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Abbreviations

ASEAN	Association of Southeast Asian Nations
ASPIRE	Atlas of Social Protection Indicators of Resilience and Equity
B40	Bottom 40 percent (of the population)
BNM	Bank Negara Malaysia
BR1M	1Malaysia People's Aid *(Bantuan Rakyat 1Malaysia)*
BSH	Cost of Living Aid *(Bantuan Sara Hidup)*
BTI	Bertelsmann Stiftung Transformation Index
COL	Critical Occupations List
COVID-19	Coronavirus Disease 2019
CPI	Corruption Perceptions Index
CP-TPP	Comprehensive and Progressive Trans-Pacific Partnership
CSO	Civil Society Organization
DOSM	Department of Statistics Malaysia
E&E	Electrical and Electronic
EAP	East Asia and Pacific
EIU	Economist Intelligence Unit
ESCS	Economic, Social, and Cultural Status
ESG	Environmental, Social and Corporate Governance
FDI	Foreign Direct Investment
FLFP	Female Labor Force Participation
GDP	Gross Domestic Product
GLC	Government Linked Corporation
GLIC	Government Linked Investment Corporation
GNI	Gross National Income
GPI	Ginarte Park Index
GTFS	Green Technology Financing Scheme
GVC	Global Value Chain
HCI	Human Capital Index
HEI	Higher Education Institution
HHI	Herfindahl-Hirschman Index
HIS	Household Income Survey
ICT	Information and Communications Technology
IFC	International Finance Corporation
IPR	Intellectual Property Rights
JKM	Department of Social Welfare *(Jabatan Kebajikan Masyarakat Malaysia)*
LTGM	Long Term Growth Model
M40	Middle 40 percent (of the population)
MASCO	Malaysia Standard Classification of Occupations
MNC	Multi-National Corporation
MVA	Manufacturing Value Added
NACP	National Anti-Corruption Plan
NCD	Non-communicable Disease
NDP	National Development Planning
NEM	New Economic Model
OECD	Organisation for International Cooperation and Development
PISA	Programme for International Student Assessment
PLI	Poverty Line Income
PMB	Private Member Bills
PRO	Public Research Organization
R&D	Research and Development
RCA	Revealed Comparative Advantage
RCEP	Regional Comprehensive Economic Partnership
RPGT	Real Property Gains Tax
SC	Securities Commission Malaysia
SDGs	Sustainable Development Goals
SDR	Special Drawing Rights
SME	Small and Medium Sized Enterprise
SOE	State-Owned Enterprise
SPV	Shared Prosperity Vision
SRI	Sustainable and Responsible Investment
SST	Sales and Services Tax
T20	Top 20 percent (of the population)
TFP	Total Factor Productivity
TIMSS	Trends in International Mathematics and Science Study
TiVA	Trade in Value Added
TVET	Technical and Vocational Education and Training
UHC	Universal Health Coverage
UN	United Nations
V-DEM	Varieties of Democracy
VBI	Value Based Intermediation
WBG	World Bank Group
WDI	World Development Indicators
WDR	World Development Report
WIPO	World Intellectual Property Organization

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Summary

What will it take for Malaysia to become a high-income and developed economy?

Malaysia is likely to make the transition from an upper-middle-income economy to a high-income economy within the next five years, despite the setback of the COVID-19-induced recession in 2020. This transition represents an important milestone in Malaysia's development, having transformed living standards in less than a generation, slashing the extreme poverty rate to less than one percent of the population, and ending the country's long tenure in the "middle-income trap".

However, Malaysia has been severely affected by COVID-19 and it will take several years before the scars of the pandemic are fully erased. The country experienced a "triple shock": the direct health impact of the virus; the economic impact of movement restrictions; and the growth impact of a global recession.

With Malaysia on the verge of achieving this transition, it is an opportune time to address a number of questions regarding the speed of Malaysia's growth, its quality, and its sustainability. Malaysia is growing slower than many countries that achieved high-income status in recent decades. In addition, compared to many other countries that have graduated from middle-income status, it has a lower share of employment at high skill levels and higher levels of inequality. And, compared to countries in the OECD, Malaysia collects less in taxes, spends less on social protection, and performs relatively poorly in terms of measures related to environmental management and the control of corruption. Many of these fault lines have become exposed during the pandemic.

Most significantly, there is a growing sense that despite economic growth, the aspirations of Malaysia's middle-class are not being met and that the economy hasn't produced enough well-paying, high-quality jobs. There is a widespread sense that the proceeds of growth have not been equitably shared and that increases in the cost-of-living are outstripping incomes, especially in urban areas, where three-fourths of Malaysians reside.

Policies and institutions that have worked in the past may no longer be appropriate for the next stage of Malaysia's development, with a different set of policies and institutions required at higher levels of income and development. The policies that enabled Malaysia to successfully make the transition from low- to middle-income need to be adapted to meet the challenges it will face in the future. At an earlier stage of its development, factor accumulation was a key driver of Malaysia's growth. As it makes the transition, it will increasingly need to depend upon more knowledge-intensive and productivity-driven growth, closer to the technological frontier and with a greater emphasis on achieving inclusive and sustainable development.

As Malaysia positions itself for the next phase of its development and beyond the pandemic, many of the issues related to this transformation are being addressed and discussed, including through the 12th Malaysia Plan and the Shared Prosperity Vision 2030. With the impact of the COVID-19 pandemic and its potential to depress growth into the future, issues related to Malaysia's readiness for the future have become even more significant.

The analysis in this report suggests that for Malaysia to fulfil its potential, to transition successfully to high-income and developed country status, and to sustain equitable growth beyond that point, reforms are needed in six broad and inter-linked areas: (i) revitalizing long-term growth; (ii) boosting competitiveness; (iii) creating jobs; (iv) modernizing institutions; (v) promoting inclusion; and (vi) financing shared prosperity.

Malaysia's transition to a high-income and developed economy is subject to a number of significant downside risks. While the fundamentals that have driven growth in potential output are expected to continue to support growth into the future, there is a high level of uncertainty regarding what the emerging "new normal" will look like after the COVID-19 shock and how it will impact Malaysia. The Asian Tigers that achieved high-income status in past decades did so in a more benign international environment. Malaysia faces not only a global pandemic and a worldwide recession, but also a looming international debt crisis, a heightened risk of a resurgence in trade disputes, the potential unraveling of global value chains, and the impact of disruptive technologies that will change the nature of comparative advantage. Domestically, the ongoing political uncertainty and a significant increase in government debt to finance the large economic policy response to the pandemic may potentially act as a drag on the economy for years to come.

Malaysia's decelerating growth prior to the COVID-19 crisis may indicate that its structural transformation is more fragile than those of its transitional peers. While decelerating growth is normal and expected as a country achieves higher levels of development, Malaysia's growth appears to have slowed down more than it should have relative to its potential, indicating that Malaysia may not have adequately transformed the engine of its economy from factor accumulation to innovation and increases in productivity. Going forward, the country must adopt a new course for greater knowledge-intensive and productivity-driven growth. In this context, the COVID-19 crisis might usefully provide an opportunity to undertake much-needed reforms.

Sustained growth is also necessary to advance Malaysia's broader development goals, including the objective of shared prosperity. Without it, progress in terms of health outcomes or poverty reduction, amongst other indicators, will deteriorate. And there needs to be enough growth to go around. If a large proportion of the population believes that growth only benefits a minority, the political support for the reforms necessary to achieve structural transformation will be insufficient to enable the government to implement them effectively. To date, Malaysia's economy has been more business-friendly than people-friendly. Its quality of growth and the character of its institutions are

still markedly different from those of the high-income countries it seeks to join.

In short, for Malaysia to successfully realize its ambition of becoming a high-income and developed economy, an enhanced social contract will need to be established, with buy-in from all segments of the population. This enhanced contract must ensure equality of opportunities for all Malaysians, providing upward mobility and incentives to remain and invest in Malaysia. Greater resources will need to be invested to build high-quality human capital and to facilitate greater economic opportunities for women. Second-generation reforms to increase productivity and innovation-led private sector growth will also be required, along with policies to promote the development of skills and talents to ensure that Malaysia is better placed to embrace the opportunities and challenges of a new economy in the post-COVID-19 context. Malaysia's public sector will need to operate at a higher level of openness and transparency in order to meet the rising expectations of society. It will also need to generate increased public revenues, to do so more effectively and more progressively, and to utilize these resources more efficiently, especially to meet the needs of the most deprived. This type of shift will require an enhanced social contract, where the state acts to meet the needs of the population in a credible and accountable manner by investing in human capital, regulating intelligently, and enforcing rules and regulations in a more uniform way, while at the same time maintaining macroeconomic stability. In exchange, citizens must be enabled to exercise their right to hold the government accountable while at the same time accepting the principle that all citizens should be treated equally and pay more taxes in return for the greater benefits that they receive.

While it is certainly possible for Malaysia to fulfil its aspirations of becoming a high-income and developed economy, navigating the next stage of development will require tough reforms. Key findings from the various chapters contained in this report, and their implications for Malaysia's transition, are provided in the summary of key policy recommendations presented below.

Revitalizing long-term growth

Malaysia's trend GDP growth rate is expected to fall over the next 30 years as the country's growth trajectory converges with that of high-income countries. Malaysia needs to implement strong reforms in order to grow at a rate higher than would be expected on the basis of historical trends.

- Invest more in human capital, including both the quantity and, especially, the quality of schooling, with a particular emphasis on math and science. Address the persistent child nutrition gap that weighs on the formation of human capital at an early age.
- Increase female labor force participation by reducing barriers to economic opportunities for women, through measures to improve the provision of child and elderly care, through greater economic and societal support for parents, and by addressing gender norms and attitudes that perpetuate disparities.
- Improve total factor productivity through enabling environment measures that would boost innovation, infrastructure, skills, and institutional quality.

Boosting competitiveness

Malaysia ranks highly in overall economic competitiveness, but it lags its transitional and aspirational peers and the gap appears to be widening. Productivity growth and private-sector innovation will be the primary drivers of future growth. Malaysia needs to reforms to remove distortions, encourage innovation, strengthen competition in markets, improve the investment climate, and facilitate deeper regional integration.

- Reform key services sectors, including professional services, to promote more competitive markets, and to improve the competitiveness of manufacturing.
- Increase the effectiveness of competition policy and ensure competitive neutrality between public and private operators.
- Modernize the investment ecosystem to make it more efficient and to attract higher quality investments. Automate the incentives regime, simplify the investment promotion network, and adopt a new set of national investment aspirations that are consistent with Malaysia's high-income ambitions.
- Align incentives for researchers to collaborate more closely with the private sector and conduct industry-relevant research, put in place mechanisms to strengthen intellectual property rights, strengthen workers' technological readiness, and improve programs that aim to increase SME capabilities.

Creating jobs

The task of creating a sufficient number of well-paying, high-quality jobs is becoming more complex as Malaysia moves toward high-income status and as the nature of work changes. Gaps have emerged in the skills framework, with some activities being subject to automation. Reforms are needed to improve basic health and nutrition, strengthen learning outcomes, facilitate lifelong learning and digital literacy, and attract and retain talent.

- Improve basic education outcomes through universal access to high-quality early childhood education, and strengthened teaching and learning of cognitive and socio-emotional skills.
- Upskill and reskill the workforce by making the academic and the TVET streams of the education system more responsive to labor market demands, more adaptable, and more cohesive.
- Improve immigration and emigration policies by making the foreign worker management system more systematic and transparent, and fostering the retention of domestic talent and attraction of foreign talent.

Modernizing institutions

Malaysia's institutional quality lags its peers and fails to meet the expectations of its expanding middle-class population. Reforms are needed to enhance government transparency; to strengthen inclusion, accountability and oversight in government operations and policy making; to improve competition in state-business nexus; and to build bureaucratic capacity.

- Strengthen competition within the state-business nexus to raise standards of governance, transparency, and accountability among GLCs. Insulate GLC corporate structures from political influence.
- Strengthen parliamentary oversight and improve government effectiveness by institutionalizing Parliamentary Select Committees, reintroducing the Parliamentary Services Act, and increasing the use of Private Member Bills.
- Enhance the capacity of the public service, including through a Public Service Act that establishes the clear separation of powers between civil servants and the political leadership to help improve the performance of the bureaucracy and to increase resistance to corruption and other malpractices. Introduce a more meritocratic system of recruitment and promotion to insulate the public service from political interference.

Promoting inclusion

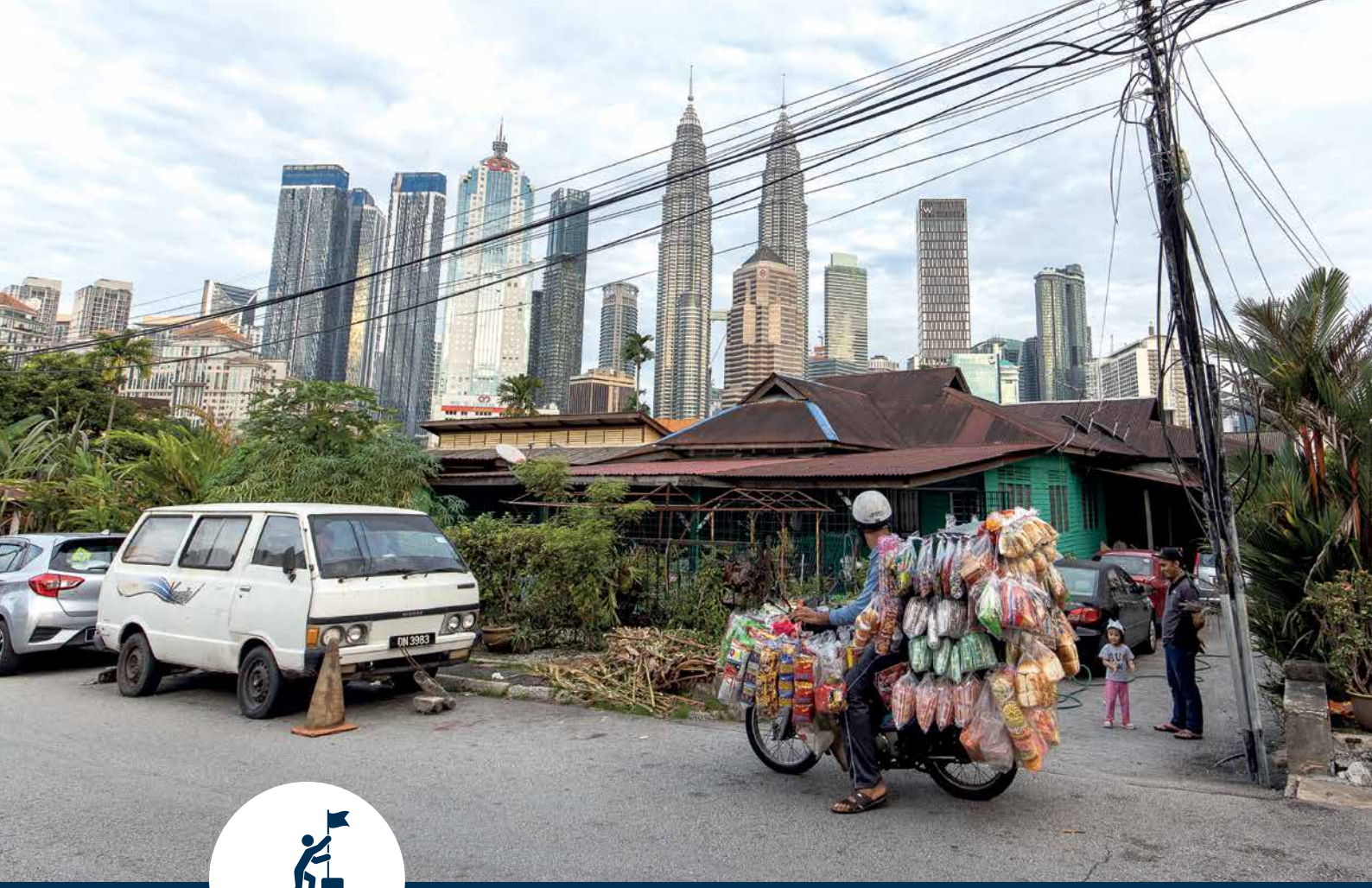
Growth has become less inclusive than in the past, compounding persistent disparities, fueling discontent, and encouraging the perception that growth has not benefitted all segments of the population equitably. Reforms are needed to ensure equal access to quality education and remunerative employment, to strengthen Malaysia's broad (but shallow) social protection system, and to ensure access to services by those at risk of being left behind.

- Focus on creating high-skilled, high-paying jobs as a means to facilitate the achievement of inclusive development.
- Update benchmarks for monetary and non-monetary deprivation to set higher standards and provide practical policy guidance for ensuring the well-being of Malaysians at levels commensurate with a high-income society.
- Deepen Malaysia's shallow social safety net on the basis of needs-based criteria. Address deprivation and exclusion wherever it is found at the individual or household level.

Financing shared prosperity

Financing the transition to a high-income and developed economy requires an enhanced effort to raise more revenue and to spend it effectively. Reforms are needed to increase tax revenues, to strengthen the social safety net, and to target assistance more effectively.

- Increase the progressivity of the personal income tax framework and revisit the reliefs and exemptions to enable the increased collection of revenue and the effective, equitable redistribution of income. Broaden indirect taxation by restricting zero-rated and exempted items to a more limited set of goods and services. Expand the capital gains tax and explore other forms of tax on non-earned income.
- Explore options for developing new sources of revenue at the state and local level, including localized sales and income taxes, as a means of both increasing revenues as well as decentralizing center-local fiscal relations.
- Improve spending efficiency through better targeting and consolidation around fewer flagship programs that target households and businesses.



CHAPTER 1

Preparing for the high-income transition

According to World Bank projections, Malaysia is likely to cross the high-income threshold at some point between 2024 and 2028. This graduation marks an important milestone in its longer-term development trajectory, indicating the success of its endeavors over the past decades. However, in recent years Malaysia's growth has decelerated from its previously high levels, which may signal trouble. At the same time, the advent of the COVID-19 pandemic has sharply affected key economic variables, raising questions about the resilience of Malaysia's economy. It is clear that strategies that enabled Malaysia to achieve its current level of development cannot sustain future growth. Malaysia needs an enhanced social contract to promote development, and to ensure that the proceeds of growth benefit all segments of the population.

Malaysia needs an enhanced social contract for sustainable growth as a high-income and developed economy

According to World Bank projections, Malaysia is likely to transition from an upper-middle-income economy to a high-income economy at some point between 2024 and 2028.[1] Despite the recession triggered by the COVID-19 pandemic in 2020[2], Malaysia remains on the verge of breaking out of the "middle-income trap" and taking its place among the high-income countries of the world. This graduation marks an important point in its longer-term development trajectory, indicating the success of its endeavors over past decades. As a result, living standards transformed within a generation, with extreme poverty falling to less than one percent of the population.

There is no ceremony to mark a country's transition to a high-income economy. The World Bank automatically reclassifies countries on July 1 of each year based on an estimate of each country's gross national income (GNI) per capita for the previous calendar year. Income-group classifications are mostly used by the World Bank for administrative purposes and to aggregate countries for comparative analyses.[3] However, Malaysia's crossing of this official threshold not only reflects the fundamental transformation of its economy over past decades, but also serves to remind that further transformation will be required in the future.

With the approaching transition, it is an appropriate time to assess the quality and sustainability of Malaysia's growth and to consider the means by which this growth might be optimized in the future. The structure of the economy, the expectations of citizens, and the drivers of growth are different for high-income countries. Thus, the future of Malaysia's economy will be different from its past, requiring different solutions for it to thrive. Compared to other countries that achieved high-income status in recent decades, Malaysia is growing more slowly; it has a lower share of employment at high skill levels; and it has greater inequality. And compared to countries in the Organization for Economic Cooperation and Development (OECD), Malaysia has a lower share of labor compensation in GNI; collects less in taxes; spends less on social transfers and services; and performs relatively poorly in terms of measures related to environmental management and control of corruption.

There is also a growing sense that the aspirations of Malaysia's middle-class are not being met. In particular, there is a widespread belief that the economy is not producing a sufficient number of well-paying, high-quality jobs. There is also a widespread sense that the proceeds of growth have not been equitably shared between the richest and the poorest, and that increases to the cost-of-living are outstripping incomes, especially in urban areas. Not only is meeting citizens' demands a worthwhile objective in its own right, the government also needs the support of a broad-based constituency (particularly the increasingly large middle class) to implement and sustain the economic and institutional reforms necessary to continue to generate high rates of growth after high-income status is achieved.

Factor accumulation is no longer sufficient for Malaysia to maintain growth, let alone to ensure that its benefits are shared equitably. To compete with other high-income countries, Malaysia needs to use its resources more efficiently; to produce new ideas and products; to expand markets; and to increase productivity. This challenge involves far more than picking "winners" at the technological frontier. Instead, Malaysia needs to create an environment that enables winners to emerge. It will only achieve this by boosting productivity and encouraging competitiveness.

More importantly, Malaysia needs to ensure that it achieves broader economic development by focusing on the quality, rather than just the quantity, of economic growth. Economic development involves far more than merely increasing per capita income (see Box 1). Its ultimate goal is to enable its citizens to enjoy greater freedom and autonomy, or the increased ability to determine their own preferred outcomes. To achieve this, Malaysia needs to increase human capital; to make institutions more accountable; and to develop an economy that provides its citizens with opportunities to engage in fulfilling, productive work. Finally, Malaysia needs to protect those who may be adversely

[1] World Bank, Staff calculations, 2020.
[2] World Bank Malaysia Economic Monitor: Surviving the Storm, 2020, and World Bank Malaysia Economic Monitor: Sowing the Seeds, 2020.
[3] World Bank, "How does the World Bank classify countries?", 2019, https://datahelpdesk.worldbank.org/knowledgebase/articles/378834-how-does-the-world-bank-classify-countries

BOX 1

Economic development and the Sustainable Development Goals

Given its breadth, economic development is difficult to measure, but according to the indicators associated with the UN's Sustainable Development Goals (SDGs), Malaysia falls somewhere between middle-income countries and OECD countries. The SDGs measure economic development using hundreds of indicators organized under 17 goals. Malaysia performs better than the middle-income average but worse than the OECD average in terms of most of these indicators (see Figure 1, southeast quadrant).[4] Deviations from this rule reveal where Malaysia is particularly strong or weak. Malaysia does comparatively well in terms of indicators related to poverty and shared prosperity (northeast quadrant) and comparatively poorly in terms of indicators related to the environment (southwest and southeast quadrants). There are only a few indicators where Malaysia outperforms the OECD but underperforms middle-income countries (northwest quadrant). More specifically, Malaysia's performance in terms of these indicators reveals that:

- **Poverty and Shared Prosperity:** Malaysia performs better than the OECD and middle-income countries in terms of most of the selected indicators related to poverty and shared prosperity. Compared to both groups, Malaysia has a very low proportion of the population below the national poverty line (before Malaysia upgraded its national poverty line in July 2020) and a somewhat lower proportion of employed males and females below the international poverty line. It also has a higher annual growth rate

[4] Selected indicators comprise Tier I SDG indicators organized into 5 categories: Poverty and shared prosperity (covering SDGs 1, 8 and 10); Infrastructure, industry, and innovation (SDGs 6, 7, 9); Environment (SDGs 11, 12, 13, 14, 15); Health, nutrition, and education (SDGs 2, 3, 4); and Equity and accountability (SDGs 5, 16). Tier II and Tier III indicators, which have no internationally agreed upon definition or weak coverage, were excluded. Indicators were also excluded if a higher or lower value did not clearly represent a better development outcome for an individual country (such as those under goal 17); values cannot be usefully compared across countries (such as forest cover), the indicators were categorical (such as whether a country has a specific policy in place), or if the units were in absolute terms, and not per capita, per GDP, or percentage. Finally, indicators from goals 3 and 9 were culled because of their redundancy, with preference given to disaggregated metrics (such as male and female proportions instead of values for the total population).

of GDP per capita and per employed person, which is not surprising given its growth trajectory. Malaysia has a more mixed performance relative to the other groups in terms of measures related to the financial sector, outperforming on loan performance but underperforming on financial inclusion.

- **Infrastructure, Industry, and Innovation:** Malaysia does better than the middle-income country averages in terms of all indicators related to infrastructure, industry, and innovation except renewable energy as a share of total final energy consumption. Compared to the OECD, it has a larger manufacturing sector in terms of value added and employment, but it falls behind in measures related to innovation, including the number of researchers and research and development expenditure.

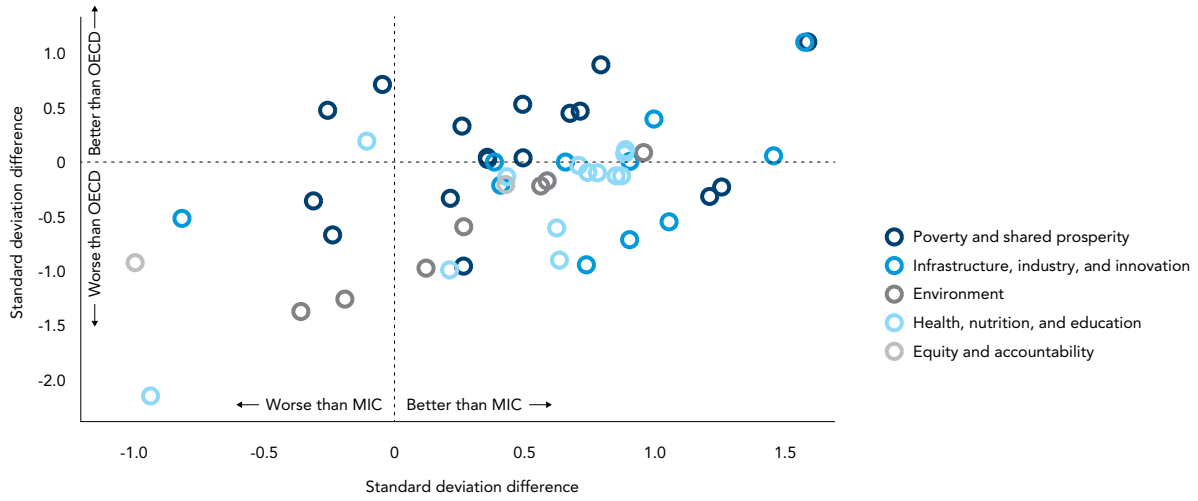
- **Environment:** Malaysia does worse than the OECD average in terms of all indicators related to the environment except protection of freshwater key biodiversity areas (KBAs). It falls between the two comparator groups in terms of most other indicators, including measures of fine particulate matter and protection of mountain and terrestrial KBAs. It also performs worse than the average for middle-income countries in terms of its protection of marine KBAs.

- **Health, Nutrition, and Education:** In terms of indicators related to health, nutrition, and education, Malaysia does much worse than the OECD and middle-income countries in terms of the proportion of children that are wasted and worse than middle-income countries but better than the OECD in the proportion of children that are overweight. On all other health, nutrition, and education indicators, Malaysia does better than middle-income countries but worse or roughly equal to the OECD, including the proportion of children who are stunted; the mortality rate attributed to cardiovascular disease, cancer, diabetes, or chronic respiratory disease; maternal, infant, and under-five mortality rates; and the prevalence of undernourishment.

- **Equity and Accountability:** Malaysia has values for only two of the six selected indicators related to equity and accountability. It does significantly worse than the OECD and middle-income countries in terms of the proportion of women in managerial positions. However, it performs better than middle-income countries but worse than the OECD in terms of the number of unsentenced detainees as a proportion of the overall prison population.

FIGURE 1
Malaysia has generally done better at reducing poverty than protecting the environment or promoting health, nutrition, and education

Standard deviation difference between Malaysia's performance and peer group performance on selected sustainable development goals, by category



Source: UN 2019
Note: The SDGs' 17 goals have been consolidated into 5 categories for clarity. Only a selection of Tier I indicators are shown. See footnote 4 for the methodology.

impacted by structural changes in the new economy by encouraging intergenerational mobility; creating new opportunities for marginalized populations; and expanding its social safety net.

In short, Malaysia needs to establish an enhanced social contract to realize its ambition of becoming a high-income and developed economy. In the past, Malaysia experienced rapid growth that made it the envy of the developing world. However, it is also undeniable that growth has moderated and that many of its citizens are not satisfied with the benefits they have received from this growth. Malaysia is at a critical juncture. What worked in the past will not work in the future. Malaysia needs to reckon with a more diverse set of incentives and more dynamic, heterogenous drivers of growth. Most importantly, it needs to provide equal opportunity for all Malaysians. An enhanced social contract is necessary to provide the foundation for all the reforms detailed in this report. Success can be measured by outcomes: better education and training for all segments of the population so they can work the jobs of the future; accountable institutions that serve the interests of the people; and an improved safety net to help those most in need. If Malaysia does not reorient its economic model, future growth will be slower and less resilient to external shocks and internal weaknesses.

This report focuses on six areas where reforms are needed to ensure a successful, sustainable, and equitable transition to high-income and developed country status. This is not an exhaustive list of developmental challenges that Malaysia needs to address in the years ahead, but rather the highest priority areas where the gap between current performance and that of other countries that have successfully transitioned to high-income country status is largest. The priority areas comprise:

- ***Re-vitalizing long-term growth:*** Malaysia's trend GDP growth rate is expected to fall substantially over the next 30 years as its growth trajectory converges with that of other high-income countries. Reforms are needed to mitigate declining growth rates, including measures to improve the quality of schooling; to increase female labor force participation; and to implement policy changes to boost productivity growth.

- ***Boosting competitiveness:*** Going forward, private-sector innovation and productivity growth will be the primary drivers of higher living standards. Reforms are needed to remove economic distortions, to encourage innovation and digital adoption, to strengthen competition in markets, to improve the investment climate, and to facilitate deeper regional integration.

- ***Creating jobs:*** The creation of a greater number of well-paying, high-quality jobs is becoming more complex as Malaysia moves toward high-income status. Gaps have emerged in the country's skills framework, with increased automation also having the potential to change the nature of work. Reforms are needed to improve basic health and nutrition, to strengthen learning outcomes, to facilitate lifelong learning and digital literacy, and to attract and retain talent.

- ***Modernizing institutions:*** The quality of Malaysia's institutions lags behind that of its aspirational peers, making it hard to meet the increasing expectations of its expanding middle class. Reforms are needed to enhance transparency, inclusion, accountability, and oversight in government operations and policy making; to improve competition in the state-business nexus; and to build bureaucratic capacity.

- ***Promoting inclusion:*** Economic growth has become less inclusive than in the past, compounding persistent disparities, fueling discontent, and encouraging the perception that growth has not benefitted all citizens equitably. Reforms are needed to ensure equal access to quality education and remunerative employment, to strengthen Malaysia's broad but shallow social protection system, and to ensure greater access to services by those at risk of being left behind.

- ***Financing shared prosperity:*** Financing the transition to high-income status requires greater efforts to collect revenue and to spend it more effectively. Reforms are needed to increase and diversify tax revenues, to increase progressivity in the tax framework, and to more effectively target assistance.

This introductory chapter profiles Malaysia's growth trajectory and development prospects, setting the context for the following chapters on long-term growth, competitiveness, jobs, institutions, and inclusion. It draws heavily on a comparative analysis with Malaysia's transitional, aspirational, and regional peers (see Box 2) to illuminate the features that set it apart or make it similar to countries in three comparator groups: those that have transitioned to high-income status in the past 30 years; developed countries in the OECD; and fellow members of ASEAN.

Malaysia needs to reckon with a more diverse set of incentives and more dynamic, heterogenous drivers of growth. Most importantly, it needs to provide equal opportunity for all Malaysians.

This chapter first provides a brief overview of Malaysia's growth trajectory, focusing mainly on the impressive gains Malaysia has achieved since independence and on the continuing challenges and emerging global trends it is encountering on its path to achieving high-income status. It also presents growth scenarios from the World Bank's Long Term Growth Model (LTGM), with these scenarios showing that the quantity of growth Malaysia can expect in decades to come critically depends on the extent of the government's reform efforts to overcome the myriad structural constraints to capital deepening, human capital accumulation and productivity growth. It then turns to the quality of growth, comparing Malaysia to middle-income and OECD countries using indicators related to the UN's Sustainable Development Goals.

The second half of this chapter discusses the nature of an enhanced social contract to achieve three crosscutting goals: boosting productivity while ensuring equitable access to good jobs; facilitating the emergence of accountable institutions that serve the interests of the people; and guaranteeing equality of opportunity and developing an improved safety net to help those most in need. These cross-cutting topics incorporate observations and lessons from each of the thematic chapters.

BOX 2

Benchmarking Malaysia: transitional, aspirational, and regional peers

Benchmarking country performance relative to relevant peers enables the elucidation of important characteristics, trends, and constraints in economic analysis. The practice is increasingly common in World Bank reports and is employed here to compare Malaysia to its transitional, aspirational, and regional peers (see Figure 2).

The *transitional peer group* comprises 19 countries that achieved high-income status in the last 30 years (1988–2017). Where possible, data for the transitional peer group is relative to the year in which the constituent countries first achieved high-income status. For example, Argentina became a high-income country in 2014, while Latvia achieved that status in 2007. Thus, the latest data for Malaysia is compared to 2014 data for Argentina and 2007 data for Latvia. This helps elucidate the conditions that prevailed for these countries at the time of their transition, as an understanding of these conditions may provide important insights for Malaysia at its current stage of development. Historical data is not available for all indicators used in this report. In such cases, contemporary data is used for comparisons where appropriate.

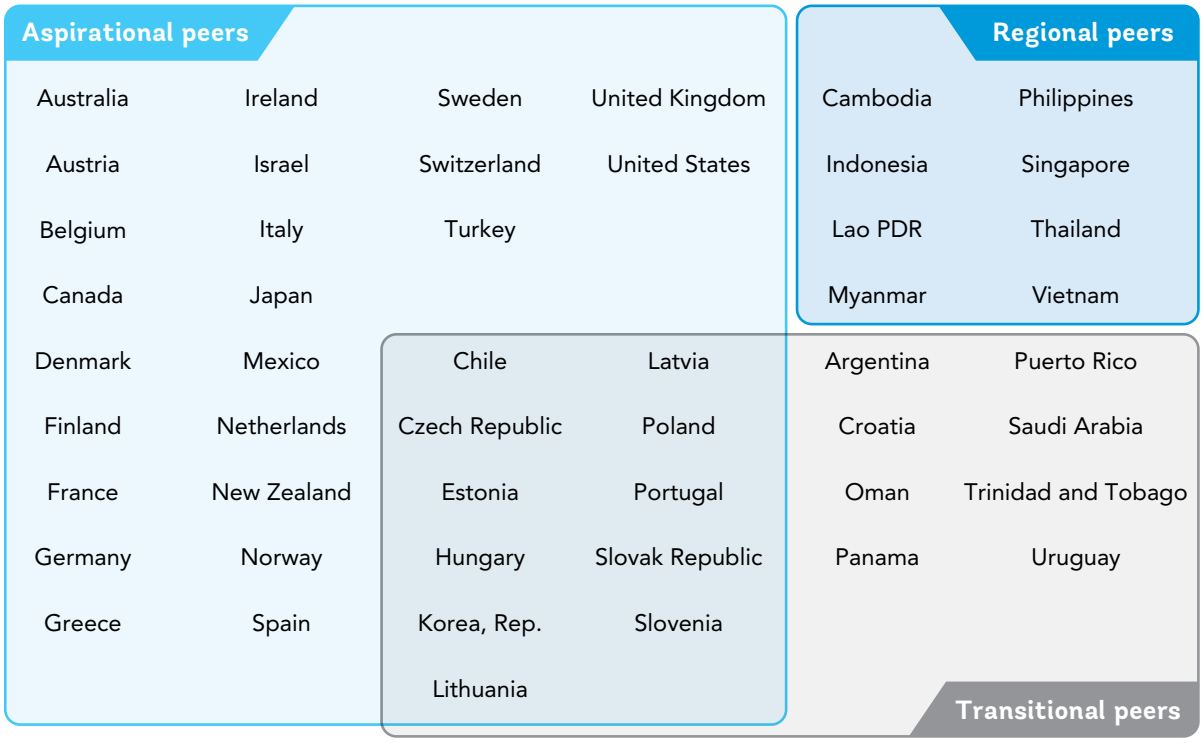
The *aspirational peer group* consists of 33 OECD countries. These countries provide potentially useful institutional norms against which Malaysia can be compared. The goal is not to promote isomorphic mimicry, with Malaysia adopting similar institutional forms, but not the functions they provide. Rather, this study takes a similar approach to the landmark

studies on conditional convergence, which used OECD membership as a proxy for development-oriented institutions. All but two OECD members (Mexico and Turkey) are high-income, highly-developed countries, with very few of them having achieved high-income status through the extraction of resources. 11 out of the 20 countries identified as transitional countries are OECD members today. Data for the aspirational peer group is contemporaneous, meaning that Malaysia is benchmarked to its aspirational peers in the same year.

The *regional peer group* consists of fellow ASEAN countries. Several of Malaysia's peers in this group are also high-growth countries grappling with many of the same challenges facing Malaysia, including the impact of disruptive technologies; an aging society; the pressures of urbanization and environmental sustainability; the changes to the nature of global value chains; and the risks of financial crises and contagion. All of these factors result in a more challenging international environment than that which prevailed for countries in the transitional peer group when they achieved high-income status. Data for the regional peer group is also contemporaneous.

Each peer group was restricted to countries with at least 1 million residents in the year of transition or the most recent year for which data is available, as appropriate.[5] Countries that did not meet these criteria were excluded to produce more meaningful benchmarks: small countries face a unique set of challenges, which are likely not to be as relevant to Malaysia as countries with larger domestic markets. Moreover, many of these countries do not have reliable data for the relevant indicators.

FIGURE 2
Malaysia's aspirational, transitional, and regional peers



Source: World Bank staff elaboration

[5] Thus, it excludes Antigua and Barbuda; Aruba; Bahrain; Barbados; Brunei Darussalam, Gibraltar; Guam; Isle of Man; Macao SAR, China; Malta; New Caledonia; Northern Mariana Islands; Palau; Seychelles; St. Kitts and Nevis; all of which transitioned but were too small when they did so to qualify. It also excludes Iceland and Luxembourg from the aspirational group.

A growth model based on factor accumulation has delivered high returns over past decades

Since gaining independence in 1957, Malaysia has successfully transformed its economy, with the country moving from low- to upper-middle-income status in a single generation. Over the period from 1960–2017, Malaysia's gross national income (GNI) per capita grew by the average annual rate of 6.9 percent as it advanced from a low-income country dependent on plantation agriculture to an upper-middle-income country with a strong manufacturing base.[6] In 1967–1997, Malaysia experienced a remarkable growth in its GNI per capita, with this GNI increasing by 14 times, making it one of the fastest growing economies in modern history.[7] Meanwhile, the incidence of poverty decreased drastically, with less than 1 percent of the population now living below the international extreme poverty line of US$1.90 (2011 PPP) per person per day, and only 2.7 percent living below US$5.50, which is the average national poverty line among upper-middle-income countries.[8]

Malaysia's economic transformation can be attributed largely to a set of development policies that have come to be known as the "growth with equity" model.[9] Broadly speaking, the strategy has consisted of three pillars: (i) outward-oriented, labor-intensive growth that helped integrate Malaysia with the global economy; (ii) investment in basic human capital to raise labor productivity; and (iii) credible economic governance to maintain macroeconomic stability.

Like the "Asian Tigers" that previously achieved high-income status, Malaysia has long promoted an export-driven growth model. Trade promotes growth in a variety of ways: it provides an elastic market for a country's products, granting relatively stable demand and scope for greater specialization; it exposes domestic companies to competition, thereby encouraging greater efficiency in the allocation of resources; and it facilitates learning and innovation through increased access to technology, know-how, and capital.[10] Malaysia's growth history reflects these benefits. During the high-growth period of 1967–1997, growth was largely driven by the development of the oil and gas export and electrical and electronics (E&E) industries, both of which were highly exposed to the international economy.[11]

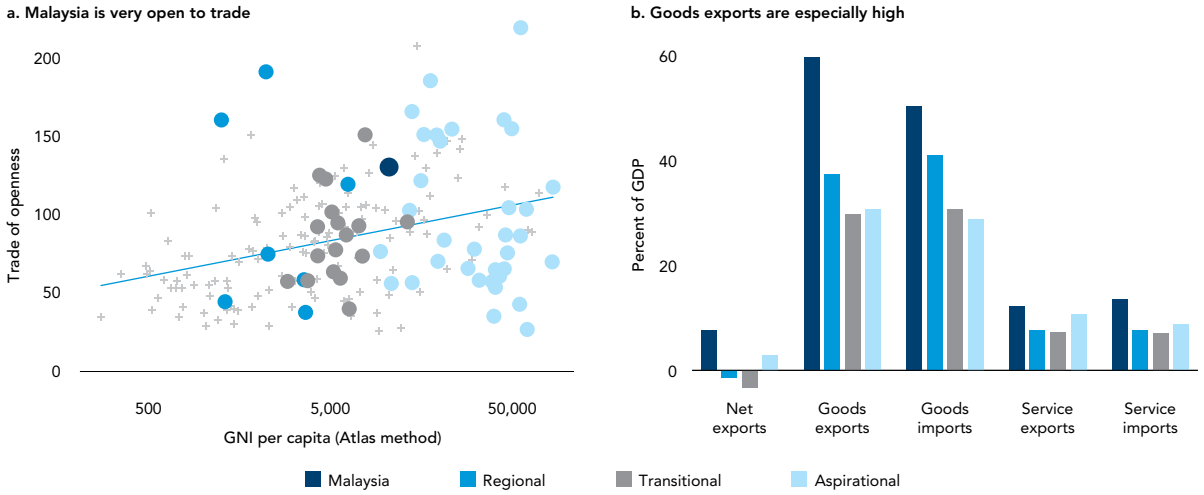
> The sustained expansion of basic education and health services enhanced labor productivity and enabled the poor to benefit from increased employment opportunities.

Today, Malaysia is more open to trade than nearly 90 percent of countries in the world (see Figure 3).[12] Among countries that transitioned to high-income status in the last 30 years, only Panama was more open to trade. Malaysia's trade in goods is particularly robust, considerably higher than the averages for the transitional, regional, and aspirational peer groups.[13] This reflects the dominance of Malaysia's electrical and electronics (E&E) sector, which accounts for 38 percent of exports and provides more than 300,000 jobs.[14] Leading companies, including Intel, Broadcom, and Western Digital, own and operate manufacturing facilities in Malaysia, with most of these facilities located

[6] World Bank, World Development Indicators, GNI per capita, Atlas method (current US$) (NY.GNP.PCAP.CD), 2019; OECD, "Innovation in Southeast Asia," 2013, p. 198; pp. 44–46.
[7] This chapter measures income using GNI per capita, Atlas method (current US$) when possible to conform with the measure used to define income groups. Using GDP per capita (constant 2010 US$), income increased between 5 and 6 times over that period. World Bank, World Development Indicators, GNI per capita, Atlas method (current US$) (NY.GNP.PCAP.CD) and GDP per capita (constant 2010 US$) (NY.GDP.PCAP.KD), 2019.
[8] World Bank, Malaysia Poverty and Equity Brief, April 2020.
[9] World Bank, "A Resurgent East Asia: Navigating a Changing World", 2019.
[10] World Bank, Commission on Growth and Development, The Growth Report: Strategies for Sustained Growth and Inclusive Development, 2008, pp. 21–23.
[11] World Bank, Commission on Growth and Development, The Growth Report: Strategies for Sustained Growth and Inclusive Development, 2008, pp. 19–20.
[12] Trade openness is calculated as the sum of exports and imports as a percent of GDP.
[13] World Bank, World Development Indicators, BM.GSR.MRCH.CD, BM.GSR.NFSV.CD, BX.GSR.MRCH.CD, BX.GSR.NFSV.CD, NY.GDP.MKTP.CD, NY.GNP.PCAP.CD, 2019.
[14] Department of Statistics Malaysia, Annual Economic Statistics, 2019, and Bank Negara Malaysia, Monthly Statistics, January 2020.

FIGURE 3
Malaysia has an export-driven growth model

Imports and exports as a percentage of GDP



Source: World Development Indicators 2020
Note: The cross section shows average values, 2015-2019, for contemporary peers and average values for 5-year periods ending in the index years for historical peers. Values that exceed 250 percent on the trade openness scale are not shown.

in Penang, one of the world's leading hubs for micro-electronics assembly, packaging, and testing. Together, these export-oriented manufacturers contribute close to 8 percent of the global back-end semiconductor output.[15]

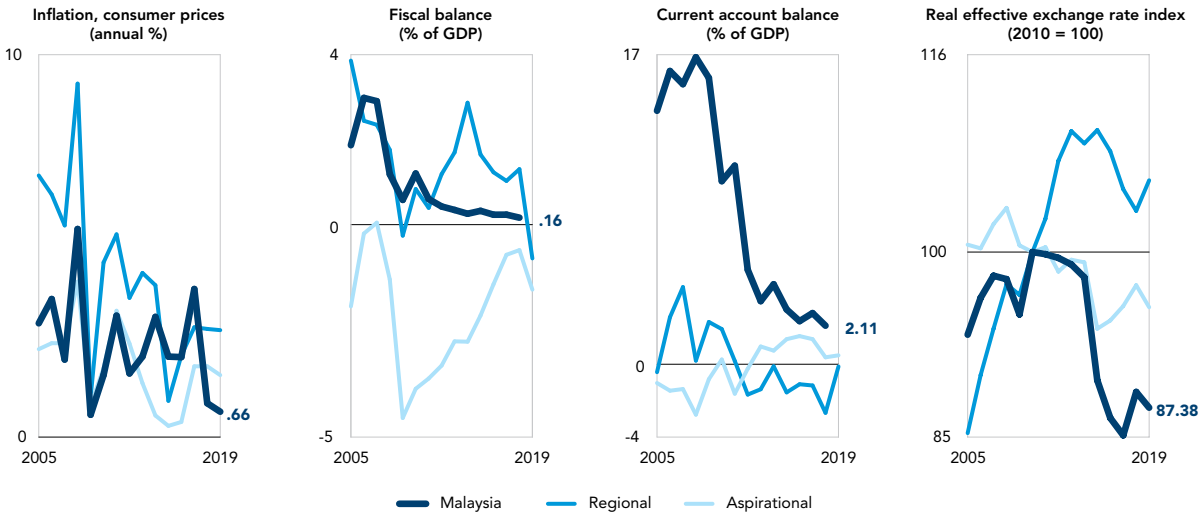
Malaysia's investment in basic human capital has complemented its policies to promote outward-oriented, labor-intensive growth. The sustained expansion of basic education and health services enhanced labor productivity and enabled the poor to benefit from increased employment opportunities. Malaysia has achieved considerable progress in school enrollment since the 1970s, following the implementation of a series of policy and institutional reforms to expand access to education from pre-school to tertiary levels. Today, access to primary education is almost universal, while the net enrollment rates for pre-school and secondary education are above 90 percent. Tertiary enrollment rates now exceed those that prevailed in most of Malaysia's transitional peers in the years before they transitioned, but continue to lag behind the great majority of its aspirational peers.[16] Similarly, Malaysia has achieved remarkable success in providing primary health-care services and in improving the population's health outcomes, with an emphasis on expanding service provision to low-income households and rural areas. Consequently, life expectancy at birth has increased steadily, going up from 59 years in 1960s to 75 years in 2019, comparable to most upper-middle-income countries. Malaysia also performs well in the provision of universal health coverage relative to its global and regional comparators.[17]

Malaysia's sound macroeconomic management has also played a crucial role in ensuring sustained growth. In particular, there has been a sustained commitment by policy makers to preserving a stable and conducive environment for growth throughout recent decades, characterized by generally low and stable inflation, a resilient and well-diversified financial sector, persistent current account surpluses, and a relatively manageable public debt position (see Figure 4). The government also has relied primarily on markets to allocate resources. Since the 1980s, it has implemented a series of structural reforms to promote privatization and competition in product markets. While this market orientation has not prevented the government from intervening to spur the development of specific industries, including the automotive industry, these measures have been subject to monitoring and modified if they were deemed ineffective. The emphasis on evaluation and adjustment of policies has been feasible in part because of the strong ability of Malaysia's public institutions to effectively design and implement development strategies.

[15] Semiconductor Equipment and Materials International (SEMI) and Invest Penang.
[16] World Development Indicators, 2019.
[17] Universal Health Coverage Index, World Health Organization, 2019.

FIGURE 4
Malaysia has benefited from macro-financial stability

Inflation, fiscal balance, current account balance, and real effective exchange rate, 2005-2019



Source: World Development Indicators 2020
Note: Calculation of fiscal balance excludes grants.

