employment share by sector: As is typical in countries crossing the high-income threshold, Indonesia in our scenario would shift employment share away from agriculture by 15 percentage points, mainly into services, which grows 13 percentage points—and is the main source of growth. The manufacturing sector would increase by two percentage points, while the share of employment in the resources sector would remain about constant in our scenario.

Exhibit 34

Indonesia can monitor progress toward milestones for achieving a high-income 'enterprising Indonesia.'

Summary of key indicators for a potential high-income scenario

Key economic indicators		Unit of measurement	2023	2045 scenario
GDP	GDP per capita	$	4,900	14,000
	GDP annual growth	%	4.9[1]	5.4
Productivity	Overall	$ thousand per full-time equivalent	9	26
	Microenterpise		8	15
	Small company		6	28
	Medium company		20	37
	Large company		27	42
Employment share	Agriculture	% of total population	28	14
	Manufacturing		14	16
	Services		55	68
	Resources		2	2
Capital[2]	Total capital	$ trillion	3	14
	Capital per worker	$ thousand per worker	31	100
Number of companies	Microenterprises	thousand	31,800	21,500
	Small companies		950	1,200
	Medium companies		80	200
	Large companies		13	40
	└ Very large companies		0.4	1.4

[1]2000–23 historical.
[2]Nonagricultural.
Source: BPS-Statistics Indonesia; Oxford Economics; MGI Productivity Analytics Database; McKinsey Global Institute analysis

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Enabling capital metrics

For the second set of indicators, economies with per capita GDPs 20 percent above and below the high-income threshold ($14,000), and with populations of over 10 million, could provide a range, since structural factors could affect what "good" means in any given country (Exhibit 35). The range is meant to inform planning, not establish a precise target. The set is not exhaustive but aims to cover the critical components.

Exhibit 35

Indonesia can monitor the progress of key enablers using a comprehensive set of key indicators.

Summary of key indicators for a potential high-income scenario

Maximum in observed countries[1]
Minimum in observed countries[1]
Indonesia

Key economic indicators		Unit of measurement	Maximum in observed countries[1]	Minimum in observed countries[1]	Indonesia
Financial capital	Private credit by deposit money banks	% relative to GDP	33	21	121
	Pension assets	% relative to GDP	2	4	76
	Financial inclusion	account (% age 15+ population)	75[2]	69	88
Human capital	Above upper-secondary educational attainment	% of population (age 25–34)	40	48	57
	Researchers in R&D	number per million people	400	519	4,021
Institutional capital[3]	Cost of opening a new domestic business	$	1,305	28	603
	Time to open a new domestic business	calendar days	43	33	45
Infrastructural capital	Road density	km/surface area	100	100	250
	Mobile broadband download speed	megabits per second	42	79	207
	Median time in port for container ships[3]	number of hours	25	18	41
Entrepreneurial capital	Informal employment	% of total employment	80	18	50
	New business density	per 1,000 working-age population	0.3	0.2	6.0

[1]Based on latest available data. Private credit by deposit money banks, 2019; pension assets, 2020; financial inclusion, 2021; above upper-secondary education attainment, 2023; researchers in R&D, 2020; cost and time of opening a new business, 2024; road density, 2021; mobile broadband download speed, 2024; median time in port for container ships, 2021; informal employment, 2023; new business density, 2016. Reference countries are countries with GDP per capita within a +/– 20% range of $14,000 (high-income threshold) in 2023, and population above 10 million, unless otherwise stated, due to limited data.
[2]Based on 2024 National Literacy and Financial Inclusion Survey by OJK (Financial Services Authority) and BPS-Statistics Indonesia. World Bank Global Financial Inclusion 2021 data is used for reference country range and indicates Indonesia's financial inclusion rate at 52%. An updated figure is shown for Indonesia, given that financial inclusion was one of the most disrupted metrics during COVID-19, with small differences in methodology from World Bank.
[3]We limit metrics here to 2 operational efficiency metrics from World Bank Business Ready 2024 because they are directly measurable; World Bank indices for all 3 pillars—regulatory quality, transparency, and operational efficiency—can also be used to track and compare progress as can broader World Bank Governance Indicators that go beyond conditions for opening new businesses.
[4]Referencing against China, Russia, and South Korea.
Source: Pitchbook; TestMy.net; World Bank; MGI Productivity Analytics Database; McKinsey Global Institute analysis

