Pathways to Middle-Class Jobs in Indonesia

Maria Monica Wihardja and Wendy Cunningham
Pathways to Middle-Class Jobs in Indonesia
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Foreword

Satu Kahkonen
Country Director, Indonesia and Timor Leste

Indonesia has made great strides toward becoming a middle-class country. Just before the Covid-19 pandemic hit in early 2020, it graduated to upper-middle-income country status. At that point, Indonesia was also well on its way to escaping the “middle-income trap” and becoming a thriving high-income country, its goal for 2045, one century after it gained independence. Driven by a strong commitment by the Government of Indonesia to human capital development and economic transformation, as well as to job creation, jobs have been a fundamental part of this achievement. They have driven Indonesia’s rapid economic growth, poverty reduction, and the emergence of a vibrant and growing middle class. Today, jobs in Indonesia take many forms—40-hours-a-week Jakarta office jobs, food stalls run by women and family members, on-demand ride-hailing drivers in urban areas, and subsistence farmers in Papua—weaving a rich tapestry in a diverse economy.
However, even before the Covid-19 pandemic, Indonesia faced complex challenges in creating "middle-class jobs," that is, good–quality jobs that allow an average Indonesian family to afford a middle-class life. Productivity growth in Indonesia has been insufficient to unlock the potential of the 47 percent of Indonesians stuck in aspiring middle-class status, partly due to a structural transformation that has failed to transition enough workers from low-productivity to high-productivity sectors, firms, and jobs. Most of today’s workforce is not equipped to hold a middle-class job due to skills shortages or exclusion. Regional partners—Thailand, the Philippines, China, and Vietnam—have seen much faster middle-class job growth than Indonesia. The difficulty in creating middle-class jobs is particularly worrisome given that the tailwind of favorable demography will ease over the coming decade as Indonesia will begin to age rapidly. These structural challenges have been exacerbated by the Covid-19 pandemic, which has hit jobs in Indonesia hard—in particular in the country’s largely informal labor market—and interrupted the transition of workers from low-quality to higher-quality, middle-class jobs.

This report suggests three ways in which Indonesia can build better jobs after the Covid-19 pandemic has passed. First, it follows on the World Bank’s report, Aspiring Indonesia: Expanding the Middle Class, by asking what reforms could unleash the creation of middle-class jobs in Indonesia. Second, it is the first attempt to capture the jobs picture in its many dimensions. While jobs challenges are often perceived in a narrowly sectoral way, this report brings together all jobs-related dimensions in an integrated and comprehensive manner and assesses how they intersect and interact. Third, it provides policy reform recommendations along multiple dimensions and summarizes them in a comprehensive, yet compact, fashion. This report does not provide short-term guidance but instead asks us to take a step back and think of the structural changes that need to happen for Indonesia to create a sufficient number of sustainable middle-class jobs.

The report offers three pathways that together can contribute to the creation of middle-class jobs. First, Indonesia could accelerate across-the-board productivity growth by unlocking the entry and growth of new firms to spur competition, innovation, and productivity in the private sector. Indonesia could improve the productivity of small and medium enterprises, enabling them to grow and become better creators of middle-class jobs, and target support to increase productivity in household enterprises where a large share of jobs exists. Second, Indonesia could transition workers to jobs-friendly sectors and firms by prioritizing investment promotion strategies in sectors that are amenable to the creation of middle-class jobs. In tandem with this, Indonesia could close information gaps, thereby helping workers transition to higher quality sectors, firms, and jobs. Third, Indonesia could build a middle-class workforce by facilitating learning and providing tailored support to special groups, in particular women and youth.

It is my hope that this report will stimulate a conversation about the need to create quality jobs that will help Indonesia build back better in the post-Covid-19 world and realize its dream of becoming a high-income country by 2045.
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<td>AI</td>
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<tr>
<td>APINDO</td>
<td>Indonesian Employers’ Association (Asosiasi Pengusaha Indonesia)</td>
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<td>Bappenas</td>
<td>Ministry of National Development Planning (Kementerian Perencanaan Pembangunan Nasional)</td>
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<td>BKPM</td>
<td>Investment Coordinating Board (Badan Koordinasi Penanaman Modal)</td>
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<td>BPJS</td>
<td>Badan Penyelenggara Jaminan Sosial (Healthcare and Social Security Agency)</td>
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<td>BPS</td>
<td>National Statistical Agency (Badan Pusat Statistik)</td>
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<td>CAGR</td>
<td>Compound annual growth rate</td>
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<td>CMEA</td>
<td>Coordinating Ministry of Economic Affairs (Kementerian Koordinator Bidang Perekonomian)</td>
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<td>ERIA</td>
<td>Economic Research Institute for ASEAN and East Asia</td>
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<td>FDI</td>
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<td>GVC</td>
<td>Global value chain</td>
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<td>HHE</td>
<td>Household enterprise</td>
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<td>ICLS</td>
<td>International Conference of Labor Statisticians</td>
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<td>ICT</td>
<td>Information communication technology</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>ISCO</td>
<td>International Standard Classification of Occupations</td>
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<td>ISIC</td>
<td>International Standard Industrial Classification</td>
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<tr>
<td>JKP</td>
<td>Job Loss Guarantee (Jaminan Kehilangan Pekerjaan)</td>
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<td>KBJI</td>
<td>Indonesian Standard Classification of Occupations (Klasifikasi Baku Jenis Indonesia)</td>
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<td>KBLI</td>
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<td>KJI</td>
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<td>KLUI</td>
<td>Indonesia Business Classification (Klasifikasi Lapangan Usaha Indonesia)</td>
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<td>KPPU</td>
<td>Commission for the Supervision of Business Competition (Komisi Pengawas Persaingan Usaha)</td>
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<td>KUR</td>
<td>Kredit Usaha Rakyat</td>
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<td>MIT</td>
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<td>MSMEs</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>OJK</td>
<td>Financial Services Authority (Otoritas Jasa Keuangan)</td>
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<td>PIAAC</td>
<td>Programme for the International Assessment of Adult Competencies</td>
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<td>Sakernas</td>
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<td>SMEs</td>
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<td>SNI</td>
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<td>STEM</td>
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<td>TVET</td>
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<td>UNDP</td>
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<td>UNICEF</td>
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Executive Summary
“Our dream, our ambition is that by 2045, after one century of Indonesian independence, Indonesia should, Insya Allah [God willing], have escaped the middle-income trap,” President Joko Widodo declared in the opening lines of his inaugural address in October 2019. Indonesia is on its way, with single-digit poverty rates and economic growth averaging 5 percent annually. However, half (47 percent) of Indonesians are stuck just below the middle-class threshold. They belong to an “aspiring middle class” that is neither poor, nor highly vulnerable to becoming poor, but which has not reached the level and stability of consumption associated with middle-class status. Indonesia’s jobs situation may be holding the country back from rapid progress in realizing its dream.

Jobs have contributed to both growth and poverty reduction, and Indonesia creates an average of 2 million new jobs each year. These take many forms: They may be office jobs in Jakarta that require 40 hours of work per week and pay a salary. They may be family-run food stalls that earn a modest profit. They may be on-demand ride-hailing drivers who spend 50 hours a week on their motorbikes, or subsistence farmers in Papua who feed their family members from their labors. In 2019, there were more than 120 million working adults in Indonesia. The employment rate reached a two-decade record high in 2019, with 67.5 percent of adults in the labor force, and unemployment fell to its lowest level in two decades, at 5.2 percent.

Despite these encouraging signs, Indonesia is not creating the “middle-class jobs” needed to fuel a middle-class country. Among the 85 million income earners (wage employees, casual workers, and the self-employed), only 13 million are earning a level of income sufficient to allow a family of four to purchase a middle-class way of life. And only 3.5 million wage employees earn above the threshold for middle-class earnings, enjoy full social benefits, and hold an indefinite-term employment contract.

This report posits that Indonesia is a story of low-productivity job growth. Jobs are being created, and they fuel the economy, but productivity growth is insufficient to unlock the backlog of people who aspire to move up to the middle class. The report explores the factors that are holding back productivity growth and the creation of middle-class jobs, and it offers policy recommendations that could unlock these barriers.

The quest for better jobs is at the top of the government’s policy agenda. This issue is perhaps even more crucial in 2021, as Indonesia, and the rest of the world, manage the economic fallout from the COVID-19 pandemic. This report aims to provide guidance to help Indonesia “build back better” in its recovery from COVID-19 and to reinvent itself as a middle-income country.

1 A Propitious Beginning, Cut Short

The structural transformation of the 1980s and 1990s portended a middle-class Indonesia by 2019. Indonesia was on a path of quality job growth as people moved out of agriculture and into the rapidly growing manufacturing sector during “Structural Transformation 1.0.”

1 The data do not include the 15 million unpaid workers and the 24 million employers earning profits.
The boom, however, was interrupted by the Asian financial crisis. Foreign direct investment slowed and manufacturing stalled. Post-crisis, Indonesia entered a “hollowing-out” period, when manufacturing did not resume and a commodity boom fueled the country. Since commodities do not create many jobs, “Structural Transformation 2.0” was in fact a movement out of agriculture and into low-value service jobs. Although Indonesia maintained 5 percent economic growth in this period and continued to reduce poverty, movement toward middle-class jobs stalled. A decade of potential job improvements was lost.

At the close of the commodity boom in 2012, when low-value services were deeply entrenched in the economy, manufacturing began to return, in a kind of “Structural Transformation 3.0.” It was, however, constrained by a range of factors, including a business environment that was less hospitable to foreign investment and trade than that of the 1980s and 1990s. While job creation continued, productivity levels were insufficient to create the middle-class jobs that Indonesians were increasingly aspiring to.

2 Poor Job Quality Exacerbated by the Structure of Firms and Shortcomings in the Labor Force

On average, Indonesian jobs are of low quality. Two-thirds of jobs are in agriculture or low-value services, including (in decreasing order of size) informal retail trade of food and beverages, food stalls, and motorcycle ride-hailing transportation. In 2019, 38.2 percent of all workers were firm owners, while 61.8 percent were employees. Among firm owners, more than half were self-employed. Among employees, almost two-thirds were working without any contract. About three-quarters of Indonesia’s labor market is uncovered or informal. Labor productivity is low, and this is partly reflected in high unit labor costs relative to the East Asian region.

The structure of Indonesia’s firms sector is not conducive to the creation of middle-class jobs. Two-thirds of jobs are in household enterprises, with 45 million owners and 38 million workers, nearly all of whom are informal. Formal firms are slow to create middle-class jobs. The manufacturing sector—the source of incredible potential in the 1980s and 1990s—creates some jobs, but most job creation is in old (more than 30 years) and very large firms. New firms have difficulty growing and bringing in new staff, thus limiting competition and increases in productivity. Job churning is significant although it reflects job instability rather than job upgrading and occurs among existing firms rather than being due to firm entry and exit. Further, foreign firms, who hire more on average than domestic firms and pay higher wages, are less prevalent in Indonesia than in those of its regional competitors that have leveraged foreign direct investment for rapid economic and job growth.

Most of today’s workforce is not equipped to hold a middle-class job. Middle-class jobs tend to be in more-skilled occupations that require strong cognitive, interpersonal,2 and digital skills, as well as knowledge in science, technology, engineering, mathematics, or business

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2 Interpersonal skills are the behaviors people employ in their relationships. Good interpersonal skills are necessary for effective collaboration with others.
administration. However, 57 percent of the labor force has a lower-secondary education (nine years of school) or lower. Standardized tests of adult skills (under the Programme for the International Assessment of Adult Competencies) conducted in 2014–15 ranked Indonesia last among members of the Organization for Economic Co-operation and Development (OECD) and middle-income countries; 3 Indonesia’s best performers scored worse than the average performer in the OECD workforce. 4 Nearly 14 percent of firms interviewed in the Doing Business 2015 survey in Indonesia reported that “workforce education” was a major or severe obstacle to their operations. This compared to 8.4 percent of employers in the Philippines and 2.5 percent in Thailand. The skills shortage is particularly severe among more-skilled types of workers, including managers. The average worker today is aged 40 or above, is a household head, male, and will not return to school. An absence of systematized information about quality training programs hinders upskilling and reskilling. Women and youth face additional barriers to entering and succeeding in the labor market. Job matches are likely not the best—both for the economy as a whole and for workers—due to the limited availability of information on job opportunities, and labor legislation that discourages job turnover.

There are, however, some successes that can be leveraged. A case study of the manufacturing sector finds that more productive firms, exporting firms, and technology-intensive firms pay better than those that are not productive, do not export, and use only simple technologies. More productive firms and foreign firms hire more labor. Importantly, there is no evidence of a trade-off of labor versus productivity. Instead, more productive firms tend to hire more labor. On the worker side, virtual learning is opening up adult-learning programs. The KarirHub database is being further developed to enable it to consolidate information on job vacancies, learning opportunities, and career options. The goal is to facilitate worker mobility and better job matches.

3 Productivity for All and Structural Transformation 3.0 for Some

Indonesia could implement a three-pronged strategy if it is to prevent workers from being trapped in low-productivity jobs.

First, Indonesia could promote productivity growth across the board, not least in sectors with low value added. The most promising route to increasing productivity is enacting competition-enhancing policies that will help firms enter the marketplace and grow, and that will spur innovation. Competition-enhancing policies include those that lower the high cost of trade, increase access to foreign talent currently in shortage, and attract export-oriented, efficiency-seeking foreign direct investment with links to global value chains. Competition-enhancing policies also include those that improve domestic regulations and create a more predictable and level playing field for firms, and those that strengthen institutions that

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3 The middle-income countries surveyed were Czech Republic, Estonia, Slovak Republic, Chile, Indonesia (Jakarta only), Lithuania, Slovenia, and Turkey.
4 In Indonesia, data was only collected in Jakarta. If data were to be collected for the whole country, the score may have been even lower.
promote competition and sound business regulation. Indonesia will also need to make a concerted effort to support productivity growth in household, small, and medium-sized enterprises; they provide a large share of Indonesia’s jobs but many operate at a low level of productivity.

Second, Indonesia could facilitate a more decisive shift in economic activity and workers toward more productive and higher-paying firms, sectors, and jobs. Even if reforms to increase productivity across the board are sector blind, Indonesia could prioritize certain policy reforms in sectors in which middle-class jobs are likely to be created. For example, it could prioritize investment promotion strategies for foreign direct investment attraction and generation in sectors and projects (including infrastructure projects) likely to be a source of middle-class jobs. Tax incentives are often considered in this context, but they are an inferior instrument, especially in Indonesia, which already collects less taxes than most of its peers and as a result has a revenue base that is insufficient to sustainably fund the public services such as infrastructure that could attract high-quality investments. Moreover, if workers are to transition across sectors, firms, and occupations, they also need robust information systems, a strong job-matching mechanism, legislation that does not disincentivize job changes, and support for job movements—including unemployment insurance—so that they may appropriately prepare for, and advance to, these better jobs.

Third, Indonesia could build a workforce that has the necessary skills to take on the new jobs in higher value added and internationally competitive sectors. This will require changes to the education system to better prepare today’s youth for modern jobs. Perhaps more challenging, however, it will also require innovations to upskill the current adult labor force and benefit more from potential technology transfers and spillovers of foreign direct investment from multinationals. Additional support to attract women and youth into the workforce is increasingly necessary as the share of the working-age population begins to shrink.

4 A Propitious Moment

Indonesia has shown that it can take on the challenge of implementing a multifaceted reform agenda for jobs. It is one of only a few countries that has approached the jobs agenda from a holistic perspective, engaged stakeholders across the spectrum, and placed job creation at the center of its legislative program. The accountability structure and implementation monitoring will be critical and, perhaps, even more of a challenge than the preparation of the legislation.

The recent economic disruption caused by the COVID-19 crisis threatens Indonesia’s progress toward more productive, middle-class jobs. The Asian financial crisis had such an effect. However, with careful planning to build back better, the disruption could be an opportunity to systematically and strategically map out a recovery agenda that focuses on productivity and good jobs.
The report has been made possible by a grant from the Australia-financed Partnership for Knowledge-based Poverty Reduction.
1.1 Background and Context

**Indonesia has been successful in sustaining growth and poverty reduction, but it still has a way to go to realize its middle-class aspirations.** Over the past half century, Indonesia has seen strong economic growth and a substantial decrease in extreme poverty, enabling it to achieve upper-middle-income status in 2020. 2 In 1967, Indonesia’s GDP was just US$657 per person, making it one of the poorest countries in the world. 3 Over the next 50 years to 2016, with growth averaging 5.6 percent annually, GDP per capita grew sixfold to nearly US$4,000 and extreme poverty 4 fell to 7 percent. However, despite the massive reduction in poverty, 35 percent of Indonesians remained poor or vulnerable to poverty and a further 45 percent of the population—115 million people—while free from poverty and vulnerability, had not yet achieved the economic security and lifestyle of the middle class.

**Jobs have contributed to both growth and poverty reduction.** Indonesia has made significant progress in job creation, formalization, and diversification (see Box 1.1 for the definition of “jobs” used in this report). In 2018, the employment rate reached a two-decade record high, and the unemployment rate continued to fall. Approximately half of Indonesia’s workers had a job that paid a wage or salary in 2018, compared to 2001 when only 36 percent did. The other half of workers are self-employed, employers, or unpaid workers. The diversification of jobs out of agriculture and into other sectors has increased productivity and wages.

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2 Indonesia became an upper-middle-income country in July 2020 (see Office of Assistant to Deputy Cabinet Secretary for State Documents and Translation 2020). However, due to the pandemic and a subsequent decline in GDP and GNI per capita, in February 2021 the government projected that Indonesia would fall into lower-middle-income status (see Xinhua 2021).
3 World Bank 2019
4 Based on an international poverty line of US$1.90 per day.
5 World Bank 2019
Despite these encouraging signs, Indonesia is not creating the "middle-class jobs" needed to fuel a middle-class country. For Indonesia to realize its middle-class aspirations, it needs the jobs to get it there. Fundamentally, a middle-class job is one that furnishes a worker with sufficient earnings for them to provide a middle-class standard of living for their family. The job can take many different forms: for example, a full-time employee who works a standard 40-hour workweek, collects social benefits, and earns wages commensurate with middle-class consumption patterns; a self-employed individual assisted by family members in running a successful microbusiness and who earns at least a middle-class income, or a successful gig economy worker who earns at or above the middle-class income cutoff. A middle-class job may be in the formal sector (jobs and firms enrolled in government registries) or the informal sector; it may be located in an urban or rural area; it may be in a large business or a microenterprise; and it may be situated in any industrial sector. The main criterion is that it provides a middle-class standard of living.

However, the quality of jobs in Indonesia is worryingly low. Half of all jobs created in the past two decades are in the lowest wage and productivity sectors: wholesale and retail trade, accommodation, food and beverages, and other services. Indonesia's prospects of creating jobs with high levels of productivity are dim. In 2016, 85 percent of nonagricultural enterprises were microenterprises with no legal status and with little prospect of growing. Without significant policy reform, this is unlikely to change.

The highest level of government stresses the importance of an agenda for creating middle-class jobs in Indonesia and, to this end, has paid unprecedented attention to policy reform. In his 2019 inaugural speech, President Widodo identified jobs as a key input to the achievement of Indonesia's middle-class ambitions. Specifically, the president spoke of the need to develop a “workforce that is hardworking, dynamic, skilled . . .” and to transform the country economically to create a “a competitive and modern manufacturing and service-based economy that has high added value for the prosperity of the nation . . . for all Indonesian people.” He defined specific actions, committing the government to passing laws to unleash job creation across a wide range of sectors. This culminated in the Omnibus Law for Job Creation (see Box 6.1 and Box 6.2).

While policy making is rapidly advancing, the empirical foundations for policy development remain incomplete. Indonesia is data rich and is home to a large intellectual community that is exploring the many facets of job creation. However, jobs are, by nature, a multisectoral challenge and levers in one sector may have complementary or negative effects on other sectors. Thus, effective and efficient policy to shift Indonesia away from a low-quality jobs equilibrium and toward a middle-class jobs equilibrium must be built on a multisectoral foundation that identifies the commonalities and makes conscious choices about trade-offs.

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6 Alatas and Wihardja. Forthcoming
Box 1.1 Definition of a Middle-Class Job

For the purposes of this report, a job is defined as any income-earning activity that is not illegal. Thus, a job may be as simple as the work a full-time employee carries out in a factory for a salary, or as complex as a portfolio of income-earning activities carried out by a rural household in a variety of sectors at different times of the year.

A middle-class job is defined as a job that pays a level of income and gives a certain level of job satisfaction, benefits, and security commensurate with the expectations of a middle-class population. A middle-class job may be a wage job where a firm remunerates a worker in cash (wages or salary of at least the value of the middle-class consumption basket) and/or in kind (for example, payments for publicly provided social benefits, social insurance, paid leave) in line with a legally binding employment contract. A job may also be self-employment, with the worker earning sufficient profit to enjoy an income and purchase social benefits commensurate with a middle-class life.

To facilitate the empirical analysis, this report uses a simple definition of a middle-class job that can be quantified using data from the National Labor Force Survey (Survei Angkatan Kerja Nasional; Sakernas). Namely, the report defines a middle-class job as one paying at or above a middle-class income, equivalent to Rp3,752,000 monthly (at 2018 prices). This definition necessarily limits our analysis of middle-class jobs to 68.6 percent of all jobs. The Sakernas does not include information on profits earned by employers with workers and it does not impute wages of unpaid workers (whose remuneration likely comes from pooled household income). Indonesia's Economic Census 2016 does not include job-specific information. Thus, while our analysis of jobs as a whole covers the universe of jobs in Indonesia—approximately 124 million in 2018—our analysis of middle-class jobs covers the 85 million jobs worked by paid employees and the self-employed.

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a Following Brummund, Mann, and Rodriguez-Castelan (2016).

b Following World Bank (2019), a member of the middle class is defined as having less than 10 percent probability of transitioning into poverty (measured by the poverty line) and vulnerability (measured by the value of household consumption above the poverty line and where the household has a 10 percent chance or more of falling below the poverty line). The threshold for middle-class consumption is approximately 3.5 times the poverty line per capita. Since some household members do not earn income, a middle-class wage needs to be sufficient to lift the whole household above the middle-class consumption line. Thus, assuming one full-time adult worker and one part-time adult worker (since only half of Indonesian women work) in the household and two dependent nonworkers, the middle-class earnings would be equivalent to (3.5*poverty line*4)/1.5, or Rp3,752,000 per month in 2018. This is a flat amount applied to all income earners. This assumption does not allow for variation based on household size or composition since there is no information about household characteristics of workers in Sakernas. This report uses the national poverty line with a share of middle-class jobs out of total income-earning employment of 15.4 percent in 2019. If the provincial, urban/rural poverty line is used, this share is 14 percent. From 2001 to 2020, the shares of middle-class jobs calculated with the national poverty line and the provincial, urban/rural poverty line track each other closely.

c The Sakernas does not include information on social insurance and benefits, or contract status enjoyed by the self-employed (23.6 million), casual workers (12.2 million), employers (23.8 million), or the unpaid (15 million). In total, these are equivalent to two-thirds of all jobs. If variables for wages, social insurance and benefits, and contract status were included in the definition of middle class, all these workers would be excluded from the sample because the data are missing. Instead, the detail on social insurance, social benefits, and contract status was sacrificed in order to retain in the sample the self-employed and casual workers.
1.2 Report Objective, Methodology, and Scope

*Pathways to Middle-Class Jobs in Indonesia* consolidates the existing, multisectoral empirical research to provide an evidence-based narrative about the current jobs situation and the related policy framework that is necessary to spur the creation of middle-class jobs and a middle-class Indonesia. This report builds on, and contributes to, several ongoing debates. It was in preparation when the government was reviewing and debating a range of laws related to job creation and job quality, and followed the Indonesia Development Forum 2019, where the ideas underlying this report were first tested. It was first being prepared as the Jokowi administration had just begun its second term.

This report presents the challenge of middle-class jobs from three dimensions: structural transformation, firms, and workers. The authors intend to give a broad overview of the challenge, identify key policy interventions, and map out a longer-term agenda for analysis that can inform future policy. The majority of the work is drawn from existing research carried out by Indonesia's intellectual community, the World Bank, and other development partners. The report is organized into six chapters, including this Introduction, with each chapter focusing on a specific message.

Chapter 2 posits that Indonesia’s challenge has been the disproportionate creation of low-quality jobs. The chapter has two parts. The first demonstrates how jobs, and particular kinds of jobs, are a key to middle-class status since they are the primary mechanism for poverty reduction and middle-class expansion. The second provides a static picture of the current jobs situation to demonstrate that it is job quality, not quantity, that is Indonesia’s challenge. It also provides a snapshot of middle-class jobs and identifies factors that may lead to growth in middle-class jobs.

Chapter 3 explores jobs from the macro perspective. It argues that structural transformation is not, under current policies, resulting in the increases in labor productivity that are necessary to increase the number of middle-class jobs. The authors discuss three ideas: first, how structural transformation has moved Indonesia toward middle-class jobs and where it has fallen short; second, the evolution of labor productivity and its sources; third, how manufacturing foreign direct investment (FDI) has affected job creation, productivity, and structural transformation in Indonesia. The authors note that it is critical to attract FDI to sectors likely to be a source of middle-class jobs, to sectors that are critical for the competitiveness of the overall investment climate, for example to utilities or transport services, and to low-productivity sectors, particularly agriculture, in which many Indonesians currently work.

Chapter 4 presents the first comprehensive review of the role that manufacturing firms play in job creation in Indonesia. The chapter is limited to medium-sized and large manufacturing firms since there are insufficient firm-level panel data to analyze smaller manufacturing firms or firms in other sectors, especially services. The chapter starts by identifying the characteristics of the medium-sized and large manufacturing firms that create jobs. It then explores whether there are employment-productivity trade-offs, whereby the more
productive that workers are, the fewer workers are needed. Finally, the chapter turns to the other end of the spectrum of businesses and explores the extent to which microenterprises owned by self-employed individuals or households can be a path to middle-class jobs.

Chapter 5 considers labor supply and what workers can do to align their skills with those required to carry out middle-class jobs. The chapter begins by describing the overall labor force and compares it to the middle-class labor force. It then explores two ways that workers could better prepare for middle-class jobs: acquiring the skills needed in middle-class jobs and improving the efficiency of their job searches. The chapter closes by identifying additional factors, such as gender wage gaps, that impede the access of vulnerable groups to middle-class jobs.

Chapter 6 proposes policy directions, which are organized into three groups that cut across the previous chapters: policies designed to increase productivity across the board; policies designed to transition firms and workers toward middle-class jobs; and policies designed to build a middle-class workforce. The authors draw from the policies discussed in the analytical chapters and reference sectoral studies. These studies are the sources of the policy recommendations and have been adapted to the Indonesia context. The authors also draw from sector-specific dialogue with academics, policy experts, and policy makers.

The report is accompanied by an Overview, which gives an overall picture of the job situation in Indonesia and summarizes key policy recommendations. The Overview explains why better jobs are necessary to build a middle-class Indonesia, summarizes the evidence surrounding barriers to the creation of middle-class jobs, and presents in detail a multisectoral and coherent agenda for reforms to jobs policies.

The report omits several issues. First, agricultural jobs are not explored in detail; they are presented in a 2020 study. Second, the report is a detailed analysis of the current labor market, but does not explore how megatrends may affect future jobs. Third, the report does not go into detail on labor legislation, but instead focuses on issues and policies that are more immediate to the challenge of creating middle-class jobs. Finally, although the report was completed during the COVID-19 crisis, it does not present a full treatment of the impact of the pandemic on middle-class jobs in Indonesia. Instead, it references the pandemic where appropriate.
Box 1.2 Methodology, Definition, and Data

The report is a combination of empirical evidence and advice from policy experts. The technical analysis draws from existing published and unpublished papers and complements them with new data work, which is based on the following data sets (see Annex 1.1 for descriptions of the first three instruments):

- National Labor Force Survey (Survei Angkatan Kerja Nasional; Sakernas), 2001–August 2019
- Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang; Manufacturing Survey), 1990–2015
- Economic Census, 2006 and 2016
- National Socioeconomic Survey (Survei Sosial Ekonomi Nasional; Susenas), 2001–March 2018

The analysis and discussion examine the jobs picture from various perspectives. In short:

- **A middle-class job** is any job that provided an income equal to or greater than Rp3,752,000 per month in 2018 (adjusted to the corresponding poverty line for other years). The concept is fully defined in Box 1.1.

- **Job type** defines the employer-employee relationship. Five job types are defined: self-employed, employer, casual worker, employee, and unpaid. The term “income earner” refers to paid employees and the self-employed.

- **Sector** is a categorization of industrial activity. It may apply to the firm or the worker. The authors use 9- and 17-sector classifications, as defined in Annex Table 1.2.

- **Occupation** is a categorization of job titles, based on the Indonesian standard classifications found in the Indonesia Standard Job Title Classificationa (Klasifikasi Baku Jenis Indonesia; KBJI). The highest level of categorization (containing the fewest categories, categorized by one-digit KBJI) includes nine occupations, as defined in Annex I: Annex Table 1.3. Occupational classification is based on the KBJI 2002 (ISCO 88)b

- **Institution** concerns the type of institution in which a person works. There are seven types of institution: government, international, nonprofit, profit (including private, state-owned, and local government-owned firms), cooperative, individual/household enterprises (HHEs), and household. Data on institution type has been collected since Sakernas 2016.

- **Formality** concerns whether a firm is legally registered with the state or a worker is covered by labor legislation. The definitions follow the International Conference of Labour Statisticians (ICLS)-17 and are given in full in Annex 1. In some analysis, the authors use a simpler matrix of occupation and job status as a measure of formality. This latter definition of formality is the approach taken by the National Statistical Office (Badan Pusat Statistik; BPS), and the authors highlight instances in the report when they too adopt it.

The policy analysis was developed by a team of Indonesian experts, and the work was also informed by discussions with sectoral colleagues and global experts. The analysis relies heavily on policy directions detailed in reports that deeply explore sector-specific constraints on the issues relevant to Indonesia’s challenge of creating middle-class jobs.

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a | BPS 2002
b | Eurofound 2010
Annex 1 Data Sources and Definitions

Data Sources

The original data work in the study is based around three principal surveys.

**The National Labor Force Survey (Survei Angkatan Kerja Nasional; Sakernas).** Sakernas is conducted annually by the National Statistical Agency (Badan Pusat Statistik; BPS). Data is collected from individuals on a limited set of demographic, education, and economic indicators. This is the primary tool the government uses to monitor labor market activity.

The survey has changed over time, limiting cross-year comparisons. While the most basic indicators are available and comparable for the period 2001–18, a fuller set of variables is available and comparable for the period 2007–18. There are periodic modifications to the survey, which have enriched the data used in this report.

**The Economic Census.** The Economic Census is conducted every 10 years by the BPS. The aim of this census is to identify the Indonesian population and update the directory of firms, mapping the distribution. The BPS collects information about firms, such as profile, production costs, capital, and income structure, their prospects and the obstacles they face, and captures nonfarm micro, small, medium, and large enterprises. In 2016, 26,711,001 firms falling into 15 sectors were interviewed; of those, 98.3 percent were classified as micro or small enterprises.8

**The Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang; Manufacturing Survey).** Each year, the BPS conducts the Manufacturing Survey, which covers manufacturing establishments or plants with at least 20 workers. The survey is conducted at the establishment or plant level, rather than at firm level. Estimates of the incidence of multiplant firms indicate that only around 5–7 percent of plants are part of a larger firm.9 Hence, treating a plant as a firm in the analysis seems reasonable. This report uses data from 1990 to 2015 (the latest available). The number of plants in the survey increased from 16,494 to 26,322 between 1990 and 2015. During the firm census year (2006), the number of plants covered in the Manufacturing Survey went up.

Type of Job

Unless otherwise specified, labor force participation categories in this report are based on the primary economic activity performed by the respondent in the seven days prior to the survey, as defined in the Sakernas Enumerator’s Manual.

**Employee:** An employee works permanently for another person or institution, office, or company and receives wages or a salary in the form of money or goods.

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8 BPS 2016
9 Asian Development Bank 2019
**Casual worker**: A casual worker works for another person, employer, or institution in a nonpermanent capacity (and may have multiple employers in any month). A casual worker receives remuneration in the form of money or goods, paid daily or by piece rate. A casual worker may be a farm worker or a nonfarm worker.

**Unpaid family worker**: An unpaid family worker works for a person, institution, office, or company (they may or may not be a member of the same household) and does not receive a wage or salary, whether in cash or in kind.

**Self-employed**: An individual who is self-employed bears all the economic risk of their job, including not returning the cost of production that has been incurred, and is not assisted by paid or unpaid workers.

**Employer**: An employer is an individual who works at their own risk and is assisted by permanent, nonpermanent, family, or unpaid worker(s).

### Sectors of Employment

The Sakernas provides industry codes derived from the Indonesian Industrial Classification System (Klasifikasi Baku Lapangan Usaha; KBLI) twice a year. The KBLI builds on the International Standard Industrial Classification system established by the United Nations. The industry codes reported in the Sakernas are not consistent across years. Some years of Sakernas present very aggregated sector codes (one-digit codes for 9 or even 17 sectors), while others present great detail (five-digit codes for each occupation). Annex Table 1.1 provides the levels of detail and source code book for each corresponding year of the Sakernas. Annex Table 1.2 provides the classification of one-digit sectors based on the 9- or 17-sector groupings.

### Annex Table 1.1 Industry Codes in Sakernas

<table>
<thead>
<tr>
<th>Period</th>
<th>KBLI/KLUI</th>
<th>Number of digits</th>
<th>Number of sectors</th>
<th>Based on</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001–06</td>
<td>KBLI 2000</td>
<td>3</td>
<td>9</td>
<td>ISIC Revision 3</td>
</tr>
<tr>
<td>2011–15</td>
<td>KBLI 2009</td>
<td>2</td>
<td>9</td>
<td>ISIC Revision 4</td>
</tr>
<tr>
<td>2016–17</td>
<td>KBLI 2015</td>
<td>1</td>
<td>17</td>
<td>KBLI 2009</td>
</tr>
<tr>
<td>2018</td>
<td>KBLI 2015</td>
<td>5</td>
<td>17</td>
<td>KBLI 2009</td>
</tr>
<tr>
<td>2019</td>
<td>KBLI 2015</td>
<td>1</td>
<td>17</td>
<td>KBLI 2009</td>
</tr>
</tbody>
</table>

**Sources**: Sakernas 2001–19; World Bank staff calculations

**Note**: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). The KBLI is the Indonesian Industrial Classification System (Klasifikasi Baku Lapangan Usaha). The KLUI is the Indonesia Business Classification (Klasifikasi Lapangan Usaha Indonesia). The ISIC is the International Standard Industrial Classification. The higher the number of digits, the greater the level of disaggregation.
Annex Table 1.2 Conversion Table 17-Sector to 9-Sector

<table>
<thead>
<tr>
<th>17-sector</th>
<th>9-sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>Agriculture, forestry, livestock, and fishing</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>Mining and quarrying</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Electricity and gas supply</td>
<td>Electricity, gas, and water supply</td>
</tr>
<tr>
<td>Water supply, sewerage, and waste management and</td>
<td></td>
</tr>
<tr>
<td>remediation</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>Construction</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles</td>
<td>Wholesale and retail trade, restaurants and hotels</td>
</tr>
<tr>
<td>and motorcycles</td>
<td></td>
</tr>
<tr>
<td>Accommodation and services activities</td>
<td></td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>Transportation, storage and communications</td>
</tr>
<tr>
<td>Information and communication</td>
<td></td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>Finance, insurance, real estate and business services</td>
</tr>
<tr>
<td>Real estate</td>
<td></td>
</tr>
<tr>
<td>Business activities</td>
<td></td>
</tr>
<tr>
<td>Public administration and defense; compulsory</td>
<td>Community, social and personal services</td>
</tr>
<tr>
<td>social security</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Human health services and social work activities</td>
<td></td>
</tr>
<tr>
<td>Other service activities</td>
<td></td>
</tr>
</tbody>
</table>

Sources: World Bank staff calculations

Occupation Categories

The Sakernas provides the occupational classification codes used in each survey. The classifications were developed by the BPS and are found in the Standard Classification of Occupational Types (Klasifikasi Baku Jenis Pekerjaan; KBJI), formerly known as the Indonesian Classification of Occupations (Klasifikasi Jabatan Indonesia; KJI). The occupational codes build on the International Standard Classification for Occupations. The one-digit occupations are as follows:

- **Agriculture, forestry, livestock, and fisheries**: This category includes subsistence farmers with crops and/or livestock, as well as market gardeners, and other crop growers.

- **Elementary occupations**: These are usually unskilled occupations in agriculture, manufacturing, and the service sector. In Indonesia, these occupations typically include manual labor in agriculture, construction, and transport.

- **Machine operators**: This category includes plant and machine operators and assemblers,

---

11 The more digits in the occupational code, the more disaggregated the data. Hence, one-digit codes are the most aggregated form of occupational classification.
and drivers. Typical occupations are drivers of motorcycle taxis and other vehicles including heavy trucks, and operators of mobile plants and machines.

**Craft and related trades:** This category includes workers who produce foodstuffs, textiles, and other articles by applying their specific skills and knowledge. They typically work with their hands or with hand tools. Common occupations in this category are workers constructing the frames of buildings, food processing workers, wood treaters, cabinet workers, and those in related trades.

**Services and sales:** This category includes personal services workers, sales workers, and personal care and protective services workers. Common occupations in this category are shop salespersons, street and market salespersons, waiters and bartenders, protective service workers, street food sellers, police officers, hairdressers, and beauticians.

**Clerical:** This category includes general and keyboard clerks, customer services clerks, and numerical and material recording clerks, among others. Common clerical occupations include general office clerks, tellers, and client information workers.

**Managers, professionals, and technicians:** Common occupations in this category include schoolteachers, legislators, finance professionals, and managers in various sectors.

The KJI/KBJI classifications change over time, as presented in Annex Table 1.3.

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**Annex Table 1.3 Occupational Codes Used in the Sakernas**

<table>
<thead>
<tr>
<th>Sakernas years</th>
<th>KJI/KBJI</th>
<th>Number of digits</th>
<th>Based on</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001–06</td>
<td>KJI 1982</td>
<td>3</td>
<td>ISCO 1968</td>
</tr>
<tr>
<td>2016–19</td>
<td>KBJI 2014</td>
<td>1</td>
<td>ISCO 2008</td>
</tr>
</tbody>
</table>

**Sources:** Sakernas 2001–19; World Bank staff calculations

**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). The KJI is the Indonesian Classification of Occupations (Klasifikasi Jabatan Indonesia). The KJI became the KBJI, the Standard Classification of Occupational Types (Klasifikasi Baku Jenis Pekerjaan). The ISCO is the International Standard Classification of Occupations.
Formality/Informality

Whether a job or worker is formal or informal is established by the BPS in a cross-tabulation between job status and occupation (see Annex Table 1.4).

Annex Table 1.4 Cross-Tabulation between Job Status and Occupation

<table>
<thead>
<tr>
<th>Status</th>
<th>Professional, technical, and related workers</th>
<th>Administrative and managerial workers</th>
<th>Clerical and related workers</th>
<th>Sales workers</th>
<th>Services workers</th>
<th>Agriculture and forestry workers, tenders of livestock, fishers</th>
<th>Production, transport equipment operators, and laborers</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-employed</td>
<td>Formal</td>
<td>Formal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td></td>
</tr>
<tr>
<td>Employer assisted temporary/unpaid worker(s)</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Informal</td>
<td>Formal</td>
<td>Informal</td>
<td></td>
</tr>
<tr>
<td>Employer assisted by permanent worker(s)</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td>Formal</td>
<td></td>
</tr>
<tr>
<td>Casual worker in agriculture sector</td>
<td>Formal</td>
<td>Formal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td></td>
</tr>
<tr>
<td>Casual worker in nonagriculture sector</td>
<td>Formal</td>
<td>Formal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td></td>
</tr>
<tr>
<td>Unpaid family worker</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td>Informal</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Sakernas 2018 Enumerator’s Manual

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). The KJI is the Indonesian Classification of Occupations (Klasifikasi Jabatan Indonesia). The ISCO is the International Standard Classification of Occupations.

Some sections of this report use the new definitions of formal and informal proposed by the International Labour Organization (ILO) based on the International Conference of Labor Statisticians-17, which is constructed from variables presented in the Sakernas as of February 2016 or later. The new definitions are based on a combination of job status, type of accounts kept, social benefits, and type of institution.

A formal unit is defined as:

- government, an international organization, a nonprofit organization, a profit organization, or a cooperative
  OR
- an individual or household enterprise (HHE), any other unit type not mentioned previously, or the survey respondent does not know, and has complete accounts.

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12 This approach was presented by the BPS at a workshop on September 25, 2019.
An informal unit is defined as:

- an individual or HHE, any other unit type, or the survey respondent does not know, and does not have complete accounts
  OR
- a household unit.

A formal job or worker is defined as:

- a self-employed individual, or an employer assisted by temporary, unpaid, or permanent workers in a formal production unit
  OR
- an employee or casual worker who receives at least one social benefit and paid leave
  OR
- an employee or casual worker who receives neither social benefits nor paid leave but has a permanent contract.

An informal job or worker is defined as:

- a self-employed individual, or an employer assisted by temporary, unpaid, or permanent workers in an informal unit or household production unit
  OR
- an unpaid/family worker
  OR
- an employee or casual worker who does not receive social benefits and does not have a permanent contract
  OR
- an employee or casual worker who receives at least one social benefit but does not receive paid leave and does not have a permanent contract.
References


Chapter 2

Jobs as a Catalyst for Economic Growth and a Middle-Class Society
2.1 Overview of Macroeconomic Trends

Indonesia is not a story of jobless growth. From 1966 to 1996, Indonesia’s economic growth averaged 7.3 percent annually. It then contracted by 13.4 percent in 1998 and, from 2000 onward, plateaued at a “new normal” of an average of 5.1 percent annually.¹ Since close to the end of the commodity boom, growth has followed a downward trend, from around 6.2 percent in 2011 to around 5.2 percent by 2018 (Annex Figure 2.1).² Despite the growth slowdown, Indonesia’s job creation remained robust and significant progress has been made. Between 1999 and 2018, an average of 1.8 million additional jobs were created every year. The employment rate reached a two-decade record high in 2018, while the unemployment rate continued to fall (Annex Figure 2.2).

However, the growth slowdown in the manufacturing sector since the Asian financial crisis in 1997 and 1998 also slowed the creation of “good” jobs. Growth in the manufacturing sector slowed from an average 10.9 percent during the 1990–96 period to around 4.6 percent during 2000–10 and 4.7 percent during 2010–18. Job opportunities in the sector were cut just as a flood of people from rural areas were migrating to towns and cities to find better-paying jobs. Between 2000 and 2010, the compound annual growth rate (CAGR) of employment in manufacturing “hollowed out” to an annual 1.73 percent, compared to 5.96 percent between 1990 and 1996, and 3.30 percent between 2011 and 2017.

¹ Hill and Negara 2019, Chapter 1
² Asian Development Bank 2019, Chapter 2
Instead, job growth in the post–Asian financial crisis period came through the tertiarization of the economy and from low-value services, slowing the creation of middle-class jobs. By 2018, only one in five (the figure is, however, growing) Indonesians had the economic security to join the middle class, while the share of aspiring middle class—that is, Indonesians who have escaped poverty and vulnerability but lack the economic security to join the middle class—has hovered at around half of the population for the past two decades.3, 4 While there were around 59 million middle-class Indonesians in 2018, there were still 124 million who had escaped poverty, but did not have the economic security to join the middle class. Contentiously, the lack of new middle-class jobs creates a backlog of Indonesians aspiring to move up to the middle class but who are unable to do so.

**Low wages reflect the poor quality of jobs in Indonesia.** Most jobs created between 2008 and 2018 have been in low-wage sectors, where the median nominal wage for income earners5 is far below the minimum wage necessary to join the middle class (around Rp3.7 million per month) (Figure 2.1). Almost half of jobs (45.8 percent) created since 2008 have accrued to low-value, low-wage services, namely wholesale and retail trade, accommodation, food and beverages, and other services. The low wages reflect the poor quality of jobs in Indonesia. That said, low-paid agricultural jobs have contracted substantially over the same period.

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3 World Bank 2019

4 The poor are defined as those who live below the poverty line. The vulnerable are defined as those who have more than 10 percent probability of falling into poverty (and a monthly household consumption around 1–1.5 times the poverty line). Members of the aspiring middle class are defined as those who have more than 10 percent probability of falling into poverty and vulnerability (and a monthly household consumption around 1.5–3.5 times the poverty line). Members of the middle class are defined as those who have less than 10 percent probability of falling into poverty and vulnerability (with a monthly household consumption around 3.5–17 times the poverty line). Members of the upper class are defined as those whose consumption is more than 17 times the poverty line.

5 Income earners include the self-employed, wage employees, and casual workers. Income earners excludes employers and unpaid family workers.
In this chapter, we argue that the shift to low-value jobs has resulted in less economic growth, greater poverty, and greater inequality than would have occurred had the structural transformation toward good jobs not been interrupted. First, the report discusses how jobs are a key to middle-class status since they are the primary mechanism for poverty reduction and for expansion of the middle class. Second, the report explores the overall job situation to demonstrate that it is job quality, not quantity, that is Indonesia’s challenge. The report also looks at the structure of middle-class jobs overall. Third, the report analyzes drivers of earnings increases in Indonesia over the past two decades.

### 2.2 Why Jobs?

Indonesia now has a poverty rate in the single digits and is aspiring to become a high-income country by 2045; jobs, especially middle-class jobs, are becoming ever more important. In order to better understand the contribution of labor income (vis-à-vis nonlabor income) to poverty reduction, the report explores the contribution of different economic sectors and types of employment to the reduction of the share of jobs carried out by the poor and those vulnerable to poverty (poor- and vulnerable-class jobs), as well as the expansion of the share of middle-class jobs in Indonesia.

#### 2.2.1 Labor income is the main driver of poverty reduction

Labor income is becoming a more important contributor to poverty reduction as Indonesia transitions to higher income levels.6 Between 2000 and 2014, while nonlabor income (including income from cash-transfer programs and other forms of social assistance) was the key contributor to poverty reduction for the extreme poor (extreme poverty means an income below US$1.90 a day, which is also the poverty line for low-income countries), labor income began to take over as the key contributor to poverty reduction at a poverty line of around US$3.40 a day (slightly above the poverty line for low-middle-income countries).7 This highlights that the creation of good-quality jobs, alongside the provision of social assistance, should be a principal policy tool as Indonesia transitions out of the low-income classification (US$1.90 a day poverty line) and away from its status as a lower-middle-income country (US$3.20 a day poverty line) and moves toward becoming an upper-middle-income country (US$5.50 a day poverty line) and a high-income country (US$21.70 a day poverty line). Indonesia hopes to achieve this latter goal by 2045.

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6 Following Azevedo et al. (2013), the authors use the Shapley decomposition analysis. A series of path-dependent counterfactual simulations—changing one component at a time and keeping the others constant—are generated to estimate the average contribution of each component to poverty reduction. The components considered are labor income, nonlabor income, the share of adults in the household, and the consumption-to-income ratio.

7 The time period 2000-14 was selected based on the availability of data in the Indonesian Family Life Survey. The authors also ran the analysis for the two subperiods 2000-07 and 2007-14. See Annex 2.2 on the Shapley decomposition results for the subperiod analysis.
2.2.2 Certain types of jobs help reduce poverty and vulnerability

If Indonesia is to expand its middle-class population, better-quality jobs—not just any jobs—are needed. This report examines which economic sectors, types of employment, and level of formality help people out of poverty and vulnerability. The report uses the Shapley decomposition methodology and income data for income earners from the National Labor Force Survey (Survei Angkatan Kerja Nasional; Sakernas). Table 2.1 shows how different sectors, types of employment, and formality each contributed to helping Indonesians escape poverty and vulnerability and enter middle-class jobs. The last column shows the difference in the contributions: negative signs show jobs that can lift Indonesians out of poverty and vulnerability, but are insufficient to give them a middle-class level of income, while positive signs show the jobs that can bring Indonesians into the middle class.

Certain sectors and job types are particularly effective at moving workers out of poverty. Being a wage employee in industry or services or being a formal sector employee contributed to almost half of the decline in poverty and vulnerability (Annex Figure 2.5–Annex Figure 2.7). The sectors that were most conducive to lifting people out of poverty were low-value services (wholesale and retail trade, restaurants and hotels), which contributed about one-quarter of the decline in the share of poor- and vulnerable-class jobs, followed by manufacturing (19 percent), other industries (15 percent from construction), high-value services (15 percent), and agriculture, forestry, livestock, and fisheries (13 percent). Half of the decline in the share of poor- and vulnerable-class jobs between 2011 and 2018 was

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Figure 2.2 Labor Income Starts to Take Over as the Key Contributor to Poverty Reduction at Around US$3.40 a Day Poverty Line

Labor and nonlabor income contribution to poverty reduction, 2000–14

Sources: Indonesian Family Life Survey 2000 and 2014; World Bank staff calculations

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A decline in the share of poor- and vulnerable-class jobs is used as a proxy for the decline in poor-quality jobs. The authors use the period immediately following the commodity boom for the analysis.
due to wage employment (Annex Figure 2.6). Self-employment and casual employees each contributed an additional quarter. Formal employment contributed 57 percent to the decline in the share of poor- and vulnerable-class jobs. This was predominantly driven by industry and the service sector (Annex Figure 2.7).

Taking these together, the biggest contribution came from wage employment in the service sector, followed by wage employment in industry. Self-employment in the service sector and casual jobs in industry also contributed significantly to lifting Indonesians out of poverty and vulnerability. The agriculture sector, whether wage employment, self-employment, or casual work is contributing less to the decline in poor- and vulnerable-class jobs than are self-employment in industry and casual jobs in services.

### 2.2.3 Other types of jobs contribute to the creation of middle-class jobs

Increases in middle-class jobs are driven by different economic sectors, types of employment, and levels of formality than those responsible for the decline in poor- and vulnerable-class jobs. Using a similar methodology as that used in Section 2.2.2, the authors decomposed the increase in the share of middle-class jobs which, between 2011 and 2018, was 5.7 percentage points.

The manufacturing sector, wage employment, and formal sector employment were the primary contributors to the increase in the share of middle-class jobs between 2011 and 2018 (Annex Figure 2.8–Annex Figure 2.10). The manufacturing sector contributed 27 percent of the increase in the share of middle-class jobs between 2011 and 2018, closely followed by wholesale and retail trade, restaurants and hotels (25 percent). Low-productivity sectors, namely agriculture and community, social, and personal services, contributed almost nothing to the increase in the share of middle-class jobs.

Wage employment contributed two-thirds of the increase in the share of middle-class jobs for income earners. Wage employment in industry (32 percent), services (27 percent), and agriculture (6 percent) made a bigger contribution to the growth of middle-class jobs than to the decline in the share of poor- and vulnerable-class jobs (Annex Figure 2.9). Self-employment in services contributed 11 percent, while self-employment in other economic sectors did not contribute significantly.

Formal employment contributed more significantly to the increase in the share of middle-class jobs than to the decline in the share of poor- and vulnerable-class jobs (Annex Figure 2.10). Formal employment contributed almost three-quarters of the increase in the share of middle-class jobs, with formal employment in industry and services alone contributing almost two-thirds. This is higher than the contribution of formal employment to the decrease in the share of poor- and vulnerable-class jobs (only 57 percent).
Wage employment in industry drives expansion of the middle class, but may not be widely accessible to Indonesians trying to escape poverty or economic vulnerability.

Wage employment in industry (especially manufacturing) and services (especially wholesale and retail trade, restaurants and hotels) contributed the most to the increase in the share of middle-class jobs in Indonesia between 2011 and 2018. Jobs in certain sectors—the agriculture, forestry, livestock, and fisheries sector, especially self-employment in this sector; the community, social and personal services sector; self-employment in the service sector; and self-employment and casual jobs in industry—do not move workers to the middle class (although they do move workers out of poverty and vulnerability).