Malaysia will achieve high-income status, but at a slower pace than its predecessors

Malaysia's transition to high-income status will make it a member of an exclusive club. In the past 30 years, only 33 countries (including 19 with populations over 1 million) transitioned to high-income status, with many of them benefiting from the collapse of the Soviet Union and its economic sphere of influence and their subsequent integration into the European Union. Over the same period, 43 countries have transitioned from low-income to middle-income status. And 55 countries, including Malaysia, have spent the duration in the middle-income range (see Box 3).[18]

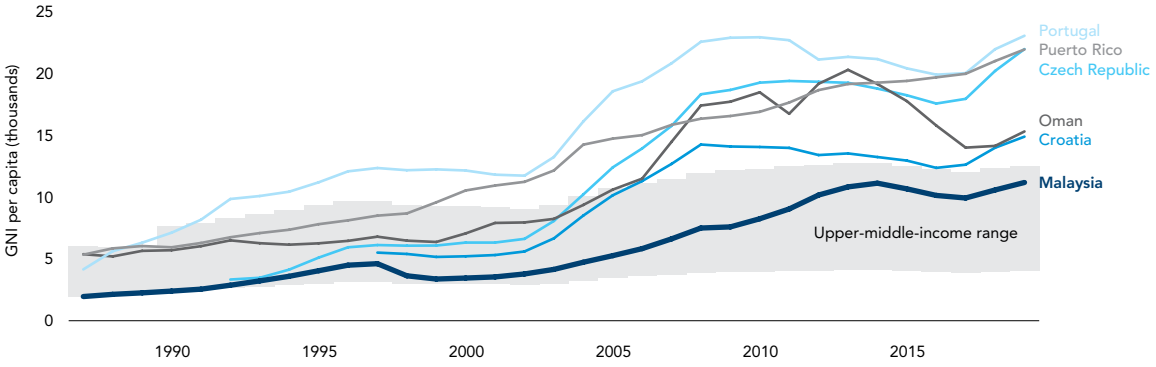
Despite Malaysia's impressive achievements, its convergence with high-income economies also raises myriad questions concerning the pace and quality of its growth, especially when compared to its transitional and aspirational peers. Most striking of all is the relative slowdown in the pace of growth. In 1967–1997, Malaysia experienced sustained average annual growth rates of 9.0 percent, making it one of the fastest growing economies in modern history and increasing its GNI per capita 14 times over. However, growth has slowed noticeably since then, especially in the wake of the Asian financial crisis, with the rate falling to an average annual figure of 4.0 percent over the last 10 years. This is lower than the rates recorded by any of its transitional peers in the 10 years preceding their achievement of high-income status (see Figure 5). At this rate, it would take Malaysia 28 and 43 years, respectively, to reach the current per capita income levels of the Republic of Korea or Singapore.[19]

A closer examination of Malaysia's underlying growth drivers reveals deeper constraints. Malaysia's pace of productivity growth has slowed noticeably in recent years, partly reflecting weakening external demand, with growth below the averages for upper-middle-income comparators worldwide. A similar pattern can be observed when comparing Malaysia's TFP trends with higher-income economies in the East Asia and Pacific (EAP) region. For instance, while the Republic of Korea and Singapore experienced similar growth to Malaysia in labor and capital accumulation over the past three decades, TFP has

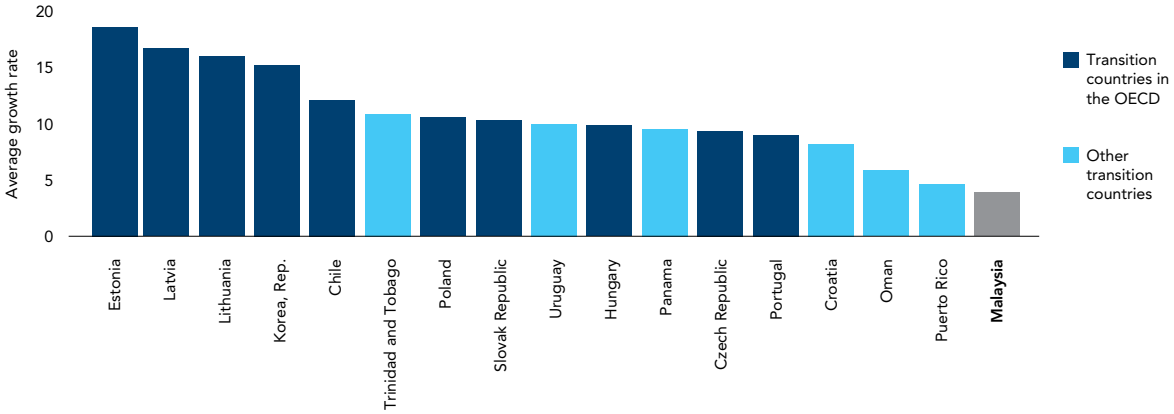
[18] World Bank, "GNI per capita Operational Guidelines and Analytical Classifications", July 2019.
[19] World Bank, staff calculations using GNI per capita, Atlas method (current US$), 2019. Comparison of GNI growth rates excludes Saudi Arabia.

FIGURE 5
Malaysia will soon join the club of high-income countries, but at a slow pace

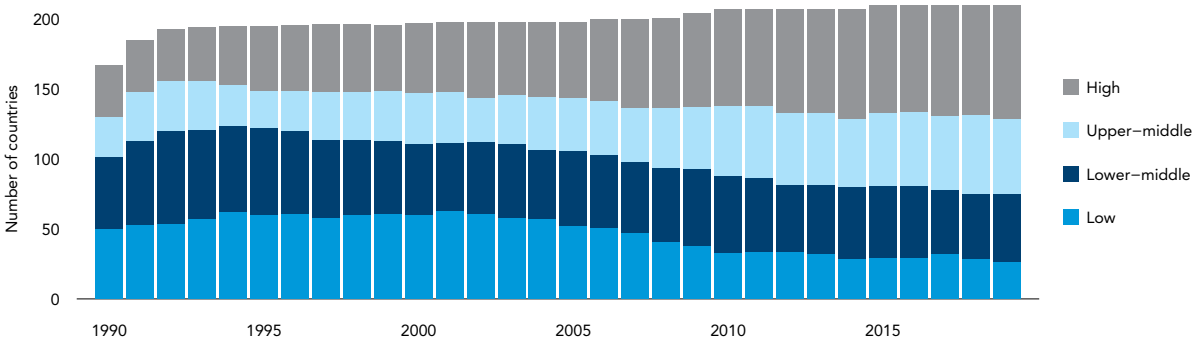
a. Per capita income relative to income group boundaries, select countries



b. Average annual growth rate in the 10 years preceding transition, by country



c. Countries per income group



Source: World Bank staff calculations based on World Development Indicators 2019

BOX 3

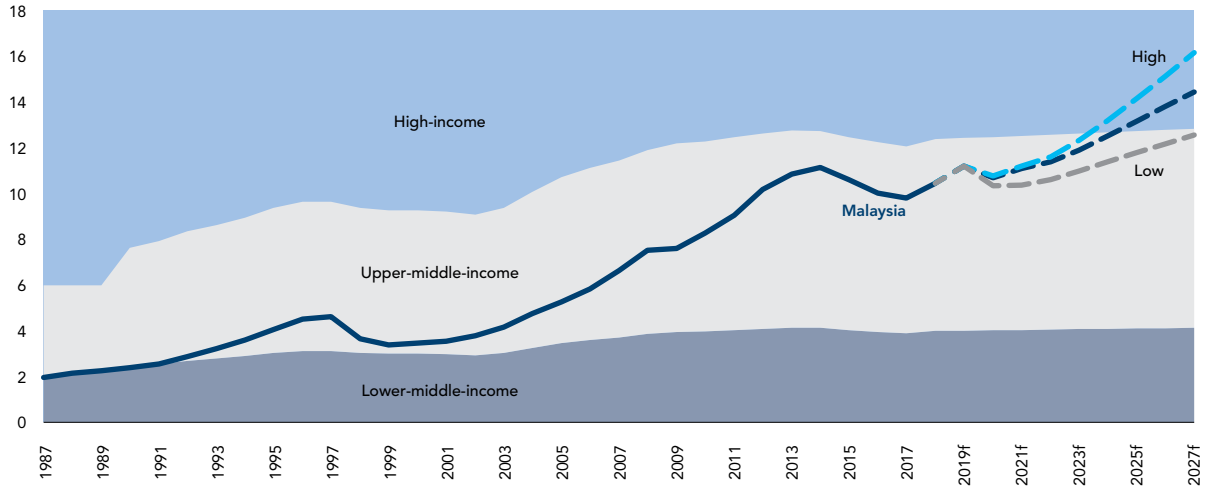
Malaysia is expected to reach high-income status in the coming years

The World Bank categorizes the world's economies into four income groups (low, lower-middle, upper-middle and high) based on gross national income (GNI) per capita in current US dollar terms, calculated using the Atlas method.[20] The thresholds that delineate these groups are adjusted annually to account for global inflation, using both the IMF's Special Drawing Rights (SDR) deflator and updates to country income classifications to reflect changes in income growth, inflation, exchange rates, and population trends. As of 2020, the threshold for the high-income group stands at GNI per capita of US$12,535. The number of high-income economies is currently 80, an increase from fewer than 50 in the 1990s. However, the share of the world's population living in these countries has remained broadly unchanged, at around 16 percent.

Malaysia has achieved considerable progress in its endeavors to increase average incomes over the past several decades. Malaysia's per capita income has increased nearly four-fold since joining the upper-middle-income country group in 1992 (see Figure 6).

[20] In calculating GNI in current US dollar terms, the World Bank uses the Atlas conversion factor instead of simple exchange rates. The Atlas conversion factor for any given year is the average of a country's exchange rate for the year and its exchange rates for the two preceding years, adjusted for the difference between the rate of domestic inflation and international inflation. The purpose of the adjustment is to lessen the effect of exchange rate variability in the cross-country comparison of national incomes.

FIGURE 6
Malaysia is projected to cross the high-income country threshold between 2024 and 2028



Source: World Development Indicators and World Bank staff projections

Since then, progress has slowed despite continued growth in ringgit-denominated incomes, largely due to the weakness of the ringgit relative to the US dollar in recent years.[21] In 2020, Malaysia's average GNI per capita is estimated to reach US$11,200, only US$1,335 short of the current threshold level that defines a high-income economy. However, a COVID-19 induced recession in 2020 will inevitably slow progress towards the high-income threshold.

The latest projections suggest Malaysia will exceed the threshold that defines high-income economy status at some point between 2024 and 2028. World Bank Staff projections suggest that Malaysia will cross the high-income country threshold by 2025 under a baseline scenario; by 2024 under a high case scenario; and by 2028 under a low case scenario. The baseline projections are premised on assumptions that Malaysia's economy will continue to expand at around its potential growth rate, with the ringgit-US dollar exchange rate remaining unchanged at around RM4 per US dollar throughout the forecast period. The high case scenario assumes stronger profiles for GDP growth and ringgit exchange rates, while the opposite is the case for the low episode scenario.

Malaysia's per capita income has increased nearly four-fold since joining the upper-middle-income country group in 1992

One factor that would make the low case scenario more likely would be a prolonged negative impact from the COVID-19 pandemic on Malaysia's rate of economic growth. A longer-than-expected recovery period, lower-for-longer commodity prices or a heavier-than-expected debt burden as a result of the impact of the crisis would all weigh on growth in the years ahead. In all three scenarios, population growth follows the central estimates of the UN's World Population Prospects, while inflation is assumed to be relatively modest globally and domestically.

[21] The ringgit has weakened appreciably against the US dollar since 2015 (from an annual average of RM3.27 in 2014 to a low of RM4.30 in 2017) due to a confluence of global and domestic factors.

increased at a much faster pace than in Malaysia, at the average annual rate of 2.2 percent in these economies compared to 1.8 percent in Malaysia. Growth in output per worker in many transitional and aspirational peers also compares favorably to Malaysia. As a high-income country, increasing productivity growth will be critical to sustaining economic growth.

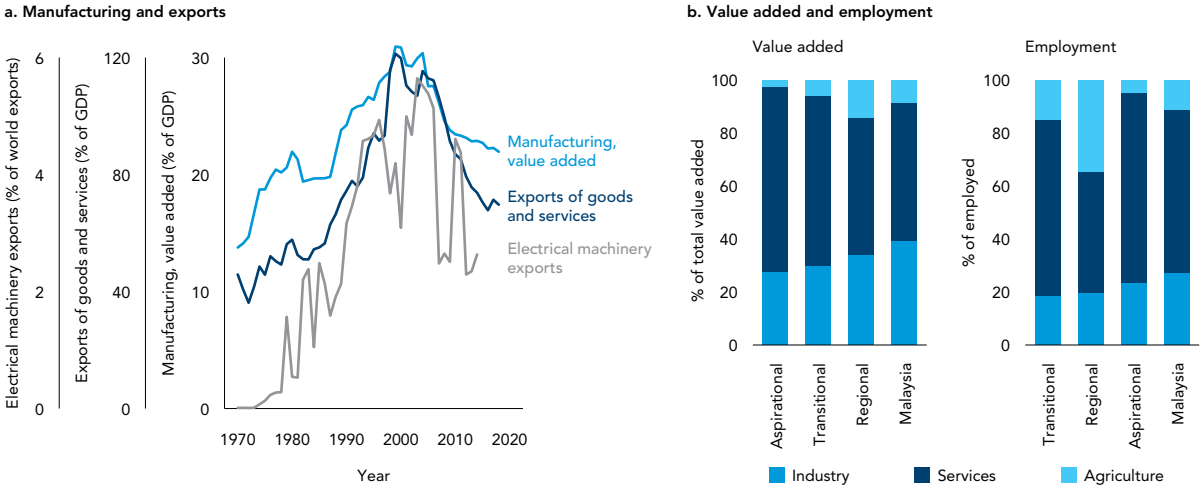
Loss of competitiveness in the E&E sector, and in manufacturing and exports more generally, has also given rise to concerns that Malaysia is deindustrializing prematurely, which has the potential to undermine the country's long-term growth prospects.[22] Malaysia's main driver of export growth, the manufacture and export of electronics, has deteriorated in recent years. The trend is consistent across a range of metrics (see Figure 7). Manufacturing value added and the export of goods and services have both declined in proportion to GDP from their highs in the 1990s. Manufacturing fell by nearly a third, with Malaysia being surpassed by China, the Republic of Korea, and Thailand, among others. Exports have fallen to an even greater extent. In the 1990s, Malaysia's only peers were entrepots. Two decades later, 20 countries, ranging from Lithuania to the Republic of Congo, had greater exports in proportion to their GDP.[23] In particular, exports from Malaysia's E&E sector have been on a declining trend in relative terms. At its peak in 2003, Malaysia accounted for 5.6 percent of the world's exports of electrical machinery, apparatus and appliances. At the time, the only countries that had a higher share of E&E exports had much larger populations and more established electronics industries, including China, the United States, Japan, Germany, and the Republic of Korea. By 2014, China had become dominant, accounting for more than a third of E&E exports worldwide. Over the same period, Malaysia's share fell by half.[24]

Changes in the global economic environment compound Malaysia's growth challenges. The three major structural changes in the global environment that are likely to have the greatest impact on Malaysia's future growth trajectory involve technology, trade, and aging:

- ***The pace of technological change is accelerating, altering the basis of economic competitiveness and comparative advantage across countries.*** In this context, Malaysia continues to trail its transitional and aspirational peers in digital connectivity, innovation, and technology adoption by business. It also faces persistent gaps in human capital development, particularly among lower-income households.

FIGURE 7
Malaysia's drivers of growth have weakened in recent years

Imports and exports as a percentage of GDP



Source: World Development Indicators 2020; IMF Export Quality Dataset 2015.
Note: Industry value added comprises manufacturing, mining, and construction. Electrical machinery exports refer to heading 72, Electrical machinery, apparatus and appliances, of SITC, revision 1, and is expressed as a percent of electrical machinery exports worldwide.

[22] Dani Rodrik, "Premature Deindustrialization," 2015.
[23] WDI 2019.
[24] IMF, Export Quality Dataset, 2015. Electrical machinery exports refers to heading 72, "Electrical machinery, apparatus and appliances," of SITC, revision 1.

- ***It cannot be taken for granted that the rapid expansion in trade, which facilitated the unprecedented convergence of many economies in recent decades, will continue.*** The pace of trade growth, globally and in Malaysia, has been sluggish since the global financial crisis and will likely remain so in the years ahead, reflecting maturing global value chains, rising protectionism in major economies, and the aftermath of the COVID-19 shock.

- ***Finally, EAP is aging more rapidly than any region in history, driven by sharp declines in fertility and a steady increase in life expectancy.*** An increasing share of older persons—and the concomitant increase in the dependency ratio—will weigh on economic growth. Malaysia, unlike many other EAP countries, can partially offset this trend by further increasing the female labor force participation rate. Malaysia will also face fiscal challenges related to providing sustainable health, pension, and long-term care systems, underscoring the need for increasing revenue performance and making the allocation of expenditure more efficient and equitable.

Taking a longer perspective, the pace of Malaysia's growth is expected to fall substantially over the next 30 years, in line with the growth history of today's high-income countries.[25] This projected decline partly reflects demographic trends, due to Malaysia's increasingly aging population. However, the main causes are the diminishing returns on investment in physical capital and the gradual moderation in human capital accumulation and productivity growth. In many respects, these challenges are an expected part of the structural transformation that is characteristic of high-income economies, with continuous improvements becoming increasingly difficult as income levels increase. Although low by historical standards, Malaysia's 3.8 percent average annual real GDP per capita growth over the period 2014–2018 is more than 2.5 times the OECD average of 1.4 percent.[26] As a rule of thumb, countries at the per capita income frontier are not expected to grow faster than 2 percent per year. Malaysia's growth trajectory, like that of all countries that succeed in growing, is expected to converge with its high-income peers at a steady state with the economy growing at the pace of technological development.

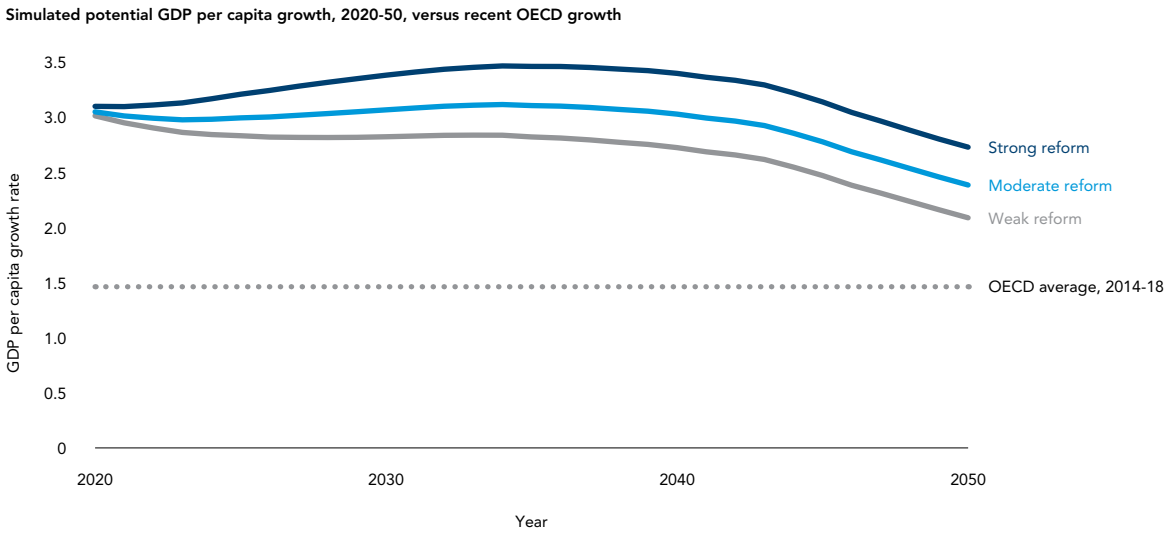
Despite these issues, a revamp of the "growth with equity" model through timely reforms can substantially improve Malaysia's growth potential. Malaysia currently underperforms in several key determinants of growth, including human capital investment, workforce participation, and total factor productivity (TFP). Based on the growth experiences of today's high-income countries, the World Bank's Long Term Growth Model suggests that a strong reform package could nearly double Malaysia's future growth rate relative to a projected baseline (see Figure 8). The strong reform scenario assumes that Malaysia makes the necessary changes to reach the 75th percentile in terms of the various investment, human capital, workforce participation, and TFP determinants. This would put Malaysia at the same level as Sweden on the education index, based on a combination of expenditure on education as percentage of GDP; the shares of workers aged 25 and over with completed secondary and tertiary education; and the average of PISA math, science, and reading scores. Moderate and weak reform scenarios result in lower projected growth.

> High average incomes do not fully reflect the broad aspects of economic and social well-being that contribute to a country's true prosperity

As Malaysia approaches the high-income threshold, citizens' quality of life will become more important than the quantity of goods and services the economy produces. High average incomes are not enough to ensure this as they do not fully reflect the broad aspects of economic and social well-being that contribute to a country's true prosperity. Nor do they capture the distribution of prosperity and wellbeing across geographical regions and segments of the population. The remainder of this chapter discusses what an enhanced social contract would look like across three broad aspects of economic and social well-being: boosting productivity while ensuring equitable access to good jobs, facilitating the emergence of accountable institutions that serve the interests of the people, and developing an improved safety net to help those most in need.

[25] Devadas, Guzman, Kim, Loayza, and Pennings 2020, pp. 1, 14–15.
[26] World Bank, World Development Indicators, NY.GDP.PCAP.KD, 2019.

FIGURE 8
Malaysia's simulated long-term growth is higher with strong reforms



Source: World Development Indicators 2019; Devadas, Guzman, Kim, Loayza, and Pennings 2020.

Boosting productivity while ensuring equitable access to good jobs

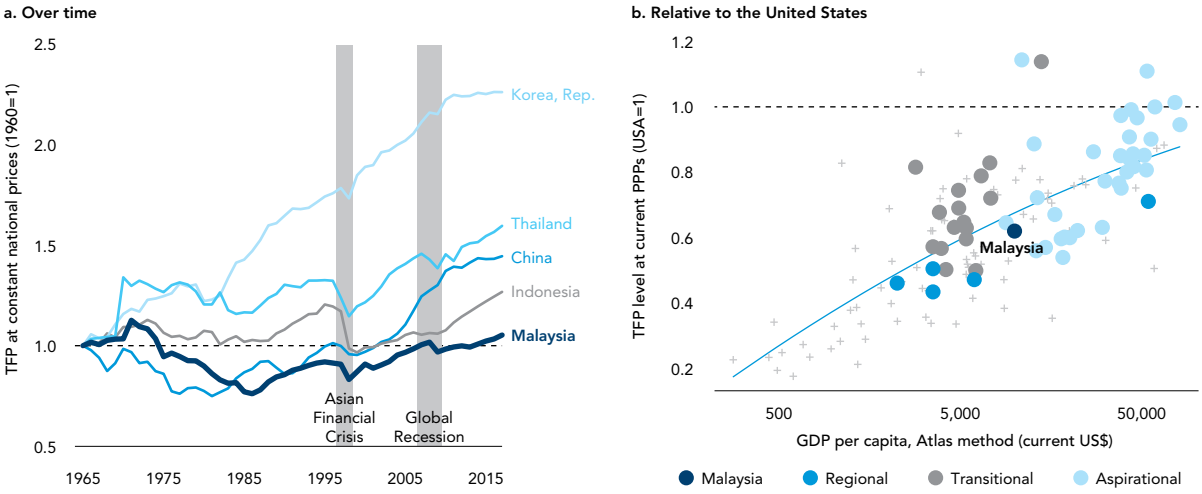
The competitiveness of Malaysia's economy will determine its ability to grow through innovation, productivity, and the efficient allocation of resources. Malaysia's growth in recent decades came primarily from factor accumulation, with productivity increasing less than among many of its peers (see Figure 9, panel a). Today, Malaysia's TFP lags behind most of its transitional peers in the year they transitioned and most of its aspirational peers (see Figure 9, panel b). To boost productivity, the government needs to encourage competition in the domestic economy. Firms that face vigorous competition have strong incentives to reduce their costs, innovate, and become more efficient and productive than their rivals.[27] Competition in input (upstream) markets, such as transportation, financial services, energy, telecommunications, and construction services, is a key driver of efficiency and productivity growth in downstream sectors that are users of these inputs. Industries exposed to higher levels of domestic competition are more competitive and achieve better export performance.[28] Furthermore, competitive markets enable consumers to access a wide variety of well-priced, quality products, thus improving their welfare and providing sustainable opportunities for job creation.[29]

At the same time, creating a sufficient number of well-paying, high-quality jobs is also becoming more complex as the nature of work changes and Malaysia moves toward a high-income economy. During its decades of impressive growth, a large share of the workforce shifted from agriculture to manufacturing and services. Educational attainment increased substantially and labor productivity improved. Today, an increasing proportion of jobs involve the application of analytical and socio-emotional skills, with a decreasing proportion involving manual skills. In addition, digital skills and non-routine cognitive skills are increasingly in demand, especially for younger workers (see Figure 10, panel a). While Malaysia scores about as well as

[27] See for example Bassanini and Ernst 2002; Bloom, Draca, and Von Reenen 2011; Aghion and Griffith 2005; Acemoglu et al. 2007. There is cross-country evidence on the impact of competition policy on the growth of total factor productivity and GDP (Schwab and Verker, 2014; Guttman and Voigt, 2014).
[28] Hollis 2003, Sakakibara & Porter 2001; Baek, Kim and Kwon 2009. For a summary of literature review on Competition and export competitiveness, see Goodwin and Pierola. 2015.
[29] See World Bank and OECD. 2017.

FIGURE 9
Since 1960, TFP has increased less in Malaysia than in prominent peers

Total factor productivity over time (1960=1) and latest (United States=1)



Source: Penn World Tables 2019
Note: Cross section shows values in 2017 for contemporary peers and values in index years for historical peers. Values not shown in cross section if outside 0 to 1.5 on y-scale.

might be projected on the basis of its GNI per capita in terms of the World Bank's Human Capital Index, it underperforms most of the transitional and aspirational peers with which it seeks to compete (see Figure 10, panel b).

To boost productivity while ensuring equitable access to good jobs, Malaysia needs to remove barriers to fair competition; make better use of underutilized sources of labor; and adapt and improve its education system so that workers are prepared for the jobs of the future. These issues are related. The existing social contract gives preference to firms connected to the state and individuals based on their ethnicity. Without fair competition, resources are inefficiently allocated. Output is lower and domestic firms do not offer high-quality jobs that attract the most qualified workers. Meanwhile, a pool of underutilized labor—women, youth, and the diaspora—are excluded and either stay home or leave the country for better opportunities. And, despite best intentions, a significant portion of the population is not receiving the quality of education necessary to succeed in the modern economy. In short, good jobs are hard to get, and many people lack the incentives or qualifications to pursue them.

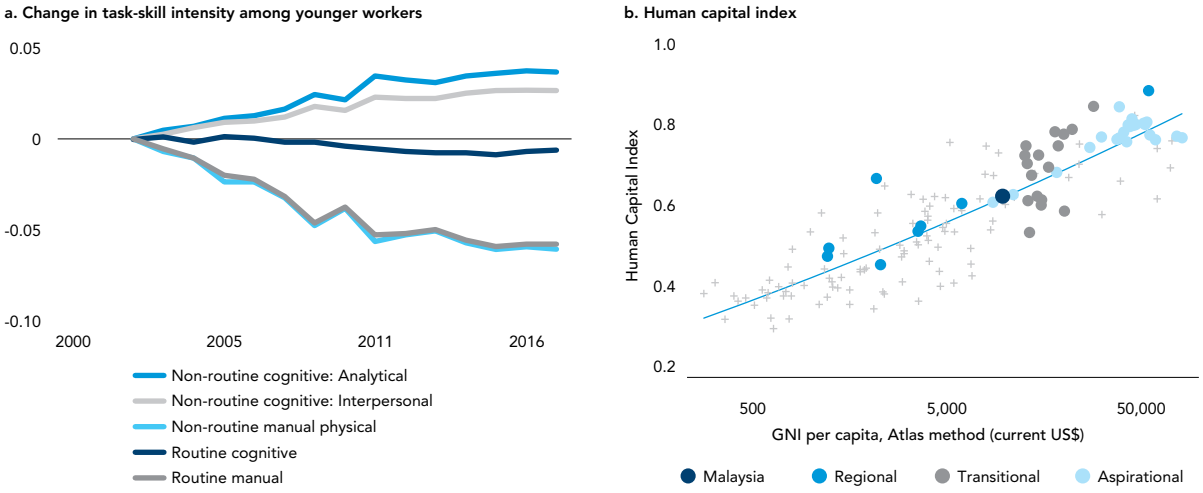
The barriers to fair competition are myriad. Telecommunications, energy, and other key sectors of the economy are excluded from the Malaysia Competition Commission's antitrust scrutiny and are instead regulated by sector-specific regimes.[30] More problematic are enterprises entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly.[31] Beginning in the 1970s, Malaysia relied on statutory bodies and government-linked companies (GLCs) to pursue the twin objectives of higher growth and wealth redistribution. Malaysia's GLCs have incredible reach, accounting for 42 percent of the market capitalization and dominating key sectors, including utilities, transportation, and warehousing. Some GLCs are linked to the state through investment companies controlled by the Ministry of Finance. The government's controlling stake allows them to be used for non-commercial objectives, including development and redressing the perceived economic inequalities between ethnic groups. Rents from GLCs have also been used to secure political support.[32] Preferential treatment for GLCs, especially those that provide valuable rents or that serve social ends, can distort competition and hinder efforts to promote innovation. And requiring large, publicly listed firms to engage in

[30] The Commission is in charge of applying the law in all sectors except for those regulated by the Communications and Multimedia Act 1998 and the Energy Commission Act 2001 (established at the First Schedule in Act 712), Petroleum Development Act 1974, Petroleum Regulations 1974 and Malaysian Aviation Commission Act 2015. Nonetheless, the Communications and Multimedia Act 1998 includes provisions on anticompetitive practices (Chapter 2) to be enforced by the regulator.
[31] See Competition Act 2010 [712], Article 3(4)(a) and Second Schedule [Section 13] (c).
[32] Gomez 2012.

FIGURE 10

Malaysia's human capital is in line with what per capita income predicts, but it underperforms most of the transitional and aspirational peers with which it seeks to compete

The change in task-skill intensity among younger workers and human capital index



Source: WDI 2019; Labor Force Survey 2002–2017

equity redistribution creates incentives for SMEs to stay small and invest less in innovation. GLCs also crowd out private investment and receive subsidies that make it harder for privately owned firms to compete.[33]

The labor market is also skewed, leaving Malaysia with a large pool of underutilized workers, particularly the Malaysian diaspora and women. A significant share of the country's most educated and skilled citizens leave the country for lack of opportunities at home. According to the UN, more than 1.83 million people born in Malaysia lived outside the country in 2015, mostly in Singapore.[34] One-third of emigrants were high skilled, accounting for 20 percent of Malaysians with a tertiary degree.[35] While emigrants generally left for better career opportunities and compensation, many also cited discontent with Malaysia's inclusiveness policies. As a result, most Malaysian emigrants—including 90 percent of those migrating to Singapore—are of Chinese descent, despite comprising only one-fifth of the population.[36] Women constitute another significant underutilized source of labor. While women outperform men in terms of education outcomes, the female labor force participation rate of 55 percent is considerably lower than the male participation rate of 80 percent and the female participation rate in most of Malaysia's peer countries. Increasing it requires reducing or eliminating barriers to economic opportunities for women through legal reforms; introducing more economic and societal support for parents; and addressing gender norms and attitudes that perpetuate disparities.[37]

Finally, the existing social contract is failing those most in need, leaving many lower-income students ill-prepared to enter the workforce. Malaysia has done well in terms of school enrollment. However, learning outcomes remain significantly lower than most high-income countries and standout regional peers despite a relatively high government spending on education.[38] A deeper analysis of the relative learning shortfalls in Malaysia suggests that a disadvantaged economic, social, or cultural background—including family wealth and home educational resources—remains the biggest contributor to learning deficits among low-performing students. These disparities are then magnified over time and eventually leave many lower-income students ill-prepared to enter the workforce.[39]

[33] Gomez 2012; Menon and Ng 2013.
[34] UNDESA, Migration Profiles Common Set of Indicators: Malaysia, 2015, https://esa.un.org/MigGMGProfiles/indicators/indicators.htm.
[35] World Bank, Malaysia Economic Monitor: Brain Drain, April 2011, pp. 12–13.
[36] World Bank, Malaysia Economic Monitor: Brain Drain, April 2011, p. 125.
[37] World Bank, Breaking Barriers: Toward Better Economic Opportunities for Women in Malaysia., 2019.
[38] World Development Indicators, 2019.
[39] OECD PISA database, 2018

Accountable institutions that serve the interests of the people

Institutions also play a crucial role in determining the sustainability and quality of Malaysia's growth as it transitions toward high-income status. The experiences of countries that successfully transitioned to high-income status in recent decades demonstrate the importance of strong, well-functioning state institutions, including the executive, legislature, judiciary, and civil service.

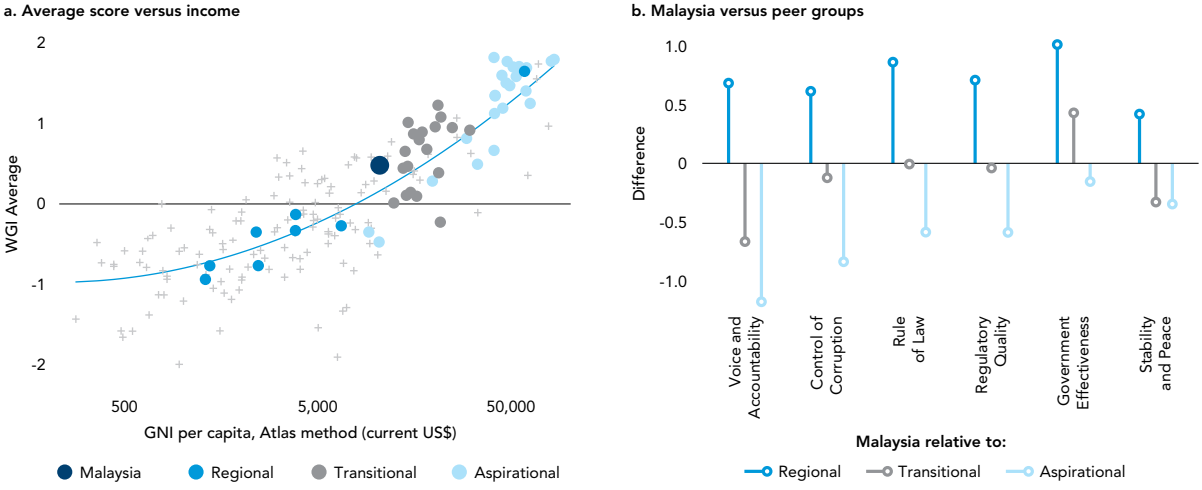
Malaysia's institutional quality lags not just its aspirational peers, but also the expectations of its expanding middle-class population. Malaysia does slightly better than might be projected on the basis of GNI per capita in terms of most of the Worldwide Governance Indicators, and it outperforms its regional peers in terms of all of the indicators. It is comparable to its transitional peers on several measures, overperforming on government effectiveness but lagging on voice and accountability and stability and peace. But it underperforms its aspirational peers on all dimensions, particularly voice and accountability and control of corruption (see Figure 11).

Corruption can stifle growth and result in suboptimal public service delivery at all stages of development.[40] The effects are especially pronounced in high-income environments, where the increased complexity of markets requires a rules-based order and neutral contract enforcement to function efficiently. Where institutions do not facilitate this type of environment, corruption can distort firm-level decision-making, leading to reduced investment and output.[41] Corruption also has potentially adverse consequences for the provision of public goods and services and can trigger costly externalities.[42]

The ability to hold government officials accountable is vital to ensure their neutrality in matters relevant to the achievement of sustainable economic growth and improved societal wellbeing. When an institution

FIGURE 11
Malaysia does poorly versus its aspirational peers on international rankings of voice and accountability and control of corruption

Worldwide Governance Indicators, 2018



Source: Worldwide Governance Indicators
Note: Cross section shows values in 2018. Countries that belong to both transitional and aspirational peer groups are shown as transitional peers. Droplines show the absolute difference of indicator values in 2018 between Malaysia and its comparators. Latest data is shown for all peer groups, including the transitional group. Stability and Peace refers to the Political Stability and Absence of Violence/Terrorism indicator.

[40] Alesina 1998; Mauro 1995; Knack and Keefer 1995.
[41] Olken and Pande (2012)
[42] World Bank 2017.

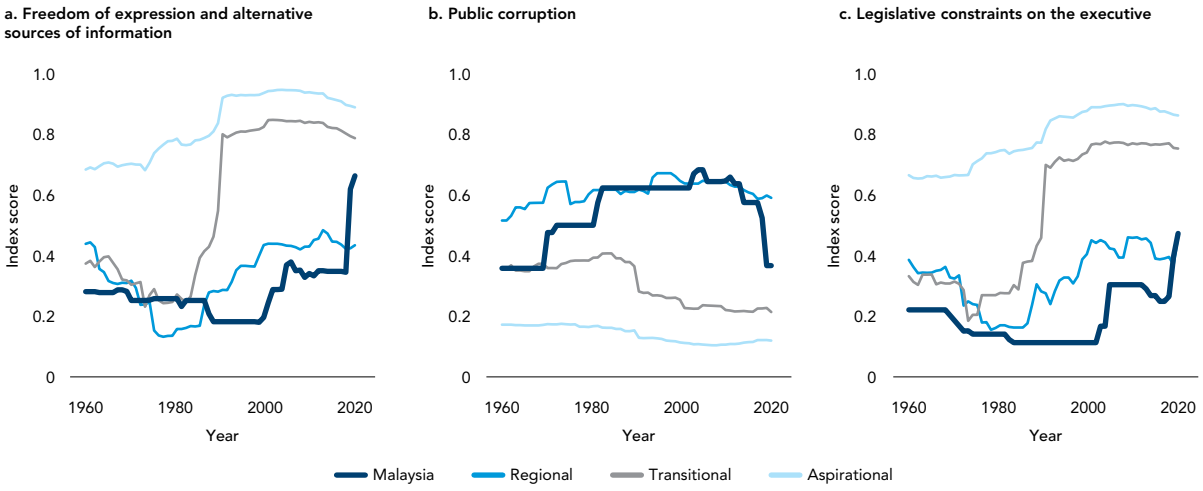
operates transparently and there are mechanisms to enable external actors to hold it accountable, it is less likely to act in ways that undermine these objectives. In Malaysia, decision-making power has been strongly concentrated in the executive. The ability to hold the executive accountable therefore has clear social and economic implications.

Despite Malaysia's poor performance relative to its aspirational peers, there has been considerable progress since the 2018 general elections. According to expert-opinion surveys, Malaysia is doing better in terms of freedom of expression and access to alternative sources of information, control of public corruption, legislative constraints on the executive, and other measures related to good governance (see Figure 12). Measures that reduced control over the media and civil society improved the ability of these external actors to monitor and critique government actions. Anticorruption institutions were bolstered by the establishment of the National Centre for Governance, Integrity, and Anti-Corruption; formulation of a National Anti-Corruption Plan; strengthening of the Malaysian Anti-Corruption Commission; and pushing through long-overdue reforms to public procurement practices. Finally, gains in accountability resulted largely from measures to disperse power from the Prime Minister's Department, including shifting key functions to parliament. Post-election moves also sought to restore the independence of the judiciary through the appointment of politically neutral figures to key positions, thereby strengthening its ability to constrain the executive. These reforms put Malaysia in its strongest position yet to drive quality growth through good governance.

Though encouraging, most of these improvements have not been fully institutionalized and are vulnerable to regression. The full and effective implementation of a far-reaching reform agenda requires a medium- to long-term horizon, making it too early to comprehensively assess the efficacy of recent reforms. In some cases, reforms have been partially implemented but bypassed when politically expedient, thereby undermining initial gains. For example, on several occasions, the executive bypassed new parliamentary institutions that were specifically designed to increase oversight of the executive. In other cases, implementation did not receive the necessary political backing to achieve the reform's stated objectives. The clear lesson is that while solutions must be technically-sound, that alone is not sufficient to achieve durable and effective reform: the implementation gap will continue to undermine initiatives in the absence of full backing from key economic, political, and social groups. The political uncertainty following the change in the government in February 2020 further heightens this concern.

FIGURE 12
Freedom of expression, corruption, and accountability have improved in recent years

Varieties of Democracy Index scores, relative to peer group averages (1960-2019)



Source: VDEM 2020


168
Store

Broader access to well-paying jobs and a stronger social safety net

Economic growth in Malaysia has become less inclusive than in the past, compounding persistent disparities and fueling a strong sense among the population that growth has not benefitted everyone equitably. Historically, the country has had very pro-poor growth. Its Gini coefficient decreased over the period 1981–2017, even as GNI per capita increased. Although not unique, this trend stands in contrast to China, Indonesia, and other prominent peers. Over the same period, Malaysia reduced income poverty to just 2.7 percent based on the World Bank's upper-middle-income poverty line of US$5.50 per person per day (see Figure 13, panel a). Even so, inequality is still higher in Malaysia than among most of its aspirational peers and higher than it was among almost half of its transitional peers at the time they transitioned (see Figure 13, panel b). And in recent years, economic growth has become less inclusive. Average incomes among lower-income households are still increasing, but their share of total income has been decreasing since 2014, and the absolute gap between those at the bottom and those at the top has continued to widen.[43]

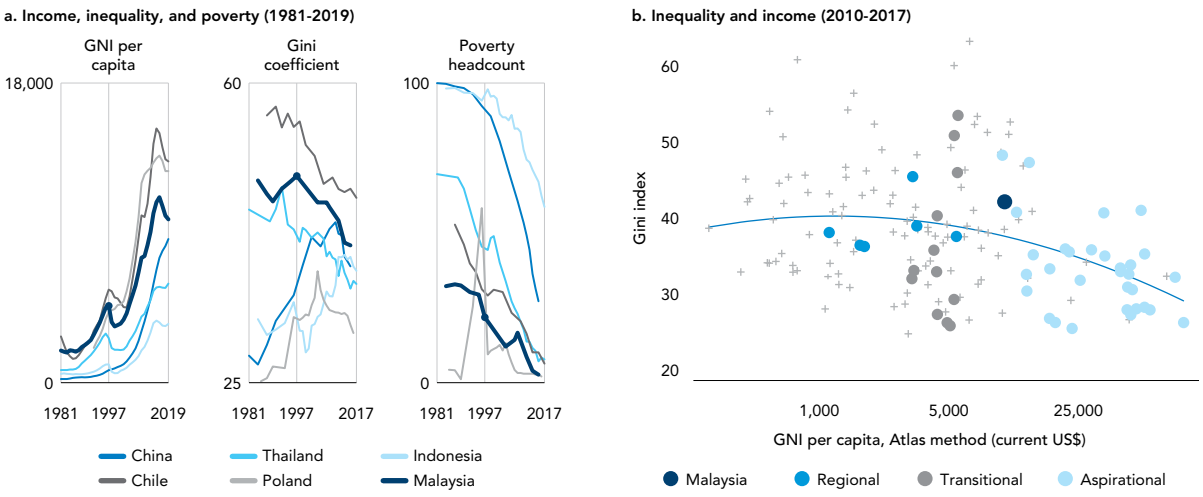
Malaysia's ascension to high-income status will be a hollow achievement if a substantial portion of the population is excluded from the benefits. For most of its post-independence history, Malaysia's economic growth has been broad-based, supported by investments in human capital and physical infrastructure and ethnicity-based affirmative action policies that may have contributed to reducing poverty and narrowing, but not eliminating, inequalities of opportunity and outcomes. However, many challenges remain, and the existing social contract is not compatible with a high-income and developed economy. Successful high-income countries not only raise average incomes, but also the minimum basic standard of living that every citizen can expect to achieve. They also provide higher levels of economic security and reduced vulnerability, so that households are not at risk of falling into poverty because of illness, job loss, death of a breadwinner, natural disaster, or other shocks.

As it stands, Malaysia's fiscal policy is much less redistributive than those in high-income OECD countries and other comparators. OECD countries tend to have much larger and more progressive tax and transfer systems that reduce income inequality by redistributing income from richer households to poorer households. In most OECD countries, tax and transfer policies reduce the Gini coefficient of income inequality by 13 to 25 percentage points, which stands in stark

FIGURE 13

Inequality and poverty have fallen, but Malaysia remains more unequal compared to most peers

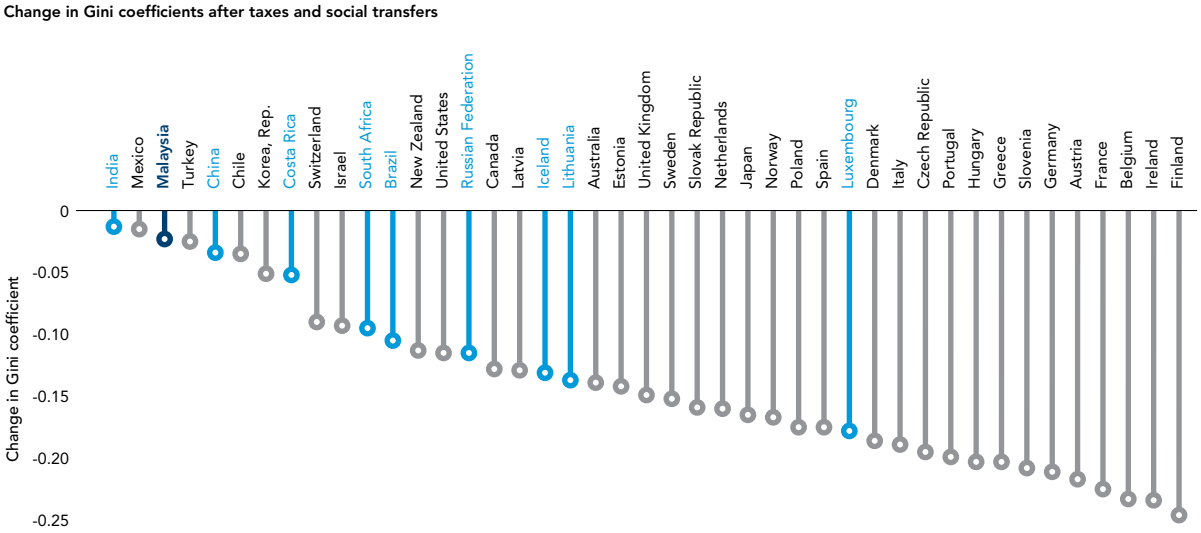
GNI per capita, Gini coefficient, and poverty headcount, over time and versus peers



Source: World Development Indicators 2019; PovcalNet 2019
Note: Poverty headcount defined as the population (%) living on less than $5.50 (2011 PPP) per person per day. Cross section shows average values, 2010-2017, for contemporary peers and average values for 8-year periods ending in the index years for historical peers.

[43] Khazanah Research Institute (2018), World Bank (2019a), Ravallion (2019) and DOSM (2020).

FIGURE 14
Malaysia's limited fiscal space prevents fiscal policy from being an effective tool for promoting shared prosperity



Source: OECD 2019; DOSM 2019.

contrast to the 2 percentage point reduction observed in Malaysia (see Figure 14).

Malaysia's social assistance programs are wide and shallow, with better coverage than many of its peers, but with benefits that do less to boost beneficiaries' incomes. Social assistance consists of non-contributory cash or in-kind transfers typically targeted to lower-income households. The coverage of Malaysia's social assistance is exceptional, reaching 98 percent of the bottom 20 percent of the income spectrum, the highest among the subset of transitional and regional peers for which comparable data are available. But social assistance in Malaysia also extends to households well above the bottom 20, which spreads the limited budget thinly. As a result, only 29.5 percent of social assistance benefits go to the bottom 20—lower than in peer countries. Also, the benefit received by those in the bottom 20 represents less than 7.8 percent of their income, much lower than the 15–33 percent of income that is paid in most comparator countries.[44]

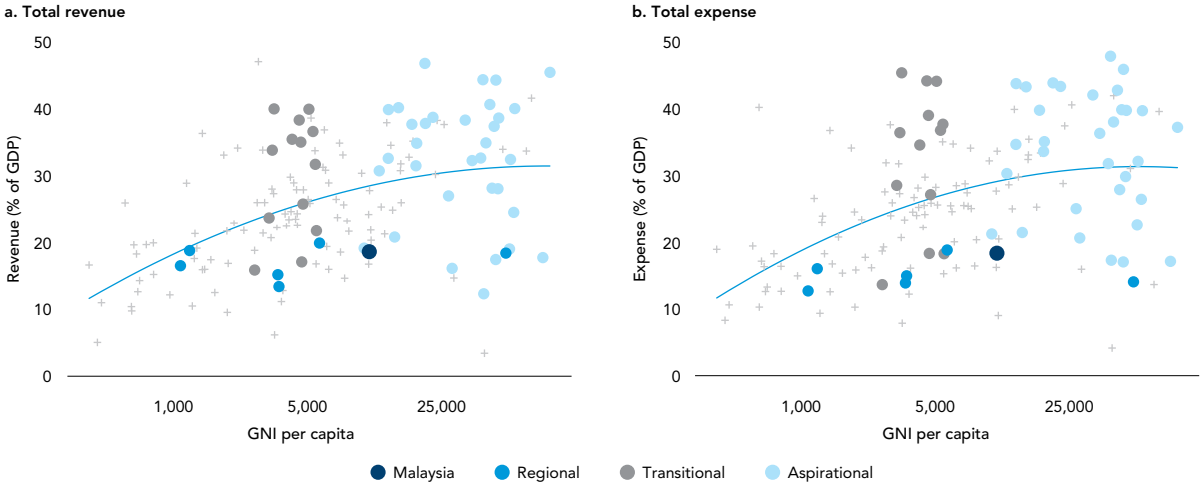
Malaysia needs to raise more revenue and spend it more effectively to bring its social safety net up to the standards of its aspirational peers. Revenue collection and government expenditure are very low in Malaysia compared to its transitional and aspirational peers (see Figure 15). Only a few of Malaysia's transitional peers for which data are available collected less (the Republic of Korea and Argentina) or spent less (the Republic of Korea, Chile, and Argentina) in the 5-year period before they transitioned. Malaysia's fiscal situation is similar to its fellow ASEAN countries, but worse relative to aspirational and transitional comparators.

Improving the social safety net can help strengthen economic security and promote economic mobility. Options include fostering effective, fiscally sustainable social insurance systems; investing in prenatal and early childhood development; and expanding and strengthening cash transfer programs. But Malaysia also needs to ensure that it spends wisely, by ensuring its investments promote growth and its social assistance programs benefit those most in need. Some social spending is untargeted by design, particularly universal health care and universal education through secondary school. However, a more limited scope is justified for most other forms of public social expenditure, such as cash transfers. In Malaysia, these are often either untargeted or targeted using criteria that are not well-aligned with need, making them less cost-effective than they could be. As part of an enhanced social contract, Malaysia should better target assistance to those most in need.

[44] World Bank, staff calculations based on ASPIRE database, various years.

FIGURE 15
Revenue collection and government expenditure is low in Malaysia

Total Revenue (excluding grants) and total expenditures as a percent of GDP, 2013–2017



Source: World Development Indicators 2019
Note: GNI per capita is PPP, Atlas method, in current dollars. Total revenue excludes grants. Cross section shows average values, 2013–2017, for contemporary peers and average values for 5-year periods ending in the index years for historical peers. Values not shown in cross section if outside 0 to 50 on y-scale.

What will it take for Malaysia to become a high-income and developed economy?

Malaysia's economy has grown rapidly since independence. While the COVID-19 pandemic has dented the country's growth momentum, Malaysia is still on track to become a high-income country within the next five years. However, it is not clear what the "new normal" will look like following the impact of the COVID-19 pandemic nor how long it will persist. The Asian Tigers that achieved high-income status in past decades did so in a more benign international environment. Malaysia faces not only a global pandemic and a worldwide recession, but also a looming international debt crisis; a heightened risk of a resurgence in trade disputes; the potential unraveling of global value chains; and the impact of disruptive technologies that will change the nature of comparative advantage. Domestically, the ongoing political uncertainty and a significant increase in government debt to finance the large economic policy response may potentially act as a drag on the economy for years to come.