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Financial capital: Financial depth, measured as private credit by banks and stock market capitalization, indicates whether the financial system is expanding and allocating more capital. It is the most direct measure of increasing financial capital. Stock market capitalization in Indonesia is 47 percent of GDP, while in neighboring economies, such as Malaysia and Thailand, it reached 130 percent to 109 percent of GDP.[297] Financial inclusion measures the share of the population using modern financial services—bringing more savings into the financial system increases financial depth. The share of pension assets can indicate the development of

institutional financial systems and long-term instruments for domestic savings. These are important for growth and are particularly low in Indonesia: In 2023, pension assets were only 2 percent relative to GDP, while other reference economies reached a range of 4 to 76 percent.[298]

Human capital: Secondary-education attainment is a simple and accurate measure of the level of education that is needed to support skill levels of high-income economies. In 2023, 40 percent of those between ages 25 to 34 had completed upper-secondary school in Indonesia, compared with a range of 48 to 57 percent in reference economies.[299] The number of researchers is a targeted quality measure for higher skill potential. Indonesia has only 400 researchers per million people, compared with a range of 500 to 4,000 people in reference economies.

Institutional capital: The cost and time required to open a new business are key indicators of government efficiency. They are also proxies for deeper factors, such as trust and rule of law. In 2023, the average cost of opening a business in Indonesia was $1,300, compared with $28 in the low end of reference economies. Opening a domestic business averages 43 days, similar to the longer end of the reference range and three times longer than Singapore.

Infrastructural capital: Infrastructure is the backbone of citizens' activities and business operations. Key metrics include road density, mobile download speed, and median time spent in port. These all affect business operations and quality of life and the different dimensions vary in importance depending on the sector. Indonesia's road density and average mobile download speed are low relative to reference countries, though road density is affected by Indonesia's expansive geography. However, it performs in the middle range on median time in port at 25 hours, compared with a range between 18 to 41 hours in reference economies.

Entrepreneurial capital: New formal business density is crucial in the creation of larger, more productive companies, and, in turn, growing Indonesia's overall formal economy. Indonesia's value of 0.3 per 1,000 working-age people is near the low end of the observed values in reference economies. Indonesia's employment in informal economy is relatively high at 80 percent, by the ILO's measure, while other economies reached as low as 25 percent.

Indonesia needs to move from vision to action to achieve the 2045 aspiration

Economic growth depends on many interconnected factors and there is no one path to development for Indonesia. Factors that could influence the pace of growth range from the more structural challenges of strengthening institutions to the many policy options for enhancing the five forms of enabling capital.

Implementing such reforms requires leadership and organization to move from vision to execution. Examples can be found in countries that have adopted different types of implementation units to help meet targets, especially to govern those programs with higher impact (see Box 4 "Examples of implementation units").[300] The United Kingdom was one of the pioneers of the service delivery unit (SDU) and Singapore has developed a ministry–agency taskforce. Indonesia could consider the lessons learned and principles followed if it were to develop similar approaches. No single blueprint is offered by the different development models and implementation units—Indonesia's challenges are specific and potential solutions need to be tailored to them.

Box 4. Examples of implementation units

Delivery lab: This type of implementation unit comprises a multidisciplinary team working on a short timeline to address challenges in government program implementation. It involves comprehensive analysis to identify root problems and develop actionable solutions aligned with relevant stakeholders.[1] The United Kingdom adopted this approach with the establishment of the Prime Minister's Delivery Unit (PMDU) in 2001, set up in the Cabinet Office. The team comprised about 30 people from different ministries, agencies, and the private sector, with the aim of ensuring success in four priority outcome areas: health, education, public safety, and transportation. It ranked delivery as a reward-based incentive.[2] PMDU successfully delivered impacts across the targets in various areas including education and health. In education, it closed the gap between low-performing high schools and national performance by eight percentage points in 2005, and in health, it improved the number of patients admitted to hospital within four hours by 18 percentage points in 2006. Although PMDU is no longer operating in the United Kingdom, it was one of the first units to influence SDU implementation in other countries.