Table 2.1  Some Jobs Are Successful at Bringing Indonesians out of Poverty and Vulnerability, but Cannot Give Them a Middle-Class Income

<table>
<thead>
<tr>
<th>Income: agriculture, forestry, livestock, and fishing</th>
<th>Contribution to the reduction in poor- and vulnerable-class jobs (%)</th>
<th>Contribution to the expansion in middle-class jobs (%)</th>
<th>Difference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income: mining and quarrying</td>
<td>12.7</td>
<td>0.3</td>
<td>–12.3</td>
</tr>
<tr>
<td>Income: manufacturing</td>
<td>3.5</td>
<td>2.7</td>
<td>–0.8</td>
</tr>
<tr>
<td>Income: electricity, gas, and water supply</td>
<td>18.7</td>
<td>27.1</td>
<td>8.3</td>
</tr>
<tr>
<td>Income: construction</td>
<td>4.9</td>
<td>6.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Income: wholesale and retail trade, restaurants and hotels</td>
<td>15.2</td>
<td>15.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Income: transportation, storage and communications</td>
<td>23.9</td>
<td>24.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Income: finance, insurance, real estate, and business services</td>
<td>8.0</td>
<td>10.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Income: community, social, and personal services</td>
<td>6.3</td>
<td>1.2</td>
<td>–5.1</td>
</tr>
<tr>
<td>Income: agriculture, self-employment</td>
<td>6.7</td>
<td>–1.2</td>
<td>–7.9</td>
</tr>
<tr>
<td>Income: agriculture, employee</td>
<td>6.5</td>
<td>5.5</td>
<td>–0.9</td>
</tr>
<tr>
<td>Income: agriculture, casual worker</td>
<td>6.6</td>
<td>5.6</td>
<td>–1.1</td>
</tr>
<tr>
<td>Income: industry, self-employment</td>
<td>6.6</td>
<td>4.9</td>
<td>–1.7</td>
</tr>
<tr>
<td>Income: industry, employee</td>
<td>20.9</td>
<td>31.8</td>
<td>10.9</td>
</tr>
<tr>
<td>Income: industry, casual worker</td>
<td>11.2</td>
<td>10.6</td>
<td>–0.6</td>
</tr>
<tr>
<td>Income: service, self-employment</td>
<td>13.2</td>
<td>10.9</td>
<td>–2.3</td>
</tr>
<tr>
<td>Income: service, employee</td>
<td>23.8</td>
<td>26.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Income: service, casual worker</td>
<td>4.5</td>
<td>5.1</td>
<td>0.6</td>
</tr>
</tbody>
</table>
Table 2.1 continued

| Income: agriculture, formal | 8.3 | 7.9 | −0.3 |
| Income: agriculture, informal | 11.5 | 2.0 | −9.4 |
| Income: industry, formal | 22.8 | 34.3 | 11.5 |
| Income: industry, informal | 15.9 | 13.0 | −2.9 |
| Income: service, formal | 26.3 | 30.0 | 3.7 |
| Income: service, informal | 15.2 | 12.6 | −2.6 |

Sources: Sakernas 2011 and 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

2.2.4 Jobs contribute to economic growth

The creation of middle-class jobs for all workers is critical for economic growth. Experiences from other countries show that labor productivity drives economic growth, but economic growth does not always bring good-quality jobs. Hence, policies that are designed to boost economic growth are insufficient to bring good-quality jobs, especially to the bottom 80 percent of the population who are still not economically secure. Instead, labor productivity growth has to be the main driver of Indonesia’s higher economic growth as the population ages. Jobs that command higher salaries and are compatible with the economic security of the middle-class population are also higher productivity jobs and commensurate with economic growth. Policies also need to crowd in Indonesians regardless of age, sex, location, or other factors if middle-class jobs are to go hand in hand with faster growth and a reduction in inequality. Chapter 3 will discuss in detail how jobs contribute to economic growth in Indonesia.

2.3 What Jobs Look Like

2.3.1 Quantity of jobs

There were 124 million jobs in Indonesia in 2018. Around 28.8 percent were in the agricultural sector, 23.2 percent were in industry, and 48.0 percent were in services. This represents a significant shift over three decades, as employment in Indonesia diversified away from agriculture (Figure 2.3).

9 Merotto and Weber 2018
The sectors that created the most jobs over the past 10 years differ depending on the measure used. Approximately 2.1 million jobs were created annually during 2008–18. The largest number of new jobs were in manufacturing, wholesale and retail trade, and vehicle repair. However, the highest percentage-point increases in the share of employment were in manufacturing and low-value services (accommodation, food and beverages, and education activities). The high-value service sector and utilities experienced the highest CAGR in the last decade (see Figure 2.4). This sector includes finance and insurance activities; real estate and business activities; human health and social work activities; and electricity and gas, water supply, sewage, and waste management and remediation. The job-creation prospects of the high-value services are higher compared to those of other sectors, but the sector starts from a very low base (see Annex Table 2.1). If sectors are divided into low-wage, mid-wage and high-wage paying, the high-wage sector experienced the highest CAGR, although the mid-wage sector created the most jobs (see Annex Table 2.2). Meanwhile, the shares of total employment attributable to high-skill and mid-skill white-collar workers have increased (Annex Figure 2.11).

The authors divided the sectors into groups based on median earnings. The low-wage sector has a median monthly wage below Rp2,000,000. It consists of agriculture, forestry, livestock, and fisheries; water supply, sewerage, and waste management and remediation; accommodation and food service activities; wholesale and retail trade; vehicle repair; and other service activities. The mid-wage sector has a median monthly wage below Rp2,500,000 and above Rp2,000,000. It consists of construction; transportation and storage; education activities; and manufacturing. The high-wage sector has a median monthly wage above Rp2,500,000. It consists of financial and insurance activities; public administration, defense, and compulsory social security; real estate activities; information and communications; electricity and gas; business activities; human health and social work activities; and mining and quarrying.
The growth in different type of jobs from 2008 to 2018 reveals a dual nature to the labor market in Indonesia. On one hand, Indonesia has experienced positive growth for nonagriculture casual employment (possibly including gig workers) and self-employment, both of which are associated with vulnerable jobs (less likely to have a formal arrangement, social security, or a voice through a union, and more likely to be low productivity). On the other hand, there has also been positive growth both for employers with permanent workers and for wage employment, both of which are associated with more formal jobs. The wage employee sector had by far the highest CAGR and percentage-point increase in both share of employment and absolute change in job creation (Figure 2.5).
2.3.2 Quality of jobs

Job quality is an elusive concept, since a quality element viewed by one worker as important may be unimportant for another. That said, Indonesia’s jobs are low quality across different elements. This section reviews job quality using a seven-variable job-quality index, occupation type, sector, and formality status.

Most jobs in Indonesia are unstable and do not protect workers (Figure 2.6).11 In 2019, 38.2 percent of all workers were firm owners, while 61.8 percent were employees. Among firm owners, more than half were self-employed. Among employees, almost two-thirds were working without any work contract (wage employee without a written contract, casual worker, or unpaid family worker), while another one-fifth were working under fixed-term (or temporary) contracts. Uncontracted jobs tend to be lower paid and riskier, and do not carry social benefits. However, even contracted wage employees face vulnerability due to low compliance with Indonesia’s rigid worker protection policies. In 2019, only 43.5 percent of wage employees with permanent contracts (10 percent of total wage employees) received full worker protection benefits and payment above the minimum wage (see Annex Table 2.3). Compared to other countries in the region, Indonesia’s share of vulnerable workers (based on the definition of “vulnerable” workers issued by the International Labour Organization as being those in self-employment or unpaid family workers) is relatively high—higher in 2018 than the Philippines, Malaysia, and Singapore, lower than Vietnam, and on par with Thailand (see Annex Figure 2.12).

11 See the Annex to Chapter I for the definition for each employment type.
Figure 2.6 Less Than 10 Percent of Jobs Are Stable and Protect Workers

Distribution of jobs by employment status

Sources: Sakernas 2019; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Between 2007 and 2015, one-third of jobs created were high skill and 22 percent were low skill, while mid-skill jobs (blue- and white-collar combined) amounted to less than 50 percent. Triangulating the evidence for job creation by occupation and sector shows that low-value services absorbed both high-skilled workers (for example, managers) and the low skilled (for example, those working in elementary occupations). Figure 2.7 shows that in terms of occupation, the biggest transformation comes from skilled agricultural and fishery workers (−18 percent) (mid-skill blue-collar occupation) moving into elementary occupations (22 percent) (low-skill occupation) or becoming service and sales workers (27 percent) (mid-skill white-collar occupation). The changes in occupation also affect demand for different types of human skill (for example, analytical, cognitive, interpersonal, manual routine and nonroutine), which will be discussed more in Chapter 5.

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12 Data on occupation by skill level is consistent only for this period of time, that is, 2007–15.
13 See the Annex to Chapter 1 for definitions of each occupation category. Reclassification of one-digit-level occupational employment into four skill categories: high skill: managers, professionals, technicians and associate professionals; mid skill white-collar: clerical support, service and sales workers; mid skill blue-collar: skilled agricultural, forestry and fishery workers, craft and related trade workers, plant and machine operators, and assemblers; low skill: elementary occupations.
Figure 2.7 Occupational Transformation from Skilled Agricultural and Fishery Jobs to Elementary Occupations and Service and Sales Workers

Median of nominal wage 2015, job creation by occupation, 2007–15, share of employment 2015 (bubble size)

Sources: Sakernas 2007 and 2015; World Bank staff calculations

About three-quarters of Indonesia's labor market is informal. Indonesia's formality rate dropped to 25.1 percent under a definition based on the International Conference of Labor Statisticians (ICLS)-17 from 44.3 percent under a simplified definition or 51.5 percent under the official definition. Almost all jobs in agriculture are informal (96.6 percent), while jobs in education, human health services, and social work (which include teachers and doctors working as civil servants), as well as finance and insurance are largely formal (Annex Table 2.4). These informal jobs are largely uncovered by any worker protection regulation or labor policy. In contrast to formal workers, individual-level data (by name and address) on where Indonesia's informal workers work and who they are is largely absent.

Who are Indonesia's informal workers? Informal workers are owners of household enterprises (HHEs), employees, or casual workers without any written work contract working in HHEs, and unpaid family workers working in HHEs (Table 2.2). Three types of workers account for approximately 90 percent of Indonesia's informal workers. Almost half of informal workers (48.5 percent) are owners of individual enterprises or HHEs (see also Box 2.1). They are self-employed or employers working in individual enterprises or HHEs and do not separate their business accounts from the family financial accounting. Another 26 percent are employees and casual workers without a written contract working in HHEs. The final 15.3 percent are unpaid family workers working in HHEs.

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14 See the Annex to Chapter 1 for the revised definition of formality/informality.

15 Consequently, in times of economic crisis, such as that triggered by the COVID-19 pandemic, it is extremely difficult for the government to assist informal workers.
Table 2.2 **Who are Indonesia’s Informal Workers?**

<table>
<thead>
<tr>
<th>Type of workers</th>
<th>Number of workers</th>
<th>Share of total number of informal workers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterprise owners</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household enterprise (HHE) owners (self employed)</td>
<td>24,076,130</td>
<td>25</td>
</tr>
<tr>
<td>HHE owners with temporary workers or unpaid family</td>
<td>18,137,596</td>
<td>19</td>
</tr>
<tr>
<td>workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HHE owners with permanent workers</td>
<td>3,738,569</td>
<td>4</td>
</tr>
<tr>
<td><strong>Employees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In HHEs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage employees</td>
<td>14,159,638</td>
<td>15</td>
</tr>
<tr>
<td>Casual workers</td>
<td>10,464,192</td>
<td>11</td>
</tr>
<tr>
<td>Unpaid Family workers</td>
<td>14,540,420</td>
<td>15</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage employees</td>
<td>7,200,144</td>
<td>8</td>
</tr>
<tr>
<td>Casual workers</td>
<td>1,428,401</td>
<td>2</td>
</tr>
<tr>
<td>Unpaid Family workers</td>
<td>49,849</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total informal workers</strong></td>
<td>94,772,046</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Sakernas 2019; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

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Box 2.1 **What Are Nonfarm Household Enterprises?**

To give a flavor of nonfarm household enterprises (HHEs), the authors used the National Labor Force Survey (Sakernas) 2018 to generate the top 10 five-digit economic sectors in which nonfarm HHEs operate (see Table 2.3 below). Most nonfarm HHEs are low-value food and beverages retailers or operate as motorcycle ride-hailing drivers. Some also operate in tailoring and in motorcycle repair and maintenance.

Table B2.1.1 **Top Ten Five-Digit Sectors for Nonfarm HHEs**

<table>
<thead>
<tr>
<th>Five-digit KBLI code</th>
<th>Sector</th>
<th>Number of HHEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>47112</td>
<td>Retail trade of various items mainly food, beverage or tobacco not in</td>
<td>3,285,594</td>
</tr>
<tr>
<td></td>
<td>supermarkets or minimarket (traditional)</td>
<td></td>
</tr>
<tr>
<td>56103</td>
<td>Food stalls (kedai makanan)</td>
<td>1,167,102</td>
</tr>
<tr>
<td>49424</td>
<td>Motorcycle ride-hailing transportation</td>
<td>1,112,180</td>
</tr>
<tr>
<td>56102</td>
<td>Low-end food stalls (warung makanan)</td>
<td>1,094,288</td>
</tr>
<tr>
<td>56104</td>
<td>Food traders with mobile/nonpermanent premises</td>
<td>839,678</td>
</tr>
<tr>
<td>96999</td>
<td>Other individual service activities</td>
<td>672,702</td>
</tr>
<tr>
<td>14120</td>
<td>Tailoring and manufacture of clothes to order</td>
<td>513,358</td>
</tr>
</tbody>
</table>
The number of gig workers has increased, driven by the rise of technological companies and digital platforms. On average, these workers are more uncovered or informal than other workers (Table 2.3). With the rise of gig workers, the National Statistical Agency (Badan Pusat Statistik; BPS) added questions to Sakernas 2019 to identify “dependent contractors” (equivalent to gig workers). The BPS recorded 2.2 million in 2019. Gig workers are more informal than non-gig workers more generally; 82.5 percent of gig workers are informal versus 74.8 percent of non-gig workers. Around 41 percent of gig workers work in the transportation and storage sectors. The remaining sectors account for much smaller shares. Around 17 percent of gig workers work in wholesale or retail trade, 15 percent in manufacturing, and 12 percent in agriculture, forestry, livestock, or fisheries. Around 71.3 percent of all dependent contractors reside in urban areas. Around 97.2 percent of gig workers identified in Sakernas were also HHE owners (see Figure 2.8).

Table 2.3 Gig Workers Are More Likely Than Average to Be Informal

<table>
<thead>
<tr>
<th>Type</th>
<th>Informal</th>
<th>Formal</th>
<th>Total</th>
<th>Informal (%)</th>
<th>Formal (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependant contractor</td>
<td>1,838,924</td>
<td>389,043</td>
<td>2,227,967</td>
<td>82.54</td>
<td>17.46</td>
</tr>
<tr>
<td>Other</td>
<td>92,933,122</td>
<td>31,354,030</td>
<td>124,287,152</td>
<td>74.77</td>
<td>25.23</td>
</tr>
<tr>
<td>Total</td>
<td>94,772,046</td>
<td>31,743,073</td>
<td>126,515,119</td>
<td>74.91</td>
<td>25.09</td>
</tr>
</tbody>
</table>

Sources: Sakernas 2019; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

---

16 The BPS started to collect information about dependent contractors in Sakernas of August 2018. However, the number of dependent contractors was not published as it was the first time that this information had been collected. The BPS is more confident in the accuracy of the calculation following the 2018 pilot and an increase in the sample size to 300,000 households in Sakernas of August 2019 from 200,000 previously. Consequently, the number of dependent contractors was released in Sakernas of August 2019. Hence, the authors only use information on dependent contractors from Sakernas August 2019.

17 The BPS calls gig workers ‘dependent contractors’ and defines them as follows: A dependent contractor is someone who is bound to an economic unit (whether a business or company, institution, government, or other unit) to produce goods or services that can provide benefits to the economic unit, but they are not laborers or employees of the economic unit. A dependent contractor is also defined as a person who tries to be self-employed or tries to be assisted by a nonpermanent worker, a family worker, or unpaid labor, but does not have full control over their business in areas such as raw materials, capital goods used, price or tariffs for goods, services produced, or market or customer access, these being governed by the binding economic unit.
Most employees, who should enjoy a full range of benefits, hold low-quality jobs.

On a scale of 1 to 7 (1 being the fewest positive characteristics), the average job-quality score is 1.19. This means that Indonesian jobs have slightly more than one positive quality characteristic. Considering the seven dimensions of the job-quality index developed by Brummund, Mann, and Rodriguez-Castelan (2016), the authors found that the most prevalent job-quality characteristic is that the worker only has one single job. Nearly 60 percent of workers have held their job for at least three years and 56 percent have a contract (though only 22.7 percent have a permanent contract). Nearly twice as many jobs offer health insurance (44.7 percent) as retirement benefits (25 percent). However, the most elusive job-quality variable is "middle-class remuneration."

---

**Figure 2.8 Around Half of Informal Workers Were Household Enterprise Owners in 2019**

Workers in informal employment as dependent contractors and as owners of household enterprises (HHEs)

Sources: Sakernas 2019; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

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18 The index devised by Brummund, Mann, and Rodriguez-Castelan (2016) uses the variable “above-poverty-line remuneration.” To align the index and the job-quality discussion with the focus of this report, middle-class jobs, the authors substituted the Brummund, Mann, and Rodriguez-Castelan (2016) variable with “middle-class remuneration.”
Figure 2.9 **Indonesian Jobs Are Low Quality by Many Measures**

*Share of jobs with each characteristic*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single job</td>
<td></td>
</tr>
<tr>
<td>Permanent contract</td>
<td></td>
</tr>
<tr>
<td>Contract</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
</tr>
<tr>
<td>Retirement benefit</td>
<td></td>
</tr>
<tr>
<td>Health insurance</td>
<td></td>
</tr>
<tr>
<td>Middle-class remuneration</td>
<td></td>
</tr>
</tbody>
</table>

*Sources:* Sakernas 2018; World Bank staff calculations

*Note:* By definition, information on social benefits and contract status is only available for wage employees. This analysis is therefore based on wage employee samples only. Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

**Earnings increased from 2008 to 2018,** particularly in the manufacturing sector.

The median real earnings index for income earners grew 5.42 percent annually (Annex Figure 2.13) from 2008 to 2018. The increase in the median real earnings index is 0.67 percentage points higher than annual GDP growth during the same period. The manufacturing sector has the highest compound annual earnings growth (6.4 percent) of all sectors, followed by mining and quarrying (6.1 percent). The utilities sector has the lowest compound annual earnings growth (1.3 percent) (Figure 2.10).

---

19 Wage increases among medium-sized and large manufacturing firms were aligned with labor productivity increases for the period 1990-2015 (see Chapter 4). However, this may not apply for other sectors of the economy.
Figure 2.10 Manufacturing Had the Highest Compound Annual Earnings Growth Rate in 2007–18
Evolution of earnings by sector; index 2007=1

<table>
<thead>
<tr>
<th>Year</th>
<th>Manufacturing</th>
<th>Agriculture, forestry, livestock, and fisheries</th>
<th>Construction</th>
<th>Community, social, and personal services</th>
<th>Mining and quarrying</th>
<th>Electricity, gas, and water supply</th>
<th>Wholesale and retail trade, restaurants, and hotels</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>2008</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>2009</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>2010</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>2011</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>2012</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>2013</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>2014</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>2015</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>2016</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>2017</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>2018</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Sources: Sakernas 2011–18; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Box 2.2 A Transition Interrupted?

The COVID-19 pandemic is expected to continue to have deep impacts on the economy. Indeed, after several years of strong growth, Indonesia’s GDP fell 2.1 percent in 2020, although this was a smaller downturn than in other countries in the East Asia Pacific region, except China and Vietnam. This partly reflects good policy choices, less restrictive containment measures, and the diversified structure of the economy. Although Indonesia’s GDP decline was much smaller than the 13-percent decline of the Asian financial crisis of 1997 and 1998, the COVID-19 crisis is expected to continue to manifest itself through several channels and thus to continue to have deep and widespread negative effects.

First, the crisis triggered by COVID-19 is a broad-based economic crisis. Some industries, such as mining, plantations, tourism, and some labor-intensive manufacturing industries, have been affected by the external shock, with demand drying up. Other industries, such as trade, transport, and hotels and restaurants have been affected by domestic restrictions on movement. Most sectors have been somewhat or severely affected by global and domestic measures to contain the virus. The handful that have not been so affected include those providing certain medical goods and services, e-commerce, and less contact-intensive activities such as finance, education, communications, and telecommunications. Firms across the board are feeling the impacts, and this includes firms operating in sectors in which middle-class jobs are clustered.

Second, sectors in which mostly urban microbusinesses trade, including offline low-end food and beverages and motorcycle ride-hailing transportation, have been severely hit. These enterprises have little inventory or savings,

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a For example, Indonesia is less dependent on the sectors that were hit hardest by the pandemic, including tourism. Indonesia is also less integrated into the global production network compared to its regional peers. See, for example, Ing and Kimura (2017).

b Much of the comparison in this report with the Asian financial crisis is based on an understanding of transmission channels. Quantitative analysis has not yet been carried out.
and limited access to financing. With social distancing measures, many have failed. Providing financial support to these urban businesses is difficult since a large share of the self-employed, of daily-wage workers, digital gig workers, and microenterprise owners operate under the radar. The COVID-19 government assistance programs that are aimed at formal workers and firms have limited effect on these informal workers and enterprises. Consequently, the government introduced COVID-19 assistance programs aimed at informal workers and firms; programs include direct cash transfers for ultra-microenterprises and microenterprises (Banpres Produktif Usaha Mikro) and credit restructuring programs, including for drivers working via ride-hailing apps. While these sectors—self-employment, jobs paying daily wages, digital gig workers, and microenterprises—are not a significant source of middle-class jobs, the COVID-19 crisis may slow the progress of workers holding these roles in moving up to middle-class status. The pandemic has also reduced demand for waged jobs in the formal sector and increased the number of unpaid family and casual jobs.

Third, small and medium enterprises (SMEs), especially young SMEs, continue to be at risk. These firms have lower levels of capital and little access to the financing that could help them through a period of shutdown. Indeed, among medium-sized and large manufacturing firms, it was the smaller firms that disappeared during the Asian financial crisis and never recovered at scale, limiting the dynamism and job-creation potential of young innovators over the past few decades. If SMEs fail in large numbers again, progress to middle-class jobs may also stall. Based on a representative firm-level survey conducted in June and October 2020, smaller firms have indeed been hit harder in terms of average year-on-year change in monthly sales.

Fourth, net job destruction and declining family incomes leave potentially long-lasting impacts, particularly for youth (aged 15–24). Many have had to mix school with work, which has disrupted their learning. Between August 2019 and August 2020, 300,000 jobs were destroyed (in net terms), compared to 2.47 million jobs created (in net terms) between August 2018 and August 2019, and about 2 million jobs created every year on average in the past decade (2008-2018). The pandemic has impacted the 7 million new graduates (including university and high-school graduates)—part of the so-called “Generation COVID-19”—who are ready to enter the labor force. Youth were delayed in entering the labor force; in 2020, about 300,000 fewer youth entered the labor force compared to 2019. Not only has the pandemic caused increased numbers of youth to take on work alongside their schooling, there has also been an increase in youth idleness (those not in employment, education, or training). The increase in employment rates among youth was especially concentrated among those of high-school age (15–18 years old), who are likely to be working as unpaid family workers. This pattern holds even for youth working full-time (at least 20 hours a week): the increase was especially concentrated among those of high-school age. The effects are similar for boys and girls. This may mean interrupted learning (combining schooling with full-time work) for these children of high-school age. Moreover, graduates starting work in 2020 earned less than their older cohort. A somewhat extensive literature finds that entering the labor force during economic downturn comes with several issues: it is harder to find a job and this becomes a vicious circle, partly because people lose skills when they are not working; consequently, it leads to many years of lower wages.

<table>
<thead>
<tr>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>c They are not in government systems such as tax or social security.</td>
</tr>
<tr>
<td>d For example, tax measures or exemptions from making social security payments.</td>
</tr>
<tr>
<td>e World Bank 2020a</td>
</tr>
<tr>
<td>f World Bank 2020b</td>
</tr>
<tr>
<td>g Pradana, Hadiwidjaja, and Posadas 2021</td>
</tr>
<tr>
<td>h Halim, Hambali, and Purnamasari. Forthcoming</td>
</tr>
</tbody>
</table>
### Box 2.2 continued

Job losses and falling household incomes could also affect human capital investment in children.\(^1\)

Fifth, women have been entering the labor force for the first time as “added workers,” meaning that they are taking on (low-quality) jobs to help compensate for the reduced income or job loss experienced by another member of the household.\(^1\) By August 2020, around 5.1 million workers had lost their jobs (both temporarily and permanently) due to COVID-19, while another 24 million (one in five employed workers) had experienced a reduction in working hours (and presumably, income).\(^8\) Previous economic crises have shown that other family members begin to work to compensate for lost income. By August 2020, six months after the pandemic hit Indonesia, the crisis had led to negative net employment impacts for men of all ages, but positive net employment impacts for women, except those in the early childbearing years (19–29 years old). This indicates that women with caring responsibilities may have some constraints on their ability to engage in labor market work. Both men and women with children aged under five were less likely to be employed compared to their counterparts without children aged under five, but the gap is much larger for women.\(^1\) The increase in the employment of women is proportionate to the decrease in the share of women outside of the labor force and to the increase in the share of women working who had no prior job experience. In other words, women entered employment for the first time as added workers. Evidence also suggests that these female added workers took up low-quality jobs. The question now is whether these low-quality jobs could be a stepping-stone that will allow these women to permanently enter the labor force, a longer-term change.

Sixth, with a large number of firms in distress, many laid off workers. Workers and firms will need to go through a massive rematching process. However, Indonesia does not have the labor market information or matching tools to facilitate this. This may cause labor market frictions, delay the process of reemployment, and prolong the recovery in jobs.

By August 2020, the share of middle-class jobs had declined by about 5.2 percentage points compared to August 2019. This trend, if not reversed, threatens the gains Indonesia has made in the last 30 years of structural transformation toward better-quality jobs. However, this crisis may open new opportunities for accelerated transformation in some areas, especially when combined with digital adoption, innovation, and training (upskilling and reskilling) in digitally enabled sectors such as e-commerce.\(^m\)

Looking forward, crisis means both danger and opportunity. The Asian financial crisis stalled Indonesia’s progress toward more-productive, middle-class jobs. The recent economic disruption caused by the COVID-19 crisis could have the same results. But with careful planning to “build back better,” the disruption could provide an opportunity for Indonesia to systematically and strategically map out a recovery agenda that focuses on productivity and good jobs.

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1 World Bank 2020


3 Sakernas August 2020

4 A nationally representative survey shows that mothers are three times more likely to care for children than fathers, with half being in paid work and struggling to find a balance between work and additional caring responsibilities. See SMEKU Research Institute et al. (2021).

m See also World Bank (Forthcoming 2021)
2.3.3 Middle-class jobs

About 15 percent of jobs paid a middle-class income in 2018; this has remained fairly constant over the preceding two decades. Using dynamic poverty lines, among income earners the composition of jobs by income-class status has barely changed since 2001, with middle-class jobs (using only remunerative criteria) barely moving from 17 to 15 percent (Figure 2.11). The share of poor- and vulnerable-class jobs has increased from 42 to 46 percent. The share of income-earning jobs that are commensurate with aspiring middle-class status decreased from 42 percent in 2001 to 39 percent in 2018. This is in line with the fact that the growth in the proportion of the economically secure class in Indonesia was slower than in other middle-income countries in East Asia. Moreover, much of the change in the composition of consumption-based class status in Indonesia might be more significantly driven by nonlabor income (including profits, capital return, and social assistance).

In 2018, the manufacturing sector had the highest number of income earners (in absolute terms) earning wages above the middle-class cutoff. Income earners in the high-value service sectors and in public administration, defense, and compulsory social security are the most likely to earn wages above the middle-class cutoff (Table 2.4 and Annex Table 2.1). In absolute terms, manufacturing (2.21 million), public administration, defense and compulsory social security (1.98 million), and education activities (1.73 million) have the highest number of income earners earning above the middle-class cutoff.

20 In the Shapley decomposition, the authors use real wages with a March 2018 base year and poverty line. In this analysis, the authors use wages in nominal terms and a poverty line for the corresponding year.
21 World Bank 2019
22 World Bank 2019
23 Not controlling for any other factor.
cutoff. Meanwhile, finance and other business activities (including insurance, real estate, and business activities) (36.5 percent), public administration, defense, and compulsory social security (42.18 percent), and information and communications (32.69 percent) have the highest shares of income earners earning wages above the middle-class cutoff.

Table 2.4 The Manufacturing Sector Has the Highest Number of Income Earners (in Absolute Terms) Earning Wages above the Middle-Class Cutoff

Number of workers as income earners, as income earners with income above middle-class cutoff, and their shares out of total income earners

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total income earners (wage employee, self-employed, casual worker)</th>
<th>Total income earners above the middle-class cutoff</th>
<th>Share of total income earners above the middle-class cutoff (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>14,371,642</td>
<td>509,462</td>
<td>3.54</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>1,287,197</td>
<td>375,382</td>
<td>29.16</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14,539,543</td>
<td>2,211,864</td>
<td>15.21</td>
</tr>
<tr>
<td>Electricity and gas</td>
<td>322,754</td>
<td>81,625</td>
<td>25.29</td>
</tr>
<tr>
<td>Water supply, sewerage, and waste management, and remediation</td>
<td>410,302</td>
<td>53,920</td>
<td>13.14</td>
</tr>
<tr>
<td>Construction</td>
<td>7,783,340</td>
<td>574,070</td>
<td>7.38</td>
</tr>
<tr>
<td>Wholesale and retail trade, vehicle repair</td>
<td>14,424,190</td>
<td>1,671,462</td>
<td>11.59</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>5,194,341</td>
<td>791,363</td>
<td>15.24</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>4,403,044</td>
<td>441,671</td>
<td>10.03</td>
</tr>
<tr>
<td>Information and communications</td>
<td>765,874</td>
<td>250,353</td>
<td>32.69</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>1,781,338</td>
<td>770,794</td>
<td>43.27</td>
</tr>
<tr>
<td>Real estate</td>
<td>366,782</td>
<td>111,516</td>
<td>30.40</td>
</tr>
<tr>
<td>Business activities</td>
<td>1,438,853</td>
<td>426,818</td>
<td>29.66</td>
</tr>
<tr>
<td>Public administration, defense, and compulsory social security</td>
<td>4,681,280</td>
<td>1,974,729</td>
<td>42.18</td>
</tr>
<tr>
<td>Education activities</td>
<td>5,956,585</td>
<td>1,730,386</td>
<td>29.05</td>
</tr>
<tr>
<td>Human health and social work activities</td>
<td>1,809,562</td>
<td>484,845</td>
<td>26.79</td>
</tr>
<tr>
<td>Other service activities</td>
<td>5,497,128</td>
<td>334,399</td>
<td>6.08</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>85,033,755</strong></td>
<td><strong>12,794,659</strong></td>
<td><strong>15.05</strong></td>
</tr>
</tbody>
</table>

Sources: Sakernas 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Middle-class jobs in the manufacturing sector as a proportion of total middle-class jobs held by income earners almost doubled between 2008 and 2018. In 2008, two sectors accounted for the largest shares of middle-class jobs: public administration, defense, and compulsory social security accounted for 17 percent of middle-class jobs and education activities 18 percent. In 2008, the share of income earners with middle-class jobs in the manufacturing sector was 9 percent, only half the share of those with middle-class jobs in public administration, defense, and compulsory social security, and education activities. By 2018, the share of middle-class jobs in public administration, defense, and compulsory social security had fallen to 15 percent of total middle-class jobs and in education activities to 14 percent. Over the same period, the manufacturing sector share of middle-class jobs almost doubled to 17 percent. (Figure 2.12)

Figure 2.12 The Share of Middle-Class Jobs in Manufacturing among Income Earners Almost Doubled between 2008 and 2018

Distribution of middle-class jobs by sector

Using a more restrictive definition of middle-class jobs to include worker protection benefits and contract status for wage employees only, only civil servants are more than 10 percent likely to earn above middle-class wages (Table 2.5). A more restrictive definition of a middle-class wage employee is one who earns at least a middle-class income and enjoys worker protection benefits and an indefinite contract. Under this definition, in absolute terms, public administration, defense, and compulsory social security contributed 1.4 million middle-class jobs. Education activities contributed 875,882 middle-class jobs, while the manufacturing sector contributed only 475,111 middle-class jobs. Meanwhile, construction, wholesale and retail trade, vehicle repair, accommodation, and

Sources: Sakernas 2018; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
food and beverages have almost no middle-class jobs under the more restrictive criteria, and even fewer than that of the agriculture, forestry, livestock, and fisheries sector.

### Table 2.5 If Worker Protection Benefits and Contract Types Are Added to the Criteria for a Middle-Class Job, among Wage Employees, Only the Civil Service Is a Source of Middle-Class Jobs

**Distribution of middle-class jobs with benefits for workers and indefinite contracts, wage employees, 2018**

<table>
<thead>
<tr>
<th>Employment sector</th>
<th>Total middle-class jobs providing employee benefits and indefinite contract</th>
<th>Share of middle-class jobs providing benefits and indefinite contract to total employees by sector (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>33,354</td>
<td>1.00</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>47,500</td>
<td>5.59</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>475,111</td>
<td>4.31</td>
</tr>
<tr>
<td>Electricity and gas</td>
<td>27,690</td>
<td>9.23</td>
</tr>
<tr>
<td>Water supply, sewerage, and waste management and remediation</td>
<td>15,584</td>
<td>6.53</td>
</tr>
<tr>
<td>Construction</td>
<td>32,969</td>
<td>0.99</td>
</tr>
<tr>
<td>Wholesale and retail trade, vehicle repair</td>
<td>57,584</td>
<td>0.88</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>62,980</td>
<td>2.81</td>
</tr>
<tr>
<td>Accommodation and food service activities</td>
<td>17,645</td>
<td>0.84</td>
</tr>
<tr>
<td>Information and communication</td>
<td>35,065</td>
<td>5.80</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>160,744</td>
<td>9.19</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>10,337</td>
<td>3.65</td>
</tr>
<tr>
<td>Business activities</td>
<td>50,649</td>
<td>4.33</td>
</tr>
<tr>
<td>Public administration, defense, and compulsory social security</td>
<td>1,399,453</td>
<td>29.89</td>
</tr>
<tr>
<td>Education activities</td>
<td>875,882</td>
<td>14.81</td>
</tr>
<tr>
<td>Human health and social work activities</td>
<td>187,167</td>
<td>11.30</td>
</tr>
<tr>
<td>Other service activities</td>
<td>9,909</td>
<td>0.31</td>
</tr>
</tbody>
</table>

**Sources:** Sakernas 2018; World Bank staff calculations

**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Having a middle-class income does not necessarily mean that a worker will enjoy all dimensions of a quality job. Indonesia’s job-quality index measures 4.8 out of six for middle-class jobs (as compared to 1.19 out of seven for all jobs). The holders of more than 80 percent of middle-class jobs only hold that one job, which is governed by a signed contract, have at least three years of tenure, and provides health insurance. However, only

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**Footnote:** Only six dimensions are measured for middle-class jobs since, by definition, all already meet the seventh indicator of earning a middle-class income. Thus, the seventh indicator for the Job Quality Index for middle-class jobs is met by the entire middle-class sample.
66 percent pay into retirement schemes, and only half have permanent contracts. In other words, though holders of middle-class jobs have sufficient income to purchase a middle-class standard of living and protect themselves against most job losses, many still face risks—of job loss, of old-age poverty, and of health-induced poverty.

**Figure 2.13** Indonesian Middle-Class Jobs Are Still Subject to Risk

*Source*: Sakernas 2018; World Bank staff calculations

*Note*: By definition, information on social benefits and contract status is only available for wage employees. This analysis is based on samples of wage employees with middle-class jobs. Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Consistent with the findings from the Shapley decomposition presented above, wage employment is an important driver toward middle-class jobs (Figure 2.14). Households with higher levels of income are more likely to have wage employment, to be an employer with permanent or paid workers, or, to a lesser extent, to have nonlabor income (for example, return of capital or dividends). A household classed as having a level of income commensurate with poor and vulnerable status relies increasingly on (may be forced to rely on) self-employment, being an employer with temporary workers or unpaid family workers (very common among farm HHEs), casual employment, or being an unpaid family worker.
2.4 Factors Underlying Wage Growth and More Middle-Class Jobs

Log earnings increased from 13.96 to 14.34 between 2001 and 2018, mostly due to the increase in productivity-related characteristics. Using Sakernas 2001, 2011, and 2018, the authors investigated the main drivers behind changes in mean earnings and earnings inequality in Indonesia, in order to determine the pace of poverty reduction, the expansion of the middle class, and the quality of economic growth. The authors disaggregated the analysis into three subperiods: 2001–11, 2011–18, and 2001–18. The earnings increase was mostly accounted for by the positive changes in the distribution of the variables of interests, rather than the premium to those characteristics. About 81.6 percent of the increase in average earnings in this period was explained by the increase that happened during the second half of the period, that is, 2011–18.

Sources: Susenas 2018; World Bank staff calculations
Note: Susenas is the National Socioeconomic Survey (Survei Sosial Ekonomi Nasional).
The primary drivers of change were distribution of education, age, job type, location, sector, and occupation (Table 2.6). The distribution of education contributed positively to earnings as Indonesians became more educated and earned more. The authors found that workers in 2018 were older and closer to the age at which earnings tend to peak (47 years old). The distribution effect from location was positive to earnings, partly due to workers moving to urban areas where average earnings are higher. Similar was observed for job type contributed, as there were more wage employees relative to self-employed in the later period, though the effect is very small. As workers moved out of the low-wage agricultural sector, earnings also increased on average. As the share of workers with high-skill jobs (for example, professionals and technicians, administrative and managerial) increased, occupation also contributed positively to earnings on average.

Greater female labor force participation, return to education, and the job type premium hindered wage growth. Since more women were participating in the labor force, and women earn less than men on average (see Chapter 5), the distribution of workers by gender brought earnings down on average, although this effect was small. Meanwhile, the decline in educational returns at all levels of education contributed negatively to earnings. Similarly, the higher penalty (widening wage gap) of being self-employed relative to being a wage employee contributed to the negative premium effect of job type to earnings.

Table 2.6 Decomposition of Mean Earnings Growth 2001–18

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>0.07967***</td>
<td>0.04526***</td>
<td>0.04299***</td>
<td>−0.04458**</td>
<td>−0.00067</td>
<td>−0.0525***</td>
</tr>
<tr>
<td>Age</td>
<td>0.01898***</td>
<td>0.01002***</td>
<td>0.01045***</td>
<td>−0.00072</td>
<td>0.06565</td>
<td>−0.06786***</td>
</tr>
<tr>
<td>Job type</td>
<td>0.00409***</td>
<td>−0.00695***</td>
<td>0.00464***</td>
<td>−0.04479***</td>
<td>0.01837*</td>
<td>−0.05676***</td>
</tr>
<tr>
<td>Gender</td>
<td>−0.011***</td>
<td>−0.00127</td>
<td>−0.00883***</td>
<td>0.00362</td>
<td>0.01854***</td>
<td>−0.01582***</td>
</tr>
<tr>
<td>Location</td>
<td>0.01759***</td>
<td>0.02625***</td>
<td>−0.00411***</td>
<td>0.22223</td>
<td>0.13069</td>
<td>0.08698**</td>
</tr>
<tr>
<td>Economic sector</td>
<td>0.00433***</td>
<td>0.00164***</td>
<td>0.00386***</td>
<td>0.04684</td>
<td>0.04112</td>
<td>0.00455</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.02031***</td>
<td>0.01496***</td>
<td>0.01141***</td>
<td>0.01606</td>
<td>−0.05465</td>
<td>0.06466**</td>
</tr>
</tbody>
</table>

Sources: Pradana and Wihardja. Forthcoming

29 A similar exercise that explores the factors underlying the increase of 1.47 percentage points in the earning Gini (from 37.52 to 38.99) find that the largest contributor to the inequality-increasing distribution effect between 2001 and 2018 was education. This effect can be attributed to the “paradox of progress,” namely the marked convexity of the earning-education profile at higher levels of education that increases inequality as the level of education improves. (Ferreira, Firpo, and Messina 2017; Bourguignon, Ferreira, and Lustig 2005). For the inequality impacts of other variables, see Pradana and Wihardja (forthcoming).
The decomposition analysis of mean earnings shows that education contributed the most to the increase in mean earnings growth between 2001 and 2018. However, it has also contributed to the increase in earning inequality.\textsuperscript{30}

2.5 Conclusions

This chapter highlights that if Indonesia is to expand its middle-class population, better-quality jobs—not just any jobs—are needed. Indonesia is creating a limited number of middle-class jobs and this is hampering its middle-class expansion. Most jobs created from 2008 to 2018 have been in low-wage sectors, with a median nominal wage far below the minimum wage necessary to join the middle class. Almost half of jobs (45.8 percent) created between 2008 and 2018 were in low-value, low-wage services, namely wholesale and retail trade, accommodation, food and beverages, and other services. In 2018, among wage employees, private-sector jobs did not account for a significant amount of middle-class jobs if the definition of middle-class jobs is adjusted to include worker protection benefits and permanent contract status. Indonesia’s employment-type composition reveals high vulnerability for most jobs. About three-quarters of Indonesia’s labor market is uncovered or informal and, of this, half is made up of HHE owners in low-value-added sectors. The decomposition analysis shows the important role of education in increasing mean earnings and boosting middle-class job prospects, but also highlights that it brings with it increased risks of earnings inequality.

The following chapters will explore the demand and supply sides of jobs in Indonesia in more detail. Jobs are created when there is demand and matched supply, and the right mechanism to link and match them. Indonesia’s low-quality job creation as discussed in this chapter demands more in-depth empirical evidence from both the demand and supply sides. Chapters 3 and 4 look at job creation from the demand side, while Chapter 5 looks at the supply side. Chapter 3 presents analyses and evidence from the macro perspective: how within- and between-sector labor productivity gains (the latter will be called “structural transformation”) over the past two decades have moved Indonesia toward middle-class jobs and where they have fallen short. Chapter 4 looks in detail at firm dynamics in an industry with among the highest potential to create middle-class jobs, as this chapter suggests, namely medium-sized and large manufacturing firms. Chapter 4 will also look at whether HHEs in Indonesia, in which a majority of Indonesians work (either as owner or employee), can be a pathway toward middle-class jobs. Chapter 5 presents the characteristics of workers who hold middle-class jobs versus the characteristics of the labor force as a whole and identifies ways to better prepare Indonesia’s workforce for middle-class jobs.

\textsuperscript{30} Pradana and Wihardja. Forthcoming
Annex Chapter 2
Annex 2.1 Macro-Level Indicators

Annex Figure 2.1 Year-On-Year Real GDP Growth (%) and Employment Elasticity, 1991–2018

Sources: BPS, CEIC, World Bank staff calculations
Note: The BPS is the National Statistical Agency (Badan Pusat Statistik).

Annex Figure 2.2 Long-Term View of Employment and Unemployment Rates, 1998–2018

Sources: Sakernas 1998–2018
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Annex 2.2 Shapley Decomposition – Poverty Reduction

Annex Figure 2.3 Share of Contribution to Poverty Reduction, 2000–14

Panel A. 2000–07

Labor income per adult
Nonlabor income per adult

Panel B. 2007–14

Labor income per adult
Nonlabor income per adult

Sources:
BPS; CEIC; World Bank staff calculations
Note: The BPS is the National Statistical Agency (Badan Pusat Statistik).
Annex Figure 2.4 Average Income and Nonlabor Income in Households below Poverty Line by Different Poverty Line Levels in 2000, 2007, and 2014

Sources: Indonesian Family Life Survey (Survei Aspek Kehidupan Rumah Tangga Indonesia) 2000, 2007, and 2014; World Bank staff calculations
Annex Figure 2.5 **Shapley Value Estimates by Sector: Contributions to the Decline in Poor- and Vulnerable-Class Jobs, 2011–18**

Sources: Sakernas 2011 and 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

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Annex Figure 2.6 **Shapley Value Estimates by Sector and Status of Employment: Contributions to the Decline in Poor- and Vulnerable-Class Jobs, 2011–18**

Sources: Sakernas 2011 and 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Figure 2.7 **Shapley Value Estimates by Sector and Formality: Contributions to the Decline in Poor- and Vulnerable-Class Jobs, 2011–18**

Sources: Sakernas 2011 and 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Annex Figure 2.8 **Shapley Value Estimates by Sector: Contributions to the Increase in Middle-Class Jobs, 2011–18**

Sources: Sakernas 2011 and 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Figure 2.9 Shapley Value Estimates by Sector and Job Status: Contributions to the Increase in Middle-Class Jobs, 2011–18

Sources: Sakernas 2011 and 2018; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Annex Figure 2.10 Shapley Value Estimates by Sector and Formality: Contributions to the Increase in Middle-Class Jobs, 2011–18

Sources: Sakernas 2011 and 2018; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Figure 2.11 Employment Share by Occupation Level, 2007–15

Sources: Sakernas 2007–15; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Annex Figure 2.12 Share of Self-Employment and Family Workers, 2018

Sources: World Development Indicators
Note: The authors use self-employment and family worker as indicators of a lack of worker protection. (Data derived from ILOSTAT, the database of the International Labour Organization, at https://ilostat.ilo.org/). The self-employed and family workers are vulnerable because they are less likely to have a formal work arrangement, decent working conditions, social security, or effective representation by a union or similar organization. They are often characterized by inadequate earnings, low productivity, and difficult working conditions, undermining their fundamental rights. See UN Women. N.d.
Annex Figure 2.13 *Evolution of Earnings and Share of Waged Workers Earning Below the Minimum Wage, 2008–18*

Sources: Sakernas 2008-18; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Annex Figure 2.14 *Underemployment Rate by Location, 2008–18*

Sources: Sakernas 2008–18; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Figure 2.15 Underemployment Rate by Sector, 2018

Sources: Sakernas 2018; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Annex Figure 2.16 Employment Share by Wage Category, 2008–18
Employment share by economic sector, 2008–18

Sources: Sakernas 2008–18; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Figure 2.17 Employment by Employment Status, 2008–18

![Graph showing employment by employment status from 2008 to 2018 with categories: Unpaid family worker, Employee, Self-employed, Casual worker in nonagricultural sector, Casual worker in agricultural sector, and Employer with temporary workers.]

**Sources:** Sakernas 2008-18; World Bank staff calculations

**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

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Annex Figure 2.18 Employment Status by Island Region, 2018

![Graph showing employment status by island region in 2018 with categories: Unpaid family worker, Employee, Self-employed, Casual worker in nonagricultural sector, Casual worker in agricultural sector, and Employer assisted by temporary workers.]

**Sources:** Sakernas 2018; World Bank staff calculations

**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Figure 2.19 Share of Workers by Educational Attainment, 2008–18

Sources: Sakernas 2008–18; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Annex Figure 2.20 Share of Employment by Gender, 2008–18

Sources: Sakernas 2008–18; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Figure 2.21 Female Labor Force Participation Rate, 1991–2019
Female

Annex Figure 2.22 Male Labor Force Participation Rate, 1991–2019
Male

Annex Figure 2.23 Female Employment Rate, 1991–2019
Female

Annex Figure 2.24 Male Employment Rate, 1991–2019
Male

Source: Lain, Alatas, and Setyonaluri. Forthcoming
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
### Annex Table 2.1 Number of Employed by 17-Digit Sector, 2008 and 2018

<table>
<thead>
<tr>
<th>Sector</th>
<th>2008</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>41,331,704</td>
<td>35,703,072</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>1,070,106</td>
<td>1,454,256</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13,047,800</td>
<td>18,251,456</td>
</tr>
<tr>
<td>Electricity and gas</td>
<td>145,538</td>
<td>338,447</td>
</tr>
<tr>
<td>Water supply, sewerage, and waste management and remediation</td>
<td>230,467</td>
<td>471,067</td>
</tr>
<tr>
<td>Construction</td>
<td>5,438,965</td>
<td>8,300,297</td>
</tr>
<tr>
<td>Wholesale and retail trade, vehicle repair</td>
<td>17,981,176</td>
<td>23,073,516</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>5,705,225</td>
<td>5,398,582</td>
</tr>
<tr>
<td>Accommodation and food service activities</td>
<td>4,098,585</td>
<td>7,662,236</td>
</tr>
<tr>
<td>Information and communication</td>
<td>563,446</td>
<td>894,673</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>663,741</td>
<td>1,796,913</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>183,818</td>
<td>389,925</td>
</tr>
<tr>
<td>Business activities</td>
<td>700,201</td>
<td>1,664,791</td>
</tr>
<tr>
<td>Public administration, defense, and compulsory social security</td>
<td>2,521,401</td>
<td>4,681,280</td>
</tr>
<tr>
<td>Education activities</td>
<td>3,286,308</td>
<td>6,066,878</td>
</tr>
<tr>
<td>Human health and social work activities</td>
<td>741,015</td>
<td>1,848,460</td>
</tr>
<tr>
<td>Other service activities</td>
<td>4,843,251</td>
<td>6,009,100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>102,552,747</strong></td>
<td><strong>124,004,949</strong></td>
</tr>
</tbody>
</table>

_Sources:_ Sakernas 2008 and 2018; World Bank staff calculations

_Note:_ Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

### Annex Table 2.2 CAGR and Absolute Change in Employment by Wage Category, 2008–18

<table>
<thead>
<tr>
<th>Category</th>
<th>CAGR 2008–18 (%)</th>
<th>Absolute change</th>
<th>Change in share (of total jobs) (percentage points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low wage</td>
<td>1</td>
<td>4,433,808</td>
<td>−7.98</td>
</tr>
<tr>
<td>Mid wage</td>
<td>3</td>
<td>10,538,915</td>
<td>3.86</td>
</tr>
<tr>
<td>High wage</td>
<td>7</td>
<td>6,479,479</td>
<td>4.11</td>
</tr>
</tbody>
</table>

_Sources:_ Sakernas 2008 and 2018; World Bank staff calculations

_Note:_ Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
### Annex Table 2.3 Wage Employment by Contract and Worker Protection Status, 2019

<table>
<thead>
<tr>
<th></th>
<th>Absolute</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>51,654,993</td>
<td>100</td>
</tr>
<tr>
<td>Employee with permanent contract</td>
<td>11,856,113</td>
<td>22.95</td>
</tr>
<tr>
<td>Employee with permanent contract and full benefits (health, work accident, death, nongovernment old age, government pension, paid leave)</td>
<td>5,424,279</td>
<td>10.50</td>
</tr>
<tr>
<td>Employee with permanent contract, full benefits (health, work accident, death, nongovernment old age, government pension, paid leave), and earnings above the provincial minimum wage</td>
<td>5,157,493</td>
<td>9.99</td>
</tr>
</tbody>
</table>

**Sources:** Sakernas 2019; World Bank staff calculations  
**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

### Annex Table 2.4 Share of Informal Employment within Each Economic Sector, 2019

<table>
<thead>
<tr>
<th>Sector</th>
<th>Informal employment (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>96.6</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>64.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>61.2</td>
</tr>
<tr>
<td>Electricity and gas supply</td>
<td>24.9</td>
</tr>
<tr>
<td>Water supply, sewerage, and waste management and remediation</td>
<td>76.1</td>
</tr>
<tr>
<td>Construction</td>
<td>88.6</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles and motorcycles</td>
<td>86.1</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>73.2</td>
</tr>
<tr>
<td>Accommodation and services activities</td>
<td>87.9</td>
</tr>
<tr>
<td>Information and communication</td>
<td>45.6</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>14.0</td>
</tr>
<tr>
<td>Real estate</td>
<td>43.6</td>
</tr>
<tr>
<td>Business activities</td>
<td>49.7</td>
</tr>
<tr>
<td>Public administration and defense; and compulsory social security</td>
<td>4.2</td>
</tr>
<tr>
<td>Education</td>
<td>13.3</td>
</tr>
<tr>
<td>Human health and social work activities</td>
<td>18.2</td>
</tr>
<tr>
<td>Other service activities</td>
<td>89.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>74.9</strong></td>
</tr>
</tbody>
</table>

**Sources:** Sakernas 2019; World Bank staff calculations  
**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Annex Table 2.5 **Household Enterprise Owners by One-Digit Sector, 2019**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>16,693,786</td>
<td>37.01</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>271,248</td>
<td>0.6</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4,830,853</td>
<td>10.71</td>
</tr>
<tr>
<td>Electricity and gas supply</td>
<td>27,763</td>
<td>0.06</td>
</tr>
<tr>
<td>Water supply, sewerage, and waste management and remediation activities</td>
<td>195,459</td>
<td>0.43</td>
</tr>
<tr>
<td>Construction</td>
<td>533,531</td>
<td>1.18</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles and motorcycles</td>
<td>12,775,963</td>
<td>28.32</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>2,480,220</td>
<td>5.5</td>
</tr>
<tr>
<td>Accommodation and food and beverages activities</td>
<td>4,535,471</td>
<td>10.05</td>
</tr>
<tr>
<td>Information and communication</td>
<td>234,502</td>
<td>0.52</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>30,150</td>
<td>0.07</td>
</tr>
<tr>
<td>Real estate</td>
<td>80,095</td>
<td>0.18</td>
</tr>
<tr>
<td>Business activities</td>
<td>325,408</td>
<td>0.72</td>
</tr>
<tr>
<td>Education</td>
<td>155,278</td>
<td>0.34</td>
</tr>
<tr>
<td>Human health services and social work activities</td>
<td>144,320</td>
<td>0.32</td>
</tr>
<tr>
<td>Other service activities</td>
<td>1,794,452</td>
<td>3.98</td>
</tr>
</tbody>
</table>

**Sources:** Sakernas 2019; World Bank staff calculations

**Note:** The total comes to 99.99 percent due to rounding.
Annex Table 2.6 **Dependent Workers by One-Digit Level Sector, 2019**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>275,932</td>
<td>12.38</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>14,194</td>
<td>0.64</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>341,556</td>
<td>15.33</td>
</tr>
<tr>
<td>Electricity and gas supply</td>
<td>4,065</td>
<td>0.18</td>
</tr>
<tr>
<td>Water supply, sewerage, waste management, and remediation activities</td>
<td>12,508</td>
<td>0.56</td>
</tr>
<tr>
<td>Construction</td>
<td>39,806</td>
<td>1.79</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles and motorcycles</td>
<td>393,399</td>
<td>17.66</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>910,108</td>
<td>40.85</td>
</tr>
<tr>
<td>Accommodation and services activities</td>
<td>63,077</td>
<td>2.83</td>
</tr>
<tr>
<td>Information and communication</td>
<td>45,955</td>
<td>2.06</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>8,303</td>
<td>0.37</td>
</tr>
<tr>
<td>Real estate</td>
<td>2,978</td>
<td>0.13</td>
</tr>
<tr>
<td>Business activities</td>
<td>27,784</td>
<td>1.25</td>
</tr>
<tr>
<td>Education</td>
<td>3,027</td>
<td>0.14</td>
</tr>
<tr>
<td>Human health services and social work activities</td>
<td>3,120</td>
<td>0.14</td>
</tr>
<tr>
<td>Other service activities</td>
<td>82,155</td>
<td>3.69</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,227,967</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Sakernas 2019*

*Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).*
References


Pradana, Abror Tegar, and Maria Monica Wihardja. Forthcoming. “Examining the Drivers of Changes in Mean Earning and Earning Inequality in Indonesia.” Background paper, Pathways to Middle-Class Jobs in Indonesia, World Bank, Jakarta.