Malaysia's decelerating growth prior to COVID-19 crisis may indicate that its structural transformation is more fragile than those of its transitional peers. While decelerating growth is normal and to be expected as a country achieves higher levels of development, Malaysia's growth appears to have slowed down more than it should have relative to its potential, indicating that Malaysia may not have adequately transformed the engine of its economy from factor accumulation to innovation and productivity growth. In this context, the COVID-19 crisis might provide an opportunity to undertake much-needed reforms.

Sustained growth is also necessary to advance Malaysia's broader development goals, including the objective of shared prosperity. Without it, progress in terms of health outcomes or poverty reduction, amongst other indicators, will deteriorate. And there needs to be enough growth to go around. If a large

proportion of the population believes that growth only benefits a minority, the political support for the reforms necessary to achieve structural transformation will be insufficient to enable the government to implement them effectively.

As incomes continue to increase, Malaysia's middle class will demand greater government accountability, higher-quality public services, and new means to enhance social mobility and economic security. This will set an increasingly higher bar for what is expected of Malaysia's state institutions, as evident in the 2018 general elections, in which widespread public demand for a more inclusive growth and increased government accountability contributed to the nation's first change in government since its independence. Events in early 2020 suggest that Malaysians should expect changes in government to become more frequent in the future. In the context of an increasingly complex political economy for reform, failure to address these growing social expectations could jeopardize the sustainability of Malaysia's future, regardless of the ruling party.

Finally, true economic development requires attention to the quality of growth. To date, Malaysia's economy has been more business-friendly than people-friendly. Its quality of growth and the character of its institutions are markedly different from those of the high-income countries it seeks to join.

In short, for Malaysia to successfully realize its ambition of becoming a high-income and developed economy, an enhanced social contract will need to be established. This enhanced contract must ensure equality of opportunities for all Malaysians, providing upward mobility and incentives to remain and invest in Malaysia. More resources need to be invested to build high-quality human capital and to facilitate greater economic opportunities for women. Second-generation reforms to increase productivity and innovation-led private sector growth are also required, along with policies to promote the development of skills and talents to ensure that Malaysia is better placed to embrace the opportunities and challenges of a new economy in the post-COVID-19 context. Malaysia's public sector needs to operate at a higher level of openness and transparency in order to meet the rising expectations of society. It also needs to generate increased public revenues, to do so more effectively and more progressively, and to utilize these resources more effectively, especially to meet the needs of the most deprived.

The social contract must ensure equality of opportunities for all Malaysians, providing upward mobility and incentives to remain and invest in Malaysia

The remainder of this report provides chapter-length analyses of each of the themes introduced above: revitalizing long-term growth, boosting competitiveness, creating jobs, modernizing institutions, promoting inclusion, and financing shared prosperity. The key message of this report is clear: while it is certainly possible for Malaysia to fulfil its aspirations of becoming a high-income and developed economy, it will require an enhanced social contract and tough reforms.

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CHAPTER 2

Revitalizing long-term growth

Malaysia's trend GDP growth rate is expected to fall substantially over the next 30 years as the trajectory of the country's economy converges with that of high-income countries. Long-term growth modeling can help policymakers assess options to temper falling growth rates, including improving the quality of schooling; increasing female labor force participation; and implementing policy changes to boost productivity growth.

Malaysia will soon have a high-income economy

This chapter examines Malaysia's patterns of economic growth to assess its potential to attain the status and characteristics of a high-income country. Using the World Bank's Long Term Growth Model (LTGM),[45] the chapter considers a range of different scenarios for Malaysia. This first includes a business-as-usual baseline, where the growth drivers (public and private investment-to-GDP ratios, total factor productivity (TFP), human capital, and labor force participation rates) follow their historical or recent trends. Then, the chapter simulates scenarios of weak, moderate, and strong reforms for each growth driver, with targets set with reference to the distribution of those values among high-income countries.

The chapter is divided into four sections. The first presents the historical developments for each growth driver. The second section shows the baseline GDP growth trajectory over the next three decades and analyzes the contribution of each growth driver to both current growth rates and changes in the growth rate over 2020-50. The third presents the impact on GDP growth of the different levels of reforms for each determinant of growth ("weak" reform benchmarking at the 25th percentile among high-income countries; "moderate" reform, at the 50th percentile; and "strong" reform, at the 75th percentile). And the fourth section discusses the implications for GDP growth when the effects of all growth drivers are combined for each scenario of weak, moderate, and strong reform. The conclusion provides a summary of main findings and policy implications. The Annex discusses the assumptions regarding growth drivers and parameters used in the LTGM for Malaysia.

[45] The Long Term Growth Model project is a series of Excel-based tools to analyze long-term growth scenarios, building on the celebrated Solow-Swan Growth Model. The tools can also be used to assess the implications of growth (and changes in inequality) for poverty rates. The focus of the tools is on simplicity, transparency and ease-of-use: there are no macros, and the very low data requirements mean the tools can be applied in almost any country. The tools are useful for planning/vision documents and country reports but are not designed for short-term forecasting. The building blocks of growth are savings, investment and productivity, but the model also analyzes human capital, demographics, the external sector (external debt, FDI, current account balance) and labor force participation by gender.

The historical growth drivers are in decline

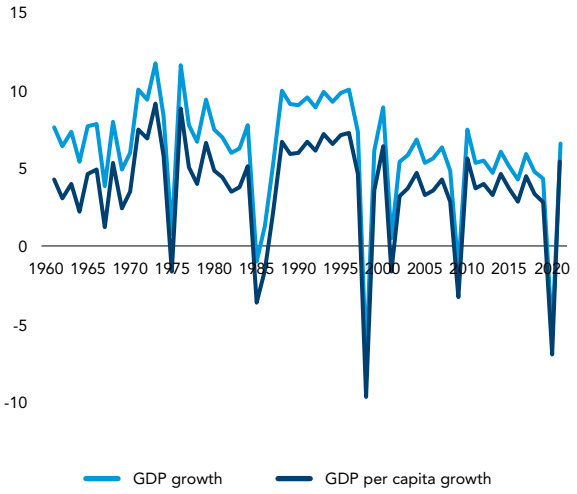
Over the past few decades, Malaysia has recorded strong and sustained growth, apart from during periods such as the Asian financial crisis in 1997, the global financial crisis in 2009 and, more recently, the COVID-19 pandemic in 2020 (see Figure 16). As the economic effects of the COVID-19 pandemic will hopefully be short-lived, this chapter looks through current growth volatility to focus on long-run trends. Malaysia's long-run growth performance has supported remarkable gains in social and economic development, with a nine-fold increase in per capita incomes over the last seven decades. With Malaysia expecting to transition to high-income status in the near future (see Figure 17), the country is focusing on what needs to be done not only to achieve this status, but also to ensure that this growth is sustainable and equitable.

Since 2000, GDP growth in Malaysia has stood at an average annual rate of 5 percent, with growth decelerating since the 1990s. It should be pointed out that declines in growth are common as countries achieve higher levels of development, as is discussed in later sections of this chapter. Malaysia has also experienced a relatively steady rate of GDP per capita growth over the past 20 years, with the average annual rate standing at 3.3 percent. As with GDP growth, the per capita rate has decelerated since the 1990s. Malaysia's economic performance was also marked by slowdowns during the Asian financial crisis in 1997, and the 2009 global financial crisis and earlier recessions in around 1985 and 1975 (see Box 5 for a broader discussion on the risks to economic development from financial crises). These relatively high growth rates have allowed the real GDP per capita level to double over the past 15 years. In terms of GNI per capita (which is used to classify income status with US$12,535 being the threshold to graduate to a high-income economy as of 2019), Malaysia was at US$11,200 in 2019, and was expected to pass the threshold in the mid-2020s. However, this projection might be delayed due to the effect of the COVID-19 on the Malaysian economy, causing a reduction in the forecasted GDP per capita growth, at least in the early 2020s.

Aggregate investment has been stable over the last two decades. For the last 20 years, the aggregate investment-to-GDP ratio has been relatively stable at an average of 24 percent (see Figure 18), with public investment trending down and private investment trending up over this period (see Figure 19). During the late 1980s and 1990s, investment rates in Malaysia increased steadily, reaching values in the range of 30 percent to almost 45 percent of GDP, until the Asian financial crisis of 1997. High private investment-to-GDP rates were buoyed by the First Industrial Master Plan (1986-1995) and by the liberalization and deregulation of the economy. In the 1990s, excessive investments

FIGURE 16
Malaysia has recorded strong rates of GDP growth...

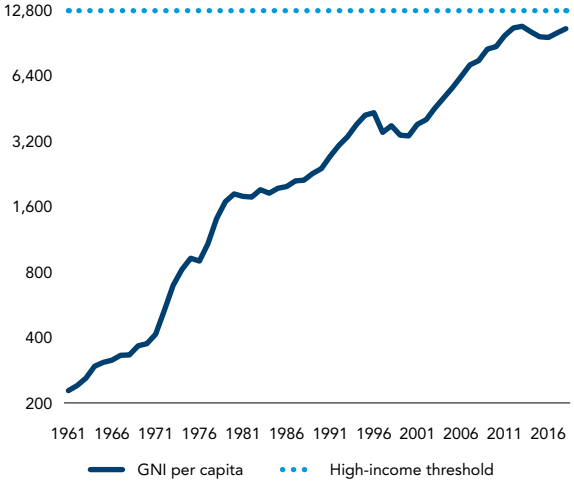
Historical GDP growth rate



Source: World Development Indicators

FIGURE 17
...resulting in progressively higher level of per capita income

Historical real GNI per capita level, Atlas method (constant 2010 US$)



Source: World Development Indicators

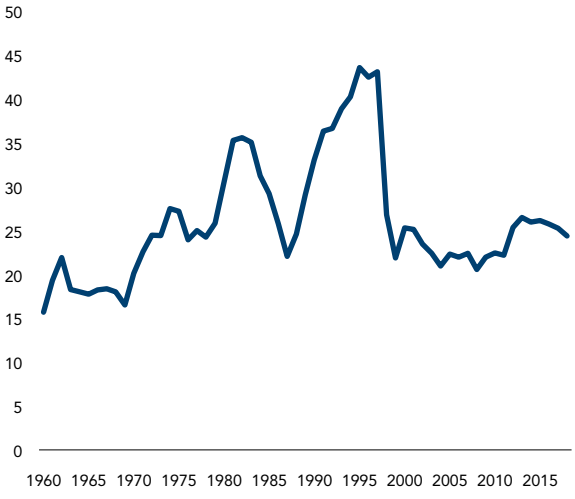
also occurred in certain sectors, especially the property sector. After the crisis, investment-to-GDP declined, with the fall due to lower levels of private investment (not shown). In the last 10 years, the investment-to-GDP ratio has stood at an average level of 24.6 percent. A closer look at the split between public and private investment shows that public investment has been declining since 2012, falling from around 11 to 7 percent of GDP in 2018. This is reflective of the government's fiscal consolidation plan. At the same time, some rebalancing has been observed with private investment rising from 15 to 17 percent of GDP.

Productivity, as measured by TFP, has been very volatile, while human capital growth has been on a downward trend (see Figure 21). The median of TFP growth over the past 30 years (1985-2014) is 0.9 percent (see Figure 20). Since TFP is calculated as a residual (growth less factor accumulation), it oscillates with the economic cycle and is very volatile. Meanwhile, human capital is traditionally measured using the average number of years of schooling. But in our simulations, we use a broader measure based on the World Bank's Human Capital Index, that includes schooling quality and population health. While in the 1980s and early 1990s the traditional measure of human capital grew at around 2 percent annually, the growth rate now stands at close to 0.6 percent. This can be understood by the fact that as citizens of a country increase their average years of education over time, the growth rate of human capital naturally slows down (because it is harder to increase the average years of education when people are already well-educated). This trend is expected to continue for Malaysia as it transitions to high-income status.

Malaysia's population growth is on a declining trend, affecting the share of working age population and subsequently the size of the labor force. Over the past decade, the average annual population growth rate has stood at around 1.3 percent, declining from around 2.5 to 3 percent in preceding periods (see Figure 22). This trend is typical of developing economies that transition to high-income status and is expected to continue in Malaysia. A decline in the population growth rate affects the share of population of working age (15-64), which affects the size of the labor force (see Figure 23). The decline in the share of the population between the ages 0 to 14 has led to a "demographic dividend", whereby the share of population of working age grew by around 0.6 percent over the period 1965-2010 which contributed approximatively 0.3 percentage points on average to GDP growth over this period.[46] Intuitively, there are more available workers in the economy, which contributes to the economic growth of Malaysia during this period. Since 2010, the

FIGURE 18
Investment rates have been stable since 2000...

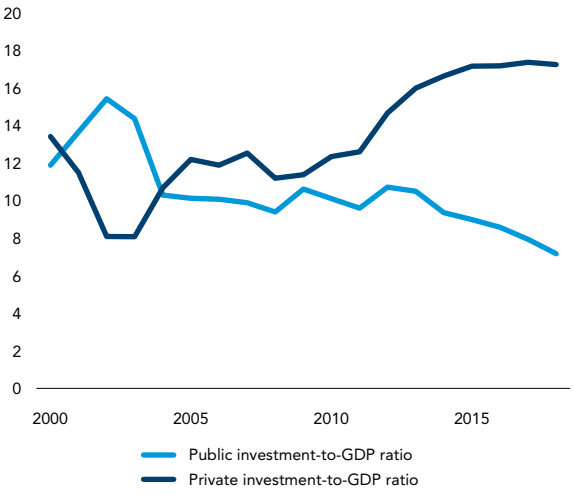
Historical investment-to-GDP ratio



Source: World Development Indicators

FIGURE 19
...but private investment has gradually displaced public investment

Historical public and private investment-to-GDP ratio



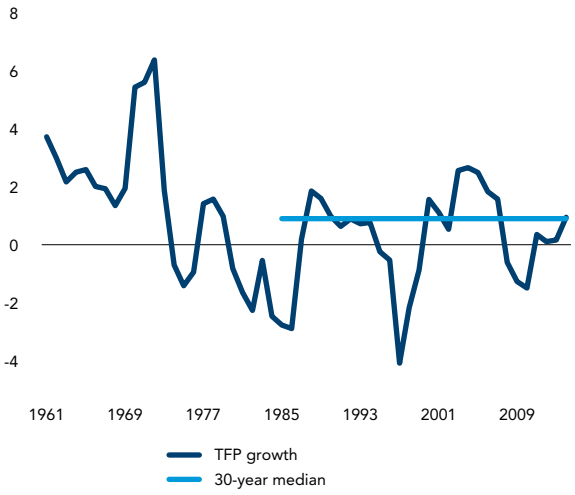
Source: World Development Indicators

[46] The approximate 0.3 percentage points growth contribution is the 0.6 percentage points of growth in the working-age-to-total-population ratio multiplied by the labor share of income of 50 percent. The true contribution will be higher due to induced capital accumulation.

growth rate of the share of population of working age has been declining and is approaching zero.[47] This is the result of an aging population, with households bearing fewer children and living longer, and is a characteristic of an economy transitioning to high-income status (see Box 4). Examples of aging populations can be found in developed economies like Japan, the Republic of Korea, and the countries of Western Europe. Thus, the trend observed in Figure 23 is expected to continue.

FIGURE 20
Total factor productivity growth has seen significant volatility...

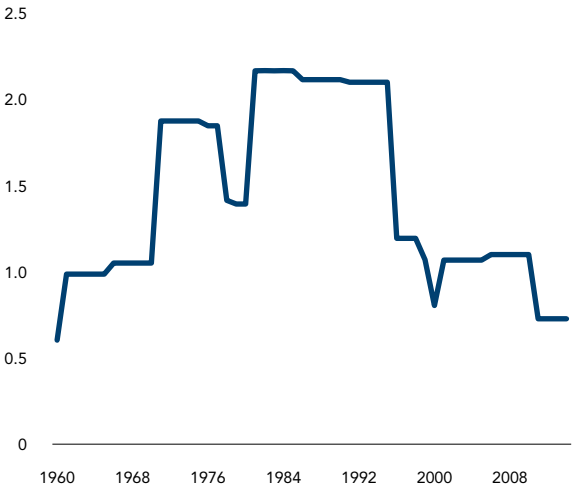
Historical total factor productivity growth, Percentage



Source: Penn World Tables 9.0

FIGURE 21
...while growth in human capital has trended downwards

Historical human capital growth, Percentage



Source: Penn World Tables 9.0

[47] Note that the LTGM used the international standard to define the working age population as those aged 15-64. However, in Malaysia the minimum retirement age is in fact 60.

BOX 4

Aging in East Asia and Pacific

As a region, East Asia and Pacific is aging rapidly. The region is home to over a third of the global population ages 65 and older (mostly in China) and to more older persons than any other region. More significantly, the region is aging more rapidly than any region in history, a trend driven both by sharp declines in fertility and by steady increases in life expectancy. The population ages 65 and over in many countries in the region will increase from 7 percent to 14 percent of the total in just two or three decades, a change that took 45 years in the United Kingdom, 69 years in the United States, and 115 years in France. In many countries in East Asia and Pacific, aging is also occurring at relatively low-income levels. Nevertheless, the pattern and pace of aging across East Asia and Pacific is diverse, ranging from aged richer countries such as Japan and the Republic of Korea; to rapidly aging middle-income countries such as China, Thailand, and Vietnam in addition to Malaysia; to younger and poorer countries such as the Lao People's Democratic Republic, which will only start to age rapidly two or three decades from now.

Aging raises policy challenges and economic and social risks. There are concerns about the impact that shrinking and aging labor forces will have on economic growth. More immediately, there are fiscal challenges to providing sustainable health, pension, and long-term care systems in the face of rapid aging. Aging is occurring in a wider context of shifting relationships between the state and its citizens, which will influence policy responses.

It will be possible for East Asia and Pacific to manage the risks from rapid aging while sustaining economic dynamism. Several complementary policy reforms are required to manage these risks. In the labor market, a range of measures are needed to encourage increased female labor force participation, ensure that older workers in the formal sector do not retire too early, accommodate older workers in the workplace, and open up aging labor markets to greater inflows of young immigrants. Pension systems also need reform. Formal sector pension schemes will need to be more fiscally sustainable to create fiscal space for expanding pension coverage to the informal sector – an effort that will also require greater use of noncontributory approaches such as social pensions. In the health sector, aging underscores the urgency to shift from a hospital-centric model to one in which primary care plays a bigger role and in which the treatment of older patients with chronic conditions is managed affordably at the right levels of the system. Aging is also creating a rapidly growing demand and market for long-term care. Innovation is urgently needed in this area as traditional family networks become increasingly stretched.

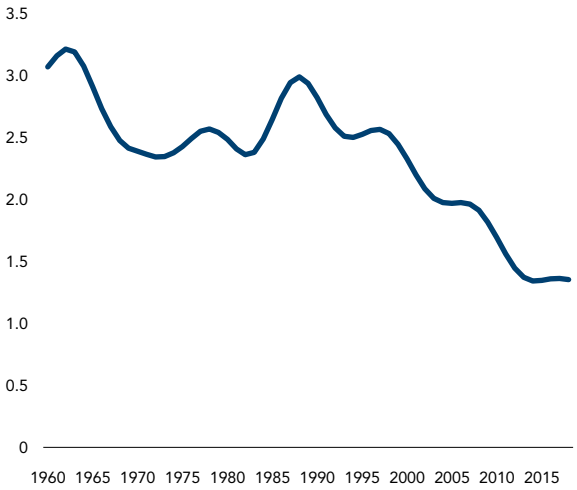
The political economy of reform in aging societies can be difficult. Societal expectations change rapidly, especially as incomes grow, and people expect more support and better services from the state in old age. Managing aging is not only about "old people" or about "the old" versus "the young." Rather, it requires a life cycle perspective on policy design that recognizes, for example, that the health of children affects their health as adults, that saving for old age needs to start early, and that the burden of taxation to provide services and benefits needs to be spread fairly across generations.

Impending demographic changes are important, but demography is not destiny. Through the right mix of policies, governments can help societies adapt to rapid aging and improve the well-being of citizens. Given the diverse stages of demographic transitional across East Asia and Pacific, lessons can be drawn from the experience of richer economies in the region as well as from those of high-income countries in other regions.

Source: World Bank. 2016. Live Long and Prosper – Aging in East Asia and Pacific

FIGURE 22
Population growth has declined...

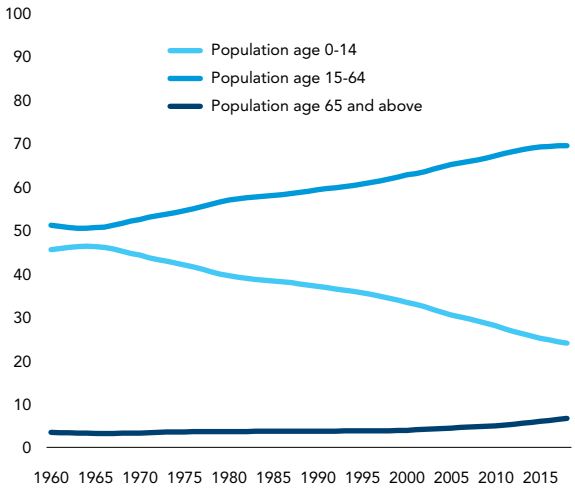
Historical total population growth, Percentage



Source: World Development Indicators

FIGURE 23
...affecting the size of the labor force

Historical population shares of age cohorts, Percentage



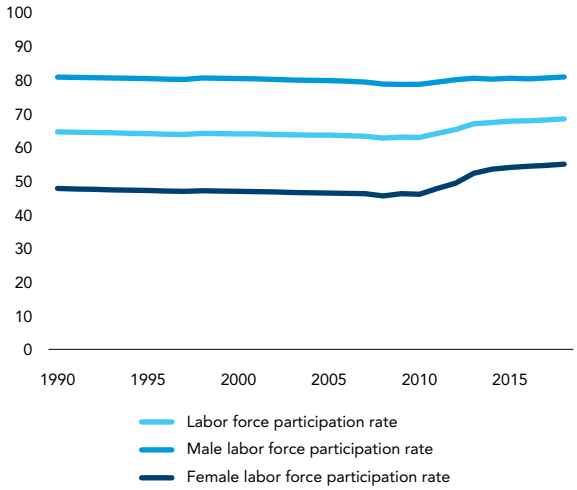
Source: World Development Indicators

In the past decade, labor force participation has increased, largely due to an increase in female labor force participation (FLFP). Historically, until 2010, the labor force participation rate remained stable at around 64 percent, after which it began to increase, reaching 68 percent in 2018 (see Figure 24). This is mostly due to an increase in the FLFP from about 46 percent in the 1990-2010 period to 55 percent by 2018.

By contrast, the male labor force participation rate has remained relatively constant, at around 80 percent since 1990. Despite the increase in recent years, Malaysia's FLFP is still lower than that of regional peers such as Thailand, China and Singapore and high-income peers (see Figure 25). Higher rates of FLFP increase the labor supply in the economy, and hence the level of GDP growth.

FIGURE 24
Labor force participation has begun to increase...

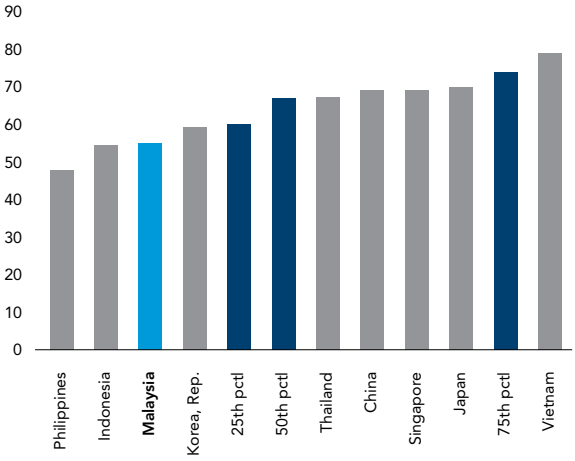
Historical labor force participation, Percentage



Source: World Development Indicators

FIGURE 25
...but still falls below regional comparators

Comparative female labor force participation rates in East Asia, Percentage



Source: World Development Indicators
Note: "Pctl" denotes the percentile based on high-income countries distribution

BOX 5

The risks of financial crises and contagion

Financial crises can come in different forms and sizes. Financial crises may take the form of sudden and significant changes in credit volumes and asset prices; severe solvency and balance sheet issues; and sudden drop in the flows of capital (financial intermediation and international capital flows). The causes and sources of financial crises are also wide and varied. Their source can be either domestic (endogenous) or foreign (exogenous), originating from either the public or private sector. When a crisis originates domestically, it can be due to factors from within the financial system or through contagion from nonfinancial institutions. The literature classifies financial crises into two categories (Reinhart and Rogoff 2009): purely quantitative (currency crises and episodes of sudden stops in capital flows for example) and qualitative (debt and banking crises).

While international financial integration is widely held to increase economic efficiency, it also increases countries' vulnerability to contagion. International financial integration, which Malaysia greatly benefited from, can provide the necessary liquidity to ease credit constraints and to increase investors' access to finance and technological transfers. Through cross-border lending, banks can better diversify their risk by hedging against country-specific risks (better global allocation), thus offering savers a higher return on their savings. Cross-border lending is greatly influenced by both pull factors (macroeconomic fundamentals, institutional quality and regulatory framework of the receiving country) and push factors (conditions outside the country). The dangers and risks associated with cross-border lending include sudden cuts to loans by foreign banks in response to liquidity constraints at home or in other host countries.

The 2008-2009 global financial crisis underscored the risks associated with financial contagion to the global economy. In 2008, financial issues that were confined to specific sectors and markets quickly expanded to other financial markets, resulting in a major global financial crisis. A decade earlier, the Asian financial crisis, which started in Thailand, rapidly spread to many other countries in the region, causing their economies to contract. The risk of a financial crisis is greater for countries hit by a financial contagion shock (OECD 2012). However, countries with well-capitalized banking systems, such as Malaysia, are less vulnerable to contagion shocks, since they can fund a larger portion of credit expansion with bank deposits.

With Malaysia's high level of integration into the global financial sector, it is exposed to cross-border financial contagion. In the last decade, the Malaysian government has taken steps to liberalize the banking sector and to allow greater foreign investment. As part of this initiative, the government issued licenses to a number of foreign banks to operate in the country. Currently, there are 26 commercial banks operating in Malaysia, of which 18 are foreign owned.[48] At the end of 2017, foreign banks in Malaysia controlled about 20 percent of all financial assets, with foreign participation in Malaysia's financial sector one of the highest in the region (Sababathy and Ling 2019). The increased participation of foreign banks and the regional expansion of domestic banks have facilitated cross-border lending, leading to an increase in short-term borrowing, all in the context of declining domestic saving rates.

Notwithstanding Malaysia's increased exposure to cross-border interconnectivity, the evidence shows that the risk of contagion has declined. A recent publication by the SEACEN Centre shows that the risk of financial crises and contagion risk associated with interconnectivity and solvency has fallen since 2013 (Sababathy and Ling 2019). Furthermore, stress tests conducted by Bank Negara find that under two recession scenarios (V-shaped versus L-shaped), reversal of claims by foreigners, which can disrupt investors' access to finance, is limited and estimated to lower interbank borrowing and deposits by 15

[48] http://www.bnm.gov.my/web/guest/commercial-banks
[49] BNM (2018, 32).

to 30 percent.[49] Finally, the risk of contagion from abroad through the foreign banks' balance sheet can be limited, since many of these foreign banks have a regional and global presence and can thus withstand certain localized liquidity shocks.

Nonetheless, increased external exposure still create a strong need for the careful monitoring and supervision of the banking sector to safeguard against financial contagion. Financial crises cannot be avoided entirely, so a country must take steps to mitigate the risk and the impact of any financial crisis and contagion shock. It is thus crucial to monitor pockets of vulnerabilities that might arise from sudden increases in asset prices and credit volumes. It is also important to establish early warning mechanisms to closely monitor those banks that are deemed 'too big to fail.' In particular, regional-level policy coordination and information-sharing, together with the improved monitoring of financial linkages, would help to lower the risk of cross-border contagion. Macroprudential policies have been shown to be effective at slowing credit growth, so policymakers should consider their continued use to address pockets of risks outside the reach of traditional monetary policy. However, challenges remain for policy makers in terms of response to a financial crisis. Once a country is experiencing a financial crisis challenges relate to the timing and magnitude of interventions particularly given that, as stated earlier, financial crises come in many different shapes and sizes.

A business-as-usual scenario shows a slowing rate of growth

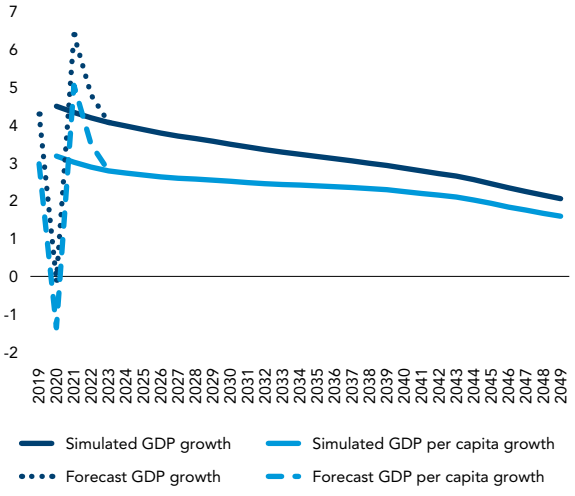
Under a baseline or business-as-usual growth path, Malaysia's trend potential GDP growth would slow down from the 4.5 to 2.0 percent by 2050 (see Figure 26). The business-as-usual baseline in the LTGM measures the potential growth rate of the economy. Naturally, actual growth in 2020 is expected to be much lower than potential growth due to the COVID-19 pandemic (dotted lines in Figure 26). But hopefully the pandemic will not have much effect on the long-run growth potential that is the focus of this paper. A declining GDP growth rate, as projected in the baseline for Malaysia over 2020-50, is typical of economies transitioning to high-income status. Figure 27 shows smoothed growth rates since 1960 for four economies that made the transition to high-income status (Hong Kong SAR, China, the Republic of Korea, Singapore and Taiwan, China). All four economies experienced substantial slowdowns in growth rates. Therefore, it should not be surprising if Malaysia also has slowing growth over the next 30 years. Indeed, slower GDP growth rates are a characteristic of high-income economies.

Actual growth in 2020 is expected to be much lower than potential growth due to the COVID-19 pandemic

A natural explanation for the declining baseline growth rate might be the declining population growth. Table 1 depicts the impact of each driver on the fall in GDP growth. While falling population growth is part of the explanation, GDP per capita growth falls from 3.2 to 1.5 percent over the same period (see Figure 26). The same set of peer countries in Figure 27 also experienced declining GDP per capita growth. Population growth is expected to fall by 0.8 percentage points over 2020-50, with a normalized contribution[50]

FIGURE 26
Growth is projected to decline in the business-as-usual scenario...

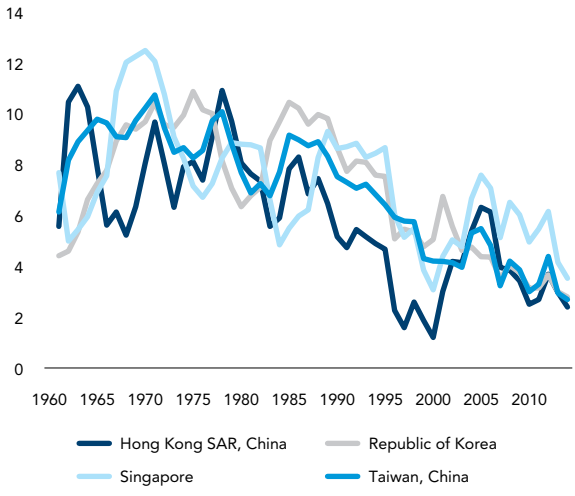
Baseline GDP and GDP per capita growth, Percentage



Source: World Bank staff estimates

FIGURE 27
...although this is expected as Malaysia converges with high-income economies

GDP growth rates in selected high-income East Asian economies, Percentage



Source: Penn World Tables 9.0

[50] Normalized contributions mean that the individual contributions are scaled so that they add up to the total fall in growth over 2020-50. The normalization is necessary because over the long-term, the model is substantially nonlinear. Because the model is nonlinear, the sum of the effects of changing growth drivers one-by-one is not equal to the total change in growth when the growth drivers change together. This is especially true over the long-term when capital-to-output ratios change.

TABLE 1
Understanding the drivers of Malaysia's falling rate of potential economic growth

	Total fall in GDP growth (2020-2050)	
Baseline	**-2.5 percentage points**	**100%**
	Normalized contribution (percentage points)	**Normalized share of fall in growth (%)**
Population Growth	-0.63	20
WATP Ratio Growth	-0.33	11
TFP Growth (Productivity)	-0.40	13
Human Capital Growth	-0.39	12
Public Investment (falling effectiveness)	-0.04	1
Private K/Y ratio (falling effectiveness)	-1.37	43

Source: World Bank staff calculations.
Note: "WATP" is working-age-to-total-population. "K/Y" is capital-to-output.

of around 0.6 percentage points to the total decline in GDP growth over the same period. Declining population growth reduces the growth of the labor force, which directly reduces GDP growth. However, unlike other growth drivers, which have the same effect on GDP per capita and GDP growth, a decline in population growth actually raises per capita GDP growth. GDP per capita growth falls by 1.66 percent in the baseline, but only 1.88 percent with constant population growth.[51]

The falling working-age-to-total-population (WATP) ratio reduces GDP and per capita GDP growth in the mid-2020s and also the late 2040s. The growth rate of the WATP falls by 0.6 percentage points by the end of the simulation period, resulting in a contribution of 0.33 percentage points to the overall fall in GDP growth over 2020-50.

Falling TFP and human capital growth over 2020-50 both account for around 0.4 percentage points of the decline in GDP growth over 2020-50. The baseline TFP growth rate is expected to decrease from 0.9 percent to 0.6 percent over the next three decades. Human capital growth falls from 0.6 to 0.1 percent in the baseline, a 0.5 percentage points decline. While this decline in human capital growth is larger than that of TFP, GDP growth rates are also less sensitive to changes in human capital, resulting in similar contributions.

Overall, the declining effectiveness of private investment makes the largest contribution to falling GDP growth in the baseline (1.4 percentage points, or 40 percent of the total). In contrast, changing public investment effectiveness makes little contribution. Both public and private investment rates are constant in the baseline or business-as-usual scenario, but they can still contribute to declining growth through changing marginal products. The marginal product of private capital is currently very high, reflecting low rates of private investment after 2000 and solid historical growth rates. As private investment is now higher, and growth is slower, the marginal productivity of private investment is expected to fall through 2050 back to more normal levels.

[51] Note however, that the normalized contributions of the other growth drivers will be different for GDP and GDP per capita growth.

Reforms to the drivers of growth will boost the growth trajectory

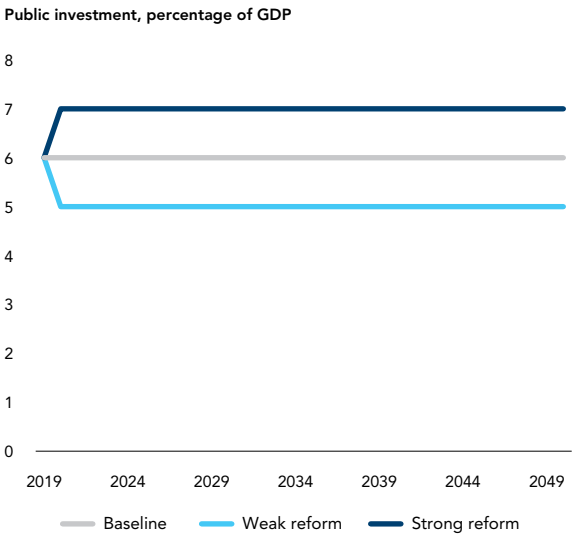
In this section, we look at how reforms to investment quantity, human capital growth, TFP growth, and FLFP would impact Malaysia's growth. These are based on, or with reference to, the 25th, 50th, and 75th percentiles among high-income countries ("aspirational goals"). Weak reform scenarios for some factors will be above the baseline.

An increase in public investment-to-GDP from 6 to 7 percent would boost GDP growth by approximately +0.13 percentage points on average over 2021-50. Figure 28 illustrates a strong reform (+1 percentage point) and a weak reform (-1 percentage point) scenarios for public investment. The strong reform could reflect strong revenue mobilization reforms than the baseline, bringing public investment-to-GDP ratio to the 90th percentile of the high-income country distribution. Such revival in public investment has a stronger impact on growth in earlier stages (+0.15 percentage points over 2021-30, compared to +0.1 percentage point over 2031-50) (see Figure 29). The weak reform shock, which could reflect poor revenue mobilization reforms, would take public investment as a share of GDP to the 75th percentile and leads to a decline in growth of 0.1-0.15 percentage points.

An increase in private investment-to-GDP by 2 percentage points would boost GDP growth by +0.36 percentage points in the period from 2021-30. A rise in private investment from 18 to 20 percent of GDP (see Figure 30) has a strong initial impact on growth, however the effect falls off sharply by about a third (+0.11 percentage points over 2031-50 versus +0.36 percentage points over 2021-3030) (see Figure 31). The 2 percentage points increase brings private investment to the 75th percentile of the high-income country distribution and can be due to government reforms that strengthen the ecosystem for private investment. Conversely, a decrease in private investment-to-GDP from 18 to 16 percent reduces GDP growth by -0.26 percentage points on average over 2021-50. The 2 percentage points decrease, which lowers it to the 25th percentile (approximately Malaysia's average over 2010-18) could reflect insufficient reforms.

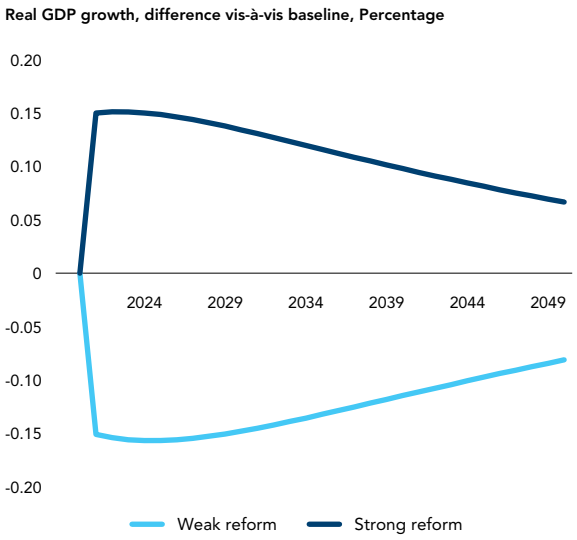
We model productivity (TFP) scenarios under three different levels of reform by benchmarking Malaysia against high-income countries. The scenarios include weak reforms, which target a low TFP value over a long period; a strong reform, which targets a high value over a short period; and a moderate reform in the middle (see Table 2). The main determinants of TFP based on a literature review (Kim and Loayza 2019), which includes innovation, education, market efficiency, infrastructure, and institutions, are assumed to increase linearly to the 25th, 50th, and 75th percentiles among high-income countries for the scenarios of weak, moderate, and strong reforms, respectively. The number of years to reach the target is the 75th (long), 50th, and 25th (short) percentile, respectively, in the distribution of years

FIGURE 28
Shocks to public investment as a share of GDP...



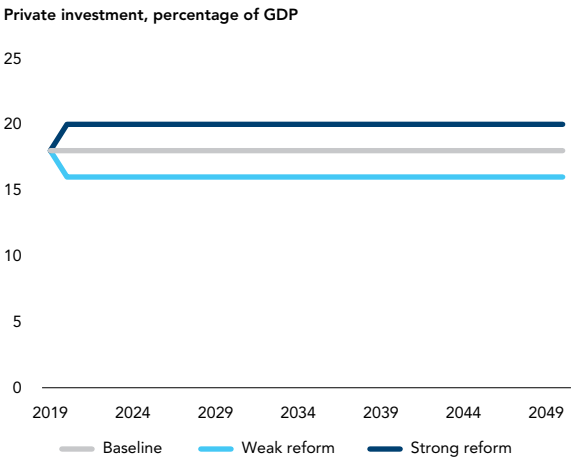
Source: World Bank staff estimates

FIGURE 29
...have a modest impact on real GDP growth



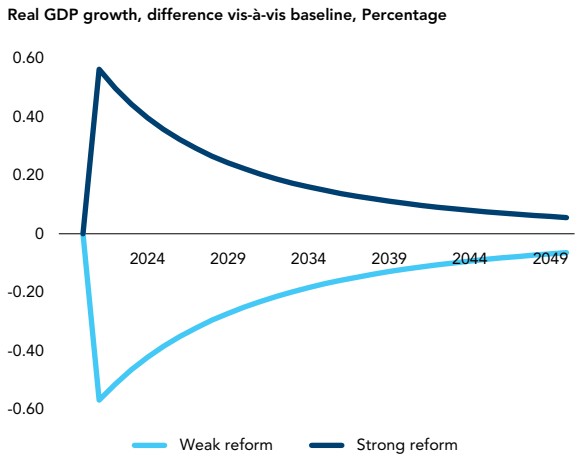
Source: World Bank staff estimates

FIGURE 30
Shocks to private investment as a share of GDP...



Source: World Bank staff estimates

FIGURE 31
...have a larger, but short-lived, impact on real GDP growth



Source: World Bank staff estimates

that the high-income countries took from Malaysia's current level (in 2018) to the target. As an example, for the strong reform scenario for education, there are five high-income countries which achieved the target of 77.53 (75th percentile in the education index and Sweden's current level). They took a different number of years to improve from Malaysia's current level (52.07 in 2018) to the target. For the simulation, we calculated the 25th percentile among the years the five countries took, which is 20 years, as the duration to reach the target for Malaysia.

TABLE 2
Scenarios of weak, moderate, and strong reforms for the projection of TFP growth for 2020-50

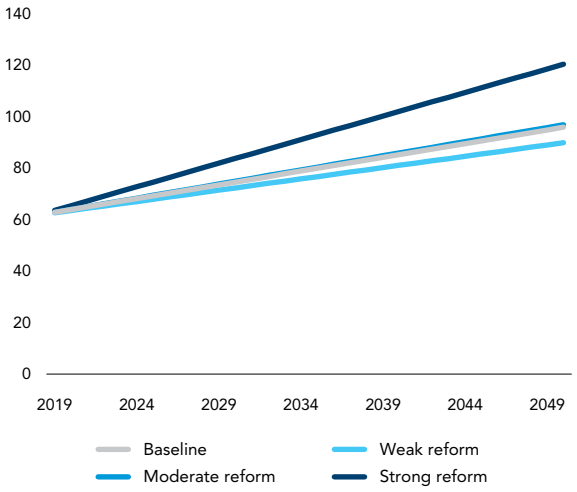
	Subcomponents of the TFP index				
	Innovation	Education	Market efficiency	Infrastructure	Institutions
Malaysia in 2018	24.79	52.07	85.26	60.20	69.45
Scenario 1. Weak reform					
Target value	21.03	60.28	71.66	60.47	72.99
Country	-	Spain	-	Portugal	Slovakia
Years to target	- [a]	8	- [a]	1	16
Scenario 2. Moderate reform					
Target value	40.24	71.49	86.89	68.68	82.22
Country	France	Netherlands	Italy	Finland	France
Years to target	9	21	2	13	19 [b]
Scenario 3. Strong reform					
Target value	59.46	77.53	90.98	73.93	91.70
Country	Denmark	Sweden	Germany	Switzerland	Germany
Years to target	10	20	4	16 [c]	39 [b]

Source: World Bank staff calculations
Note: All indexes range from 1, the worst performance, to 100, the best. See Kim and Loayza (2019) for more details on the construction of the determinant indexes.
[a] The subcomponent indexes are assumed to increase over the next 3 decades with Malaysia's historical trend of the last 10 years (2009-18).
[b] All high-income countries achieved Malaysia's current level before 1985, the initial year in our database. We used the path of Japan of which the institutions index is the closest (74.01) in 1985 to the current Malaysia's level (69.45). The institutions index of Japan is assumed to linearly increase in 2019 and onwards with the average annual change of the last 10 years (2009-2018).
[c] All high-income countries achieved Malaysia's current level before 1985, the initial year in our database. We use the path of Slovenia of which the infrastructure index is the closest (62.62) in 1985 to the current Malaysia's level (60.20).

Only in the case of the strong reform scenario are the growth rates for TFP, GDP, and GDP per capita expected to increase above those in the business-as-usual baseline. Figure 32 shows the path of the TFP determinants index under the scenarios of weak, moderate, and strong reforms, while Figure 33, Figure 34 and Figure 35 show the results of the simulation for the growth of TFP, total GDP, and GDP per capita. In the weak-reform scenario, the results are lower than in the case of the business-as-usual baseline. The moderate reform scenario leads to results very similar to the baseline and only the strong reform scenario boosts growth above the baseline. This is because improving the TFP growth rate becomes more difficult as the current level of TFP increases (Kim and Loayza 2019) and Malaysia's current level of TFP is moderately higher compared to other developing countries, making it more difficult to grow faster than in the past. This explains why the growth rates of TFP, GDP, and GDP per capita are expected to be higher than those of the business-as-usual baseline only with the scenario of strong reform.

FIGURE 32
Only in a strong reform scenario is TFP index above the baseline scenario...

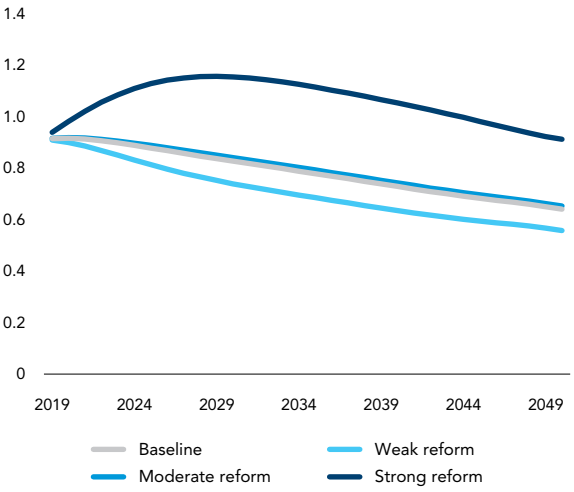
Total factor productivity overall determinants index



Source: World Bank staff estimates

FIGURE 33
...giving a boost to total factor productivity growth...

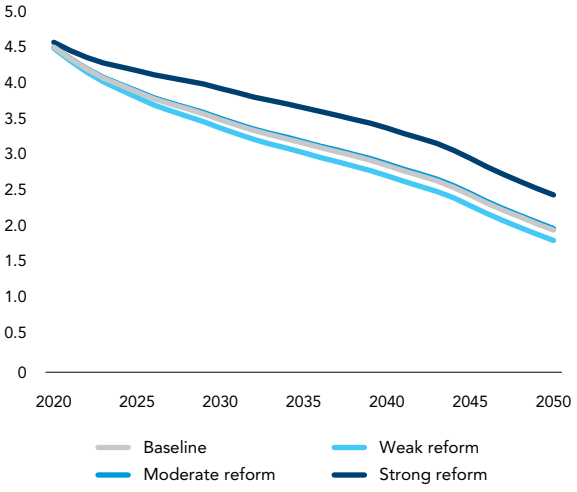
Total factor productivity growth, Percentage



Source: World Bank staff estimates

FIGURE 34
...as well as real GDP growth...

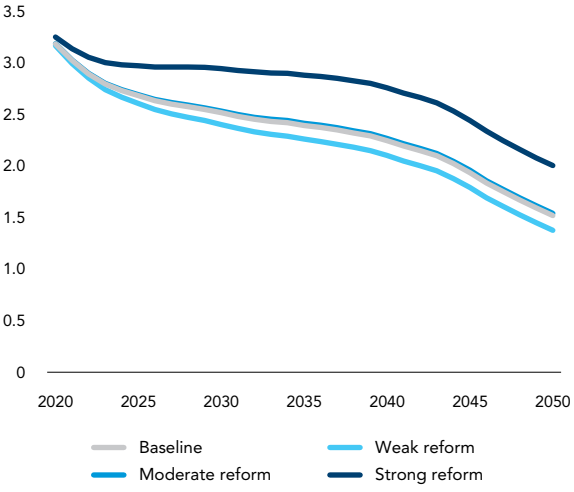
Real GDP growth due to TFP reform, difference vis-à-vis baseline, Percentage



Source: World Bank staff estimates

FIGURE 35
...and a positive impact on per capita GDP growth

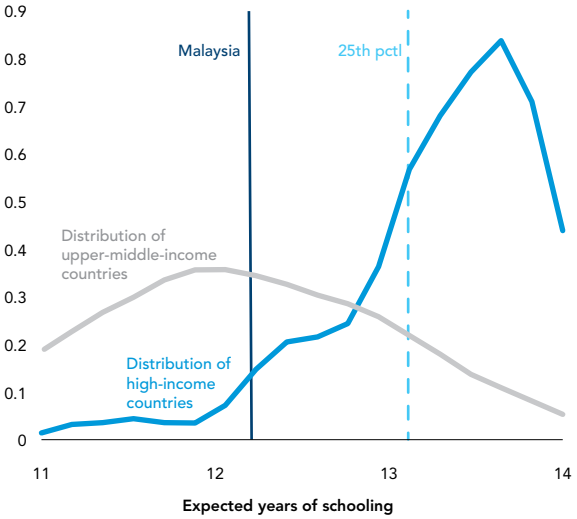
Real GDP per capita growth due to TFP reform, difference vis-à-vis baseline, Percentage



Source: World Bank staff estimates

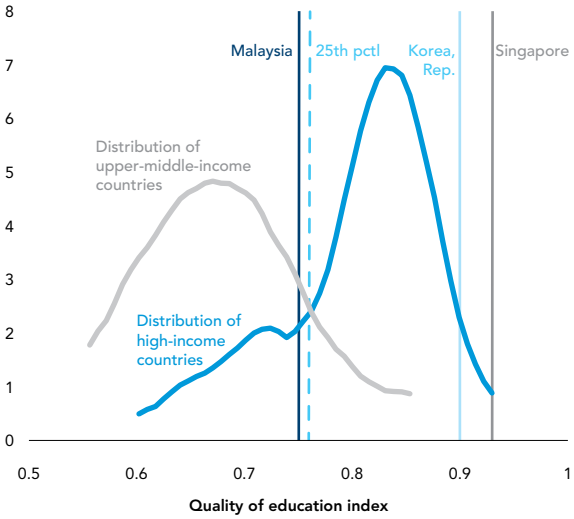
Malaysia lags behind high-income economies in education and health and as such we simulate changes to the quantity of education, quality of education, and health components to the 25th, 50th, and 75th percentiles of high-income economies. The distribution of those four components are explored in Figure 36, Figure 37, Figure 38 and Figure 39 below. The quantity of education is measured in terms of the expected number of years of schooling of today's children, and the quality of education is a measured via standardized international test scores. Health is measured in terms of adult survival rates and the proportion of children under 5 years of age who are not stunted. We perform two sets of simulations, first by changing all the components together to the different high-income percentiles, and second by changing each human capital component to the high-income country median one-at-a-time, to investigate the quantitative importance of each component.