National prime minister's office: This type of unit comprises a group of experts from diverse fields who work closely with a country's leader to deliver national priority outcomes. They evaluate and monitor results of government programs, while unblocking obstacles faced by stakeholders.[3] Singapore's Strategy Group in the Prime Minister's Office was established in 2015 to lead whole-of-government strategic planning by identifying key priorities and addressing emerging medium- to long-term issues.[4] It collaborates with public agencies to strengthen cross-agency efforts on critical issues such as population and climate change. In addition, Singapore's Green Plan 2030, aimed at advancing the national agenda on sustainable development, is led by five key ministries with government-wide support, including Strategy Group.[5] One of the targets—to deploy 200 megawatt-hours of energy storage systems for grid resilience and clean energy—was achieved in December 2022, ahead of the 2025 goal.[6]

Government agency: This is an organization dedicated to supporting the government or specific government departments to achieve national objectives. It focuses on a targeted area and rigorously pursues outcomes on certain issues.[7] In Singapore, for instance, the Economic Development Board (EDB) is a ministry agency whose main task is to develop strategies to transform the country into a global business center.[8] This includes attracting foreign investment, facilitating industry transformation in sectors such as manufacturing and biotechnology, and fostering the growth of local talent and capabilities. In 2023, EDB secured total fixed asset investments of about US $9.46 billion (12.7 billion Singapore dollars) and has created 20,045 jobs in services, R&D, and manufacturing. Research and innovation activities also increased, with several companies launching new businesses in advanced technology and AI.[9] EDB aims to maintain the investment commitment goals within the next five years to create between 16,000 to 18,000 jobs.

[1] *Civil Service Quarterly blog,* "Making things happen at the implementation unit," blog entry by Chris Mullin, April 16, 2024.
[2] *Civil Service Quarterly blog,* "Making things happen at the implementation unit," blog entry by Chris Mullin, April 16, 2024.
[3] "Strengthening the center of government for results in Chile," Inter-American Development Bank, September 2014.
[4] For further information, see the Strategy Group's website: strategygroup.gov.sg.
[5] "Public sector leads the way with bold targets under Singapore's Green Plan 2030," Ministry of Sustainability and the Environment Singapore, March 4, 2024.
[6] "Our targets for the Green Plan," SG Green Plan, accessed October 2024.
[7] Duncan Manley (ed), *Manley's Technology of Biscuits, Crackers and Cookies,* Woodhead Publishers, 2011.
[8] For further information, see Singapore Economic Development Board's website: edb.gov.sg.
[9] "EDB year 2023 in review," Singapore Economic Development Board (EDB), January 30, 2024.

Indonesia's government has set an ambitious aspiration of attaining high-income status by 2045. Our analysis suggests a path forward by analyzing the trajectories of other economies that started from a similar base to Indonesia's today. The scenario we have developed implies that Indonesia would need to increase GDP by more than 5 percent per annum. This would only be possible with an increase of productivity growth by 1.6 times, which would require creating more medium-size and large companies; deepening capital considerably; encouraging entrepreneurship, including through a more transparent and predictable regulatory environment; and shifting employment from the low-productivity informal sector to higher-paying jobs.

If Indonesia were to achieve these elements of a productivity-focused plan for the next 20 years, it could improve its people's well-being, enhance the growth and resilience of its economy, and better accommodate a green transition. Indonesia would develop from being the archipelago economy MGI described in 2012 to being the "enterprising archipelago" that could thrive well into the future.[301]

Acknowledgements

This research was led by Kevin Russell, a McKinsey Global Institute (MGI) senior fellow in the Charlotte office; Chris Bradley, an MGI director and senior partner in the Sydney office; Khoon Tee Tan, the managing partner and a senior partner in the Jakarta office; Jeongmin Seong, an MGI partner in the Shanghai office; Phillia Wibowo, a partner in the Jakarta office; Indiana Jusi, a consultant in the Jakarta office; Olivia White, an MGI director and senior partner in the Bay Area office; Ashwin Balasubramanian, a partner in the Singapore office; Antonius Santoso, an associate partner in the Jakarta office; and Guillaume de Gantès, a senior partner in the Bangkok office.