Structural Transformation toward Middle-Class Jobs

Chapter 3

This chapter is largely based on Gil Sander and Yocog (Forthcoming) and Steenbergen and Hébous, (2020).
3.1 Growth Models and the Expansion of the Middle Class

3.1.1 Jobs have been created but the quality of jobs has been insufficiently high

From 2008 to 2018, sound macroeconomic policies and a favorable external environment helped the Indonesian economy to grow, create jobs, and reduce poverty. Stable economic growth of about 5 percent a year over this period was associated with job-creation rates of nearly 2 percent a year (Figure 3.1). On a net basis, the Indonesian economy created 2.1 million jobs annually on average, labor force participation hovered around 67 percent, and the pool of unemployed shrank by 240,000 individuals each year. High growth helped bring poverty rates to below 10 percent of the population. However, Indonesia’s growth was insufficient to lift average income levels to those of richer economies such as Malaysia or Thailand. Moreover, Indonesia was overtaken by China in terms of per capita GDP between 2000 and 2010, and the income gap with Vietnam has been steadily reduced—although Vietnam remains poorer than Indonesia (Figure 3.2).
Economic growth has, however, not delivered enough good-quality job opportunities for Indonesians. As explained in Chapter 2, earnings from labor is the main vehicle for achieving a middle-class standard of living, but too many Indonesians still lack the level of economic security associated with middle-income status. Most workers remain in low value-added activities, with low and insecure earnings and little protection. In agriculture and low-value services—sectors that together account for the majority of employment—virtually no workers earn a middle-class wage. Those aspiring to middle-class status remain at risk of slipping back into vulnerability or poverty even in times of relatively high economic growth. Although Indonesia’s recent growth model has created both value added and jobs, the quality of jobs has been insufficiently high. Hence, it is not only the level of growth that matters, but also the composition of growth and the transmission channels from growth to jobs.

2 World Bank 2020a
3.1.2 Indonesia’s structural transformation post Asian financial crisis has not brought enough productivity gains

In the 1990s, Indonesia industrialized rapidly through growth in manufacturing exports. The rise of global value chains (GVCs) engendered a global expansion of international trade after 1990. Countries that managed to integrate their economies with GVCs became more productive, their incomes grew, and poverty fell. Indonesia carried out broad reforms to create a business-friendly climate, including reforms that increased financial openness. These, combined with a large labor surplus, helped Indonesia attract investment in labor-intensive industries such as textiles and food and beverages. On average, value added grew by over 8 percent between 1990 and 1997; manufacturing, other industries, and services contributed equally (Figure 3.3, left). By 1996, manufacturing accounted for one-quarter of GDP and manufacturing exports accounted for half of total export value. These trends came to an abrupt halt with the Asian financial crisis in 1997–98. In 1998, Indonesia’s GDP fell by 13 percent, and it did not recover to 1997 levels until 2003.

After the crisis, Indonesia’s economy shifted into a natural resource–based growth model. This shift back to a dependence on natural resources was the result of several factors: the negative impact of the Asian financial crisis, which hurt manufacturing industries; the growing dominance of China in low-cost and labor-intensive manufacturing industries; the global increase in demand for (and prices of) commodities in abundance in Indonesia such as coal and palm oil; a resulting sharp appreciation in the real effective exchange rate, which hurt manufacturing competitiveness; and weaknesses in the supporting business environment including insufficient infrastructure, low levels of skills within the workforce, an unfavorable regulatory framework for foreign direct investment (FDI), and “big-bang” decentralization that caused regulatory uncertainties at the local level.

Although economic growth remained relatively high, the shift into natural resources triggered a significant change in the composition of growth, hurting the quality of jobs created. Compared to the 1990s, economic growth rates in all sectors fell back, but total value-added growth remained at a respectable 5 percent on average between 2000 and 2012. The sources of growth changed, however, reflecting the shift to commodity exports and the increasing role of services (especially nontradable services) in the economy (Figure 3.3, right). The services sector became the single largest source of growth, whereas manufacturing growth fell, resulting in premature deindustrialization (Figure 3.4). As the commodity boom came to a halt post 2012, Indonesia did not return to a growth model driven by manufacturing exports. Growth rates in nonmanufacturing industries and services fell, but manufacturing growth did not increase sufficiently to replace this lost growth. The move away from labor-intensive (or inclusive) growth after 2000 also meant there were few opportunities to improve the quality of jobs for Indonesia’s labor force.

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3 World Bank 2020b
4 Wihardja 2016
A new set of challenges is emerging as the global economic environment worsens—
Indonesia faces intense competition. Even before the onset of COVID-19, global conditions
were looking less favorable. Signs of slowdown in growth had emerged in major markets
such as the United States, Europe, and China, and a trend toward economic nationalism
(that is, protectionism), was accelerating, especially after the global financial crisis of 2008.

Sources: World Development Indicators
Note: The crisis years of 1998, 1999, and 2009 are not included.
These global risks have emerged against a backdrop of longer-term trends, such as the rise in the importance of knowledge economies and the increasing automation of tasks, which affect the sources of competitive advantage, job creation, and growth.

**Indonesia’s economy has become increasingly inward looking and is underperforming in exports and FDI.** Indonesia’s international openness (measured as merchandise exports and imports as a percentage of GDP) has continued to increase, but at a slow pace. Indonesia has been surpassed by other regional countries, such as China, India, and Vietnam. Indonesia’s share of global manufacturing exports is falling and FDI is lower than in comparator economies. Countries such as Thailand and Vietnam have higher levels of exports and imports, are more integrated into GVCs, have more sophisticated and more diversified exports, and have a higher share of services exports. Meanwhile, FDI in Indonesia is not improving the country’s access to international markets as it has increasingly focused on the extractive industries or access to local markets, rather than on exports. The post-Asian financial crisis shift in the type of FDI that Indonesia attracts is problematic as it does not create the quality or quantity of jobs that Indonesia needs. Export-oriented FDI is typically associated with higher rates of innovation in products and processes and has been associated with better job creation in the past in Indonesia. Estimates by the World Bank suggest that investment in exports of both manufacturing and commercial services, including tourism, can have strong effects on job creation.

**Lower integration with GVCs reflects lower competitiveness, which in turn results from limited worker productivity.** Although exports are not becoming more sophisticated and wages remain low, total unit labor costs have continued to increase in Indonesia—and more rapidly than in comparator economies (Figure 3.5). The loss in competitiveness is not due to high growth in labor costs, but to slow growth in labor productivity. Labor productivity remains low in Indonesia compared to comparators—and competitors—in Asia, such as Malaysia, Vietnam, Thailand, and the Philippines (Figure 3.6, left). Indonesia is also falling further behind as growth in labor productivity has been slower than in these countries. Hence, although Indonesia’s workers in several industries are paid less than in Vietnam or China, low productivity means that Indonesia cannot compete with low-wage labor, as its unit labor costs are high (Figure 3.6, right).

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5 Patuanru 2019
6 World Bank 2020a
7 World Bank 2019
8 World Bank 2019
**Figure 3.5 Indonesia Is Not Catching Up in Competitiveness**

*Average annual growth, 2010-19, percent*

![Graph showing unit labor cost and labor cost per hour for Indonesia and other countries.](image)

*Sources:* World Bank staff calculations based on unit labor cost data from the Economist Intelligence Unit.  
*Note:* The unit labor costs here are not comparable with those in Figure 3.4.

**Figure 3.6 Falling Behind in Labor Productivity in Low-Skill Manufacturing**

*Mean value added per worker, constant 2010 US dollar  
Average wages and unit labor costs, China=100*

![Bar chart showing mean value added per worker and unit labor costs for Indonesia and other countries.](image)

*Source:* Chang et al. 2019  
*Note:* Productivity, wages, and unit labor costs refer only to the finishing, spinning, and weaving of textiles (to control for industry effects).

To achieve jobs that provide economic security and secure incomes, Indonesia could move toward a productivity-driven growth model that creates value added and jobs. This growth model must also facilitate the movement of workers into more productive jobs, both within and between sectors, and must include the skilling up of workers in low-productivity agriculture and in service sectors with low levels of value added. Indonesia’s commodity-driven growth model, which has few backward or forward links to local economies, has weakened the connection between sectors, firms, and occupations where value is created, and those where most people make a living.
3.2 More and Better Jobs, but Not Yet Good Enough

Job creation and changes in the structure of employment have played a central role in Indonesia’s ascension from low- to middle-income status and from high poverty to low poverty. Between 2000 and 2018, some 5 million workers left jobs in agriculture (on a net basis), and nearly 40 million jobs were created in nonagricultural sectors. The flow out of agriculture coincided with rapid urbanization, including of jobs: in 1990, 31 percent of Indonesia’s population lived in urban areas; in 2018, 55 percent; and in 2030, a majority—63 percent.⁹

Underemployment in agriculture fell and the increase in agricultural productivity helped reduce poverty. In 2000, agriculture accounted for only 16 percent of value added, but employed some 45 percent of the working population. By 2018, the contribution of agriculture to value added had fallen to 13 percent. The share of the agricultural workforce fell much more, however, to 29 percent of the total workforce in 2018, and most of this reduction took place in the period 2010–18. The reduced importance of agricultural jobs by far exceeded the fall in value added, however, suggesting that many of the workers that left agriculture had been underemployed. Though the resulting increase in agricultural productivity contributed to raising rural incomes and lowering poverty, poverty remains highest in the agricultural sector because of the low earnings available.¹⁰

Nonagricultural sectors have provided better jobs with higher incomes and productivity than agriculture, but not sufficient to shift people decidedly out of vulnerability and economic insecurity. At an aggregate level, employment shifts have been much more dramatic than the change in value added—as the agricultural sector shows (Figure 3.7 and Figure 3.8). Indonesia’s experience of dynamic shifts in employment but sluggish value-added change stands in contrast to countries like Vietnam or Cambodia where value added transformed more rapidly than employment.¹¹ In Indonesia, the dramatic change in employment structure largely reflects one dominant trend: jobs were lost in agriculture, especially after 2010, and jobs were created in low value-added services. The share of value added accounted for by these services—retail and wholesale trade, accommodation and restaurants, and community, personal, and other services—did not increase after 2000, but they accounted for 70 percent of all new jobs in 2010–18. Hence, low-value services accounted for 21 percent of value added in 2010 and in 2018, but they accounted for 32 percent of employment in 2010 and 36 percent in 2018. Although the rate of job creation was higher in higher-value services than in lower-value services (3.8 versus 3.1 percent per year between 2010 and 2018), high value-added sectors began from a small base, meaning that they accounted for 16 percent of all new jobs in 2010–18, and 7 percent of total employment in 2010, rising to 9 percent in 2018.

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⁹ World Bank staff calculations based on United Nations (2019)
¹⁰ World Bank 2020c
¹¹ Cunningham and Pimhidzai 2018; Cunningham et al. 2019
Figure 3.7 The Economy Diversified Away from Agriculture into Services . . .
Share of total value added, percent

Figure 3.8 . . . But Shifts in Labor Have Been More Dramatic and Have Taken Place in Different Sectors from Value Added
Share of total employment, percent

Sources: National Statistical Agency via CEIC; World Bank staff calculations

Note: High value-added services are financial, real estate, business, and insurance services (henceforth abbreviated as “financial services”), transport and storage, information and communications (henceforth abbreviated as “transport and communications”). Low value-added services are wholesale and retail trade, motor vehicle repairs, accommodation and food services (“trade, hotels and restaurants”), and community, personal, and other services. “Other industry” comprises mining, utilities, and construction.

The crowding of workers from farming into lower value-added services—where there was little growth in value added—limited any gains in earnings. Agricultural jobs were replaced by jobs for which labor productivity was not sufficiently high to conclusively shift workers and their families into middle-class income levels. Low entry requirements (as employees or entrepreneurs) in low-value services12 make these sectors a common destination for rural and urban low-skilled workers who lack the requisite skills for entering formal jobs in higher value-added activities. However, since low-value services experienced little improvement in labor productivity, these jobs did not provide any basis for growth in earnings either (Figure 3.9). In fact, in the period 2010–18, the agricultural sector—where employment was shrinking fast—saw the highest levels of productivity growth.

12 By aggregating nine-digit sectors into five economic groups, some high-end services (medical services provided by doctors, or other professionals providing personal services) are included in the low-value services economic group.
Figure 3.9 Slow or Negative Labor Productivity Growth, Especially in Industry and Low-Value Services, after 2010
Growth in value added per worker, average percent a year

Source: BPS via CEIC; Sakernas; World Bank staff calculations
Note: The BPS is the National Statistical Agency (Badan Pusat Statistik). Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

The commodity boom hurt manufacturing jobs and employment in the sector has been slow to recover. The share of manufacturing jobs in total employment stagnated from the mid-1990s onward and throughout the Asian financial crisis and the commodity boom; it hovered around 12–13 percent during 2000–10. The stagnation in manufacturing jobs was caused by a loss in competitiveness and a lack of investment and growth in the sector: labor productivity of manufacturing increased only marginally in spite of the limited job creation, and relative productivity (the ratio of manufacturing sector share in value added to manufacturing sector share in employment) fell between 2000 and 2018 (Figure 3.10).
Nearly two out of three workers in Indonesia are trapped in sectors with comparatively low levels of labor productivity, which prevents them from earning higher wages. As shown in Figure 3.11, the relationship between wage levels and labor productivity is strong and positive, and the vast majority of the workforce is in jobs that have comparatively low wages and productivity. In spite of the significant flows of workers out of agriculture, farming still accounts for nearly three in ten jobs. Nearly two out of three jobs (64 percent) are in agriculture and low value-added services, where productivity is only marginally higher than in agriculture.
3.3 Incomplete Structural Transformation

3.3.1 Indonesia has not benefited enough from its demographic dividend

**Labor productivity growth connected with job creation is needed if improvements in living standards are to be sustained.** Indonesia needs many more productive jobs in its more productive sectors, while productivity within each sector also needs to increase. Wages and living standards, as well as the competitiveness of firms and workers, depend on labor productivity and a stronger link between job creation and value creation. These links are forged as labor productivity increases in sectors that harbor many workers, and as workers move from lower-productivity to higher-productivity activities. Productivity growth happens through many channels: workers become better at the jobs they do (for example, because of better machines, superior resource management, experience, or skills training); less productive firms exit a sector and more productive firms enter; and resources—including workers—move to firms, sectors, and jobs that have higher levels of productivity.

**The growth-employment trajectory of Indonesia shows that value-added growth does not necessarily result in better jobs.** Per capita output growth can be sustained by several factors, including more employed workers relative to dependents (due to favorable demographic trends, higher labor force participation, or lower unemployment), or by higher labor productivity (Box 3.1). Hence, high growth is not necessarily associated with either more or more productive jobs. As outlined in Chapter 2, Indonesia is not a story of jobless growth, but the quality of jobs has not increased in tandem with their number. The current growth model has resulted in insufficient productivity gains, and, perhaps even more importantly, a disconnect between sectors creating value and sectors creating jobs.

**Figure 3.11 Sectors That Are More Productive Tend to Pay Higher Wages, but Employ a Minority of Workers**

*Real median monthly wage in 2018 in Rp, millions; log of sector productivity as a share of total productivity, 2018; sector’s share of total employment, 2018 (bubble size)*

*Source:* Sakernas, August 2018; World Bank staff calculations

*Note:* The public sector is included in community, personal, and other services. The size of the bubble denotes the sector’s share of total employment in 2018. Labor productivity is calculated as real output (value added) per worker. The national median monthly wage is Rp1.2 million. Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Box 3.1 What Is Driving Value-Added Growth and Labor Productivity?

The effect of growth on jobs and welfare depends on its main drivers. These drivers can be identified using the simple relationship between per capita output, dependency rates, labor force participation, employment, and labor productivity. The relationship can be expressed as:

\[
\frac{Y}{N} = \frac{W}{N} \times \frac{L}{W} \times \frac{E}{L} \times \frac{Y}{E}
\]

where \(Y\) = value added, \(N\) = population, \(W\) = working-age population, \(L\) = the labor force, and \(E\) = total employment.

It follows that value-added per capita growth is driven by:

- **Demographic effects**: changes in the working-age population (\(W\)) relative to total population (\(N\))
- **Participation effects**: changes in the labor force participation rate (\(L/W\))
- **Employment effects**: changes in the share of the employed in the labor force (\(E/L\))
- **Productivity effects**: changes in output per worker (labor productivity, \(Y/E\)).

Labor productivity growth is in turn driven by within-sector productivity effects or a structural transformation of value added and employment.

- **Within-sector productivity improvements** occur as workers and firms in a given sector become more efficient. This can occur through capital deepening or upgrading, technological change, increased skills in the workforce, or improved resource allocation as less profitable firms or plants exit and are replaced by more efficient ones.

- **Structural transformation** occurs as workers (and other inputs of production) move from lower-to higher-productivity sectors of the economy. The shift of Indonesia’s workforce into non-agricultural employment is an example of a structural transformation.

Structural transformation, finally, is a composition of two effects: the volume of workers changing sectors, and the differences in productivity levels of sectors. The larger either of these factors, the more significant the structural transformation taking place.

Indonesia risks losing the tailwind of demographic dividend that has supported its growth for the past five years, putting additional pressures on labor productivity growth. Indonesia’s demographic window of opportunity is now closing—and at a lower per capita level than in many other Asian countries. Demographic drivers—a higher share of working-age persons providing for fewer dependents—cannot be counted on to provide impetus to growth in the future. Today, about 50 percent of the population is below 30 years old. Projections suggest that the share of the working-age population in the total population will soon reach its peak (in 2025–30) and that the share of elderly in the population will shortly begin to increase relative to the share of dependents. The period 2015–30 has been described as the period in which Indonesia could reap a demographic dividend, as the ratio of dependents relative to the economically active is expected to fall to about 47 percent. A country’s economic growth usually accelerates during such a period. However, Indonesia has not benefited as much from this demographic dividend as other Asian countries that
have undergone similar. At the end of the demographic-dividend period, Indonesia's GDP per capita is predicted to reach somewhere between US$2,583 and US$3,709, which is less than 25 percent of Korea's GDP per capita at the end of its demographic-dividend period in 2010 (US$16,219). The closing demographic window means that Indonesia cannot count on factor accumulation, especially not labor surplus, to drive growth in the future.

3.3.2 The contribution of structural transformation to labor productivity growth in Indonesia was smaller than in other regional countries

As in other East Asian countries, labor productivity has been the main driver of economic growth in Indonesia. A decomposition of the sources of growth between 2000 and 2017 shows that increases in value added per worker contributed as much as 88 percent of Indonesia's GDP per capita growth of 3.9 percent, or 3.5 percentage points per year. Demographic factors also contributed positively (about 1.0 percentage point), as the deceleration in population growth in the 1980s and 1990s led to an increase in the share of the working-age population relative to dependents—the demographic dividend. An increase of the employment share in the labor force (in parallel with a reduction in unemployment rates) contributed the remainder. Labor force participation rates, by contrast, fell and therefore contributed negatively. However, as seen in Chapter 5, the falling labor force participation rates mostly reflected the fact that more young adults remained in school and so represent an investment in future skills, productivity, and growth.

Labor productivity growth resulted mostly from productivity growth within sectors, especially in the services sector. Efficiency gains within the main sectors—agriculture, industry, and services—accounted for 2.5 percentage points of the labor productivity growth rate, or about two-thirds of total growth. In terms of absolute growth levels, the contribution of within-sector productivity growth to growth in value added per worker aligns Indonesia with Asian comparators (except China). The main driver of these efficiency gains were the services sectors, which accounted for 37 percent of total labor productivity growth between 2000 and 2017. As shown in Figure 3.13, increased productivity in agriculture also contributed to growth, whereas labor productivity growth within the industrial sector was very limited, and was also limited in relation to comparators.

13 World Bank staff calculations based on United Nations population projections and World Development Indicators. Figures in US dollars at 2000 prices.
The expansion of middle-class jobs has not materialized because structural transformation has not brought enough productivity gains. The move out of agriculture and into industry and services contributed positively to labor productivity growth. However, the changes in the structure of employment have contributed much less to total productivity growth. The total contribution of structural change to growth, at 0.9 percentage points, was smaller than in Vietnam (2.2 percentage points), Thailand (1.3 percentage points), and China (1.1 percentage points), which have all experienced a faster increase in the middle class in the recent past than Indonesia. A comparison with Vietnam is telling: Vietnam moved a larger proportion of workers out of agriculture into other sectors, and into more productive sectors. Average productivity levels are higher in Vietnam’s industry sector (and in Thailand’s services sector) compared to the corresponding sectors in Indonesia.

In recent years, within-sector productivity growth has fallen back further. Over 2010–17, the contributions of within-sector changes in industry to labor productivity growth were minimal, reaching only 0–1 percentage points per year.

Figure 3.12 Labor Productivity Growth Has Driven Growth
Contribution to value-added per capita growth in 2000–17, percentage points, Indonesia and comparators

Sources: World Bank staff calculations using BPS data and Sakernas; World Development Indicators
Note: The BPS is the National Statistical Agency (Badan Pusat Statistik). Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Figure 3.13 But the Contribution of Structural Transformation to Labor Productivity Growth Has Been Limited, Which Has Limited the (Positive) Impacts on Jobs

*Contribution to annual labor productivity growth over 2000–17, percentage points, Indonesia and comparators*

Sources: World Bank staff calculations using data from the National Statistical Agency and Sakernas; WDI

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). "Within" refers to within-sector transformation and "structural" refers to between-sector transformation of textiles (to control for industry effects).

Box 3.2 Demand-Side Channels: How the COVID-19 Crisis Is Impacting Jobs

The COVID-19 pandemic is expected to continue to have deep impacts on the demand side of jobs; the world has yet to see the end of the pandemic and uncertainties are looming. Indonesia’s GDP fell 2.1 percent in 2020 with private consumption falling 2.7 percent and gross fixed investment falling 4.9 percent. Firms across the board were hit hard, including those firms in sectors where middle-class jobs are clustered. Indonesian firms were hit harder than those in Vietnam and Malaysia.a Micro, small, and medium-sized enterprises (MSMEs) particularly struggled to adapt to the shocks. According to a firm-level representative survey, six out of ten firms had to close temporarily or permanently by June 2020.b Around two-thirds of firms surveyed responded to the crisis by reducing labor costs: 29 percent reduced the working hours of workers, 28 percent granted unpaid leave or reduced wages, and 5 percent fired workers. Although by March 2021 almost all firms surveyed had already reopened and the share of firms reducing labor costs had been halved, as long as the global health crisis persists and uncertainties about the pandemic drive consumers and investors to be risk averse, the demand side of jobs may remain weak.

The pandemic has reduced the demand for formal-sector waged jobs and increased the number of unpaid family and casual jobs, reversing some of the gains made in the creation of wage employment. These are the gains that have contributed the most to the expansion of Indonesia’s middle-class population over the past three decades. Indonesia currently needs to create more jobs in manufacturing, as this chapter argues, but the sector has

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a World Bank 2020d
b World Bank 2020d
been hit hard by the pandemic. The Prompt Manufacturing Index is released by Bank Indonesia, the central bank, to provide a general view of the performance of the manufacturing sector. It plunged from 45.64 in Q1 2020 to 28.55 in Q2 2020. Various labor-intensive manufacturing industries had to temporarily stop operating; this includes the automotive industry, which was experiencing obstacles in the supply of raw materials and components, especially from countries that had imposed a lockdown. Large automotive multinationals in Indonesia such as Toyota, Daihatsu, and Honda decided to temporarily halt some production in response to the crisis. Honda stopped production for two weeks because of a shortage of components from India and Malaysia, where lockdowns interrupted supply. Yamaha and Suzuki also stopped activities for similar reasons. Meanwhile, in the electronics sector, Gabel suffered from stalled imports from China and appreciation in the US dollar. All these multinationals employ a vast number of workers and provide middle-class jobs. Although the condition of the private sector had significantly improved by March 2021, many firms have made structural adjustments to cut costs, including labor costs, and have adopted digital technologies.

Correct mixing and sequencing of short-term versus long-term policies as a response to transitory versus permanent shocks is critical. In the short term, strategies to “keep the lights on” in firms in financial distress are critical. Without such measures, not only would the crisis lead to short-term job losses, but also to greater frictions when the economy rebounds as businesses will have to devote time and financial resources to restarting, and will face job-matching difficulties when they begin rehiring workers again. Once COVID-19 has been contained, it will be important to help firms restart so they can employ workers again. A policy package that mixes and sequences job relief measures and job recovery measures provides the best of both worlds. Job relief measures would be aimed at helping businesses survive and retain workers, as well as providing income protection to vulnerable workers. Job recovery measures would be implemented once the outbreak has been contained and the green shoots of recovery have appeared on the horizon. In addition, during the recovery period, many firms and workers remain vulnerable, necessitating the mixing of job recovery and relief measures. Job interventions for recovery may include support for job creation (such as support to formal, informal, and household enterprises) and linking labor demand with supply (such as employment services and training), as well as job-creating public works and the provision of unemployment insurance. Firms should also make remote work more effective by changing norms, and should anticipate changes in consumer and business spending, as well as bankruptcies that may put pressure on banking, financial, and credit market systems. They should sharpen their productivity and IT-digital operations, and strengthen their capital efficiency.

The government has provided fiscal, credit, and cash assistance to firms since the pandemic started. However, implementation has been constrained by several issues. First is the lack of (consolidated) databases of intended program beneficiaries (especially for programs targeting firms in the informal sector) and the lack of awareness among firms about government assistance. The lack of databases is partly because most Indonesian enterprises are not registered. If more firms were registered, more firms would have received government assistance.

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<table>
<thead>
<tr>
<th>Source</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>Sukamdani 2020</td>
</tr>
<tr>
<td>d</td>
<td>A World Bank firm-level survey conducted in March 2021 shows that the share of firms experiencing a large drop in sales (&gt;20 percent) had dropped from 82 percent in June 2020 to 38 percent in March 2021. See World Bank 2021</td>
</tr>
<tr>
<td>e</td>
<td>A World Bank firm-level survey conducted in October 2020 shows that 66 percent of firms had turned to the internet, social media, and specialized apps or digital platforms in response to the pandemic. See World Bank 2020d</td>
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<td>f</td>
<td>World Bank 2020e</td>
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<td>h</td>
<td>World Bank 2020f; IMF (International Monetary Fund), 2021.</td>
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<td>i</td>
<td>Azis 2020</td>
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</table>
The lack of databases is partly because most Indonesian enterprises are not registered. If more firms were registered, more firms would have received government assistance. Program awareness is an issue. For example, by March 2021, only 16 percent of firms surveyed were aware of the government’s fiscal incentives and only 43 percent were aware of its wage subsidy program.\(^1\)

Maintaining a positive macroeconomic outlook could help prevent firms from firing workers. A recent firm-level representative survey shows that improved year-on-year sales of firms were significantly associated with higher hiring probability, while expectation of future sales significantly correlates with a lower probability of firing.\(^k\) Stronger demand and hence higher sales via improved economic conditions could help increase the rehiring of workers in the future, while maintaining a positive macroeconomic outlook could prevent further firing of workers. Moreover, the same survey shows that exporting firms recovered more quickly. In the longer run, increased competitiveness in the global market, including through a significant reduction of production costs, could help induce a rise in exporting firms—which recover faster.

The limited impact of structural transformation on labor productivity hence reflects two constraints: (i) Indonesian workers did not move into more productive sectors in sufficient numbers; and (ii) for those who did, the level of productivity of the nonagricultural sectors where they took up jobs was insufficiently high to represent a substantial transformation. The level of labor productivity in sectors receiving workers was not sufficiently higher compared to agriculture as to make a significant difference in terms of productivity, and the contribution of higher-productivity sectors to job growth was small (Figure 3.14).

### Figure 3.14 Structural Change Did Not Foster Job Creation in Higher-Productivity Sectors

*Contribution to total employment growth, 2000-18; average labor productivity relative to agriculture, 2000-2018*

Sources: World Bank staff calculations using BPS data and Sakernas 2000–18; WDI

Note: The BPS is the National Statistical Agency (Badan Pusat Statistik). Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
3.4 Structural Transformation 3.0—More Middle-Class Jobs in the Nonagricultural Sector

*Indonesia could engender “Structural Transformation 3.0”—the next upward shift of workers to higher wages and welfare levels.* As seen, Indonesian labor markets have undergone two stages of structural transformation: a shift out of agricultural jobs and high poverty into higher-productivity jobs, especially in manufacturing, and, after the Asian financial crisis, a continued shift out of agricultural employment but increasingly into low value-added services. Indonesia faces three important challenges as it fosters middle-class jobs (Figure 3.15). First, Indonesia could promote *productivity growth* across the board, not least in sectors with low value added, which is where most workers are currently situated. Second, Indonesia could facilitate a more decisive *shift of workers* out of low-paying and low-value activities and into better-paying sectors, firms, and jobs—this is the essence of a third wave of structural transformation. And third, Indonesia could build a workforce that has the necessary skills and knowledge to *find and take on the new jobs* in higher value-added and internationally competitive sectors (discussed in Chapter 5). These three elements are linked. Without sufficient productivity growth in agriculture, workers will not be freed up for opportunities elsewhere. Without upgraded skills and information on opportunities, workers will not be able to take advantage of increasing labor demand in sectors that create high-quality jobs. Not all sectors have the same aggregate job-creation potential and may create jobs for different groups (for example, rural/urban, male/female, low educated/high educated). Targeted approaches are needed.

*Figure 3.15 More and Even Better Jobs: Structural Transformation 3.0*

*Relative productivity and share of employment 2018 (in percent) and directions for the future*

*Sources:* World Bank staff calculations using BPS data and Sakernas

*Note:* Dark green arrows represent employment shift. Light green arrows represent productivity shift. The BPS is the National Statistical Agency (Badan Pusat Statistik). Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
Raising productivity in low-value services is necessary if poverty, vulnerability, and economic insecurity are to be reduced. Low value-added farming and activities in trade, accommodation and food services, and personal services account for the majority of Indonesia’s employment; many of the activities in services cater to local markets, although tourism services are largely externally oriented and employ more women than men. Not all of these jobs can be replaced by high value-added jobs, especially not in the short term.

Increasing the productivity of these jobs—including those in agriculture—from the current low base is essential to reduce economic insecurity. Sectors such as agriculture have significant potential to increase productivity: for example, by capturing a longer supply chain for farmers and increasing value added, or by diversifying into higher value-added crops such as horticultural products. Tourism, similarly, can flourish if higher-end quality services are developed. This will require investment, as well as skills training. However, increasing productivity within sectors is not enough: the transition of workers from low-productivity to higher-productivity sectors must also accelerate.

Nonmanufacturing industries have limited potential for creating sustainable middle-class jobs. Although mining and utilities contribute significantly to value added (21 percent of the total), they are very capital intensive and have limited capacity to absorb labor. The construction sector may be able to create jobs as infrastructure investments increase but, as shown in Chapter 2, provides very few jobs with middle-class income levels or with other aspects of middle-class jobs, such as worker protection. Moreover, the workforces in these sectors are male dominated and cannot, over the short-to-medium term and in the Indonesian context, be expected to create jobs for women.

Higher value-added services sectors have potential to grow and to create jobs, but the overall effect will be limited over the medium term. Jobs in higher value-added services—such as information and communications technology (ICT) or finance—are modern, often highly paid, and employ a large share of highly educated workers. As discussed in more detail in Chapter 5, when women acquire jobs in high-value services, they earn more, on average, than men. Encouragingly, employment in high-end services has, since 2010, grown faster than employment in low-value services. Investment in high-end services may well increase demand for skills and higher education, thus boosting aggregate human capital, and may lower the out-migration of highly skilled Indonesians. However, these services cannot be counted on to provide the main bulk of jobs in the short and medium term. Currently, high-value services employ 8 percent of the employed workforce and, even with very high growth rates (and supply-side constraints in terms of workforce skills aside), these services cannot be counted on to develop into a major source of labor demand. They are starting from a very low base, but, in fact, financial services, real estate, business services, and ICT do not account for a major share of employment even in high-income countries.
The manufacturing sector may have a better chance of providing higher-quality jobs, absorbing workers with limited levels of education, and providing gender-balanced job opportunities. Industrialization, driven by the manufacturing sector, helped Indonesia recover from commodity booms in the past, for example after the oil booms of the 1970s and early 1980s. Manufacturing firms, especially the medium sized and large, have provided comparatively "good" jobs in Indonesia as they provide wage employment and offer higher wages than agriculture or lower value-added services (Chapter 4). Unlike higher value-added services, however, manufacturing has offered easy entry as it has required lower skills (43 percent of workers in manufacturing have only primary levels of education—see Chapter 4—and this is almost identical to the educational profile of workers in lower value-added services) and has created jobs for women, who currently make up 45 percent of the workforce in the sector. Although productivity growth over time critically depends on higher skill levels—and strengthening the human capital of Indonesia’s population is one of the government’s main goals—a strategy to help create jobs for the current stock of workers will need also to foster jobs requiring low- and mid-level skills. From this perspective and at least over the short and medium term, manufacturing has significant potential for creating good jobs for those currently in more insecure jobs—as indeed it has already done in many other Asian countries.
3.5 Leveraging FDI for Job Creation

**Indonesia needs FDI to finance its investment-savings gap.** At present, Indonesia relies on portfolio investment to cover its current account deficit. These short-term capital inflows, while accessible to Indonesia, are inherently volatile. Foreign direct investment provides an alternative and more stable source of foreign capital that, under the right circumstances, could be tapped for job creation.

**However, so far, Indonesia has not succeeded in attracting sufficient FDI, especially export-oriented and job-creating FDI.** Indonesia has the lowest levels of FDI as measured by GDP per capita among Asian comparators (Figure 3.16). Indonesia’s underperformance reflects an overall poor investment climate, as well as constraints specific to FDI. General reforms have helped Indonesia improve its overall business climate and move up significantly in the World Bank’s Ease of Doing Business rankings, from 120th in 2014 to 73rd in 2019. However, Indonesia is ranked below Vietnam (70) and far below China (31), Thailand (21), and Malaysia (12). The improvement does not capture the fact that the investment climate remains unfavorable for foreign companies, reflecting the inward-looking nature of Indonesia’s current policy approach and continued struggles to reform behind-the-border issues. Until recently (see Box 6.1), Indonesia had some of the tightest restrictions on FDI, including in local content requirements and limits on foreign ownership. Trade barriers remain high, hindering investment in export-driven sectors built on GVCs—these export-driven sectors face barriers in importing some types of capital goods and raw materials. Beginning with the commodity boom that occurred after the Asian financial crisis, FDI to Indonesia has moved away from efficiency-seeking investments in export-oriented sectors in favor of tariff-jumping and rent-seeking investments in natural resources and production for the domestic market, including in utilities.

**Figure 3.16 Indonesia Is Not Attracting As Much FDI As Comparator Countries**

(Net inflows, percent of GDP, 2000–18)

![Graph showing FDI inflows as a percentage of GDP for Indonesia, Cambodia, Vietnam, Malaysia, Thailand, and Philippines from 2000 to 2018. Indonesia has the lowest percentage compared to the other countries.](Source: World Development Indicators)
Foreign direct investment can accelerate structural transformation and should be prioritized from a jobs perspective. By bringing in new technology and raising labor productivity, FDI can generate wage increases.\textsuperscript{17} Middle-income countries in Latin America and Asia have seen increasing aggregate labor demand and employment as a result of FDI inflows into manufacturing.\textsuperscript{18} Some, although not all, FDI results in improved organizational and technical improvements among local providers or generates higher labor productivity overall through technology spillovers to domestic firms.\textsuperscript{19} By offering both higher employment growth and higher labor productivity, FDI can increase the rate of structural transformation. Estimates suggest that were Indonesia to further relax its constraints on FDI, both foreign and domestic investment would increase in industry, as well as in tradable services.\textsuperscript{20}

However, FDI may also increase the wage gap between skilled and unskilled workers and contribute to wage inequality. In fact, FDI flows are likely to have different effects on job creation and wage inequality, depending on the destination sector. This holds even more for a country like Indonesia with limited human capital, a factor that blocks many workers from accessing higher-skill jobs. In general, the evidence suggests that FDI in low-skill manufacturing has the greatest effect on labor demand, creating the most jobs, and does not introduce large skill premiums. Higher-skill manufacturing may have a greater effect on skill premiums, but still increases aggregate demand. Foreign direct investment in the extractives industry, a capital-intensive sector, is not likely to create many new jobs.

The relationship between FDI in services and employment is more complex. Estimates suggest that if restrictions were relaxed, domestic investment in nontradable services would fall as FDI inflows increased. The direct job-creation effects may be mixed. Some investment in low-end services (for example, retail) may be more inward looking, focusing on accessing Indonesia’s large domestic market and as such would replace incumbents, rather than increase aggregate labor demand. However, investment restrictions, for example, in the mini-marts sector, may raise prices and constrain productivity growth in retail. Meanwhile investments in services exports—for example, focusing on tourism—could potentially create more middle-class jobs by increasing productivity in the services exports sector. On the other hand, FDI in services are known to improve productivity in other sectors and can therefore help indirect job creation. Evidence from the Czech Republic, India, and Indonesia shows that opening up services to foreign investors improves the productivity of domestic firms in manufacturing, which helps to create jobs and raise average wages in this sector.\textsuperscript{21}

\textsuperscript{17} Steenbergen and Trang 2020
\textsuperscript{18} Hale and Xu 2016
\textsuperscript{19} See, for example, Calì, Doarest, and Presidente (forthcoming); Tong, Kokko, and Seric (2019); and World Bank (2020a).
\textsuperscript{20} Calì et al. Forthcoming
\textsuperscript{21} Arnold, Javorcik, and Mattoo 2011; Arnold et al. 2016; Duggan, Rahardja, and Varela 2013
Boosting export-oriented FDI in Indonesia is an effective pathway to creating better jobs and can have strong gender effects. In Indonesia, as in many other countries, medium-sized and large manufacturing plants that are foreign owned and/or export oriented have higher labor productivity, tend to generate more jobs, and pay higher wages on average (Figure 3.17 and Figure 3.18). Foreign-owned manufacturing plants—mostly food processing firms and textiles factories—are also more export intensive. Apart from the direct potential contribution to employment, foreign-owned plants can also generate indirect effects. Vertical technology (or productivity) spillovers can happen through links with domestic suppliers and customers. Horizontal spillovers (to competitors) happen through demonstration or imitation effects and through increased competition that can spur innovation. These technology spillovers are far from automatic, however, and depend on the strength of links, the types of firms, and the domestic absorptive capacity, among others.\textsuperscript{22} District-level analysis of the local effects of manufacturing FDI in the period 2007—15 shows that when an additional foreign-owned manufacturing firm establishes itself in a district, total employment increases by 0.4 percent. Extrapolations to national level suggest that manufacturing FDI created some 4.6 million additional jobs in total in 2007—15, of which two-thirds were in the manufacturing sector itself.

\textbf{Figure 3.17} Foreign-Owned and/or Exporting Plants Pay Higher Wages on Average . . .

\textit{Average annual wages by manufacturing plant type, Rp millions}

\textbf{Figure 3.18} . . . And Create More Jobs

\textit{Average employment by manufacturing plant type, number of workers}

\textbf{Source}: World Bank staff calculations based on the Manufacturing Survey 2015.

\textbf{Note}: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).
**Manufacturing FDI can accelerate structural transformation in Indonesia by changing the employment and output structure, and also affects employment and productivity broadly in the economy.** The entry of a foreign-owned firm into a district improves resource allocation and shifts the structure of employment toward better jobs, by providing a first stepping-stone out of low-productivity sectors. District-level analysis shows that entry of foreign-owned firms brings a shift out of low-skill services and into manufacturing jobs, but does not have an effect on agricultural employment or high-skill services. In total, FDI provided an additional 2.9 percentage points to the share of manufacturing employment in the period 2007–15, and the contribution of FDI increased over time (even as the contribution of local manufacturing to total employment fell after 2012) (Figure 3.19).

**Figure 3.19 Foreign Direct Investment Increases the Share of Manufacturing Jobs in Total Employment**

*Share of manufacturing employment in total, without foreign direct investment (FDI) and FDI effect, percent*

![Graph showing the impact of FDI on manufacturing employment](image)

**Sources:** World Bank staff estimates based on the Manufacturing Survey, Sakernas, and National Accounts.

**Note:** The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang). Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

**Manufacturing FDI has generated productivity spillovers in Indonesia.** Multinationals also have a strong impact on total output in the districts they enter, both directly and through links to other sectors. In fact, the entry of a multinational firm increases real manufacturing and services output equally and has a small negative effect on agricultural output. As a result, increasing manufacturing FDI is associated with a significant increase in output per worker in manufacturing, as well as in services. In the manufacturing sector, FDI has provided more value-added jobs, because it brings with it greater technology intensity, management and organization skills, and integration in global markets. In the services sector, output per worker likely increased as a result of the destruction of low-productivity jobs as
workers took up manufacturing employment instead. As seen in Table 3.1, the effects on productivity were substantial in both manufacturing and services sectors.

Table 3.1 Foreign Direct Investment Increases Productivity in Manufacturing and Services

<table>
<thead>
<tr>
<th>Year</th>
<th>Manufacturing sector output per worker (Rp, millions)</th>
<th>Primary sector (agriculture and extractives) output per worker, (Rp, millions)</th>
<th>Service sector output per worker (Rp, millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>No FDI</td>
<td>Effect</td>
</tr>
<tr>
<td>2007</td>
<td>121</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>2008</td>
<td>128</td>
<td>88</td>
<td>40</td>
</tr>
<tr>
<td>2009</td>
<td>129</td>
<td>89</td>
<td>40</td>
</tr>
<tr>
<td>2010</td>
<td>126</td>
<td>90</td>
<td>37</td>
</tr>
<tr>
<td>2011</td>
<td>122</td>
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<tr>
<td>2012</td>
<td>118</td>
<td>81</td>
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<tr>
<td>2014</td>
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<td>97</td>
<td>39</td>
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<tr>
<td>2015</td>
<td>143</td>
<td>102</td>
<td>41</td>
</tr>
<tr>
<td>Average</td>
<td>128</td>
<td>89</td>
<td>39</td>
</tr>
</tbody>
</table>

Sources: Sakernas 2019; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

In all, these shifts point to the strong potential impact that FDI can have on structural transformation. Workers left low-end services and the primary sector to take up jobs in manufacturing, benefiting immediately from higher productivity. Workers who remained in low-value services likely benefited from the reduction of crowding in services catering to local demand and saw increases in productivity. The increase in productivity due to FDI was in fact substantial (Figure 3.20).
3.6 Conclusions

This chapter has addressed the role of Indonesia’s growth model and labor productivity growth for accelerating the move toward middle-class jobs. In particular, the chapter has focused on structural transformation of employment, from lower-productivity to higher-productivity activities, as a key mechanism for increasing the quality of jobs. The chapter has shown that a growth model focused on more openness to international trade and investment can help accelerate such a transformation. The implication is that Indonesia could improve the investment climate for firms overall, adapt the regulatory framework to make the country an attractive destination for FDI that can generate good jobs and spillovers, and pay specific attention to increasing labor demand in sectors that can offer better jobs.

Stable and relatively high economic growth has delivered better jobs, but these have not been good enough to shift a substantial part of the labor force into the middle class. The incomplete transformation of labor markets from low-income activities to middle-class income levels is due to both insufficient labor productivity growth and a disconnect between sectors that create value added and those that create jobs. Labor productivity—a key correlate of wages and other quality indicators of jobs—has not been growing in the sectors into which most workers moved.
The increasing dependence on commodity and nontradable sectors for growth has hurt labor productivity and job creation. In the past forty years, Indonesia has experienced two key stages of structural transformation. The first stage, from the 1980s until the Asian financial crisis, was characterized by increased international openness and rapid industrialization, especially through growth of the manufacturing sector and merchandise exports, and job creation in nonagricultural sectors. After the crisis, by contrast, Indonesia's growth was driven by commodity exports, which are not labor intensive, and a more inward-looking economic policy, characterized by lower job creation in manufacturing and by exports. Workers have continued to leave the agricultural sector, but have largely been confined to jobs in the low value-added services sector, while both output and job creation in manufacturing stagnated. As a result, labor productivity growth resulted from productivity growth within certain sectors (especially in agriculture), but not necessarily in sectors that created good jobs. Overall labor productivity growth was also held back by the fact that workers did not move into more productive sectors.

"Structural Transformation 3.0" will therefore need a growth model that helps reconnect labor productivity with jobs. Productivity-driven structural transformation needs to accelerate if more and better jobs are to be created. This will require Indonesia to: (i) promote labor productivity growth across the economy, including in low-productivity sectors such as agriculture and trade where most jobs are currently found; (ii) foster labor demand in nonagricultural sectors with higher labor productivity, especially manufacturing and higher value-added services; and (iii) assist workers in accessing those jobs, by closing gaps related to skills, information, and geographical mobility.

Foreign direct investment can provide a significant impetus in fostering both higher productivity and better jobs. Inward-looking policies have not delivered sufficient growth or jobs. More productive jobs will require policies that help Indonesia to open up further to the opportunities offered by international trade and investment. Foreign direct investment, especially that which is export oriented, can accelerate structural transformation as it offers both higher employment growth and higher labor productivity. In addition, foreign firms can afford to pay higher wages, and often generate productivity spillovers to other sectors. In the manufacturing sector, FDI has delivered these benefits in the past. In other sectors, especially services, FDI can generate direct and indirect job creation, but is also critical for increasing the overall effectiveness and competitiveness of the economy by raising the quality of services.
These findings point to the need for Indonesia to leverage international markets for investment, inputs, talent, and innovation in order to foster labor demand in sectors that can create jobs. Increasing the overall competitiveness and resilience of the Indonesian economy is essential for creating jobs in productive sectors and requires a stronger investment climate, a competitive, fair and level playing field, investments in infrastructure and human capital, financial-sector deepening and reform, and responsible management of natural resources. The policy recommendations below related to structural transformation focus on specific areas that could catalyze labor demand. The recommendations relate to increasing international openness by encouraging FDI and trade, which will benefit both foreign and domestic job-creating firms. Subsequent chapters provide a comprehensive take on the overall enabling environment that firms need (Chapter 4), and on preparing Indonesia’s firms (Chapter 4) and workforce (Chapter 5) to access productive opportunities and middle-class jobs.

Increasing labor productivity in low-productivity sectors such as agriculture will be essential for fostering structural transformation and improving the quality of workers at the lower end of the earnings scale. Productivity growth in agriculture, coupled with outflows of workers to nonagricultural sectors, has been a critical factor in reducing rural poverty in Indonesia. The higher agricultural productivity has freed up labor that was previously underemployed in subsistence farming for more productive jobs in industry and services. Agriculture remains affected by inadequate resource management (land expansion, deforestation, forest degradation), crops that are poorly matched to land quality, lack of extension services to facilitate transition to crops with higher yields, trade restrictions that distort incentives (overproduction of basic crops), and lack of links to manufacturing industries in, for example, food processing. Addressing these distortions could unlock significant jobs benefits in both agricultural and nonagricultural sectors.

Diversifying and opening up Indonesia’s economy will require broad and significant policy reform to reverse ground lost during and after the commodity boom and to meet the challenges related to rapid changes in technology and globalization. Both the level of FDI and the job creation by FDI are below potential in Indonesia. The export orientation of FDI has fallen: in 2014, only 35 percent of new foreign manufacturing plants were export-oriented, compared to 58 percent in 1996. Indonesia’s overall export performance has been worsening, especially compared to competitors (Vietnam, Thailand), and especially in goods manufacturing. Openness to the world economy comes with risks, but has historically proven to provide long-term gains that outweigh the costs. However, the routes to international markets look very different from those that existed during the rapid industrialization of the 1990s, when low-skill manufacturing offered significant opportunities for countries with large labor surpluses. Globally, the manufacturing sector is particularly affected by rapidly changing technologies and intensified knowledge

24 Chang et al. 2019
25 World Bank 2020a; Chang et al. 2019; World Bank 2019
26 World Bank 2020a
27 World Bank 2020a
content of products and services, increasing global protectionism, and shifting global trade patterns. Indonesia's manufacturing sector will also be affected by regional trade patterns and the proliferation of bilateral, plurilateral, and regional trade agreements, an area in which Indonesia lags behind many other countries in the region. Its manufacturing sector will also be affected by a changing regional context in terms of markets, investment, and competition (including China's rise followed by its more recent growth slowdown, and Vietnam's catch-up with Indonesia in skills and competitiveness). Low productivity growth has also meant that Indonesia has lost competitiveness compared to regional competitors. These shifts pose challenges to policy reforms designed to boost exports. The alternative—continuing on the inward-looking path—has not proved successful, however. To address the challenges related to international integration, Indonesia will need to foster innovation and growth in knowledge-intensive industries and activities. This will require reforms to increase the competitiveness, capabilities, and connectedness of its economy.28

**Indonesia could move decisively and benchmark itself firmly within its regional—and highly competitive—context.** Indonesia competes primarily with countries with more favorable investment climates (for example, Thailand) or lower labor costs (Vietnam). Indonesia has taken steps to improve its investment climate, but these reforms have not been sufficient to induce large-scale inflows of FDI. Indonesia could focus on improving the access of foreign investors to a greater number of sectors in the Indonesian economy, attracting job creators from abroad, and strengthening the behind-the-border investment climate by increasing the overall efficiency and competitiveness of the economy. In parallel, it will be important to improve the access of local firms and workers to opportunities offered by increased openness—by fostering technology spillovers, raising skill levels, and reducing information gaps. Rather than providing a plethora of specific tax and other costly targeted FDI incentives, Indonesia could strive to create a level playing field by removing unnecessary and distortive policies and developing a credible and predictable framework. This will favor competitive domestic firms and attract more efficiency-seeking and export-oriented FDI with the potential for job creation, higher productivity, and higher wages, rather than rent-seeking and inward-looking FDI with few effects on labor markets. Analyses by the World Bank focusing on fostering sustainable development in Indonesia29 show that this will require reform of regulatory frameworks for investment and trade, of systems for skills development, migration law, and more.