FIGURE 36
Malaysia falls below high-income comparators on quantity of education...



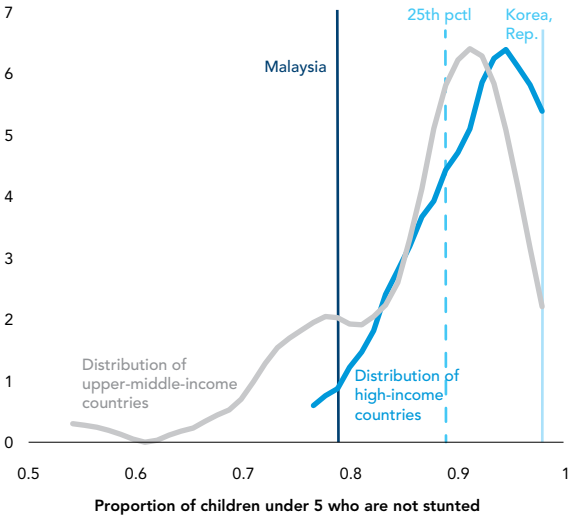
Source: World Bank Human Capital Index
Note: Figure uses 2018 data. "Pctl" denotes the percentile based on high-income countries distribution.

FIGURE 37
...as well as on measures of the quality of education



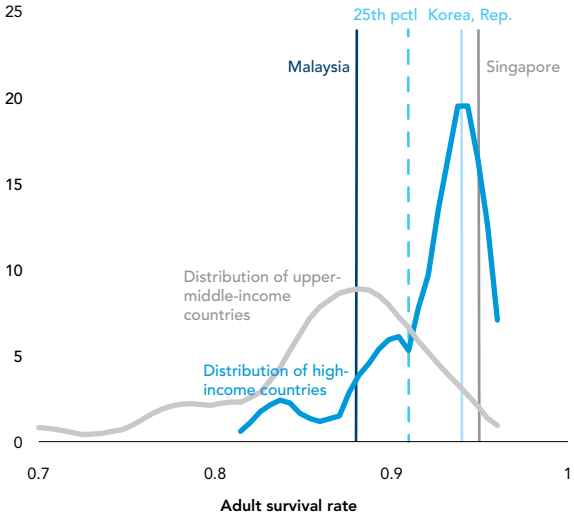
Source: World Bank Human Capital Index
Note: Figure uses 2018 data. "Pctl" denotes the percentile based on high-income countries distribution.

FIGURE 38
Malaysia also performs poorly in terms of stunting...



Source: World Bank Human Capital Index
Note: Figure uses 2018 data. "Pctl" denotes the percentile based on high-income countries distribution.

FIGURE 39
...and on adult survival



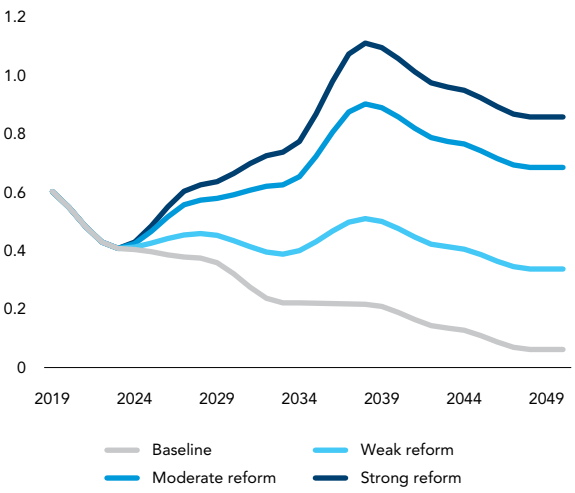
Source: World Bank Human Capital Index
Note: Figure uses 2018 data. "Pctl" denotes the percentile based on high-income countries distribution.

By improving the quality and quantity of education and health components of human capital to levels seen in high-income economies, Malaysia receives a sizable boost to GDP growth. Increasing human capital to the 25th (weak reform), 50th (moderate reform), and 75th (strong reform) percentiles of high-income economies, GDP growth is boosted by roughly 0.1, 0.3, and 0.4 percentage points on average, respectively, during the 2020-50 period (see Figure 40 and Figure 41). It is important to note that a policy change today has no impact on human capital or GDP growth until the mid-late 2020s, which is when the oldest children in school now start to join the labor force. Even then, the effects are small as the oldest cohort of children spent the majority of their education under the old regime, and so only enjoy a fraction of the benefits. It takes until almost 2040 for the reforms to have their full effect, when today's toddlers (who received the full benefit of the reforms) start to join the labor market.

Of the components of human capital, the quantity and quality of education provide the biggest boost to economic growth in the long run.[52] To understand the effect of each human capital component, we increase each component to the 50th percentile of the high-income distribution (see Figure 42). On average, in the period 2020-50, higher quality of education boosts GDP growth by 0.14 percentage points; an increase in the years of schooling boosts growth by 0.10 percentage points; increasing the adult survival rate boosts growth

FIGURE 40
Human capital reforms would have a large impact in Malaysia...

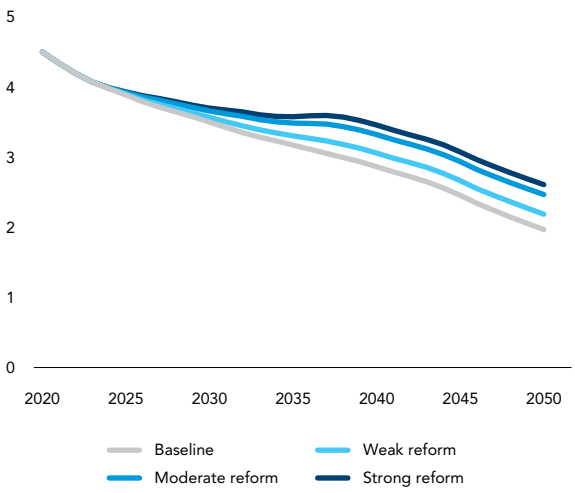
Human capital growth under different reform scenarios, Percentage



Source: World Bank staff estimates

FIGURE 41
...resulting in high GDP growth under all scenarios

GDP growth due under different human capital reform scenarios, Percentage



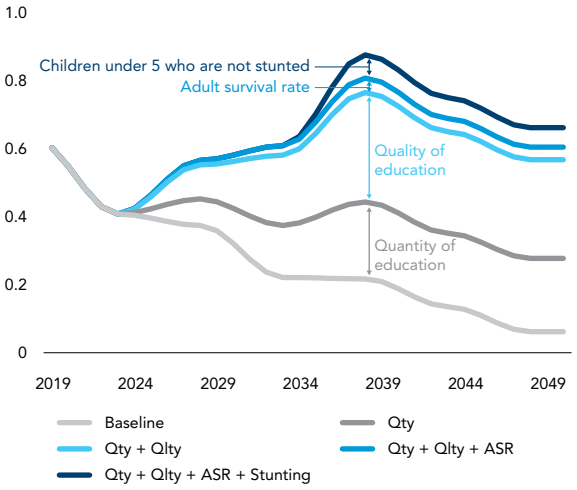
Source: World Bank staff estimates

[52] However, it should be noted that the health components improve the standards of living of Malaysians as a whole and by being healthy, they are able to learn and improve their educational attainment and also be healthier workers. The LTGM-Human Capital Extension does not include the indirect effect of health on growth via high education attainment.

by 0.02 percentage points; and lowering stunting rates amongst children under 5 boosts growth by 0.02 percentage points (see Figure 43). In numerical terms, the human capital-median targets are 13.4 expected years of schooling, 83 percent quality of education, adult survival rate of 93 percent and the fraction of children not stunted under 5 of 93 percent. These improvements in human capital growth components prevent the decline in human capital growth in the baseline and instead boost it from 0.6 percent to 0.7 percent by 2050 (instead of falling to 0.1 percent).[53]

FIGURE 42
Each component of human capital reform provides a return for Malaysia...

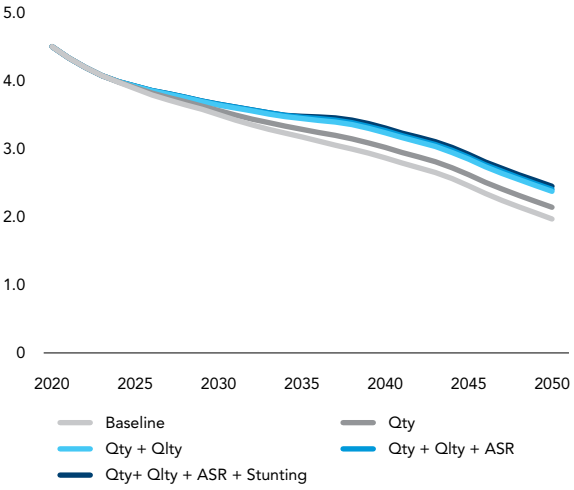
Human capital growth reform components, Percentage



Source: World Bank staff estimates
Note: "Qty" is the quantity of education, "Qlty" is the quality of education, "ASR" is the adult survival rate and "Stunting" is the fraction of children under 5 who are not stunted.

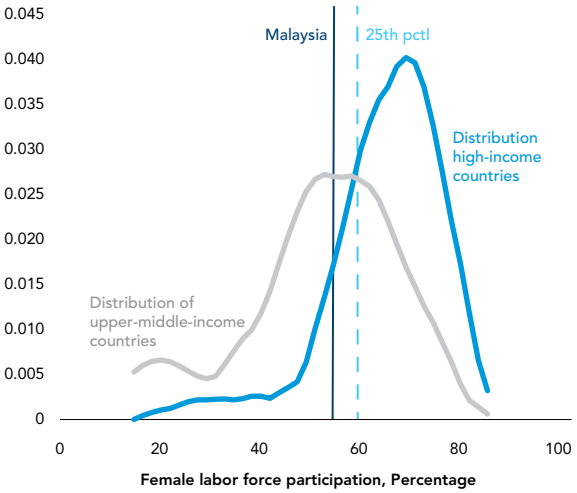
FIGURE 43
...contributing to higher long-term GDP growth

GDP growth due to human capital growth reforms by component, Percentage



Source: World Bank staff estimates
Note: "Qty" is the quantity of education, "Qlty" is the quality of education, "ASR" is the adult survival rate and "Stunting" is the fraction of children under 5 who are not stunted.

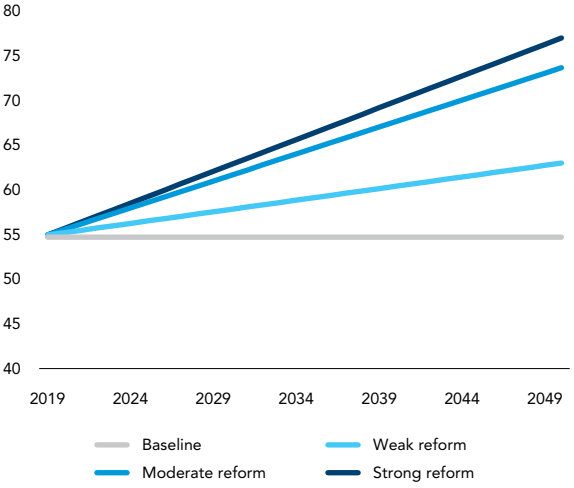
FIGURE 44
Female labor force participation is lower than in high-income economies...



Source: World Development Indicators
Note: Figure uses 2018 data. "Pctl" denotes the percentile based on high-income countries distribution.

FIGURE 45
...meaning that there is significant scope for Malaysia to increase...

Female labor force participation under different reform scenarios, Percentage

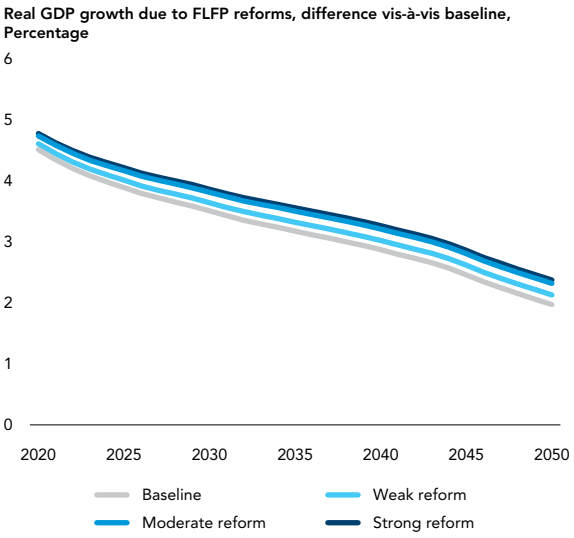


Source: World Bank staff estimates

[53] This simulation is similar to that in the June 2019 Malaysian Macroeconomic Monitor, the differences being that (i) baseline has changed slightly to include a downward trend in TFP growth and (ii) quantity of education is also shocked.

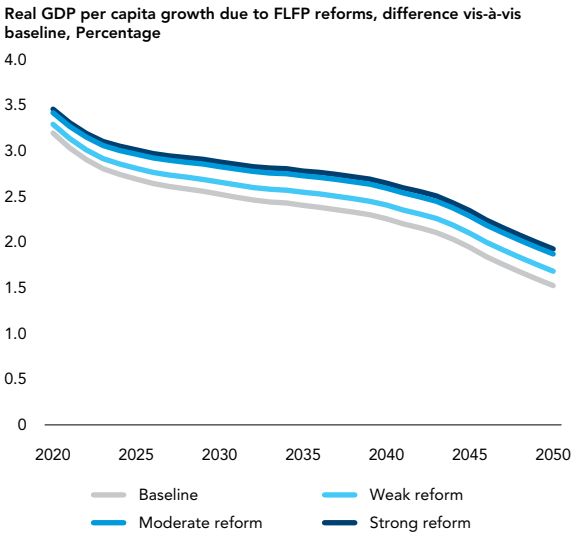
A rise in FLFP would also boost GDP growth in the long run. As of 2018, Malaysia's FLFP rate stood at 55 percent, which is low in comparison to regional peers (see Figure 25) and also to its high-income peers (see Figure 44). An increase from 55 percent to the 25th (weak reform), 50th (moderate reform), and 75th (strong reform) percentiles of FLFP of high-income economies boosts average GDP growth over 2020-50 by 0.14, 0.31, and 0.36 percentage points, respectively, relative to the business-as-usual baseline with unchanged FLFP (see Figure 46 and Figure 47). The number of years to reach the target is 75th (long), 50th, and 25th (short) percentiles, respectively, in the distribution of years that the high-income countries took from the Malaysia's current level (in 2018) to the target (see Figure 45).[54]

FIGURE 46
...contributing to higher long-term GDP growth



Source: World Bank staff estimates

FIGURE 47
...and higher per capita GDP growth



Source: World Bank staff estimates

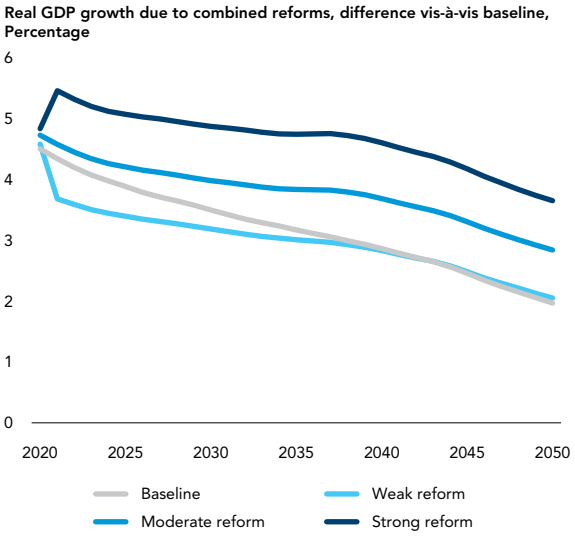
[54] For example, in the weak reform scenario, the target FLFP is 62 percent, which is the 25th percentile among high-income countries and of Croatia in 2018. For calculating a target duration to reach 62 percent, we identified eight high-income countries that show the path of FLFP from the current Malaysia's level to the target (55 percent to 62 percent) within the time period of our database (1990-2018). The target duration was calculated at 27 years, which is the 75th percentile in the years the eight countries took to reach from 55 percent to 62 percent. With the same approach, the moderate reform scenario targets 69 percent (Spain in 2018) over 23 years, and the strong reform scenario, 74 percent (Netherlands in 2018) over 27 years. For the scenario targeting the 75th percentile of FLFP, we use the number of years of Netherlands (27 years), because only Netherlands shows the path from current Malaysia's level to the target within the time period of our database (1990-2018).

A combination of reforms results in the strongest growth pathway

Given that individual reforms to each drivers of growth have modest growth impact, we now look into the effects of a package of reforms on growth. The package of reforms affects human capital growth, TFP growth, the FLFP rate and in the same way as those discussed individually above. In particular, the packages of reforms—weak, modest and strong are based on increasing the growth determinants to the 25th, 50th and 75th percentiles of high-income countries, respectively. The projected growth impact of this package of reforms is shown in Figure 48 and Figure 49.

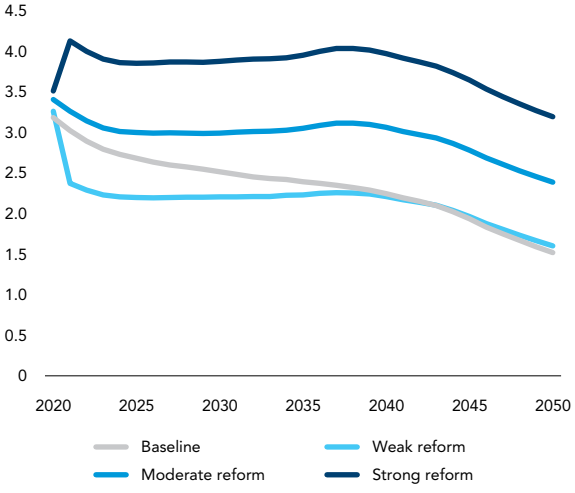
Under the strong reform scenario, the GDP growth rate is expected to be almost double that of the baseline in 2050. Under the weak reform scenario, the GDP growth rate is expected to decrease from 4.5 percent to 2 percent over the next 30 years, which is similar to the fall in growth in the baseline. Under this reform scenario, growth initially declines more quickly than the baseline mostly due to lower private and public investment rates, but then recovers due to higher human capital growth and FLFP.[55] Under the moderate reform scenario, the GDP growth rate is expected to fall to 2.9 percent by 2050, which is around 1.5 times that of the baseline. The higher growth impact of the reform scenario clearly benefits from the stronger contributions emanating from growth in human capital (0.28 percentage points of the growth increase with respect to the baseline); TFP (0.02 percentage points); and FLFP rate (0.3 percentage points). This clearly illustrates how investment in human capital, a revival of TFP growth and an increase in FLFP can, to some extent, mitigate the diminishing returns to physical capital accumulation over the long-term.

FIGURE 48
A combination of reforms has the strongest impact on GDP growth...



Source: World Bank staff calculations

FIGURE 49
...leading to higher per capita GDP growth in Malaysia over the long-term



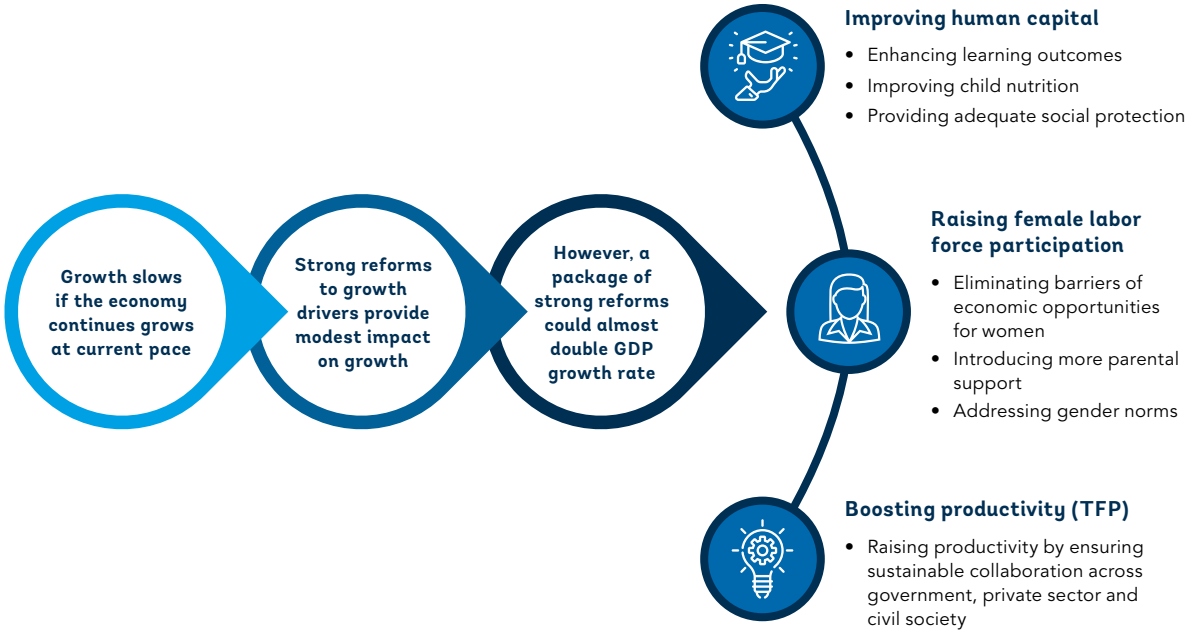
Source: World Bank staff calculations

[55] Relative to Malaysia's current situation, the 25th percentile of high-income countries have higher levels of human capital and FLFP and lower rates of investment. This is why the "weak reform" scenario lowers investment rates – reducing growth in the short-term – but increases human capital and FLFP (boosting growth in the long-term).

What will it take to boost long-term growth?

Malaysia needs to implement strong reforms in three main areas in order to grow at a rate higher than would be expected on the basis of historical trends, especially for human capital (the quantity and quality of schooling, and child nutrition); female labor force participation; and total factor productivity (see Figure 50).

FIGURE 50
Malaysia needs strong reforms in three main areas



Source: World Bank staff elaboration

RECOMMENDATION 1

If Malaysia stays at the current level of educational quality and health (similar to the 25th percentile of high-income countries), human capital accumulation will not contribute much to economic growth. Improving human capital requires greater focus on enhancing learning outcomes; improving child nutrition; and providing adequate protection through social welfare programs (World Bank 2019a).

RECOMMENDATION 2

Current female labor force participation is lower than the 25th percentile of high-income countries, which is the benchmark of the weak reform scenario. Increasing it requires reducing or eliminating barriers to economic opportunities for women through legal reforms; introducing more economic and societal support for parents; and addressing gender norms and attitudes that perpetuate disparities (World Bank 2019b).

RECOMMENDATION 3

Strong reforms to increase total factor productivity growth require efforts from diverse stakeholders. The analysis in this chapter shows that the gap between Malaysia's current level (in 2018) and a target corresponding to the 75th percentile of high-income countries is relatively small for market efficiency but becomes increasingly wider for innovation, infrastructure, education, and institutions. Some of them, such as education and institutions, are expected to require two decades or more to improve to the target level of high-income economies. As these determinants are intercorrelated, sustainable collaboration and cooperation among government, private sector, and civil society will be necessary.

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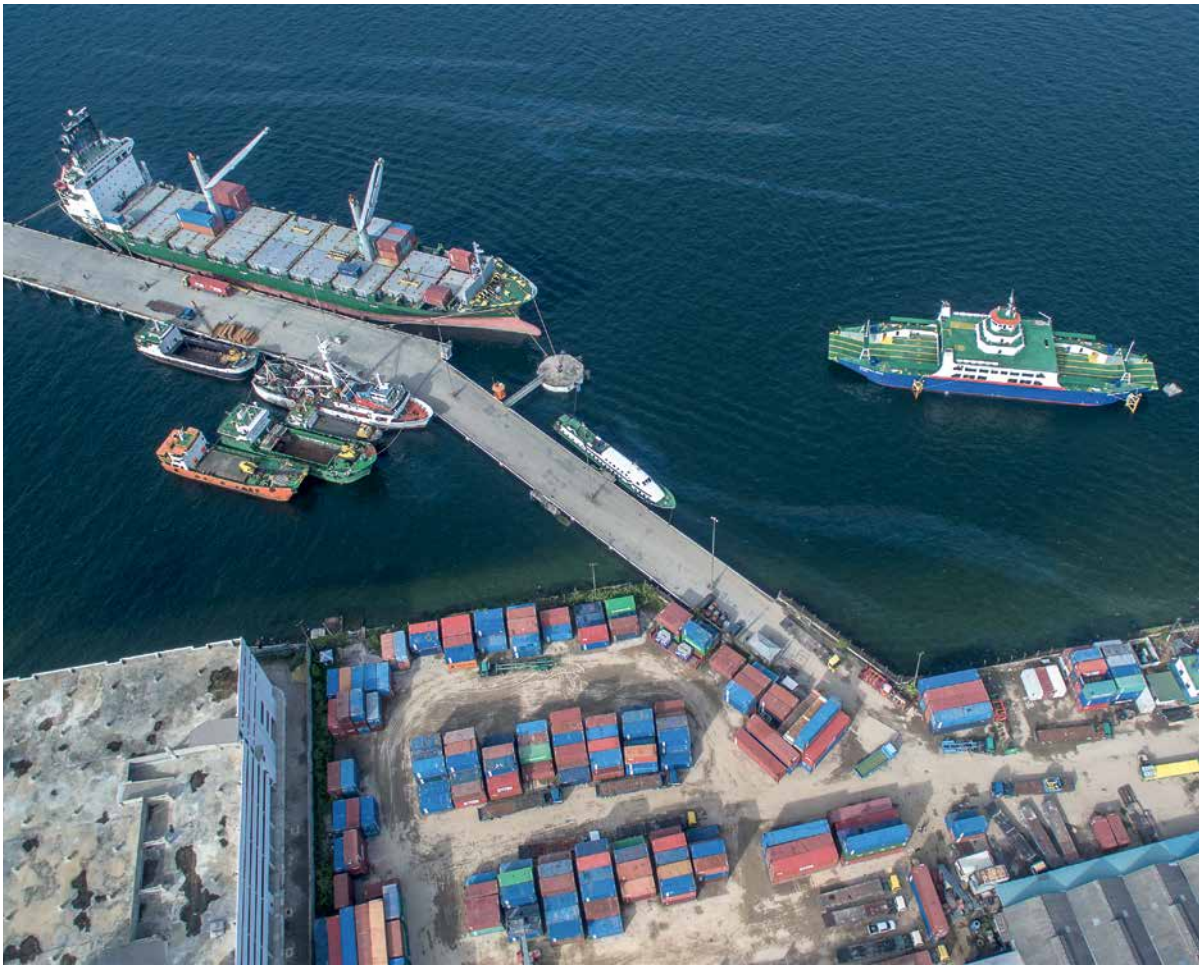
CHAPTER 3

Boosting competitiveness

Productivity growth and private sector innovation will be the primary drivers of higher living standards going forward. Reforms are needed to remove economic distortions, encourage innovation and digital adoption, strengthen competition in markets, improve the investment climate, and facilitate deeper regional integration. These in turn would unlock the pathways to generating jobs, increasing incomes and reducing poverty.

Raising productivity growth is the key to building a more competitive economy

The efficiency with which economies combine their human capital, resources and tools is the main driver of the economic development process. The competitiveness of the economy determines pathways of generating jobs, increasing incomes and reducing poverty. Productivity-driven cost reductions lower the prices of key products consumed by the poor, increasing household purchasing power. Similarly, the adoption of new technologies reduces the cost and improves the efficiency and efficacy of service delivery in all social spheres. This chapter uses the framework outlined by Cusolito and Maloney (2018), according to which physical total factor productivity growth can be decomposed into three components: (i) the reallocation of resources from low-productivity firms to high-productivity firms; (ii) increases in productivity within existing firms due to technology adoption, innovation, and better managerial skills; and (iii) the entry of high-productivity and exit of low-productivity firms. On the one hand, barriers to the reallocation of resources driven by distortions (such as trade barriers, poor regulation, or overbearing state-owned-enterprises that impede reallocation) can discourage innovation by existing firms and entry of potentially innovative firms. On the other hand, without innovative firms introducing new products and processes, the economic system will cease to reap gains from reallocation, making understanding how firms upgrade and where new firms come from as important as eliminating distortions. This chapter analyses these elements by examining existing distortions in markets to create a level playing field for smaller firms and increasing the level of innovative activity in firms. Finally, it suggests policy actions to improve Malaysia's operating environment, human capital, and firm capabilities with a view to increasing firm-level productivity and competitiveness.

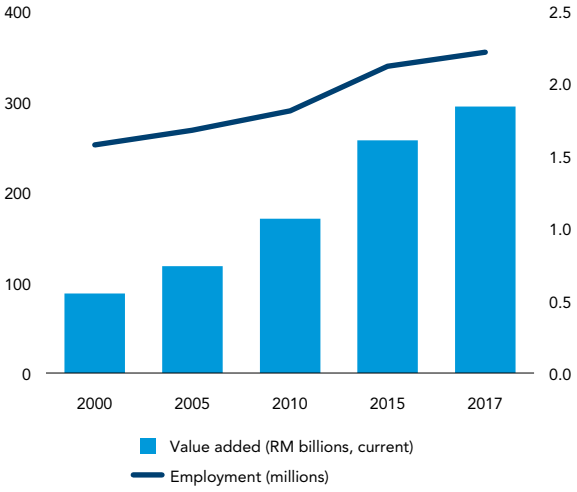


Manufacturing has played a significant role in Malaysia's growth

Malaysia has a growing and diversified manufacturing sector that has made a significant contribution to growth and job creation. Malaysia's manufacturing value added (MVA) has increased rapidly, from RM88 billion in 2000 to RM294 billion in 2017 (see Figure 51). Over this period, the number of people employed in the sector increased from 1.6 to 2.2 million (15 percent of the employed labor force). In spite of this rapid growth, the sector's contribution to GDP has steadily declined over the same period, from a peak of almost 31 percent to just over 22 percent, a level similar to that recorded in the late 1980s (see Figure 52). Malaysia's MVA in proportion to GDP and its average growth since the 1990s are higher relative to most comparator countries (see Figure 53).

FIGURE 51
Manufacturing value-added and employment have grown in aggregate terms...

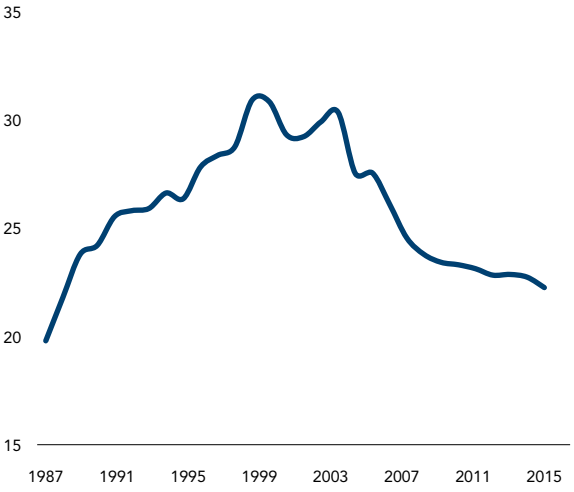
Manufacturing value added and employment, 2000-17



Source: World Bank staff calculations based on DOSM data

FIGURE 52
...but manufacturing's share of GDP has fallen in recent years...

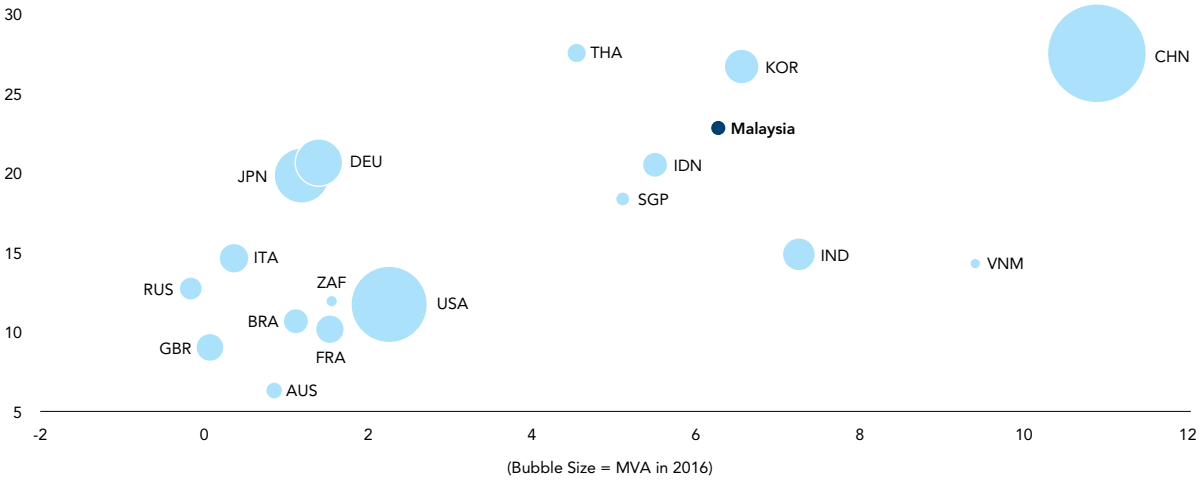
Manufacturing as a share of Malaysia's GDP, Percentage



Source: World Bank staff calculations based on DOSM data

FIGURE 53
...although manufacturing value added is high relative to key comparators

Plot of MVA CAGR against share of GDP, Malaysia and comparators



Source: World Bank staff calculations based on data from UNIDO's MVA database
Note: CAGR: Compound Annual Growth Rate

While the value of Malaysia's manufacturing exports is modest relative to comparator countries, it has been increasing over time, with Malaysian manufacturers becoming more competitive in several sectors. Malaysia has significantly benefited from the shift in the center of gravity of manufacturing production toward East Asia since the 1990s. Part of the decline in the share of high-income countries' MVA over the past two decades has been due to MNCs shifting production offshore, with MNCs tending to either establish subsidiaries as export platforms in lower-cost locations or to produce goods overseas to serve local markets. In terms of gross value, Western Europe, the United States, Japan and China still dominate global exports of most manufacturing products. Since the early 2000s, the value of Malaysia's exports has grown in all categories, except for high-skill global innovator products, for which exports have declined since reaching a peak in 2006 (see Figure 54).

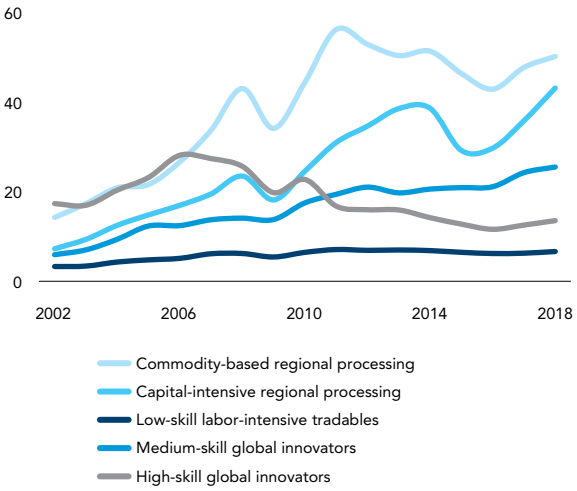
Malaysia's revealed comparative advantage (RCA) is in a few product groups, the largest of which includes electronic parts, rubber products, palm oil and wood products. RCA is an index used to calculate the relative advantage or disadvantage of a certain country in a certain class of goods or services, as evidenced by trade flows. Malaysia has an RCA in about 18 product groups at the International Standard Industrial Classification (ISIC)[56] 3-digit level, with the most significant of these being electronic parts; rubber products; palm oil; wood products, office/accounting/computing machinery; televisions; and radios (see Figure 55).[57] Over the past decade, Malaysia has gained RCAs in the manufacture of several additional product groups, including refined petroleum products; glass and other non-metallic mineral products; basic chemicals; domestic appliances; medical equipment; and other electrical equipment.

Malaysia's economy is deeply integrated with global value chains (GVCs), with the country having actively sought to upgrade its position within these chains over recent decades. Malaysia's high degree of openness to trade has facilitated its growing integration in GVCs since the 1990s, particularly in the downstream stages (Han and Hwa 2017). The relative importance and evolution of backward and forward linkages in Malaysia's manufacturing trade can be

FIGURE 54

Malaysia's exports have grown in all categories, except for high-skill products...

Malaysia's manufactured exports by category, US$ billion

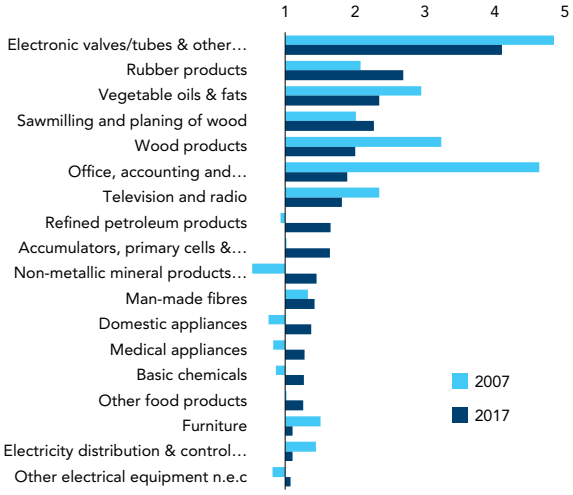


Source: World Bank staff calculations based on Comtrade data

FIGURE 55

...and Malaysia has an RCA in both high- and low-tech items

Malaysia's exports with a revealed comparative advantage



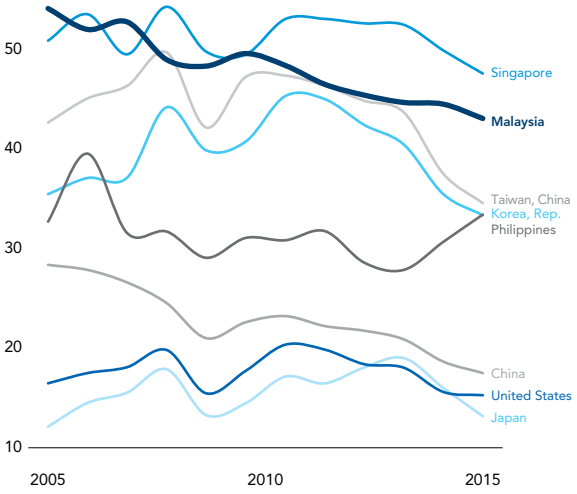
Source: World Bank staff calculations based on Comtrade data

[56] The International Standard Industrial Classification of All Economic Activities (ISIC) is a United Nations industry classification system. Wide use has been made of ISIC in classifying data according to kind of economic activity in the fields of employment and health data. It is maintained by the United Nations Statistics Division

[57] The RCA index is a measure of a country's relative advantage or disadvantage in a specific industry as evidenced by trade flows. For any given country and product, it is equal to the ratio of the country's share of that product in total national exports over the world's share of that products in total global exports. Values higher/lower than one are indicative of a comparative advantage/disadvantage, respectively.

FIGURE 56
Malaysia's backward linkages to GVCs are high, but declining...

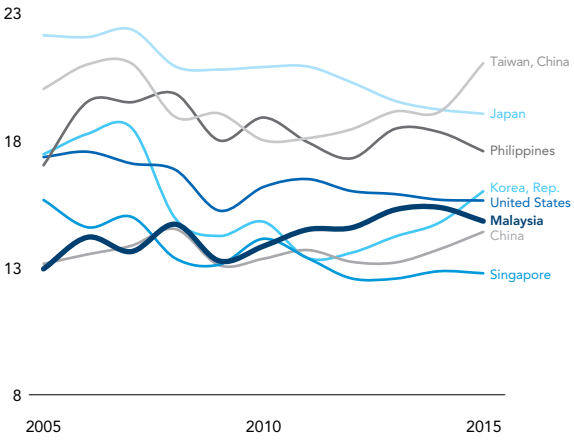
Backwards linkages in global value chains, Percentage



Source: World Bank staff calculations based on OECD TiVA database

FIGURE 57
...while forward linkages to GVCs are low, but rising

Forward linkages in global value chains, Percentage



Source: World Bank staff calculations based on OECD TiVA database

estimated using trade in value-added statistics.[58] As shown in Figure 56, Malaysia's backward linkages have been high compared to most comparator countries, although they have been on a marked downward trend. This high level can be indicative of positioning toward the end of value chains, such as assembly tasks.[59] In Malaysia, industrial activities, particularly those of most local firms, have indeed tended to focus on low value-added products and services (EPU 2018). Furthermore, the downward trend of Malaysia's backward linkages and the parallel increase in Malaysia's domestic value added (DVA) share in manufacturing exports over time mirrors that of many countries since the global financial crisis and can be taken as a sign of an overall lower GVC-intensity of trade (see Box 6 for a broader discussion on the changing nature of global value chains). In the case of Malaysia, the pronounced decrease may also reflect the gradual strengthening of domestic suppliers and a movement away from the later stages in GVCs. Conversely, the level of Malaysia's forward linkages (which has slightly increased), places it in an intermediate position in the region (see Figure 57). This increase could be consistent with a modest movement upstream and with an upgrading of Malaysia's position within these GVCs.

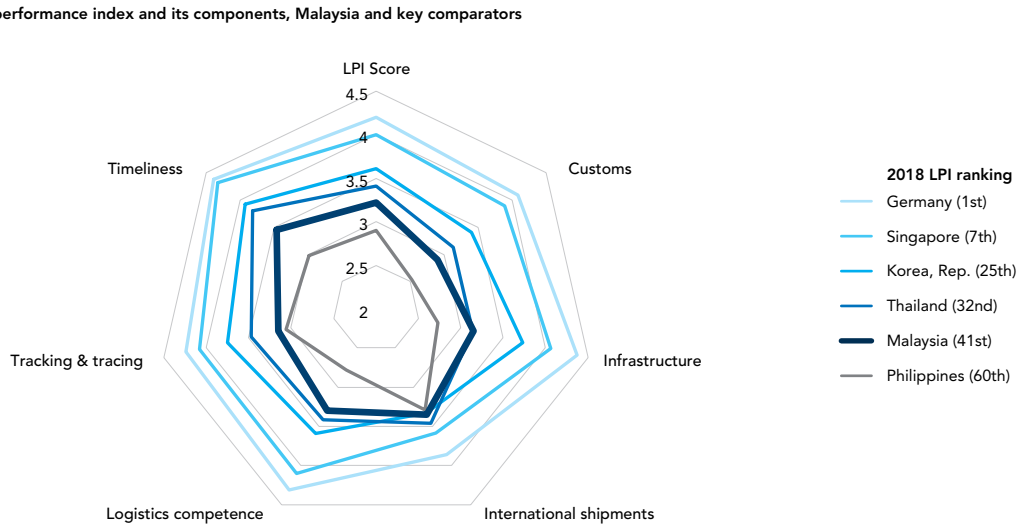
Malaysia has recorded impressive progress in terms of improving its ease of doing business, with a relatively competitive business environment compared to other ASEAN countries

Given that Malaysia is competing with other Asian countries that are also attempting to upgrade their positions within GVCs, its relatively low level of connectedness and poor performance in the area of logistics are significant weaknesses. Malaysia has recorded impressive progress in terms of improving its ease of doing business, with a relatively

[58] Backward linkages refer to the share of foreign value added in Malaysia's gross exports, while forward linkages refer to the use of Malaysian products in other countries' exports as a share of Malaysia's gross exports. Trade in value added statistics can give a better representation of the direct value added embodied in a country's exports by distinguishing the value of domestic and foreign inputs (goods and services) in a country's gross exports (for more details, see http://oe.cd/tiva).

[59] High backward linkages can also reflect other factors, such as a small country size and easy access to foreign suppliers, which is likely to be the driving factor in the cases of Hong Kong SAR, China, and Singapore.

FIGURE 58
Malaysia's performance on trade logistics falls below key aspirational comparators



Source: World Bank Logistics Performance Index

competitive business environment compared to other ASEAN countries. Further, Malaysia has generally maintained liberal trade policies and has signed a number of bilateral and regional free trade agreements (WTO, 2018). However, it performs poorly in the area of logistics, ranking 41st place out of 160 countries in 2018 in terms of the Logistics Performance Index. The index is an interactive benchmarking tool created by the World Bank to enable countries to identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance. This ranking is worse than regional competitors, with the exception of Indonesia and the Philippines (see Figure 58). Malaysia's performance in terms of this index has been declining over recent years, slipping from 32nd place in 2016 and from 25th place in 2014. Malaysia's ranking is particularly low in terms of a number of specific indicators, including tracking and tracing (47th) and timeliness (53rd).

The current COVID-19 crisis and the supply chain disruptions that it has led to makes the case for Malaysia to retain and increase its competitive position in global value chains. As a result of the immediate supply restrictions, the demand shock and the general decline in investor confidence, COVID-19 is expected to reduce FDI by 30 to 40 percent in 2020.[60] Preliminary estimates suggest that for industries that are heavily reliant on a wide range of inputs sourced globally, there could be marked decreases in earnings by as much as 200 percent. This could mean the crisis having a more lasting effect to supply chains, possibly requiring firms that are embedded in these supply chains requiring to possibly regain lost markets and enter new emerging markets post the crisis.

[60] https://blogs.worldbank.org/psd/foreign-direct-investment-and-global-value-chains-wake-covid-19

BOX 6

The changing nature of global value chains

Throughout the 1990s and early 2000s, rapid trade liberalization and advancements in information and communications technology (ICT) propelled the formation of Global Value Chains (GVCs) around the world. Trade liberalization in the 1990s resulted in a sharp decline in tariffs and non-tariff barriers, spurring a growth in global trade. During the same period, the creation of the European Union and the integration of China, India and the former Soviet Union into the global economy created new opportunities for firms both on the supply side (cheaper inputs) and the demand side (more customers). At the same time, advancements in ICT enabled businesses helped coordinate the production of goods across a range of widely dispersed countries. Companies could now design their product in one country while manufacturing various components in several different countries before assembling the final product in yet another country. This has led to a large and complex network of value chains around the world.

GVCs have enabled developing countries and emerging markets to gain access to larger and wealthier markets at relatively low costs. Businesses in developing countries have also been able to take advantage of the technological innovations and good managerial practices already available in the more advanced economies to increase their productivity and production, thus accelerating their growth. This paved the road for the export-oriented growth seen in countries such as Malaysia.

However, recently, overall participation in GVCs has been on the decline around the world. Measuring GVCs entails measuring both backward and forward linkages. The measurement of backward linkages involves the assessment of the prevalence of imported goods and services in a country's exports. On the other hand, the measurement of forward linkages relates to the prevalence of a country's exports in other countries' imports.

The decline in trade expansion and GVC formation can be attributed to both cyclical and structural factors. The cyclical nature of the decline in global GVC participation is due to the economic slowdown in major trading economies, particularly Europe and China. In addition, trade-to-income elasticity has declined due to a number of structural changes in major actors in the GVC, particularly China and the USA. China is increasingly producing inputs domestically, and thus relying less on imported components and parts. Similarly, the rapid expansion of oil production in the USA has resulted in a significant decline in oil imports.

Additionally, the pace and degree of trade liberalization that spurred GVCs formation in the 1990s has not been evident over the past decade. During the 1990s, major trade liberalization and significant structural reforms took place in many countries around the world, helping to propel trade expansion and the formation of GVCs. However, no major trade liberalization has taken place in the last decade, with the formation of GVCs stalling during this period.

Enacting the appropriate domestic policies can enable countries to both increase their participation in GVCs and to reap greater benefits from this participation. The World Development Report 2020 (Trading for Development in the Age of Global Value Chains) expanded on the types of domestic policies that facilitate countries participation in GVCs. The report recommends that countries adopt the following strategic focuses:

Source: World Development Report 2020 – Trading for Development in the Age of Global Value Chains

Accelerating productivity growth is Malaysia's central economic policy challenge

Productivity growth has become increasingly important as Malaysia's traditional economic engines have slowed. While the GDP growth rate has proven resilient in recent years, declining oil and gas output, coupled with the slowing growth of the Malaysian mining sector, has reduced the pace of capital accumulation, while demographic trends are slowing the growth of the labor force. Economic shocks, including the recent COVID-19 pandemic, have dented the growth momentum. In this difficult context, a sustained increase in private investment, coupled with improvements in productivity will be necessary to maintain a sustainable economic growth trajectory that enables Malaysia to reach high-income status.

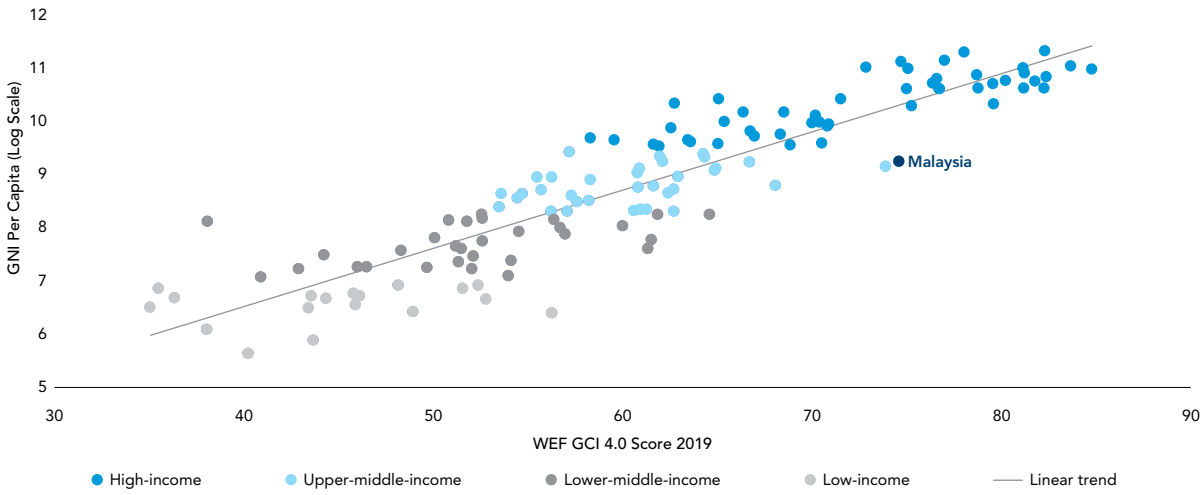
While Malaysia's overall economic competitiveness is ranked highly, its level of productivity is low relative to comparators. Of all upper-middle-income economies, Malaysia ranked the highest in terms of economic competitiveness, placing even higher than a number of high-income aspirational comparators. Malaysia's score in terms of the Global Competitiveness Index (GCI4.0) stood at 74.6, ranking it 27th out of 141 countries, only slightly lower than the scores of Spain and Belgium, which stood at 75.27 (23rd place) and 76.38 (22nd place) respectively (see Figure 59). However, since 1980, the growth of Malaysia's Total Factor Productivity (TFP) has been outpaced by a number of comparators (see Figure 60).