The research team comprised Maura Alexandrina, Debadrita Dhara, Karin Dharmanto, Angie Giovanni, Johana Gunawan, Priscilla Layarda, Reinhardt Matondang, Arthur Prajasto, Gleb Pryymak, Salsabila Ramadhani, Sophia Seen, Amadea Setiono, Madeleine Setiono, Abdan Syakur Noor, Medeline Tenardi, Putu Ustriyana, and Tiffany Yong.

For their considered contributions to the research, we thank MGI academic advisors, namely Martin Baily, senior fellow emeritus, economic studies, Center on Regulation and Markets, Brookings; Hans-Helmut Kotz, program director at the SAFE Policy Center for Financial Studies at Goethe University, Frankfurt, resident fellow at the Center for European studies, and visiting professor of economics at Yale University; Rakesh Mohan, senior fellow at the Jackson Institute for global affairs, Yale University, and distinguished fellow at Brookings India; and Andrew Sheng, distinguished fellow at the Asia Global Institute at the University of Hong Kong.

For kindly sharing insights, we thank Adika Nuraga Bakrie, Chatib Basri, Bambang Brodjonegoro, Thomas Djiwandono, Aryo Djojohadikusumo, Hashim Djojohadikusumo, Ahmed El Saeed, Andrea Goldstein, Rabin Hattari; Jefrey Joe, Bayu Krisnamurthi, Mari Elka Pangestu, Hilmi Panigoro, Rachmat Pambudy, Darmawan Prasodjo, Rahmad Pribadi, Budi Gunadi Sadikin, Rosan Roeslani, V. P. Sharma, Tigor Siahaan, Irfan Setiaputra, Dirgayuza Setiawan, Vikram Sinha, Enki Tan, Erick Thohir, Djony Bunarto Tjondro, Setiyo Wibowo, Nicke Widyawati, and Ridha Wirakusumah.

Many McKinsey colleagues gave us input and guidance. We want to thank Vishal Agarwal, Karambir Anand, Rebecca J. Anderson, William Bakara, Lucie Bertholon, Damien Bruce, Eric Buntoro, Marc Canal, Albert Chang, Jeffrey Condon, Kaushik Das, Tiago Devesa, John Ellis, Denise Georgieva, Thomas Hansmann, Camillo Lamanna, Tracy Lee, Jan Mischke, Martin Santoso, Ishaa Sandhu, Suyin Soon, and Timothy Yap.

In MGI's publishing team, we are grateful to Janet Bush, Rishabh Chaturvedi, and Rachel Robinson. In communications, our thanks go to Elaine Ee, Cathy Gui, Yasmin Ramle, Adhia Rana, and Wina Wirsatyo, and in editorial and design, to Nella Freund, Chris Grava, John-Michael Maas, and Hannah McGee.

As with all MGI research, this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution. While we gathered a variety of perspectives, our views have been independently formed and articulated in this report. Any errors are our own.

Endnotes

1 "Final draft of the national long-term development plan (RPJPN) 2025–2045," BAPPENAS, 2023.

2 *The archipelago economy: Unleashing Indonesia's potential,* McKinsey Global Institute, September 2012.

3 "Final draft of the national long-term development plan (RPJPN) 2025–2045," BAPPENAS, 2023; "National medium term five-year plan (RPJMN) 2025–2029," BAPPENAS, January 2025.

4 The World Bank uses gross national income (GNI) to define income categories, however, we use GDP interchangeably (that is, with a definition of high-income that is $14,000 GDP per capita based on the World Bank definition of $14,005 GNI per capita). This is primarily for simplicity but also because our research focuses on domestic production, not national income. The numbers can differ, but growth, which is our focus, is highly correclated between the two metrics. "Why use GNI to classify economies into income groupings?," World Bank, 2025.

5 Extreme poverty is defined as living on less than $2.15 a day in 2017 purchasing power parity terms. "Poverty and inequality platform (2024)," World Bank, accessed September 2024.

6 *Investing in productivity growth,* McKinsey Global Institute, March 27, 2024.

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April 2025
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