28 Hallward-Driemeier and Nayyar 2018
29 World Bank 2020a; Chang et al. 2019; World Bank 2019
Strengthening Indonesia’s attractiveness to FDI will serve to create labor demand both in foreign and domestic firms. Policies to draw in more, more effective, and more job-creating FDI will require Indonesia to: (i) reduce the restrictions on FDI and thereby increase investment by job creators and improve the investment climate for both domestic and foreign firms; (ii) reduce trade barriers, both tariff and nontariff measures, to provide domestic and foreign firms with access to high-quality inputs; and (iii) remove restrictions on hiring foreign talent to fill roles for which there is a shortage of domestic workers.

3.7 Recommendations

First, relaxing restrictions on FDI in the Negative Investment List would increase foreign investment and crowd in domestic investment, especially in tradable sectors. There is evidence that removing FDI restrictions would substantially increase foreign investment, crowd in domestic investment, and increase technological spillovers and productivity growth in domestic firms in Indonesia. Until recently, by international standards Indonesia had one of the most restrictive FDI regimes (see Box 6.1). The Negative Investment List includes limits on foreign equity, minimum local content requirements, outright prohibition of investment in specific sectors including utilities, and a range of sectors that are reserved for medium-sized and small enterprises, which thereby indirectly prohibits foreign (large) multinational companies from entering. These restrictions, rather than fostering a competitive domestic firm sector and job creation, are limiting the sophistication and competitiveness of Indonesian goods and services and distorting incentives for expansion. Foreign equity restrictions are particularly severe in the services sectors; many of these sectors are important for increasing the competitiveness of the economy—by efficiently providing high-quality business services, the broader economy benefits. These restrictions reduce the quality and/or increase the costs of domestic services, with negative implications for the productivity of firms in downstream sectors. Combined with reforms to build a middle-class workforce (see Chapter 5), openness to more FDI should slowly tilt the scale of net job creation toward sectors that are likely to create more middle-class jobs.

In addition to across-the-board, (almost) sector-blind reforms to attract foreign and domestic investment, some aspects of investment reform can be prioritized for sectors that are either potential job creators, especially creators of middle-class jobs (for example, tourism, ICT, finance, health, education, and specific manufacturing industries), or sectors that are critical for the competitiveness of the overall investment climate (for example, electricity and gas supply), or that are potentially transformative to low-productivity sectors, especially agriculture. This sector-specific investment targeting could, for example, prioritize investment promotion for infrastructure development projects in sectors that are more likely to be sources of middle-class jobs (and in other sectors that support these sectors). The government could dedicate more resources toward meeting the needs of these prioritized sectors.

30 Calì et al. Forthcoming
31 Calì, Doarest, and Presidente. Forthcoming
Second, lowering the high cost of trade would increase firms’ access to quality inputs. Export-oriented multinationals that are integrated into GVCs also source inputs (and talent) on international markets. Although the purpose of import restrictions (tariff and nontariff measures) is to nurture local production, the high cost of trade translates into restricted access to quality inputs. This in turn lowers Indonesia’s attractiveness, especially for outward-oriented firms, and prevents domestic firms from competing successfully in export markets. Between 2000 and 2017 Indonesia increased its average tariffs on imports, especially for capital and intermediate goods which affect firm productivity, and also intensified nontariff measures. Cumbersome product certification processes and preshipment inspections raise the indirect costs of importing. The system is also open to discretionary (and often inconsistent) treatment by different ministerial agencies and subnational governments. Indonesia could consider lowering the high cost of trade by both streamlining and lowering tariffs and reducing nontariff measures. Recent reforms have, however, helped to ease these constraints (see Box 6.1).

Trade agreements, while not a substitute for unilateral trade reforms, can help Indonesia access other markets for both imports and exports and increase the credibility of its economic reforms. Indonesia has signed many preferential trade agreements to obtain market access for its exports. However, Indonesia lags behind regional peers such as Vietnam or Malaysia in terms of the scope and ambition of these agreements. Several bilateral trade agreements have expired and Indonesia still has to finalize negotiations for others, including the EU Comprehensive Economic Partnership Agreement. Trade agreements afford opportunities beyond export market access. For example, they could include ambitious investment measures, which could help foster FDI. As the agreements encompass a range of areas relating to the competitiveness and level playing field of Indonesia’s economy (procurement, competition policy, and public sector reform, among others) they may also serve to lock in domestic reforms in areas relating to the competitiveness of Indonesia’s economy, including on foreign equity.
Third, firms active in Indonesia could be allowed to fill skills gaps by hiring foreign talent for roles for which there is a shortage of domestic workers. Indonesia does not currently have the workforce necessary to fill all middle-class jobs (Chapter 5), and skills gaps are particularly serious in manufacturing and higher value-added services. Managerial capacity is a critical factor for business survival and growth, but almost 80 percent of Indonesian firms report that they are unable to fill managerial vacancies. Although investment in human capital is a top priority for Indonesia, reforms will take time to bear fruit and, at any rate, such reforms are complementary to foreign-born talent, not a substitute for it. In fact, foreign talent can bring skill spillovers to domestic workers and firms and may foster domestic job creation as businesses identify new opportunities through imported skills.

In spite of the unsatisfied demand for skilled labor, Indonesia’s share of foreign labor in its workforce is low (0.06 percent in 2016), compared to Asian competitors (more than twice as high in Vietnam at 0.15 percent, and nearly 5 percent in Thailand). Restrictions on hiring foreign workers make it difficult to fill such posts. Indonesia has, however, moved toward increased hiring of foreign workers to fill roles for which there is a shortage of skilled domestic candidates through recent reforms (Presidential Regulation No. 28/2018 and Ministry of Manpower Decree No. 229/2019). These reforms are deepened by more recent reforms under Government Regulation No. 34/2021 on Foreign Workers. There remains, however, room to improve access to foreign talent to fill roles for which there is a shortage of domestic workers (see Box 6.1).

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33 Bloom et al. 2018; Bloom et al. 2010
34 Manning and Aswicahyono 2012
35 Foreign talent can bring skill spillovers to domestic workers following the same logic of spillovers from foreign firms to domestic firms. A nascent literature on the economywide impacts of high-skilled migration in receiving countries suggests small but positive impacts on productivity, innovation, trade, and entrepreneurship (Nathan 2014).
36 World Bank 2019
References


Azis, Iwan. 2020. “Coronavirus-Driven Crisis: This Time Is Different.” Slide presentation at an Australian National University webinar, held on June 3.


4.1 Overview

Most enterprises in Indonesia do not create jobs, let alone middle-class jobs. In 2016, an average nonagricultural enterprise in Indonesia had less than three employees by the fifth year of operation and needed another 15 years to grow to become an enterprise of five employees (Figure 4.1). In fact, more than 98.75 percent of all enterprises in Indonesia in 2014 were microenterprises, defined as having fewer than five employees. While the number of enterprises is growing and jobs are being created, employment growth within these firms is limited. In the manufacturing sector, microenterprises tend to be low productivity, accounting for 91.6 percent of the total number of establishments in 2015, but only 6.2 percent of total value added (at market prices)—with limited profits to boost firm owners or their employees into the middle class.

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1 This chapter is based on Alatas and Wihardja (Forthcoming); Steenbergen and Hebous (2020); and Cunningham and Syamsulhakim (Forthcoming).
2 OECD (Organisation for Economic Co-operation and Development) 2018
3 Data from the Ministry of Cooperatives and SMEs refer to establishments, rather than enterprises, and include the agricultural sector.
In contrast, Indonesia’s medium-sized and large manufacturing firms have higher productivity, pay higher wages and benefits, and grow more relative to micro and small enterprises. Medium and large firms, in particular foreign firms, are also more formal (a larger share have legal status) and hence more are subject to labor regulations—including those that protect workers—compared to micro and small enterprises. In other words, wage jobs in medium and large manufacturing firms provide important pathways to the middle class. The Shapley decomposition analysis laid out in Chapter 2 confirms this.

Relative to other sectors, manufacturing firms, in particular medium-sized and large manufacturing firms, are key creators of middle-class jobs in Indonesia. In absolute terms, the manufacturing industry employs the largest number of workers with wages above the consumption threshold of a middle-class population (Table 4.1).

Table 4.1 Manufacturing Sector as a Source of Middle-Class Jobs in 2018

<table>
<thead>
<tr>
<th>Employment sector</th>
<th>Income earners (wage employees, self-employed, casual workers)</th>
<th>Income earners with wages above middle-class consumption cutoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>14,371,642</td>
<td>509,462</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>1,287,197</td>
<td>375,382</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14,539,543</td>
<td>2,211,864</td>
</tr>
<tr>
<td>Electricity and gas</td>
<td>322,754</td>
<td>81,625</td>
</tr>
<tr>
<td>Water supply, sewerage, waste management and remediation</td>
<td>410,302</td>
<td>53,920</td>
</tr>
<tr>
<td>Construction</td>
<td>7,783,340</td>
<td>574,070</td>
</tr>
</tbody>
</table>
Although job creation in medium-sized and large manufacturing firms was historically high during the industrialization of the 1980s and early 1990s, it was largely destroyed during the “hollowing-out” decade that followed the Asian financial crisis (Figure 4.2 and Annex Figure 4.1). Starting in the late 1980s, Indonesia was able to industrialize by rapidly growing its manufactured exports. At that point, manufactured exports were not dominated by China. Indonesia also had a large labor surplus, which attracted labor-intensive industries. As a result, between 1991 and 1996 medium-sized and large manufacturing firms created a net average of 258,681 jobs per year. However, between 2000 and 2010, Indonesia entered its hollowing-out decade in which, in seven of the ten years, medium-sized and large manufacturing firms reported negative net job creation. This hollowing-out decade partly coincided with the commodity boom of 2001–12, the complex “big-bang” decentralization and local democratization in Indonesia following the fall of former president Soeharto, and the global financial crisis of 2008. Prior to the Asian financial crisis, Indonesia carried out comprehensive and across-the-board deregulation that led to rapid expansion of the manufacturing sector. This was not replicated after the Asian financial crisis.\(^4\) Over the decade, medium-sized and large manufacturing firms only created an average annual 12,798 new jobs per year. The following period saw a resumption in job growth in medium and large manufacturing firms; they created an average of 150,355 jobs per year during the period 2010–15.

\(^4\) Indonesia’s hollowing-out decade is similar to that which occurred in the United States, although the causes and impact were different. Between 2000 and 2010, US manufacturing employment fell by 5.8 million— one-third—from 17.3 million to 11.5 million. The sector has only recovered 12 percent of those jobs lost. The decade was associated with social disruption, because manufacturing was an important pathway to becoming middle class, to winning a secure job and benefits. See Guilford 2018.

\(^5\) Kuncoro 2019
The hollowing-out period in the manufacturing sector between 2000 and 2010 amounts to a decade of lost middle-class jobs. Not only did manufacturing cease to be a source of growth of good-quality jobs, a significant portion of those who might have worked in manufacturing without the hollowing out instead moved into low-paying jobs in the service sector. During this period, inequality skyrocketed: Indonesia’s Gini coefficient rose from 30 points in 2000 to 37.8 points in 2010, and 41.4 points in 2014, the highest level ever recorded in Indonesia. Indonesia’s Gini, once relatively moderate by international standards, had become high and climbed faster than the Ginis of most of its East Asian neighbors.\(^6\)

\(^6\) World Bank 2014

### Box 4.1 Who Are Manufacturing Workers?

Manufacturing sector workers tend to be gender balanced, young, have a low- to mid-level of education, and are blue-collar. Between 2008 and 2015, on average 57 percent of the labor force in manufacturing was male with an average age of 33.7. In 2015, 43 percent of workers had only a primary education and another 43 percent had a secondary education, a significant improvement from 2008 when 54 percent of manufacturing workers had only a primary education. Eighty-three percent of workers in manufacturing in 2015 were employees; the sector has become increasingly employer-employee based and increasingly formalized, as evidenced by the decline in the share of casual workers in the sector. The majority of jobs in manufacturing in 2015 were blue-collar (86 percent of the labor force), while only a small share (14 percent) of the workforce held white-collar positions.
The services sector is also key to creating middle-class jobs. However, firm-level panel data are unavailable, preventing deep analysis of the demand side of jobs.

Using data from the Economic Census 2016, the authors found that 81 percent of total nonagricultural enterprises were in the services sector (21.7 million enterprises, 89 percent of which were microenterprises), while 17 percent were in manufacturing, 1 percent in other industries, and another 1 percent in construction. As Table 4.1 shows, there were 9 million middle-class jobs in total in all services subsectors combined in 2018, compared to 2.2 million middle-class jobs in manufacturing, 1.1 million in other industries, and 510,000 in agriculture. The services subsectors that created a significant number of middle-class jobs (relative to manufacturing) include: (i) wholesale and retail trade, and vehicle repair; (ii) public administration, defense, and compulsory social security; and (iii) education activities. However, the lack of firm-level panel data for services makes it very challenging to conduct any deep analysis on the demand side of jobs in that sector. Literature on the topic is also extremely scarce.

Table 4.2 Descriptive Statistics of Manufacturing Labor Force

<table>
<thead>
<tr>
<th>Year</th>
<th>General</th>
<th>Level of education</th>
<th>Employment type</th>
<th>Occupation type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male (%)</td>
<td>Average Age</td>
<td>None (%)</td>
<td>Primary (%)</td>
</tr>
<tr>
<td>2008</td>
<td>55</td>
<td>33</td>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td>2009</td>
<td>54</td>
<td>33</td>
<td>12</td>
<td>49</td>
</tr>
<tr>
<td>2010</td>
<td>55</td>
<td>33</td>
<td>10</td>
<td>48</td>
</tr>
<tr>
<td>2011</td>
<td>57</td>
<td>33</td>
<td>10</td>
<td>49</td>
</tr>
<tr>
<td>2012</td>
<td>57</td>
<td>34</td>
<td>9</td>
<td>47</td>
</tr>
<tr>
<td>2013</td>
<td>58</td>
<td>34</td>
<td>9</td>
<td>46</td>
</tr>
<tr>
<td>2014</td>
<td>58</td>
<td>34</td>
<td>8</td>
<td>45</td>
</tr>
<tr>
<td>2015</td>
<td>58</td>
<td>35</td>
<td>8</td>
<td>43</td>
</tr>
<tr>
<td>Average</td>
<td>57</td>
<td>34</td>
<td>9</td>
<td>48</td>
</tr>
</tbody>
</table>

Sources: Steenbergen and Hebous 2020, using Sakernas
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

7 The 2006 and 2016 editions of the Economic Census did not collect detailed firm-level information and they are not panel-data series. The 2009 and 2015 editions of the World Bank Enterprise Survey did not include all services subsectors and were only representative for some subsets of Indonesian firms in two groups of services, namely “other services” and retail. For the World Bank Enterprise Survey, 1,444 interviews were conducted in 2009 and 1,320 in 2015. Of the interviewees, 491 were included in both surveys. Moreover, the survey did not collect the detailed financial information needed to calculate value added and labor productivity for the services firms. See Gomez-Mera and Hollweg (2018) for descriptive analysis of firm-level employment growth using the 2009 and 2015 World Bank Enterprise Survey.

8 See Manning and Aswicahyono (2012); 2005 input-output tables were used in examining the creation of jobs in the services sector from export activities.
This chapter begins to unpack the firms side of the jobs issue by exploring the dynamics of medium-sized and large manufacturing firms. The choice of sector and firm size was driven by the sample frame of the available data. Data from the Manufacturing Survey is available for the period 1990–2015; it is an annual survey of all medium and large manufacturing firms in Indonesia with 20 employees or more. The Manufacturing Survey provides rich panel data about the firms, including age, ownership, number of workers by type, and production inputs and outputs. This chapter also contains deeper work on the role of manufacturing foreign direct investment (FDI) in the creation of middle-class jobs.

4.2 Employment Dynamism in Medium-Sized and Large Manufacturing Plants

Indonesia’s flagship manufacturing industries have changed over the period 1990–2015, with implications on the demand for and quality of jobs. The main shift in key industries within the manufacturing sector between 1990 and 2015 in terms of (real) value added has been the increasing share of automotive and other transport equipment from 4 percent to 13 percent and the increased share of computers, electronics, optics, and electrical equipment from 2 percent to 8 percent. The food and beverages sector has seen a more modest increase of 2 percentage points in its share of (real) value added. Meanwhile, the tobacco share of value added has declined from 15 percent to 5 percent. Textiles and textile products have seen a modest 1-percentage-point decline in share in (real) value added.

In terms of employment, changes in the shares of selected sectors are more subdued, due to the increasing dominance of more capital-intensive or high-technology industries. The share of automotive and other transport equipment increased from 3 percent to 5 percent, and of computers, electronics, optics, and electrical equipment from 2 percent to 5 percent. The less rapid changes in the size of shares of employment compared to (real) value added and output in these two sectors indicate the more capital-intensive/high-technology and/or more productive nature of the new industries. Meanwhile, tobacco, and textiles and textile products have both seen a 1-percentage-point decline in share of employment. The less rapid decline in the employment share in tobacco relative to (real) value added and output suggest that this sector is more labor-intensive (and less productive) than other industries with increasing shares in (real) value added and output.
Between 1990 and 2015, employment was increasingly absorbed by very old and very large plants. Young plants aged 0–9 dominate in terms of number of plants from 1992 to 1997. However, since 1998, plants aged 10 and above have taken over and accounted for the highest number of plants until 2015 (Figure 4.3). In terms of net employment, young plants cut many jobs during the Asian financial crisis of 1997–98 (see Figure 4.4). This was partly due to firm exit, since small firms (below 50 employees) and firms aged younger than 10 were more likely to exit during this period than older and larger firms. Firms with 1,000–2,999 employees and those that had been in operation for 30 years or more were the least likely to exit during this crisis period, while ownership status was not significant in determining how likely a firm was to exit. In short, the Asian financial crisis seemed to deter entrance of new firms while killing off young and small firms, thus leaving only old and large firms once the crisis had passed. Between 1990 and 2015, plants aged 10–19 absorbed the most jobs, but, in 2013, plants aged 30 plus took over (Figure 4.4).

Indonesian manufacturing plants are aging . . . Plants were already aging from 1995, even before the Asian financial crisis. The share of old plants (aged 20 and over) out of the total number of plants increased significantly from 1995 (Figure 4.3). Similarly, the employment share of old plants (as a share of total manufacturing employment) increased even faster from about the same year (Figure 4.4). As a result, older plants had higher-than-average numbers of employees per plant relative to younger plants.

Based on an estimated probit model on firm exit during 1997–98.
... because few plants entered during the Asian financial crisis and few young plants survived it. During the Asian financial crisis and the global financial crisis of 2008, the entrance of start-ups into the market slowed significantly. Hiring in new firms was already low in 1993–96, even before the Asian financial crisis. Although there has been a surge in young firms, and somewhat in hiring, since 2013, average levels of both remain below the pre-1993 level (Figure 4.5 and Figure 4.6).

Most Indonesian businesses are privately owned domestic firms, and these are the firms that create most employment. More than 90 percent of Indonesian firms are domestically owned, and nearly all are privately owned. In 1990, more than 90 percent of workers were employed in domestic firms, while slightly more than 80 percent were in privately held firms and more than 10 percent worked in the small share of publicly owned firms. By 2015, employment in privately and publicly held firms had fallen; 70 percent of workers were employed in privately held domestic firms and 3 percent in publicly owned firms.

While domestic firms remain important for jobs, the presence of foreign-owned plants increased in Indonesia; their share of total firms and employment expanded significantly between 1990 and 2015. The employment share of foreign-owned plants increased from 7 percent in 1990 to 26 percent in 2015 (Figure 4.8), while the share of foreign-owned plants in the total number of plants increased from 2 percent in 1990 to 9 percent in 2015 (Figure 4.7). In 2011, about half of employment in foreign-owned plants was in firms that exported 50 percent or more of their production. In absolute terms, in 2015, foreign-owned plants employed more than seven times as many people as they did in 1990.

Sources: Manufacturing Survey 1990–2015; World Bank staff calculations
Note: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

A plant is identified as “foreign owned” if a foreign shareholder owns the largest proportion of the investment.
4.3 Job Creation and Destruction

Job creation was offset by job destruction, and this dynamism mostly came from surviving plants. From 1990 to 2015, weak net job creation in the manufacturing sector, especially between 2000 and 2010, was not due to a lack of job creation, but because job destruction was equally high (Figure 4.9). Moreover, most jobs created or destroyed came from surviving plants, rather than from new plants (job creation) or exiting plants (job destruction). This high job churning mostly came from production workers vis-à-vis nonproduction workers.

Figure 4.9 Most Employment Growth and Destruction Was in Surviving Firms

Job creation and job destruction, 1991–2015
Labor-intensive, low-technology sectors were responsible for the most (net) job creation and job destruction in the manufacturing sector during 2013–14. In 2013 and 2014, garments produced from textiles, special paper, knitted and embroidered products, edible palm oil, and smoked rubber were the top five subsectors in terms of net job creation (Table 4.3). Meanwhile, the most job destruction in net terms occurred in stripping, cleaning, and sorting coffee, and in coffee and tea processing.

<table>
<thead>
<tr>
<th>Harmonized system code</th>
<th>Sector</th>
<th>Net job creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>14111</td>
<td>Garments produced from textiles</td>
<td>60,326</td>
</tr>
<tr>
<td>17014</td>
<td>Special paper</td>
<td>40,216</td>
</tr>
<tr>
<td>13911</td>
<td>Knitted and embroidered products</td>
<td>21,645</td>
</tr>
<tr>
<td>10431</td>
<td>Edible palm oil</td>
<td>20,021</td>
</tr>
<tr>
<td>22122</td>
<td>Smoked rubber</td>
<td>17,593</td>
</tr>
<tr>
<td>10612</td>
<td>Stripping, cleaning and sorting coffee</td>
<td>(40,404)</td>
</tr>
<tr>
<td>10761</td>
<td>Coffee and tea processing</td>
<td>(15,310)</td>
</tr>
<tr>
<td>20112</td>
<td>Basic chemical and inorganic gas</td>
<td>(14,239)</td>
</tr>
<tr>
<td>12091</td>
<td>Tobacco drying</td>
<td>(5,261)</td>
</tr>
<tr>
<td>22123</td>
<td>Crumb Rubber</td>
<td>(4,870)</td>
</tr>
</tbody>
</table>

Sources: Manufacturing Survey 2013–14; World Bank staff calculations
Note: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

Net job creation hides the degree of job churning. Subsectors with the highest rates of job churning (the sum of the gross values of job creation and job destruction) between 2013 and 2014 include some of the subsectors that have the highest net job creation, namely garments produced from textiles, edible palm oil, and special paper (Table 4.4). Subsectors with the highest job churning were generally labor-intensive industries (for example, textiles and textile products, footwear, food and beverages), but were also those that typically have short-term purchase orders from buyers, that have employees on short-term contracts (for example, textiles and textile products), or low-technology or light industries.

The authors used 2013 and 2014 data because the “reasons for exit” variable was not available for 2015 at the time of writing. Without the variable, the authors could not distinguish between firms exiting and firms downsizing.
**Table 4.4 Top Five Subsectors with the Highest Job Churning in 2013 and 2014**

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Description</th>
<th>Job churning (upper bound)</th>
<th>Job churning (lower bound)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14111</td>
<td>Garments produced from textiles</td>
<td>126,000</td>
<td>123,821</td>
</tr>
<tr>
<td>10431</td>
<td>Edible palm oil</td>
<td>61,407</td>
<td>61,270</td>
</tr>
<tr>
<td>10612</td>
<td>Stripping, cleaning, and sorting coffee</td>
<td>44,656</td>
<td>44,656</td>
</tr>
<tr>
<td>17014</td>
<td>Special paper</td>
<td>40,230</td>
<td>40,230</td>
</tr>
<tr>
<td>10761</td>
<td>Coffee and tea processing</td>
<td>34,898</td>
<td>34,898</td>
</tr>
<tr>
<td>13121</td>
<td>Weaving (excluding sacks)</td>
<td>34,502</td>
<td>34,206</td>
</tr>
<tr>
<td>13133</td>
<td>Fabric printing</td>
<td>31,646</td>
<td>31,646</td>
</tr>
<tr>
<td>15201</td>
<td>Everyday footwear</td>
<td>29,274</td>
<td>29,192</td>
</tr>
<tr>
<td>13112</td>
<td>Yarn spinning</td>
<td>28,699</td>
<td>28,099</td>
</tr>
</tbody>
</table>

*Exit includes firms downsizing and becoming micro or small.
Exit does not include firms that downsize to micro or small.*

**Sources:** Manufacturing Survey 2013–14; World Bank staff calculations.

**Figure 4.10 Net Job Creation Was Strongest in Textiles, Apparel, and Footwear before the Asian Financial Crisis, Then Joined by Food and Beverages**

Net job creation by manufacturing subsector, 1991–2015


**Note:** The year 2006 was a census year and the survey of that year contains more firms than in other years. It has been excluded for consistency reasons. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

All plants experienced a broad-based weakening in net job creation between 2000 and 2010, except those that were foreign owned. Net job creation was generally strong between 1991 and 1996 for almost all subsectors, but was generally very weak between 1997 and 2009 for almost all subsectors, followed by signs of strengthening from 2010. Pre-Asian financial crisis, strong net job creation came from the textiles, apparel, and footwear subsectors. Net job creation slumped both overall and in these three subsectors during the Asian financial crisis and the hollowing-out decade, then rebounded in 2014–15. Net job creation in the food and beverages subsector grew strongly in 2011–12 (Figure 4.10). Net job creation was positive for almost all employment-size groups between 1991 and 1995, but...
was generally very weak for all employment-size groups between 1996 and 2009, except in 1999, 2000, and 2004 when net job creation was positive for some employment-size groups (large companies with 1,000+ employees). Net job creation resumed between 2010 and 2015, although it was not as consistently strong as during the 1991–95 period (Figure 4.11). Net job creation was generally strong for all firm-age groups in 1991–95 (Figure 4.12); it was very weak for younger plants (aged under 9) between 1996 and 2009, but strengthened again for most age groups between 2010 and 2015, except those aged 10–19. Only in 2013–15 did net job creation revive among the youngest plants (aged 5 or younger).

**Figure 4.11** Net Job Creation Greatest in Very Large Firms until 2013; Net Job Creation in Small Firms Resumed in 2013

*Net job creation by manufacturing subsector, 1991-2015*

Sources: Manufacturing Survey 1991–2015; World Bank staff calculations

Note: The year 2006 was a census year and the survey of that year contains more firms than in other years. It has been excluded for consistency reasons. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang)

**Figure 4.12** Net Job Creation Was Very Weak for Younger Plants (Aged under 9) between 1996 and 2009

*Net job creation by manufacturing subsector, 1991-2015*

Sources: Manufacturing Survey 1991–2015; World Bank staff calculations.

Note: The year 2006 was a census year and the survey of that year contains more firms than in other years. It has been excluded for consistency reasons. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang)
Net job creation was generally positive for foreign plants from 1991 to 2015. Excluding 2000–02, when the government’s restructuring of the private sector took place, net job creation was generally consistently positive, albeit small, for foreign plants except in 2004, 2009, and 2013. Meanwhile, net job creation by private domestically owned plants was strong in 1991–95, weak in 1996–2009 (except in 1999 and 2004) and started to pick up again in 2010–14 (Figure 4.13).

Comparing employment in 2005 with the 2015 situation, privately owned domestic and foreign-owned plants were net job creators, while publicly owned plants were net job destroyers. Between 2005 and 2015, private domestically owned plants created a net 583,640 jobs, and foreign plants created a net 564,555. Meanwhile, state-owned plants destroyed a net 127,466 jobs. Net job creation by foreign-owned plants mostly came from relatively old (aged 10 and above) plants, while net job creation by privately owned plants was more mixed and young firms (aged 5 and under) also contributed significantly (Figure 4.14).

14 Net job creation was calculated based on the differences in the number of jobs in the age, size, and ownership categories in 2005 and 2015.
How is Demand for Jobs Created in Medium-Sized and Large Manufacturing Firms?

High growth in productivity and export share were associated with higher employment growth from 1990 to 2015. Higher productivity expands the market and creates demand for more labor, outweighing the substitution effect on labor of higher productivity. Although Figure 4.13 and Figure 4.14 suggest foreign-owned plants were strong net job creators from 2005 to 2015, after controlling for employment size, age, productivity growth (growth in real value added per worker), and growth of exported share of production, foreign ownership was not the key factor that determined employment growth. In fact, foreign ownership marginally reduced employment growth, after controlling for the other variables. Instead, large and old plants with high productivity growth and high growth of exported share of their production were found to have higher employment growth on average (Figure 4.15).

The positive association between growth in labor productivity and employment growth is due to the lower production costs (especially unit labor costs), greater competitiveness, and market expansion. In essence, higher labor productivity expands the market and the output effect outweighs the substitution effect. For example, Dutz (2018) uses data from Brazil and finds that “a 10 percent decrease in the average manufacturing price-cost margin, as would likely occur with greater competition, is associated with an increase in labor productivity growth of over 3 percent per year—which corresponds to an expansion in employment of about 1.4 million jobs per year.”

15 The authors follow the definitions of employment growth at the plant level in Davis and Haltiwanger (1992) and Davis, Haltiwanger, and Schuh (1996).

16 Greater competition can also lead to a higher average price-cost margin, as higher competition leads to a higher exit probability from the less efficient firms. The average price-cost margin could increase due to technical efficiency.
4.4.1 Privately owned firms grow more slowly compared to foreign-owned and state-owned firms

Indonesia’s medium-sized and large manufacturing plants did not grow significantly over their 40-year life cycles, relative to trends in other countries. Plants that were held privately under Indonesian ownership grew more slowly on average over their life cycles than plants held under foreign ownership and state-owned plants (Figure 4.16). Five years after establishment, foreign-owned and state-owned plants added, on average, 10 employees per year, but a privately owned plant started adding only 5 employees per year and only from its 9th year of establishment. For privately owned domestic plants, employment doubled only by the 32nd year following establishment, with growth occurring very slowly across the life cycle. In other words, privately owned domestic Indonesian plants on average barely grew over their 40-year life cycle. The fact that privately owned domestic plants grew even more slowly than state-owned plants, which are not subject to competitive pressures, is a concerning sign; growth of firms shows that the market is vibrant and contains competition that drives productivity, competitiveness, and growth. Even compared to the life cycle of manufacturing plants (with 20 employees or more) in Vietnam, which is less developed than Indonesia in terms of GDP per capita, Indonesian manufacturing plants look stunted.17

Figure 4.16 Privately Owned Indonesian Firms Grow Slowly Compared to Firms under Public or Foreign Ownership

Employment life cycle, by ownership status; number of employees (y-axis); age (x-axis)

Sources: Manufacturing Survey 1990–2015; World Bank staff calculations

Note: The authors regressed number of employees on age dummies to produce an employment lifecycle. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

The age-growth profiles suggest that the first four years of a plant’s life cycle are most critical for growth spurts in real value added and employment. The age-growth profiles suggest that the growth of real value added and employment among very

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17 Cunningham, Ly, and Chea 2018
young plants play an important role in the growth of most manufacturing subsectors.\textsuperscript{18} Findings from one study show that, regardless of the definition used, high-growth firms tend to be younger than average.\textsuperscript{19} Further, a study on high-growth firms in Indonesia\textsuperscript{20} shows that high-growth firms tend to have spurts of high growth in the early years. This may be due to several factors. First, younger firms face “up or out” dynamics—they either need to grow quickly and stabilize, or they will fail to grow and exit. Second, younger firms tend to invest in the most advanced technology, while older firms continue to use older capital. Third, younger firms revise their beliefs more frequently than older firms regarding the demand for their products, as they are uncertain of their product appeal.\textsuperscript{21} This enables surviving young firms to grow more rapidly than older firms.\textsuperscript{22} Overall, the growth rate for value added is flat after four years of operation, while employment growth continues to slow for at least the next 20 years.

4.4.2 More productive firms are less likely to close down or to become small and micro

\textbf{Between 2005 and 2015, out of the total number of plants that existed in 2005, 46 percent downsized, 24 percent grew in size, and 27 percent exited.}\textsuperscript{23} Younger plants are more likely to exit and are more likely to reduce in size to below 20 employees (Table 4.5). Among plants aged 0–5 in 2005, 32 percent had exited by 2015, while 19 percent had reduced in size to micro or small. Among plants aged 6–10 in 2005, 28 percent had exited by 2015, while 17 percent had reduced in size to micro or small. Among plants aged above 10 in 2005, 25 percent had exited by 2015, while 15 percent had reduced in size to micro or small. Taking the whole sample together, 46 percent of firms downsized in the ten-year period and 27 percent exited; only 24 percent grew and 3 percent maintained their size.

<table>
<thead>
<tr>
<th>Years after establishment</th>
<th>Firm size in 2005</th>
<th>Firm size in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium</td>
<td>Large</td>
</tr>
<tr>
<td>0–5</td>
<td>Medium</td>
<td>1,091</td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>159</td>
</tr>
<tr>
<td>6–10</td>
<td>Medium</td>
<td>1,091</td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>226</td>
</tr>
<tr>
<td>&gt;10</td>
<td>Medium</td>
<td>3,861</td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>815</td>
</tr>
</tbody>
</table>

\textbf{Table 4.5 Changes in Size of Firms between 2005 and 2015}

\textit{Number of firms by size and years after establishment}

\textbf{Sources:} Manufacturing Survey 2005 and 2015; World Bank staff calculations

\textbf{Note:} The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

\textsuperscript{18} Alatas and Wihardja. Forthcoming
\textsuperscript{19} Grover Goswami, Medvedev, and Olafsen 2019
\textsuperscript{20} Ferro and Kurikose 2018
\textsuperscript{21} A firm that experiences higher demand than expected will revise its forecasts upward and expand production, while a firm that experiences lower demand than expected will revised its forecasts downward and reduce production or exit the market.
\textsuperscript{22} Grover Goswami, Medvedev, and Olafsen 2019
\textsuperscript{23} The Manufacturing Survey data shows whether a firm exited the market or whether it exited the survey. The data shows why a firm exited the survey, including whether it exited because it became smaller (less than 20 employees).
Plants with higher productivity, foreign ownership, and that are larger and older are less likely to exit. Controlling for other variables, the probability of a plant exiting decreases with size, age, and productivity (Figure 4.17). More productive plants have higher survival rates, while less productive plants are more likely to exit. Similar to many other countries, smaller (20–49 employees) and younger (0–5 years old) plants are most likely to exit. Given that (surviving) young plants (0–5 years old) have the highest growth spurts in value added and employment, the high likelihood that young plants will exit has negative implications for job creation.

More productive, state-owned, and larger firms are less likely to become small and micro (and are less likely to close down), and the probability of this occurring is not significantly affected by age. Similar to the probability of such a plant exiting, the probability of the plant downsizing to micro or small decreases as size and productivity increase, but is not affected by age (Figure 4.18). On the contrary, while the probability of exiting is higher for state-owned plants relative to privately owned plants, the probability of becoming micro or small is lower for state-owned plants relative to privately owned plants. Also, while the probability of exit is lower for older plants, the probability of becoming micro or small is not significantly affected by age.

Sources: Manufacturing Survey 1990–2015; World Bank staff calculations

Note: The probability of exit (other than getting smaller), with respect to private, domestic plants with 20–49 employees, 0–5 years from the date of establishment. Controlled for province, subsector, and year; all coefficients are significant at 10 percent confidence interval, except foreign and 6–9 years after establishment. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

Sources: Manufacturing Survey 1990–2015; World Bank staff calculations

Note: The probability of becoming micro or small (with respect to private, domestic plants with 20–49 employees, 0–5 years from the date of establishment). Controlled for province, subsector, and year; all coefficients are significant at 10 percent confidence interval, except foreign, 6–9 years after establishment, 20–29 years after establishment, and 30+ years after establishment. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

24 Using a probit model, the authors also calculated the probability of downsizing to micro or small from medium or large.
4.5 What Does Manufacturing FDI Mean for Middle-Class Jobs?

Attracting FDI in manufacturing can provide opportunities for growth in middle-class employment. Foreign-owned manufacturing firms can be important for stimulating employment growth and they also pay wage premiums, thereby contributing to middle-class jobs. However, Indonesia is not as welcoming as it could be to foreign investors. According to the OECD FDI Restrictiveness Index 2017, Indonesia is the third-most restrictive out of 68 rich and middle-income countries. Restrictions have limited foreign investment and hampered job creation, including in the labor-intensive manufacturing sector. Indonesia’s FDI inflows as a share of GDP have averaged less than 2 percent over the past decade, among the lowest in the region (Figure 4.19). The shares of value added, output, and employment contributed by multinationals were subdued between 2007 and 2015 (see Figure 4.20).

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Figure 4.19 Indonesia Has Limited FDI Inflows
FDI inflows in GDP in percent, Indonesia versus comparators, 2009–18

Sources: Steenbergen and Hebous 2020; World Development Indicators

Figure 4.20 Multinational Activity in Indonesia Is Subdued
Multinational activity shares (out of 1: firm average, 2007–15

Source: Manufacturing Survey 2007–15
Note: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

Box 4.2 Cross-Country Studies on Distributional Impact of Foreign Direct Investment

There is considerable evidence from a range of countries that foreign direct investment (FDI) is beneficial across the entire sector in which it is deployed, raising overall employment and average wages. Much of the existing evidence points to FDI raising wages, a result driven primarily by new technology and increased labor productivity. In many cases, the literature also finds FDI has a positive effect on aggregate employment. For example, FDI was found to lift the employment rate in China, the Czech Republic, and Uruguay. In addition, FDI also had a strong positive effect on employment in Mexico’s manufacturing sector, with stronger effects in export-oriented industries.

- Hale and Xu 2016
- Karlsson et al. 2009
- Dinga and München 2010
- Peluffo 2015
- Waldkirch, Numnenkamp, and Alatorre Bremont 2009

In this section, a firm is classified as a multinational if its foreign capital share is at least 10 percent.
In Indonesia, FDI has also raised manufacturing employment. Sjöholm, Lipsey, and Sun (2010) find that foreign establishments played a role in Indonesia’s growing manufacturing employment between 1975 and 2005. While plants with some foreign ownership made up less than 10 percent of manufacturing employment in 1975, they employed around 20 percent in 2005. The authors also find that employment in foreign-owned plants grew about 5 percent faster than in domestic-owned firms, while plants that were acquired by foreigners grew about 10 percent faster. Considering that foreign plants are on average considerably larger than domestic plants, the difference in the number of jobs created is large.

The increased employment associated with FDI inflows has also helped pull workers out of low-productivity sectors and into higher-productivity sectors. While the number of studies is limited, there is a growing body of evidence that finds important across-sector employment effects from FDI. Escobar and Mühlen (2018) cover the period 2006–16 and find that FDI flows to Mexico led to considerable reallocation of labor between sectors. Using Mexican states as the unit of observation, they find that direct investments in the industrial sector helped draw workers out of (low-productivity) agriculture and increase the size of the share of employment in manufacturing. Interestingly, as an illustration of wider economic spillovers, they also found a positive effect on the employment share in relatively productive service sectors. As a result, labor reallocation occurred for both low- and medium-skilled workers. The effect of FDI on Indonesia’s intersectoral employment is discussed in Chapter 3 of this report.

However, FDI may also increase the wage gap between skilled and unskilled workers. Foreign investment often introduces new technologies that raise the demand for higher-skilled workers. There is considerable empirical evidence confirming that FDI contributes to rising wage inequality in host countries. In developing countries, wage inequality increases as stocks of inward FDI increase. A rise in Japanese FDI in developing countries is associated with an increase in nonproduction wages (for more-skilled workers) relative to production wages (for less-skilled workers). Similar effects of foreign investments have been found for firms in Indonesia and Mexico. However, technological change is not necessarily biased in favor of skilled workers; the skill level required depends largely on the type of FDI attracted. An FDI injection into some types of low-skill sectors (such as textiles or food processing) could disproportionally benefit unskilled workers. In Ethiopia, Ghana, and Mozambique, FDI in labor-intensive manufacturing and infrastructure was associated with declining inequality.

For additional studies on FDI in Indonesia see, for example, Blomström and Sjöholm (1999); Lipsey and Sjöholm (2004); Takii (2005); Blalock and Gertler (2008); and Arnold and Javorcik (2009).

Lipsey and Sjöholm 2004
Figini and Görg 2011
Head and Ries 2002
Lee and Wie 2015; Feenstra and Hanson 1997
Luo 2017
Leamer 1998; Cruz et al. 2018
Cornia 2016
While both domestic and foreign manufacturing firms are a source of middle-class jobs, average wages are considerably higher in foreign-owned firms. Using the income bracket classification in Aspiring Indonesia: Expanding the Middle Class, it is evident that the manufacturing sector could provide an important contribution for higher-paying employment. At domestic firms, an average of 42 percent of all jobs have wages at a level commensurate with aspiring middle class, while the same is true for 40 percent of all jobs at foreign-owned firms (Figure 4.21). However, wages are higher on average in foreign-owned firms: Rp3.2 million per month on average, as compared to Rp1.8 million (Figure 4.22). A larger number of foreign-owned firms pay wages classified as “middle class” than do domestic firms (30 percent versus 16 percent).

In Indonesia’s manufacturing sector, there is a positive relationship between the activity of foreign-owned companies and wages across districts. Holding all other factors constant, when a sector in a given region sees a 10-percentage-point increase in output share going to foreign-owned companies, the average wages in that sector of that region are likely to increase by 2.25 percent. The magnitude of this effect in Indonesia is in line with that of other countries.

4.5.1 Foreign firms provide greater benefits to higher-skilled workers

Foreign direct investment provides greater benefits to higher-skilled workers in Indonesia’s manufacturing sector. The positive effect of the activity of foreign

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26 World Bank 2019a
27 See Steenbergen and Trang (2020) for similar estimates for Turkey, Vietnam, and Ethiopia.
multinationals on wages increases with an individual’s educational outcome. Interacting the output share of multinationals with educational level shows a negative but statistically insignificant effect for those with no education, and positive effects on wages for all other education levels. Relatedly, the effect is larger for white-collar jobs than it is for blue-collar jobs.

Breaking down the firms sampled in the Manufacturing Survey into low-skill and high-skill manufacturing, the benefits of FDI are more widespread for the low-skill manufacturing sectors than the high-skill manufacturing sectors. Increased multinational activity in low-skill manufacturing is associated with benefits for workers with primary and secondary education but the benefits are especially pronounced for those with tertiary education. For high-skill manufacturing, the benefits are concentrated in workers with secondary education only (and are statistically insignificant for other groups). A similar finding holds for occupation type, where FDI in low-skill sectors benefits both blue- and white-collar workers, but the benefits are restricted to the latter for high-skill sectors. This result could be explained by the difference in overall skill requirement for these types of sectors. Another reason may be that the results are more widespread for low-skill manufacturing, as they make up most of Indonesia’s manufacturing sector, and multinationals are also concentrated in low-skill manufacturing (Table 4.6 and Table 4.7).

| Table 4.6 Within-Sector Effect of FDI By Education Level |

| Coefficient regression estimates |

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacturing sector</strong></td>
<td><strong>All</strong></td>
<td><strong>Low-skill manufacturing</strong></td>
<td><strong>High-skill manufacturing</strong></td>
</tr>
<tr>
<td>Output share of foreign-owned multinationals (lagged one period) * No education</td>
<td>−0.00180</td>
<td>−0.00561</td>
<td>−0.377</td>
</tr>
<tr>
<td></td>
<td>(0.171)</td>
<td>(0.181)</td>
<td>(0.302)</td>
</tr>
<tr>
<td>Output share of foreign-owned multinationals (lagged one period) * Primary education</td>
<td>0.256***</td>
<td>0.330***</td>
<td>−0.0167</td>
</tr>
<tr>
<td></td>
<td>(0.0771)</td>
<td>(0.0843)</td>
<td>(0.0424)</td>
</tr>
<tr>
<td>Output share of foreign-owned multinationals (lagged one period) * Secondary education</td>
<td>0.229***</td>
<td>0.310***</td>
<td>0.107**</td>
</tr>
<tr>
<td></td>
<td>(0.0705)</td>
<td>(0.0750)</td>
<td>(0.0420)</td>
</tr>
<tr>
<td>Output share of foreign-owned multinationals (lagged one period) * Tertiary education</td>
<td>0.359***</td>
<td>0.607***</td>
<td>0.0762</td>
</tr>
<tr>
<td></td>
<td>(0.120)</td>
<td>(0.158)</td>
<td>(0.0920)</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td>Education, gender, age, sectoral tariffs</td>
<td></td>
</tr>
<tr>
<td><strong>Fixed effects</strong></td>
<td></td>
<td>Region-year, sector</td>
<td></td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>154,292</td>
<td>138,153</td>
<td>15,928</td>
</tr>
</tbody>
</table>

Source: Steenbergen and Hebous 2020  
Note: Second stage IV results  

28 Steenbergen and Hebous 2020  
29 See Annex 4.2 for a list of low- and high-skill manufacturing sectors.
Most of the wage benefits of multinational activity in Indonesia's manufacturing sector accrue to employees. Table 4.8 shows results that interact the share of output attributed to multinationals with different job types. For both casual workers and the self-employed, multinational activity has a negative effect on average wages. There are several possible explanations, but the most likely is that FDI increases the demand for formal employees. As the most skilled workers are absorbed by multinationals, average wages for casual workers and the self-employed may go down. An alternative, less likely scenario is that the self-employed and small, informal firms, which employ casual labor, face increased price competition for their products from manufacturing multinationals and thus see downward pressure on their earnings. Another possibility is that wages go up in foreign firms because they have to follow the minimum wage policy, while domestic firms tend to pay market rates. Foreign (minimum-wage paying) multinational penetration is sufficiently small that it does not distort local labor markets. Interestingly, multinational activity seems to benefit the self-employed in high-skill manufacturing; this could indicate increased demand for inputs for high-skill manufacturing.
4.5.3 Foreign firms provide greater benefits to female workers

Female workers in low-skill manufacturing are among the biggest beneficiaries of increased multinational activity in Indonesian manufacturing. Table 4.9 shows the effect of the interaction between gender and the output share of foreign-owned multinationals on wages. The overall effect is positive but insignificant for males. For females, the overall effect is positive and highly significant, especially in the low-skill manufacturing subset. This may be explained by the gender bias in the types of industries in which foreign-owned multinationals tend to operate (for example, food products, textiles)—such industries employ a large number of females. Alternatively, the results may be explained by a rise in the total demand for labor, which creates job opportunities for otherwise informally working females.\textsuperscript{30} It might also point to wage discrimination against females by domestic firms or a preference of (higher-paying) multinationals for hiring women.\textsuperscript{31}

| Table 4.9 Within-Sector Effect of FDI by Gender Coefficient regression estimates |
|--------------------------------|----------------|----------------|
| Outcome variable             | (1)            | (2)            | (3)            |
| Manufacturing sector          |                | Low-skill manufacturing | High-skill manufacturing |
| Output share of foreign-owned |                |                |                |
| multinationals (lagged one period) * |                |                |                |
| Female                        | 0.622***       | 0.685***       | 0.161**        |
|                                | (0.0956)       | (0.115)        | (0.0736)       |
| Output share of foreign-owned |                |                |                |
| multinationals (lagged one period) * |                |                |                |
| Male                          | 0.00295        | −0.00802       | 0.0120         |
|                                | (0.0750)       | (0.0955)       | (0.0350)       |
| Controls                      |                | Education, gender, age, sectoral tariffs |
| Fixed effects                 |                | Region-year, sector |
| Observations                  | 154,292        | 138,153        | 15,928         |

Source: Steenbergen and Hebous 2020
Note: Second stage IV results

In summary, manufacturing multinationals have important, but heterogenous effects on wages within a sector. An injection of FDI increases average wages and benefits most workers who have at least a primary education. However, some workers benefit more than others. There is a skills premium, so workers with higher levels of education benefit more, and white-collar workers see greater benefits than blue-collar workers. Interestingly, women appear to benefit more than men (likely as a result of the type of sectors multinationals engage in). Overall across the entire manufacturing sector, the effects are more widespread for low-skill than high-skill manufacturing sectors.

\textsuperscript{30} See, for example, Ver Beek (2001)
\textsuperscript{31} Tang and Zhang 2017
4.6 Improving Productivity

**Labor productivity in large plants (100+ employees) and foreign-owned plants is skewed toward higher levels of productivity.** Large plants (100+ employees) are more productive on average than the medium sized (50–99 employees) or small (20–49 employees). Given economies of scale, it is not surprising to find that larger plants are more productive. This is evident from the labor productivity distribution function graph, which is skewed more toward higher levels of productivity (Figure 4.23). Labor productivity differences are also pronounced by ownership type, with foreign plants being more productive on average. The labor productivity distribution function graph is most skewed toward higher levels of productivity for foreign-owned plants (Figure 4.23). The labor productivity distribution function graph for state-owned plants has a fat right-hand tail (almost on par with foreign plants) that indicates relatively high shares of state-owned plants in the higher levels of productivity. The labor productivity distribution function graph for privately owned domestic plants is more concerning because these plants are supposed to be subject to higher competition (hence, plants with lower productivity should have been competed out).

**Figure 4.23 Larger and Foreign-Owned Firms Are More Productive**

*Distribution function of labor productivity by ownership and size*

Higher growth in exports is associated with higher growth in labor productivity. Productivity growth is critical for generating better jobs, but it also improves living standards by lowering prices and improving the quality of goods people consume. A multivariate analysis was used to see factors that are associated with productivity growth. Being small (<50 employees) and old (>5 years of operation), as well as having higher growth in exports, is associated with higher growth in labor productivity. Foreign-owned firms have statistically similar productivity growth rates to domestically owned firms (Figure 4.24).

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32 The authors use definitions of productivity growth at the plant level found in Davis and Haltiwanger (1992) and Davis, Haltiwanger, and Schuh (1996).
(Real) Labor productivity growth was mostly driven by the “within” effect between 2000 and 2015, although the entry effect is still indispensable (Figure 4.25). Overall, growth in labor productivity was low, less than 1 percent (0.54 percent), during 2000–15. During the Asian financial crisis, the contribution of the within effect was relatively high, probably because firms were pushed hard to increase efficiency by cutting jobs while maintaining production. Determinants of labor productivity growth also vary by industry.33 Because of the exclusion of micro and small enterprises, decomposition of aggregate productivity gains based on truncated data (based only on medium-sized and large enterprises) tend to overestimate the between effect; the gains (losses) from firm entry tend to be overestimated (underestimated), and the gains (losses) from firm exit tend to be underestimated (overestimated).34

Table 4.24 Smaller, Older, and Exporting Firms Have Higher Productivity Growth Rates
Productivity growth determinants in elasticity terms

| Source: Manufacturing Survey 1990–2015; World Bank staff calculations. |
| Note: Elasticity with respect to private, domestic plants with 20–49 employees, 0–5 years following establishment. Controlled for province, subsector, and year. All coefficients are significant at 10 percent confidence interval, except foreign and 6–9 years following establishment. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang). |

Figure 4.25 The Decomposition of Labor Productivity Growth, Average Annual, 2005–15
Percentage point contribution to labor productivity growth

| Source: Manufacturing Survey 2005–2015; World Bank staff calculations |
| Note: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang). |

33 Alatas and Wihardja. Forthcoming
34 Li and Rama 2015
Evidence suggests declining allocative efficiency in terms of labor productivity, but increasing allocative efficiency in terms of total factor productivity and unchanged allocative efficiency in terms of capital productivity. Some studies imply that over time firms that are more productive expand at the expense of those that are less productive.35 As a result, a positive correlation between productivity and firm size can be expected, indicating allocative efficiency.36 Table 4.10 shows that the correlation between labor productivity (real value added per worker) and plant size is positive but very small in magnitude. Moreover, it is significant for early years in the survey, that is 1990–2005, but not for later years. This may indicate that allocative efficiency decreased in more recent years in terms of labor productivity. However, Table 4.10 also shows that the correlation between total factor productivity and plant size is generally increasing and remains significant over the years, indicating increasing allocative efficiency in terms of total factor productivity. When broken down into different subsectors, the results vary, with the strongest positive correlation found in food and beverages. Moreover, the correlation between capital productivity and plant size declined relative to that of the year 1990 but remained stable from 2000 to 2015.