The productivity gap between Malaysia and countries in the comparator groups may be increasing. In particular, the productivity gap between Malaysia and those in the transitional and aspirational[61] groups appears to be increasing, with Malaysia's annual labor productivity growth rate over the past two years being significantly lower than in these countries.[62] Malaysia's annual growth rate over the past two years stood at around -0.3 percent, compared to that of transitional or aspirational economies, which stood at average levels of 1.6 and 2.3 percent per annum respectively (see Figure 61). This disparity seems to indicate a widening productivity gap.

FIGURE 59

Malaysia scores highly on measures of competitiveness, especially given the country's level of income...

Global competitiveness index, Malaysia and comparators



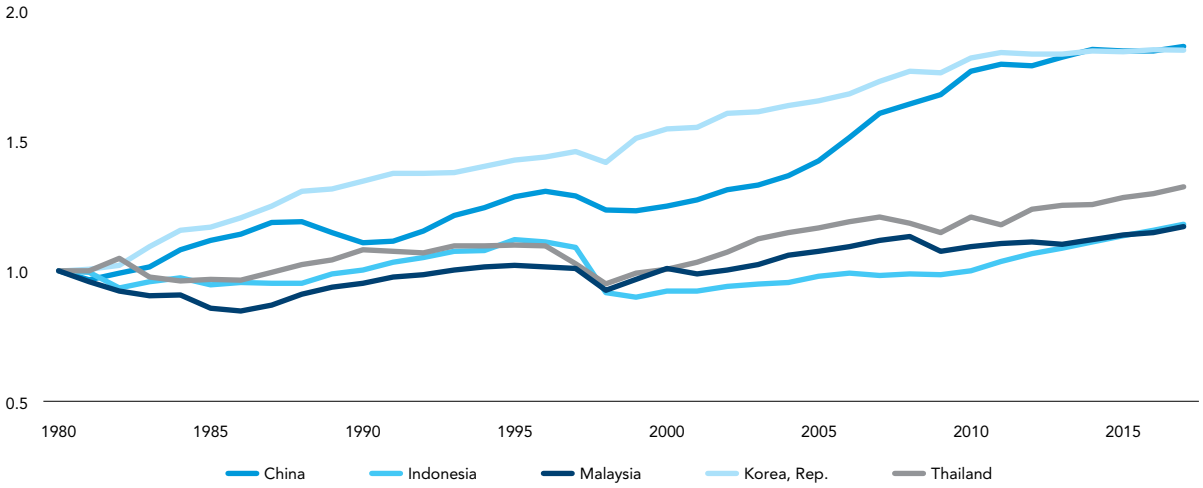
Source: World Development Indicators and World Economic Forum Global Competitiveness Report 2019

[61] In line with the standardized approach to benchmarking Malaysia's economic performance, cross country comparative analysis includes against three broad groups: "transitional" comparators, which are the countries have achieved high-income status in the last 30 years; "aspirational" comparators, which are OECD economies (with some overlaps between these two groups); and "regional" comparators, which are ASEAN comparators. In each case countries with populations of less than 1 million are dropped.

[62] The difference is statistically significant after controlling for the initial level of labor productivity (convergence effect) but not otherwise.

FIGURE 60
...but total factor productivity growth has lagged aspirational comparators

Total factor productivity at constant national prices, index to 1980=1, Malaysia and comparators

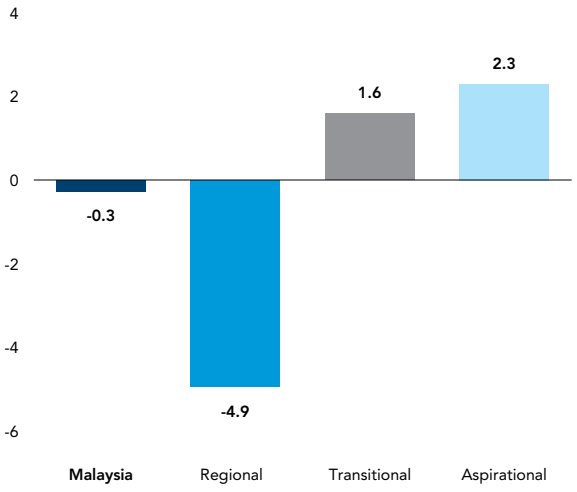


Source: Penn World Tables

Malaysian firms' relatively low rates of labor productivity apply across multiple sectors and for firms of different sizes. An examination of the labor productivity rates for the manufacturing, retail, and other services[63] sectors shows that Malaysia's labor productivity lags significantly behind that of comparator countries (see Figure 62). For Malaysia, the median labor productivity rate of retail firms is approximately 40 percent higher than for manufacturing and 35 percent higher than for other services. However, despite these differences, Malaysia's labor productivity levels are significantly lower across all sectors and all firm-size groups compared to those of the transitional and aspirational economies (see Figure 63).

FIGURE 61
Labor productivity growth has fallen behind key aspirational comparators...

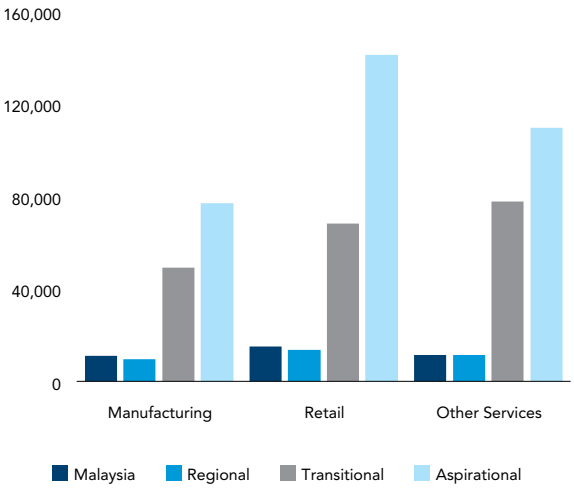
Average labor productivity growth, Malaysia and comparators, Percentage



Source: World Bank Enterprise Surveys, 2019 or latest available

FIGURE 62
...and the gap persists across all sectors of the economy

Average labor productivity by firm size, Malaysia and comparators

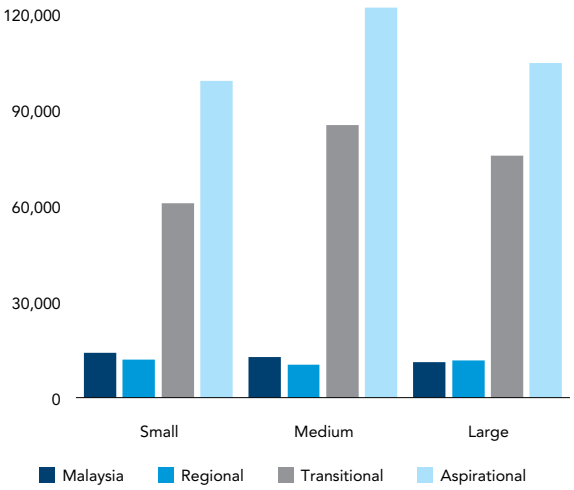


Source: World Bank Enterprise Surveys, 2019 or latest available

[63] Classification of "other services" sector consist of wholesale trade, automotive repair, hotels, restaurants, transportation, storage, communications and information technology.

FIGURE 63
The productivity gap is large for firms of all sizes

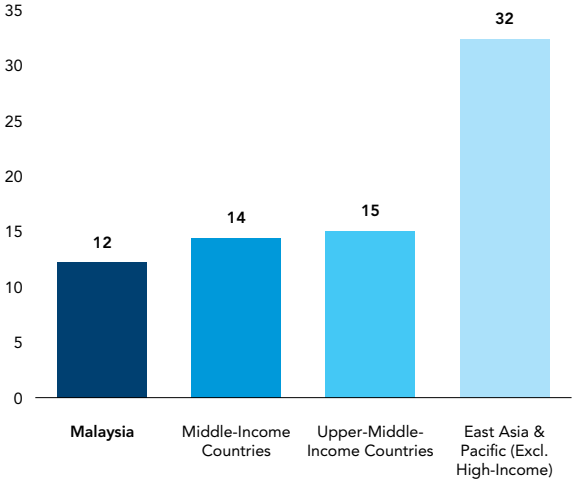
Average labor productivity by firm size, Malaysia and comparators



Source: World Bank Enterprise Surveys, 2019 or latest available

FIGURE 64
TFP growth has contributed less to Malaysia's growth compared to peers

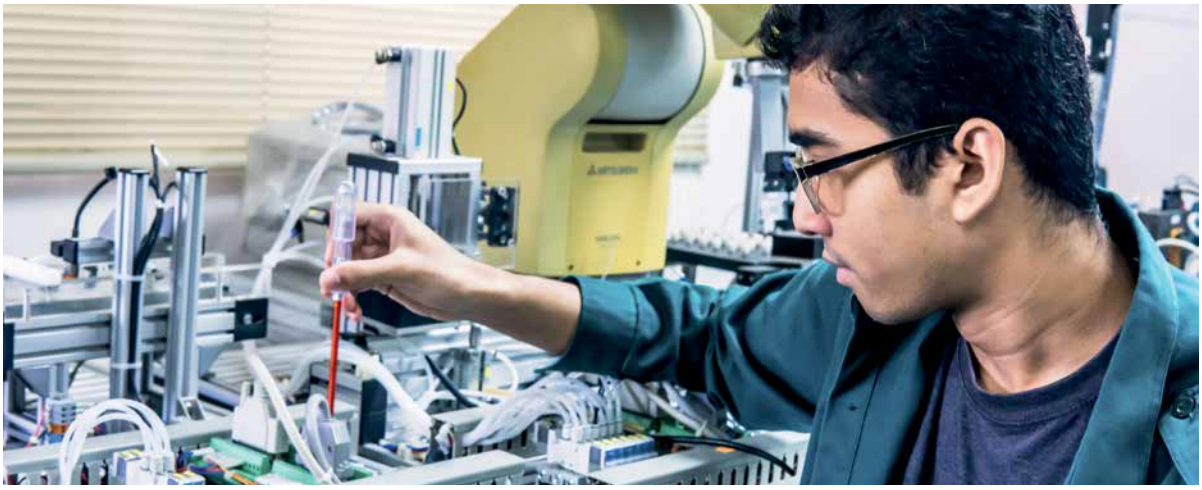
Contribution of TFP to GDP growth, Malaysia and comparators, Percentage



Source: World Bank Productivity Unplugged

Malaysia's productivity growth rate has declined in recent decades, with TFP contributing less to its growth than in the case of its regional peers.[64] While the 1998 Asian financial crisis resulted in a marked decrease in the contribution of TFP to economic growth across the region, Malaysia's TFP growth rate did not recover as swiftly as those of its regional peers. Moreover, in the wake of the 2008 global financial crisis, TFP has contributed less to Malaysia's growth than to the growth of its regional peers (see Figure 64). In the period from 1990 to 2014, Malaysia's TFP growth rate was well below the regional average and the averages for both upper-middle-income and middle-income countries worldwide.

A recent analysis of the determinants of TFP by Loayza and Kim (2017) shows that innovation has a significant impact on productivity. The analysis is intended to identify a range of variables believed to influence TFP. A statistical index was constructed for each variable, with each index assessed in terms of its relative contribution to TFP. The analysis examines 120 countries over the period from 1985 to 2011. It ultimately concludes that innovation had the largest impact on TFP, but that other factors also significantly influenced productivity, both individually and together.



[64] Productivity Unplugged, June 2018, The World Bank.

Malaysia needs to embrace an innovation-based growth model

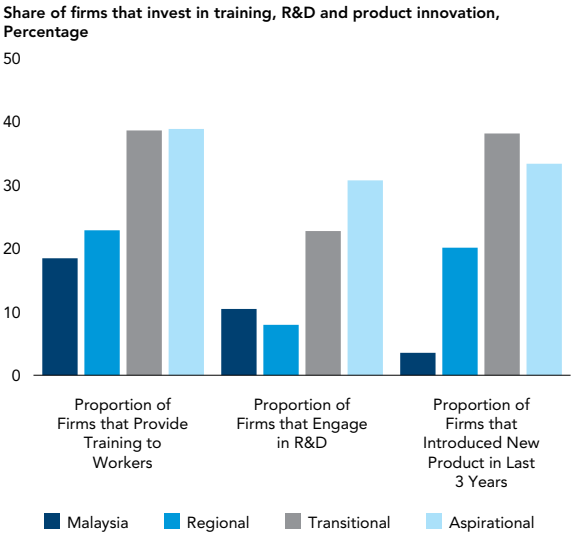
Malaysia's transition to a more innovation-based growth model is even more urgent in the current uncertain global context. There is a significant body of evidence to demonstrate a positive correlation between levels of innovation and productivity (see Hall, 2011; and Mohnen and Hall, 2013, for a survey of a large sample of studies in the OECD). The extent to which innovation promotes productivity is likely to depend on a number of other complementary factors, including firm-specific factors (such as management capabilities, foreign ownership) and business-environment characteristics (such as market competition and availability of financial services). Across the world, both shifting patterns and deceleration in global trade growth and rapid technological change create challenges to sustaining productivity and economic growth. In this context, the key challenge facing Malaysian policymakers relates to facilitating and accelerating the transition to this innovation-based growth model. In short, policy makers must determine which policies and institutions can most effectively encourage innovation, technology adoption and productivity growth.

Innovative Malaysian firms tend to be relatively more productive. An analysis conducted for the World Bank's Productivity Unplugged study shows that Malaysian firms that have introduced technical innovations generally have higher levels of TFP, with firms that have introduced non-technical innovations usually having higher rates of labor productivity. It also finds that firms that invest in R&D or that provide formal training to their workforce with the specific purpose of encouraging innovation also have higher rates of labor productivity. The increase in productivity associated with both technical and non-technical innovation is particularly significant for medium-sized firms. Large firms and exporters tend to be more innovative than small firms and non-exporting firms. Finally, it finds that large firms in Malaysia are more likely to engage in all three types of innovation (non-technical, technical and R&D).

Malaysian firms lag behind their peers in terms of innovation and the provision of training. Based on the World Bank Enterprise Survey data, the proportion of firms in Malaysia that engage in some form of research and development at 10.5 percent, while higher than its regional peers, is much lower compared to its transitional and aspirational peers (at 22.8 and 30.8 percent respectively). Further, a significantly smaller proportion of Malaysian firms have introduced new products over the last three years. Specifically, about 3.5 percent of firms in Malaysia introduced new products over the last three years, significantly lower than the rate for regional comparators (20 percent) and aspirational comparators (33 percent) (see Figure 65). In an increasingly dynamic and disruptive time for businesses around the world, continuous improvements to the skills of workers through the provision of training is increasingly important to enable firms to compete effectively. In Malaysia, only about 18.5 percent of firms provide training to their employees. This is significantly lower than for the transitional and aspirational comparators, where the figure stands at an average of around 40 percent.

Over recent years, Malaysia has increasingly strived to develop a more innovative and knowledge-based economy, with some positive results. In recent years, while R&D expenditure in proportion to GDP has been increasing, it is still considerably lower than in transitional and aspirational countries. In Malaysia, most R&D activities are conducted by business entities rather than research institutes or higher education institutions, with business R&D in proportion to GDP higher than that of transitional comparators but lower than that of the aspirational

FIGURE 65
Malaysian firms are less likely to invest in upskilling and innovation



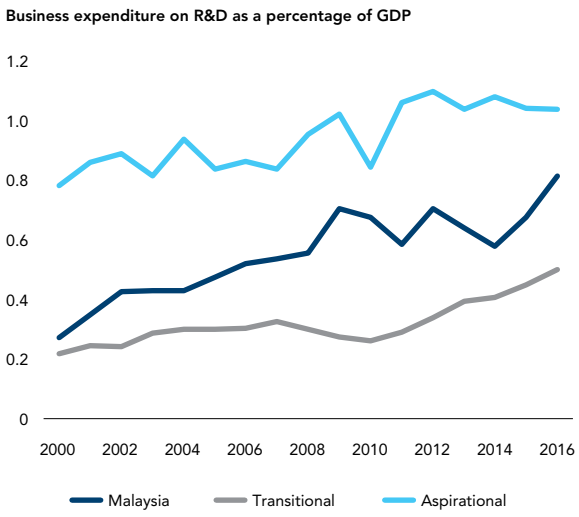
Source: World Bank Enterprise Surveys

comparators (see Figure 66). Nonetheless, the increase in overall R&D expenditure has resulted in an increase in the intellectual property owned and a larger range of academic publications – although again, Malaysia still lags behind its comparators. Intellectual property output (in this case measured as patent applications per 100 billion PPP$ of GDP) has grown at least partially because of the intensity of the research and innovation policies agenda. Its growth has enabled Malaysia to catch up with the transitional comparators, although not with aspirational comparators (see Figure 67).

Malaysia's success in terms of patenting and commercializing R&D outputs has been mixed. Though the number of patents and trademarks has been increasing over time, the ability to commercialize these outputs has only been partially successful, with a great deal of inconsistency. In fact, the rates of commercialization of publicly funded R&D projects have been unpredictable and volatile over the past few decades. Throughout the 1990s, about 5.1 percent of publicly funded R&D projects were successfully commercialized as a result of the Intensification of Research in Priority Areas projects. However, in the period from 2001 to 2005, the rate of commercialization fell to 3.4 percent, before increasing again to 8 percent in the period from 2006 to 2010. The latest government statistic shows that in 2013, commercialization rates stood at 2.1 percent for Higher Education Institutions and 3.1 percent for projects funded by the Ministry of Science, Technology and Innovation. Thus, the rate of commercialization for publicly funded R&D remains low and limited.

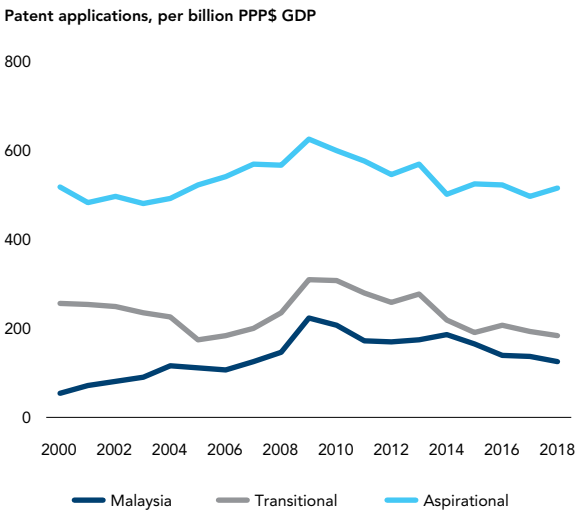
While Malaysia has implemented a number of policies and initiatives to foster R&D and commercialization efforts, a number of challenges and obstacles continue to constrain technology transfer and commercialization. Science and technology policies were emphasized for the first time in the Fifth Malaysia Plan (1986-1990), with the simultaneous promulgation of the First National Science and Technology Policy (1986-1989). The plan aimed to address issues including the lack of capabilities for technology development; the need to strengthen R&D infrastructure; and the need to address the frictions between R&D and technology transfer. Commercialization of public research increased with the implementation of the Sixth Malaysia Plan (1991-95), which emphasized the need for public R&D programs to become more market-oriented. Among the identified constraints is the mismatch between the R&D output of Higher Education Institutions (HEIs) or Public Research Organizations (PROs) and the private sector (Chandran, 2010). This challenge is attributed to the lack of alignment of research interests between industry and universities or PROs, leading to a lack of incentives for industry to link up with researchers in these institutions (Govindaraju et al., 2015; Ismail et al., 2017). Strengthening the linkages between these institutions and industry could deliver potential financial benefits for R&D and drive demand-driven research.

FIGURE 66
Firms in Malaysia are investing more in research and development...



Source: UNESCO Institute for Statistics

FIGURE 67
...but they lag in terms of patent applications

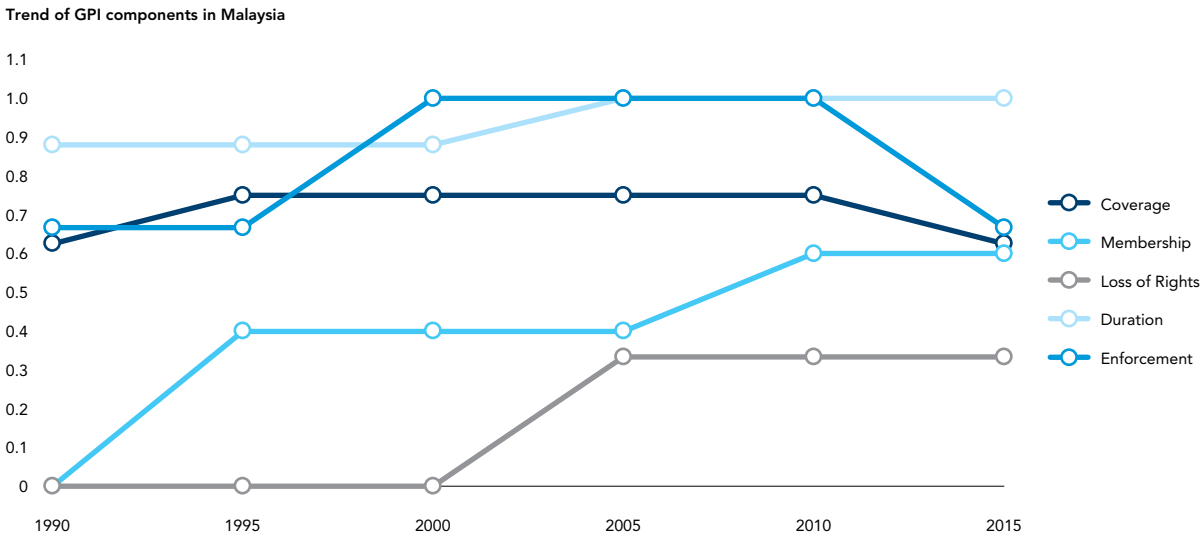


Source: World Intellectual Property Organization


TEKSI
BERMETER
TEKSI
LEE CHEE KEONG
LEMBAH KELANG

While Malaysia's intellectual property rights (IPR) regime has become stronger, challenges remain. There has been a secular increase in terms of the Ginarte Park Index (GPI),[65] which is the most widely used index to measure IPR strength, for all countries over the past three decades. By and large, this increase has been most significant for middle- and lower-income countries, with developed countries building more slowly, but from a higher base. With a score on 3.23, Malaysia's performance in terms of this index is in the same ballpark as that of Nicaragua (Score=3.09), Mauritania, Malta, Uganda, Uruguay, Sierra Leone, Sri. Lanka, Thailand, Jordan, and Tanzania (Score = 3.3). Developed countries such as Austria, USA, and Japan scored highly in terms of the GPI over the past several decades, with their scores remaining relatively steady. By contrast, Malaysia's performance in terms of this index has increased over the past several decades, with the steepest increase occurring since the 1990s (its GPI was 2.17 in 1990; 3.03 in 2000; 3.48 in 2005; and 3.68 in 2010). However, since then, its score has slipped, falling to 3.23 in 2015, the last year for which data is available. Disaggregating the data in terms of the index's five categories shows that most of Malaysia's decline is attributable to its performance in two categories – coverage and enforcement (see Figure 68). For innovation-based economies such as Singapore, their growth story seems to be strongly coupled with their GPI rankings. It is likely that as countries become innovative, strong IPR is needed not to only attract FDI, but also to protect and reward domestic entrepreneurs and inventors. A decline in GPI score of the sort recorded by Malaysia is atypical, possibly indicating inadvertent slippages in policymaking or a decline in enforcement.

FIGURE 68
The strength of Malaysia's IPR regime has seen some improvement over recent years



Source: Ginarte Park Index

[65] GPI computes the score for 123 countries. It is important to note that the GPI computes values based on how laws are written and not how they are enforced.

A more open trade and investment policy framework is required

Openness to foreign trade and investment plays a critical role in facilitating innovation, particularly technological absorption and diffusion, due to both the competitive pressure it exerts on management and corporate governance and to the exposure to global best practices, technology and management techniques provided to local firms. While trade and import competition may play a role in promoting domestic innovation, the effect is not obvious, a priori. Indeed, the empirical evidence from developed countries is not conclusive. Bloom et al. (2016) found a positive effect from import competition on innovation in the case of Mexico and European countries, while Autor et al. (2016) show a correlation between a decline in US patent production and an increase in Chinese imports.

Foreign direct investments (FDI) may play a role in facilitating technology spillovers. Horizontal spillovers may occur when the multinational affiliate generates technological learning spillovers to other firms in the industry through its business operation. Similarly, backward vertical spillovers may arise when the multinational affiliate provides technology to its suppliers at below-market prices. Increased FDI flows, especially those involving participation in producer-driven supply chains, increase the absorption of technology. Finally, there is evidence that increased FDI in business services (such as finance, telecommunications, and transportation services) facilitates increased productivity in the host economy, especially in the sectors that use these services (Fernandes, 2007; and Arnold, Mattoo and Javorcik, 2007).

As Malaysia comes closer to achieving high-income status, the challenge is both to maintain FDI volumes and to attract quality investments that sustain its competitiveness and maximize local developmental benefits. As is the case with many of its competitors, Malaysia has made extensive use of different policy instruments to foster investment and to attract FDI, including regulatory liberalization; tax incentives; investment promotion; and the establishment of Special Economic Zones. In recent years, the Malaysian government has committed to making greater strategic use of investment policy to attract higher quality investments that generate broader domestic linkages and spillover effects. This is in line with its objective of ensuring that innovation, skills and productivity growth serve as drivers to achieve higher levels of sustainable, inclusive economic growth. Historically, Malaysia's investment policy has been heavily focused on a set of pre-defined priority sectors. However, the effectiveness of this approach is becoming increasingly questionable with the continued growth in the number of eligible sectors since the 1960s, resulting in a lack of clarity regarding the prioritization progress. To address this, Malaysian policymakers need to establish clearer strategic objectives.

Greater market competition would provide economy-wide benefits

As Malaysia transitions to high-income status, with growth increasingly driven by higher levels of productivity rather than factor accumulation, effective market competition is vital. Firms that face vigorous competition have strong incentives to reduce their costs, to innovate, and to become more efficient and productive than their rivals.[66] Competition in input (upstream) markets, such as transportation, financial services, energy, telecommunications, and construction services, is a key driver of efficiency and productivity growth in downstream sectors that are users of these inputs. Industries exposed to higher levels of domestic competition are more competitive and achieve better export performance.[67] Furthermore, competitive

[66] See for example Bassanini and Ernst 2002; Bloom, Draca, and Von Reenen 2011; Aghion and Griffith 2005; Acemoglu et al. 2007. There is cross-country evidence on the impact of competition policy on the growth of total factor productivity and GDP (Schwab and Verker, 2014; Guttman and Voigt, 2014).
[67] Hollis 2003, Sakakibara & Porter 2001; Baek, Kim and Kwon 2009. For a summary of literature review on Competition and export competitiveness, see Goodwin and Pierola. 2015.

markets enable consumers to access a wide variety of well-priced, quality products, thus improving their welfare and providing sustainable opportunities for job creation.[68]

Although perception-based indicators suggest that Malaysia has relatively competitive markets, business risks related to a lack of competition remain relatively high compared to its peers. While the latest Bertelsmann Stiftung's Transformation Index indicators (BTI, 2020) suggest that Malaysia performs well in terms of anti-monopoly policies and market-based competition,[69] the latest Economist Intelligence Unit (EIU) data (November 2019), indicates higher risks related to barriers to competition than in peer countries, particularly in terms of discrimination against foreign firms and the extent of price controls (see Figure 69).

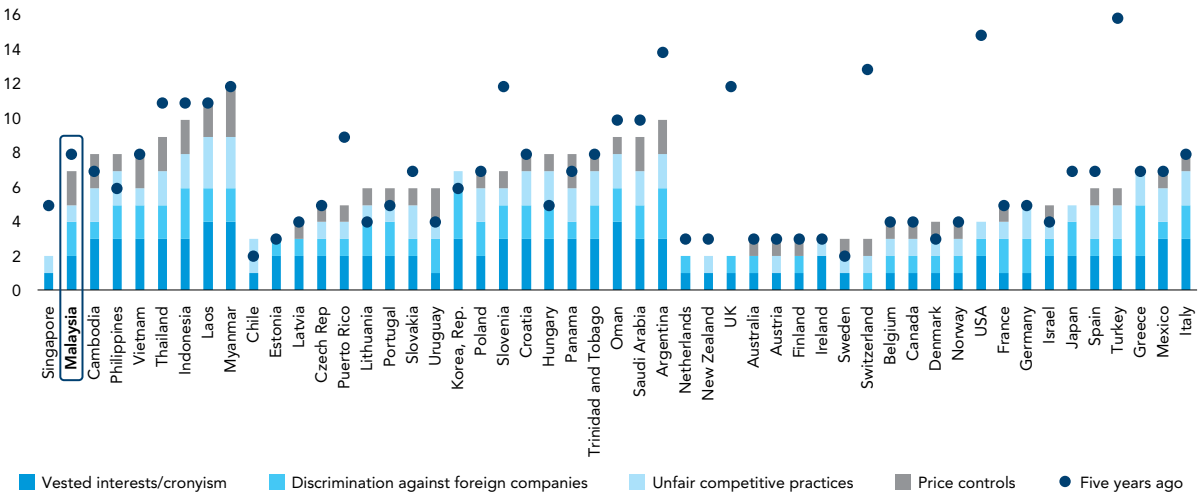
Moreover, in Malaysia, key enabling sectors, such as professional services, remain relatively closed. On average, the regulations governing professional services in Malaysia are more restrictive than in the case of regional peers such as Singapore and the Philippines and compared to most of Malaysia's transitional and aspirational peers (see Figure 70). Malaysia's government regulations impose significant restrictions on foreign ownership and entry into certain regulated professions, including accounting, law, and architecture. As a result, the sectors are dominated by small firms with limited capacity to compete on a larger scale.

In order for Malaysian markets to operate more efficiently, it is necessary to address regulations and practices that restrict business entry and market competition and/or weaken the enforcement of pro-competition policies. The effective implementation of competition rules and related regulatory instruments, such as the public procurement framework or sector regulations, is equally important. To that end, coordinating policy efforts between public and private bodies to generate a competitive business environment and to promote contestable and open markets is vital to create incentives for entrepreneurship and to increase pressures to innovate.

FIGURE 69

Business risks in Malaysia are lower than in regional comparators, but higher than in aspirational peers due to discrimination against foreign firms and the use of price controls

Index of business risks across various market dimensions (0-4 with 0=best), Malaysia and comparator economies

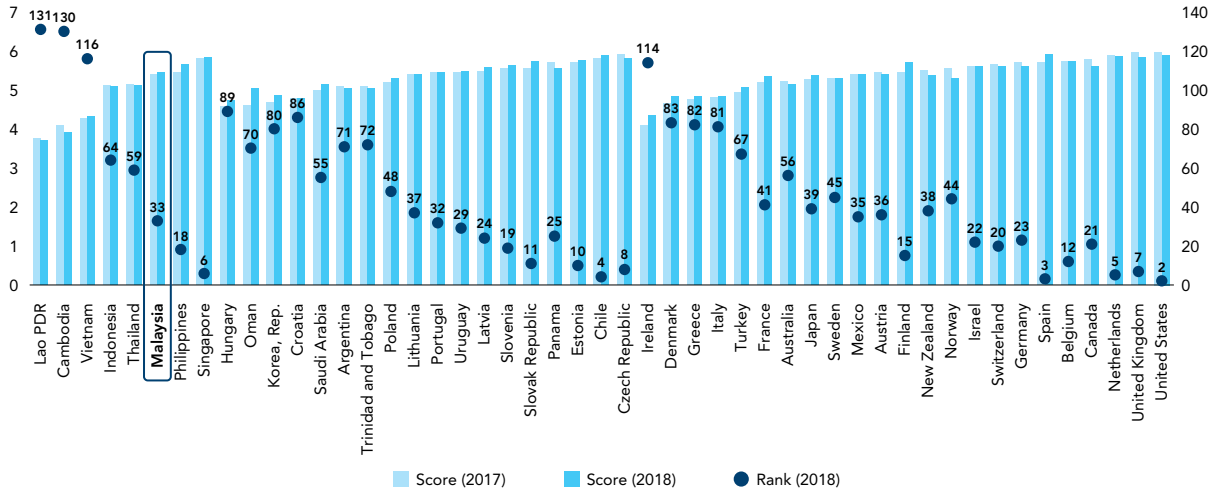


Source: World Bank staff elaboration based on data from the Economist Intelligence Unit (EIU) Risk Tracker, November 2019
Note: The EIU Risk tracker is a perception indicator as reflected by the Economist Intelligence Unit.

[68] See World Bank and OECD. 2017.
[69] The indicators of the Bertelsmann Stiftung's Transformation Index (BTI) answer the following questions based on expert judgment: (i) to what level have the fundamentals of market-based competition developed (including the low importance of administered pricing, currency convertibility, no significant entry and exit barriers in product and factor markets, freedom to launch and withdraw investments, and no discrimination based on ownership (state/private, foreign/local) and size and (ii) to what extent do safeguards exist to prevent the development of economic monopolies and cartels, and to what extent are they enforced (including the existence of antitrust or competition laws and enforcement)?

FIGURE 70
The level of competition in services in Malaysia is low due to restrictions on entry

Index of competition in professional services (1-7 with 7=best), Malaysia and comparator groups



Source: World Bank staff calculations based on data from the World Economic Forum's Global Competitiveness Report

Industry 4.0 will create demand for higher levels of skill

Investments in the development of human capital through the provision of training and increased access to new and improved skills are an important step toward achieving higher levels of productivity at the firm level over the long-term. Malaysia's continued growth will require increasingly high levels of human capital as a crucial input to enable it to achieve its aspirations of becoming a high-income country. The development of these human capital assets will enable Malaysian businesses to assimilate and utilize the latest technologies and thereby to remain competitive in increasingly complex and evolving global markets. Recent studies suggest that emerging and developing countries may struggle to adapt to meet the needs of Industry 4.0 (Yusuf, 2017; UNIDO, 2017). In fact, digital technologies could reinforce the comparative advantage of high-income economies, due to the technology being more attuned to high-income country factor endowments and capabilities.

While jobs are becoming less manual and more analytically and socially demanding, with a demand for digital skills increasing, critical skills shortages persist in the Malaysian economy. As shown in the chapter on jobs, structural transformations at a global scale have led to a shift in the nature of work over the years, with an increase in the demand for digital skills. The proportion of high-skilled workers in priority sectors[70] set forth in the Malaysian government's Industry4WRD strategy has actually decreased in the period from 2009 to 2015 (see Figure 71). Except for a spike in 2012, data from the Department of Statistics Malaysia (DOSM) suggests that the proportion of Malaysia's labor force (including both Malaysian national and non-Malaysian workers) that is highly skilled has remained constant, with a slight dip in 2015. The majority of Malaysia's workforce is categorized as semi-skilled, which suggests that there is room to upskill. In addition to the slight decrease in the proportion of high-skilled

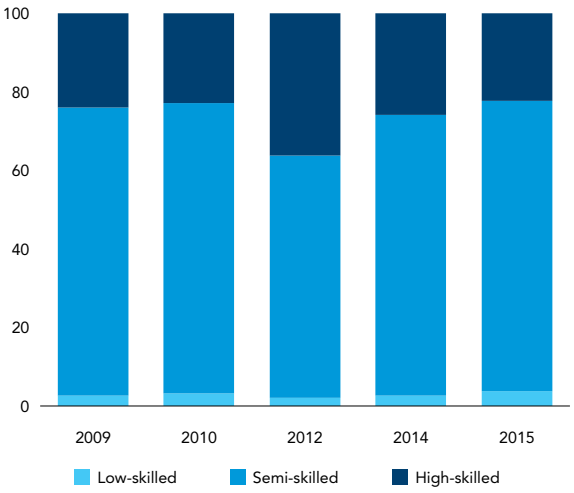
[70] The Malaysian Government has identified five priority sectors in Industry4WD Strategy documents: These are E&E, Machinery and Equipment, Chemicals, Aerospace and Medical Devices.

workers, relative to comparators, Malaysia lags behind BRICS[71] countries in terms of frontier skill penetration, especially in areas such as robotics and artificial intelligence (see Figure 72). An examination of LinkedIn data[72] shows that BRICS countries generally perform better in terms of frontier tech skills penetration than Malaysia. On the other hand, the level of these skills in Malaysia is closer to that of the "Asian Tigers",[73] with Malaysia sometimes outperforming the Tigers in skills areas such as aerospace engineering and robotics. This may be because Asian Tigers include city states such as Singapore and Hong Kong, with a lower presence of the manufacturing sector. However, Malaysia's performance in terms of artificial intelligence is lower than that of both the Asian Tigers and BRICS countries. Conversely, Malaysia has a relative advantage in areas such as materials science.

FIGURE 71

Most of the existing workforce is currently classified as semi-skilled...

Distribution of employee skill levels in priority sectors, 2009-15, Percentage

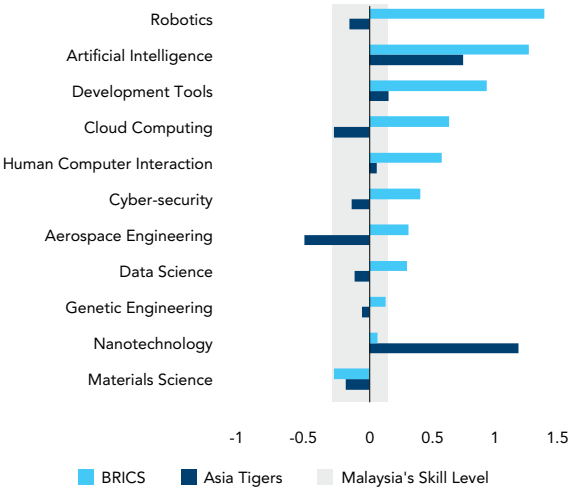


Source: DOSM.
Note: Priority sectors covered are: Chemicals, Electrical and Electronics, Machinery & Equipment, and Medical Devices and optical instruments.

FIGURE 72

...and Malaysia lags behind in some "frontier skills" necessary for Industry 4.0

Index of distance from frontier skills, Malaysia and comparators



Source: "World Bank LinkedIn Digital Data for Development" by World Bank Group & LinkedIn Corporation, licensed under CC BY 3.0, 2015-2018.
Note: "Distance from Comparator" is measured as the difference between Malaysia's relative skill penetration and the comparator country group's relative skill penetration.

[71] Excluding Russia, since LinkedIn is not operating in this country.
[72] LinkedIn does not have strong coverage of the Manufacturing sector as a whole; it has good coverage for high-skilled occupations (i.e. engineers and the operations managers working in manufacturing but not necessarily factory floor workers). This unique form of labor market data comes with certain sample selection characteristics and caveats. Firstly, LinkedIn data is skewed toward knowledge sector workers (e.g. ICT, Finance etc.). In addition to sector skewness, the LinkedIn platform is more likely to capture data on workers with at least a bachelor's degree. The data also has unique characteristics such as reliance on self-reported data and varying propensity to list skills depending on country/cultural norms. This results in differing levels of reliability across indicators, where, for example, occupation, location, and hard skills are less prone to bias and manipulation, but for certain soft skills or unemployment trends the data is less reliable.
[73] Asia Tigers defined as Hong Kong, Singapore, the Republic of Korea, and Taiwan, China.

SMEs need to embrace digital technologies and modern finance

While SMEs represent the majority of Malaysian firms and account for around half of manufacturing employment, large firms drive MVA and, to an even greater extent, exports. The latest economic census shows that SMEs' contribution to employment and to the total number of firms in the manufacturing sector far outweigh their share of gross output and MVA (see Figure 73). This is in stark contrast to OECD economies, where SMEs account for between 50-60 percent of value added (OECD 2018). However, there is a wide variation across products, with Malaysian SMEs' share of MVA ranging from 76 percent in furniture, to 3 percent in coke and refined petroleum products (see Figure 74). According to the most recent figures, SMEs contributed to about 34.4 percent of Malaysia's MVA in 2018, but to only about 8.4 percent of its total manufactured exports (DOSM 2019).

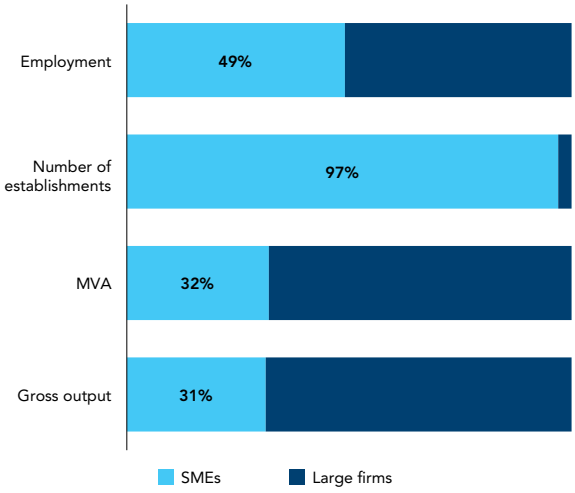
The rate of Malaysian SMEs' digital adoption remains low. An examination of the digital adoption index shows that Malaysians are among the most digitally connected in the world, with the Malaysian government having invested heavily in digital technologies to modernize its systems and processes (World Bank, 2018). Malaysia's score of 0.64 (0.81 standard deviations above the global mean) on the people sub-index places it ahead of all but two countries in ASEAN (Singapore and Thailand), although still behind all but four countries in the OECD (Chile, Mexico, Slovenia, and Turkey). However, at 0.55 (0.14 standard deviations below the global mean), Malaysia's businesses continue to underperform. Moreover, Malaysia's performance in terms of the business sub-index is the only sub-index in which it underperforms based on its income level.

While Malaysian SMEs generally have a positive outlook regarding ICT, their actual usage of ICT tools remains low. A recent survey conducted by Huawei and SME Corp[74] found that more than half of Malaysian SMEs had a positive outlook regarding the ability of ICT to transform their businesses. However, a further examination of SMEs' rate of usage of ICT reveals gaps. Almost all SMEs in Malaysia have computing capabilities and internet connectivity, with most using either smart devices or personal computers. However, the study found that while 71 percent of SMEs engaged in social media for marketing and communications, only 44 percent were involved in e-commerce activities, with less than 20 percent using applications other than for finance and accounting and human resource management. The low levels of utilization of ICT tools for process improvement shows that SMEs face constraints

FIGURE 73

Malaysia has many SMEs, but they account for a low share of economic activity...

Relative weight of SMEs in Malaysia's manufacturing sector by key dimensions

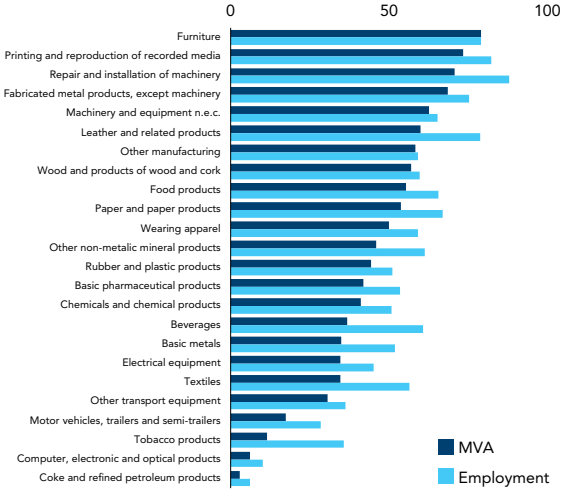


Source: World Bank staff calculations based on DOSM data

FIGURE 74

...although there is wide variation in the contribution of SMEs across sectors

SMEs contribution to Manufacturing value added and employment by product, Percentage

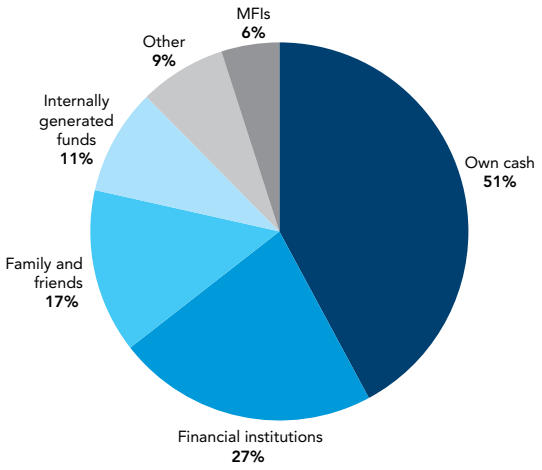


Source: World Bank staff calculations based on DOSM data

[74] Accelerating Malaysian digital SMEs: Escaping the computerization trap, SME Corp, 2018

FIGURE 75
Half of SMEs in Malaysia are financed with own cash...

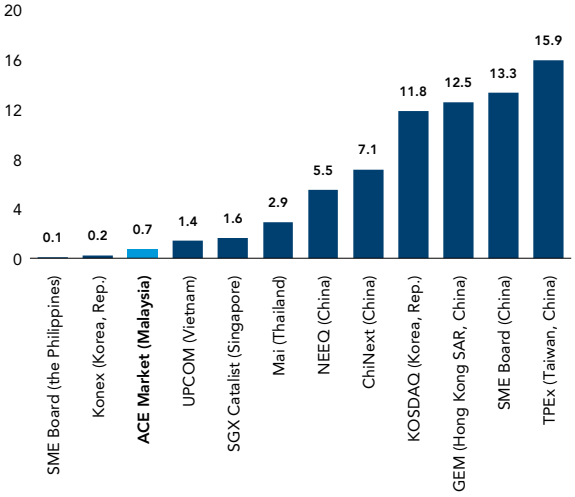
Sources of SME finance in Malaysia



Source: Bank Negara Malaysia 2018

FIGURE 76
...and the market capitalization of listed SMEs remains very small

Market capitalization of SME focused capital markets, Percentage of GDP, Malaysia and selected regional comparators



Source: World Bank, The Rise of Domestic Capital Markets for Corporate Financing

to move from computerization to full digitalization of their businesses.

Banks continue to be the main source of external financing for Malaysian SMEs, with most SMEs relying on informal sources. According to a survey conducted by Bank Negara in 2018, SMEs rely heavily on informal sources of funding such as self-financing (51 percent) and funding from family and friends (17 percent). In total, 27 percent of respondents reported receiving financing from a financial institution, with 9 percent relying on other sources, such as alternative financing and government grants (see Figure 76).[75] Predictably, younger SMEs rely to a greater extent on self-financing, with an increased use of external financing as they mature. With automation increasing significantly and SMEs contributing to a large share of employment, this could have significant impact on the labor market (see Jobs chapter).

While SMEs' share of the total value of finance provided by financial institutions has increased over the past decade, SMEs continue to report constraints on access, particularly related to lack of collateral. A 2017 IFC study identified an MSME finance gap of 8 percent in Malaysia, comparing favorably to the regional average gap of 18 percent.[76] A 2018 Bank Negara survey of SMEs indicated that they faced constraints related to documentation, collateral and the perceived bankability of their businesses. Firms involved in process automation, innovation, and the manufacture of goods for export frequently reported that their requests for loans were rejected on the grounds of insufficient collateral, with most of these applications for machinery, equipment and tools, all of which could involve movable or intangible assets that could serve as collateral in the case of default. However, unincorporated firms (70 percent of SMEs) cannot pledge movable assets as collateral.[77] Factoring and leasing (which are popular asset-based financing instruments for SMEs in many countries) are both relatively insignificant in Malaysia, at 1.4 percent of GDP for factoring in 2018 and at 0.51 percent of GDP for leasing in 2017.

Capital markets are evolving to meet the needs of a wider spectrum of SMEs, connecting underserved issuers with untapped pools of investors. In Malaysia, the total value of venture capital and private equity stood at US$1.5 billion in 2018, with 86 percent of this funding committed to early-stage or growth-stage firms.[78] The ACE Market,[79] which serves as a

[75] Bank Negara Malaysia. Understanding Financing through the Lens of Small and Medium Enterprises (SMEs). Financial Stability and Payments Report 2018.
[76] World Bank Group SME Finance Forum IFC. The MSME Finance Gap. 2017
[77] Bank Negara Malaysia. Understanding Financing through the Lens of Small and Medium Enterprises (SMEs). Financial Stability and Payments Report 2018.
[78] Securities Commission Malaysia. Annual Report 2018.
[79] The ACE Market which stands for 'Access, Certainty, Efficiency' is actually the new name for the formerly known MESDAQ (Malaysian Exchange of Securities Dealing and Automated Quotation) Market.

complement to Bursa Malaysia and focuses on smaller companies with growth prospects, accounts for just 0.7 percent share of GDP, compared to 15.9 percent in the case of the Taipei Exchange (TPEx), an emerging stock exchange board in Taiwan, China (see Figure 77). In 2017, the Leading Entrepreneur Accelerator Platform was introduced to provide SMEs with greater fundraising visibility. Despite low trading liquidity and despite being restricted to sophisticated investors, the Platform had 11 listings in 2019. Funding through Malaysian Equity Crowd Funding platforms has also increased sharply, from US$0.06 million in 2013 to US$18.16 million in 2019. Fifty percent of investments were of a value of US$125,000 or below, suggesting that the recipients are mainly startup and small companies raising funds.[80] A peer-to-peer lending framework was established in 2016, facilitating the provision of funding to 8102 campaigns to a total value of US$154 million as of December 2019 , with 70 percent of this funding involving amounts of US$12,135 or less.[81]

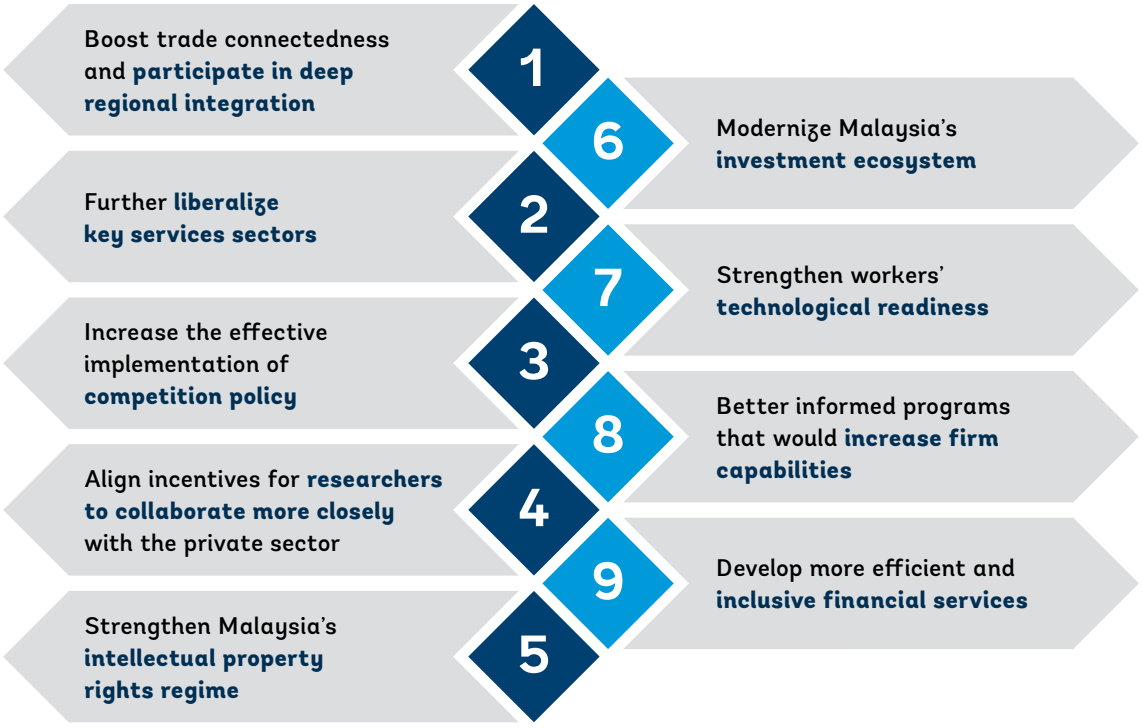
As alternative financing instruments proliferate, the fragmentation of Malaysia's system of credit data is becoming increasingly relevant. Malaysia's credit reporting system consists of a credit registry (the Central Credit Reference Information Center), which is operated by Bank Negara Malaysia, and seven credit reporting agencies that are registered with the Registrar Office which also supervises credit bureau activities in the country. While credit information data is shared through the credit registry, a number of non-bank sources that provide financing (such as peer-to-peer lenders) do not provide information to this registry.

[80] Securities Commission. Data as of December 2019 accessed at https://www.sc.com.my/analytics/ecfp2p
[81] Securities Commission. Data as of December 2019 accessed at https://www.sc.com.my/analytics/ecfp2p

What will it take to foster a more competitive private sector?

As Malaysia transitions toward high-income status, it is important for policymakers to ensure that policy priorities and tradeoffs are adequately identified to prepare for the future. Current strategies and policies to upgrade the manufacturing sector, such as Industry 4WRD, address many of the emerging challenges facing the manufacturing sector, which is essential to enable Malaysia's higher level of participation in global value chains. However, to increase competitiveness, it needs to address a number of basic economic issues, including investment, trade, and education policy (see Figure 78). The following recommendations are intended to enable Malaysia to achieve these goals.

FIGURE 77
To increase competitiveness, Malaysia needs to address a number of basic economic issues, including investment, trade and education policy



Source: World Bank staff elaboration

RECOMMENDATION 1

Boost trade connectedness and participate in new regional and "deep" preferential trade agreements: Malaysia could increase its potential to participate effectively in global and regional value chains through measures to improve trade logistics and border management and through lowering and simplifying tariffs on imported goods. Additionally, new regional and "deep" preferential trade agreements; continued integration with the ASEAN Economic Community; and a push for unilateral liberalization in services could create additional opportunities for Malaysia to strengthen behind-the-border connectivity. Malaysia is embarking on a wave of new generation trade agreements that will establish the regulatory environment for trade and investment over the next few decades. Mega-regional trade agreements, such as the Comprehensive and Progressive Agreement of Trans-Pacific Partnership (CP-TPP) and the Regional Comprehensive Economic Partnership (RCEP) imply deeper commitments than those already established by the WTO multilateral trading system. These cover areas such as competition policy; government procurement; investment policies and investors' protection; intellectual property rights; labor standards; and Government-Linked Companies (also see Institutions chapter). These commitments could have a significant positive impact in terms of attracting investments that spur innovation and technological upgrading.

RECOMMENDATION 2

Further liberalize key services sectors to promote more competitive markets. The Government should prioritize measures to build strong domestic services sectors and to enhance access to foreign services, as these will play a key role in improving the competitiveness of Malaysia's manufacturing sector in the future. For example, Malaysia could learn from India's efforts since the 1990s to liberalize heavily regulated, state-led financial, telecommunication, and transport service sectors and to open them up to domestic and foreign competition. While these efforts have been uneven and incomplete, empirical evidence shows that they have resulted in a stronger services sector, which in turn has benefited manufacturing firms (Arnold, et al. 2014).

RECOMMENDATION 3

Increase the effective implementation of competition policy. This could be achieved through measures including: *(i) Reduction of existing exclusions from the scope of application of the competition law:* Key sectors of the economy are excluded from the Malaysia Competition Commission's antitrust scrutiny, including specific sectors such as telecommunications and energy that are subject to sectoral rules;[82] as well as all enterprises entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly.[83] Internationally, state-owned enterprises are generally covered by the application of competition laws to ensure a level playing field;[84] *(ii) Increasing the institutional independence of the competition commission:* The Malaysia Competition Commission Board involves significant representation from different ministries/agencies,[85] with the Commission reporting to the Minister of Domestic Trade, who may provide written directions of a general character relating to the performance of the functions and powers of the Commission that need to be followed.[86] The appointment of the Commission's members may be revoked at any time through an order of the Prime Minister.[87] International evidence confirms the positive impact of the institutional independence of competition agencies;[88] *(iii) Provisioning for the review of mergers and acquisitions:* While the Competition Act prohibits anticompetitive behavior, it contains no provisions for reviewing mergers and acquisitions. Control over mergers is crucial to curbing the negative effects of market concentration, while still enabling beneficial consolidation. In this context, sector specific regulators in areas such as energy, telecommunications

[82] The Commission is in charge of applying the law in all sectors except for those regulated by the Communications and Multimedia Act 1998 and the Energy Commission Act 2001 (established at the First Schedule in Act 712), Petroleum Development Act 1974, Petroleum Regulations 1974 and Malaysian Aviation Commission Act 2015. Nonetheless, the Communications and Multimedia Act 1998 includes provisions on anticompetitive practices (Chapter 2) to be enforced by the regulator.
[83] See Competition Act 2010 [712], Article 3(4)(a) and Second Schedule [Section 13] (c).
[84] See for example OECD survey covering 49 jurisdictions, with only one reporting that state-controlled firms are exempt from the application of competition law when conducting commercial activities in competition with private firms only in some sectors or with respect to some specific antitrust infringements. Alemani, E., et al. (2013).
[85] 4 out of 10 Commissioners represent the government, including the Ministry of Finance, the Ministry of International Trade and Industry, the Prime Minister's Office and the Ministry of Domestic Trade, Co-operatives and Consumer Affairs
[86] See Competition Commission Act 2010 [Act 713], Article 18(1) and (2).
[87] See Competition Commission Act 2010 [Act 713], Article 11(1).
[88] See reference to how De facto independence of the competition authority in a developing country can translate into a 17 percentage point reduction in the total factor productivity (TFP) gap with the United States, on average, as per Voigt (2009) estimations in a study using cross-country evidence captured in Kitzmuller and Licetti (2012).

and banking remain key to the analysis of mergers. Internationally, very few jurisdictions with competition laws do not have an overarching merger control framework,[89] with increasing discussions regarding strengthening merger control in digital markets;[90] *(iv) Ensuring competitive neutrality between public and private operators:* This requires the implementation of a regulatory framework within which public and private enterprises are governed by the same set of rules.

RECOMMENDATION 4

Align incentives for researchers to collaborate more closely with the private sector and conduct industry-relevant research. The process of technology transfer and of the commercialization of R&D output takes time and requires large initial investments before any returns are generated. In recent years, the government has introduced numerous policies and funding programs to support public R&D and its commercialization through various channels, from project grants to pre-seed funding (Ab. Aziz et al, 2012). However, the lack of coordination between policies and funding undermines their effectiveness (Bakar et al, 2016). There is a need for greater coordination and common policies across funding agencies, especially between the ministries responsible for education and science. The lack of coordination of funding and policies also cause HEIs and PROs to face deficiencies and inconsistencies in funding, hampering their abilities to conduct research (OECD, 2016). Further, there is evidence to show that PROs are not well linked to industry needs and there is a lack of incentives in their performance metrics to effectively incentivize collaboration with industry. An effective innovation ecosystem would entail a robust supply of industry-relevant research and effective incentives for HEIs and PROs to align their research to industry needs.

RECOMMENDATION 5

Establish mechanisms to strengthen Malaysia's intellectual property rights regime. The development of effective IP polices to facilitate innovation requires a focus on three critical issues: (i) the identification of IP policy priorities; (ii) an assessment of the trade-offs rising from the implementation of IPR policies; and (iii) an assessment of the extent to which they are compatible with the wider set of policies. After the government determines its final objectives, the next step should be to understand what mechanisms could be adopted to strengthen the intellectual property rights (IPR) regime. Various options exist, including capacity building in intellectual property agencies; the establishment of dispute resolution mechanisms; and the establishment of specialized IPR courts, etc. Naturally, the preference should be for mechanisms that are speedy, cost-effective, and that can be implemented easily. The measures should inspire confidence in investors that remedial measures will indeed deter IPR infringement or make up for any losses in the event of an infringement. Based on the scores of components making up the GPI, it appears that priority should be given to measures related to coverage and enforcement to strengthen the IPR ecosystem.

[89] Peru was one example, but in May 2019 the congress approved a merger control law that has yet to be gazetted.
[90] See for example, "Unlocking Digital Competition", Report of the Digital Competition Expert Panel, March 2019; European Commission, Directorate General for Competition "Competition Policy for the Digital Era", Final Report, 2019; and Australian Competition & Consumer Commission, Digital Platforms Inquiry, Final Report, July 2019.

RECOMMENDATION 6

Modernize Malaysia's investment ecosystem to make it more efficient and to attract higher quality investments. The government should consider measures to reform: (i) ***the investment incentives system***, which is excessively complex, discretionary and rigid and which suffers from shortcomings in terms of targeting and administration; and: (ii) the ***investment promotion*** framework, which is fragmented and provides incomplete services along the investment lifecycle. The list of sectors eligible for incentives could be reviewed to ensure consistency with national investment aspirations. Further, to increase efficiency and transparency, most incentives could be automated. In addition, to assure investors regarding the objectivity and accuracy of the compliance monitoring system for the tax incentives, an alternate dispute resolution mechanism could be adopted. The reform of the investment promotion framework should focus on increasing coordination between the lead agency and subnational agencies to address national-subnational coordination issues.

RECOMMENDATION 7

Strengthen workers' technological readiness. Policymakers should emphasize the development of applied tech skills and structured partnerships with industries for internship and capstone projects (see jobs chapter for more on this).

RECOMMENDATION 8

Better inform programs that would increase firm capabilities. The Government should consider policies to establish linkages between service providers and manufacturing firms and to incentivize greater and more effective industry-research collaboration. In addition, there is a need to improve Malaysian firms' basic managerial and organizational practices, particularly in the case of SMEs. Moreover, Malaysia could emulate leading countries' efforts to reap productivity and competitiveness gains. For instance, the Czech Republic piloted a well-known supplier development program in the early 2000s to strengthen the competitiveness of local companies and facilitate backward linkages with MNCs, particularly in the electronics and automotive industries (WEF, 2016).[91] While clear before, the COVID-19 crisis has further increased the benefits SMEs could derive from using new technologies, for instance through remote work and online business platforms. Going forward, measures should be identified to further increase the rate of digitization amongst SMEs in Malaysia. Subsidized or free broadband access and direct technical support could be provided to SMEs to accelerate the transition to digital platforms, including business-to-consumer and business-to-business. In this context, renewed efforts to support workers' reskilling and upskilling will be particularly important.

RECOMMENDATION 9

Develop an enabling framework for the provision of more efficient and inclusive financial services, including digital financial services, with a financial infrastructure to facilitate secured transactions and improved credit reporting data. Bank Negara issued an exposure draft for consultation in December 2019 to establish a framework for digital banks.[92] In other countries, such as Brazil, the Republic of Korea, and the United Kingdom, these banks have shown the potential to improve coverage of underserved market segments; to increase competition; and to exert downward pressure on margins to improve the affordability of financial services. In all of these countries, the digital banks' target market has been younger than the average bank customer, suggesting that they are an effective means to promote a lasting shift toward digital financial services. Digital technology offers an unprecedented opportunity to mitigate the impact of the COVID-19 crisis on SME financing. Simplified loan application processes and use of alternative data for credit decisioning could be leveraged by state development banks to reduce turn-around times of SME loans. A framework for secured transactions should be developed, including a centralized notice-based collateral registry to allow MSMEs that are not incorporated to pledge movable assets as collateral. There is evidence that the introduction of collateral registries increases the number of firms with access to credit by 8 percent; and results in a 3 percent reduction in interest rates and a 6-month extension in loan maturities.[93] To enhance the Malaysian credit reporting system, mechanisms should be adopted to enable "thin-file" credit customers without sufficient credit history greater access to finance by allowing creditors to access consolidated reports from all credit bureaus and by integrating data from alternative finance platforms, utilities and other income verification data from government ministries that could be used for credit underwriting purposes.

[91] See: https://www.czechinvest.org/en/Our-services/Sourcing.
[92] Bank Negara Malaysia. Exposure Draft on Licensing Framework for Digital Banks. December 8, 2019.
[93] Love, et al. 2013.

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CHAPTER 4

Creating jobs

Creating enough well-paying, high-quality jobs for workers of all skills levels is becoming more complex as the nature of work is changing and Malaysia moves toward high-income status. Gaps have emerged in the country's skills framework, even as some activities are threatened by automation. In addition to policies that address bottlenecks to productivity and competitiveness, reforms are needed to improve basic health and nutrition, strengthen learning outcomes, facilitate lifelong learning and digital literacy, and attract and retain talent.

With the changing nature of work, many workers risk being left behind

This chapter analyzes the challenges facing Malaysia in its endeavor to create a greater number of more productive and protected jobs for workers of all backgrounds and skills levels as the nature of work changes and the country transitions to high-income status. The analysis is based on an examination of Malaysia's evolving job market and addresses both demand-side and supply-side constraints and opportunities. On the demand side, the chapter examines Malaysian employers' views regarding *workers' skills and education* and *automation and its impact on employment*. On the supply side, the chapter emphasizes the importance of building *foundational human capital*, of mobilizing remaining *underutilized sources of labor supply* both inside and outside Malaysia, and of *upskilling and reskilling of the workforce*.

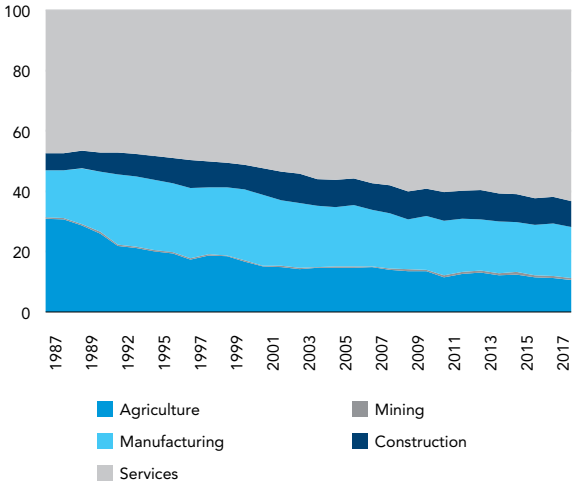
In the past, the reallocation of labor toward more productive sectors was a significant driver of growth and well-being. With Malaysia's progress toward the achievement of high-income status, a decreasing proportion of the population has been employed in agriculture, with a corresponding increase in the proportion employed in manufacturing and services (see Figure 78 as well as the competitiveness chapter for a discussion of the importance of the manufacturing sector over time). With these shifts, labor productivity has been increasing faster in the manufacturing sector than in construction, agriculture and services, while in the very capital-intensive mining sector, it has varied cyclically, with a dramatic decline since around 2003. In 2018, the value added per manufacturing worker was RM122,000; in the construction sector it was RM53,000; in the agricultural sector it was RM63,000; in the services sector it was RM83,000; and in the mining sector it was RM1,136,000 (see Figure 79).

More recently, the reallocation of labor across sectors has stopped being positively correlated with productivity. In the period from 1987 to 1997, the correlation between initial labor productivity and subsequent labor reallocation was positive (see Figure 80). However, this correlation was negative between 2007 and 2018 (see Figure 81). This means that in 1987, sectors that had a relatively high labor productivity subsequently increased their share of overall employment. In 2007, the opposite was the case and relatively unproductive sectors increased their employment share in the ensuing ten years.

While the transformation of the nature of Malaysia's jobs has resulted in generally increased living standards and higher levels of productivity, some Malaysians have been left behind. Even though the reallocation of labor across sectors has recently

FIGURE 78
Employment has shifted significantly toward the services sector...

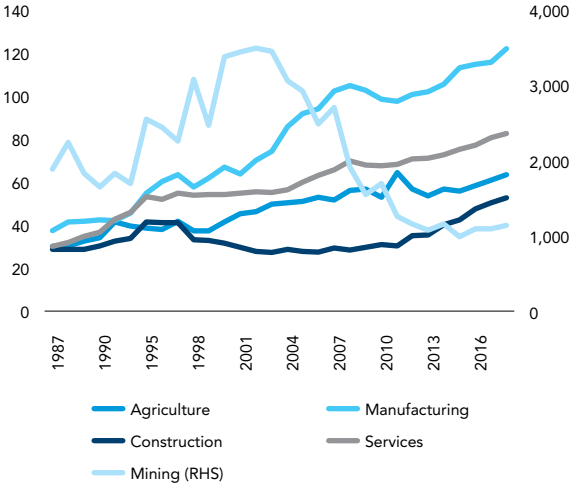
Share of total employment, Percentage



Source: Abdur Rahman and Schmillen (2020)

FIGURE 79
...while productivity is highest in the manufacturing sector

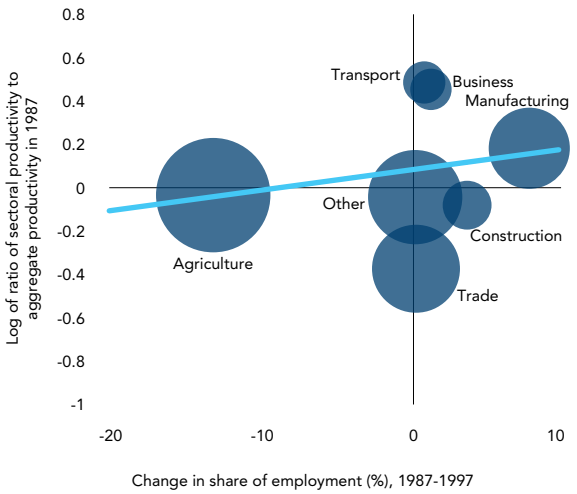
Value-added per worker, Constant 2015 thousand RM



Source: Abdur Rahman and Schmillen (2020)

FIGURE 80
In the 1990s, there was a positive relationship between initial productivity and changes in employment share...

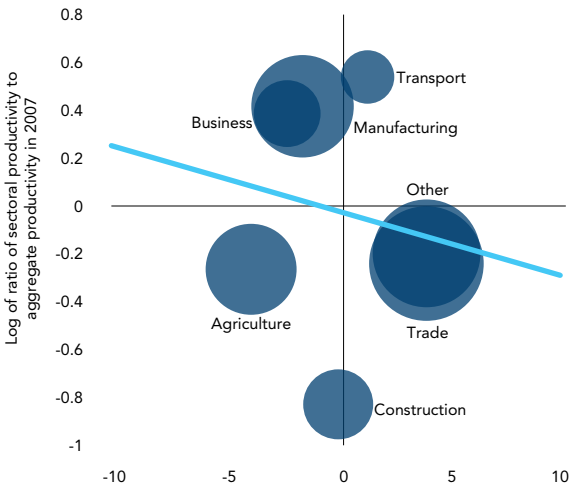
Initial labor productivity and change in employment, Percentage



Source: Abdur Rahman and Schmillen (2020)
Note: Circle size represents the employment share.

FIGURE 81
...but more recently this relationship has become negative

Initial labor productivity and change in employment, Percentage



Source: Abdur Rahman and Schmillen (2020)
Note: Circle size represents the employment share.

stopped being positively correlated with productivity, structural transformation of Malaysia's labor market has overall generated many benefits: living standards have on average increased significantly; analytically and socially demanding jobs have replaced routine manual ones; and returns to skills have been high (Montenegro and Patrinos 2014). At the same time, not all Malaysians have benefited and generally positive headline figures hide that some vulnerable groups of workers such as labor market entrants, and those with low levels of formal education or from outside the economic centers of gravity risk being left behind. In the World Bank-University of Malaya living standards study, the most recurring theme related to employment in the discussions in Terengganu and urban Sabah was the lack of job opportunities in these regions. This theme emerged in all focus group discussions conducted in Terengganu and in Kota Kinabalu in Sabah, as indicated by the quotes in Box 7.

Since 2009, real growth in income has been modest. This is particularly true for 20-29 year olds with post-secondary education, as well as among those with only secondary education across all age groups. In recent years, the growth in employment earnings for younger workers has consistently lagged those of their older counterparts. Slower employment income growth is most pronounced among young men. For example, between 2004 and 2016 the compound annual growth rates (CAGR) of median employment income for 20–29-year-old men and women were 2.1 and 2.6 percent, respectively, compared to 3.8 and 5.0 percent for those 40–49 years old. The divergence in employment income by age groups accelerated after 2009 among both men and women (see Figure 82). Among those with less education, employment earnings are significantly lower for all age groups, with very modest growth over time. For those with only secondary education, the median income of the highest-paid age group (50 to 59 years-old) is about equal to that of the lowest paid age group with postsecondary education (see Figure 83). The increase in real employment earnings over time has been slower for those with less education, with compound annual growth rates ranging from 1.4 percent for 40–49-year-olds to 2.2 percent for 30–39-year-olds.

Further changes in the nature of work are expected to create additional challenges moving forward. Both in Malaysia and globally, there is growing fear that recent and emerging breakthroughs in technologies such as artificial intelligence and robotics will lead to the wholesale replacement of human workers by machines and an era of mass joblessness and even wider income inequality (see Box 10 for a discussion of the broader impacts of disruptive technologies). This might in particular threaten those in jobs not involving higher levels of skills or educational attainment. However, there is also cause for optimism. At least before the onset of the COVID-19 crisis, more people were employed in Malaysia than ever before. In the long run, new tasks and new jobs are also likely to be

BOX 7

Perspectives on jobs from across Malaysia

The joint World Bank-University of Malaya study on living standards in 2019 found that perceptions on jobs differ among Malaysians. A recurring theme related to employment in the discussions in Terengganu and urban Sabah was the lack of job opportunities in these regions. The lament around unemployment and underemployment emerged in all 14 focus group discussions conducted in Terengganu and all 6 focus groups conducted in Kota Kinabalu in Sabah. This sentiment cut across income groups in both states. Younger participants complained that they found jobs that were far below their training and skills.

> *"Although I am a graduate, I am unable to get a suitable job. I earned a business degree from a local university. For my first job, I got paid RM900 a month despite having a degree."*
> ***[Terengganu, Kemaman, Bumiputera]***

> *"When I was an HR assistant, I saw graduates working as retail promoters only. But they studied so much. There are people with Masters degrees. Job? Grab Car Driver. So wasted."*
> ***[Sabah, Kota Kinabalu, Bumiputera]***

> *"I graduated from UniSZA. There were no jobs and I contemplated working in a batik shop as a salesman. The offer was at RM900 which is below the minimum wage. I did not take up this job as it is not related to what I had studied at university."*
> ***[Terengganu, Kuala Terengganu, Bumiputera]***

Older participants worried that their grown children who had completed their education remained dependents on them and were starting their working lives in debt from student loans.

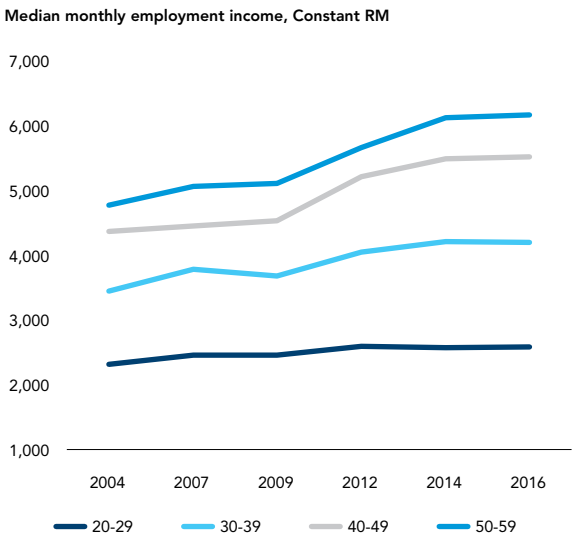
> *"Life is harder. It is harder because even after our children graduate, they still depend on us. Or, they are graduates and working as cashiers in supermarkets."*
> ***[Sabah, Kota Kinabalu, Bumiputera]***

> *"Most of the younger generation find it hard to find jobs. They have to resort to working in shops. My child is one of those examples. I feel like it is not worth it to send them to study."*
> ***[Terengganu, Kemaman, Bumiputera]***

created that are difficult to envision now. Nevertheless, many of the current technological advances may create or deepen jobs challenges: First, they widen inequality. The returns to tasks complementing new technologies have grown dramatically, but many low- and mid-skilled jobs are at risk of being replaced or reshaped by automation. Second, there might be a – long – period of time when wages and employment fall or remain stagnant even though new technologies are adopted and productivity increases. This raises the question how demand- and supply side policies can mitigate, if not avoid, the negative effects of technological change (see Chua et al. 2018).

FIGURE 82

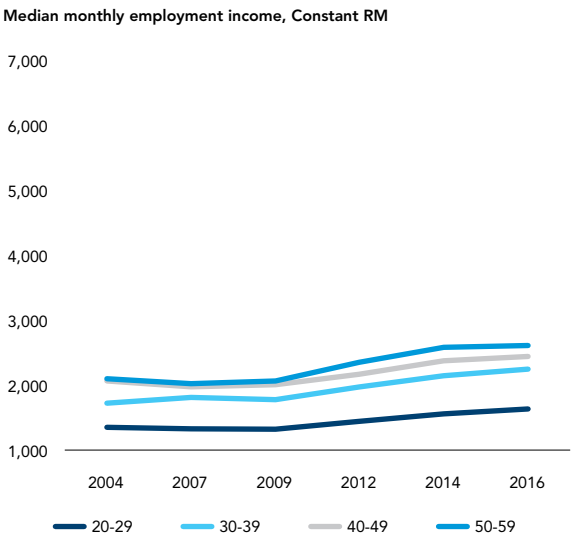
Since 2009, real growth in income for 20–29-year-olds with post-secondary education has been marginal...



Source: Household Income and Basic Amenities Survey (DOSM)

FIGURE 83

...while among those with only secondary education, income growth has been modest across all age groups



Source: Household Income and Basic Amenities Survey (DOSM)

Employers' demand for socio-emotional and digital skills is increasing

The nature of work in Malaysia has been changing. An examination of the Malaysia Standard Classification of Occupations (MASCO) in both 1998 and 2008 enables the identification of new job titles that emerged during that period, with most of these new job titles in data- and information and communications technology-related occupations, such as software developers (Khatiwada and Veloso 2019). The most recent MASCO (2013) reveals a number of even newer job titles, including data scientists, data mining analysts, and big data engineers, all of which are included for the first time. Similarly, a comparison of the top 10 most common occupations in terms of contribution to employment in 2001 and 2017 shows that while there has been a high degree of stability, three of the four new occupations in the top 10 in 2017 involve the production or dissemination of knowledge (teaching professionals; science and engineering associate professional; and business and administration associate professionals) (see Figure 84).

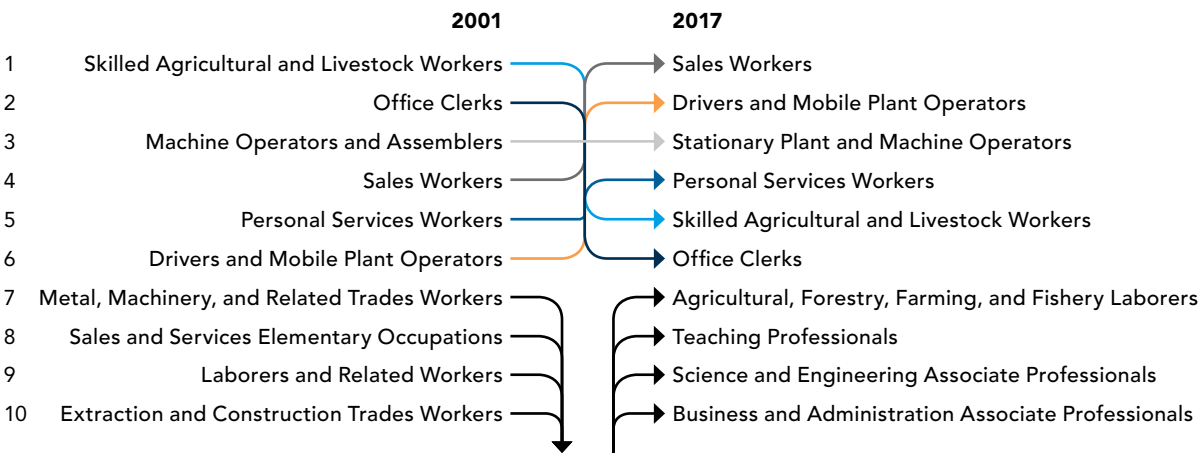
An increasing proportion of jobs involve the application of analytical and socio-emotional skills, with a decreasing proportion involving manual skills (see Figure 85). This trend has been particularly pronounced amongst younger Malaysians (see Figure 86) and women (World Bank 2019b). In part, this shift is associated with the changes to the relative importance of different economic sectors in terms of their contribution both to GDP and to employment associated with Malaysia's transitional to high-income country status. However, recent cross-country research also shows that the rapidly increasing pace of technological innovation, globalization, and the educational level of the workforce are important factors in determining skills requirements independent of economic development (Lewandowski et al. 2019).

In general, jobs in high-income economies require relatively advanced skills which not all workers in Malaysia possess. In Malaysia, a significant proportion of firms report difficulty finding employees with higher levels of skills in a number of areas, with the proportion of those reporting such difficulties varying according to the skill in question. While a relatively small proportion of firms report difficulties finding individuals with basic computer and writing skills, more than three quarters of firms in the manufacturing and services sectors report difficulty finding workers with managerial and leadership skills; technical, vocational, and job specific skills; and interpersonal and communications skills (see Figure 87).

FIGURE 84

The most common occupations have remained stable... but knowledge-related occupations have also appeared

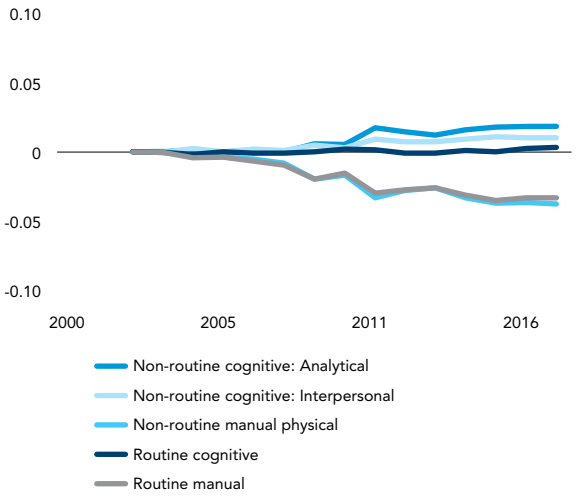
Top 10 occupations by share of employment



Source: Labor Force Survey 2001 and 2017

FIGURE 85
Jobs in Malaysia are becoming less intensive in routine tasks...

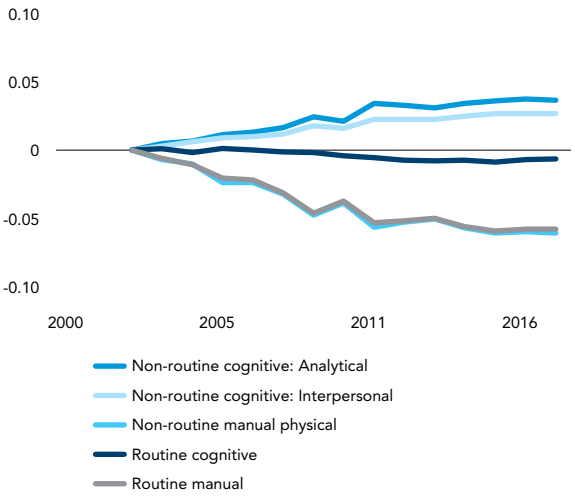
Change in task skill intensity indexes among all workers, Percentage



Source: Labor Force Survey 2002–2017

FIGURE 86
...particularly among younger people

Change in task skill intensity indexes among younger workers, Percentage

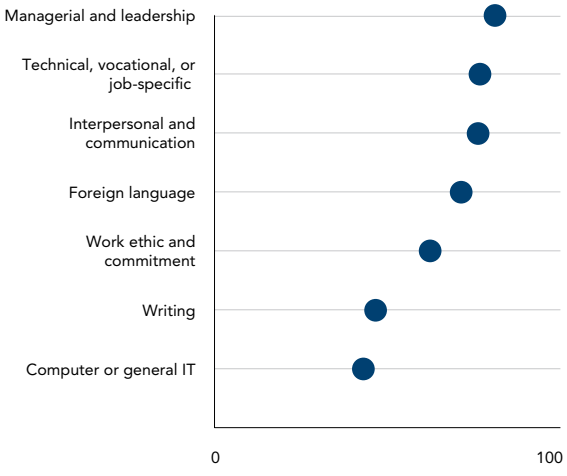


Source: Labor Force Survey 2002–2017

In high-income countries, the reduced intensity of routine tasks is associated with the increased use of computers and other digital technologies, which implies an increased demand for both cognitive and socio-emotional skills. Recent research also shows a vital complementarity between social and cognitive skills (Deming and Kahn 2018). These trends are reflected in the skill requirements listed in online job advertisements posted in Malaysia in the period from 2016 to 2018. Job postings for high-skilled jobs are much more likely to emphasize either socio-emotional skills alone or a combination of socio-emotional and cognitive skills, rather than cognitive skills alone (see Figure 88). Analyzing Malaysian online job advertisements in more detail, Moroz and Granata (2019) find evidence that returns to socio-emotional skills are higher than returns to cognitive skills, reflecting the changing nature of jobs in Malaysia.

FIGURE 87
Malaysian firms report difficulty finding workers with advanced skills...

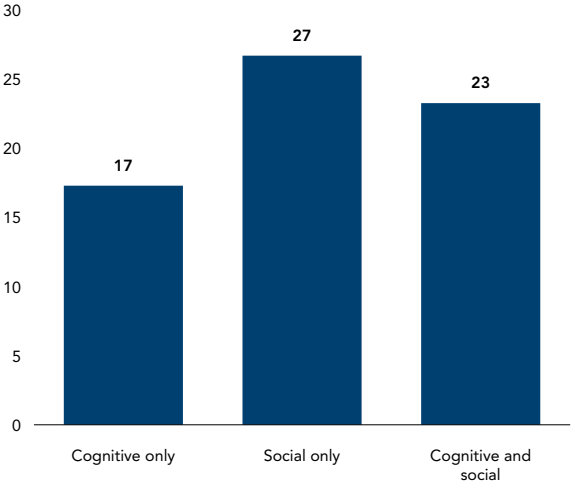
Difficulty finding workers with various skills, Percentage of firms



Source: Enterprise Survey 2015.

FIGURE 88
...while also requesting more socio-emotional skills

Job postings requiring skill across occupations, Percentage

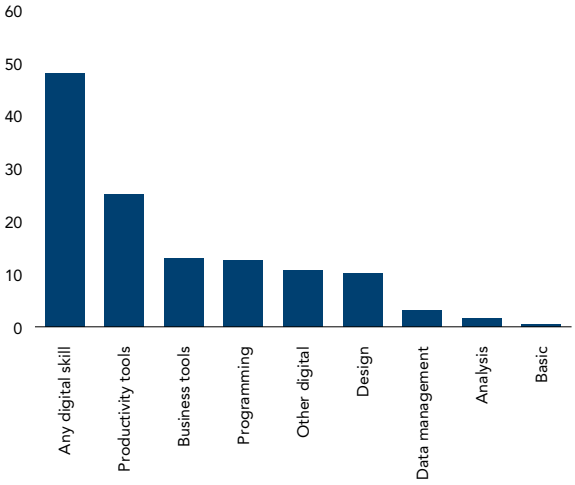


Source: World Bank Burning Glass online job advertisement data.


Environmental Science
Earth as a Living Planet

FIGURE 89
Digital skills are in high demand in Malaysia...

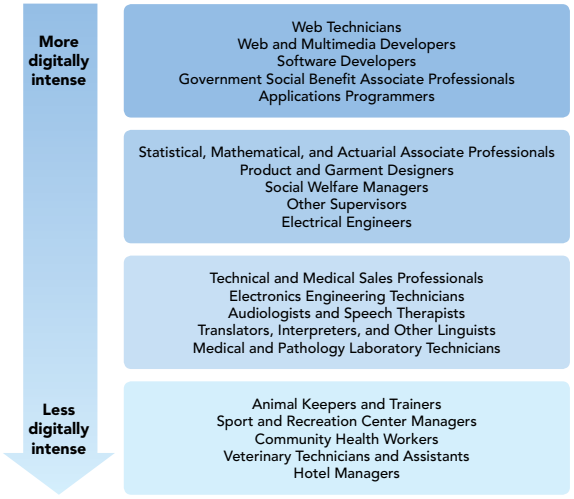
Job postings requiring digital skills across occupations, Percentage



Source: World Bank Burning Glass online job advertisement data.

FIGURE 90
...though occupations vary in how digitally intense they are

Digital intensity of occupations by quartile



Source: World Bank Burning Glass online job advertisement data.

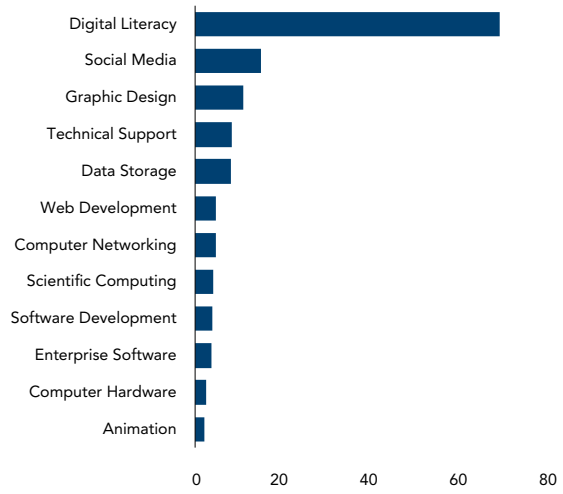
In Malaysia, skills related to digital technologies are increasingly in demand. Data from the online job postings show that demand for digital skills is strong. On average, about half of job postings for high-skilled occupations require digital skills (see Figure 89). While requirements related to the use of basic productivity tools, such as Microsoft Office, are most common, more advanced digital skills, including knowledge of digital marketing and accounting software (business tools) and programming skills in Java, are also in demand.

At the same time, there is a high degree of variation in the level of digital intensity between different occupations. Digital intensity can be measured by the proportion of job postings for each occupation that require at least one digital skill. Figure 90 shows examples of occupations in each quartile of digital intensity. For example, nearly all job postings for web technicians require a high level of digital skills, while only around a quarter of job postings for animal keepers and trainers require similar skills. A small proportion of occupations are very digitally extensive, requiring a range of different types of digital skills. These requirements are found mainly in the case of prototypically tech-heavy occupations, such as web and multimedia developers and software developers, both of which require an average of seven different digital skills. However, even a number of occupations that are not traditionally considered to be tech-heavy, such as policy administration professionals, petroleum and natural gas refining plant operators, and visual artists all tend to require a range of different types of digital skills.

In the Malaysian labor market, there is less demand for higher-level, "disruptive" technology skills than for basic digital skills. An examination of data from the World Bank LinkedIn Digital Data for Development project shows that basic digital skills—or "digital literacy"—are required for most occupations, with around two thirds of the occupations listed by LinkedIn members requiring at least basic levels of digital literacy (see Figure 91). However, a considerably smaller proportion of occupations require "disruptive" technology skills, such as data science, development tools, and materials science (see Figure 92). Data science, the disruptive tech skill most in demand, is only required for around 11 percent of occupations. These findings on the demand for basic and more complex digital skills are consistent with the observation that the value of Malaysia's exports of high-skill global innovator products has declined since reaching a peak in 2006 and with the low performance of the country's businesses in the digital adoption index (see the Competitiveness chapter).

FIGURE 91
Basic digital literacy is commonly demanded across occupations...

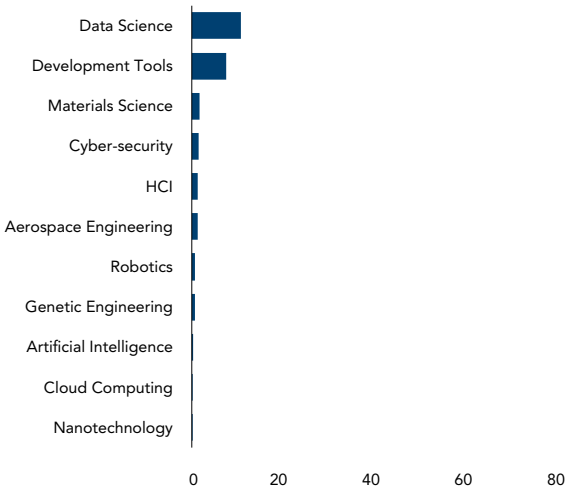
Occupations mentioning skill among top 30 skills, Percentage



Source: World Bank LinkedIn Digital Data for Development

FIGURE 92
...but more complex digital skills are not

Occupations mentioning skill among top 30 skills, Percentage



Source: World Bank LinkedIn Digital Data for Development
Note: HCI denotes Human Computer Interaction.

Around half of all jobs in Malaysia are at risk of being replaced or reshaped by automation

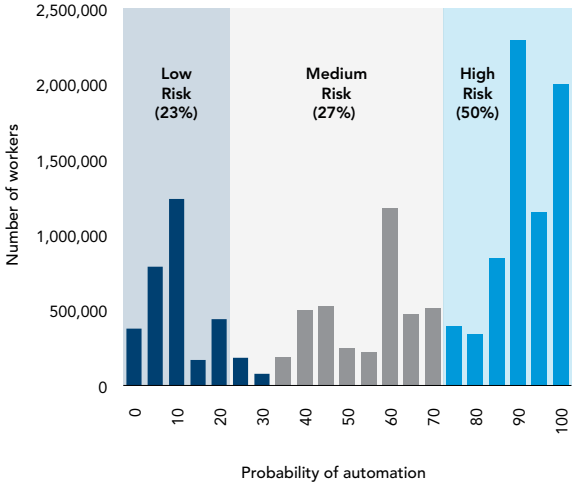
The potential impact of automation on employment is an issue of growing concern. There is growing fear that recent and emerging breakthroughs in technologies such as artificial intelligence and robotics will lead to the wholesale replacement of human workers by machines and an era of mass joblessness and even wider income inequality. Those in jobs not involving higher levels of skills or educational attainment might be particularly at risk. An analysis undertaken by the World Bank in partnership with TalentCorp of the potential for automation confirmed that from a purely technical perspective around half of jobs in Malaysia are potentially at high risk of automation (see Figure 93). This proportion is similar to that found in the United States and translates into about 7 million jobs in Malaysia. Jobs in the high-risk category involve mainly routine tasks that could be relatively quickly and easily automated through the use of computers and robots, while those in the low-risk category involve non-routine tasks requiring socio-emotional skills such as creativity and persuasion, for which automation is more challenging. The technical potential of automation varies significantly across sectors, with jobs in accommodation and food services at relatively high risk, and those in human health and social work at relatively low risk (see Figure 94).

> Jobs in the high-risk category involve mainly routine tasks that could be relatively quickly and easily automated through the use of computers and robots

The depth of technological penetration, cost, and regulations will affect the actual impact of automation on Malaysia's labor market. Even though half of all jobs in Malaysia are potentially at

FIGURE 93
Half of employment in Malaysia is potentially at high risk of automation...

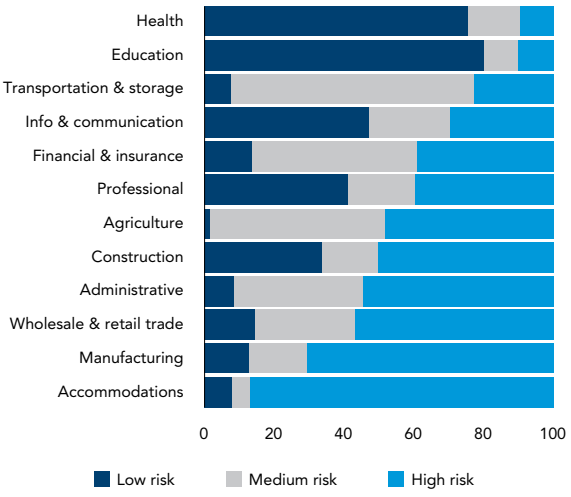
Distribution of the Malaysian workforce by risk of automation, Percentage



Source: World Bank based on Frey and Osborne (2017)

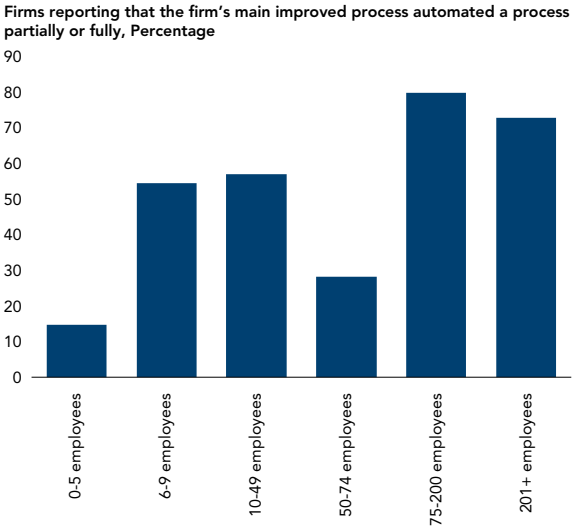
FIGURE 94
...while the risk of automation varies significantly by sector

Distribution of the Malaysian workforce by risk of automation, Percentage



Source: World Bank based on Frey and Osborne (2017)
Note: Not all sectors depicted.

FIGURE 95
Small firms in Malaysia are less likely to adopt automation technology...



Source: Enterprise Survey 2015

FIGURE 96
...while occupations face barriers to automation other than technology

Occupation	p	Evidence of constraints to automation		
		Depth of technological penetration	Cost	Legal, regulatory, normative
Accountants	96%	Mixed	Mixed	Mixed
Stationary Plant and Machine Operators	92%	Mixed	Mixed	No
Electronics Engineering Technicians	84%	Mixed	Mixed	No
Aircraft Technicians	84%	Yes	Yes	Mixed
Electrical Engineering Technicians	82%	Yes	Yes	Mixed

Source: CSC (2018)
Note: "P" indicates the probability of automation.

high risk of automation from a technical standpoint, automation is unlikely to lead to widespread job losses in the near term. Not all technology is available to all firms at the same time. The trade-off between the costs and benefits of automation technologies drives their adoption. Due to economies of scale and other factors, large and globally connected firms are more likely to be able to afford to automate a wider range of processes than small businesses, which are more likely to persist with technologies that require manual labor. Indeed, the 2015 Malaysian Enterprise Survey shows that the likelihood of adopting an automation technology generally increases with firm size, with firms with fewer than five employees being the least likely to adopt these technologies (see Figure 95). In addition, laws and regulations play an important role in determining how quickly automation technologies are adopted. For instance, in the case of radiology artificial intelligence is playing an increasing role in identifying abnormalities (Davenport and Dreyer 2018). But health insurance and health care regulations would need to be revised in order to deploy artificial intelligence in radiology at scale.

In actual practice, automation may reshape the nature of many jobs rather than eliminating them. An analysis of the automatability of occupations on Malaysia's Critical Occupations List (COL), a list of occupations that are in demand, was used to assess how the depth of technological penetration, cost, and regulations will affect the actual likelihood of automation of different occupations. The COL includes a number of occupations for which the technical potential of automation is very high, including accountants, aircraft technicians, and electrical engineering technicians. But in all cases the analysis found evidence of significant constraints to automation (see Figure 96). In addition, it is worth noting that jobs are bundles of activities or tasks with different potential for automation (McKinsey Global Institute 2017). Thus, rather than eliminating jobs, many technological advances are likely to change the relevant bundle of activities. Again, the case of radiology is useful. Even if regulations will allow artificial intelligence to play an increasing role in identifying abnormalities, this may not lead to job losses for radiologists. Instead, it may create more time for them to decide what tests to conduct and to consult with other doctors on potential diagnoses.

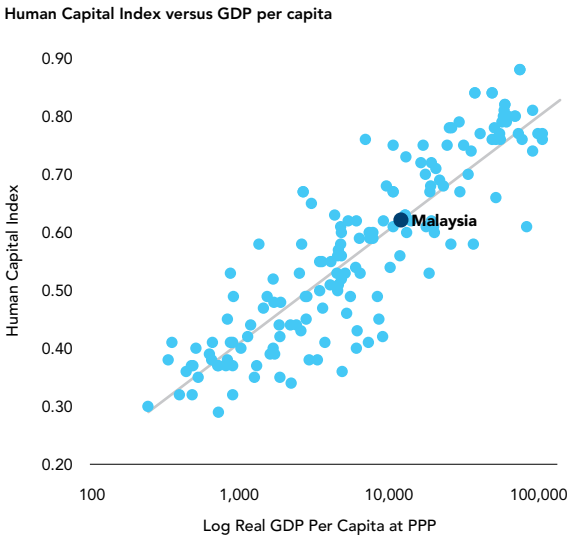
Broad improvements to foundational human capital are needed

Improvements to the performance of Malaysia's health and education system will play an important role in building foundational human capital for all. With rapid technological change, the wealth of nations in general and of high-income countries in particular has become closely tied to human capital. The OECD defines human capital as "the knowledge, skills, competencies and other attributes embodied in individuals or groups of individuals acquired during their life and used to produce goods, services or ideas in market circumstances," and higher levels of human capital imply higher levels of productivity, flexibility, and innovation. As the World Bank's World Development Report 2019 (World Bank 2018b) makes clear, markets in developing and emerging economies across the globe, including in Malaysia, are increasingly demanding workers with higher levels of human capital. In particular, advanced cognitive, digital and socio-emotional skills tend to be in relatively high demand. Consequently, in Malaysia, a greater focus on human capital is needed to build the knowledge, competencies, and skills to enable the economy to achieve high rates of inclusive economic growth in a rapidly evolving context.