Table 4.10 Correlation between Labor Productivity and Plant Size

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Correlation between labor productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and plant size</td>
<td>0.0357***</td>
<td>0.0194***</td>
<td>0.0337***</td>
<td>0.0052</td>
<td>0.0035</td>
</tr>
<tr>
<td>Correlation between total factor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>productivity and plant size</td>
<td>0.0349***</td>
<td>0.0861***</td>
<td>0.0563***</td>
<td>0.0566***</td>
<td>0.0737***</td>
</tr>
<tr>
<td>All sectors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textiles and textile products</td>
<td>~0.1768***</td>
<td>-0.0528***</td>
<td>0.0724***</td>
<td>0.1375***</td>
<td>0.1521***</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>0.3399***</td>
<td>0.3977***</td>
<td>0.4028***</td>
<td>0.3685***</td>
<td>0.3687***</td>
</tr>
<tr>
<td>Computers, electronics, optics, and</td>
<td>0.0937</td>
<td>0.206***</td>
<td>0.1745***</td>
<td>0.1529**</td>
<td>0.0839</td>
</tr>
<tr>
<td>electricity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive and other transport</td>
<td>0.257***</td>
<td>0.1568**</td>
<td>0.154**</td>
<td>0.2774***</td>
<td>0.0999*</td>
</tr>
<tr>
<td>equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation between capital productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and plant size</td>
<td>0.0671***</td>
<td>0.0245***</td>
<td>0.0214**</td>
<td>0.0298***</td>
<td>0.0207**</td>
</tr>
</tbody>
</table>


Note: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).
4.7 Improving Wages

Plants that are more productive pay higher real wages. Across plants, those that are 10 percent more productive (real value added per worker) on average pay real wages that are 2.14 percent higher (Table 4.11). In Vietnam, in formal waged jobs in industry and services, a 10 percent increase in productivity is associated with a 1.3 percent increase in wages. In Indonesia, a higher share of female workers is associated with marginally lower real wages. The positive effect on real wages of being a foreign plant diminishes once productivity is controlled for. Workers in larger plants with up to 999 employees earn higher wages compared to those in plants with 20–49 employees, controlling for everything else. Age of plant does not seem to be a significant factor in determining wages.

Over time, plants that increase their productivity (real value added per worker) also increase real wages: this applies particularly to private, domestic plants; the effect is lower in foreign plants. A 10 percent increase in productivity growth is associated with a 2.1 percent increase in real wage growth in privately owned, domestic plants, a 1.5 percent increase in real wage growth in state-owned plants, and a 1.3 percent increase in real wage growth in foreign-owned plants (Table 4.11). Similar results emerge from Vietnam, where foreign firms share less of their productivity gains with workers, as compared to privately owned, domestic firms and state-owned firms. The gap is even larger in Vietnam than in Indonesia, where a 10 percent increase in productivity is associated with a 1.3 percent increase in domestic firm wages, a 3.3 percent increase in state-owned firm wages, and a 0.6 percent increase in foreign firm wages.

Table 4.11 A 10 Percent Increase in Productivity Results in a 2.14 Percent Increase in Wages; Private Domestic Firms Share Gains More with Workers

<table>
<thead>
<tr>
<th>Log (real) wages (across firms)</th>
<th>Coefficient</th>
<th>Log (real) wages (within firms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log (real value added per worker)</td>
<td>0.214 ***</td>
<td>0.21 *** 0.15 *** 0.15 ***</td>
</tr>
<tr>
<td>Public</td>
<td>0.058 ***</td>
<td>n.a.</td>
</tr>
<tr>
<td>Foreign</td>
<td>-0.0005</td>
<td>n.a. n.a. n.a.</td>
</tr>
<tr>
<td>Share of female workers</td>
<td>-0.002 ***</td>
<td>n.a. n.a. n.a.</td>
</tr>
</tbody>
</table>

Control: province, year, subsector; *, **, *** = significant at 1 percent, 5 percent, and 10 percent confidence intervals

Sources: Manufacturing Survey 1990–2015; World Bank staff calculations

Note: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

37 Aterido and Hallward-Driemeier 2017
38 Aterido and Hallward-Driemeier 2017
Labor productivity and real wages tend to be higher in subsectors that intensively use high technology, but employment is lower (Figure 4.26 and Figure 4.27).\(^{39}\) Mapping the share of employment against the conditional probability of productivity and wages (with respect to apparel) shows a negative relationship: low-productivity and low-wage subsectors, such as apparel, textiles, and food and beverages, have high shares of employment, while high-productivity and high-paying wage subsectors, such as motor vehicles, chemicals, and other transport equipment, have low shares of employment.

**Figure 4.26 Employment Declines with Productivity Increases**

Share of employment versus productivity (relative to the apparel subsector)

**Figure 4.27 Employment Declines with Wage Increases**

Share of employment versus real wage (relative to the apparel subsector)

**Sources:** Manufacturing Survey 2015; World Bank staff calculations

**Note:** The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

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\(^{39}\) Using the definition of the United Nations Industrial Development Organization for technology grouping: https://stat.unido.org/content/learning-center/classification-of-manufacturing-sectors-by-technological-intensity-%28isic-revision-4%29?presentationType=drawer
Monitoring the wage-productivity gap is critical. A breakdown of the social contract in the workplace, for example in the United States starting in the early 1980s, resulted in a divergence between real average wage growth and real labor productivity growth. When wages and productivity moved upward together from 1945 to about 1980, “the American middle class expanded and ushered in a sustained era of broadly shared prosperity.”

“Beginning in the late 1970s, the postwar social contract came under relentless pressure from the confluence of four major economic developments: globalization, deregulation, financialization, and automation.” In response to this pressure, there were four dominant responses by employers: the containment of wages, salaries, and benefits; domestic outsourcing; a combination of global outsourcing and offshoring; and the automation of work processes.

In the United States, from the early 1980s until at least 2014, wage growth has been lagging behind productivity growth due to the breakdown of the social contract and worker-management relations (Figure 4.28). Divergence of productivity growth from wage growth is not sustainable from economic, social, or political points of view. It is therefore critical to monitor the wage-productivity gap.

Unlike the United States, within Indonesian medium-sized and large manufacturing industries, real wage and real labor productivity trends tracked each other quite closely from 1990 to 2015 (Figure 4.29). The correlation between the three-year moving average of real wage growth and real labor productivity growth was 0.68 (significant at the 1-percent confidence interval). Unlike the United States, Indonesia was not so much impacted by globalization, financialization, deregulation, or automation in the period 1990–2015. Indonesia was not particularly integrated to the regional or global value chain. Indonesia also did not experience the financialization and deregulation of the market to the same degree as the United States, and automation came at a much slower rate. Post Asian financial crisis, labor unions also became stronger in Indonesia.

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40 Kochan and Dyer 2019b
41 Kochan and Dyer 2019a
42 Kochan and Dyer 2019a
43 Shepherd and Soejachmoen 2017
High-technology, capital-intensive sectors pay higher wages than do labor-intensive sectors. In only one industry subsector did medium-sized and large manufacturing companies provide average monthly wages (excluding overtime and other benefits) that were commensurate with the expectations of the middle class in 2015 (that is, more than Rp3.2 million per month) (Figure 4.30). Large plants in high-technology/capital-intensive subsectors, namely other transport equipment, computers, electronics, optical, base metals, electrical, motor vehicles, and chemicals pay the largest average nominal wages. Labor-intensive sectors that absorb most employment in industry—including food and beverages, tobacco, textiles and textile products, and footwear—pay wages that are much lower than the middle-class population’s expenditure cutoff. Large firms pay better than medium firms for each subsector.

Figure 4.30 Most Sectors Pay Below Middle-Class Wages
Nominal average monthly wages in rupiah in medium-sized and large manufacturing firms, 2015 (vertical line is the cutoff for a middle-class wage in 2015)

Sources: Manufacturing Survey 2015; World Bank staff calculations
Note: The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

Women are more likely to work in low-wage and low-productivity sectors. The wage premium of women working in manufacturing is about 20 to 25 percent lower than that of men on average.44 Among medium-sized and large manufacturers, although almost equal numbers of men and women are employed, women are more likely to be hired in low-productivity and low-wage sectors (Figure 4.31 and Figure 4.32).

44 Based on the authors’ recent estimate using Sakernas and an augmented Mincerian regression. See also Chapter 5 of this report.
4.8 Do Household Enterprises Provide a Path to Middle-Class Jobs?

Household enterprises (HHEs) are ubiquitous in Indonesia, and are an important source of jobs and a vital part of the Indonesian economy. These small businesses that employ the owner and no more than four individuals take many forms. Some are run as an extension of the home; such businesses might include a neighborhood bakery, a local laundry, a motorcycle mechanic, or even a physician’s private practice. Others operate outside the home and go to the clients; such businesses include food carts selling fried rice, ride-hailing motorcycle taxis, or traveling welders. See Box 4.3 for the definition of an HHE used in this report.

Box 4.3 Definition of Household Enterprises versus Microenterprises and Informal Jobs

While the term “microenterprise” usually refers to the size of the enterprise (either by employment or revenue size), the term “household enterprise” (HHE) refers to the institution in which someone works. Since 2016, this “institutions” variable has been made available in the National Labor Force Survey (Survei Angkatan Kerja Nasional; Sakernas). There is a huge overlap between microenterprises and HHEs, since the latter tend to be micro. However, the term HHE is used to differentiate between small firms that are standalone entities and those that are the extension of a household.

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45 This section is based on Cunningham and Syamsulhakim (Forthcoming).

46 Sakernas does not provide information on the number of paid or unpaid employees in family businesses. However, data from other countries (Vietnam, Cambodia, and Mexico, for example), find that most HHEs have one to two employees, and many are unpaid family members.
Household enterprises employ approximately 83 million workers, which comprises about 69 percent of total employment in Indonesia. Of these, 44 million are HHE owners, meaning that there are 44 million HHEs in Indonesia. Half are self-employed, meaning that no additional people work in the HHE, not even unpaid family workers. The remaining HHEs employ 39 million people, an average of two unpaid, temporary, or permanent workers in the enterprise, in addition to the owner. Most HHE owners regard their business as their main job, but about one-quarter have an additional job.

A slight majority of HHEs operate in rural areas though a minority operate in the farm sector. Nearly 55 percent of HHEs are located in rural areas, and the majority (54 percent) of HHEs are located in the island of Java. This is not surprising, not only because more than half of the population of Indonesia lives in Java, but also because strong infrastructure, such as the transportation and telecommunications found in Java, make it easier to conduct and develop business. About 58 percent of rural HHEs operate in the farm sector, as do 15.4 percent of urban HHEs (Table 4.12). Of urban HHEs, 52.5 percent are engaged in wholesale and retail trade, as is a sizable share (25 percent) of rural HHEs. Approximately 12 percent of HHEs in urban areas engage in manufacturing, as compared to 9 percent of rural HHEs.

The data do not allow us to identify if an unpaid worker is employed in a firm with only other nonpermanent, unpaid, or temporary workers, or if they work in a firm that has paid employees.
Household enterprises are generally run by middle-aged men with a low level of education. More than 28 million men own an HHE, as compared to 16 million women. However, the share of men and women owning an HHE is proportional to their overall share of the workforce. Among the 44 million HHE owners, about 80 percent are aged 35 or older. Both HHE owners and casual workers have a similar average age (46 versus 41 years old), while employees are younger (36 years old). Slightly more than half of HHE owners have a primary education or less. Further, HHE owners and casual workers have similar average years of schooling (7 years versus 6.6 years), while employees have an average 12 years of schooling. After controlling for other relevant variables, the probability of being an HHE owner is 3 percentage points less for high school graduates, as compared to those with no formal education. Those with a university education are even less likely to be HHE owners; the probability is 13 percentage points lower.

The majority of HHE owners started out because they wanted to run their own businesses (62 percent), although around one-fifth started a business because they could not get a salaried job. Using a nationally representative household-level survey, the Digital Economy Household Survey, conducted in March 2020 with 1,542 sampled HHEs, it can be seen that 62 percent of nonfarm and farm HHE owners started a business because they wanted to run their own business (Figure 4.33). Independence was cited by 44 percent of the nonfarm HHE sample and 49 percent of the farm HHE sample. A higher share of nonfarm HHE owners than farm HHE owners cited a desire to balance personal and professional lives (24 versus 11 percent), supplement household income (16 versus 8 percent), and earn more than in a waged job (18 versus 14 percent). Nearly 30 percent of farm HHEs cited family tradition. Around one-fifth of HHE owners started their enterprises because they could not find a job as a salaried employee.

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**Table 4.12 Majority of Rural Household Enterprises Operate in the Farm Sector; Majority of Urban Household Enterprises Operate in Wholesale and Retail Trade, and Restaurants and Hotels**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Rural (%)</th>
<th>Urban (%)</th>
<th>Rural and urban (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity, gas, and water supply</td>
<td>0.2</td>
<td>0.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>0.9</td>
<td>0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>Finance, insurance, real estate, and business services</td>
<td>0.3</td>
<td>1.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Construction</td>
<td>0.9</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Community, social, and personal services</td>
<td>2.4</td>
<td>6.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Transportation, storage, and communications</td>
<td>3.3</td>
<td>9.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9.5</td>
<td>11.9</td>
<td>10.6</td>
</tr>
<tr>
<td>Wholesale and retail trade, restaurants and hotels</td>
<td>24.8</td>
<td>52.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Agriculture, forestry, livestock, and fisheries</td>
<td>57.8</td>
<td>15.4</td>
<td>38.4</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Sakernas August 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). Where percentages do not total 100 percent, this is due to rounding.

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48 An HHE is defined in the survey as an enterprise owned by a household member that: (i) sells goods and/or services; AND (ii) has no legal status; AND (iii) has no separate financial account from that of the family financial account; AND (iv) has at most four paid workers.

49 Similarly, a study of HHEs in Mexico found that 16 percent of owners started a small firm because they could not find work elsewhere (Cunningham and Maloney 2001). Similar results were found for Vietnam (Fasquier-Doumer, Oudin, and Thang 2017)
Self-employed HHE owners earn lower average income per month than employees, but are on par with casual workers. Due to data availability, as explained in Box 4.3, the income-related analysis for HHE owners in this section is limited to HHE owners who are self-employed (firm owners with any type of worker are not included in the income-related analysis). This reduces the HHE-owner sample from 44 million HHE owners to 22 million self-employed HHE owners. The mean and median of income per month (also per hour) for self-employed HHE owners is about half that of an employee. The earnings gap is partly due to the lower level of education of self-employed HHE owners as compared to employees, but may also indicate that self-employed HHE owners pay a price when they choose to operate a firm rather than work elsewhere. In contrast, the monthly earnings of HHE owners are very similar to those of casual workers: the mean is slightly higher than that of casual workers, but the median is slightly lower. Notably education levels are also similar, so casual work may be the viable alternative form of employment for an HHE owner, indicating that owning an HHE is not an inferior option. That said, the wage distributions of different types of workers partly overlap, so there are HHE owners who earn more than employees of any type, and there are also some that earn less (Figure 4.34, left panel). Comparing the three density functions, the average, as well as the median, of the monthly earnings of HHE owners and casual workers is lower than the minimum wage.

Earnings are higher in HHEs owned by educated men and in nonfarm sectors. For example, owners who have tertiary education earn about 32 percent more than owners who have only a primary education or less. Male HHE owners who have the same personal and firm characteristics as female HHE owners earn about 42 percent more than the female owners. Owners of nonfarm HHEs earn more than owners in the farm sector. For example,
HHE owners in construction earn about 57 percent more than HHE owners in the farm sector, whereas HHE owners in mining and quarrying earn 33 percent more than HHE owners in the farm sector.

**Household enterprises use rudimentary business management tools.** Only 21 percent of HHEs use simple accounting practices and just 1.2 percent have complete accounts. This means that most HHEs have neither sufficient awareness of the importance of basic financial management, nor sufficient knowledge of it. Nearly 90 percent of HHEs do not use the internet, potentially limiting enterprise productivity, market share, and business management. Further, HHEs tend to be older, with an average age of 12 years. About 15 percent are start-ups (two years old or under), 38 percent are aged between 2 and 10 years old, and 47 percent are old, with between 10 and 20 years of operation under the current owner.

**Figure 4.34 Monthly Earnings of Owners of Household Enterprises (HHEs) Are Very Similar to Those of Casual Workers**

*Distribution of monthly earnings of HHE owners*

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In calculating account ownership, to be able to show “complete account” and “don’t know” categories, the authors temporarily used the more restrictive definition of HHE: self-employed, employer assisted by one to four permanent worker(s), or employer assisted by temporary worker(s).
4.8.1 A household enterprise can grow into middle-class status

Household enterprises can be a path to middle-class jobs and would be even more so if some of the productivity constraints were addressed. As mentioned earlier, income-related analysis linking HHEs to middle-class jobs will be limited to self-employed HHEs. Approximately 9 percent of the self-employed HHEs produce earnings sufficient to be classed as middle class, and most (8 percent of the total self-employed HHEs) are in the nonfarm sector, leaving about 1 percent (about 250,000) operating in the farm sector (Table 4.13).51

Table 4.13 Distribution of “Self-Employed” Household Enterprises (n=21.92 million)
Share of farm and nonfarm, by income class

<table>
<thead>
<tr>
<th></th>
<th>Above middle class (%)</th>
<th>Below middle class (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm</td>
<td>1.2</td>
<td>23.4</td>
<td>24.5</td>
</tr>
<tr>
<td>NonFarm</td>
<td>8.0</td>
<td>67.4</td>
<td>75.5</td>
</tr>
<tr>
<td>Total</td>
<td>9.2</td>
<td>90.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Sources: Sakernas August 2018; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Some HHE owners can achieve middle-class earnings, but not at the rate that employees do. Middle-class HHE owners, on average, earn more than casual workers but less than employees (Figure 4.34, right panel). The median of the earnings, however, is the same for middle-class HHE owners and employees.

Household enterprises can grow into middle-class status. From 2017 to 2018, the number of HHEs achieving middle-class income in all sectors except agriculture, construction, and community or social sectors, increased by 125,823 or about 9 percent. But these data do not tell us if middle-class HHEs entered the labor market or if below-middle-class HHE grew into middle-class HHE. To unravel this, the authors use the panel data from the Indonesian Family Life Survey (Survei Aspek Kehidupan Rumah Tangga Indonesia) to see how HHEs with different income-class status evolved over a seven-year period (2007–14). The authors find that 8.5 percent of HHE owners without paid employees that were below middle-class status in 2007 were able to move up to middle-class status by 2014. In addition, 0.9 percent of the 8.5 percent were able to hire paid workers (Figure 4.35). Another 0.7 percent were able to obtain middle-class status by leaving their HHE and becoming an employee. The rest either stayed as non-middle-class HHE owners (71 percent) or moved to non-middle-class employee jobs (17.5 percent). A similar study (2020)52 looks at longer-term dynamics of HHE owners, using 2000–14 panel observation from the Indonesian Family Life Survey. The study finds that in 2014, after 14 years, about 69 percent of the panel sample from 2000 were still self-employed.

51 As only 1.2 percent of farm HHEs have achieved middle-class status, the analysis focuses only on the nonfarm sector, totaling 16.5 million HHEs.
52 World Bank 2020a
Household enterprise owners classified as middle class tend to have a minimum of a secondary school education, and are usually male and without a disability. Education is positively related with the probability of owing a middle-class HHE. More than half of above-middle-class HHE owners had attained a secondary education or higher, compared to only about one-third of below-middle-class HHE owners. An HHE owner with a secondary education is 30 percentage points more likely to become middle class than an owner with only a primary school education. Meanwhile, an HHE owner who is also a university graduate is 62 percentage points more likely than a primary school graduate to become middle class. In addition to education, 10 percent of the above-middle-class HHE owners were receiving training in 2018, compared to 6.6 percent of below-middle-class HHE owners, though this is still above the 2 percent for the whole workforce. Looking at other characteristics, male-owned HHEs are 30 percentage points more likely to achieve middle-class income than female-owned HHEs. A person with a disability is more likely than a person without a disability to become an HHE owner, but only 6.5 percent of the 1.7 million above-middle-class HHE owners have a disability, compared to 9.3 percent of the 14.1 million of below-middle-class HHE owners.

Sources: Data from the Indonesian Family Life Survey 2007–14; World Bank staff calculations
Note: The Indonesian Family Life Survey is the Survei Aspek Kehidupan Rumah Tangga Indonesia.

Sources: Author’s calculations using the Digital Economy Household Survey, 2020
Note: Vertical line shows the middle-class cutoff.
Using more sophisticated management tools, including the internet, at work also contributes to the middle-class status of HHEs. The probability of a nonfarm HHE reaching middle-class status increases by about 38 percentage points if the HHE owner uses the internet in their business, and by 37 percentage points if they use simple or complex accounting methods. In addition, the likelihood of attaining middle-class status is higher for businesses that are located in urban areas, or in Java, with more access to infrastructure and a market. Lastly, the longer an HHE runs, the higher the chance that it will achieve middle-class status.

Data suggest that labor productivity is too low in HHEs for owners to easily reach middle-class status. Available data do not permit good estimates of labor productivity in HHE, but “earnings” of self-employed HHEs and “profit per worker” in (any type of) HHEs from the Digital Economy Household Survey can be used as rough proxies for labor productivity. As discussed above, Figure 4.35 shows that less than 10 percent of self-employed HHE owners have monthly earnings above the middle-class income cutoff. Data from the Digital Economy Household Survey paint a worse picture. Using the Survey data, the upper bound of the mean profit per worker in the sampled HHE was below the middle-class threshold. Table 4.14 shows an upper bound of profit per worker of below Rp2 million regardless of whether the owner plans to expand. The share of HHE with profit per worker above the middle-class cutoff is only 8 percent (see Figure 4.36). Owners identify different factors as impediments to doing better. Nonfarm HHE owners identify their top constraints as the high cost of rent, lack of access to loans or credit, and excessive offline competition. The top three problems of farm HHE owners are lack of access to loans or credit, weather, and lack of skills or knowledge.

Table 4.14  Very Low Profit per Worker of HHE Reflects the Low Productivity of HHEs in General

<table>
<thead>
<tr>
<th>Profit per worker; mean, upper, and lower bound; in Rp</th>
<th>Mean</th>
<th>Lower bound</th>
<th>Upper bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have any plan to develop/expand this enterprise in the future?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1,466,973</td>
<td>997,302</td>
<td>1,936,645</td>
</tr>
<tr>
<td>No</td>
<td>1,091,164</td>
<td>669,662</td>
<td>1,512,666</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations using the Digital Economy Household Survey 2020
Note: Lower and upper bound of the 95 percent confidence interval

Around 80 percent of nonfarm HHE and two-thirds of farm HHE want to expand their businesses. Most want to expand by expanding the premises of the enterprise, followed by upgrading skills and knowledge. A desire to upgrade skills and knowledge is particularly prevalent among farm HHE owners. A smaller share hope to borrow or attract more funding in order to diversify their products. Only 11 percent of nonfarm HHE and...
6 percent of farm HHE wanted to expand their business by selling online, or by joining a digital platform (the survey was carried out before COVID-19; see Box 4.4). Among the 25–35 percent of the sample who did not want to expand their business, more than half said they did not have enough money, but half of the nonfarm HHE said they were happy with what they already had (Figure 4.37).

Figure 4.37 Most Firms Want to Expand Their Enterprise Premises, but among Nonfarm HHE Who Don’t Want to Expand, Half Are Happy with What They Already Have

Reasons for not wanting to expand business, share who selected each option

Source: Author’s calculations using the Digital Economy Household Survey, 2020
Note: More than one response is possible.

Box 4.4 The Role of E-commerce in Helping Firms and Household Enterprises Sail through the COVID-19 Crisis

The COVID-19-driven crisis and the containment measures put in place by government to limit the spread of the extremely contagious infection—such measures include home isolation, large-scale social distancing, and a ban on *mudik* (the exodus of workers for Eid al Fitr) in 2020 and 2021—have damaged the performance of many firms, including those that were previously healthy. However, this crisis has also created a new opportunity for a group of merchants across the world, namely those that are digitally connected and sufficiently digitally skilled. In China, businesses relying on physical space and shops suffered significant losses, while online retailers with apps built into social media became popular.a In fact, firms in emerging markets accelerated their e-commerce implementation and broader diffusion of technologies such as online payment and (advanced) data analytics.b

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a Bouey 2020
b World Bank 2021b
**Box 4.4 continued**

Online buying has helped keep demand afloat. The number of e-buyers has more than doubled during the pandemic, and 80 percent of these new e-buyers plan to continue buying online.\(^c\) Retailers that had stayed away from e-commerce were forced by the pandemic to adapt in order to survive (or to capture new business opportunities). Not only did e-commerce grow at the extensive margin (new users and buyers), but it also grew at the intensive margin (intensity of selling and buying). A representative survey conducted in December 2020 in collaboration with a regional e-marketplace, Shopee, and with more than 15,000 digital merchants participating shows that e-commerce has been a valuable alternative source of income during the pandemic.\(^d\) Among digital merchants who joined Shopee in the last two years, 50 percent joined during the pandemic. On average, digital merchants surveyed reported that although both online and offline sales decreased in April 2020, total sales had, by December 2020, recovered to pre-pandemic levels, while online sales were stronger than pre-pandemic levels. Close to 80 percent have so far kept their business open throughout the pandemic compared to 36 percent of general firms,\(^e\) reflecting their ability to sell online. Shopee has also reported an increase in the intensity of buying and selling by existing buyers and sellers in terms of frequency and time spent.\(^f\)

A representative firm-level survey conducted in October 2020 shows that two-thirds of firms were either already using, had started using, or were increasingly using the internet, social media, specialized apps, or digital platforms. Their reasons for doing so were serving sales (82 percent) and marketing (75 percent). Controlling for firm size, having digitalized a business by June 2020 was also found to help mitigate a year-on-year monthly sales drop in October 2020. However, going online is not a panacea per se. Among enterprises that were already online, such as e-marketplace merchants or food and beverages micro merchants in on-demand food delivery digital platforms, surveys show that not all were successful. Analog complements appeared also to be factors determining a firm’s performance: for example, an e-marketplace merchant changing their product offering to respond to changing consumer demand, or the level of entrepreneurial experience of an online food merchant.\(^g\)

In addition to e-commerce, the crisis could trigger the broader adoption of digital financial services. A nationally representative survey, the Financial Inclusion Insights Survey, conducted by the National Council for Financial Inclusion (Sekretariat Nasional Keuangan Inklusif) and Kantar between March and May 2019 showed that the vast majority of Indonesians had no experience with e-money.\(^h\) Within every educational level, the share of those owning a smartphone was much higher than those who use e-money, indicating a gap and room for change.

With still a small share of the population using the internet at their workplace, or to buy and sell online, this crisis has opened an opportunity for widespread digital adoption.\(^i\)

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\(^c\) Google, Temasek, and Bain 2020

\(^d\) World Bank 2021c

\(^e\) The term “general firms” refers to both online and offline firms in selected sectors. The firms range in size from micro to large. See World Bank 2020d.

\(^f\) Sea Limited 2020

\(^g\) World Bank 2021c; World Bank and Grab 2021

\(^h\) Moorena et al. N.d.

\(^i\) Only 27.2 percent of workers in Indonesia use the internet at work (Sakernas 2019), while 12.8 percent of internet users (aged above 5 years old) buy online and 5.1 percent sell online (Susenas 2019).

**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). Susenas is the National Socioeconomic Survey (Survei Sosial Ekonomi Nasional).
4.9 Conclusions

This chapter aims to better understand the key dynamics of job creation and job quality among medium-sized and large manufacturing firms from 1990 to 2015 in their role as creators of middle-class jobs in Indonesia. Three key findings have emerged from the analysis of job dynamics across firms in this industry; these could motivate priority areas for policy reform.

First, Indonesia’s hollowing-out decade of 2000–10 impaired job creation in industry and firm dynamism remained muted after 2010, with fewer firms entering and fewer new entrants surviving; more needs to be done to ensure greater dynamism in industry. After the Asian financial crisis, jobs in industry were increasingly absorbed by very large and very old firms, but even firms that entered and survived did not grow much over their 40-year life cycle relative to other countries. In other words, Indonesian manufacturing firms were stunted. This demands a closer examination of barriers to entry and growth, among others, for Indonesian small and medium enterprises (SMEs) in manufacturing.

Second, foreign-owned firms played an increasingly important role in the growth of labor productivity and job creation in industry; improving competitiveness to attract foreign investment is key. The share of foreign-owned firms out of total firms in industry rose from 7 percent in 1990 to 26 percent in 2015. Foreign-dominated firms have characteristics (for example, higher growth in export share) that support higher growth of labor productivity, higher employment growth, and higher wages. Despite the growth, however, the shares of value added, output, and employment attributed to multinationals in the manufacturing sector were subdued between 2007 and 2015. There is ample room for more FDI in the industry, especially because it is associated with a skills premium and a wage premium for employees generally, and for female workers in low-skill manufacturing.

Third, firms with higher growth of labor productivity were associated with higher employment growth; policies to increase labor productivity and support the movement of workers to firms that are more productive and to higher-paying manufacturing subsectors are necessary if middle-class jobs are to be created in industry. There is no evidence that growth in labor productivity cuts jobs. On the contrary, it creates jobs. The more productive firms are using their productivity gains to expand the workforce; they are not cutting jobs. In other words, the expansion effects outweigh the substitution effects. As labor productivity increases, wages also rise, albeit not proportionally and not equally across the different ownership types. Increases in labor productivity are still driven primarily by within-firm productivity growth, with very limited between-firm productivity growth (involving workers moving to more productive firms). Moreover, only high-technology, capital-intensive sectors paid wages that were commensurate with middle-class status.

54 During 2008-15, using a different definition of foreign-owned firms (share of foreign ownership>50 percent) and exporters (share of exports in sales>50 percent), foreign-owned firms and exporters were less likely to be new entrants; World Bank. Forthcoming.
Some services sectors are also key to the creation of middle-class jobs, although firm-level data in services is lacking. The services sector could become an even more important source of new middle-class jobs in the face of Indonesia’s premature deindustrialization, concerns of rising automation and industry 4.0, shifting patterns of globalization, concerns over labor-intensive manufacturing-led or trade-led growth, development in the region and in the developing world (for example, China’s rise and subsequent slowdown and the emergence of low-cost regional competitors, among others). However, though there is potential in the services sector for creating middle-class jobs, the manufacturing sector is no less relevant (also discussed in Chapter 3). Indonesia could avoid becoming a country that is too expensive to compete in low-cost manufacturing, but whose workforce is not sufficiently skilled to compete in high value-added manufacturing. A panel survey of services firms that collects more detailed data on the trade in services would help develop evidence-based policy recommendations in the future. Studies could also be carried out on the demand side of (middle-class) jobs in the services sector, should this level of data on services firms become available. In the short term, since evidence on the demand side of jobs in the manufacturing sector is available and analysis has already been carried out, policies to create middle-class jobs can begin here. In the medium term, further studies are needed to provide more evidence on which to base policies designed to create middle-class jobs in the services sector.

The chapter also presents initial analyses on HHEs in Indonesia.

Household enterprises can be a path to middle-class jobs and would be even more so if some of the productivity constraints were addressed. Given that the overall share of income earners who hold middle-class jobs is only 15 percent, the 10-percent share of self-employed HHE owners who hold middle-class jobs is not so far from the overall income earners, albeit slightly lower. Having a middle-class job is more likely for those with certain characteristics and ensuring household owners obtain these characteristics will increase the opportunities for creating more middle-class jobs in Indonesia. The owner of an HHE who has a minimum of senior secondary school education, uses the internet, carries out some bookkeeping, is male, does not have a disability, is older, and whose enterprise is located in an urban area or in Java is more likely to achieve middle-class status. This chapter also highlights the low productivity of average HHEs as reflected in their low earnings.

The following policy recommendations apply to both manufacturing and services firms, although most evidence is drawn from firm-level analysis of medium-sized and large manufacturing firms. Based on earlier studies cited in Indonesia’s Country Private Sector Diagnostic and the Indonesia Systematic Country Diagnostic, reform priorities are: strengthening the dynamism of private domestic firms; improving competitiveness to attract more foreign investment; increasing labor productivity; and supporting the movement of workers into more productive firms and into manufacturing subsectors that pay higher wages. Reforms to the following policy areas are recommended to support the creation of middle-class jobs.

55 See World Bank 2020c; Hallward-Driemeier and Nayyar 2018.
56 Chang et al. 2019
57 World Bank 2020b
Reform Area 1: Unlocking new firm entry and growth to create competition and innovation to spur productivity in the private sector

The private sector accounted for 86.8 percent of all jobs in 2019 in Indonesia⁵⁸ and reducing the obstacles that hinder private firms from entering the market or growing is key for generating robust growth in employment. However, to create quality jobs and expand Indonesia’s middle class, Indonesia could do more—firms in Indonesia need to be better integrated into global value chains (GVCs). This chapter has highlighted that Indonesian firms that export more of their production are associated with higher growth in employment and productivity (with implications for higher wages, albeit disproportionately). Leveling the playing field between domestic and foreign firms, and small and large firms, among others, is key if Indonesia is to build dynamism among firms and robust job creation in the private sector. Export-oriented FDI is typically associated with higher rates of product and process innovation. In developing countries, greater openness to FDI is associated with better infrastructure and labor quality, and higher participation in GVCs for firms in the electronics and automotive sectors.⁵⁹ Along with reforms to close gaps in infrastructure, human capital, and financial services, Indonesia needs a more predictable regulatory framework that will enable firms to enter and grow. As firm dynamism grows and efficiency-seeking FDI arrives, Indonesia will need to support workers to transition to higher-quality jobs and will also need to increase the capacity of domestic firms and workers to benefit from technology spillovers.

Five areas of intervention are critical to unlock new firm entry and growth to create the competition and innovation that spur productivity and create middle-class jobs in the private sector.

First, Indonesia could integrate more domestically owned firms into GVCs.⁶⁰ One of the most serious constraints to the GVC integration of Indonesian firms is insufficient access to inputs, markets, and skills. Four policy reforms could be prioritized (these are discussed in more detail in Chapter 3):

i. Indonesia could reduce the high cost of trade in order to increase firms’ access to quality inputs;
ii. Indonesia could complete key free trade agreements in order to increase access to international markets;
iii. Indonesia could reduce restrictions on work permits in high-skill occupations for which there is a shortage of domestic workers and provide incentives to help firms nurture in-house talent; this will increase the country’s access to necessary skills;
iv. Indonesia could relax restrictions on investment in order to increase FDI.

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⁵⁸ Sakernas, August 2019. The private sector includes profit-making institutions, cooperatives, individual enterprises, and HHEs.
⁵⁹ Soejachmoen 2012
⁶⁰ Also see World Bank 2020c
Second, Indonesia could strengthen its competition regulatory framework. A regulatory framework that is conducive to competition is crucial to ensure that allocative efficiency is improved—that is, finite labor, capital, and knowledge or technology should be able to go to more productive firms. The 1999 Indonesian Competition Law established the Business Competition Supervisory Commission (Komisi Pengawas Persaingan Usaha; KPPU), which is tasked with enforcing competition policy. However, both the competition framework and the KPPU still suffer from limitations that make Indonesia’s competition regime one of the least effective of 49 countries surveyed by the OECD. Effective implementation of the Competition Law requires both a stronger KPPU and a more robust government commitment. There are three priority areas for policy reform that would make the current competition regulatory framework more effective: (i) strengthening the KPPU’s technical capacity to enforce competition laws and advocate pro-competition policies; (ii) revisiting the existing Competition Law (No. 5/1999) to improve the ability of Indonesia’s competition framework to identify and sanction anticompetitive behavior; and (iii) mainstreaming competition considerations in the policy-making process to ensure that regulations do not unduly restrict competition.

Third, Indonesia could support firms with fewer, but more targeted instruments and a predictable regulatory framework. The first reform effort should focus on improving the policy-making process and the introduction of a regulatory oversight body to reduce regulatory uncertainty. Compulsory impact assessments of regulations should be complemented by a simplified process for the incorporation and operation of firms and the establishment of a regulatory oversight body designed to promote good regulatory practices across the vertical and horizontal government levels. Over the longer term, introducing compulsory public consultation—that follows international best practice—into the regulatory process and providing incentives for local governments to streamline business licensing will be critical. The second reform effort should focus on consolidating and targeting innovation policy instruments to better assist firms to perform innovative activities that will spur productivity growth and new product development. The low productivity of firms in Indonesia partly reflects the low levels of innovation. Public spending on innovation is highly fragmented and ineffective at addressing the needs of the private sector. Specific policy interventions may include combining disparate innovation instruments and better targeting new instruments to address the needs of firms, including in terms of technology adoption.

61 Chang et al. 2019
62 Chang et al. 2019
63 World Bank 2020b
64 World Bank 2020b
65 World Bank. Forthcoming
Fourth, Indonesia could increase the capacity of domestic firms and workers to benefit from the technology spillovers of FDI. To enhance the economywide benefits of FDI, policies need to help domestic firms benefit more from interaction with multinationals through links or imitation. Experiences from countries such as South Korea (with huge levels of Japanese FDI that started in the 1970s) and Vietnam (with Samsung’s massive investment in mobile phone production since 2009) provide lessons learned on technology spillovers from FDI. Policies to increase the capacity of domestic firms and workers to benefit from the technology spillovers of FDI include increasing the quality of human capital and domestic workers (detailed policies on improving education and skills are discussed in Chapter 5), promoting firm links, providing incentives and advocacy to promote firm-based training programs, building business networks, establishing institutional partnerships, and providing information services—all of which can increase both absorptive and adaptive capacity among local firms. It is difficult for local firms to establish direct links to multinationals, but it is possible for them to supply the tier-three or higher suppliers of multinationals, since many large multinationals coming to Indonesia often bring their own tier-one, tier-two, and even tier-three suppliers to the country. However, in the medium to long term, national policy could address the question of raising the capability of domestic firms to supply relatively high value-added products to higher-tier suppliers of multinationals.

Fifth, Indonesia could close information gaps to help workers transition to higher-quality jobs. Higher labor productivity growth that comes from a systematic movement of workers from firms with low levels of productivity to more productive firms is necessary, as highlighted in this chapter. This requires not only new firms to enter and firms that are more productive to outcompete less productive firms, but also for people to be able to move out of their current jobs and into more productive sectors, firms, or jobs. In Indonesia, labor mobility transition costs for workers in the manufacturing sector are high by international standards. While skills gaps are an important constraint to labor mobility, transitions are also low between sectors with similar (and low-to-medium) skill requirements. Policies to help workers move to better jobs are needed. The first reform effort should focus on developing a robust labor market information system and job-matching mechanism. (Details of policies to close information gaps and help workers transition to higher-quality jobs are discussed in Chapter 5.) The second reform effort should focus on reskilling and upskilling current workers so that they can move to better jobs. (Details of policies on upskilling adult workers are discussed in Chapter 5.)

66 Castley 1996
67 Tong, Kokko, and Seric 2019
68 Calì, Hidayat, and Hollweg 2018
Reform Area 2: Improving the productivity of SMEs so that they grow and become better creators of middle-class jobs

In Indonesia, SMEs (excluding microenterprises) accounted for only 10 percent of employment in 2014 and contributed about 27 percent of GDP in 2013. Average employee productivity in medium-sized enterprises is about one-third that of large enterprises, and in small enterprises it drops to about one-fifth. Indonesia’s SMEs are its “missing middle”—Indonesia has many microenterprises and large firms, but not many medium-sized firms. Although the shares of SME employment and GDP as a proportion of the total are small compared to microenterprises (in terms of employment) and large enterprises (in terms of GDP), SMEs have higher growth prospects and are more likely than microenterprises to create middle-class jobs. They are also an important part of the economic growth and social inclusion story of Indonesia. However, compared to other countries in ASEAN, missing-middle SMEs in Indonesia remain less competitive due to their low productivity and levels of innovation. Ineffective government policies toward SMEs have contributed to this outcome. The government has issued a range of policies to improve productivity growth among SMEs, including policies designed to make business registration cheaper and faster, policies on technology transfer and e-commerce, on access to market and to export markets, and on financial assistance. However, these policies continue to take a welfare approach, instead of one that emphasizes competition, efficiency, and productivity. The policies also contain excessive protectionism: for example, some business sectors are reserved for SMEs and other programs shield SMEs from competition.

There are five priority policy areas of intervention that would improve the productivity of SMEs, helping them to grow and become better creators of middle-class jobs in Indonesia.

**First, Indonesia could develop specific measures and strategies to assimilate its SMEs into GVCs.** As global trade becomes more integrated, SME integration into GVCs is essential for a large economy like Indonesia. It has become increasingly important for Indonesia to design strategies specifically aimed at improving SME competitiveness and links with larger businesses, both domestic and multinational, to integrate them into regional and international value chains. For many developing countries, including Indonesia, integrating smallholders into agriculture value chains and home-based workers into manufacturing and services GVCs will ensure that supply chains benefit the poorest. Moreover, it will also be critical to address information gaps between SMEs and multinationals about the quality standards SMEs must meet to supply to multinationals or their tier-three or higher suppliers, and to support SMEs to meet these quality standards and deliver goods in a timely manner. In order to develop links between SMEs and multinationals, the government could also provide tax incentives for multinationals that invest in the upgrading of local suppliers.

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69 Anas, Mangunsong, and Panjaitan 2017
70 Anas, Mangunsong, and Panjaitan 2017
71 OECD and ERIA (Economic Research Institute for ASEAN and East Asia) 2018
72 Also see World Bank 2020c
73 World Bank 2020c
through training, mentoring, or staff secondment. Other reforms are also critical if SMEs are to be integrated into GVCs. Such reforms include: lowering transaction costs for SMEs when they use free trade agreements, simplifying the Certificate of Origin procedure, and helping SMEs to arrange Certificates of Origin and reducing the associated costs to zero.

Box 4.5 Case Study: Indonesia’s SME Participation in Global Value Chains: Javara

Javara was founded in 2008 by Helianti Hilman. She was inspired by indigenous farmers and food artisans who were striving to preserve Indonesia’s food biodiversity, indigenous wisdom, and spiritualism. Javara is a mission-driven enterprise working across supply chains, from production to distribution, in order to preserve Indonesia’s biodiversity and bring community-produced, organic products to broader markets. Starting small, to date, Javara has created more than 600 artisanal products and works with tens of thousands of smallholder farmers across Indonesia. One of Javara’s goals is to create inclusive economies in remote and rural areas and reverse the “forced” urbanization. Javara helps farmers to remain in their villages and increase their incomes by improving their skills to increase value added and capture more of the supply chain. Javara intervenes along supply chains to strengthen the production capacity of suppliers, improve workplace safety, and market products nationally and internationally, securing premium prices for farmers and processors. Javara currently holds a portfolio of more than 250 organic products that are certified under the EU, the US National Organic Program, and Japanese Agricultural Standards, and has exported to more than 22 countries in 4 continents. In 2017, Ms. Hilman founded Sekolah Pangan, a food-related entrepreneurial program and business ecosystem dedicated to nurturing businesses among rural youth, women, and indigenous communities. The curriculum includes innovative farming methods, added-value processing, culinary businesses, and eco-cultural tourism.

Source: Javara website. https://javara.co.id/our-journey/

Second, Indonesia could promote the incremental adoption of innovative activities to boost productivity. Although a number of programs exist, they appear to be mainly focused on collaboration between research and development (R&D) institutions and larger companies. However, for developing countries like Indonesia, where innovation capabilities are less developed, it is more usual to incrementally adopt innovative activities—for example, upgrading of processes and quality—and new business models, as well as product imitation. An incremental approach can yield great payoffs in terms of boosting productivity and employment. Innovation policy in Indonesia could prioritize and facilitate this incremental process of learning and of accumulating innovation capabilities. In line with this, Indonesia could focus on employing instruments that support absorptive capacity and foster collaboration and simple innovation projects. Policy reforms could focus on a mix of policy instruments that may include technology extension and diffusion programs, early-stage infrastructure and advisory services, incentives, vouchers for collaboration, and direct grants for business innovation (with embedded advisory services).

74 OECD (Organisation for Economic Co-operation and Development) 2018
75 Anas, Mangunsong, and Panjaitan 2017
76 Cirera et al. 2020
77 Cirera et al. 2020
**Third**, Indonesia could close the digital infrastructure gap and ensure the availability of affordable, reliable, and ubiquitous high-speed internet. Digital technologies are the newest tool in the productivity box and have already shown their role in disrupting markets and leapfrogging some enterprises to productivity levels that would not have been feasible in the pre-digital economic space. During the Covid-19 crisis, being digitally connected has become even more pertinent (Box 4.6). However, the digitalization of Indonesian SMEs is still relatively limited. A study by Deloitte (2015) shows that greater use of digital technologies (including social media, broadband, and e-commerce) could increase SME revenues by up to 80 percent, and makes them 17 times more likely to introduce innovations and one and a half times more likely to create jobs. Considering that Indonesia had 105 million internet users in 2017, digitalization strategies could help domestic SMEs to scale up and become more productive. However, there is a significant digital divide in Indonesia and this remains a challenge. Only 27.2 percent of Indonesia’s workers used the internet in their workplace in 2019, with many factors at play, including a lack of meaningful digital literacy (literacy that could increase productivity) and a digital infrastructure divide. Indonesia has uneven mobile broadband penetration and is lagging considerably on fixed broadband penetration. Fixed broadband, which matters particularly to businesses, is available to less than 5 percent of the population and about 15 percent of households. Increasing digital skill is critical (details of potential policies are discussed in Chapter 5). Specific policy reform areas that address the digital infrastructure divide include: (i) accelerating access to high-speed broadband internet (fixed and mobile 4G) nationwide through reforms to spectrum management and infrastructure sharing (this will stimulate further private investment); and (ii) closing remaining internet access gaps through targeted public-private partnerships.

**Fourth**, Indonesia could expand access to financial services. At 27.4 percent, the proportion of firms with a line of credit is low compared to actual need. A vast majority of firms that do not have access to a line of credit are microenterprises or SMEs. Only one in four small enterprises in Indonesia have received a bank loan in recent years. Kredit Usaha Rakyat (KUR) is the main program providing SMEs with access to finance. However, it faces many challenges. More generally, the current financial market infrastructure does not make it easy for SMEs to conduct their business. Further, the majority of SMEs are not included in the country’s credit information system: they may be unaware of the system or unable to meet the requirements to be included in it or to get a loan. However, global evidence shows that increased access to finance results in higher employment growth, especially among microenterprises and SMEs. These findings should lead to policy interventions on access to finance, including interventions that are targeted to produce job growth. More recent global evidence shows that among other factors, developing the finances of SMEs contributes

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78 OECD (Organisation for Economic Co-operation and Development) 2018  
79 Deloitte 2015  
80 OECD (Organisation for Economic Co-operation and Development) 2018  
81 Ayyagari et al. (2015) provide evidence on the effect of access to finance on job growth in 50,000 firms across 70 developing countries. See also Gomez-Mera and Hollweg (2018) for the correlation between access to finance and the performance of Indonesian firms.
significantly to increasing the probability of a high-growth episode. With reforms, SMEs can obtain access to finance and generate more job opportunities.

The first priority policy step to increase SME access to financial services is to prepare a roadmap with a view to leveling the playing field for delivery of financial services. The second priority policy reform is to strengthen financial sector infrastructure (such as credit registries and secured transactions). Sharing of credit information in Indonesia is evolving into a new phase of development since the regulation and management of the Credit Information System was transferred from Bank Indonesia to the Financial Services Authority (Otoritas Jasa Keuangan; OJK). In parallel, two private credit bureaus (Lembaga Penyedia Informasi Perkreditan) have been granted licenses and are now formally operating to facilitate commercial bank and nonbank financial institutions access credit information. The information stored in these systems can relate to both individuals and businesses. However, a weak regulatory framework, an underdeveloped oversight function, an underdeveloped consumer redress function, and limited technical capacity across the financial sector represent major limitations. The third suggested policy reform is promoting the use of dedicated liquidity and risk-sharing facilities, as well as other lending instruments, through the financial sector. This has become particularly urgent given the COVID-19 crisis.
Reform Area 3: Targeting support to increase productivity in HHEs where a large share of jobs exists

Household enterprises, which constitute more than 98 percent of microenterprises, are significantly different to SMEs in many aspects (Table 4.15). Policies and programs to support and increase the productivity of HHEs should consider these differences. Unfortunately, current policies around micro, small, and medium enterprises (MSMEs) tend to favor SMEs.83

<table>
<thead>
<tr>
<th>Issue</th>
<th>Microenterprise</th>
<th>Small enterprise</th>
<th>Medium-sized enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formality</td>
<td>Degree of informality is high (most operate informally)</td>
<td>Degree of informality is lower (many operate in the formal sector)</td>
<td>All operate in the formal sector</td>
</tr>
<tr>
<td>Organization and management</td>
<td>Primitive/traditional</td>
<td>Many are non-primitive units with modern management systems</td>
<td>All have formal organizational structure with modern management system</td>
</tr>
<tr>
<td>Workers</td>
<td>Most are family businesses relying on unpaid family members as workers/helpers</td>
<td>Many use wage-paid employees</td>
<td>All use wage-paid employees</td>
</tr>
<tr>
<td>Production process</td>
<td>Traditional/manual</td>
<td>Many are highly mechanized</td>
<td>Degree of automation is much higher</td>
</tr>
<tr>
<td>Market orientation</td>
<td>Most are very locally oriented and serve local low-income households</td>
<td>Local, national and/or export</td>
<td>National and/or export</td>
</tr>
<tr>
<td>Economic and social profile of owner</td>
<td>No education, or low level of education, and poor</td>
<td>Many are well educated and from nonpoor families</td>
<td>Most are well educated and from medium- to high-income families</td>
</tr>
<tr>
<td>Technology</td>
<td>In general, out-of-date machinery is used or manual processes, and no use of information technology</td>
<td>Many use machines and information technology</td>
<td>Use of modern technology is much higher and all use information technology</td>
</tr>
<tr>
<td>Gender of owner or entrepreneur</td>
<td>Many are owned or managed by women</td>
<td>Fewer women are involved as owners or entrepreneurs</td>
<td>Very few women are owners or entrepreneurs</td>
</tr>
<tr>
<td>Reason for running own business</td>
<td>In general, to survive</td>
<td>Mostly for profit</td>
<td>All for profit</td>
</tr>
<tr>
<td>Spirit of entrepreneurship</td>
<td>In general, low</td>
<td>Mostly high</td>
<td>All high</td>
</tr>
</tbody>
</table>

Table 4.15 Key Characteristics of Microenterprises/Household Enterprises, and Small, and Medium-Sized Enterprises

Source: Tambunan 2019

83 For example, Kredit Usaha Rakyat (KUR; a credit scheme with interest subsidies) can be accessed by MSMEs. However, banks require collateral and most microenterprises cannot supply it. In addition, HHEs usually need small loans of a size that are too small for banks, as they will be too costly to provide. For example, a small food outlet requires a small amount of working capital on a daily basis, and will be reluctant to borrow large amounts of money for a longer period of time. In short, HHEs need a different loan scheme that matches their requirements. None is yet available in the current KUR scheme.
One of the key characteristics of HHEs is that they are not as growth-oriented as SMEs—this applies particularly to those owned by women—so specific policy reforms should focus on increasing their productivity and hence their income incrementally without demanding a significant amount of additional resources (time, worker, capital, or financing, among others). Although according to the latest household-level survey, around 80 percent of nonfarm HHEs and two-thirds of all HHEs want to expand their businesses, among women entrepreneurs in Indonesia, the majority of them fall into the category of “necessity” enterprises. Specific policy reforms around HHEs should focus less on encouraging growth, and more on small increases in productivity, and hence in income. If small productivity gains could be realized across more than 44 million HHEs in Indonesia, the total productivity gain would be enormous. Intervention in two particular policy areas would improve the productivity of HHEs.