Overall, Malaysia ranks in 55th place out of the 157 countries in the World Bank's Human Capital Index (HCI), which measures which countries are best in mobilizing the economic and professional potential of their citizens. Malaysia's human capital is consistent with the level that could be predicted on the basis of its income per capita, but lower than that of transitional and aspirational peers (see Figure 97 and Figure 98). While Malaysia performs well in terms of some components of the HCI (including child survival, expected years of schooling, and overall health conditions for adults), it performs less well in others (including child malnutrition and learning outcomes).

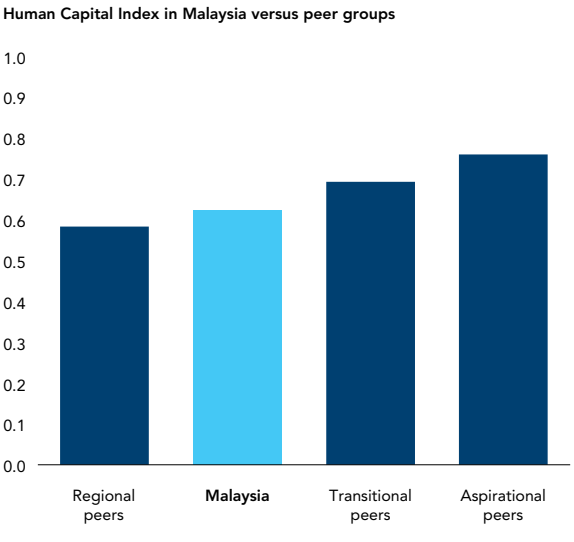
The improved performance of health and education systems are important because good human capital outcomes are integral to economic growth and inclusive development. An overwhelming body of evidence demonstrates the cost of ill-health to economic growth and, conversely, the benefits to economic development from investing in health (WHO 2001, Jamison et al. 2013, among others). Second, with rising incomes, Malaysians will increasingly aspire to live long, healthy, and productive lives. Once Malaysia becomes a high-income country, citizens will increasingly demand good quality health care. The improved performance of the education system, both in terms of access and quality, is also of paramount importance. With improvements in both these areas, Malaysia could record significantly higher levels of productivity.

FIGURE 97
Malaysia's human capital is in line with what income would predict...



Source: World Bank Human Capital Index

FIGURE 98
...but lower than among transitional and aspirational peers



Source: World Bank Human Capital Index

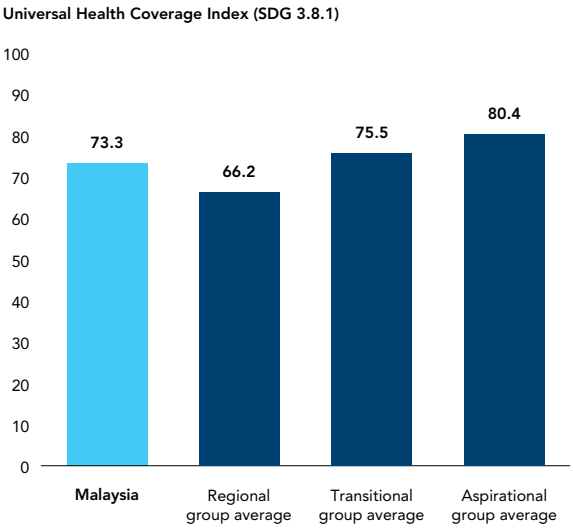
While Malaysia has made good progress in terms of health outcomes and the achievement of Universal Health Coverage (UHC), the country's health system is now running up against its limits. In earlier years, Malaysia was widely praised for its UHC system, which provides its citizens with effective financial protection against large health expenditures. At that stage of its development, Malaysia recorded impressive outcomes through the effective control of infectious diseases, combined with a strong focus on improving access to maternal and child health services (Savedoff and Smith 2011). Many observers commended it for its high-performing, equitable, and low-cost health system (Yap et al. 2018). However, since then, improvements in mortality rates have stagnated, with effective access to services constrained by the inadequacy of public financing and provider capacity. In particular, equitable access to specialist care in rural areas is an increasing challenge, while the primary health care system is not equipped to manage the increasing burden of noncommunicable diseases (NCDs). At present, Malaysia has what is, in effect, a "two-tiered" health system, with richer households choosing to seek care in the private sector, while the public system predominantly serves lower-income households (Rannan-Eliya et al. 2016). Despite Malaysia's impressive achievements in earlier years, the performance of its health system is now lower than that of comparator countries (see Figure 99).

Global metrics indicate that Malaysia has room to improve its health outcomes. As discussed in the second chapter of this report, stunting is a key gap. There is overwhelming evidence to demonstrate that stunting during early childhood limits a child's physical and cognitive development, with ongoing impacts throughout the life cycle. Malaysia's current rate of stunting stands at a high 21 percent. Unless the country addresses this effectively, stunting will continue to act as a constraint on economic growth and productivity gains in the long run.

Gaining a better understanding of the causes of Malaysia's high stunting rates is a necessary first step. As seen in Figure 101, while stunting rates are higher among children in households with lower socioeconomic status, rates are also elevated among those who are better off. In households with monthly incomes of RM1,000 or less nearly 30 percent of children under the age of five years are stunted, but even in households earning RM5,000 or more the stunting rate is 17.2 percent, or more than one in six children. Similarly, stunting is higher in rural areas than urban areas, but only marginally so at 23.3 to 19.2 percent. As seen in most other countries, the mother's educational attainment is correlated with stunting, but in Malaysia the stunting prevalence drops only slightly, from 28.7 percent among children whose mother has no formal education to a still-high 18.6 percent among children whose mother completed higher education. Likewise, stunting rates are highest (24.9 percent) among non-Malay Bumiputera children, but even among Malaysians of Chinese origin the stunting rate is one in seven children or 14.1 percent. Further investigation into other

FIGURE 99

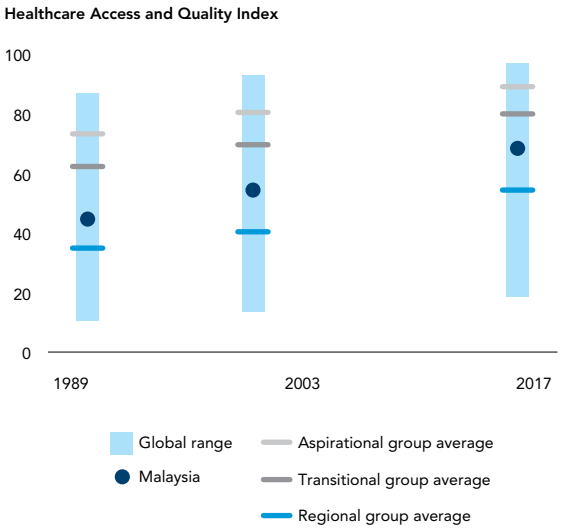
Malaysia's health system falls short on providing universal coverage...



Source: World Bank based on WHO (2019)

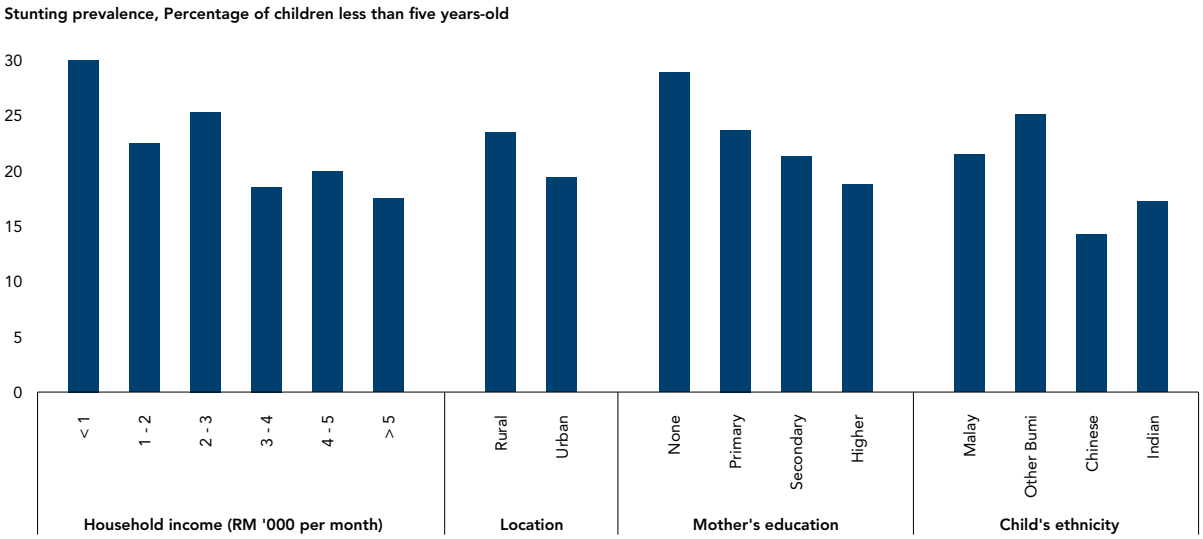
FIGURE 100

...and healthcare access and quality are poorer than in comparator groups



Source: World Bank based on GBD (2018)

FIGURE 101
Stunting rates are elevated even among children in families that are well off



Source: Institute for Public Health, Ministry of Health (2016)

determinants of stunting such as appropriate child feeding—for example, exclusive breastfeeding from birth to six months and complementary foods from 6 to 24 months—childcare practices and morbidity patterns is needed.

Health in adulthood is also significant for economic performance. There have been limited improvements to adult life expectancy (GoM and Harvard 2016). The rate of amenable mortality (death from causes that, in the presence of quality healthcare, should not result in death) remains high, especially in the case of diabetes and hypertensive conditions (JLN 2018). In addition, Malaysia performs poorly when benchmarked against aspirational and transitional comparator countries in the Healthcare Access and Quality Index (see Figure 100).[94]

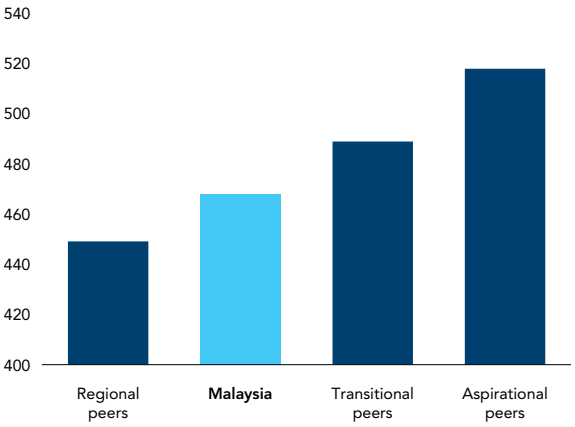
While Malaysia has made steady progress in terms of ensuring broad access to primary and secondary education, its achievements at the tertiary level have been less impressive. Access to general education is high, with a net enrolment rate of 98 percent at the primary level and 96 percent at the lower-secondary level in 2017. However, at 85 percent enrolment at the upper-secondary level is not universal and progress has also been slower at the level of post-secondary education (age 17-18) and tertiary education. At the tertiary level, the gross enrolment rate in 2017 stood at only 42 percent.

Malaysia's transition to becoming a high-income economy will require significant improvements in the quality of education. The performance of Malaysia's students in the internationally comparable Trends in International Mathematics and Science Study (TIMSS) and Programme for International Student Assessment (PISA) tests is an issue of concern. While Malaysia's performance in TIMSS 2019 was higher in some of the domain subjects than in the previous cycle, it was still lower than the target level of 500 points, with Malaysia scoring 473 points for mathematics and 469 points for science. The OECD average for PISA in 2018 stood at 487 for reading and 489 for both mathematics and science (see Box 8 for more detail). Despite its aspirations to become a high-income country, Malaysia scored lower than the OECD averages, with 440 points for mathematics; 415 points for reading; and 438 points for science. Malaysia's suboptimal performance relative to international averages is confirmed by the World Bank's HCI, which measures educational performance in terms of harmonized test scores. While Malaysia's score of 468 (based on the performance in TIMSS in 2015) and its performance in PISA in 2018 are above average for regional peers, they are lower than the average for transitional and aspirational peers (see Figure 102).

[94] The Healthcare Access and Quality Index provides a summary measure of personal healthcare access and quality for a given location. This measure is based on risk-standardized mortality rates or mortality-to-incidence ratios from causes that, in the presence of quality healthcare, should not result in death – also known as amenable mortality.

FIGURE 102
Educational performance in Malaysia lags aspirational peers...

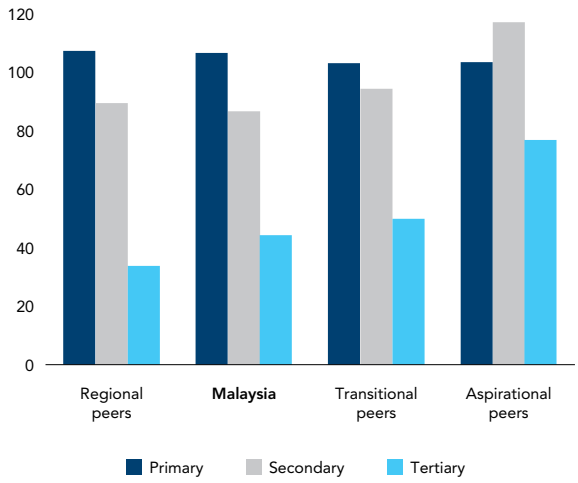
Harmonized test scores in Malaysia versus peer groups



Source: World Bank Human Capital Index

FIGURE 103
...as does enrolment in tertiary education

Gross enrolment in education in Malaysia versus peer groups, Percentage

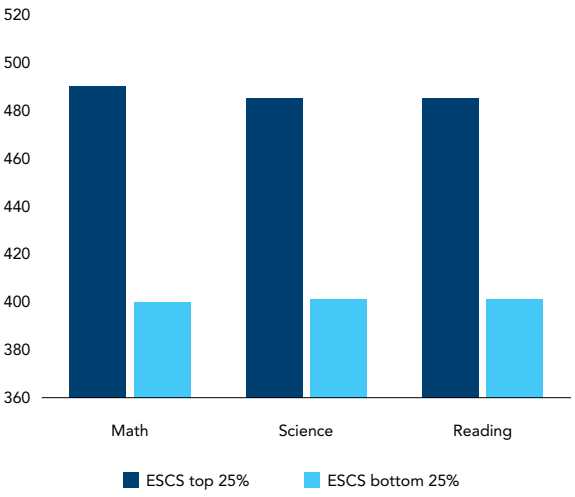


Source: World Development Indicators

Post-secondary and tertiary education are increasingly important in the modern, technologically advanced, knowledge-intensive global economy. The economic benefits of investment in higher (that is, post-secondary and tertiary) education have increased steadily over the past 30 years (Psacharapoulos and Patrinos 2018). Despite this, participation in higher education in Malaysia is low by international standards. It is considerably lower than in the case of transitional peers, and well below aspirational peers (see Figure 103). At the same time, the desire to pursue higher education is increasing, with the number and proportion of students who complete secondary education large and rising. Further, this desire tends to be income elastic: as the per capita income of a country increases and the aspirations of its young people grow, an increasing proportion of them aim to pursue higher education.

FIGURE 104
Students' socio-economic background contributes to learning gaps...

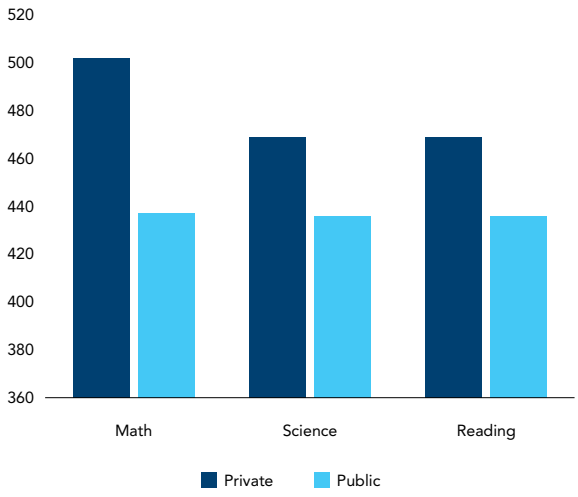
PISA test scores in Malaysia by socio-economic background



Source: OECD PISA database

FIGURE 105
...as do differences between types of schools

PISA test scores in Malaysia by school type



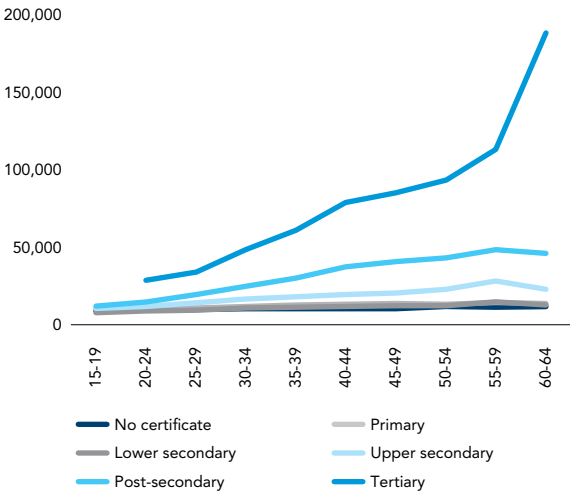
Source: OECD PISA database

Students' economic, social, and cultural status (ESCS) is the biggest contributor to performance gaps in Malaysia. There are gaps in student performance in all three PISA 2018 subjects—mathematics, science and reading—between various groups, but the widest gap was observed between the most disadvantaged (bottom 25 percent) and most advantaged (top 25 percent) students in terms of what the OCED labels the ESCS index (Figure 104). This index captures factors such as the highest level of education of the student's parents, family wealth, and home educational resources. The gap between the top and bottom 25 percent was 90 score points for math, and 84 score points for both science and reading. There was also a noteworthy learning gap between public and private schools (Figure 105).

Over a worker's professional career, those with tertiary education earn almost RM3,000,000 more than those with no, primary, or lower secondary education. "Synthetic" estimates of lifetime earnings of Malaysian workers can be obtained by calculating the working population's annual earnings at each age and summing up their age-specific average earnings for the year (see Cheeseman Day and Newburger 2002; Schmillen and Stüber 2014). These calculations show that individuals with higher levels of education are more likely to have higher earnings at every age and that differences increase with age. Workers with no, primary, or lower secondary education all have similar average lifetime earnings. In contrast, those with upper secondary education and above have significantly higher earnings potential, with the greatest

FIGURE 106
At each age, workers with tertiary education earn much more than others...

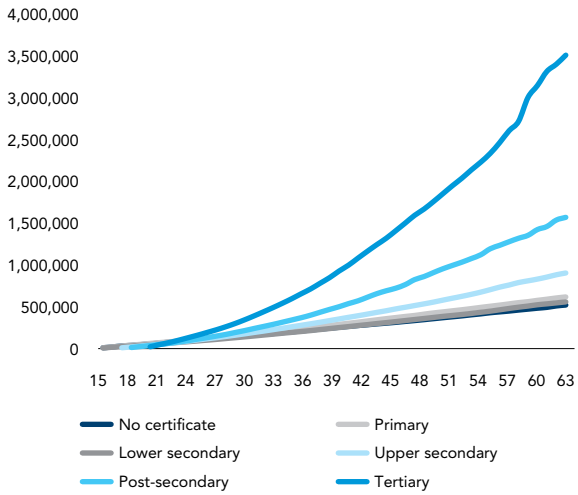
Annual earnings by age and level of education, RM



Source: Labor Force Survey

FIGURE 107
...and these differences accumulate over a workers' lifetime

Cumulative lifetime earnings by level of education, RM



Source: Labor Force Survey

premium for tertiary education. Over a complete, uninterrupted employment career, workers with lower-secondary educational attainment have average lifetime earnings of RM558,000; those with upper-secondary of RM905,000; those with post-secondary of RM1,570,000; and those with tertiary of RM3,510,000 (see Figure 106 and Figure 107).

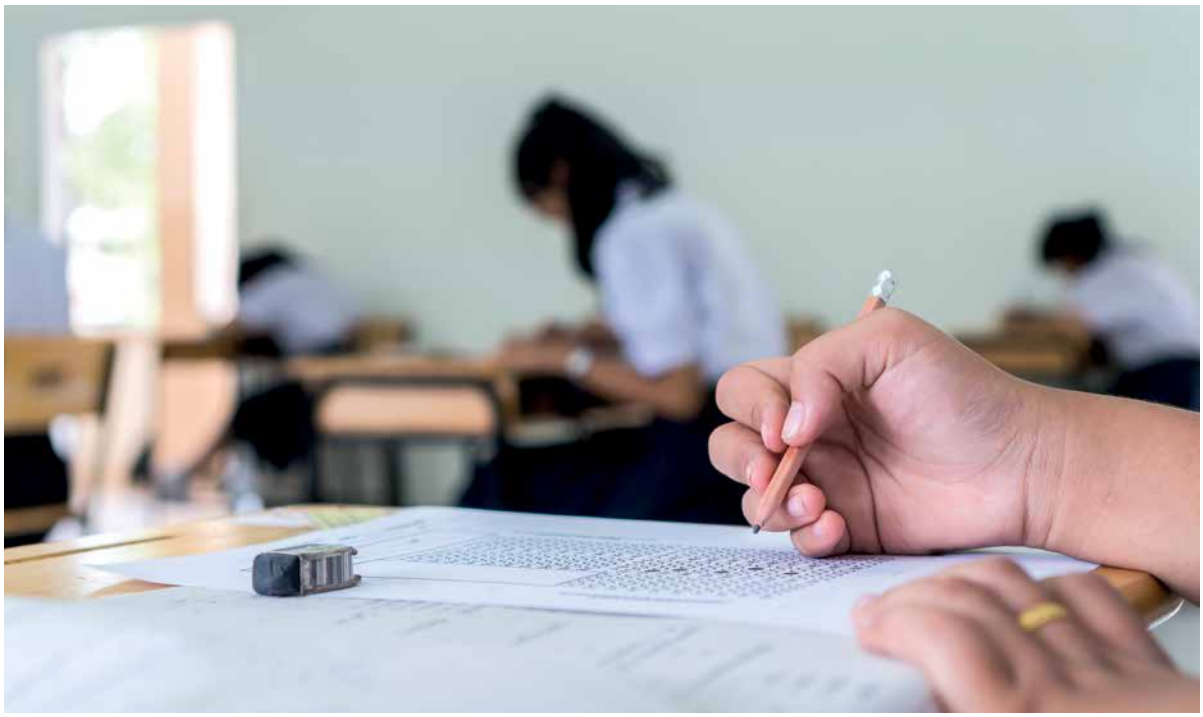
> There is a need to further improve the labor market relevance of the academic education system to enable workers to participate in the industrial and service sector jobs that characterize high-income countries

Malaysia has recently begun to focus increasingly on the workforce development system, with the Technical and Vocational Education and Training (TVET) system at its core. TVET Malaysia was launched in 2017 to accelerate the development of skilled human capital. The intake of TVET students increased from 163,269 in 2016 to 169,242 in 2017. A more harmonized accreditation system has been developed and incorporated into the revised Malaysian Qualifications Framework with a platform for a more harmonized rating system for public and private TVET institutions. The quality and delivery of TVET programs has also improved over recent years, with TVET institutions now offering specialized programs in niche areas, including aerospace, automotive and furniture manufacturing.

There is room to further improve the cohesiveness and labor market relevance of both the academic and the TVET streams of the education system. Malaysia could benefit from a certain convergence between the academic and TVET streams of the education system: First, there is a need to further improve the labor market relevance of the academic education system to enable workers to participate in the industrial and service sector jobs that characterize high-income countries. This might include an increased emphasis on on-the-job learning, for instance in the form of internships. Second, Malaysia's TVET system does not currently have a unified set of minimum academic standards that the labor market can validate, recognize and reward accordingly. Instead, there is large variability in the quality of education and training provided by different institutions, even in the same field and at the same level of study. In fact, there are currently two TVET sectors that are accredited by different bodies. The responsibility for implementation falls across at least seven different institutions, excluding a diverse set of private sector providers that are also involved.

BOX 8

Malaysia's educational performance under the 2018 PISA



Malaysia participated in the Programme for International Student Assessment (PISA) for the first time in 2010, as part of the PISA 2009 cycle (2009+).[95] Between 2009+ and 2018, Malaysia's scores improved by 36 points in math and by 16 points in science, but only by 1 point in reading. Despite these improvements, Malaysia's scores were lower than could be expected on the basis of its income level, and much lower than the OECD averages, at 415 points vs. 487 points in reading; 440 points vs. 489 points in math; and 438 points vs. 489 points in science (see Figure 108).

The difference in the reading scores was equivalent to 1.8-2.4 years of schooling.[96] Furthermore, while students' proficiency levels improved, 46 percent of students did not reach the basic level (Level 2) of proficiency in reading; 41 percent did not achieve that level in math; and 37 percent did not in science. Level 2 is deemed to be the level at which students begin to demonstrate the competencies that would enable them to participate effectively and productively in life as continuing students, workers, and citizens (OECD 2017).[97] At the higher end, only a small portion of

[95] PISA is the OECD's benchmarking tool to assess achievement and application of key knowledge and skills of 15-year-olds. Launched in 2000, PISA is conducted every three years. In 2018, over half a million 15-year-olds from 79 countries and economies took the PISA test in reading, mathematics, and science, with a focus on reading. After the first participation in 2010, Malaysia continued its participation, but due to technical issues, the results for PISA 2015 were not considered internationally comparable.

[96] In 2012, the OECD defined that 30 score points are equivalent to one year of schooling. In 2015, the definition changed to 40 score points. In 2018, "because of the limited evidence about differences in PISA scores across school grades, for the same (or otherwise similar) students, and of the variability in these differences that is expected across subjects and countries" (OECD 2019b, p. 45) the OECD refrained from defining PISA score differences in terms of exact "years-of-schooling" equivalence. However, the report presents a number of evidences which suggest roughly 30-40 score points be equivalent to one year of schooling.

[97] OECD. 2017. *PISA 2015 Assessment and Analytical Framework: Science, Reading, Mathematic, Financial Literacy and Collaborative Problem Solving.* Paris: OECD Publishing. https://doi.org/10.1787/9789264281820-en.

students performed at the highest levels of proficiency (Level 5 or 6) in at least one subject.

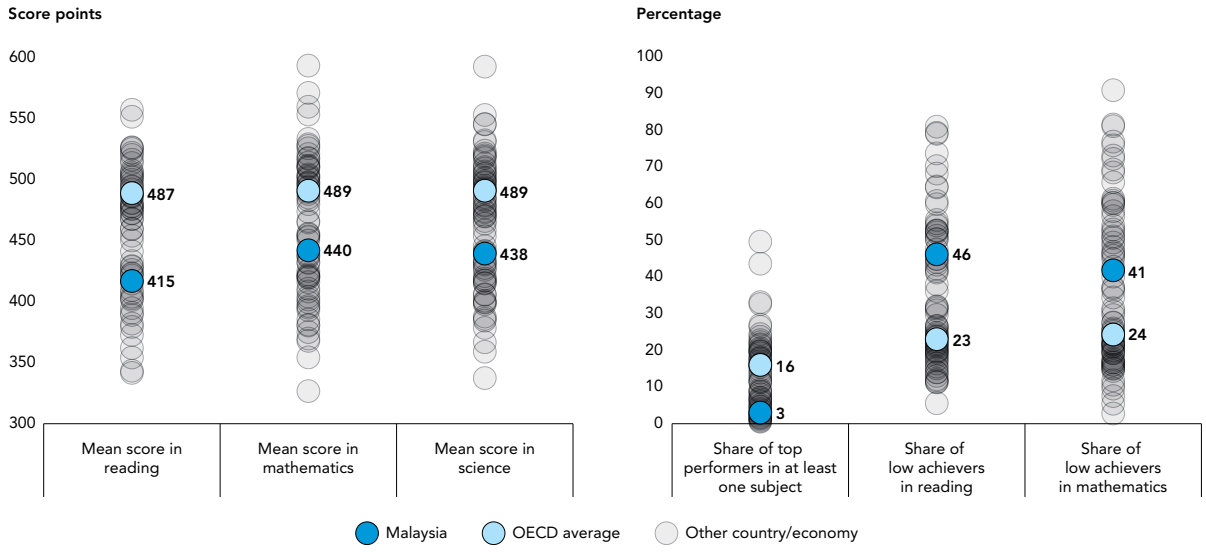
> Malaysia needs not only highly-skilled professionals, but also a strong human capital foundation across the broader economy

In terms of equity in reading performance, there was a wide performance gap (102 points) between socioeconomically advantaged and disadvantaged students. The gap is equivalent to 3.4 years of schooling. The gap between students who speak the same language as the test was conducted in and those who speak a different language was also large (43 points). Girls outperformed boys by 26 points, while students at private schools outperformed those in public schools by 21 points. The urban-rural gap was relatively small (16 points). Girls also slightly outperformed boys in math (by 7 points) and in science (6 points).

The Malaysia Education Blueprint 2013-2025 sets performance targets for PISA 2018 and TIMSS 2019, with the goal of ensuring that Malaysia's performance was at par with the international average, and for PISA 2021 and TIMSS 2023, to be in the top one third. As stated above, not only were the average scores for PISA 2018 much lower than the OECD average, a very high proportion of Malaysian students did not even reach basic proficiency levels, with wide variations between different groups of students. With its aspiration of becoming a high-income country, Malaysia needs not only highly-skilled professionals, but also a strong human capital foundation across the broader economy. Therefore, it needs to strengthen the teaching and learning of higher-order thinking (cognitive) skills and of socio-emotional skills to ensure that all students acquire the foundational skills to build its human capital. While the Blueprint has identified key reform actions, it is worth reviewing these actions and narrowing down target interventions to ensure that the Blueprint facilitates the achievement of its intended goals.

FIGURE 108

Malaysia scored much lower in PISA 2018 than the OECD average in all subjects, particularly in reading, with a large share of students not reaching the basic proficiency level



Source: OECD. 2019. Programme for International Student Assessment (PISA) Results from PISA 2018: Country Note for Malaysia (https://www.oecd.org/pisa/publications/PISA2018_CN_MYS.pdf).

Tapping underutilized sources of labor supply could increase economic growth and inclusion

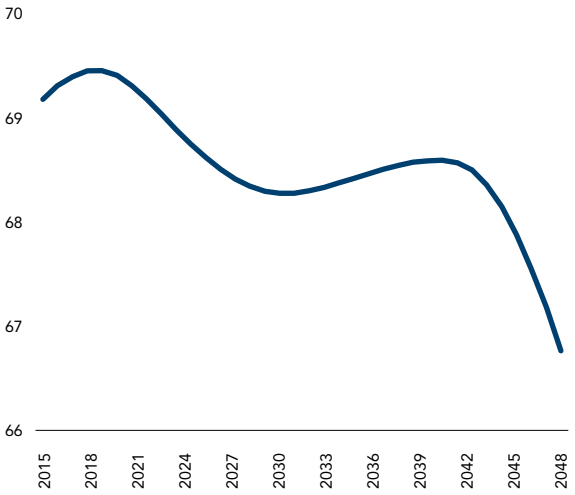
Malaysia is undergoing a demographic transition, with its population expected to begin to age rapidly in the near future (World Bank 2020a). Thus, it has only a limited remaining window to reap the full benefits of its demographic dividend (see the long-term growth chapter). In 2018, 69.7 percent of Malaysia's population was aged 15 to 64. Thus, a higher proportion of Malaysia's population is of working-age than in many comparator countries, meaning Malaysia could still take advantage of the demographic dividend. At the same time, the country will soon begin to age rapidly, at a faster rate than Japan, Singapore, Thailand and China. In fact, in 2020 Malaysia will become an aging society, typically defined as society in which at least 7 percent of the population is age 65 and above. With accelerated aging, it is projected that in little more than 20 years, it will become an aged society, or one where 14 percent or more of the population is age 65 years and above. By 2050, the proportion of the population that is of working-age is expected to fall by more than 2 percentage points (see Figure 109 and Figure 110).

In Malaysia, women and youth are key underutilized potential sources of labor supply. While Malaysia's labor force participation rate remains low, it has been increasing over time (at least before the outset of the COVID-19 pandemic): between 1982 and 2019, Malaysia's labor force participation rate increased from 64.8 percent of the working-age population to 68.7 percent. While much of this increase has been driven by increased female participation, the rate of female participation remains considerably lower than in comparator countries (see Figure 111). Thus, Malaysia could continue to derive further economic benefits through measures to increase this rate (see the long-term growth chapter). As youth unemployment is three times higher than the headline unemployment rate, youth are another underutilized source of labor supply. Figure 112 shows that in the period from 2010 to 2019, the unemployment rate for youth aged 15 to 24 averaged 10.2 percent, three times higher than the average unemployment rate for individuals aged 25 to 64.

In the absence of accessible, affordable and good-quality child care options, a large share of women feels compelled to stay out of the labor market. 60.7 percent of women who do not participate in the labor force cite housework, including child and elderly care, as the main reason for not seeking work. Patterns for the much smaller number of men not participating in the labor force are markedly different. Only 3.5 percent of men give housework as the reason for not seeking work. By far the most commonly cited reason is schooling, at 63.8 percent (see Figure 113). In the

FIGURE 109
The working-age share of the population is projected to peak in 2019...

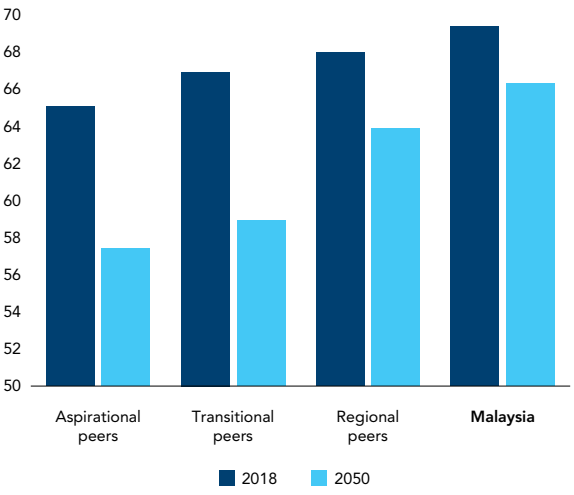
Projected working-age share of the population, Percentage



Source: World Bank based on UN World Population Prospects

FIGURE 110
...but to remain higher than in comparator groups

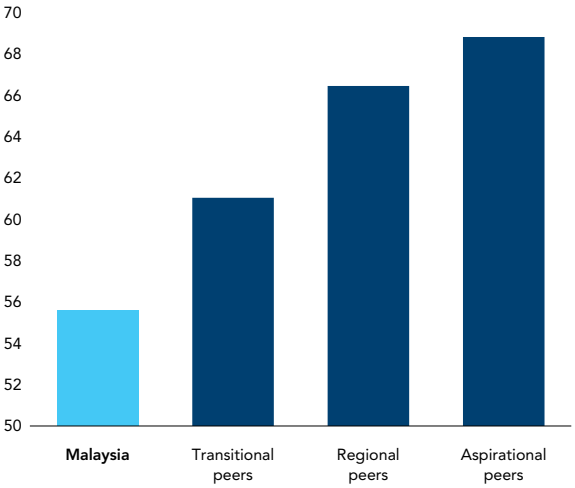
Projected working-age share of the population, Percentage



Source: World Bank based on UN World Population Prospects and Labor Force Survey

FIGURE 111
Female labor force participation is lower than in comparator countries...

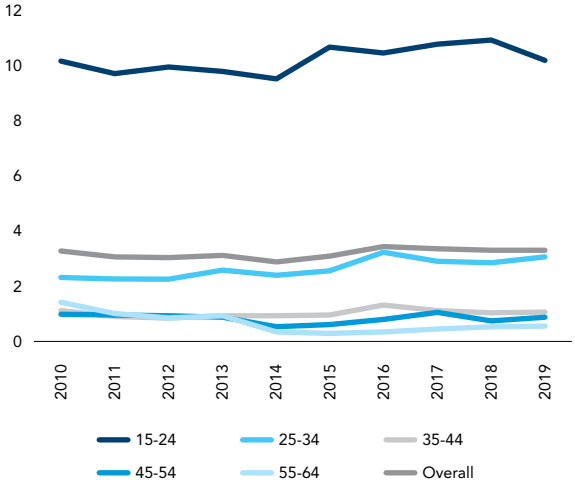
Female labor force participation rate, Percentage of working-age population



Source: World Development Indicators

FIGURE 112
...while youth unemployment is thrice as high as headline unemployment

Unemployment rate by age group, Percentage of labor force



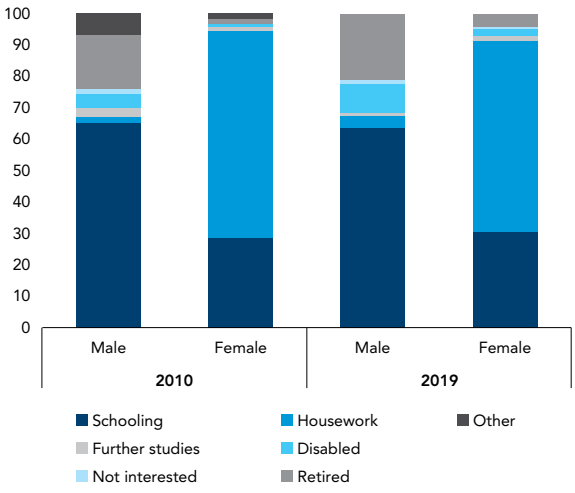
Source: Labor Force Survey

absence of accessible, affordable and good-quality child care options, the notion that men should be the primary breadwinners and women first and foremost responsible for providing care at home continues to be the social norm. For all of Malaysia's main ethnic groups, more than 60 percent of men (and a significant share of women) agree with the statement, "When jobs are scarce, men should have more right to a job than women" (see Figure 114). Qualitative research confirms that while many women in Malaysia would like to have a successful career, they feel their foremost responsibility is to their families and the upbringing of their children (World Bank 2019a).

Foreign workers have played an important role in mitigating labor supply shortages in Malaysia. In the early 1970s, as the manufacturing sector grew and Malaysia became increasingly urbanized, labor

FIGURE 113
The majority of women who do not participate in the labor force cite housework ...

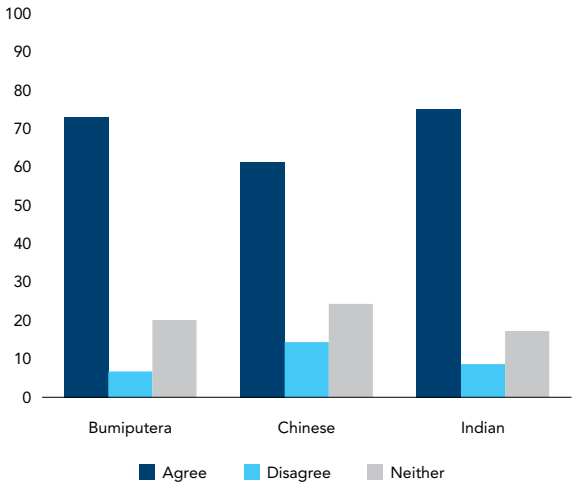
Reasons for not seeking work, Percentage of persons out of the labor force



Source: Labor Force Survey

FIGURE 114
...and the notion that men should be the primary breadwinners is still the norm

Agreement with the statement "*When jobs are scarce, men should have more right to a job than women.*", Percentage of men



Source: World Value Survey

shortages began to emerge. From the 1970s to the 1990s, persistently strong overall growth, particularly in manufacturing, led to further labor shortages, which foreign workers helped to fill. This was reflected in the expansion of legal pathways to enable foreign workers to be employed in the manufacturing sector and the formalization of immigration policy in the early 1990s. Today, World Bank estimates indicate that the total number of foreign workers in Malaysia ranges from 2.96 to 3.26 million, of whom 1.23 to 1.46 million are irregular foreign workers (World Bank 2020b).

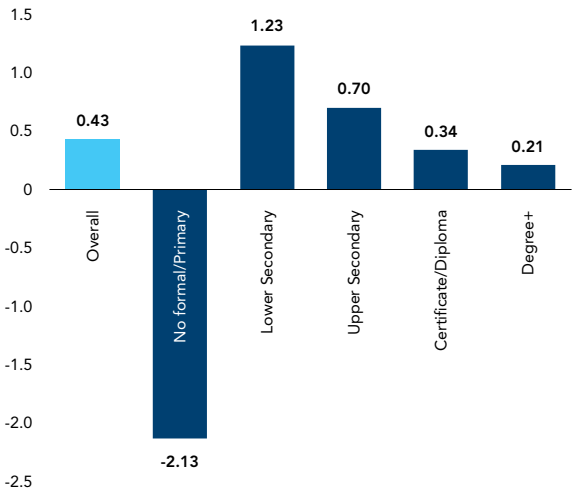
The inflow of foreign workers does not seem to have negatively impacted Malaysians' employment rates or wages across the board or led to technological downgrading. Based on an econometric analysis to isolate the causal impact of the arrival of labor migrants (foreign workers and expats) in a Malaysian state, the World Bank estimates that a 10 percent increase in the number of labor migrants increases Malaysians' employment at the local level by 0.43 percent (see Figure 115). Similarly, World Bank analyses of the impact of labor migrants on the wages of Malaysian workers shows that these impacts are heterogeneous, but generally very small: Malaysians with at least some secondary education benefit while the least educated Malaysians experience small wage declines (Ozden and Wagner 2014; see Figure 116). Evidence related to the impact of the influx on technological downgrading is not widely available, but the limited available research suggests that the presence of both high-skilled and low-skilled foreign workers generates positive productivity effects in Malaysian manufacturing industries and that foreign workers are crucial for the international competitiveness of Malaysia's manufacturing sector (Jordaan 2018).

> For Malaysia to fulfill its aspiration to become a high-income economy, it will need to retain more of its domestic talent

Nevertheless, Malaysia's foreign worker management system has a number of identifiable weaknesses. First, the current system is not responsive to economic needs and dependency ceilings and levies are not well-suited to ensuring the admittance of either the right number of foreign workers or foreign workers with the right skills. Second, a duplication of roles and a lack of coordination between stakeholders (including with sending countries) result in lengthy admissions processes and limited clarity among key stakeholders. Third, burdensome hiring procedures and an overreliance on recruitment agencies result in high labor mobility costs for both workers and firms. Fourth, combined with weak enforcement, these high costs result in a high number of irregular foreign

FIGURE 115
There is no evidence that labor migration lowers overall employment...

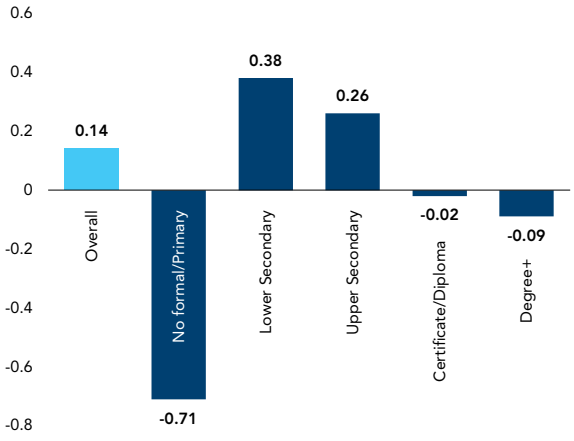
Impact of labor migration on employment, Percentage



Source: Ozden and Wagner (2014)

FIGURE 116
...or wages for Malaysians with at least secondary education

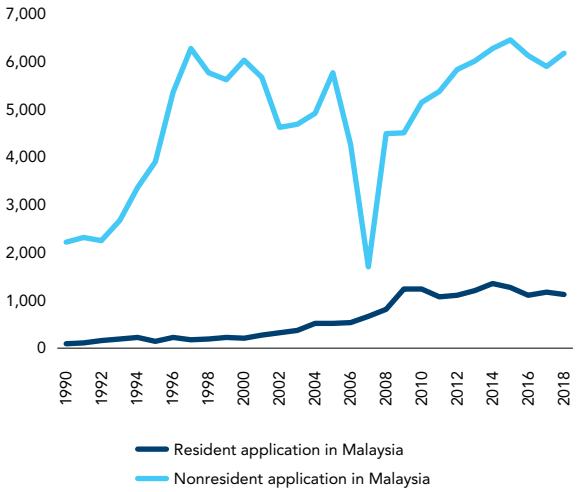
Impact of labor migration on wages, Percentage



Source: Ozden and Wagner (2014)

FIGURE 117
Non-residents file more patent applications than residents...

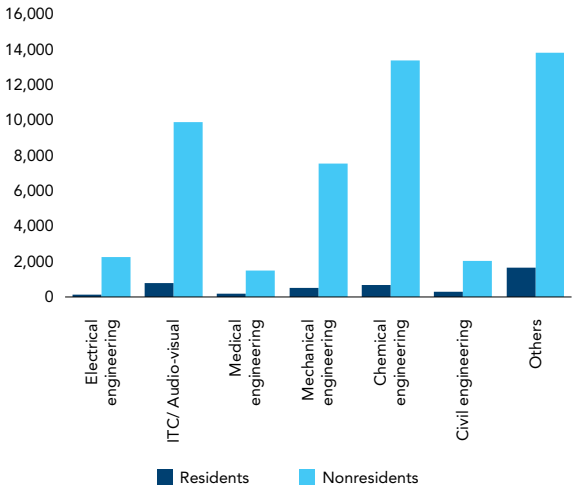
Patent applications by residency status, Number



Source: World Bank based on WIPO
Note: Patent applications dip in 2007 due to Malaysia's entry to the Patent Cooperation Treaty

FIGURE 118
...especially in the chemistry and chemical engineering sector

Patent applications by residency status and sector, Number



Source: World Bank based on WIPO

workers (World Bank 2015). In turn, this contributes to a growing resentment against foreign workers. In the World Bank-University of Malaya living standards study, it was found that Malaysians across regions, ethnicities and income classes share increasing resentment toward foreign workers (see Box 9). Different arguments were offered by study participants to explain why the numbers of foreign workers was so high. Some argued that foreigners work harder than native workers, while others said that employers were being unfair by taking advantage of the low wages and poor working conditions that foreigners were prepared to accept.

Malaysia could benefit by retaining domestic and attracting foreign talent with advanced skills. A study by the World Bank (2011) argues that for Malaysia to fulfill its aspiration to become a high-income economy, it will need to retain more of its domestic talent. According to Testaverde et al. (2017), in 2015 there were more than 1,123,000 Malaysians in Singapore alone, many of them well-educated. To retain more domestic talent, Malaysia will need to consider the factors that lie at the heart of individuals' migration decisions. With regard to attracting foreign talent, Malaysia has established a Student Pass system to recruit international students, and an Employment Pass and a Residence Pass-Talent system to enable skilled expatriates to work in the country. Nevertheless, it struggles to attract international talent: only 5 percent of labor migrants to Malaysia have completed at least secondary-level education (Testaverde et al. 2017). Despite their low proportion, highly skilled expatriate workers play a significant role in facilitating innovation in Malaysia. Data from the World Intellectual Property Organization (WIPO) show that non-residents apply for 5,000 to 6,000 patents in Malaysia per year, compared to around 1,000 applications by residents (see Figure 117). Innovation by non-resident inventors is particularly notable in the chemical engineering sector, which accounted for 26 percent of the total number of patent applications by non-residents in the period from 1980 to 2018 (see Figure 118).

BOX 9

Perspectives on foreign workers from across Malaysia

Malaysia has experienced a rise in foreign labor inflows in response to steady economic expansion and demographic changes. The foreign workforce has been hovering around 15 percent of the total labor force in recent years according to Labour Force Surveys by the Department of Statistics Malaysia. Foreign labor is concentrated in low-skilled occupations, and in Malaysia the term "foreign worker" generally implies a foreigner doing low-skilled work. These foreign workers come from neighboring countries, predominantly Indonesia, Bangladesh, Nepal and the Philippines.

Foreign labor makes important contributions to the labor market and economic growth. Immigrants address labor market imbalances by filling labor shortages in low-skilled, labor-intensive sectors. As a result, low-skilled foreign workers complement the majority of Malaysian workers and contribute to creating jobs for higher-skilled Malaysian natives, enabling Malaysians to specialize and increase their wage premiums, as research has shown. At the aggregate level, foreign labor supports domestic consumption and fuels economic growth.

However, concerns over irregular foreign workers have been growing. Heated discussions have taken place on the number of irregular foreign workers in Malaysia as there is no definitive estimate of the number of irregular foreign workers.

The joint World Bank-University of Malaya study on living standards in 2019 found that Malaysians across regions, ethnicities and income classes share increasing resentment toward foreign workers. However, perceptions varying on the reasons for the high share of foreign workers present in Malaysia.

> *"I know that the foreign workers are helping the economy indirectly. But, their presence has taken away job opportunities for the locals. They should give jobs to Malaysians who are serious about working, not just give away jobs to foreign workers."* ***[Selangor, Petaling, Bumiputera]***

> *"The government brought them [foreign workers] in because Malaysians don't like to work. There are plenty of jobs in this country, but Malaysians are giving many excuses not to work. The foreigners just simply carry on with their jobs, as simple as that."* ***[Terengganu, Setiu, Bumiputera]***

> *"It's not that our people cannot work. They are capable and competent, but the salary range given is not enough. It is very, very low. For a Bangladeshi, a salary of RM1,000 is sufficient. He will spend RM300 and send RM700 back to his country. For us, is RM1,000 enough to sustain a family? We can only survive if our basic salary is RM2,000-3,000"* ***[Selangor, Klang, Indian]***

Upskilling and reskilling are crucial to make sure all workers can face new and emerging jobs challenges

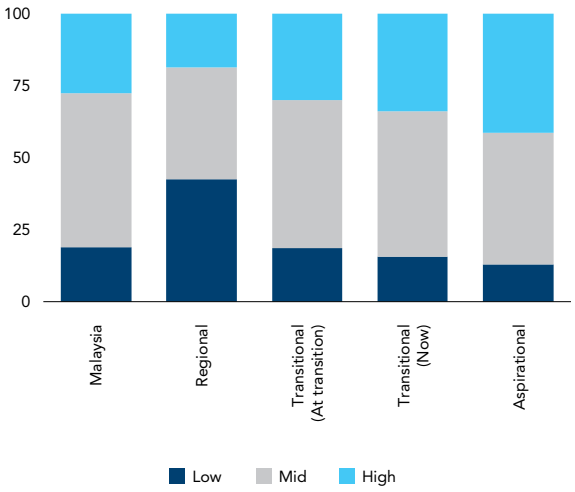
The skills of Malaysia's workforce lag behind those of other countries that have successfully transitioned to high-income country status. Around half of Malaysian workers are employed in mid-skilled jobs, with nearly 30 percent in high-skilled jobs. While Malaysia's breakdown is better than that of regional comparators, it lags behind both its aspirational and transitional peers (see Figure 119 and the competitiveness chapter): about 40 percent of workers in OECD countries are employed in high-skilled jobs, with the level standing at an average of 34 percent for economies that have transitioned to high-income status within the last 30 years. To reach the same level as that of the average OECD country, Malaysia would need to create around 2 million additional high-skilled jobs. A more detailed analysis shows that the Malaysian workforce has not yet fully transitioned to occupations involving the generation and application of knowledge. A significantly lower proportion of Malaysian workers are professionals and technicians, with a significantly higher concentration among services and sales workers and elementary occupations and skilled agricultural workers (see Figure 120).