First, the basic business skills of HHEs can be improved with training and education. Indonesian HHE owners use rudimentary (or no) formal business practices. But, as highlighted in this chapter, the probability of a nonfarm HHE reaching middle-class status could be increased by 37 percentage points if the owner uses an accounting method, whether simple or complex. Improving the basic business management skills of HHE owners or workers through standardized or tailormade training would raise productivity and increase their chances of expanding. At least three skill types need to be improved: financial literacy, management, and entrepreneurial. Strategies to improve the business skills of HHEs should be, in sequence (short term then medium term): (i) creating short training courses with simplified rule-of-thumb modules in business skills, combined with training in personal initiative (a soft skill), competition, and innovation; (ii) providing information about the benefits of training and ways of acquiring it; and (iii) in the medium term, synchronizing and integrating government training and support programs across ministries and bodies.

Second, inclusive and supportive ecosystems can be created for HHEs, targeting, in particular, a reduction in the vulnerability of HHE owners. Chapter 4 discusses how infrequently a self-employed HHE owner can increase their earnings to middle-class level. Both HHE owners and their workers have very little economic security. However, greater access to social benefits may bring them closer to a more secure livelihood than if they relied solely on labor income. Only 2.4 million nonwage workers were registered in the social security program (Badan Penyelenggara Jaminan Sosial Ketenagakerjaan; BPJS Ketenagakerjaan) in 2018 out of a population of 44 million, partly due to limited knowledge of the benefits and importance of the scheme. Willingness to pay is also low. The owners of HHEs and their workers are vulnerable, and policy and encouragement is urgently needed to increase their membership in the scheme. Specific policy reforms that could create inclusive and more secure ecosystems for HHEs are: (i) encouraging HHE owners and workers to join BPJS Ketenagakerjaan by providing tailored information on the benefit of registration in the program; (ii) providing co-contributions from government to ease entry and sustain

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84 Arsana and Alibhai 2016
85 See evidence of the importance of these skills in Drexler, Fischer, and Schoar (2014); Mangla, Aagarwal, and Pandey (2015); Campos et al. (2017); Duering (2010); and Kusumawardhani et al. (2019).
participation in the program; and (iii) promoting the benefits of becoming a legal entity by bundling membership with other government support programs designed to increase the productivity of HHEs, such as access to finance and to skill development.

Third, product competitiveness could be improved. Early evidence shows that a low level of labor productivity in an HHE will prevent its owner from easily reaching middle-class status. The low level of productivity leads to low competitiveness. Most HHEs have limited working assets and limited knowledge of innovating, diversifying, and differentiating their products from those of their competitors. Consequently, they struggle to compete in fierce markets. For example, in agriculture, 56 percent of farm HHEs have less than 0.5 hectares of land, meaning they cannot diversify their crops, let alone take advantage of the economies of scale that are possible on larger farms. Most nonfarm HHE also face similar problems. Farmer field schools, where farmers can learn to adapt old methods or train in new ones, significantly increase their skills.86 In some cases, farmers have come up with better or more efficient ways of using the new methods they learn. Increasing economies of scale of HHE can be achieved through use of shared factories. First, basic work mechanisms must be developed among HHEs, for example, assigning autonomy and responsibilities, setting decision-making arrangements, coordinating objectives and efforts, networking, and managing problems. Establishing such cooperation among HHEs requires guidance from local government, which acts as coordinator. Product standardization is beneficial for every business entity, including HHEs. Businesses gain credibility, can build a brand, competition increases, profits grow, and so does the HHE. Most HHEs have no knowledge of standardization and its benefits. Specific policy reforms recommended to improve product competitiveness are: (i) promoting on-the-job training and apprenticeships; (ii) providing shared factories or machines that can be used by HHEs; and (iii) supporting product standardization and cooperation among HHEs.

As highlighted in this chapter, one-fifth of HHE owners started their enterprises because they could not get a job as a salaried employee. Indonesia needs policy reform to close information gaps and help HHE owners and workers transition to higher-quality jobs. The reforms should include the development of a robust labor market information system and job-matching mechanism, as well as reskilling and upskilling of current workers. These reforms will help HHE owners and workers to move to salaried jobs.

86 Luther et al. 2018
Box 4.6 Banking Agents: Benefits to Household, Small, and Medium-Sized Enterprises

The existence of the networks of banking agents (such as Laku Pandai and Layanan Keuangan Digital) have several direct and indirect advantages for household enterprises (HHE), and small and medium-sized enterprises (SMEs):

1. First, HHEs and SMEs acting as banking agents earn income from every banking transaction they conduct (especially those conducted electronically) and from every cash-in-cash-out transaction. The fee obtained from each transaction can contribute quite significantly to the total income of an HHE or SME, especially in areas where access to banking facilities is limited or nonexistent. A traditional Laku Pandai agent offering banking services could earn up to Rp0.4–2 million per month, or 10–50 percent of their net income, by offering basic banking services.a

2. Government social assistance programs consist of benefits distributed either as conditional cash transfers or in-kind benefits (similar to e-vouchers) that can be liquidated or used to buy food at banking agents under the HIMBARA network (HIMBARA is the abbreviation for Himpunan Bank Negara, the Association of State-Owned Banks). These schemes accelerate recruitment of banking agents and expand the scope of services provided by banking agents in the regions. For example, the number of Laku Pandai agents increased from 3,734 in June 2015 to 1,146,131 in September 2019.b In addition, HHEs and SMEs that own stores may also receive an additional benefit, namely increased footfall as people visit the store to carry out banking transactions, pay bills, or withdraw cash.

3. Many of the HHEs and SMEs recruited by state-owned banks have improved their digital and financial knowledge, because they are also expected to provide digital and financial education both directly and indirectly to their customers. In many cases, children of older HHE and SME owners have better digital and financial knowledge and teach their parents, helping them cater to their customers.

4. Various kinds of banking and other transactions (for example, paying bills) can be carried out closer to home and potentially more cheaply than at a traditional bank.

5. The existence of banking agents can also enhance the culture of saving or accumulating assets among households, individuals, and enterprises; services are easy to access and have relatively informal procedures. Customers can save at any time and any amount through a banking agent without needing to self-conscious about the amount they are saving. The new financial records of these customers, saved by the agents, enable banks to assess the credentials of customers should they apply for credit. This could potentially relax banks’ collateral requirements.

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a See, for example, Boston Consulting Group and MicroSave Consulting (2019).
b OJK (Otoritas Jasa Keuangan) N.d.
Annex Figure 4.1 Job Growth Slowed during the Hollowing-Out Period

Job growth (upper and lower bound)

Sources: Manufacturing Survey; World Bank staff calculation

Note: The upper bound of job growth is calculated by assuming that the number of employees of firms exiting, but not closing down, falls to 19 (20 employees is the threshold of the Manufacturing Survey). The lower bound of job growth is calculated by assuming that the number of employees of firms exiting, for any reason, falls to 0. The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).
Annex Figure 4.2 (Log) Productivity Differentials for Apparel

Sources: Manufacturing Survey; World Bank staff calculations

Note: All coefficients are significant at 10 percent confidence interval, except nonmetallic mineral for productivity. Dark Green means low-technology-intensity sectors, green means medium-technology-intensity sectors, and light green means high-technology-intensity sectors. The apparel subsector is outperformed by most other subsectors in terms of both real wages and productivity. Except for food, textile, tobacco, and nonmetallic metal, other manufacturing subsectors outperformed the apparel subsector in real wages. All subsectors outperformed apparel in productivity (real value added per worker). The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).

Annex Figure 4.3 (Log) Wage Differentials for Apparel

Sources: Manufacturing Survey; World Bank staff calculations

Note: All coefficients are significant at 10 percent confidence interval, except nonmetallic mineral for productivity. Dark Green means low-technology-intensity sectors, green means medium-technology-intensity sectors, and light green means high-technology-intensity sectors. The apparel subsector is outperformed by most other subsectors in terms of both real wages and productivity. Except for food, textile, tobacco, and nonmetallic metal, other manufacturing subsectors outperformed the apparel subsector in real wages. All subsectors outperformed apparel in productivity (real value added per worker). The Manufacturing Survey is the Survey of Medium-Sized and Large Manufacturing Firms (Survei Industri Besar/Sedang).
Annex Table 4.1 Manufacturing Subsector Classification

<table>
<thead>
<tr>
<th>Broad sector</th>
<th>Subsectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-skill manufacturing</td>
<td>Food, beverages, and tobacco products</td>
</tr>
<tr>
<td></td>
<td>Wood and wood products</td>
</tr>
<tr>
<td></td>
<td>Other nonmetallic mineral products</td>
</tr>
<tr>
<td></td>
<td>Fabricated metal</td>
</tr>
<tr>
<td></td>
<td>Paper and paper product, printing and publishing</td>
</tr>
<tr>
<td></td>
<td>Rubber and plastics products</td>
</tr>
<tr>
<td></td>
<td>Base metals</td>
</tr>
<tr>
<td></td>
<td>Textiles, clothing, and leather products</td>
</tr>
<tr>
<td></td>
<td>Furniture; manufacturing not elsewhere classified</td>
</tr>
<tr>
<td>High-skill manufacturing</td>
<td>Coke and refined petroleum products</td>
</tr>
<tr>
<td></td>
<td>Chemicals and chemical products</td>
</tr>
<tr>
<td></td>
<td>Machinery and equipment not elsewhere classified</td>
</tr>
<tr>
<td></td>
<td>Transport equipment</td>
</tr>
<tr>
<td></td>
<td>Electrical machinery and equipment</td>
</tr>
<tr>
<td></td>
<td>Computers, electronics, and optical equipment</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical products</td>
</tr>
</tbody>
</table>

Sources: Steenbergen and Hebous 2020
References

Alatas, Hamidah, and Maria Monica Wihardja. Forthcoming. “Firm-Level Analysis of Job Creation Dynamics in the Medium and Large Manufacturing Industry in Indonesia.” Background paper, Pathways to Middle-Class Jobs in Indonesia, World Bank, Jakarta.


References


References


References


Pathways to Middle-Class Jobs in Indonesia


Chapter 5

Workers, Jobs, and Barriers to Entry to Middle-Class Jobs
In 2018, there were 124 million working youth and adults in Indonesia, which has one of the largest workforces in the world. Two in every three people aged 15–64 were either working (65.6 percent) or looking for work (3.3 percent), on par with countries of the same level of development as Indonesia. The labor force participation rate has crept up slowly from 66.9 percent in 2007 to 67.2 percent in 2018, as unemployment rates have fallen from 9.1 percent to 5.4 percent over the same period.

However, in 2018, only 13 million income earners out of 85 million held "middle-class" jobs.\(^1\)\(^,\)\(^2\) That is, only 15 percent of income earners—comprised of wage employees, casual workers, and the self-employed—were earning income that would allow a family of four to purchase a middle-class way of life. Using a more restrictive definition of middle-class job, namely that a worker earns above the threshold for middle-class earnings, enjoys full social benefits,\(^3\) and holds an indefinite-term employment contract,\(^4\) only 3.5 million wage employees (out of the 85 million income earners) can be considered to hold a middle-class job.

1 See Chapter 1 for a discussion of the definitions of “middle-class job” that can be measured with Sakernas data.
2 While there are 124 million workers, Sakernas provides income data only on the 85 million workers who are self-employed, wage employees, or casual workers, and therefore only allows middle-class status to be assigned to these types of workers. This report refers to these workers as “income earners.” There is no earnings information for employers or unpaid workers. By definition, there is no information on social benefits or contract status for casual workers and the self-employed.
3 The job-associated benefits that are included in the Sakernas are: health insurance, work accident insurance, death benefits, old-age benefits (nongovernment), pension benefits (government), and/or paid annual leave / sick leave / maternity leave.
4 The Sakernas allows for four categories of contract: indefinite term, definite term, verbal, and none.
This chapter will explore: (i) who holds middle-class jobs; (ii) barriers to obtaining a middle-class job; (iii) additional barriers faced by women and youth; and (iv) policy recommendations.  

5.1 Who Are Middle-Class Workers and How Do They Compare to the Wider Workforce?  

To understand how to help more workers transition to middle-class jobs, the first step is to identify the differences between those who are already in those kinds of jobs and those who are not. This section presents the profile of the overall workforce and compares it to the profile of workers in middle-class jobs.  

5.1.1 Men dominate all jobs and middle-class jobs  

Indonesia’s workforce is dominated by men; this has changed little over the past 20 years (Figure 5.1). While there are equal numbers of working-age men and women, only 39 percent of workers are women. Approximately half of working-age women (aged 15–64) hold a job, as compared to 80 percent of men, with significant variation by province. While Indonesia’s female labor force participation rate is on par with other countries at its level of development, it is significantly below other developing countries in the East Asia and Pacific region, where more than 58 percent of women work.  

More curious, though, is that female labor force participation rates have not moved in twenty years despite improvements in the educational attainment of women, falling fertility rates, and rapid urbanization. This apparent stagnation reflects an improvement in aspects of women’s lives that are correlated with lower work tendencies. Women’s educational attainment is rapidly increasing. Most now have at least some secondary school education, which global evidence shows is the level of education at which labor force participation dips due to the opportunity cost of working. Fertility rates continue to fall slowly—from 2.5 children in 2000 to 2.3 in 2018—and early marriages declined from 24 percent in 2003 to 13 percent in 2013. However, women continued to drop out of the labor force at a higher rate than men during prime childbearing years (Figure 5.2). Urbanization makes working harder since women have to go out and find a job rather than working on the family farm. In addition, they have to contend with the high cost of

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5 To simplify definitions and comparisons, this section defines a middle-class job as one that meets the threshold of middle-class earnings (see Chapter 1).  
6 The rates at which women participate in the labor force differ significantly from region to region. In Bali, Yogyakarta, and Papua, more than 70 percent of working-age women either hold a job or are seeking a job. In contrast, 45 percent of women in West Java are in the labor force (Lain, Alatas, and Setyonaluri 2020).  
7 In other words, the earnings from working are insufficient to cover the costs incurred by working, such as the cost of childcare or transportation.  
8 In 2018, one child under the age of three in the household reduced the likelihood of a woman working by 7 percent and increased the likelihood of a man working by 2 percent. A second child further reduced the likelihood of a woman working by 3 percent and increased slightly the likelihood of a man working. The presence of informal childcare, provided by older inactive men or women in the household, increased women’s participation by nearly 6 percent and men’s by nearly 2 percent (Lain, Alatas, and Setyonaluri 2020).  
9 Approximately one-third of women who were not working and who experienced a job termination in 2018 attributed their exiting of the labor market to domestic work. A further 13 percent suggested pregnancy was the main reason (Lain, Alatas, and Setyonaluri 2020). A qualitative study by Arjawati (2007) that focused on teachers confirms that work-family conflict escalates when children are young. Indeed, the likelihood of working becomes less negative as the age of children in the household increases (Lain, Alatas, and Setyonaluri 2020).  
10 Provinces in which a larger share of the workforce is employed in agriculture tend to have higher female labor force
transportation and weak laws (and practices) for women’s safety in work spaces. The economic transformation toward the service industry, where women are overrepresented and hold more of the professional and technical jobs than they do in other sectors, and the rise of the (digital) gig economy and its potential for part-time work and working from home, may offer greater opportunities to women.

While women hold 35 percent of jobs that pay an income, they only hold 28.6 percent of middle-class jobs (Figure 5.3a). About 12.3 percent of the 30 million income-earning women have jobs that earn at least a middle-class wage (3.6 million women), as compared to 16.5 percent of the 55 million income-earning men (9.1 million) (Figure 5.3b). The underrepresentation of women in middle-class jobs is partly due to the large number of women who work but are unpaid. That said, women’s employment in middle-class jobs has grown more quickly than men’s: increasing by 2.8 percentage points over the period 2001–18 as compared to 0.7 percentage points for men.

Sources: Sakernas 2007–18; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Source: Lain, Alatas, and Setyonaluri 2020
Note: The sample is women and men who were out of the labor force in 2018 but who had worked in the year prior to the survey.

### Figure 5.1 Labor Force Participation Rates by Gender Have Not Changed in More Than 20 Years

Labor force participation rate by gender in Indonesia

### Figure 5.2 More Women than Men Drop Out of the Labor Force during Prime Childbearing Years

Proportion of all labor market dropouts at each age cohort

While women hold 35 percent of jobs that pay an income, they only hold 28.6 percent of middle-class jobs (Figure 5.3a). About 12.3 percent of the 30 million income-earning women have jobs that earn at least a middle-class wage (3.6 million women), as compared to 16.5 percent of the 55 million income-earning men (9.1 million) (Figure 5.3b). The underrepresentation of women in middle-class jobs is partly due to the large number of women who work but are unpaid. That said, women’s employment in middle-class jobs has grown more quickly than men’s: increasing by 2.8 percentage points over the period 2001–18 as compared to 0.7 percentage points for men.
Figure 5.3 Less “Vulnerable” Groups Are Overrepresented in Middle-Class Jobs

a. Distribution of income-earning jobs and distribution of middle-class jobs across defined demographic groups

b. Share of income-earning workers who hold middle-class jobs, by characteristic

Sources: Sakernas 2018; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

5.1.2 The Indonesian workforce is aging and middle-class workers are also older

The Indonesian workforce is aging. As of 2018, the average Indonesian worker was 40.5 years old, two years older than in 2007. Prime-age workers (aged 25–54) comprised 70 percent of the workforce, while youth comprised only 13 percent (Figure 5.4). This is 4 percentage points less than the youth share of the workforce in 2007. In fact, the number of workers in each age group has increased between 2007 and 2018, with the exception of youth. In 2018, 200,000 fewer youth were working as compared to 2007 (Figure 5.5). The aging tendency of the workforce is due to several factors: delayed entrance to the...
labor force in favor of more schooling, later retirement of older workers, and falling birth rates leading to equalizing cohort sizes. United Nations projections show that the number of youth and children in Indonesia has stabilized and will begin to decline in 2025, leading to further aging of the workforce.

**Figure 5.4 Indonesia’s Labor Force Is of Prime Working Age**
*Distribution of the employed in 2018*

**Figure 5.5 The Number of Workers is Growing in All Age Groups but Declining Among Youth**
*Employment in 2007 and 2018*

**Sources:** Sakernas 2018; World Bank staff calculations

**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

**Prime-age income earners hold middle-class jobs.** More than 14 percent of income earners in the age ranges 25–34, 35–44, and 45–54 earn at least a middle-class income, as compared to 12.5 percent of the oldest income earners and only 6.7 percent of the youngest (Figure 5.3b). The cohort groups 35–44 and 45–54 are overrepresented in middle-class jobs, relative to their share of total jobs. For example, the 45–54 age group holds 19.6 percent of income-earning jobs but 26.8 percent of middle-class jobs. The youngest workers (age 15–24) only hold 6.4 percent of middle-class jobs, though they account for 14.4 percent of all workers. Older workers are also underrepresented (Figure 5.3a).

15 The share of youth in school increased from 30 to 36 percent over the period 2007–18 (Sakernas). All other activities—working, searching for work, housekeeping, and discouraged worker—declined by approximately one percentage point over the period.

16 United Nations, Department of Economic and Social Affairs, Population Division 2019
Box 5.1 Will COVID-19 Hinder Youth from Attaining Middle-Class Jobs?

The COVID-19 crisis differs from the Asian financial crisis and the global financial crisis of 2008 in fundamental ways. Most importantly, it is an economic crisis spurred by a health pandemic and requires policymakers to consider trade-offs between public health and economic recovery. The highly contagious and potentially deadly disease has not only debilitated the demand side of jobs and led to firm closures and domestic and external demand shocks, for example, but has also had significant effects on the supply side of jobs through illnesses, deaths, anxiety, fear, and depression. Illness, mobility restrictions, home isolation and other containment measures have reduced work productivity and disrupted the education and learning processes of the future workforce, especially of those students who are not connected digitally. While some of the demand-side shocks can be reversed once the pandemic is controlled and economic activity resumes, the supply-side shocks may have longer-term impact or may be permanent.

The COVID-19 period and its aftermath is a bad time to leave school. While the modern world has never experienced a joint health-economic crisis of the severity of the COVID-19 pandemic, lessons from economic crises of the past several decades can provide some predictions about how the current crisis may affect the long-term labor market prospects of today’s youth.

Entering the labor market during an economic downturn has long-lasting “scarring” consequences for the new worker. Reviews of international literature have concluded that youth who enter the labor force during an economic downturn earn lower wages for many decades as compared to those entering in economically robust years. For example, youth who graduate from a Canadian university during an economic recession in Canada can expect their wages to be 9 percent lower than average in their first job and 5 percent lower than average five years later; the gap is only closed ten years after graduation, mostly through frequent job switching. Similarly, wages are 10–21 percent lower among UK graduates, and 2.5 percent lower among US graduates who leave school for work during a recession. Similar results have also been found for Mexican youth.

The scarring also leads to greater difficulty in finding jobs later in life. Low-skilled workers who enter the labor force during an economic downturn experience unemployment rates one to two percentage points higher for 16 years after leaving school in Argentina and in Norway. More rapid entry, perhaps through self-employment, can still have scarring effects. For example, Indonesian youth who are self-employed are more likely to still be self-employed 7 and 14 years after the initial observation as compared to youth who began in other types of work. Unemployment experienced at an early age has also been found to be associated later in life with illness, stress, depression, and lower life expectancy.

This pandemic has impacted the seven million new graduates—part of the so-called “Generation COVID-19”—who are ready to enter the labor force. In 2020, about 300,000 fewer youth entered the labor force compared to 2019. A closer look at the impacts of the pandemic on youth suggests they are more likely to mix school and employment, and that there has been an increase in youth idleness (those not in employment, education, or training). An increase in employment rates among youth was especially concentrated among those of high-school age (15–18), who were likely to be occupied as unpaid family workers. This pattern holds even when we look at youth working full time (at least 20 hours a week): the increase was especially concentrated among those of high-school age. The effects are similar for boys and girls. This may mean interrupted learning (combining schooling with full-time work) for these children of high-school age. Moreover, new graduates starting work in 2020 earned less than their 2019 cohort. A somewhat extensive literature finds that entering the labor force during economic downturn comes with several issues: it is harder to find a job and this then becomes a vicious circle, partly because people lose skills when they are not working; it also leads to many years of lower wages. Job losses and reduced household incomes could also affect human capital investment in children.

The potential long-term costs of this scarring of the labor force highlight the need to proactively integrate new jobseekers into jobs as economic activity resumes. The wounds will be more difficult to heal later.
Box 5.1 continued

- Naidoo, Packard, and Auwalin 2015; Duryea 2012
- Oreopoulos, von Wachter, and Heisz 2006
- Gregg and Tomaine 2005; Gregory and Jukes 2001
- Kahn 2010
- Székely and Karver 2015
- Duryea 2012
- Bratsberg, Raaum, and Roed 2006
- Naidoo, Packard, and Auwalin 2015
- Bell and Blanchflower 2010
- World Bank 2020a
- Pradana, Hadiwidjaja, and Posadas 2021
- Halim, Hambali, and Purnamasari. Forthcoming
- World Bank 2020a

5.1.3 The skill level of the Indonesian workforce is lower than education levels might suggest, but a higher level of education is still correlated with holding a middle-class job

The educational level of the workforce—measured by level of education completed by those aged 15–64 who are not in school—rapidly increased between 2007 and 2018. The number of workers who had completed senior high school doubled over the period, reaching 36 million in 2018, and the number who had completed university increased from 6 million to 15 million (Figure 5.6). That said, Indonesia’s education profile in 2018 was similar to that of the United States in 1940. Nearly 60 percent of workers have less than a senior high school education (Figure 5.7). This is worrisome for two reasons. First, the quality of education is likely much lower than it should be for the attainment rate. The World Bank’s Human Capital Index 2020 estimates that an Indonesian child entering the education system today can expect to complete 12.4 years of schooling, but will only learn the equivalent of 7.8 years; in other words, the rapid increase in attainment is not necessarily leading to equivalently higher skills. Second, the stock of workers with low levels of education is so large that flows of more educated youth into the labor force will only slowly shift the education profile. Over the past 10 years, the average level of education of the workforce increased by one year (Figure 5.6).

17 World Bank. N.d.
18 OECD 2016
Similar trends emerge by gender: the educational attainment of both men and women has increased over time, though women lag behind men. Girls and boys have similar school enrolment rates, hovering near 90 percent for primary enrolment, 70 percent for secondary school enrolment, and 30 percent for tertiary school enrolment. Notably, women’s enrolment in tertiary passed that of men in 2012, with nearly 40 percent of young women of tertiary education age enrolled in training or university, compared to 33 percent of young men. However, the educational attainment rate for adults (aged 25 or older) gives men the advantage; rates of attainment of upper secondary or tertiary remain about 7 percentage points lower for women than men. This gap has been constant since 2006.¹⁹

More educated individuals hold a disproportionate share of middle-class jobs. For example, workers with a primary education or less hold 34.4 percent of income-earning jobs but only 8 percent of middle-class jobs. In contrast, workers with a postsecondary education hold 15.6 percent of all jobs but 47 percent of middle-class jobs (Figure 5.3a). A higher education does not guarantee a middle-class job, though. Only 40 percent of those with a postsecondary education hold a middle-class job (Figure 5.3b).
5.1.4 Jobs, especially middle-class jobs, are clustered in urban zones

Although jobs are relatively equally distributed between urban and rural zones, better jobs are clustered in urban areas. Approximately 66 million jobs are in urban zones compared to 57 million in rural. However, a large share of rural jobs are unpaid roles on family farms. If only income-earning jobs are considered, 62 percent are in urban areas. However, 82 percent of middle-class jobs are in urban areas (Figure 5.3a). Only 20 percent of the urban population earns a middle-class income, partly due to the high incidence of low value-added services in urban zones, but this is far higher than the 7 percent of rural dwellers (Figure 5.3b).

The clustering of middle-class jobs in urban areas is partly due to educational attainment and agglomeration effects. A one-year increase in the average educational level in Indonesia leads to a 10 percent increase in high-skilled wages and a 2 percent increase in low-skilled wages in urban areas, but no increase occurs in rural zones. This wage premium is driven by the direct effect of skills on productivity and by the indirect effects of worker proximity as workers learn from each other. For example, a doubling of population density results in a 10 to 13 percent increase in productivity in urban Indonesia, which translates to higher wages. Increased density does not affect rural productivity. So, even though urban jobs are mostly in low value-added services, the impacts of education and agglomerations result in higher productivity and wages than in less densely populated rural zones. There are few noticeable job spillovers from urban to rural zones.20

Rural households outside of Java and Bali are at risk of losing ground. Rural households are increasing incomes by diversifying their sources of income. While 53 percent of rural households engage in agriculture, only 35 percent of rural household income is derived from this source. The rest is derived from off-farm jobs and cash transfers. Wage employment in services and industry has increased rural earnings in Java and Bali by 62 percent since 2017, but the absence of such jobs in other rural zones has resulted in a stagnation in labor earnings since 2017. For example, 83 percent of new service jobs in Papua were in low-paying community and social services. This jobs gap may expand for rural populations outside of Java and Bali due to the increasing incidence of natural disasters and weather variability brought on by climate change. Given the low incidence of internal migration, these populations will fall even further from middle-class jobs.21

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20 Roberts, Gil Sander, and Tiwari 2019
21 World Bank 2020b

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June 2021
5.1.5 While having a moderate disability has little effect on work status, it has a significant effect on middle-class-job status

**Having a severe disability reduces engagement in the labor force.** People with a moderate disability represent a greater share of the labor force (6.9 percent) and workers (7.1 percent) than expected given that they make up only 6.2 percent of the working-age population. In contrast, those with a severe disability represent 0.9 percent of the working population but only 0.3 percent of labor force participants or workers. Those with any physical disability are less likely to hold a job as a wage employee (3.9 percent) than their work patterns would suggest, instead being overrepresented in self-employment (10.9 percent), as employer (11.5 percent), casual worker (7.3 percent), and unpaid worker (7.2 percent) (Table 5.1).

**Workers with disabilities have less access to middle-class jobs.** Eleven percent of workers with a moderate disability and 7 percent of those with a severe disability hold a middle-class job (Figure 5.3b). However, while 6.1 percent of workers holding income-earning jobs have a moderate disability—on par with their share of the working-age population—only 4.7 percent of middle-class jobs go to those with a moderate disability (Figure 5.3a). People with a severe disability represent only 0.3 percent of income earners and 0.1 percent of middle-class jobs.

### Table 5.1 Disability Status and Employment

<table>
<thead>
<tr>
<th>Disability intensity</th>
<th>Engagement in the labor force (%)</th>
<th>Type of job (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Working age</td>
<td>Labor force</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>6.2 6.9</td>
<td>7.1</td>
</tr>
<tr>
<td>Severe</td>
<td>0.9 0.3</td>
<td>0.3</td>
</tr>
</tbody>
</table>

**Sources:** Sakernas 2018; World Bank staff calculations

**Note:** Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). Due to rounding, percentages in this table may not total 100 percent.

### 5.2 Barriers to Entry to Middle-Class Jobs

If the macroeconomy and firms play their part to create middle-class job openings, workers will need to step up to effectively fill those jobs. To acquire a middle-class job, workers should prepare for and seek one. Chapter 2 gave insights into the types of jobs that are more associated with middle-class earnings. All sectors except agriculture, mining, and community and personal services are associated with growth in middle-class jobs. Being an employee is more associated with middle-class jobs. Formal sector jobs also offered movement into middle-class jobs.

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22 The most common disability is moderate sight loss (4.1 percent of the working-age population). This is followed by moderate mobility challenges (1.6 percent) and hearing or psychological difficulties (1.3 percent each). Less than 0.5 percent of the working-age population identifies with having a severe physical or psychological disability.
Workers have control over three factors that will enhance their success at reaching middle-class jobs. First, they can acquire skills that are appropriate for occupations that tend to pay middle-class incomes. Second, they can search for jobs in a way that may be more conducive to finding and securing a middle-class job. Third, they can move to jobs that are more aligned with middle-class earnings. The barriers to each are discussed in this section, as is the role of labor legislation in creating middle-class jobs.

5.2.1 Aligning skills with middle-class occupations

The most populated occupations tend to have a disproportionately small share of middle-class jobs. Service and sales (22.4 percent), elementary occupations (24.1 percent), and craft and related trades (12.9 percent) are the most prevalent occupations overall. However, only 6.6 percent of all middle-class jobs are in craft and related trades and 5 percent are in elementary occupations. In contrast, managers, professionals, technicians, and clerical workers each represent no more than 9 percent of all jobs, yet they each host 8–20 percent of middle-class jobs. Service and sales workers comprise almost similar shares of all jobs (22.4 percent) and middle-class jobs (17.1 percent) (Figure 5.8).

A closer look at occupations finds that 23 (30) occupations have a 2015 median (mean) wage above the middle-class cutoff. The Sakernas has a sufficiently large sample that one can identify which, among 113 occupations, earn a median (or average) wage that is commensurate with a middle-class job (Table 5.2). Twenty-one (28) of the middle-class occupations were white-collar jobs at the top of the income distribution: managers (and military), professionals, and technicians and associates. The remaining two occupations

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23 This calculation employs the survey sample weights. If these weights are not employed, the number of occupations (by mean cutoff) decreases, dropping archivist, librarian, and related information professionals; life science technicians and related professionals; and administrative associate professionals.

24 The occupations are defined at the three-digit KBJI, which is the most the data can be disaggregated and still have meaningful cell sizes.
were plant operators in mining and mineral processing, and locomotive engine drivers and related workers. The occupations vary widely, and include senior government officials, law professionals, biologists, computing specialists, business professionals, engineers, police inspectors, finance professionals, and plant operators in mining and mineral processing.

Table 5.2 Occupation for Which Median (Mean) Income is above the Middle-Class Cutoff, Sorted by One-Digit KBJI

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Three-digit KBJI</th>
</tr>
</thead>
</table>
| Legislators, senior officials and managers, armed forces | • Parliament members*  
• Directors and chief executives*  
• Senior government officials**  
• Other specialist managers*  
• Production and operations managers**  
• Members of the military (army, navy, air force) | • General managers** |
| Professionals                                    | • Legal professionals**  
• Health professionals (not nurses)*  
• College/university professors**  
• Computing professionals**  
• Business professionals*  
• Architects/engineers**  
• Biologist, botanist, zoologist and related professionals**  
• Mathematicians, actuaries and statisticians;  
• Physicists, chemist, and related professionals*  
• Social science professionals and other researchers not mentioned above | • Archivist, librarians and related information professionals |
| Technicians and associates                       | • Ship and aircraft controllers and technicians**  
• Police inspectors and detectives  
• Customs, tax and related government associate professionals** | • Physical and engineering science technicians;  
• Safety, health and quality inspectors;  
• Life science technicians and related associate professionals  
• Finance and sales associate professionals  
• Administrative associate professionals |
| Plant and machine operators                      | • Plant operators in mining and mineral processing  
• Locomotive engine drivers and related workers | |

* Occupations that fall in the top 25 percentiles of middle-class occupations (that is, occupations whose median income falls above the middle-class threshold). ** Occupations that fall between the 50th and 75th percentiles of middle-class occupations.

Sources: Sakernas 2015; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional). The KBJI is the Indonesian Standard Classification of Occupations (Klasifikasi Baku Jenis Indonesia).
Some occupations with a high share of middle-class jobs are increasing in size, while others are decreasing. While none of the occupations in Table 5.2 are among the 20 fastest-growing occupations, in eight of the 20 fastest-growing occupations, at least 15 percent of jobs earn at least a middle-class wage. However, most of the fastest-growing occupations are low-skill services and trades, which provide few jobs with middle-class wages. When considering the fastest-shrinking occupations, non-middle-class jobs dominate (Figure 5.9).

Figure 5.9 Some of the Fastest-Growing Occupations Offer More Middle-Class Jobs

Fastest-growing occupations (striped bar indicates that at least 15 percent of the jobs in the occupation are middle class), 2007–15

Fastest-shrinking occupations, 2007–15

Sources: Sakernas 2007 and 2015; World Bank staff calculations.

Note: Occupations are at the three-digit level. The statistic is the difference in the occupation as a share of all jobs in 2007 and 2015. A striped bar indicates that at least 15 percent of the jobs in the occupation earn at least a middle-class wage. Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
5.2.2 What can workers do? Skill-up ...

As discussed, Indonesia’s labor force is very low skilled. In this section, the available information on the nature of middle-class jobs is used to inform the discussion on education level, skills, and the constraints to skillling-up in Indonesia.

Middle-class jobs require at least an upper secondary education, and preferably a postsecondary education

The average rate of return to education is 6.9 percent in Indonesia, on par with low-income countries in the East Asia region, and far below that of other middle-income countries (Figure 5.10). Skills acquired in school by Indonesians are less valued by the market as compared to the skills acquired in schools in other middle-income countries in the region. Firms confirm that the skill level of the workforce is a problem. Nearly 14 percent of firms interviewed in the Doing Business 2015 survey in Indonesia report that “workforce education” is a major or severe obstacle to doing business, as compared to 8.4 percent of employers in the Philippines and 2.5 percent in Thailand.25 There is a particularly severe shortage of the skills needed for more-skilled occupations, including managerial roles (Table 5.3), which are more aligned with middle-class jobs. While 75 percent of Indonesian firms that are searching for managers report a shortage of managerial skills in the market, only 30 percent of Malaysian firms seeking managers are faced with skills shortages. In contrast, only 21.8 percent of Indonesian firms have trouble finding unskilled production workers, as compared to 38 percent of Malaysian hiring firms.

25 Gomez-Mera and Hollweg 2018

Figure 5.10 Indonesia’s Labor Force Has Education Rates Similar to Those of Asian Middle-Income Countries, but Rates of Return on Par with Less-Advanced Countries

Returns to and average years of education, regional comparators in various years

Source: Montenegro and Patrinos 2014; Sakernas 2018; Demombynes and Testaverde 2018

Note: Montenegro and Patrinos use data circa 2011. The rate of return on an additional year of schooling is calculated using the standard Mincerian approach, where the log of (daily) wages is regressed against years of school, experience (calculated as age minus years of schooling minus five) and sex. The data on average years of schooling is from Barro and Lee (2010). The years in brackets on the x-axis is the year of the data for each particular country.
Middle-class jobs are overwhelmingly associated with completion of upper secondary school or above. More than 80 percent of people holding a middle-class job have attended either secondary school (37 percent), technical and vocational education and training (TVET) (9 percent), or university (38.5 percent), as compared to 41.7 percent of people with non-middle-class jobs. Only 4 percent of people who have only a primary school education hold middle-class jobs. Although most middle-class jobs are held by the more educated, having a secondary school or postsecondary education does not guarantee a middle-class job. Approximately 23 percent of people with non-middle-class jobs have a postsecondary degree (Figure 5.11).

Figure 5.11 Middle-Class Jobs Are Overwhelmingly Associated with a Secondary School Education or Above

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>76.7</td>
<td>30.2</td>
<td>75</td>
<td>34.2</td>
</tr>
<tr>
<td>Nonproduction technicians, associate professionals, and sales workers</td>
<td>67.3</td>
<td>50</td>
<td>86.7</td>
<td>55.6</td>
</tr>
<tr>
<td>Skilled production workers</td>
<td>55.1</td>
<td>39.5</td>
<td>46</td>
<td>69.3</td>
</tr>
<tr>
<td>Unskilled nonproduction workers</td>
<td>43.4</td>
<td>25.6</td>
<td>57.1</td>
<td>38.9</td>
</tr>
<tr>
<td>Unskilled production workers</td>
<td>21.8</td>
<td>38.5</td>
<td>25</td>
<td>48.1</td>
</tr>
</tbody>
</table>

Table 5.3 Percentage of Firms Citing Inadequate Skills When Hiring Workers, by Type of Worker

Source: Gomez-Mera and Hollweg 2018
Note: The years in the top row of the table are the years for which the data were collected for each country; two surveys are pooled for Indonesia.
Middle-class jobs also require a range of cognitive skills

Middle-class jobs are characterized by tasks that require higher-level analytical, cognitive, interpersonal, and digital skills, while non-middle-class jobs are characterized by tasks requiring manual skills. A job can be characterized by the skills required to carry out the standard tasks in that job: cognitive (thinking) tasks versus manual (physical labor). They can also be characterized by the nature of those tasks: routine processes or (nonroutine) discretionary processes. These can be mapped to five categories that have been developed in the literature26 (see Box 5.2 for methodology):

1. **Analytical (nonroutine cognitive) tasks** require the person carrying out the task to analyze and process abstract information and actively use it to solve complex problems;

2. **Interpersonal (nonroutine cognitive interpersonal) tasks** require the person carrying out the task to manage people and relationships;

3. **Cognitive (routine cognitive) tasks** require the person carrying out the task to carry out repetitive mental tasks with a high degree of accuracy without using their discretion;

4. **Adaptable manual (nonroutine manual) tasks** require the person carrying out the task to exercise judgment and physical dexterity;

5. **Routine manual tasks** require the person carrying out the task to carry out repetitive physical motions.

The authors added a sixth category: **digital tasks**. These require the person carrying out the task to work with computers and electronics.

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26 Adapted from Acemoglu and Autor (2011)
Box 5.2 Estimating the Task Intensity of Middle-Class and Non-Middle-Class Jobs in Indonesia

The estimation methodology of task intensity trends is based on Acemoglu and Autor (2011). The cited paper provides scores for the task content of five skill sets per occupation. The skill sets are roughly organized according to skill type (manual, cognitive, interpersonal) and degree of repetitiveness. This returns five skill types (interpersonal repetitive is not measured):

1. **Analytical skills** (nonroutine cognitive): These require individuals to analyze and process abstract information and actively use it to solve complex problems. Examples of tasks: identifying underlying principles, reasons, or facts by breaking down information or data into separate parts; thinking creatively to develop, design, or create new applications, ideas, systems, or products. Examples of occupations: engineers, doctors, lawyers, and scientists.

2. **Interpersonal skills** (nonroutine interpersonal): These require an ability to manage people and relationships. Examples of tasks: Developing and maintaining constructive and cooperative working relationships with others; using persuasion and negotiation skills; adapting to and coordinating the actions of others; coaching others to improve their performance. Examples of occupations: managers, business administrators, schoolteachers, police, salespeople, and those engaged in public relations.

3. **Cognitive skills** (routine cognitive): These require individuals to perform repetitive mental tasks with a high degree of accuracy. They are very structured and do not allow workers to determine their own tasks and priorities. Examples of tasks: typing, data entry, bookkeeping, or checking ledgers. Examples of occupations: clerks, keyboard operators, and tellers.

4. **Adaptable manual skills** (nonroutine manual): These require individuals to exercise judgment and physical dexterity to perform certain tasks. Examples of tasks: driving and operating mechanized equipment such as forklifts or other vehicles; using hands and arms to grasp, manipulate, or assemble objects or control mechanized equipment. Examples of occupations: drivers, crew on boats or ships, laborers in mining and construction.

5. **Routine manual**: These require individuals to spend a significant amount of time making repetitive physical motions. Examples of tasks: Operating machines or controlling processes by using direct physical activity or mechanical mechanisms, not including the operation of vehicles or computers. Examples of occupations: textile workers, metal processors, and operators of plants and machines.

The score for each skills type is averaged across occupations that are classified as middle class or non-middle class, using the middle-class wage as the sorting variable.

A sixth score is created for “digital,” based on Pradana and Wihardja (Forthcoming), which draws from Muro et al. (2017). The digital task intensity is generated from two task items in O*NET:* (i) “Knowledge: Computer and Electronics,” which measures the overall knowledge of computers and electronics required to carry out a job; and (ii) “Work Activity: Interacting with Computers,” which quantifies the centrality of computers to the overall work activity of the occupation.

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Middle-class jobs require high levels of cognitive skills. Analytical, routine cognitive, and interpersonal skills are consistently the most necessary skills for middle-class jobs (Figure 5.12). Analytical skills are clearly used in the tasks associated with many of the occupations described in Box 5.2: legal professionals, biologists, and engineers. Interpersonal skills are also critical for middle-class jobs. Managers, for example, may need strong interpersonal skills. Manual skills are less necessary for middle-class jobs. Digital skills are important in middle-class jobs, but cognitive and interpersonal skills more so.

In contrast, the task intensity of non-middle-class occupations is highest in manual skills and lowest in digital skills. Adaptable manual tasks, such as driving or cleaning, appeared more frequently than tasks requiring routine manual skills, such as those found when working on an assembly line. In non-middle-class jobs, routine cognitive tasks were the most frequently appearing cognitive skills and this increased slightly over time. Digital skills are the skills least used to perform non-middle-class jobs, though the slight upward trend may suggest that this is changing.
Interviews with a small group of Indonesian employers uncovered that the most severe skills shortages are of skills that are necessary to perform tasks commonly a feature of middle-class jobs. The World Bank Enterprise Survey asks firms that are searching for new employees to rank on a scale of 1 (not difficult) to 4 (very difficult), the degree of difficulty in finding employees with each of seven skills. Indonesian employers identified foreign language skills (analytical), managerial skills (interpersonal), work ethic and commitment (interpersonal), and interpersonal and communications skills as most lacking (Figure 5.14). These skills are less about knowledge in a specific field; rather, they are behavioral. They are also prominent requirements of middle-class jobs. These skills were ranked even higher than writing skills, even though the standardized tests of adult skills in 2014–15\(^\text{27}\) found that Indonesian adult literacy is, on average, at a low level. Computer and IT skills ranked lowest, perhaps not surprising given the low intensity of digital tasks in Indonesia’s occupations in 2015.

Turning to knowledge needed for middle-class jobs, postsecondary studies are roughly aligned with middle-class occupations. The middle-class jobs discussed above require technical knowledge in business administration, health (more specialized than nurses), information and communications technology (ICT), engineering, finance, and science. The distribution of field of postsecondary education study roughly reflects the job market, with a larger share in engineering, business administration, and law. There are a few exceptions: a significant share of postsecondary graduates specializes in education—especially women—which is aligned with formal sector jobs but not with middle-class earnings. Medicine, natural sciences, math, and statistics form a smaller share of middle-class than non-middle-class jobs, but this may reflect the prevalence of nursing and other health professionals, who tend to earn less and tend to be women. In fact, women’s fields of postsecondary study reflect the distribution for non-middle-class jobs, while men’s fields of postsecondary study are more aligned with the distribution for middle-class jobs (Figure 5.16).

\(^{27}\) Conducted by the Programme for the International Assessment of Adult Competencies (PIAAC)
Middle-class jobholders pursue training courses once leaving school, both in the market and in firms

Workforce upskilling is constrained by low take-up in the training sector and limited employer provision of training. Working adults rarely go back to formal education, so they depend on short-duration TVET or on employer training. While 10 percent of workers report having participated in formal training courses, 26 percent of middle-class workers have done so.\textsuperscript{28} The low rates of upskilling are perhaps not surprising given the low supply of training by Indonesian firms. About 13 percent of Indonesian firms report that they provide training to their employees, compared to 32 percent of firms in East Asia and Pacific countries and more than half of Filipino firms (Figure 5.15). When Indonesian firms do provide training, they tend to train more-skilled workers. For example, 55 percent of firms said that they provided training to skilled production workers, as compared to 23 percent who provided training to unskilled production workers. Training is concentrated in technical skills specific to the firm, which are not the main skills shortages identified by employers. Thus, adult workers are acquiring new skills via training from firms, but these skills may not be the right ones to move them into middle-class jobs.

\textsuperscript{28} Derived from Sakernas 2018. A person who has received training is 5 percentage points more likely to be a middle-class worker, even when controlling for years of education, age, gender, and location (urban or rural). The nature of the data does not allow us to determine if the training was acquired before or after the worker entered the middle-class job.
5.2.3 What can workers do? Expand their job-search methods …

Middle-class jobs are acquired through a mix of proactive methods, while non-middle-class jobs are primarily found through informal personal networks. While the data will not allow for identification of the search method used to find a middle-class job, “education level” can be used as a proxy for the types of workers who end up in middle-class jobs. Jobseekers who have an upper secondary or postsecondary education rely heavily on personal contacts, but they also use a range of other job-search methods: they respond to job advertisements, they reach out directly to companies and firms that may be hiring, and they sign up for job-search services, such as websites and employment agencies. As the level of education increases, the proactive job-search measures increase. In contrast, jobseekers with a lower-secondary education or below almost exclusively rely on family or other acquaintances to find out about jobs (Figure 5.17).

Figure 5.17 Proactive Job Search Increases with Education Level
Method of job search, total and by education level

Sources: Sakernas, 2018; World Bank staff calculations
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

A large share of jobseekers find a job within three months or less. Sixty percent of jobseekers find a job within three months and another 20 percent within six months (Figure 5.18). This is somewhat fast when considering the complexity of the Indonesian labor market and the absence of consolidated job vacancy information, which brings into question whether people are taking the time to secure the best job possible. Approximately 42 percent of those who are searching for jobs are actually employed. Most say that they are looking for a new job to increase their income. The primary reason given for leaving a job is “insufficient income” (23 percent). This suggests poor job matches.
Notably, skills mismatch—meaning that people are not in the right job for their skill set—is on the rise. In 2016, 1 percent of urban workers with at least a Bachelor’s degree or equivalent who left a job in the past year did so because they felt that the job was not commensurate with their skills; by 2018, this had increased to 5 percent. The skill mismatch is more likely to occur for a person who has previously worked as a wage employee, who resides in an urban area, and has a diploma from TVET training, a university degree, or a postgraduate degree.

Few middle-class jobholders wish to move to another job. Only 1.1 percent of those with a middle-class job are engaged in job search, compared to (a still small) 4.4 percent of all workers. Reasons for job search do not differ much between those who have a middle-class job to those who have a non-middle-class job; both groups say earning more money is their primary reason for looking for a job (50 percent and 40 percent, respectively), while being responsible for providing the household comes second (21 percent and 34 percent).

5.2.4 What can workers do? Move to more lucrative jobs …

Workers with a strong skill set and information about lucrative jobs may still not transition to middle-class jobs, due to impediments to labor mobility. Indonesian labor is mobile. Labor mobility covers: (i) moving to a different state of employment, such as from unemployment to employment or from casual work to a permanent contract; (ii) moving within or across firms (or sectors) but maintaining the same state of employment; and (iii) moving geographic relocation. In 2018, more than 10 million people were searching for a job at the time of the Sakernas interview. About 6 million unemployed workers

Sources: Sakernas, 2018; World Bank staff calculations. The statistics come from the question, “How long has (NAME) been looking for a job/preparing a business?”.

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

Figure 5.18 More Than Half of Jobseekers Find a Job within Three Months
Number of people by duration of job search, in months, at time of interview, by employment status at time of interview

![Graph showing job search duration](image)

Sources: Sakernas, 2018; World Bank staff calculations. The statistics come from the question, “How long has (NAME) been looking for a job/preparing a business?”.

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

29 Sakernas, August 2016-18; World Bank staff calculations
were looking for a job, while another 4.3 million employed workers were seeking to move between jobs. Chapter 4 reported significant job churning in the manufacturing sector. The Indonesian Family Life Survey (Survei Aspek Kehidupan Rumah Tangga Indonesia) (2007–14) reports that approximately 32 percent of internal migrants relocated for work reasons; the tendency is particularly strong among those who have lost their jobs, with 49 percent migrating after a job loss.\(^{30}\) That said, relocation is quite unusual.\(^{31}\)

**Worker mobility might increase if the cost of changing job was lower.** The cost of labor mobility may be monetary (such as the costs incurred during job search or relocation, or the cost of training to transition to a new industry), indirect (such as the foregone earnings while not working or scarred labor market prospects while not working—see Box 5.1), or nonmonetary (psychological stress or loss of self-esteem caused by a job search). Taking these together (since the methodology used does not allow each motivation to be estimated separately), Indonesia has exceptionally high labor mobility costs relative to other countries.\(^{32}\) A 47-country study found that only 4 countries had higher labor mobility costs than Indonesia.\(^{33}\) Labor mobility costs in Indonesia in 2007 were estimated at 2.8 times the annual mean wage. Women seem to have higher mobility costs than men, while youth have lower mobility costs than adults. More-skilled workers have lower mobility costs. Workers in regions further from Jakarta (especially Eastern Indonesia) face particularly high mobility costs.

**Labor mobility costs impede entry into some sectors in which middle-class jobs are prevalent, but may be less of a barrier to entry in other sectors.** In 2007, manufacturing was one of the lowest-cost sectors for workers to enter, costing about 1.8 times the annual average wage. High-value services were quite costly to enter, equal to more than four times the annual average wage. The high mobility cost is likely due to the education requirements in high-value services relative to other sectors. Trade and accommodation seems to be the least costly sector for entry, as well as one of the most populous sectors in 2007.\(^{34}\)

**Weak social protection and labor policy may add to the cost of labor mobility.** Indonesia has generous severance payment laws, which should reduce the cost of mobility. However, few workers who are eligible for severance pay actually collect it.\(^{35}\) Indonesia passed its first unemployment insurance program in October 2020. Until it becomes effective, a worker who loses a job is unlikely to have sufficient income to finance a job search or other transition costs. The absence of a social protection and labor policy that provides benefits to ease job transition may lock workers into less-productive jobs, thus restricting their chances of moving up to higher-paying, perhaps middle-class, jobs.

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\(^{30}\) Hollweg et al. 2016
\(^{31}\) World Bank 2020b
\(^{32}\) Hollweg et al. 2016
\(^{33}\) Cali, Hidayat, and Hollweg 2018
\(^{34}\) Hollweg et al. 2016
\(^{35}\) Weber and Kudo 2020
5.3 Additional Factors Limit Access to Middle-Class Jobs for Vulnerable Populations

Education, skills, job search, and labor mobility costs will be challenges for all who wish to acquire a middle-class job. However, some groups may face particular challenges. This section explores three such groups: women, youth, and those with disabilities.

5.3.1 Gender roles significantly limit women’s access to middle-class jobs

Women’s underrepresentation among middle-class jobholders is due to occupational sorting, job type, and traditional gender wage gaps, and is underpinned by the continuance of traditional gender roles. Middle-class jobs are commonly employee positions in higher-paying occupations. However, women—especially married women with children and women who are head of a household—are underrepresented among employees, holding 35 percent of employee jobs but 39 percent of all jobs (Figure 5.19). Their self-selection into unpaid employment or self-employment seems to reflect childcare duties and social norms that undervalue women’s jobs.

Figure 5.19 Women Are Overrepresented in Low-Wage Types of Jobs
Share of gender, by job type, 2018

Sources: Adapted from Lain, Alatas, and Setyonaluri (2020)

Women with children in the household are 1.1–1.9 percentage points more likely to be self-employed than are women without young children in the household. Men with children in the household are 0.1–1.4 percentage points more likely to be self-employed than are men without. Women who head a household are 17 percentage points more likely to be self-employed than women who do not head a household, compared to 8 percentage points for male household heads.

Indraswari (2006) finds that Indonesian women choose to open small-scale businesses (and become own-account workers) with the aim of contributing to family income, but without needing to enter the formal labor market, which they perceive would entail sacrificing their position as a mother.

Fagertun (2017) reports that men and women in the Bali tourism industry perceive that a woman’s work is supplementary to that of her husband or male kin.
The growth of the service sector provides women with opportunities to find middle-class jobs, but women tend to cluster in the lower-paying segments of the service sector, working in more traditionally female jobs. Around 84 percent of middle-class jobs carried out by women are in the service sector compared with 65 percent of middle-class jobs carried out by men. However, women dominate the low-value service jobs. More than 53 percent of working women are employed in low value-added service sectors, as compared to 43 percent of men. Another 3.4 percent of working women are employed in high value-added service sectors, compared to 11.4 percent of men. In the service sector, women are more successful in holding middle-class occupations (professional, technical, clerical, but not managerial) than in other sectors, though they tend to work in the lower-paying jobs within occupations. For example, 79 percent of female service professionals are in teaching, which pays very low wages compared to other service professionals. Similarly, more than half of technical service jobs held by women are in life sciences and health, and most of these positions are low-paid nursing roles. In other words, women cluster into “feminized” occupations within the service sector; these occupations pay less than other occupations in the sector. That said, women also hold the majority of the professional jobs in services that are non-middle class. Very few women work in high-value services, which offer more middle-class jobs than do low-value services. However, those who do earn more, on average (and at the median), than do men (Figure 5.20).

Figure 5.20 Women Have Particularly High Earnings in High Value-Added Service Sector
Mean and median earnings in high- and low-value services and other sectors by gender in 2018

Sources: Lain, Alatas, and Setyonaluri (2020) using Sakernas 2018
Note: Earnings data taken from income earners (wage workers, own-account workers, and casual workers) only. High-value services are: (i) transport, storage, and communications; and (ii) financing, insurance, real estate, and business services. Low-value services are: (i) wholesale and retail trade, and hotels and restaurants; and (ii) community, social, and personal services.
Even if men and women did acquire similar occupations and work types, the gender wage gap persists, which keeps women at a distance from men in acquiring jobs that pay a middle-class income. Indonesian men earn 25 percent more for an hour of work than do Indonesian women (down from 38 percent in 2001)\(^{39,40}\); this is double the gender wage gap in other Southeast Asian countries. Gender gaps are becoming increasingly difficult to explain through different “endowments” of education, experience, and location over the years. Moreover, the gender wage gap is not explained by different occupations, sectors, or types of work.\(^{41}\) Qualitative data suggests that social norms may play a role. For example, the OECD (2019) finds that nearly one-third of respondents in a perceptions survey disagreed with the statement “it is perfectly acceptable for any women in their family to have a paid job outside the home if she wants one.” The perception that a woman’s work is supplementary to that of their male partner or male kin\(^{42}\) may discourage women from pursuing careers or from staying attached to a labor market in which they can move up the earnings ladder.

A women may trade off income in favor of a job with benefits that are perceived as family friendly. While gender wage gaps favor men, and the gap is smaller for middle-class jobs, women enjoy greater nonpecuniary benefits. Women holding middle-class jobs are about 5 percentage points more likely than men to have written contracts,\(^{43}\) to hold family-friendly benefits (annual, sick, or maternity leave), and work shorter hours than men\(^{44}\) (Figure 5.21). This evidence aligns with recent analytical work in Vietnam, which finds that women trade off higher wages for family-friendly social benefits.\(^{45}\)

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\(^{39}\) All available earnings data cover income earners (wage-employed, own account workers, and casual workers). Blinder-Oaxaca-style decomposition is implemented using technique described by Elder, Goddeeris, and Haider 2010. Control variables used are: age; educational attainment; urbanicity; and province fixed effects. Data source is Sakernas 2001-2018. See Lain, Alatas and Setyonaluri (2020).

\(^{40}\) The hourly wage gap is 45 percent among the poorest (first decile) of workers and nearly absent among the tenth decile of workers.

\(^{41}\) Adding fixed effects for job status (wage work versus own account work versus casual work), sector, and occupation reduces the gender earnings gap by just 1-2 percentage points. Thus, even after accounting for sorting between different types of jobs, unexplained gender earnings gaps remain large. Source: Lain, Alatas and Setyonaluri, 2020.

\(^{42}\) Fagertun 2017

\(^{43}\) Approximately 92 percent of women holding middle-class jobs have a written contract, versus 88 percent of men holding middle-class jobs. Further, 50 percent of women with a non-middle-class job have a written contract, versus 45 percent of men with a non-middle-class job.

\(^{44}\) Women work a median of 40 hours weekly, as compared to men who work a median of 45 hours weekly.

\(^{45}\) Chowdhury et al. 2018
Gender roles may also limit women’s job search. Being married or having children in the household is negatively correlated with women’s job-search activity, while it is positively correlated for men. Women who are working are less likely than working men to search for a higher-paying job, especially if they have children in the household.

5.3.2 Youth are at a structural disadvantage

Middle-class jobs come with experience, especially in certain occupations. The share of middle-class jobs increases with age, with a sharp drop-off once people begin to retire and collect a pension (Figure 5.22). Since middle class is measured in this report with an income cutoff, this means that income increases with age. Youth have more education than do older adults, so it might be expected that they would also have higher wages. But instead, experience in the workforce, particularly in certain occupations, drives the wage gaps between youth and adults. Notably, women’s acquisition of middle-class jobs stalls during childbearing years, resuming in their late forties.

Figure 5.21 Women Enjoy Greater Nonpecuniary Benefits Than Do Men
Share of men and women who are employees in middle-class and non-middle-class jobs who receive each type of social benefit

Note: The sample is wage employees only.
Youth earn 32 percent less than adults, on average. 46 Observable characteristics explain about 58 percent of the difference in earnings, and most of that is explained by years of experience in the workforce. 47 In other words, if youth had the same level of experience as adults, they would earn more (on average) than what they earn now relative to those adults. Each year of experience increases wages by an average of 3.5 percent (at a decreasing rate of increase), which accumulates with time. However, the annual rate of wage increase is actually higher for youth than adults, meaning that youth receive big pay raises—about 10 percent on average—in their early years in the labor force, thus closing the wage gap faster than the average increase would suggest. 48

Young people’s underrepresentation in higher-skill occupations also contributes to the wage gap with adults—and therefore their more limited access to middle-class jobs. If youth held managerial, professional, and semi-professional white-collar jobs at the same rates as adults, the wage gap would shrink slightly. But perhaps more importantly, if they were paid similarly within occupation as older adults (holding all else, including education level, equal), the wage gap would reduce by 40 percent. The return to experience for high-skill occupations is particularly strong. For example, a young person who is in a professional career earns 50 percent less than an older professional; the wage differential is 25 percent among managers.

46 In 2018, adults earned an average of Rp2.5m per month and youth earned Rp1.8m per month.
47 The authors estimate a Oaxaca-Blinder decomposition to identify which factor endowments, and returns on those endowments, explained the wage gap between youth (aged 15–24) and adults (aged 25–64). The regressors were: experience (and its square), education level, gender, location (urban or rural), formal sector employment, occupation, sector, and regional dummies. About 58 percent of the wage gap is explained by endowments.
48 The authors estimate a standard Mincerian regression for the entire labor force and separately for youth (aged 15–24) and adults (aged 25–64). The regressions include experience (and its square), education level, gender, location (urban or rural), formal sector employment, occupation, sector, and regional dummies. The authors estimate the regression again, with an interaction term for each occupation and a youth dummy.
Indonesian youth have high unemployment rates relative to adults and youth in the East Asia and Pacific region. While 15.8 percent of male and female Indonesian youth are unemployed, only 4.5 percent of adult men and 4.1 percent of adult females are searching for a job (as a share of all those who are working or searching).

Indonesia’s high youth unemployment rates reflect a turbulent transition from school to work. In 2018, about 2.7 million people aged 17 in Indonesia were in education, as compared to 1.5 million people aged 18, 1 million aged 19, and 300,000 aged 23. In 2018, 3.3 million youth (aged 15–24) left school and transitioned into another state (work; job search; or not in education, employment, training, or job search [NEET]). No other age group experiences such big upheaval in a short period.

Most youth who leave education go to work. Except for the youngest school-leavers (aged under 18), most school-leavers transition directly from school to work. Of the year group with the biggest exit from school (those aged 18), 39 percent went to work, 35 percent moved to job search, and the remaining 26 percent were NEETs. In other words, secondary school releases 1.2 million people into the labor force at the same time and nearly 40 percent are working by the next year. A similar release of people from education (university) to work occurs at age 22, and most are working within a year.

Insufficient job creation and inadequate job-search tools may impede the school-to-work transition in Indonesia. While one would expect youth in any country to face a turbulent period, it seems to be more of a challenge for Indonesian youth. Indeed, Indonesian youth are 5 percentage points more likely than Malaysian youth and youth in all of East Asia and Pacific to be unemployed (10.2 percent of young Malaysian men and 11.9 percent of young Malaysian women are unemployed; in East Asia and Pacific, 10.9 percent of young men and 10.0 percent of young women are unemployed). Youth “idleness” (NEET rate) is also higher compared to East Asia and Pacific region.
Box 5.3 continued

Asian and Pacific countries: 15.5 percent of men and 28 percent of women in Indonesia, compared to 8.8 and 17.8 in Malaysia. This may be due to several factors. First, an average of two million jobs are created annually in Indonesia, while more than three million Indonesians leave school annually. This will necessarily limit job entry, even if a large share of youth opt out. Second, the preponderance of low-wage jobs may result in youth choosing to wait for a better job opportunity.

In spite of extensive job search, young people struggle to find jobs. Compared to adults, youth use increasingly varied job-search methods and search for longer than adults. Only 42 percent of jobseekers aged 15–24 use only one job-search method, as compared to 49 percent of jobseekers aged 25–34 and 91 percent of those aged 55–64. More than one-third of youth use three or more job-search methods. The most common forms are personal connections (87.8 percent), searching or applying to newspaper or digital advertisements (49.9 percent), contacting companies directly (36 percent), and registering in a jobs database (25 percent). These alternative methods drop off sharply at age 35. Only 63 percent of youth acquire a job within three months, despite the fact that they conduct a more intense job search than that carried out by workers aged 45 and above. In comparison, more than 72 percent of jobseekers aged 45 and above acquire a job with three months. However, within one year, about 95 percent of jobseekers of all ages have found a job.

5.4 Limited Role of Labor Law in Creating Middle-Class Jobs

Labor legislations—minimum wages, worker protections, social benefits—are well defined in Indonesia. The Labor Law and associated regulations lay out a rich set of guidelines for the rules of the game for employers and workers,49 aiming to balance rights and responsibilities between parties. But can this law and these regulations also serve as tools to increase middle-class jobs in Indonesia? Two types of labor regulation may influence middle-class jobs: regulations on minimum wages and on worker protection.

5.4.1 The limitations of the minimum wage

The minimum wage could be the primary policy lever for influencing the wages of low-skilled workers, but it is not a tool for creating middle-class jobs. In principle, the minimum wage should increase the wage floor. In practice, it rarely serves as a wage floor in developing countries—even among employees with labor contracts.50 An estimated 43 percent of workers earn below the province-mandated minimum wage in Indonesia.51 For example, Figure 5.24 shows that in the province of West Sumatra, nearly half of workers with a labor contract—who are legally mandated by law to earn at least the minimum wage—earn significantly below. The distribution of subminimum wages reflects the distribution of low productivity among a significant number of workers. Only by enacting measures to increase labor productivity will employers be able to pay closer to the minimum wage and,

49 See Weber and Kudo (2020) for a recent review.
50 Cunningham 2007; Del Carpio and Pabón 2014
51 Minimum wages are set at the provincial level in Indonesia, although district and district-sector minimum wages can be set at a higher level than the corresponding provincial minimum wages.
eventually, a middle-class wage.

**A higher minimum wage that is not accompanied by productivity increases will have a limited effect on wage increases in Indonesia.** Studies exploring the impact of the minimum wage on employment outcomes in Indonesia, mostly from before 2010, generally find that an increase in the minimum wage has a small positive effect on average wages, with larger impacts for those earning below or near the minimum wage. However, more recent data suggest that a minimum wage can be too high, and thus lose its ability to affect wages. For example, the minimum wage is 80 percent above the median wage in the province of Aceh. Figure 5.24 shows the distribution of wages paid to those holding employment contracts in both provinces, and a vertical line at the minimum wage. If minimum wages did not have any effect on wages, one would see a relatively smooth wage distribution at the point where the minimum wage is, as seen in the graph for Aceh. Nothing remarkable happens to the wage distribution at Rp2.7 million. However, the graphs for wages in West Sumatra show a clear spike in the wage distribution at the minimum wage. It might be interpreted that wages just below and above Rp2,119,067—the minimum wage in that region—are "pulled" toward that wage but the rest of the wage distribution is unaffected. Thus, setting a minimum wage close to the middle-class income cutoff is not likely to pull low-wage earners up to middle-class jobs, though it may help those who are earning just below it. As the graphs show, a minimum wage that is not commensurate with productivity levels largely leads to evasion.

**Figure 5.24** The Distribution of Wages Paid to Those Holding Employment Contracts in West Sumatra and Aceh, and whether Minimum Wages Affect Wages (West Sumatra) or Do Not Affect Wages (Aceh)

*Distribution of (log) nominal monthly wage; minimum wages*

*Sources:* Sakernas 2018; World Bank staff calculations

*Note:* Vertical lines show minimum wages. Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

52 Hohberg and Lay 2015; Alatas and Cameron 2008; Harrison and Scorse 2010; Chun and Khor 2010
Since the middle-class cutoff is above the market wage, and noncompliance with the minimum wage is high, it is very unlikely that the minimum wage can move a significant share of workers to middle-class status. While these data are not conclusive, they do suggest that for many workers, productivity falls below the minimum wage. The province-specific minimum wages account for some of this productivity difference, but a rich literature shows that the minimum wage does not increase worker productivity. Without efforts to increase worker productivity, simply setting a minimum wage that is equal to the middle-class wage and enforcing it is more likely to lead to job losses and bankruptcies than to a larger middle class.

5.4.2 Worker protections are not synonymous with middle-class jobs

Theoretically, labor legislation could improve the quality of jobs by lowering risk. The middle-class income cutoff is determined by the lowest income at which a household has less than a 10 percent likelihood of falling into poverty and vulnerability if faced with an economic shock (see Box 1.1). If households accumulate risk protection measures through their jobs in the form of health insurance, severance pay (to guard against income loss), job protection when pregnant, occupational safety regulations, paid annual leave (to stay healthy), and pensions (to guard against old-age impoverishment), for example, they may be able to maintain that middle-class status even when faced with an economic shock. In other words, the cutoff for a middle-class income would be lower if the value of worker protections provided under the Labor Law were monetized.

Table 5.4 Share of Workers Who Receive Each Benefit, by Middle-Class Job Status

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Middle-class Job</th>
<th>No middle-class job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health insurance</td>
<td>86.4%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Work accident benefit</td>
<td>78.4%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Death benefit</td>
<td>68.5%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Old-age benefit (nongovernment)</td>
<td>62.1%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Pension (government)</td>
<td>56.3%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Paid annual leave</td>
<td>75.2%</td>
<td>23.0%</td>
</tr>
</tbody>
</table>

Sources: Sakernas 2018; World Bank staff calculations

Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).

The current labor legislation regime is not effective at creating middle-class jobs due to incomplete coverage and low levels of enforcement. While 22.7 percent of wage employees have an indefinite-term work contract and should be guaranteed a full regiment of social benefits, only half actually receive them (Figure 5.25). Among all wage employees, only 7 percent earn a middle-class income, receive full benefits, and have a permanent contract. Further, not all benefits are equally received by all holders of middle-

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53 Health insurance, work accident insurance, death benefits, old-age benefits (non-government), pension benefits (government), and/or paid annual leave / sick leave / maternity leave.
class (or non-middle-class) jobs (Table 5.4). Health insurance is the most common benefit; it is provided for 86.4 percent of those in middle-class jobs, as compared to 28.9 percent of those in non-middle-class jobs. Just under half of all workers with a middle-class job are not paying into a pension system, meaning their middle-class status may be threatened once they stop working.

**Labor legislation that guarantees worker protections is often not complied with.** For example, workers with a permanent contract are entitled to generous severance pay when dismissed from their job. However, statistics on job terminations (2008–13) report that while 11.3 percent of workers whose employment was terminated were legally entitled to severance pay, only 3.2 percent received it, and only 0.5 percent received the full amount as per Indonesian legislation.⁵⁴

**In sum, while labor legislation is intended to improve wages, labor protections, and access to social benefits, its current structure and coverage suggest it only benefits a small segment of the workforce.** There is little evidence that increased benefits (minimum wages, social benefits) affect employment decisions made by firms or firm productivity. Some worker protections may even hinder transitions to middle-class jobs; for example, severance pay that increases with tenure may discourage long-term employees from leaving a job and searching for a better one. High severance payments may discourage firms from hiring permanent workers (who are eligible for labor-related social benefits), instead contributing to the pool of workers on fixed-term contracts, where social benefits and job security are tenuous. These questions point to a large research agenda that is needed to understand the role that labor legislation can and cannot play in the efforts to move Indonesia to middle-class status.
Figure 5.25 Distribution of Employees by Middle-Class Wage, Receipt of Social Benefits, and Contract Status

**Sources:** Sakernas 2018; World Bank staff calculations

**Note:** The sample excludes unpaid workers and employers, since earnings cannot be imputed for either. An employer, by definition, does not collect benefits and does not have a contract, since they do not have an employer. The middle-class remuneration cutoff is defined as Rp3,752,000 monthly. Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional).
5.5 Conclusions

This chapter has argued that Indonesia’s labor force is not ready to take on middle-class jobs. Of the 124 million workers, 85 million are income earners. Only 15 percent of the 85 million earn income sufficient to be classified as middle class. Men, older workers, the more educated, and urban dwellers without a severe physical disability are more likely to hold a middle-class job. Women are at a particular disadvantage given their low labor force participation rates, their crowding into low-wage sectors, their tendency to take on unpaid family work, and the continued conflict between work and home. Youth can only hope to acquire middle-class jobs in the future since work experience is key to these jobs.

Workers can undertake three strategies to better prepare for and integrate into the labor market. First, workers need skills that align with the needs of the market. The current workforce has secondary school completion rates on par with other middle-income countries in the East Asia region, but learning seems particularly low. Indonesian employers are less happy with the skills offered by the labor force as compared to employers from other countries, with particular dissatisfaction among employers offering more-skilled (middle-class) jobs. The future workforce is also lagging, with poor learning outcomes. At the same time, middle-class jobs are becoming more intense in tasks that require interpersonal, routine cognitive, analytical, and digital skills, all of which are best learned in upper secondary school. Second, jobseekers (and employers) need to employ a broader range of methods if they are to find (or offer) middle-class jobs. Personal networks are insufficient, as they do not provide the information jobseekers need to plan careers, prepare for them, and identify job opportunities. Third, workers need to be willing to move themselves up the job ladder by changing job or even location in search of greater opportunities. That said, labor mobility is costly in Indonesia, especially for women, the less skilled, and those living in remote areas.

Labor legislation may not be a viable tool for creating middle-class jobs. The scarce information about the minimum wage suggests that it may successfully increase wages, but it seems to lose impact as it increases, relative to the market wage. Since the middle-class cutoff is above the market wage, and noncompliance is high, it is very unlikely that, in the absence of large labor productivity increases, the minimum wage can move workers to middle-class status. Worker protections can provide nonpecuniary benefits that may protect workers against falling out of the middle class, but compliance is low and there is little enforcement.

Public policies and programs can help workers better prepare for, and transition to, middle-class jobs. First, policies can facilitate learning of the right skills. They can help youth complete upper secondary school and acquire a broad range of knowledge, and the analytical and interpersonal skills necessary in occupations that are aligned with middle-class jobs. The 124 million workers who will not return to school will require affordable and  

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55 This section is partly drawn from Pratomo 2020.
56 Indotask (World Bank 2021a) finds that the skills most in demand include speaking, reading comprehension, and active listening. These skills are often taught and reinforced in primary and secondary school, as opposed to tertiary technical or academic programs.
market-relevant training to build these skills. Second, a more comprehensive and service-oriented labor market information system can shorten the time needed to find a job and increase the efficiency of job matches. This can lead to more productive job placements that are more aligned with the skills of workers and the needs of employers. The revamped system will need to cover four key functions: job matching, career guidance, labor market intelligence, and a virtual one-stop shop for access to government support. The labor market intelligence function, combined with the career guidance, should provide updated and reliable information about skills in demand, occupational prospects, and individual assessments of aptitude and preference to enable individuals to make informed decisions about their future. The current job-search process is too limited for a labor market as rich as that of Indonesia. Workers may need tailored support through career services that use the labor market information system to coach jobseekers on how to find, prepare for, and transition to jobs. Third, certain populations will need additional support to overcome barriers to middle-class jobs. The policy section below discusses the system that is leading to the poor workforce results and proposes policies to improve it.

**Reform Area 1: Facilitate Learning**

The development of human resources is a main priority of President Joko Widodo’s second term. In his inaugural speech, he stated the government’s intention to build “a workforce that is hard-working, dynamic, skilled . . . [T]his cannot be achieved with old methods. New methods must be developed.” The analysis in this chapter finds that the skills development system will need to teach more students a broader range of skills over a longer period of time if Indonesia is to meet the skills demands of modern jobs. Four areas of intervention are critical for helping workers reach middle-class jobs.

**First, Indonesia could provide support to at-risk students to ensure they complete secondary school.** This chapter highlighted the role of a secondary education as a gateway to a middle-class job. Although children are required to complete 12 years of basic education, 30 percent of children aged 16–18 are not in school. The gaps are even larger among youth from the poorest households. Youth leave school for various reasons, including poverty, early marriage, remote location of secondary schools, or having a disability that impedes learning. A high-quality education system that confers clear benefits on youth and their families will go a long way to keeping youth in education all the way through secondary school. Such a reform agenda, summarized in Box 5.4, will take many years to realize.
Boosting learning requires more than a good curriculum or a star teacher. Instead, it requires developing the building blocks for learning, while ensuring their interconnectedness and coordination among a range of stakeholders. A recent assessment of the formal education system identified twelve goals for students, teachers, management, and parents to improve learning.

1. Ensure that students reach at least minimum learning and development standards at each level of the system
2. Ensure quality early-childhood education is accessible to all
3. Act to guarantee equitable access to good-quality education and learning for the children most excluded from the system
4. Act to improve the learning outcomes of the lowest performers
5. Ensure that all students, including those with disabilities, succeed
6. Improve teacher recruitment, training, and professional development; calibrate incentives to increase accountability
7. Improve the quality of preservice institutions and the candidates that enter them
8. Support existing institutions to improve service delivery
9. Strengthen accountability mechanisms
10. Expand access to and improve the quality and relevance of technical and vocational education and training
11. Raise the performance of tertiary education
12. Increase system resilience to future shocks

*Source:* World Bank 2020e

In the short run, policymakers can provide targeted support to at-risk youth to help them complete secondary school. This entails developing a systematic protocol for mapping youth who are at risk of dropping out and the reasons for this. With these data in hand, national and local governments can identify the needs of specific subpopulations and fine-tune response interventions. To some extent, this strategy is already being implemented through the Program Keluarga Harapan, which provides conditional cash transfers to parents whose children are in school, thus addressing poverty constraints that may lead to school dropouts. However, children with learning disabilities, young girls subject to early marriage, and children living in remote areas, for example, need different kinds of support. It is increasingly important to expand the reach of the Paket C (a diploma equivalency program for those aged over 18 who are unable to gain a diploma through traditional schooling) so that adults can gain an upper secondary school diploma. This will require more proactive outreach by program staff, as well as a greater use of distance learning techniques to facilitate participation by the target audience, primarily adults.

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62 The list of potential interventions is long, ranging from providing facilities for children with physical impairments, community programs to prevent early marriage, distance learning programs for small schools, or even redesigning the Program Keluarga Harapan to better incentivize secondary school completion (Barrera Osorio et al. 2011).

63 Ministry of Social Affairs 2016

64 Herlyna, Mukhtar, and Sari 2018
Second, Indonesia could support the development of and access to online distance learning in short TVET courses for adult workers. As discussed in this chapter, more than 120 million workers will need to upskill and reskill throughout their 50 years of work. They will not return to school and will receive few benefits from training offered by an employer. They must rely on the public or private training systems, but these training programs cannot be easily accessed by adult workers. They are time constrained, given that they work, and have limited free time for study. They need to support families so cannot take time off from their job. There is a limited number of providers of short-term training and they are largely of unknown quality. Further, workers may not live or work near training centers.

A greater use of training courses that are of short duration, time flexible, and can be accessed online is a feasible way for workers to proactively continue learning. However, workers often do not have information about online training programs, the quality of a service, or the types of training that employers will value. The Kartu Prakerja program launched at the outset of the COVID-19 pandemic is a first step in addressing this gap. The program provides an e-voucher to be used for short-term online training; it is targeted at the low-skilled segment of the population not in education. It has been widely advertised and more than 20 million people have registered for the e-voucher. In addition, the government can support the market for short-course online training by: (i) using the existing TVET accreditation system, together with the occupational skills competency framework, to assess the quality of web-based training courses and award accreditation accordingly; (ii) providing public financing, such as training vouchers or individual (lifelong) learning accounts, for adult learners, with greater incentives for training in critical occupations or skills; (iii) incentivizing employers to provide more on-the-job training, for example by providing (total or partial) reimbursements for investing in critical skills; and (iv) supporting the development of a database of accredited online training courses.

Third, Indonesia could revise its curriculum and pedagogical methods to teach nonroutine interpersonal, analytical, and digital skills to students and adult learners. This chapter showed that both general education and TVET secondary schools need to expand their instruction in applied subjects such as business, computers, and English. Middle-class jobs require that these knowledge subjects are complemented by interpersonal, analytical, routine cognitive, and digital skills. Similar to reading or math, these skills can be taught and they are cumulative, meaning that learners begin with the basics and build up to more complex areas.

Classrooms and training institutions can teach a range of nonacademic skills through modest adjustments to curricula and pedagogical methods. Interpersonal skills have successfully been taught through direct instruction, indirect instruction (by incorporating interpersonal

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65 World Bank 2020c
66 For example, Singapore established personal interest-earning training accounts that workers can access when needed. Several European countries have legal instruments to promote adult training. They include leave for training and payback clauses.
67 A growing literature finds that these skills are increasingly important in an automated workplace.
68 Guerra, Cunningham, and Modecki 2014
skill development into pedagogical methods or by training teachers in those skills so they can model them for students), or through after-school activities (see Box 5.5). Appropriate methodologies are sensitive to the age of the student and the context.69 Analytical skills can also be directly or indirectly taught through school subject matter learned interactively. Modern pedagogical methods are increasingly moving in this direction.70 The best method for learning digital skills is still under debate, but there is a growing consensus that digital skills require hands-on practice and can largely be learned through self-instruction. While ad hoc efforts to teach nonacademic skills are underway in Indonesia, it is increasingly necessary to systematize learning in these areas. This will require: (i) a strategy for developing analytical, routine cognitive, interpersonal, and digital skills from early childhood through adulthood, which identifies the skills to be taught and the way this will happen for each age group; (ii) the development of pedagogical methods and the adaptation of learning materials to implement the expanded curricula; (iii) the training of teachers to adopt these materials; and (iv) a measurement protocol to track progress.

69 Acosta, Cunningham, and Muller 2016
70 Crawford, Hasan, and Bentacouet Kattan 2018
Fourth, Indonesia could improve the quality of its training system by prioritizing the development of quality-assurance mechanisms and by more effectively engaging the enterprise sector. Indonesia's training system has more than 45,000 TVET institutions, which are managed by dozens of ministries and levels of government, and serve millions of students each year. Some good practices are in place, but the complex system is not conducive to efficiently providing the training services that are demanded by the labor market, particularly in an environment in which the skills profiles of jobs are rapidly evolving. The government has identified critical occupations and the fastest-growing jobs, and this report has identified fast-growing sectors aligned with middle-class jobs. However, these labor market trends are not shaping the publicly managed training sector. Efforts

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**Box 5.5 Teaching Interpersonal Skills in Schools**

The Collaborative for Academic, Social, and Emotional Learning keeps an inventory of evidence-based interventions for developing interpersonal skills. The interventions can be summarized in five categories:

**Developing socioemotional skills in teachers and principals** so they model the behaviors in the classroom. For example, the Peruvian Ministry of Education’s Escuela Amiga (Friendly School) program included a year-long university-level course for teachers and principals to develop interpersonal skills. Nearly 15,000 classroom teachers and 81 principals participated in the program’s first year (2013). Impact results are pending.

**Improving the school environment** so children and youth have a safe place to practice and reinforce socioemotional skills. The internationally applied School-Wide Positive Behavior Support approach helps schools define and establish a set of school norms, practices for reinforcing positive behavior, total support from all school staff (not only teachers), and data-driven decision making. Randomized controlled trials show that the approach positively affects student behavior.

**Incorporating the development of socioemotional skills into the teaching of other subjects** by altering pedagogical methods. For example, Facing History and Ourselves is an organization that trains history teachers in more than 110 countries to use analytical and interpersonal instruction in their teaching. The program has a statistically significant impact on student capacity to analyze evidence, on prosocial behavior, tolerance, empathy, and on knowledge of history.

**Curricula, materials, teaching methodologies, and dedicated time for developing socioemotional skills.** For example, Mexico’s Construye-T (Build Yourself) program gives daily microlessons of 10 minutes to secondary school students, helping them to practice a range of socioemotional skills.

**After-school activities** across a range of countries provide youth with experiences that help them acquire teamwork, problem-solving, and other skills.

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**Source:** Adapted from Acosta, Cunningham, and Muller 2016  
\(^{a}\) Collaborative for Academic, Social, and Emotional Learning. N.d. [https://casel.org/](https://casel.org/)  
\(^{b}\) Guerra, Cunningham, and Modecki 2014

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71 World Bank and CMEA 2020. The 2018 Critical Occupations List is a list of 35 occupations that were identified as being in shortage and of strategic importance to the Indonesian economy.

72 World Bank and Bappenas 2021
to develop quality-assurance mechanisms are in motion, but the quality-control system is still fragmented, duplicative, and incomplete. Both the education and training systems are largely divorced from the business sector, which further exacerbates the mismatch between education and training services and good jobs.73

The public training system needs to develop quality-assurance tools and mechanisms to crowd in TVET in critical and growing occupations that will move workers up the jobs ladder. A recent report highlights nine areas where the TVET system could be improved (see Box 5.6). The government is already on track, and is developing competency standards for TVET providers.74 The next immediate steps could include: (i) assigning a single body the responsibility of overseeing the completion of the development of the competency framework and standardizing it across the public training system; (ii) strengthening the accreditation standards, guiding all parties (that is, training providers of all types, prospective students, and employers) on the meaning and use of different accreditation levels as they pertain to the quality of training services, and enforcing accreditation requirements across the public and private training systems; (iii) developing a centralized monitoring and evaluation system and requiring all training institutes to report input, output, and (eventually) outcome data;75 and (iv) establishing a National Vocational Skills Steering Committee that, in the long run, is responsible for allocating resources to TVET institutions based on evidence of success, as measured by the monitoring and evaluation system, and by market demands (as defined through critical occupation lists, and occupational and employment surveys).

Only by engaging employers can Indonesia create a world-class TVET system. Employers are the ultimate consumers of the skills development system. They hire, and benefit from, a more productive labor force. They are best positioned to guide the training system to provide services that will benefit the labor market. However, few employers in any country engage with a training system due to a range of factors,76 and Indonesia is no exception. The government can more effectively engage employers in the training system by offering incentives for industry to provide and finance training, and guide the public sector on how to improve services. Any such incentives will need to be contingent on the quality of the firm engagements with the training system. Specifically, Indonesia could improve Ministry of Finance Regulation 128/2019,77 which subsidizes worker training in firms, by linking reimbursement to results, measured by the number of workers who achieve an increase in their level of skill certification. Further, Indonesia could also use public resources to incentivize exchanges of staff between industry and providers of TVET. The government could finance internships in firms for TVET instructors and subsidize the wages of industry experts to allow them to take time out of their firm to teach in TVET institutions.

73 World Bank 2020c
74 Standard Kompetensi Kerja Nasional Indonesia
75 Singapore has established enrollment targets for public providers of training in certain fields of study. The aim is to align training outcomes with the country’s broader workforce plans. It also closely monitors attrition rates and graduates’ employment and links funding to these results.
76 Hofijzer and Cunningham. Forthcoming
77 The Ministry of Finance issued a tax levy through Regulation 128/2019 on a “Company’s Brute Income Deduction Based on the Implementation of Practical Work, Internship, Teaching and Learning for Competency-Based Human Resource Development.” This regulation provides the basis for tax deductions of up to 200 percent for companies supporting workforce development programs.
### Box 5.6 Priority Reforms to Build a World-Class Workforce Development System in Indonesia

A recent assessment of the technical and vocational education and training (TVET) system, based on an internationally used assessment tool, concluded that Indonesia’s workforce development system has several good elements, but does not operate efficiently. The report identified nine areas for improvement:

1. Reforming the institutional architecture to increase the impact of government efforts and investment to improve the entire system;
2. Pursuing more avenues to ensure that TVET institutions teach the skills that employers need;
3. Expanding vocational education and training for the workforce, as a complement to the efforts to build the prework TVET system;
4. Providing financial support to accelerate the development of competency standards and national qualification certification schemes;
5. Strengthening accreditation practices in Indonesia’s workforce development system for better quality assurance;
6. Providing tools and capacity building for employment services, providing services such as career counseling, to better support the transition from training to employment;
7. Establishing a more comprehensive set of targets to improve the quality of public training provision;
8. Developing a national strategy to increase the number of instructors and administrators at TVET institutions to ease existing shortages;
9. Strengthening efforts to assess the labor market outcomes of training programs, for example the number of graduates getting jobs, and thereby better managing Indonesia’s workforce development system.

Source: World Bank 2020b

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**Reform Area 2: Support Job Transitions through Information and Financing**

Workers will transition to better jobs if they have information about job openings and the means to move from one job to another. However, most people find jobs through informal personal networks. As noted, internal migration is somewhat limited. Allocative inefficiency is evident as seen in the skills mismatch between worker skills and job requirements.

**First, Indonesia could upgrade its job matching tool.** Information on job vacancies is available through an array of platforms. The government hosts the KarirHub (and previously, the Ayo Kita Kerja), which is populated with job vacancies identified through the public employment service. Because KarirHub serves few clients (few employers post jobs and few jobseekers use it to find jobs) and does not rely on advanced technology such as machine-learning algorithms, its efficacy is very low. Consequently, the government announced a new matching tool, the SiapKerja, that would: (i) rely on more advanced matching technology (artificial intelligence [AI] and skills driven); (ii) carry out massive outreach campaigns to...

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78 World Bank 2020d
promote its use; (iii) establish partnerships with private jobs boards; (iv) provide personalized services for clients lacking digital skills or internet access; and (v) link to new programs such as the Job Loss Guarantee (Jaminan Kehilangan Pekerjaan; JKP). Private websites, such as Indeed.com or LinkedIn, tend to provide information about middle-class jobs. However, these sites are incomplete, often contain information only for niche occupations, and are unconnected to each other, thus requiring users to separately register for and search individual sites. These sites are also rarely used by the majority of jobseekers, who continue to prefer informal networks for job search.

A recent assessment of the Ayo Kita Kerja provides recommendations that can be used to build a strong KarirHub, as well as the next tool, the SiapKerja.79 In the short run, the government could consider: (i) fostering the ecosystem around the labor market information system by signing agreements with private jobs portals and with public portals providing services for job search and career development (Ministry of Education, Ministry of Social Affairs). The agreements should cover information sharing, collaborating with potential institutional users (job counselors and training centers, among others), and providing information and support services to micro, small, and medium enterprises (MSMEs) and growth-oriented large firms to help them use the system; (ii) improving and expanding the technical infrastructure of the SiapKerja platform, including server capacity and the cloud, and monitoring systems while strengthening the quality and security of data by encrypting personal information, controlling access, and establishing security protocols; and (iii) developing a protocol to systematize and populate KarirHub using real-time information. This would entail: (i) developing AI to trawl information sites and pull job vacancy information into the public platform; (ii) mapping and integrating existing labor market–related information, including administrative data and economic analysis; and (iii) analyzing and curating information to identify critical occupations,80 occupations with bright prospects through Indonesia’s Occupational Employment Outlook 2020,81 skills demand through tailored surveys (à la O*NET or via an analysis of online vacancy data) (Box 5.7), and other labor market trends to steer jobseekers toward higher-value jobs.

In the long run, new tools and partnerships can be developed for the labor market information system to provide frequent, fine-tuned, and comprehensive information. Specific reforms could include: (i) regularly conducting field surveys to collect job preparation or search information that still does not appear on public data sites; (ii) establishing coordination mechanisms to manage information flows and synergies across the system; and (iii) deepening the online services and analysis available for career guidance and labor market information overall, including incorporating into the system information about education, social services, and other auxiliary services that may be useful to jobseekers.

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79 World Bank 2020d
81 World Bank and Bappenas 2021
Box 5.7 Workforce Development Tools for Detailed Jobs Information

Labor market information is a valuable input to career preparation and lifelong learning. Students (and their parents), jobseekers, and those who are interested in changing jobs can plan better for their education, training, and job searches if they have detailed information about the ebb and flow of specific occupations. Job counselors can provide data-based advice on job preparation and search. Education and training institutes can better design their course offerings with such information. Policymakers use the information to define a list of critical occupations that in turn define financing and labor policy.

Indonesia’s current surveys provide limited information for people preparing for or seeking a job. To fill the gap, the government and the World Bank developed four pilot tools for workforce development. One of these pilots is the Occupational Employment and Vacancy Survey. This is a firm-level survey designed to identify occupations that are major sources of employment and observe occupational dynamics—including shortages, hiring attempts and difficulties faced, current vacancies, and planned occupational employment growth and declines. The pilot is designed to inform about job prospects in all occupations present in selected sectors and regions in Indonesia. The results are presented in Indonesia’s Occupational Employment Outlook 2020, with ten indicators that assess the current state of occupations in Indonesia and must be interpreted holistically. The Indonesian government plans to adopt the pilot and run it nationally in the coming years.

The ten indicators are consolidated in an occupational score. Indicators are presented at up to four levels of occupational grouping using the Indonesian Standard Classification of Occupations (KBJI-2014). The scores are categorized into four groups: (i) “bright” occupations for which there is high demand based on all indicators; (ii) “steady state” occupations that continue with normal trends of employment growth; (iii) “dim” occupations for which there is either no demand or demand is shrinking; and (iv) “flagged” occupations for those cases where there is insufficient data to make an accurate assessment. The findings of the first Occupational Employment and Vacancy Survey are presented in Table B5.7.1.

The “brightest” occupations among the selected occupations and regions are roles in financial services, as well as engineers, architects, designers, and environmental and occupational health. All are strongly associated with middle-class jobs. Steady state jobs are in the social sectors (health, education) and, while not overwhelmingly middle-class jobs, they tend to have job stability and greater social benefits; these are also occupations that women cluster into. The dim occupations cut across occupations (professional, social, science, managers), some being middle class and others less so.

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a The pilot survey was fielded in selected high value-added services, low value-added services strategic for Indonesia’s growth, and selected activities of the manufacturing industry in Java and Bali. It was also fielded for the manufacturing sector in North Sumatra, West Java, Banten, Central Java, East Java, and South Sulawesi.

b World Bank and Bappenas 2021
Table B5.7.1 Findings of the First Occupational Employment and Vacancy Survey

<table>
<thead>
<tr>
<th>Score</th>
<th>Rationale</th>
<th>Number of four-digit occupations</th>
<th>Examples of four-digit occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady state</td>
<td>Occupations that continue with normal trends of employment growth.</td>
<td>122</td>
<td>2221-Nursing professionals 2262-Pharmacists 2341-Primary school teachers 2342-Early-childhood educators 2412-Financial and investment advisers</td>
</tr>
<tr>
<td>Dim</td>
<td>Occupations for which there is no demand or for which demand is shrinking.</td>
<td>90</td>
<td>2422-Policy administration professionals 2635-Social work and counseling professionals 2636-Religious professionals 3119-Physical and engineering science technicians not elsewhere classified 3121-Mining supervisors</td>
</tr>
<tr>
<td>Flagged</td>
<td>Occupations for which there is insufficient data to make an accurate assessment.</td>
<td>92</td>
<td>3312-Credit and loans officers 3313-Accounting associate professionals 3315-Valuers and loss assessors 3321-Insurance representatives</td>
</tr>
</tbody>
</table>

**Source:** World Bank and Bappenas 2021

Indonesia’s Online Vacancy Outlook is designed to provide real-time analysis and granular information on occupations in demand and the associated skills needed. It collects online data on job postings from up to 25 jobs boards and 100 employer sites in Indonesia, providing a real-time picture of the labor market situation for occupations advertised online and a highly granular description of the skills they demand. This tool is designed to complement other initiatives, since online job vacancies mainly cover high-skilled and formal jobs. The most demanded skills category in 2020 was project management and business. Half the posts demanded project management skills, with an average of two project management skills demanded per job post. Project management and business skills are a broad category, with more than one thousand unique skills identified within this group. Of these, planning, marketing, and business development are the most sought-after skills. This result partly reflects the fact that online job postings are used for the high-skilled segment of the labor market.

Two other pilots were conducted to complement Indonesia’s Occupational Employment Outlook 2020 and measure the skills and tasks demanded by occupations in demand. Indonesia’s Occupational Tasks and Skills (Indotask) is the first attempt to adapt to the Indonesian context a globally recognized instrument that measures skills and tasks at a detailed level. Indotask adapts two modules of the globally recognized tool O*NET to describe the tasks involved in performing an occupation and the skills needed to do so. More specifically, it retrieves skills and task data of occupations in high demand relying exclusively on a questionnaire delivered online. Indotask draws on the Occupational Employment and Vacancy Survey and Indonesia’s Online Vacancy Outlook.

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[c] Progress is reported in World Bank (2021b).
[d] Progress on Indotask is reported in World Bank (2021a).
Second, Indonesia could support job mobility by helping workers to relocate. For workers to benefit from the industrial revolution 3.0, many will have to change jobs. This chapter argues that job switching is costly. Indonesia’s Labor Law limits job mobility. Monetary costs—being out of work without income, job-search costs—and the psychological costs of moving may hinder job mobility. Even searching for a job while still working is costly since there are few tools to facilitate the process. Physical relocation may be necessary to acquire a middle-class job. Job opportunities, not least those created by foreign direct investment (FDI), are geographically clustered in Indonesia, while the population is more dispersed. Not surprisingly given the costs, migration for employment is relatively low. To facilitate job mobility, policies need to support information about job opportunities across the country, and provide financing and programs to help workers with physical relocation. This may include: (i) ensuring the labor market information system provides national (and not just local) information on job vacancies across Indonesia; (ii) training social and employment workers in government offices (dinas; and especially in dinas that are far from Jakarta) to provide information about work opportunities in other regions; and (iii) providing a stipend for workers to move to jobs in critical occupations.

Third, Indonesia could design a process to shift from a severance pay system that rewards tenure to an unemployment insurance system that cushions income shocks without creating disincentives to job separation. Severance payments have generally not delivered the intended protections; few workers collect the benefits and the expected costs may be internalized by firms, leading them to forego permanent hires for fixed-term contracts. However, the recent creation of the Job Loss Guarantee (Jaminan Kehilangan Pekerjaan; JKP) is a step toward greater support for workers to help them transition up the jobs ladder. The process of implementing the JKP will need to be timed well so that workers are not unprotected during the transition to the new system. An option is to mandate JKP for workers with new contracts, while allowing workers with existing contracts to opt in.

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Note: The KBJI is the Indonesian Standard Classification of Occupations (Klasifikasi Baku Jenis Indonesia). Bappenas is the Ministry of National Development Planning (Kementerian Perencanaan Pembangunan Nasional).
The opt-in arrangement fully acknowledges the prevailing rights of workers under their old contracts, while giving them the choice to be part of the new scheme. A clear communication to society about the benefits of the reform—it offers workers greater certainty about their income, helps employers anticipate the costs of dismissals, and reduces the risk of employers defaulting on their redundancy obligations—is crucial for a successful implementation. Importantly, the JKP financing will need to be spread across employers and employees, with careful consideration of the contribution rates to ensure there is no introduction of perverse incentives (for example, firing workers or cutting wages, evasion) into the employment relationship. To that end, it will be critical for Indonesia to monitor and adjust the level and duration of benefits as it learns how the program incentives affect job search and hiring choices. For the JKP to be effective, it should be accompanied by a strong monitoring system to ensure JKP recipients are looking for and taking up jobs.

Reform Area 3: Provide Tailored Support to Special Groups

Some groups face additional challenges that raise their risk of being left behind in the transition to middle-class jobs. Gender-related factors limit women’s access to middle-class jobs. Youth are at a disadvantage due to the premium earned by work experience, which they have yet to acquire. Targeted policies are necessary to bring these groups into prosperity through jobs. Some, such as tailoring the services provided by the labor market information system by group or earmarking budget for training, cut across gender and age. Others, including legislation and enforcement of certain labor rights, focus on gender.

First, Indonesia could fine-tune its labor market information system and training programs to address factors that limit the success of women and youth in acquiring middle-class jobs. Youth use a range of job-search methods and take longer to find a job, but their lack of experience (and the skills acquired therein) make it difficult to acquire middle-class jobs. Relative to men, women engage in less job search and use more informal methods, study in less lucrative professions, and have a higher tendency for urban self-employment.

This range of challenges can be addressed through fine-tuning the labor market information system and the overall support given to those undertaking job preparation and search. In the short run, it will be important to: (i) include gender- and age-relevant information in the labor market information system, such as nonstandard fields of study that women can succeed in, entry-level jobs with career progression to middle-class roles, and auxiliary services such as childcare or student loans; (ii) earmark a portion of training vouchers for women and youth to participate in courses that teach business practices and technology, including those needed for engaging in the gig and green economies; and (iii) incorporate business development training into entrepreneurship support programs for women, teaching managerial skills, the skills needed to tap into markets and create market links, and entrepreneurship behavioral skills to facilitate links with emerging value chains.85 In the long

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85 Rizvi 2018
run, it will be important to: (i) include an interactive guidance portal targeted toward career development to help youth and women, who are less experienced jobseekers, to identify their interests and career ambitions, to walk them through the process needed to achieve their job goals, and to direct them toward services, such as additional training, relocation programs, active labor market programs, job-search sites, or vacancy information; and (ii) provide scholarships and employment vouchers for women’s study and first job in science, technology, engineering, or mathematics (STEM) fields, and incentives for employers who hire women in STEM jobs; and (iii) provide vouchers to vulnerable youth, through systems such as Kartu Prakerja, to purchase short-course training from accredited (virtual or face-to-face) training providers that teach skills associated with critical occupations or middle-class jobs.

Second, Indonesia could expand the access women have to social benefits through their jobs. Women in middle-class jobs have greater access to family-friendly benefits than do men. They may forego income in favor of such benefits, which include social benefits, limited work hours, and paid leave. Indonesia’s current policy of financing maternity benefits through the social security fund (rather than via employers) is noteworthy. However, women have high labor force dropout rates at pregnancy and immediately after childbirth. Indonesian women with access to affordable childcare, whether institutional or through older family living in the household, are more likely to work as employees than are women without such access. To further support social benefits and encourage the employment of women in middle-class jobs, Indonesia could: (i) modify the Labor Law to specify that an employer may not terminate the employment of, or take disciplinary measures against, a woman during pregnancy, maternity leave, or in the period following her return to work; and (ii) establish a national procedure for grievances related to firm payment of social benefits. The procedure should provide a confidential and gender-friendly service through which workers can report violations of the Labor Law, which guarantees social benefits for workers. The provision of accessible and affordable childcare is also found to increase women’s labor force participation.86

Third, Indonesia could enact legislation to set national norms for women’s access to the labor market. National laws set standards that can change social norms. Indonesia’s regulations on the labor market have specific provisions to protect men and women, but some barriers are built in to them. The Labor Law defines generous maternity leave, but specifies few days of paternity leave, implicitly reinforcing gender norms that place women as the primary caregiver in the household. This pales relative to global standards and even to practices within Indonesia where, for example, male civil servants are eligible for one month’s paternity leave.87 Sexual harassment is not sufficiently defined in legislation, and Indonesia is one of the few countries that does not specify equal pay for equal work. Recent reviews identify policies that can improve the gender dimensions of the Labor Law.88

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86 Halim, Johnson, and Perova 2017
87 National Civil Service Agency Regulation No. 24/2017
88 Aeberhard-Hodges 2020; Weber and Kudo 2020
The Labor Law can be modified to reestablish gender norms in the work sphere. Specifically: (i) The language relating to “equal pay for equal work” could be clearly defined, and this could include how to evaluate the value of work and the nature of “pay;” (ii) The government could introduce an article that defines sexual harassment and clarifies the nature of unacceptable workplace interactions; and (iii) The government could expand paternity benefits to 30 days, thus putting the private sector on par with the public sector, while encouraging fatherhood and reducing the cost differential of employing male versus female employees. It could finance this through the social security program. In the long term, Indonesia could develop legislation and legal precedents.

Annex Chapter 5

Annex 5.1 Definition of a Middle-Class Job

The definition of “middle-class job” used in this report is subject to the data available in the Sakernas. The authors assume that a middle-class job pays the amount needed by a family of four (comprising one full-time adult worker, one part-time adult worker, since only 50 percent of Indonesian women work, and two dependent nonworkers). A middle-class job can be defined with three variables (or a mix of them):

**By wage/income.** The Sakernas provides earnings income for wage employees, the self-employed, and casual workers from 2001–18. This excludes unpaid workers (whose income is difficult to impute) and employers (who earn profits, which are also difficult to impute). Under this definition, a middle-class job pays at least Rp3,752,000 monthly in 2018 prices. This estimate is derived as follows:

Minimum MIDDLE-CLASS income threshold = \[(3.5 \times \text{poverty line} \times 4) / 1.5\]

where the national poverty line is Rp400,000 in 2018. Under this definition, 21.1 percent of wage employees can be classified as holding middle-class jobs, while 15 percent of all paid workers (all workers excluding the unpaid and employers) hold middle-class jobs.

**By an indefinite work contract.** Jobs with indefinite work contracts offer psychological benefits since the fear of losing a job is significantly diminished. As of 2016, the Sakernas includes information on the nature of the contract held by the worker. Approximately 19.1 percent of wage employees have an indefinite work contract. Half of them, however, do not earn at least a middle-class income.

**By social benefits.** Jobs are often accompanied by a range of social benefits that protect workers from economic vulnerability. Some are mandated by law, and even informal firms offer some of these. As of 2016, Sakernas allows us to define middle-class jobs as any combination of: health insurance, work accident insurance, death benefits, old-age benefits, pension benefits, and/or paid annual leave / sick leave / maternity leave. About 12.6 percent of employees receive full benefits. Less than 2 percent of employees receive benefits but not a middle-class wage or an indefinite work contract.
Not all benefits are received equally by all middle-class (or non-middle class) jobs. Health insurance is the most common benefit, with 86.4 percent of those in middle-class jobs receiving it, as compared to 28.9 percent of those in a non-middle-class job. But only a little more than half of workers with a middle-class job are paying into a pension system, which may threaten their middle-class status once they stop working.

The three definitions lead to very different designation of jobs as middle class. Under the wage/income definition, 15 percent of jobs can be considered middle class while 21.1 percent of wage employees (paid workers, excluding the self-employed) are earning at least Rp3.75m monthly. If we use a more restrictive definition of holding a job and receiving benefits, only 7.1 percent of wage employment is considered middle class.89

Annex Table 5.1 Share of Workers Who Receive Each Benefit, by Middle-Class Job Status

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Middle-class job</th>
<th>No middle-class job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health insurance</td>
<td>86.4%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Work accident benefit</td>
<td>78.4%</td>
<td>24.5%</td>
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<tr>
<td>Death benefit</td>
<td>68.5%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Old-age benefit (nongovernment)</td>
<td>62.1%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Pension (government)</td>
<td>56.3%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Paid annual leave</td>
<td>75.2%</td>
<td>23.0%</td>
</tr>
</tbody>
</table>

Sources: World Bank staff calculations using Sakernas 2018
Note: Sakernas is the National Labor Force Survey (Survei Angkatan Kerja Nasional)

89 Since non-employees do not have work contracts or pay mandated social benefits, by definition, they would not be included under the more restrictive definition. However, if they are included in the denominator, 4.1 percent of jobs would be considered middle class.
### Annex Table 5.2 Determinant of Middle-Class Jobs, Average Marginal Effects

**Dependent variable =1 if a middle-class jobholder**

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<th>(4)</th>
<th>(5)</th>
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<td>Control job type</td>
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Annex Table 5.2 continued

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Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Heckman probit regression. The dependent variable for the selection equation is “working;” independent variables are: years of schooling, training dummy, potential experience and the quadratic, sex dummy, urban dummy, and disability dummy. The unweighted estimates are presented; weighted estimates are available from the authors.
References


References


Chapter 6

Report Summary and Policy Directions
This report argues that Indonesia’s economy has yet to deliver the jobs and labor income the country needs if it is to achieve its middle-class aspirations. From 2008 to 2018 Indonesia created an average of 2 million jobs each year. The employment rate reached a two-decade high in 2018, with 63.7 percent of youth and adults working, while unemployment rates were at a 20-year low of 5.3 percent.

Despite these encouraging signs, Indonesia is not creating the middle-class jobs needed to fuel a middle-class country. The middle class accounted for 23 percent of the total Indonesian population in 2018, up from 7 percent in 2002. This is slower growth than experienced in neighboring countries—including Thailand and the Philippines—and less than half the rate of expansion seen in China or Vietnam. Jobs are the primary source of income in all these countries, but Indonesia has not been as successful at moving its workers up the jobs ladder.

The question is where Indonesia went wrong, and what to do to get back on the path toward middle-class jobs. Middle-class ambitions are at the top of the government’s agenda, and good jobs are seen as the path to achieve them. In his inaugural speech in 2019, President Joko Widodo spoke to the need to develop a “workforce that is hardworking, dynamic, skilled . . .” and of the need to transform economically toward “a competitive and modern manufacturing and service-based economy that has high added value for the prosperity of the nation . . . for all Indonesian people.” The whole of government has responded with policy making to address the constraints on the creation of productive jobs.
This chapter summarizes the messages that cut across the analysis in this report and the policy proposals that have emerged. It proposes that the central challenge is to break out of the growth in low-productivity jobs that has characterized Indonesia's economy since 2008. This will require economywide efforts, targeted support to enable workers to transition to higher-productivity jobs, and a deliberate and urgent strategy to prepare workers to engage in a more sophisticated economic structure.

6.1 Summary of Messages

Indonesia's modern history is a story of growth in low-productivity jobs. Indonesia was growing its quality jobs through structural transformation in the 1980s and 1990s. People were moving out of agriculture and into the rapidly growing manufacturing sector. However, the Asian financial crisis interrupted the transition. Foreign direct investment (FDI) slowed and manufacturing stalled.

Post Asian financial crisis, manufacturing did not resume its growth path; instead, a commodity boom fueled the country. Since the commodities sector does not create many jobs, the structural transformation became a movement out of agriculture and into low-value service jobs, increasingly demanded partly as a result of urbanization and rising income per capita. Indonesia sustained 5 percent economic growth and continued to reduce poverty during this period, but its movement toward middle-class jobs stalled. A decade of potential job improvements was lost. By the close of the commodity boom in 2012, low-value services were deeply entrenched in the economy. Manufacturing growth resumed and high-value services (such as finance and health) began to develop, but they were constrained by a range of factors, including protectionism.

Through this turbulence, Indonesia continued creating jobs, but the quality was too low to elevate enough people to the middle class, a level of prosperity Indonesians were increasingly aspiring to. Only 12 million of Indonesia's 85 million income earners have an income that puts them in the middle class (the other 39 million workers of Indonesia's total workforce of 124 million are either unpaid or share profits). Two-thirds of jobs enjoyed by the 124 million workforce are in agriculture or low-value services. Labor productivity is low, resulting in unit labor costs that are both high and increasing relative to the East Asian region, despite Indonesia's low wages relative to that region. Only 3.5 million workers earn a middle-class income and receive a full package of social benefits. Just 18 percent of jobs are covered by work contracts.

To achieve jobs and incomes that provide economic security, Indonesia could move toward a growth model that is driven by productivity and creates jobs connected with higher value added and value-added growth, and that facilitates movement of workers into more productive jobs, within and between sectors. This requires productivity improvements, particularly in sectors and firms that create many good-quality jobs, and a transformation of the highly capable workforce, which must be supported to prepare for and integrate into productive jobs.
The structure of the firm sector is not conducive to the creation of middle-class jobs. Two-thirds of jobs are in household enterprises (HHEs). Indonesia’s HHE sector has 45 million HHE owners and 38 million workers, and nearly all owners and workers are informal. Very few HHEs grow into small firms with employees. Formal firms are slow to create middle-class jobs. The manufacturing sector—the source of many jobs in the 1980s and 1990s—creates some openings, but most job creation is in old (more than 30 years) and very large firms. Firm dynamism from 1990 to 2015 mostly came from surviving plants, instead of from new firms entering the market and others closing down permanently. New firms found it difficult to grow and bring on new staff, which limited competition and productivity increases. Indonesia’s nonagricultural enterprises do not grow much over their 40-year life cycle. Job churning is significant but this indicates that jobs are unstable, rather than that people are moving up to better jobs; it occurs among existing firms rather than in new firms entering the market and others closing down permanently.

Most of today’s workforce is not equipped to hold a middle-class job. Middle-class jobs tend to be in high-skill occupations—managers, professionals, and high-level technicians and associates in manufacturing and services industries—that require strong cognitive, interpersonal,1 and digital skills, as well as knowledge in science, technology, engineering, or mathematics (STEM), and business administration. However, 57 percent of the labor force has a lower-secondary education (nine years of completed school) or less. The level of learning is also low: Nearly 14 percent of firms interviewed in the Doing Business 2015 survey in Indonesia reported that “workforce education” is a major or severe obstacle to doing business, as compared to 8.4 percent of employers in the Philippines and 2.5 percent in Thailand. There is a particularly severe shortage of the skills needed for more-skilled occupations, including managerial roles. Women and youth have particular trouble converting skills into high-paying jobs, partly due to occupational and employment-type sorting, gender wage gap (women), and lack of experience (youth).

Perhaps more worrisome is that Indonesia does not have the systems in place to help the large workforce acquire the skills that a structurally transformed, productive Indonesia will need. The education system for children and young adults (including university, and technical and vocational education and training [TVET]) is relatively robust. However, the average worker today is aged 40 years or older, is a household head, male, and will continue working for at least another 20 years. The large stock of older workers that is out of the reach of the education system limits the effectiveness of the education system in upskilling the workforce. The firm sector does little to fill the gap as only a few firms continuously provide training to ensure their workers’ skills remain relevant.

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1 Interpersonal skill is the ability to manage people and relationships in order to successfully perform a range of tasks.
So, what can be done to deliver results soon and over the longer term? As this report is being completed, the COVID-19 pandemic has eroded many of the gains Indonesia has made toward creating middle-class jobs. However, with careful planning to build back better, the disruption can be an opportunity to systematically and strategically map out a recovery agenda that focuses on the creation of middle-class jobs and puts Indonesia more decisively on the path of becoming a high-income county by 2045.

6.2 The Pathway to Middle-Class Jobs: A Policy Strategy

Indonesia’s economy has failed to deliver the jobs and labor income the country needs if it is to achieve its middle-class aspirations. As argued in this report, this is partly due to a disrupted structural transformation that resulted in the entrenchment of large and old firms, the growth of low value-added services jobs, and a low-skilled labor force. To get Indonesia back on track, this report proposes a three-pronged strategy (Figure 6.1).

First, Indonesia could **promote productivity growth across the board**, not least in sectors with low levels of value added. The most promising route to higher productivity is enacting competition-enhancing policies that will help more firms to enter the market and grow, and that will spur innovation. Competition-enhancing policies include those that lower the high cost of trade, that increase access to foreign talent to fill positions for which there is currently a shortage of domestic workers, and that attract *export-oriented, efficiency-seeking* FDI linked to global value chains (GVCs). Competition-enhancing policies also include those that improve domestic regulations to create a more predictable and level playing field for firms, and those that strengthen institutions that promote competition and sound business regulation. This reform strategy will also require a concerted effort to support productivity growth in HHEs and small and medium enterprises (SMEs). Such enterprises account for a large share of jobs, but many operate at a low level of productivity.

Second, Indonesia could **facilitate a more decisive shift in economic activity and workers toward more productive and higher-paying sectors, firms, and jobs**. Even if reforms to increase productivity across the board are sector-blind, sectors that create middle-class jobs could be targeted for priority reforms, such as strategies to attract FDI, while existing SME and HHE policies could be applied with a middle-class-jobs lens. In addition, Indonesia needs robust labor information systems, a more efficient job-matching mechanism, and mobility support so that people can appropriately prepare for, and transition to, better jobs in other sectors, firms, or occupations.
And third, Indonesia could **build a workforce that has the necessary skills** to take on the new jobs in higher value-added and internationally competitive sectors. This will require changes to the education system to better prepare today’s youth for modern jobs. Perhaps more challenging, it will also require innovations to upskill the current adult labor force. An upskilled labor force will attract productive investment, will be able to meet the demands of the new jobs, and will benefit more from potential technology transfers and spillovers of FDI from multinationals. Additional support to crowd in women and youth is also increasingly necessary as the share of those of working age within the total population begins to decline.

The government has started comprehensive policy interventions to close gaps in infrastructure, human capital, and financial services. It is important that these continue as they are the foundations of the pathway to middle-class jobs.

**Figure 6.1 Three-Pronged Strategy Toward Middle-Class Jobs in Indonesia**

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2 Indonesia needs an efficient financial sector that is less costly, faster, safer, and more transparent if middle-class jobs are to be created. The financial sector must mobilize domestic savings and allocate them across time and space to the more productive sectors, firms, and workers. An efficient financial sector also enables firms and households to cope with economic uncertainties by hedging, pooling, sharing, and pricing risks, thereby helping savers and investors to make better decisions on allocating their money and financial assets. The financial sector in Indonesia, however, faces many challenges that could impede allocative efficiency of resources to the most productive uses.
6.2.1 Reform Strategy 1: Accelerate Across-the-Board Productivity Growth

Indonesia’s increases in productivity are small, undermining the country’s growth potential and the expansion of the middle class. Subdued growth in the manufacturing sector has held back economywide productivity gains since 2000. Moreover, most Indonesians work in agriculture or low value-added services, so raising productivity in these sectors is necessary in order to make an impact on poverty, vulnerability, and economic insecurity. Increasing labor productivity in agriculture will free up labor that was previously underemployed in low-paying subsistence farming for more productive jobs in industry and high-value services. There are high levels of poverty among those working in agriculture and, if productivity is not further increased, poverty may force farmers (especially young farmers) out of the sector. They will then accept nonagricultural jobs where the labor productivity is slightly higher but insufficient to help Indonesia’s economic transformation. Accelerating across-the-board productivity growth is critical and this requires Indonesia to unlock firm entry and growth and attract FDI to create the competition and innovation that spur productivity in the private sector. It also requires Indonesia to reduce the high cost of trade and increase the access of firms to foreign talent to fill roles for which there is a shortage of domestic workers. It will also require a concerted effort to support productivity growth in SMEs and HHEs, sectors in which a large share of jobs exist. Reforms to accelerate across-the-board productivity growth should be (almost) sector-blind.

First, Indonesia could unlock new firm entry and growth to create the competition and innovation that spur productivity in the private sector. The private sector accounted for 86.8 percent of all jobs in 2019 in Indonesia, and reducing the impediments firms face in entering and growing are key to robust employment growth. But, to create quality jobs and expand Indonesia’s middle class, Indonesia could do more. Integrating firms into GVCs and leveling the playing field between, for example, domestic versus foreign firms and small versus large firms are also key to ensuring firm dynamism and robust job creation in the private sector. Along with reforms to close gaps in infrastructure, human capital, and financial services, Indonesia needs a more predictable regulatory framework to enable firms to enter and to grow.³

Four areas of policy intervention are critical if Indonesia is to unlock new firm entry and growth, both of which are needed to create the competition and innovation that spur productivity and create middle-class jobs in the private sector:⁴

(i) Improvement of FDI policies, increased access to inputs, markets, and foreign talent to fill roles for which there is a shortage of domestic workers, and integration of firms to GVCs: The government has begun one of the most ambitious investment and trade reforms in decades (see Box 6.1). Further recommended reforms include reducing the list of sectors reserved for micro, small, and medium enterprises (MSME); transforming burdensome requirements across various sectors for a minimum local content

³ World Bank 2020a
⁴ See World Bank 2020a; Chang et al. 2019
into positive incentives to use local supply; eliminating the Expatriate Manpower Utilization/Placement Plan as a precondition for the employment of foreign talent in high-skill occupations for which there is a shortage of domestic workers; addressing nontariff barriers to access to inputs of production—such barriers include preshipment inspections, restrictions on the port of entry through which goods may enter Indonesia, and requirements for ministerial letters of recommendation. The government is also recommended to continue to pursue ambitious preferential trade agreements to lock in domestic reform and attract investment, including the EU Comprehensive Economic Partnership Agreement, which needs to be finalized.

(ii) Increased capacity of domestic firms and workers: To benefit from the technology spillovers of FDI, Indonesia could increase the quality of human capital and domestic workers (see Reform Strategy 3), promote firm links, provide incentives and advocacy to promote firm-based training programs, build business networks, establish institutional partnerships, especially between domestic and foreign-owned firms, and provide information services covering, for example, the quality requirements of multinationals. Improvements in these areas can increase both the absorptive and adaptive capacities of local firms.

(iii) Provision of a more predictable regulatory framework to support firms: Indonesia could:
(a) introduce a regulatory oversight body to reduce regulatory uncertainty; (b) over the longer term, introduce into the regulatory process compulsory public consultation procedures that follow international best practices, and provide incentives to local governments to streamline the process of business licensing; (c) consolidate and target innovation policy instruments to better assist firms to perform innovative activities that will spur productivity growth and new product development.

(iv) Strengthen the competition regulatory framework by: (a) strengthening the technical capacity of the Business Competition Supervisory Commission (Komisi Pengawas Persaingan Usaha; KPPU) to enforce competition laws and advocate pro-competition policies; (b) revisiting the existing Competition Law (No. 5/1999) to improve the ability of Indonesia’s competition framework to identify and sanction anticompetitive behavior; (c) mainstreaming competition considerations in the policy process to ensure that regulations do not unduly restrict competition.

Second, Indonesia could improve the productivity of its SMEs, which will help them to grow and become better creators of middle-class jobs. Indonesia’s SMEs, the “missing middle”—Indonesia has many micro and large firms, but not many medium-sized firms—remain uncompetitive due to their low levels of productivity and innovation. Ineffective government policies toward SMEs have contributed to this situation. The government has issued a range of policies to improve productivity growth among SMEs, including policies related to reducing the cost of and accelerating business registration, technology transfer, and e-commerce; access to market; helping SMEs to export; and financial assistance. However, SME policies continue to be framed with a welfare approach,

5 World Bank 2021
instead of an approach based in competition, efficiency, and productivity. Existing policies also reflect excessive protectionism. For example, some business sectors are reserved for SMEs, and other programs also shield SMEs from competition.\(^6\)

The report identifies five priority policy areas of intervention that would improve the productivity of Indonesia’s SMEs, helping them to grow and become better creators of middle-class jobs:

(i) Indonesia could develop specific measures and strategies to assimilate SMEs into GVCs, including the integration of smallholders into agriculture value chains and home-based workers into manufacturing and services GVCs. This will ensure that GVCs benefit the poorest.\(^7\) Priority policy reform areas are: (a) addressing information gaps in order that SMEs understand the quality standards they must meet to supply to multinationals or their tier-three, or higher, suppliers; (b) supporting SMEs to meet these quality standards and ensure they deliver on time; (c) providing tax incentives for multinationals that invest in the upgrading of local suppliers through training, mentoring, or staff secondment;\(^8\) (d) reducing the transaction costs for SMEs using free trade agreements, simplifying Certificate of Origin procedures and helping SMEs to arrange them, and making each Certificate of Origin free of charge.\(^9\)

(ii) Indonesia could promote the incremental introduction of innovative activities to boost productivity. Reforms could focus on a mix of policy instruments that may include: (a) technology extension and diffusion programs; (b) early-stage infrastructure and advisory services; (c) inducements; (d) vouchers for collaboration; and (e) direct grants for business innovation (with embedded advisory services).\(^10\)

(iii) Indonesia could close the digital infrastructure divide and ensure affordable, reliable, and ubiquitous high-speed broadband internet access (fixed and mobile 4G) by: (a) reforming spectrum management and infrastructure sharing that will stimulate further private investment; and (b) targeting public-private partnerships to close internet access gaps.

(iv) Indonesia could expand access to financial services. Priority policy reform areas are: (a) preparing a roadmap with a view to leveling the playing field for delivery of financial services; (b) strengthening financial sector infrastructure such as credit registries and secured transactions; and (c) promoting the use of dedicated liquidity and risk-sharing facilities (especially relevant in the aftermath of COVID-19).

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\(^6\) OECD and ERIA (Economic Research Institute for ASEAN and East Asia) 2018.

\(^7\) World Bank 2020c.

\(^8\) OECD (Organisation for Economic Co-operation and Development) 2018a.


\(^10\) Cirera et al. 2020.

Report Summary and Policy Directions
Third, Indonesia could target support to increase the productivity of HHEs, the source of a large share of jobs.\textsuperscript{11} Household enterprises, which account for more than 98 percent of microenterprises, are significantly different to SMEs in many respects.\textsuperscript{12} Specific policy reforms for HHEs should focus less on growth and more on increasing productivity, and hence income, marginally and incrementally without requiring a significant amount of additional resources (for example, time, workers, capital, or finance).

There are three policy areas for interventions that can improve the marginal productivity of HHEs:

(i) Indonesia could improve basic business skills of HHE owners through training and education. At least three skill sets need to be improved: financial literacy, management, and entrepreneurship. Strategies to improve the business skills of HHE owners and workers should be addressed in a short- or medium-term horizon and are: (a) creating short training modules on simplified rule-of-thumb business skills, combined with training in personal initiative (soft skills), business competition, and innovation; (b) providing information to HHEs about the benefits of training and possible routes to acquiring it; and (c) in the medium term, synchronizing and integrating government training and support programs across ministries and bodies.

(ii) Indonesia could create inclusive ecosystems for HHEs. Priority policy reform areas to create inclusive and more secure ecosystems for HHEs are: (a) encouraging the owners of HHEs to join the social security system—Badan Penyelenggara Jaminan Sosial (BPJS) Ketenagakerjaan—for nonwage workers by providing tailored information on the benefits of doing so; (b) providing government contributions to ease entry into and sustain participation in the program; (c) promoting the benefits of becoming a legal entity by bundling legal registration with other government support programs; and (d) improving the delivery of support programs, and broadening and facilitating HHE access to them, independently of their participation in social assistance programs.

(iii) Indonesia could improve product competitiveness. Specific policy reforms to improve product competitiveness are: (a) promoting on-the-job training and apprenticeships; (b) providing shared factories or machines that can be used by HHEs; and (c) supporting product standardization and modernization of HHEs.

While this review does not explore factors that constrain productivity in the agricultural sector, the recommendations for non-farm HHEs are also relevant for the farm sector.

\textsuperscript{11} This recommendation is largely drawn from a policy background paper written for this report by Purnagunawan (2020).
\textsuperscript{12} See Table 4.15 in Chapter 4 of the Technical Report.
Box 6.1 Creating Better and More Jobs: Recent Reforms to Investment, Access to Skilled Foreign Workers in Shortage, and Manufacturing Inputs

Until recently, Indonesia had some of the tightest restrictions on foreign direct investment (FDI) among middle-income countries, which has weighed down on the creation of middle-class jobs. These restrictions on FDI have been compounded by restrictions on the hiring of foreign high-skilled workers to occupations for which Indonesia has a shortage of domestic workers, and high costs for sourcing manufacturing inputs from global markets.

The government has sought to address some of these issues by implementing one of the most ambitious investment and trade reform programs in decades. The key reform was a presidential regulation on investment, which reduced the number of business activities subject to at least one investment restriction from 813 to 260. This liberalization of investment, particularly FDI, moves Indonesia from having one of the most restrictive FDI regulatory regimes in the region to having one of the most open. According to World Bank estimates, this liberalization may generate between US$4.1 billion and US$6.0 billion in additional foreign and domestic investment in the liberalized sectors. The investment flows would translate into an estimated increase in GDP growth of between 0.12 and 0.17 percentage points, raise productivity, employment, and wages, and ensure lower prices and/or better-quality products and services for consumers.

To facilitate a more adequate supply of high-skilled professionals in shortage to meet the needs of the labor market, the government also passed Government Regulation No. 34/2021 on Foreign Workers. This complements a regulation issued by the Minister of Manpower in 2019 in two ways. First, it removed the requirement for an employer to have an Expatriate Manpower Utilization/Placement Plan in order to employ an expatriate worker for a number of positions. Second, it has eliminated the requirement for an employer to obtain a written license (an Expatriate Manpower Employment License) from the Minister of Manpower or an appointed official to employ an expatriate worker. This is the most ambitious set of reforms on work permits for foreigners that Indonesia has enacted in recent decades. It is likely to provide more certainty to the approval process, eliminate the discretion of sectoral ministries, and expand the range of skills gaps that firms can fill through global markets. The immediate expected outcome is that a higher share of high-skilled jobs in shortage in Indonesia will be covered by expatriates.

To facilitate access to manufacturing inputs, the government reduced the cost of compliance with national product standards (SNI) by removing compulsory SNI certification for steel, stove and wire products used by producers. This was carried out in a Minister of Industry Regulation No. 35/2019, which revoked 14 individual regulations. The inputs covered by the 14 Ministry of Industry regulations revoked by the reform are worth about US$3.9 billion, or 3.5 percent of total intermediate imports in 2019. This is equivalent to almost 10 percent of the intermediate imports the SNI certification is applied to. This exemption should not affect the safety of production processes using these inputs as the products do not present high risks for users. By lowering the costs and increasing the certainty of supply of key inputs, this reform is expected to increase the

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a The comparison of the number of business activities subject to investment restrictions in the older regulation (Presidential Regulation No. 44/2016) versus the new is not straightforward as the business activities in the older regulation are defined using different levels of aggregation.

b This 2019 regulation has more than trebled the number of occupations in which high-skilled expatriate workers (managerial, professional, technical) may be employed. It also allows the minister to permit expatriate employment on a case-by-case basis for positions that are not specified in the regulation. Previously, specific permission was needed from the relevant ministries.

c For producers the exemptions are granted automatically. For general importers, further consideration is required before an exemption is granted.
6.2.2 Reform Strategy 2: Structural Transformation 3.0: Transition to Sectors and Firms That Create Good-Quality Jobs

Indonesia’s continued dependence on commodities and nontradable sectors and its inward-looking economic policies have not created enough jobs in higher-productivity sectors; this has left many workers stuck in low-productivity, low-wage work. Workers can earn higher wages when the productivity of the jobs currently available increases (Reform Strategy 1), or when they shift from lower-productivity jobs, firms, or sectors such as traditional agriculture or low value-added services to higher-productivity jobs, firms, or sectors such as tourism, health, and education. So far, Indonesia’s growth model has failed to deliver a significant transition of workers from lower-productivity to higher-productivity sectors and activities, and there has been insufficient structural transformation to push labor productivity higher. With a more skilled workforce and implementation of the policies in Reform Strategy 1, the economy will naturally create more jobs in higher-productivity sectors. Indonesia can accelerate the transition from lower- to higher-productivity jobs with policies to increase labor demand in sectors that can deliver middle-class jobs. This will include prioritizing sectors such as tourism, information communication technology (ICT), finance, health, education, and manufacturing for investment promotion efforts, as well as for relieving infrastructure bottlenecks.

First, Indonesia could prioritize investment promotion strategies to attract FDI to sectors and projects (including infrastructure projects) that can create middle-class jobs. The goal is to inform multinationals of the investment possibilities in Indonesia, reduce gaps in knowledge, and identify and overcome potential barriers such as market failures or the existence of externalities. Prioritizing foreign investment promotion in a select set of sectors can improve the overall effectiveness of investment promotion agencies. Literature shows that countries obtain a higher level of FDI in sectors that are being prioritized by investment promotion agencies. While prioritization of FDI promotion may increase investment in the targeted sectors, it may also involve risks. Prioritization strategies by investment promotion agencies are varied and complex, and must be carefully balanced across many aspects of investment promotion, including allocation of staff and

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13 OECD 2018b
14 OECD 2018b
15 See, for example, Harding and Javorcik (2011)
resources and services offered as part of the prioritization.\textsuperscript{16} Global practices show that promotion strategies can focus on sectors or projects, or particular countries and/or investors from which funding is sought. For example, based on a survey in 2017, 71 percent of investment promotion agencies from countries of the Organisation for Economic Co-operation and Development have established criteria for prioritizing investment projects, where “job creation” (79 percent) is the third most commonly used criterion after “impact on innovation” and “priority sectors.” These criteria are broadly in line with the criteria used to target countries and sectors. For example, countries that prioritize investment from nations that could be a source of high technology and support to sectors that will have a positive impact on employment choose “innovation” and “job creation” as the criteria for choosing which of their investment projects to promote.\textsuperscript{17} Tax incentives are often considered in this context, but they are an inferior instrument, especially in Indonesia, which already collects less tax than most of its peers and as a result has a revenue base that is insufficient to sustainably fund the public services, such as infrastructure, that attract high-quality investments.

The strategic roadmap of the Indonesian Investment Coordinating Board (BKPM)\textsuperscript{18} is prioritizing: (i) low-hanging fruit, meaning optimizing Indonesia’s natural resources (a short-term focus); (ii) soft and hard infrastructure; (iii) investment that will lay the foundations for industrialization, including education to create a highly skilled and educated workforce; (iv) support for a knowledge-based economy and further development of a globally competitive and educated workforce. This prioritization strategy broadly focuses on sectors that create middle-class jobs, such as tourism, high value-added agriculture, manufacturing, health, education, finance, and ICT. There is, however, room to strengthen the criteria for creating middle-class jobs. One of the background papers to this report found that while there are significant benefits from all manufacturing FDI, the aggregate labor market effects are most widespread for the low-skill manufacturing sectors,\textsuperscript{19} such as food and beverages, tobacco and textiles. However, in the BKPM’s strategic roadmap there is no explicit focus on low-skill manufacturing sectors. Moreover, since structural transformation must go hand in hand with infrastructure development,\textsuperscript{20} to which the government is strongly committed, a prioritization criterion for infrastructure development could use a lens of middle-class job creation.

To further strengthen the government’s investment promotion strategy, policy interventions could focus on:

(i) Revisiting the current strategic roadmap of the BKPM (including provisions for infrastructure development) and applying a lens of middle-class job creation (from both the demand and supply sides) using global best practices on prioritization of

\begin{itemize}
\item \textsuperscript{16} OECD 2018b
\item \textsuperscript{17} OECD 2018b
\item \textsuperscript{18} BKPM (Indonesian Investment Coordinating Board). N.d.
\item \textsuperscript{19} See Annex 4.2 for manufacturing subsector classification
\item \textsuperscript{20} Lin 2012
\end{itemize}
investment, such as the OECD Policy Framework for Investment. Also, revisiting how prioritization is being implemented. For example, assessing whether there is a need for a BKPM unit dedicated to priority sectors, projects, countries, or investors, and also assessing the types of services provided to priority sectors, projects, countries, and investors (including addressing investor grievances), and assessing human resources and budgets allocated to priority sectors, projects, countries, and investors. Indonesia could evaluate in the medium term whether the prioritization strategy has achieved the intended results, that is, whether it has created more middle-class jobs.

(ii) Moreover, to the extent that reforms are not sector-blind, Indonesia could apply a lens of middle-class job creation when selecting sectors and enterprises to target with policy interventions. Policy interventions on SMEs and HHEs could target sectors and enterprises that have greater potential to create middle-class jobs.

Second, Indonesia could close information gaps to help workers transition to higher-quality jobs. When new firms enter (exit), new jobs are advertised and/or new sectors emerge (disappear). Information has to be available to allow workers to relocate. If productivity gains are to be achieved, new firms must enter, more productive firms must outcompete less productive firms, and labor must be able to move into more productive sectors, firms, and jobs. Indonesia needs policies to help workers move to better jobs:

(i) Upgrade KarirHub and the overall labor market information system by: (a) including within the system private job portals and public portals providing services for job search and career development; and (b) building out the labor market information system in the short run with real-time information. This can be achieved by developing artificial intelligence (AI) to trawl sites and pull information to the platform, fielding surveys to collect information on how people search for and prepare for jobs, and analyzing and curating information to identify both critical occupations and high-growth occupations.

(ii) Providing relocation support for hard-to-fill vacancies by: (a) ensuring the system provides information on nationwide job vacancies; and (b) providing stipends to support relocation (travel, housing, and other social services) for workers who are relocating to fill critical occupations.

(iii) Continuing to develop the Job Loss Guarantee Program (Jaminan Kehilangan Pekerjaan; JKP) to support the transition of workers up the job ladder by: (a) allowing current workers to opt in (or out) of the JKP (during the initial implementation phases, while mandating all newly hired workers into the system); (b) working with social partners to define the program parameters—including financing mechanisms—and to implement a communications campaign about the benefits of the reform for workers and firms; (c) developing a strong monitoring system to avoid misuse of the program; and (d) establishing strong links with the entirety of the ecosystem around the labor market information system.

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OECD 2018b

See also World Bank and CMEA (Coordinating Ministry of Economic Affairs) (2020).
6.2.3 Reform Strategy 3: Build a Middle-Class Workforce

The workers of today and tomorrow do not have the skills they need to attract and succeed in middle-class jobs. Only 40.6 percent of youth have completed upper secondary school, a prerequisite for a middle-class job. There is a significant mismatch between learning and job-relevant skills, especially higher-order cognitive skills and behavioral skills, which should be honed at secondary school, and professional studies. Perhaps more worrisome are the 124 million workers who will comprise the labor force for many decades, but who will not return to school and who have few options for developing their skills. Indonesia needs an upskilling and reskilling policy agenda in the short run to meet emerging industry demands on labor. This leads to three areas of policy interventions.

First, Indonesia could facilitate learning. The skills imparted by existing secondary school and training programs do not meet market demands. This is partly due to the mismatch between the curriculum and the demands of the labor market, but is also due to a lack of access to education and training. Results-based teaching can both expand access and enhance the relevance of the teaching materials to the world of work. In addition to improving the general education system, Indonesia could:

(i) Implement targeted incentives for students at risk of dropping out of secondary school. This will require the risk factors for at-risk populations to be mapped at the local level and interventions designed accordingly. It will also require reform of the curriculum and delivery mechanism of Paket C (a diploma equivalency program for those aged over 18 who are unable to gain a diploma through traditional schooling), with greater use of distance learning to facilitate program participation by the target audience.

(ii) Support development of and access to online distance learning in short TVET courses by accrediting online training courses (offered by public and private sector providers) and including a database of accredited online training courses on the labor market information system, as well as providing training vouchers for vulnerable groups or those seeking training in skills relevant to critical occupations. One of the best ways to upskill the current workforce is by providing more and better short training courses.

(iii) Modernize curricula and introduce new pedagogical methods to develop nonroutine interpersonal, analytical, and digital skills. Interventions must be tailored to the age (from preschool through adult education) and context of the learners.

(iv) Improve the quality of the training system by prioritizing the development of quality-assurance mechanisms and more effectively engaging the enterprise sector. Regarding quality-assurance mechanisms, Indonesia could place a higher priority on the development of strictly defined and enforced competency frameworks and accreditation standards. In the long run, it will be necessary to develop a centralized monitoring and evaluation system in which all training institutes report input, output, and (eventually) outcome data. It will also be necessary to establish a National Vocational Skills Steering...
Committee to make funding and other systemwide decisions based on quality data. Regarding the enterprise sector, Indonesia could amend Ministry of Finance Regulation 128/2019 to ensure the focus is on subsidizing results-based worker training in firms. Public resources can be used to incentivize exchanges of staff between industry and institutions providing TVET by financing TVET instructors to undertake internships in firms and subsidizing the wages of industry experts to allow them to take time out from their firm to teach in TVET institutions.

Indonesia could coordinate the reforms to build a middle-class workforce (as laid out in Reform Strategy 3) with reforms to unlock new firm entry and growth (as laid out in Reform Strategy 1), especially reforms designed to attract FDI. This will avoid any mismatch between the demand and supply sides of middle-class jobs. It will also tilt the scale of net job creation slowly toward sectors and firms that can create middle-class jobs. Singapore is an example of a country that regularly maps short- to long-term economic investment and the demand created for certain skills or types of worker. It uses the data to upskill or reskill current workers with updated educational and training curricula.

Second, Indonesia could provide tailored support to particular groups. The above measures would benefit all learners, but some groups have additional constraints that limit their success. The factors underlying the significantly lower wages earned by women compared to men are difficult to identify, but there is some indication that women tend to study and work in lower-paying social and other services and are overrepresented in urban self-employment. Women tend to engage in less job search than do men and use more informal means, and the conflict between work and home leads to suboptimal work decisions. Youth also experience a significant wage gap relative to older adults, which is primarily attributable to their lack of experience. Both women and youth would benefit from tailored job support, as well as shifting social norms, including:

(i) Fine-tuning of the labor market information system and training programs to address factors that limit their success in acquiring middle-class jobs; including gender- and age-relevant information in the labor market information system, such as nonstandard fields of study that women can succeed in and auxiliary services such as childcare or student loans, and providing complementary face-to-face information interventions for girls in secondary school. In terms of training, Indonesia can earmark a portion of training vouchers for women and youth to enable them to participate in courses on business practices and the technology needed for engaging in the gig economy. Indonesia can also incorporate business development training into entrepreneurship support programs for women.

(ii) Expanding women’s access to social benefits through their jobs. Indonesia could use legislation to facilitate the formal employment of women by securing women’s jobs during pregnancy, maternity leave, or in the period following the return to work. Indonesia could establish grievance procedures enabling workers to report violations of the Labor Law, which guarantees social benefits for workers.
(iii) Amending the Labor Law to set national norms for women’s access to the labor market, including a robust definition of “equal pay for equal work” (see Box 6.2), a robust definition of sexual harassment, clarification of the nature of unacceptable workplace interactions, and extending of paternity benefits to 30 days.

Box 6.2 Finding a Balance between Labor Market Flexibility and Worker Protection

The Omnibus Law on Job Creation (Omnibus Law) aims to boost competitiveness, including through significant reforms to Labor Law 13 of 2003. The government aims, with the reforms, to improve labor market flexibility, while maintaining worker protection by modernizing existing labor institutions to better align with modern labor markets. The goal is to make Indonesia more attractive to investors, thereby potentially creating more good jobs, and also to improve the currently low level of compliance with labor regulations. As is standard practice in Indonesia, the Omnibus Law was followed by a series of government regulations on the reforms. Reforms have been made to areas including:

**Fixed-term contracts (articles 56–61):** The Omnibus Law modifies work agreements, particularly fixed-term contracts. Most notably it stipulates that fixed-term contracts cannot be (automatically) transformed into permanent work. The implementing regulation, Government Regulation No. 35/2021, allows for a longer duration of fixed-term contracts (the maximum length of a fixed-term contract has been increased from three to five years) and introduces compensation for termination that is proportional to the length of the employment relationship.

**Employment agencies for temporary or outsourced staff (articles 64–66):** The Omnibus Law makes these employment agencies responsible for providing the same benefits to its workers as those provided by firms to their permanent workers. These agencies must be licensed by the Ministry of Manpower. The previous restriction that limited outsourcing to noncore business processes has been eliminated.

**Working time (articles 78 and 79):** The Omnibus Law expands overtime to a maximum of 4 hours per day (1 additional hour) and 18 hours per week (4 additional hours). It also removes regulations on extended leave and other types of leave, instead allowing this to be agreed by the worker and the company, or the union and the company. Government Regulation No. 35/2021 provides further details on how to calculate overtime wages and other overtime provisions.

**Minimum wage (article 88):** Micro and small firms are exempt from compliance with the minimum wage if they rely on traditional resources and do not operate in high technology or in capital-intensive business (definitions will be introduced in implementing ministerial regulations). Instead, Government Regulation No. 36/2021 stipulates that the employer needs to pay above a subfloor equivalent of 50 percent of average public consumption and 25 percent above the provincial poverty line. The minimum wage formula has been modified—sectoral minimum wages have been eliminated, as have provincial wage councils—with the objective of pacing minimum wage growth in regions where minimum wages are already high, and decreasing wage inequality across regions where the ratio of minimum wage to median wage is low. Government Regulation No. 36/2021 introduces a formula for district minimum wages, and a more complex formula for provincial minimum wages that depends on economic growth, inflation, purchasing power parity, manpower absorption level, average consumption per capita, average number of household members who work in the region, and median wages.
**Box 6.2 continued**

**Wage policy (articles 88 and 88B):** The Omnibus Law introduces equal wages for equal pay, legislation that is commonly used by countries to address gender wage gaps. The Omnibus Law introduces a minimum hourly wage, further regulated in Government Regulation No. 36/2021.

**Contract termination and severance (articles 150–90):** The Omnibus Law eliminates the health and housing allowance component of compensation pay, which had accounted for 15 percent of total severance pay and service pay. Government Regulation No. 35/2021 reduces the reward pay for termination of short-tenure employment (for example, the requirement to pay two months’ wages for up to three years of work has been removed). It also adopts the concept of notice of termination, similar to countries throughout much of Asia and common law jurisdictions, such that an employer can unilaterally issue a written notice of termination with reason at least 14 working days prior to the planned termination date. If the employee accepts the termination, the employer must report the termination to the local labor office.

### 6.3 Implementation Challenge

This chapter has presented an ambitious reform program. It has outlined a broad, yet curated, range of policy areas that need reform. The policies proposed only brush the surface of many of the intervention areas; the report selects a few key policies that are necessary and could be prioritized, but are far from sufficient. Implementing the agenda is a national task, requiring the efforts of a broad range of ministries, levels of government, the private sector, and citizens themselves. More often than not, in a country as diverse and decentralized as Indonesia, there is no one answer on the “how to” of implementing reforms. For example, a reform may be more easily implemented in some sectors or regions than in others. Hence, discussion of each of the above policy recommendations needs to be further disaggregated into subsets of “how to.” Reformers must also take into account institutional and political constraints as reforms do not happen in a vacuum. This means that reforms must be endogenous to secure political will and support. “Quick wins” or success stories might be useful as stepping stones to gain political support and credibility along the way to a more complex reform that may only bear fruit in the distant future. Given the need for reforms to be endogenous, the policy recommendations would benefit from more elaborated discussions on how to achieve these quick wins, especially for those reforms that will only show results in the longer term.

Indonesia has shown that it can take on the challenge of implementing a multifaceted reform agenda for jobs. It is one of few countries that has approached the jobs agenda holistically, engaged stakeholders across the spectrum, and deliberated a law such as the Omnibus Law for Job Creation (Omnibus Law). The accountability structure and implementation monitoring (as well as enforcement in some reform areas) will be critical and, perhaps, even more of a challenge than the preparation of the Omnibus Law itself. Unlike sector-specific

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25 Basri 2017
26 Basri 2017
reforms, the jobs reform agenda requires engagement across almost all vertical and horizontal government actors and must operate above the sectoral ministerial level, in the form of a supraministerial coordinating body. More importantly, the government cannot do this alone. The reform efforts must include nongovernmental actors: employer associations and the private sector; labor, trade, and farmers unions; the judiciary; international development partners; civil society organizations; and academics, including a consortium of academic institutes and think tanks such as the Employment Policy Forum (Forum Kebijakan Ketenagakerjaan) established in 2014.27

Indonesia is aiming to become a high-income country by 2045. The message from the highest level is that jobs are a fundamental part of realizing this vision.

Significant analytical work is still needed to further refine the policy responses. The policies presented in this chapter are drawn from in-depth Indonesia studies of some topics and global literature on others. However, there is a notable shortage of deep-dive empirical studies on the topics of high value-added services sectors (and the services sector more generally), agricultural jobs, how worker protection laws do (or do not) contribute to middle-class jobs, HHEs, and the effect of global megatrends including digital development, among many others.

### Summary of Policy Directions

<table>
<thead>
<tr>
<th>Policy Reform Area</th>
<th>Selected Policy Actions</th>
<th>Actors</th>
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<tbody>
<tr>
<td><strong>Reform Strategy 1: Accelerate Across-the-Board Productivity Growth</strong></td>
<td>Improve foreign direct investment (FDI) policies, increase access to inputs, markets, and foreign talent for occupations where there is a shortage of domestic workers, and integrate firms with global value chains (GVCs) by: (i) reducing the list of sectors reserved for Indonesian micro, small, and medium enterprises (MSMEs) and turning burdensome minimum local content requirements across various sectors into positive incentives to use local supply; (ii) eliminating the Expatriate Manpower Utilization/Placement Plan as a precondition for employment of expatriates in high-skill occupations for which there is a shortage of domestic workers; (iii) reviewing, reducing, and streamlining nontariff measures including measures around product certification, preshipment inspections, and requirements for ministerial letters of recommendation; (iv) pursuing ambitious preferential trade agreements to lock in domestic reform, and attract investment by finalizing the EU Comprehensive Economic Partnership Agreement.</td>
<td>Office of the President; Coordinating Ministry of Economic Affairs (Kementerian Koordinator Bidang Perekonomian; CMEA); Ministry of Finance; Investment Coordinating Board (Badan Koordinasi Penanaman Modal; BKPM); Ministry of Trade; Ministry of Industry; Ministry of Manpower; Ministry of Cooperatives and SMES; Ministry of Foreign Affairs; Ministry of Law and Human Rights; Directorate General of Immigration</td>
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<td>Increase the capacity of domestic firms and workers to benefit from the technology spillovers of FDI by: (i) increasing the human capital of domestic workers (see Reform Strategy 3); (ii) promoting links between firms; (iii) providing incentives and advocacy to promote firm-based training programs; (iv) building business networks, (v) establishing institutional partnerships, especially between domestic and foreign-owned firms; and (vi) providing information services covering, for example, the quality requirements of multinationals.</td>
<td>Ministry of Trade; BKPM; Ministry of Research and Technology; Ministry of Industry</td>
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<td>Support firms with a more predictable regulatory framework by: (i) introducing a regulatory oversight body; (ii) introducing compulsory public consultation procedures; and (iii) consolidating and targeting policy instruments that better assist firms to innovate.</td>
<td>Office of the President; Cabinet Secretariat; Ministry of National Development Planning; Ministry of Law and Human Rights</td>
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<td>Strengthen the competition regulatory framework by: (i) strengthening the technical capacity of the Commission for the Supervision of Business Competition (Komisi Pengawas Persaingan Usaha; KPPU); (ii) revisiting the existing Competition Law (No. 5/1999); (iii) mainstreaming competition considerations in the policy-making process.</td>
<td>CMEA; KPPU</td>
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<tr>
<td><strong>improve productivity of small and medium enterprises (SMEs) to help them grow and become better creators of middle-class jobs.</strong></td>
<td>Develop specific measures and strategies to assimilate SMEs into GVCs. Smallholders should be integrated into agriculture value chains and home-based workers into manufacturing and services GVCs by: (i) addressing information gaps between SMEs and multinational corporations regarding quality standards; (ii) supporting SMEs to meet these quality standards; (iii) providing tax incentives for multinationals that invest in the upgrading of local suppliers; and (iv) lowering transaction costs for SMEs using free trade agreements.</td>
<td>CMEA; Ministry of Industry; Ministry of Cooperatives and SMEs; Ministry of Trade</td>
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<td><strong>Promote incremental increases in innovative activities to boost productivity with a mix of policy instruments including (i) technology extension and diffusion programs, (ii) early-stage infrastructure and advisory services, (iii) inducement incentives, (iv) vouchers for collaboration, (v) direct grants for business innovation.</strong></td>
<td>Close the digital infrastructure divide and ensure affordable, reliable, and ubiquitous high-speed broadband internet access (fixed-broadband and 4G) by: (i) reforming spectrum management and infrastructure sharing to stimulate further private investment; and (ii) closing remaining gaps in internet access through targeted public-private partnerships.</td>
<td>Ministry of Research and Technology; Ministry of Cooperatives and SMEs; Ministry of Trade</td>
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<tr>
<td><strong>Close the digital infrastructure divide and ensure affordable, reliable, and ubiquitous high-speed broadband internet access (fixed-broadband and 4G) by: (i) reforming spectrum management and infrastructure sharing to stimulate further private investment; and (ii) closing remaining gaps in internet access through targeted public-private partnerships.</strong></td>
<td>Expand access to financial services by: (i) preparing a roadmap targeting a leveling of the playing field for the delivery of financial services; (ii) strengthening financial sector infrastructure such as credit registries and infrastructure related to secured transactions; and (iii) promoting the use of dedicated liquidity and risk-sharing facilities.</td>
<td>Bank Indonesia; Financial Services Authority (Otoritas Jasa Keuangan; OJK); Ministry of Finance; financial intermediaries</td>
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<tr>
<td><strong>Expand access to financial services by: (i) preparing a roadmap targeting a leveling of the playing field for the delivery of financial services; (ii) strengthening financial sector infrastructure such as credit registries and infrastructure related to secured transactions; and (iii) promoting the use of dedicated liquidity and risk-sharing facilities.</strong></td>
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<td>Target support to increase productivity in household enterprises (HHEs), which house a large share of jobs.</td>
<td>Increase basic business skills through training and education by: (a) creating short training programs with simplified rule-of-thumb modules in business skills combined with personal initiative (soft skills) training and innovation training; (b) providing information to HHEs about the benefits of training and possible routes to enrolling in training; (c) in the medium term, synchronizing and integrating government training and support programs across ministries and bodies.</td>
<td>Ministry of Cooperatives and SMEs; Ministry of Manpower; Ministry of Education; OJK</td>
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<td>Create inclusive ecosystems for HHEs by: (a) encouraging HHE owners to join the social security system Badan Penyelenggara Jaminan Sosial (BPJS) Ketenagakerjaan for nonwage workers by providing tailored information on the benefits of doing so; (b) providing government contributions to ease entry into and sustain participation in the program; (c) promoting the benefits of becoming a legal entity by bundling legal registration with other government support programs; and (d) improving the delivery of support programs, and broadening and facilitating HHE access to them, independently of their participation in social assistance programs.</td>
<td>CMEA; BPJS Ketenagakerjaan; Ministry of Manpower; Ministry of Finance; Ministry of Social Affairs; Ministry of Cooperatives and SMEs</td>
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<td>Improve product competitiveness by: (i) promoting on-the-job training and apprenticeships; (ii) providing shared factories or machines that can be used by HHEs; (iii) supporting product standardization and modernization of HHEs.</td>
<td>Ministry of Cooperatives and SMEs; Ministry of Manpower; technical ministries, including Ministry of Agriculture and Ministry of Industry; National Standardization Body of Indonesia (Badan Standardisasi Nasional)</td>
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</table>
## Reform Strategy 2: Transition to Sectors and Firms That Create Good-Quality Jobs

<table>
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<tr>
<th>Prioritize investment promotion strategies to draw FDI to sectors and projects (including infrastructure projects) that are amenable to the creation of middle-class jobs by (i) revisiting the current strategic roadmap of the BKPM (including the goals for infrastructure development) and applying a lens of middle-class jobs creation using a global best-practice framework, such as the OECD Policy Framework for Investment, when considering which investment to prioritize; also, (ii) revisiting how prioritization is implemented and evaluating in the medium term whether the prioritization strategy has achieved the intended result of more middle-class jobs. Also, to the extent that reforms in the SME and HHE sectors are not sector-blind, select sectors and enterprises to target with policy interventions by considering their potential for creating middle-class jobs.</th>
<th>CMEA; BKPM; Ministry of Finance; Ministry of Trade; Ministry of Cooperatives and SMEs; Ministry of Manpower</th>
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<tr>
<td>Close information gaps to help workers transition to higher-quality jobs.</td>
<td>Upgrade KarirHub and the overall labor market information system by: (i) including private jobs portals and public portals providing services for job search and career development within the system; and (ii) populating the labor market information system platform with real-time information.</td>
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<tr>
<td>Provide relocation support for hard-to-fill vacancies by: (i) ensuring the labor market information system provides information on nationwide job vacancies; and (ii) providing stipends to support relocation (travel, housing and other social services) for workers who are relocating to fill critical occupations.</td>
<td>Continue to develop the Job Loss Guarantee Program (Jaminan Kehilangan Pekerjaan; JKP) to support workers’ transitions up the job ladder by: (i) allowing current workers to opt in (or out) of the program while mandating all newly hired workers to join the system; (ii) working with social partners to define the program parameters—including financing mechanisms—and to implement a communications campaign about the benefits of the reform for workers and firms; (iii) developing a strong monitoring system to avoid misuse of the program; and (iv) establishing strong links with the rest of the labor market information ecosystem.</td>
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<td>Reform Strategy 3: Build a Middle-Class Workforce</td>
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<td><strong>Facilitate learning.</strong></td>
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<td>Provide support to at-risk students to encourage them to complete secondary school by: (i) mapping risk factors for at-risk populations and designing interventions accordingly; and (ii) expanding the reach of and modifying the service delivery mechanism of the Paket C diploma equivalency program.</td>
<td>Ministry of Education, Culture and Higher Education (Directorate of Community Education and Special Education); local education authorities (Dinas Pendidikan)</td>
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<td>Support the development of short TVET courses for adult workers and also support their access to these courses by: (i) accrediting web-based training courses; (ii) providing training vouchers for adult learners in critical occupations or skills; and (iii) developing a database of accredited online training courses.</td>
<td>Ministry of Manpower; Ministry of Information, Communication and Technology; Ministry of Education, Culture and Higher Education; National Agency for Professional Certification (Badan Nasional Sertifikasi Profesi); National Accreditation Committee (Komite Akreditasi Nasional)</td>
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<td>Teach nonroutine interpersonal, analytical, and digital skills to students and adult learners through revised curricula and pedagogical methods.</td>
<td>Ministry of Education, Culture and Higher Education; Ministry of Manpower; Ministry of Information, Communication and Technology</td>
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<td>Enhance the quality of TVET programs by: (i) prioritizing the development of the competency framework and the process for accrediting institutions and programs; (ii) developing a centralized monitoring and evaluation system for TVET; (iii) establishing a National Vocational Skills Steering Committee; and (iv) more effectively engaging the enterprise sector by amending Regulation 128/2019 to subsidize results-based worker training, and earmarking public resources to incentivize exchanges of staff between industry and institutions providing TVET.</td>
<td>Coordinating Ministry of Human Development and Cultural Affairs; CMEA; Ministry of Finance; Ministry of Education, Culture and Higher Education; Ministry of Manpower, National Agency for Professional Certification; National Accreditation Committee</td>
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<td><strong>Provide tailored support to particular groups.</strong></td>
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<td>Fine-tune the labor market information system and training programs to address factors that limit the success of women and youth in acquiring middle-class jobs by: (i) including gender- and age-relevant information in the labor market information system; (ii) earmarking a portion of training vouchers for women and youth to participate in courses that teach business practices and the technology needed for engaging in the gig economy; and (iii) incorporating business development training into entrepreneurship support programs for women.</td>
<td>Ministry of Manpower; Ministry of Education, Culture and Higher Education; and technical ministries</td>
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<td>Expand women's access to social benefits through their jobs by: (i) modifying the Labor Law to protect against dismissal or disciplinary measures during pregnancy or maternity leave; and (ii) establishing a grievance procedure process related to firm payment of social benefits.</td>
<td>CMEA; Ministry of Manpower; Ministry of National Development Planning, Healthcare and Social Security Agency (BPJS)</td>
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<td>Enact legislation to set national norms for women's access to the labor market by: (i) clearly defining the “equal pay for equal work” language in the Labor Law; (ii) introducing an article that defines sexual harassment; and (iii) extending paternity benefits to 30 days.</td>
<td>Ministry of Manpower; Ministry of Women's Empowerment and Child Protection</td>
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</table>
References


Pathways to Middle-Class Jobs in Indonesia