Socio-emotional skills and skills associated with disruptive technologies are less commonly found among Malaysian workers than in comparator economies. An examination of the data from the World Bank LinkedIn Digital Data for Development project enables a comparison of the relative supply of skills across countries. Compared to countries around the world, workers' skills in Malaysia are weighted more heavily toward industry-specific skills. The areas where Malaysian workers have a relatively high

To reach the same level as that of the average OECD country, Malaysia would need to create around 2 million additional high-skilled jobs

FIGURE 119
Malaysia has fewer high-skilled jobs than most comparator groups...

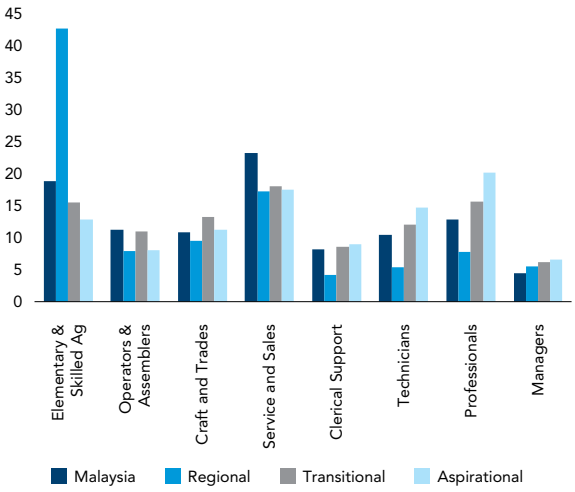
Share of total employment, Percentage



Source: ILOSTAT

FIGURE 120
...especially in occupations with knowledge generation and application

Share of total employment, Percentage

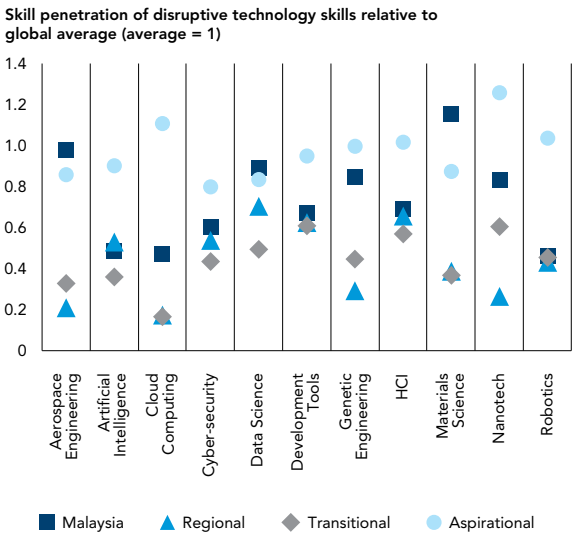


Source: ILOSTAT
Note: Transitional peers at high-income transition

level of skills compared to other countries are aircraft management (ranking in 4th place globally); drilling engineering (5th place); and oil and gas (6th place). Indeed, the ten skill areas where workers in Malaysia rank highest globally, corresponding to a rank of 12th or better, are all specialized industry skills. Malaysia performs less well in the supply of other skill areas that are increasingly important, such as those associated with disruptive technologies or socio-emotional skills.

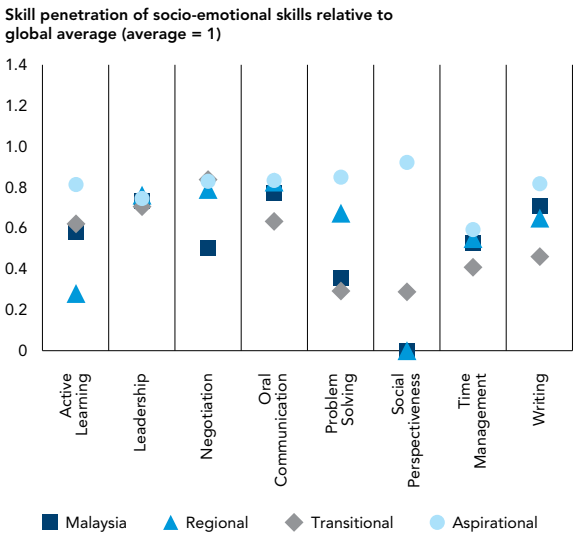
Malaysia generally underperforms OECD countries in terms of the prevalence of disruptive technology skills (other than in aerospace engineering, data science, and materials science, also see the competitiveness chapter). Its performance in terms of socio-emotional skills is even weaker, underperforming the OECD across all eight socio-emotional skill areas (see Figure 121 and Figure 122).

FIGURE 121
Malaysia excels in a few areas of disruptive technology skills...



Source: World Bank LinkedIn Digital Data for Development

FIGURE 122
...but tends to lag in the penetration of socio-emotional skills



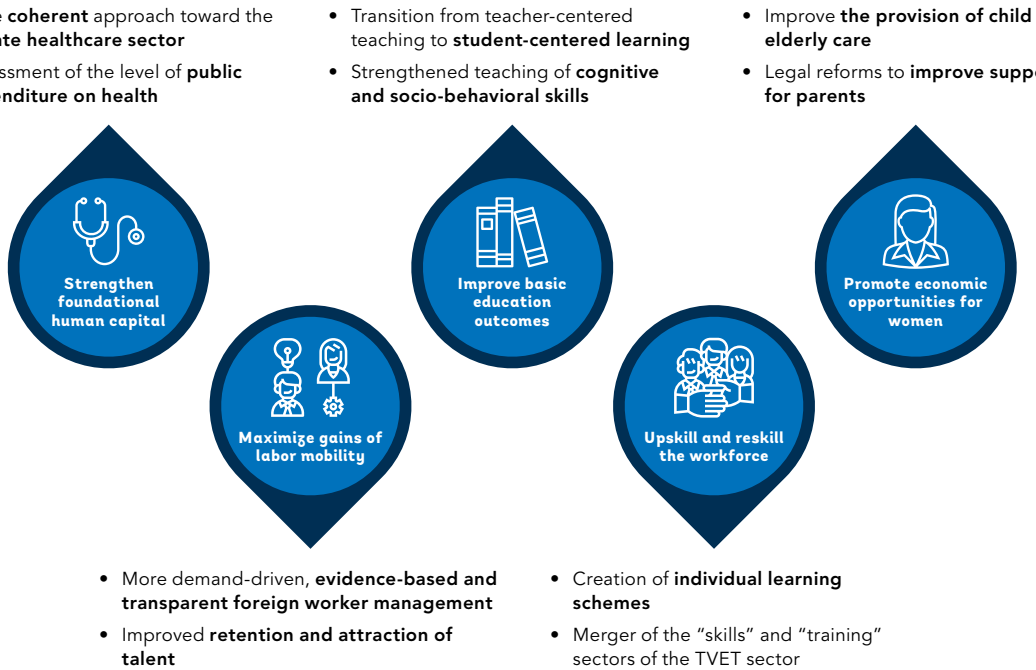
Source: World Bank LinkedIn Digital Data for Development

What will it take to create better jobs for all workers in Malaysia?

For Malaysia to create a greater number of more productive and protected jobs for workers of all backgrounds and skills levels, it needs to implement a comprehensive set of both demand- and supply-side policies (see Figure 123). Fundamentally, labor demand is derived from product demand. While in the past, the reallocation of labor toward more productive sectors was a significant driver of growth and well-being, more recently the reallocation of labor across sectors has stopped being positively correlated with productivity. Thus, the creation of a greater number of more productive and protected jobs for workers of all backgrounds and skills levels will require a focus on policies that address bottlenecks to productivity and competitiveness within sectors, through measures such as the better targeting of investment incentives and further liberalization of key services, as outlined in the competitiveness chapter. Though gains from sources of growth other than within-sector productivity are likely to be more limited, productivity-enhancing policies should nevertheless be combined with efforts to spur the more productive reallocation of labor across sectors.

Policies addressing labor supply and the intersection between labor supply and demand are also crucial to address firms' skills constraints and ensure that no workers are left behind in Malaysia's future development. Complementing the labor demand policy options outlined in the competitiveness chapter, broad measures should be implemented to build foundational human capital by improving health and education; to upskill and reskill the workforce; and to mobilize underutilized sources of labor supply within and outside of Malaysia. Throughout, coordination between labor demand and labor supplies policies should be strengthened. For instance, the demand-side policy of better targeting investment promotion, including the focused use of incentives to enable economic upgrading, high-value job creation and inclusive growth could be paired with targeted supply-side initiatives for reskilling and upskilling as well as with dedicated employment services linking investors and workers.

FIGURE 123
Creating a greater number of more productive, high-quality jobs would require the implementation of a comprehensive set of policies



Source: World Bank staff elaboration

RECOMMENDATION 1

Strengthen foundational human capital through better provision of primary health care (PHC), a more coherent approach toward the private healthcare sector, and an assessment of the level of public expenditure on health. A stronger emphasis on improving PHC will be required to enable Malaysia's health system to meet the health needs of the population and to reach levels expected of a high-income country. Compared to high-income countries, Malaysia's hospital admission rate for conditions that should be effectively managed through ambulatory care is high, suggesting suboptimal management of such conditions at the PHC level (GoM and Harvard 2016, JLN 2018). This can be inconvenient for patients, leading to inappropriate care and inefficiencies. Global experience shows that a strong PHC function that can provide effective case management and continuity of care for patients leads to better prevention and treatment of NCDs. The challenges facing Malaysia's PHC system relate to payment mechanisms; understaffing of appropriate health professionals, such as nurses and care coordinators; and limited competencies among health professionals, especially related to the management of NCDs.

A more coherent approach toward the private healthcare sector should include measures to raise standards; to impose tighter controls; and to implement financing reforms. So far, while public investments have been made to private facilities, these have led to a lack of clarity regarding the mission of some of these entities. In parallel, the relatively light-touch regulation of private providers has led to a proliferation of private facilities, with varying quality of service standards and clinical care, often at much higher prices than for services provided by the public sector. There has also been an attrition of health professionals from the public sector, with the public sector's workload increasing. A more coherent approach toward the private healthcare sector would enable the Government to engage with private entities to improve equity, affordability, and quality of care. Helpful regulatory levers could include raising standards for the practice of medicine; imposing tighter controls on the types and quality of services delivered; and implementing financing reforms.

Also recommended is an assessment whether the current level of public expenditure on health is adequate to meet future needs, with a particular emphasis on improving efficiency and effectiveness. As economies grow richer and health systems mature, public spending on health generally increases, with the out-of-pocket share of spending declining. On average, public spending on health in proportion to GDP among Malaysia's aspirational and transitional comparator groups stands at 6.7 and 4.9 percent respectively, much higher than the 1.9 percent in Malaysia. Malaysia's out-of-pocket spending in proportion to current health expenditure is also high. The costs of care associated with aging and NCDs are often higher than costs associated with acute episodic care. Over time, Malaysia may find that it needs to boost public spending on health in order to finance these more demanding health needs. At the same time, there is not always a strong correlation between an increase in spending and improvements in health outcomes. To improve the efficiency of expenditure, Malaysia's health

financing and payment mechanisms could be revised, with a possible shift away from line-item budgeting in the public sector health system, changes to incentive structures, and improvements in providers' ability to respond to local health needs.

RECOMMENDATION 2

Improve basic education outcomes for all through strengthened teaching of cognitive and socio-emotional skills and more student-centered learning in schools. Malaysia needs not only highly-skilled professionals, but also a strong human capital foundation across the broader society. Therefore, it needs to strengthen the teaching and learning of higher-order thinking (cognitive) skills and of socio-emotional skills to ensure that all students including those with a disadvantageous socio-economic background or in public schools acquire the foundational skills to build their human capital. In this context, teachers will need to be better supported to be able to use versatile pedagogies especially in infusing higher-order thinking skills in the teaching and learning in classrooms. Training should be provided for teachers in innovative pedagogical practices which incorporate critical thinking skills, experiments, inquiry and problem-solving to reflect global trends and shifts in the scientific world. There also needs to be transition from teacher-centered teaching to more student-centered learning in schools. While the Malaysia Education Blueprint 2013-2025 has identified key reform actions, it is worth reviewing these actions and narrowing down target interventions to ensure that the Blueprint facilitates the achievement of its intended goals.

RECOMMENDATION 3

Upskill and reskill the workforce by making the academic and the TVET streams of the education system more responsive to labor market demands, more adaptable, and more cohesive. Malaysia could benefit from a certain convergence between the academic and TVET streams of the education system, with the academic stream incorporating more on-the-job learning and the TVET stream moving toward a unified set of minimum academic standards that the labor market can validate, recognize and reward accordingly. In addition, with the shift toward a high-income economy and the changing nature of work, there is a need for the better identification of skills that are in demand. Ensuring that the education system is responsive to these changes will require increased efforts to collect and analyze labor market information. This includes traditional information from surveys, but also "real time" labor market information from online job postings and administrative data that can provide up-to-date, granular detail. A responsive education system will also need to be closely linked with the private sector. Malaysia can build on its nascent efforts to create industry linkages through the Industry Skills Committee, the Human Resources Development Fund's sectoral training committees, and the Critical Skills Committee. In addition, it will be important to incentivize outcomes. This means that employment services and other active labor market policies should at least partly be paid for based on their effectiveness.

Individual learning schemes can improve the adaptability of the workforce. The shift toward a high-income economy and the changing nature of work also require a system that recognizes the unique and changing needs of learners. As demands for skills change and as contract and gig economy work becomes more prevalent, training opportunities will need to be made more accessible, particularly to those who are not provided with training by employers. Individual learning schemes that link training opportunities to individuals rather than jobs are a promising approach (OECD 2019). The aging of Malaysia's population means that upskilling and reskilling programs will need to play an important role in ensuring that older workers remain productive and counteracting the effects of a shrinking working age population. These programs will need to be adapted to the unique ways in which older people learn.

A merger of the "skills" and "training" sectors of the TVET sector and creation of a single neutral governance body to oversee all relevant institutions can improve the sector's cohesiveness. A unified governance structure will limit the proliferation of institutions and providers and ensure that the requirements at the certificate and diploma levels are aligned directly with those at the university level, as determined by the Malaysia Qualification Standard. The objective of the unified governance body should be to ensure that the system is organized and coordinated; that it provides consistent credentials (ideally through merging the "skills" and "training" sectors); and that it manages differences between disparate sector-based institutional interests so that the system is in line with the changing needs of the labor market and the university level of education.

RECOMMENDATION 4

Promote economic opportunities for women, including through legal reforms to improve support for parents and measures to improve the provision of child and elderly care. Measures to promote

economic opportunities for women have great potential to enable the tapping of underutilized reserves of labor supply (see the long-term growth chapter). To ensure that a larger percentage of women participate in the labor market and have access to productive and protected jobs, it will be important to strengthen the protection of informal workers and the productivity of workers and business owners, to implement legal reforms to improve support for parents, and to address gender norms and attitudes in education and among the wider population (World Bank 2019a). In addition, improvements to childcare including early childhood education and elderly care will be particularly crucial. First, the definition and scope of childcare services should be expanded to cover children from ages 0 to 17 years, with the improved provision and quality of childcare achieved by updating and simplifying policies, procedures, standards and data systems. Second, with the competition for public resources, priority should be given to meeting the needs of B40 families, due to the particular challenges faced by the urban poor. Third, there should be increased options for child and elderly care provision and financing to cater for the varying needs of families. Fourth, the resources available for this care should be increased, with the development of regulations to facilitate the establishment of public-private partnerships to address the increasing need for elder care.

Improving access to high-quality early childhood education not only helps to promote economic opportunities for women but also benefits children. Preparing children for school from the earliest stages of their development is strongly correlated with their performance at later stages of education. Evidence from high-income countries such as the Republic of Korea, Japan and Singapore indicates that their efforts to provide universal access to preschool have ensured that children are "ready for school," which has contributed to these countries' excellent educational performance. High-quality preschool programs have a number of other significant benefits throughout a student's life cycle, with a strong correlation between attendance and better health outcomes, the greater adoption of socio-emotional skills, and higher earning potential throughout their lives.

RECOMMENDATION 5

Maximize gains from labor mobility by making the foreign worker management system more demand-driven, evidence-based and transparent and by fostering the retention of domestic and attraction of foreign talent. While there is growing resentment toward foreign workers, evidence from some East Asian countries suggests that with rapid aging the view that foreign workers can potentially be a "win-win" for both sending and receiving countries may become more common (World Bank 2016). The planned introduction of a multi-tiered levy system would be a step toward such a "win-win." However, the process of setting and adjusting these levies should be more systematic and transparent. Ideally, this process should consist of four steps. First, criteria that reflect the objectives of all relevant parties should be identified. Second, a strong evidence-based analysis should be conducted to explore the links between the employment of foreign workers and various outcome indicators. Third, levies should be set on the basis of the best available evidence to produce the desired outcomes. Fourth, levies should be frequently reviewed. To facilitate effective oversight, the appointment of both an independent technical body and a collaborative, tripartite council should be considered.

Fostering the retention of domestic and attraction of foreign talent will necessitate a comprehensive approach focused on productivity and inclusion, in addition to targeted talent initiatives. Boosting productivity and strengthening inclusion will be key to stem the "brain drain." The productivity challenge is an interplay between strengthened human capital development as discussed in this chapter and improved competitiveness as discussed in the competitiveness chapter. In addition to productivity incentives, social disincentives have played an important role in emigration decisions, particularly among the non-Bumiputera communities. Therefore, an inclusion agenda is also needed (see the inclusion chapter). While comprehensive approaches to boost productivity and inclusion are necessary, they may not be sufficient for Malaysia to retain, attract or re-attract the best and brightest in support of its high-income objective. The country also needs to proactively participate in the global competition for talent. In this regard, strengthened and expanded talent management policies in the form of streamlined visa processing, dedicated financial support, and targeted employment services could play a potentially pivotal role.

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BOX 10

The impact of disruptive technologies

Technological advances are disrupting economies around the world, uprooting entire business structures, transforming cities, and changing people's behavior. These disruptive technologies include fifth-generation mobile phones (5G), artificial intelligence, robotics, autonomous vehicles, the Internet of things, and 3D printing.[98] These and other technological innovations have led to the increasingly rapid scaling up companies, lowering the cost of production and enabling businesses to reach a greater number of consumers around the world through platform economies. Autonomous vehicles have the potential to remove up to 90 percent of cars currently on the streets,[99] thus profoundly transforming cities. New rocket technology, including reusable rockets and shuttles, is making space exploration and travel cheaper, to the extent that commercial space travel has moved beyond science-fiction scenarios to become a real possibility.

The applications of these emerging disruptive technologies are wide and varied, creating new possibilities and solutions in the health, energy, finance and governance sectors. For example, biometrics and digital ID systems have enabled the Indian government to identify and register more than a billion people (Aadhaar Program).[100] Many of the newly registered are now able, for the first time, to access banking services by using their identification card, facilitating a dramatically increased level of financial inclusion. The Nigerian government's introduction of a digital ID systems enabled it to significantly reduce its wage bill by eliminating 'ghost workers,' by linking salary payments to the issued IDs. Blockchain technology, also referred to as distributed ledger technology, is being used to record and monitor financial transactions, with other applications currently being developed to facilitate similar transformations in the healthcare, capital markets and governance sectors. Artificial intelligence is being used to process data faster, to increase the prediction accuracy of various events, and to power educational tools to enable better learning outcomes. The internet of things, which refers to connected devices that collect vast amount of data, is being deployed in agriculture to gather information related to conditions around the farm and to enable farmers to make the necessary adjustments, thus improving their yields. These examples represent only a very few of the transformations that are currently underway.

In addition to changing business models and structures, technological innovations are having a profound impact on the nature of work. In particular,

[98] World Development Report, 2020: Global Value Chains.
[99] Urban Development Authority of Singapore. (https://www.ura.gov.sg/Corporate/Resources/Ideas-and-Trends/Creating-Future-Cities-with-Self-Driving-Vehicles)
[100] World Development Report, 2016: Digital Dividends.

these innovations are changing the demand for skills in the labor market, with a dramatic increase in the demand for high cognitive skills and a decrease in the demand for manual labor. According to the WDR (2019), in economies driven by the technological innovation, there is an increasing demand for skills in three areas: (i) advanced cognitive skills, with abilities to solve complex problems; (ii) socio-emotional skills necessary for effective teamwork; and (iii) skill adaptability based on reasoning and self-efficacy. Technology has also led to a change in the nature of work contracts, with an increase in the number of independent workers and/or subcontractors, who participate in what has become known as the "gig economy." Governments, job seekers and workers will all have to adapt to these changes. In order to remain competitive, job seekers will need to acquire new skills, including high-level cognitive skills, throughout their lives. To ensure the readiness of the workforce to participate in this new economy, significant investments in human capital development will be required, particularly early childhood education to build a strong foundation for both complex problem solving and lifelong learning. To enable this, governments will need to raise more revenue, in a context where the increasingly virtual nature of businesses is making it more and more difficult for them to implement effective taxation systems.

While all these technologies have the potential to dramatically change our lives for the better, they are also likely to create major challenges. Certainly, some of these new technological applications may have negative or unintended consequences. For example, while biotechnological innovations have the potential to transform the field of medicine and to enable the cure of previously incurable diseases, they can also be used to developed highly lethal biological weapons. Disruptive technologies have the potential to increase the risks of market concentration, to increase inequality, and to enable unprecedented levels of government control (WDR, 2019). Although automation has not led to a decline in the overall demand for labor, it has led to the displacement of workers who would need to upskill to be qualified for newly available jobs. Finally, while the digital economy has enabled greater number of consumers to gain access to a vastly increased range of goods and services at low prices, it has also created challenges for governments by exacerbating issues related to taxation, property rights enforcement and consumer privacy.

To enable Malaysia to manage these new developments effectively, the focus should be on strengthening the analog foundation of the digital economy, thus maximizing the benefits of technological innovations. In addition to resolving issues related to limited connectivity, which can leave out many without adequate access to the digital economy, technological changes need to be complemented by measures to enhance aspects of the broader economy (WDR, 2016). While some of the emerging challenges, including rules related to cross-border data flow and varying intellectual property laws, will require global cooperation, individual countries can take a number of steps to ensure that their citizens reap the maximum benefits from the technological advances. The WDR (2016) recommends that countries strengthen their analog foundation by: (i) strengthening regulations that ensure competition among businesses; (ii) adapting workers' skills to the demands of the new economy; and (iii) ensuring that institutions remain capable and accountable. The following figure sets out strategic focuses for the achievement of this objective:

Regulations to promote competition	Investment in education and skill development	Strengthening institutional capability
• Lower the cost of entry • Safeguard against monopolies • Remove barriers to digital adoption • Promote and ensure the efficient use of technology by firms • Enforce existing regulations	• Provide foundational skills and basic ICT and digital literacy • Help workers reskill and upskill • Prepare students and workers for an increasingly digital world • Facilitate life-long learning, especially for the elderly population	• Facilitate mobile phone based services, monitoring and digital public services • Encourage and support digital citizen engagement, participatory policy making and digital collaboration • Increase incentives for good governance in the public and private sector

CHAPTER 5

Modernizing institutions

Malaysia's institutional quality lags not just its aspirational peers, but also the expectations of an expanding middle-class population. Reforms are needed to enhance government transparency, strengthen inclusion, accountability and oversight in government operations and policy making, improve competition in the state-business nexus and build bureaucratic capacity.

Institutions matter for the transition to high-income and developed country status

The state and quality of Malaysia's institutions play a central role in its aspirations to become a high-income, developed nation. North (1990) famously defined institutions as the formal and informal constraints that structure political and social interaction. The experiences of countries that have successfully attained high-income and developed status in recent decades demonstrate the importance of formal state institutions such as the executive, legislature, judiciary, and civil service. This is because the productivity gains necessary for sustaining growth in an advanced economy place greater and more complex demands on institutions than does the achievement of growth based primarily on the mobilization of resources (Doner and Schneider 2016).

> Achieving productivity growth requires supportive institutions, as these set the policies and regulations that determine how firms and industries operate in the market

There is a broad consensus that institutions matter for growth. Scholars argue that institutions play an important role in facilitating growth because they affect the incentives "to accumulate, innovate, and accommodate change" (Dellepiane-Avellaneda 2010), making them the ultimate and fundamental cause of economic performance (Acemoglu, Johnson, and Robinson 2005). The arguments hold that institutions protect property rights and open competition, thereby promoting investment that leads to economic growth (La Porta, Lopez-de-Salinas, and Schleifer 2008). Other arguments follow similar thinking and link institutional performance to outcomes such as efficient resource allocation, innovation, industrial upgrading, effective coordination, and trust in the state.

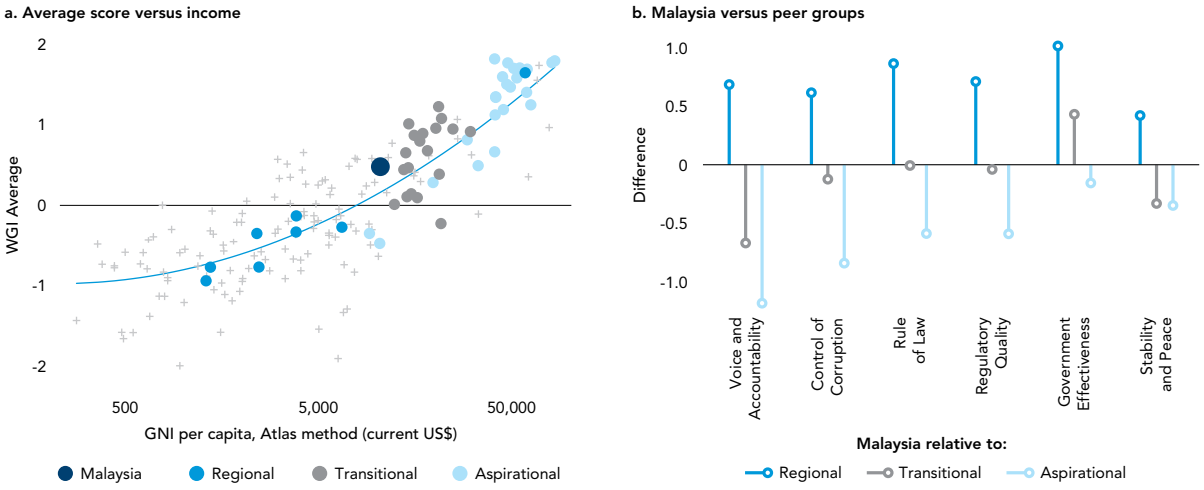
The challenges associated with the high-income transition stem from the need to shift the foundation of growth from input accumulation, which generated growth at earlier stages of Malaysia's development, to the productivity increases that are necessary to sustain growth in a more sophisticated economy. Achieving productivity growth requires supportive institutions, as these set the policies and regulations that determine how firms and industries operate in the market. In addition, as a country develops, society's expectation of the quality of public goods and services tend to increase in breadth and complexity. In short, Malaysia's aspirations for attaining both sustainable growth and full development requires strong and well-functioning institutions.

Malaysia's current institutional performance lags behind countries that have successfully made the transition to high-income status and aspirational countries within the OECD. The widely used Worldwide Governance Indicators, whose components reflect the performance of a range of institutions, show a mixed picture (see Figure 124). While Malaysia performs adequately relative to counterparts in its current income bracket and to many of its regional peers, its persistent institutional weaknesses could undermine its development aspirations. While reforms implemented since the watershed 2018 election have led to some improvements in institutional performance, significant gaps remain, and going forward, it will be key not just to continue the momentum but to also ensure full institutionalization of the reforms initiated. The political change following the dissolution of the government in February 2020 and the COVID-19 pandemic soon after, has naturally shifted the focus to dealing with more immediate issues. The long-term focus on improving institutions and productivity, however, remain equally important.

This chapter examines the institutional dimensions of Malaysia's transition to a high-income and developed country by using a range of data to compare Malaysia with recent transitional and aspirational counterparts. The comparisons provide insights on Malaysia's institutional strengths and weaknesses and form the basis for reform recommendations to support Malaysia's transition to high-income and developed status. This chapter

FIGURE 124
Malaysia does poorly versus its aspirational peers on international rankings of voice and accountability and the control of corruption

Worldwide Governance Indicators, 2018



Source: Worldwide Governance Indicators and World Development Indicators
Note: Cross section shows values in 2018. Countries that belong to both transitional and OECD peer groups are shown as transitional peers. Droplines show the absolute difference of indicator values in 2018 between Malaysia and its comparators. Latest data is shown for all peer groups, including the transitional group. Stability and Peace refers to the Political Stability and Absence of Violence/Terrorism indicator

first presents a summary of the lessons learnt from transitional and fully developed countries regarding the role and importance of institutions. It next focuses on the performance of Malaysia's institutions in the context of these lessons, including its performance in the areas of the control of corruption; the presence of accountable checks on power; and on the level of capacities of Malaysia's institutions. The chapter continues by focusing on the key institutional constraints in Malaysia, including the state-business nexus; the capacities of parliament and other centers of government; and the structure and nature of its public service. Finally, the chapter concludes with a series of policy recommendations, which relate to measures to strengthen competition and limit corruption within the state-business nexus; to strengthen parliament and other centers of government; and to strengthen the public service.

Countries that have successfully transitioned to high-income status and sustained growth thereafter share a number of common characteristics. Nearly all have performed well in terms of a range of indicators related to institutional performance. By contrast, countries that perform poorly in terms of these indicators often remain stuck in a middle-income trap (see Box 11). In this way, the experiences of countries that have successfully transitioned to high status are highly relevant to Malaysia.

The abstract nature of institutions makes direct measurement of their performance difficult. Many studies thus focus on the theorized manifestations of institutional quality, operationalizing institutions as control of corruption (Mauro 1995); contract enforcement (Knack and Keefer 1995); and bureaucratic efficiency and the rule of law (Alesina 1998). The use of indexes based on the qualitative judgement of experts is also widespread. The varying definitions and frequent measurement ambiguities result in an ongoing debate about the precise mechanisms and causal pathways through which institutional performance affects economic outcomes (Chang 2011).

As countries attain higher standards of living, there is an increased demand for the greater provision of high-quality public services

There are numerous clear empirical relationships between these common measurements of institutional quality and growth. Many low-income countries grow rapidly for an extended period of time by accruing capital and mobilizing labor from low-productivity agriculture to higher-productivity

manufacturing. These strategies become increasingly ineffective after the achievement of middle-income status, when returns to capital begin to diminish and the pool of under-employed rural labor becomes scarcer. Sustaining growth beyond that phase requires productivity increases, particularly through the more efficient usage of existing capital and labor stocks. This is associated with a transition to increasingly sophisticated forms of economic activity, which can be indirectly measured in terms of increases to Total Factor Productivity (Daude and Fernandez-Arias 2010).

In addition to sustaining economic growth, high-quality institutions also support the provision of high-quality services. With the increasing recognition that social wellbeing is multidimensional and more than just a function of income (Sen 2009; Narayan 2000), it has been recognized that the provision of high-quality services, including health and educational services, can greatly contribute to social wellbeing. Moreover, as countries attain higher standards of living, there is generally an increased demand for the greater provision of high-quality services. Delivering these services at the required higher standard places considerable demands on state institutions, particularly the civil service. This is true even in contexts where many services are provided by the private sector, as coordination and regulation functions often remain with the state.

High-quality institutions are required to identify and implement appropriate responses to the complex emerging challenges of the 21st century. The ability of institutions to respond to issues such as the adoption of sophisticated technology, climate change, sustainable development, and others will significantly impact the socio-economic conditions facing Malaysia's population. For example, there is a broad consensus that climate change will bring serious disruption at the global, national and household levels. The management of this issue may create institutional strains, particularly in tropical areas (Ford, Berrang-Ford, and Paterson 2011). With challenges related to climate change being significantly different from many of those that institutions have contended with during the past fifty years, innovative and nimble action will be required. There are also increasing concerns regarding the disruptive potential of inequality, which is at least partially a function of technological innovations and their impact on capital accumulation and labor. As institutions play important roles in regulation and redistribution, they will be tasked with ensuring that the benefits of technological progress and automation are captured, while the costs are mitigated. More immediately, crises like the COVID-19 pandemic attest to the need for an institutional structure that is trusted by the public, and can coordinate and rapidly implement containment measures as conditions evolve.

Malaysia's institutional performance lags in key areas

This section focuses on the performance of tangible state entities, including Malaysia's executive, the legislature, and the civil service. The focus on these formal institutions does not imply that other institutions are irrelevant. Rather, they are chosen due to their significant role in sustaining economic growth in Malaysia and supporting ongoing improvements in societal wellbeing. To contextualize institutional performance, Malaysia is compared with three groups: the ASEAN group; the transitional group; and the aspirational group. The ASEAN group consists of Malaysia's regional neighbors in the Association of Southeast Asian Nations, while the transitional group consists of countries that have "graduated" from upper-middle-income to high-income status in recent decades. Finally, the aspirational group consists of OECD members, who are generally considered highly developed.

As noted earlier, the measurement of institutional performance is challenging due to the abstract nature of institutions. As with nearly all studies on institutional performance, the chapter relies on proxy measurements and indexes based on expert opinion to assess institutional performance. The main focus is primarily on well-established indicators that are clearly linked to institutional quality and relevant to the Malaysian context. These are *control of corruption*, *accountable checks on power*, and *civil service capacity for governance and provision of services*. Other indicators are brought into the analysis to supplement the core indicators. The indicators, as well as their linkages to Malaysia's development aspirations, are discussed below.

BOX 11

The importance of modernizing institutions: some lessons from middle-income escapees

As argued in a spotlight on "The middle-income trap" in the World Development Report 2017, the new growth strategies needed for middle-income countries to reach high-income levels necessitate difficult institutional reform. Countries at upper-middle-income levels are no more likely to stagnate than economies at other income levels. However, the determinants of growth among low- and high-income levels do differ (Bulman, Eden, and Nguyen 2014). First, total factor productivity growth is a more important determinant of growth than capital accumulation at higher-income levels. Second, the sources of TFP growth change as countries grow richer. Countries at lower-income levels can raise TFP by simply mobilizing investment in industrial activities and reallocating excess labor from the farm to more productive non-farm activities. At middle-income levels, the gains from such broad intersectoral reallocation have been exhausted, and TFP grows only when the most productive firms expand, badly performing firms exit and there is innovation within firms. Firm-level misallocation—specifically, a high market share of unproductive firms—accounts for much of the TFP gap between high- and middle-income countries (Hsieh and Klenow, 2009), and could explain why Malaysia's productivity growth rate remains below the worldwide average for middle-income countries (World Bank 2016).

These new sources of TFP growth need new institutions. In the early stages of industrialization, investment can be mobilized through relationship-based contractual arrangements. But complex and dynamic economies are based on more impersonal and flexible contractual mechanisms (Dixit 2004). Moreover, industrial upgrading requires the institutional capacity to coordinate the actions of different economic players through an alliance between government and business. Modernizing institutions for high-income growth requires new "upgrading coalitions" between business and government (Doner and Schneider 2016). This is because existing coalitions are likely to consist of those who gained during the transition from low- to middle-income and do not necessarily have the incentive to change the growth strategy. For example, firms that succeeded in the early stages of industrialization may desire to sustain their dominant position in traditional industries instead of forging alliances to explore new sectors.

To be successful, Malaysia's upgrading coalition will need to align the incentives of both large incumbent firms as well as small- and medium-sized firms with the objectives of institutional modernization. In particular, it will be important to align the incentives of well-connected firms that did well during past phases of industrialization. Although Malaysia's industrialization strategies have shifted and become more broad-based over the years, giving firms deemed to be of strategic importance intensive state support has been a constant (Gomez and Jomo 1997). The market share of politically connected firms in Malaysia is among the highest in the world (Faccio 2006). Having benefited much from easier access to financing and government support (Johnson and Minton 2003; Fraser, D. R., Zhang, H., Derashid, C. 2006; Bliss and Gul 2012), how can they be made a part of the upgrading coalition?

Powerful entrenched actors could become willing partners in reform if they believe that there will be a more competitive and level playing field for firms in the future, making it harder for them to hold on to their rents. Consistent with this hypothesis, countries that have managed to escape from middle- to high-income levels have been more successful at reducing corruption and creating a more level playing field for firms than those yet to make the transition. The charts below, which are reproduced from WDR2017 with an added highlight on Malaysia, illustrate this by comparing changes in key governance dimensions between "escapee" and "non-escapee" countries at different income groupings during 1950-2011. Compared to countries that could not escape from middle-income levels, middle-income escapee countries experienced bigger reductions in public sector corruption (see Figure 125) and more improvement in institutions of accountability, such as

judicial constraints on the executive (see Figure 126). Such gaps between escapees and non-escapees are the starkest at the upper-middle-income level, suggesting that these governance factors become most binding when nearing high-income levels.

Malaysia's performance was mixed when compared to the typical upper-middle-income escapee. It lagged well behind the average upper-middle-income escapee in terms of progress on reducing public sector corruption and strengthening judicial checks and balances. In fact, these indices worsened during this period. Thus, the experience of upper-middle-income escapees suggests that reducing public sector corruption and strengthening judicial and other checks and balances will be important for Malaysia to sustain its rise to the high-income threshold and beyond.

FIGURE 125
Countries that escaped the middle-income trap have tended to reduce corruption...

Change in measure of public sector corruption, selected country groups

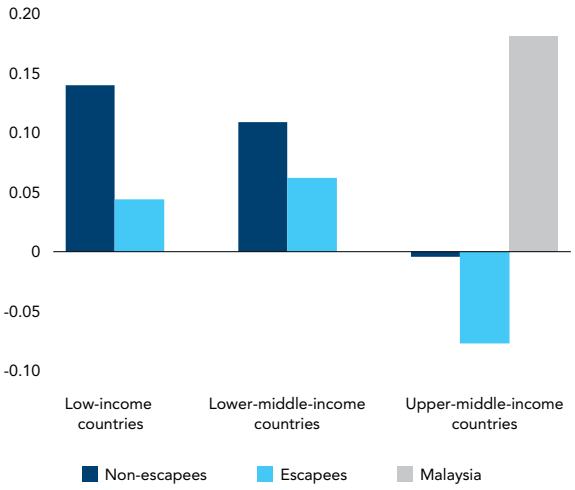
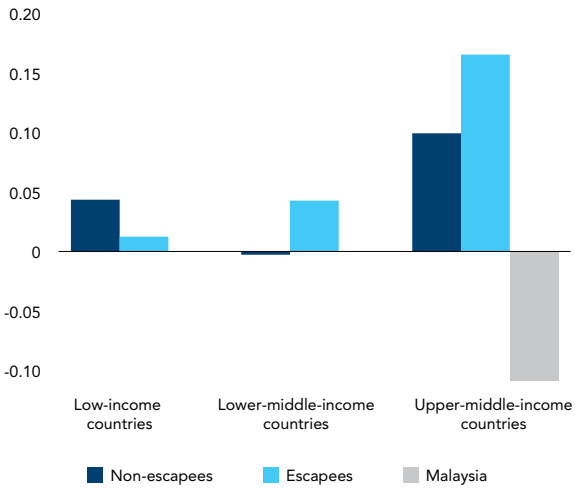


FIGURE 126
...and strengthen judicial constraints on the executive

Change in measure of judicial constraints on the executive, selected country groups



Source: Reproduced from WDR 2017, using data from V-Dem
Note: The bars represent the average change in the relevant category for all "non-escapees" (dark blue) and "escapees" (medium blue) during the time a country is at the income level specified. Escapees are defined as those countries that reach the subsequent income levels during the sample period (1950–2011). Non-escapees are those that remain trapped at the same income level or move to a lower-income level. In the left figure above, public sector corruption (v2x_pubcorr) is an index ranging from 0 to 1, with 1 representing the most corruption. In the right figure above, judicial constraints on the executive (v2x_jucon) is an index ranging from 0 to 1, with 1 representing the greatest constraints.

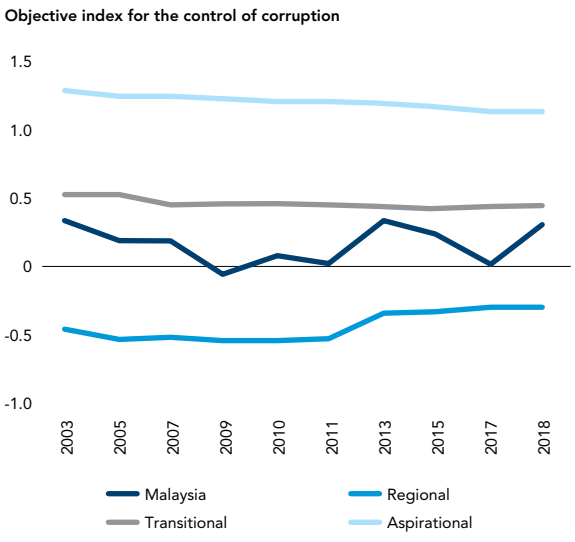
Control of corruption lags transitional and aspirational countries

Corruption has been strongly associated with constrained growth and suboptimal public service delivery in counties at all stages of development (Alesina 1998; Mauro 1995; Knack and Keefer 1995). The effects are especially pronounced in high-income environments, where the increased complexity of markets requires a rules-based order and neutral contract enforcement to function efficiently. A comprehensive review of research conducted by Olken and Pande (2012) shows that where institutions are not able to facilitate the emergence of this type of environment, corruption can distort firm-level decision-making, leading to reduced investment and output. Corruption also has potentially adverse consequences for the provision of public goods and services and can trigger costly externalities. Previous work by the World Bank has shown that the transitional group made significant strides in reducing corruption relative to their 'stuck' peers (World Bank 2017).

Malaysia performs relatively well on indicators of control of corruption compared to its regional peers, but it significantly lags behind the transitional and aspirational countries.[101] Figure 127 illustrates Malaysia's performance against the three comparator groups using the Control of Corruption component of the Worldwide Governance Indicators, where higher values denote greater success in the control of corruption. Figure 128 uses the corruption index from the Varieties of Democracy dataset, which incorporates indicators from six forms of corruption across executive, legislative, and judicial institutions at both petty and grand levels. While grand level corruption is most visible, extensive petty corruption implies the high prevalence of side payments and the need for personal connections in matters such as contract procurement and enforcement. Corruption at both levels undermines economic growth and service provision by distorting competition and wasting resources. The sharp increase in control of corruption following the 2018 election is notable.

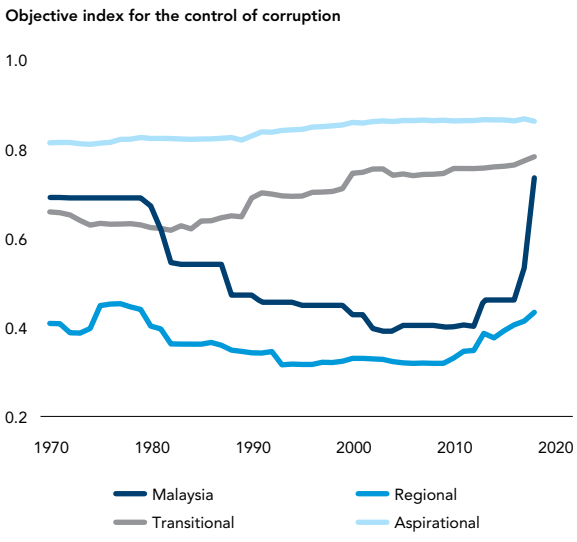
The current COVID-19 pandemic has caught most governments, including Malaysia, unprepared and has led to very large sums of unplanned resources being spent on urgent healthcare, social security and economic support. Speed is key and hence regular or standard operating procedures are not realistic. Billions

FIGURE 127
Malaysia's performance on the control of corruption has lagged aspirational comparators...



Source: Worldwide Governance Indicators, Control of Corruption Index

FIGURE 128
...but improved dramatically following the 2018 general elections



Source: V-Dem v9 dataset

[101] The most recent 2020 CPI, released in January 2021, saw Malaysia's score decline slightly from 53 to 51. This is attributable to several factors, including the slowing of institutional reforms, limited progress on high profile cases, concerns regarding access to information on matters of public interest, and continued cases of corruption by public officials. This development further highlights the need to institutionalize and follow through on the existing measures initiated following the 2018 elections.

of dollars are being spent circumventing standard accountability procedures in response to control the spread and aftermath of COVID-19. The large scale of emergency spending by governments exposes them to a variety of corruption risks that may undermine the effectiveness of government responses. Corruption can lead to the theft, waste and misuse of scarce resources, resulting in unnecessary suffering and death. It can also entrench elite privilege and inequality and undermine institutions of accountability with lasting consequences. To foster greater accountability, it is important that government actions are clearly articulated, rules are enforced, violations are addressed, and problems remedied as quickly as possible in a transparent manner[102]. Malaysia's recent performance on control of corruption, as discussed below, should be continued and enhanced through complimentary measures.

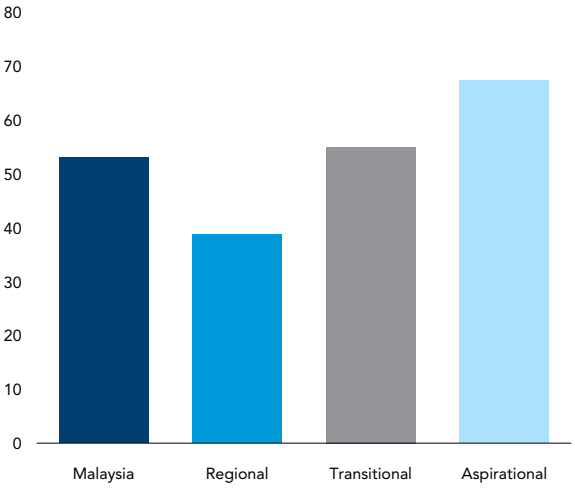
Malaysia's recent improvement in controlling corruption is also reflected in the 2019 Corruption Perceptions Index (CPI), where its score increased from 47 to 53 (see Figure 129 and Figure 130). This improvement is attributable to a range of anti-corruption efforts and reforms initiated by the Pakatan Harapan government. These include the action taken to address several high-level corruption cases, such as

Malaysia's recent performance on control of corruption should be continued and enhanced through complimentary measures

those involving 1MDB and Tabung Haji; greater media freedom; the appointment of a neutral figure on the Public Accounts Committee; the passing of the asset declaration motion in parliament; and the launch of the National Anti-Corruption Plan (NACP). These improvements are encouraging, but further progress can be made through measures such as the successful execution of the NACP; enactment of the Freedom of Information Act; strengthening of the Whistleblower Protection Act; and renewed efforts to eliminate the culture of money politics. It is also important that existing measures be institutionalized to safeguard against the risk of reversals and minimize political interference.

FIGURE 129
Malaysia scores below aspirational peers on perceptions of corruption...

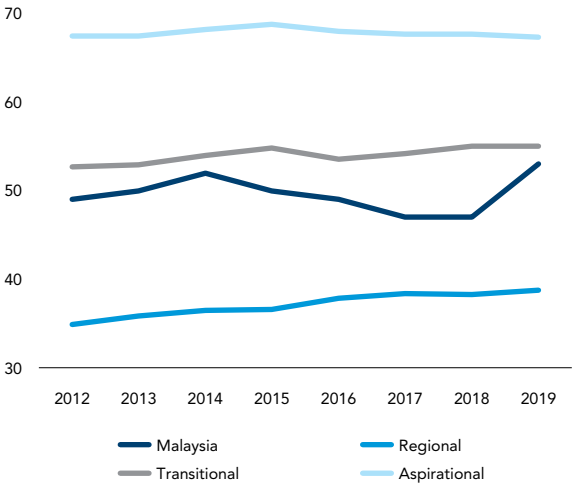
Corruption perceptions index, Malaysia and comparators, 2019



Source: Transparency International
Note: Latest data is shown for all peer groups, including transitional peers. CPI data is not available for Puerto Rico (transitional group).

FIGURE 130
...but the country has seen a significant improvement in the last two years

Corruption perceptions index, Malaysia and comparators, 2012-19



Source: Transparency International
Note: Latest data is shown for all peer groups, including transitional peers. CPI data is not available for Puerto Rico (transitional group).

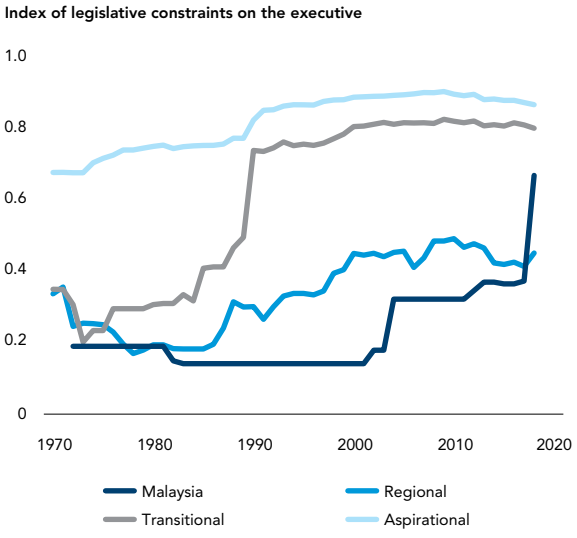
[102] World Bank (2020). Ensuring Integrity in the Government's Response to COVID-19. http://bit.ly/AC4COVID19

Decision-making power has been strongly concentrated within the executive

The ability to hold government officials accountable is vital to ensure their neutrality in matters relevant to the achievement of sustainable economic growth and improved societal wellbeing. When an institution operates transparently and there are mechanisms to enable external actors to hold it accountable, it is less likely to act in ways that undermine its objectives. Accountability can be conceived of as horizontal (within the government); diagonal (between the state and external actors like the media and civil society); or vertical (between the state and the electorate).

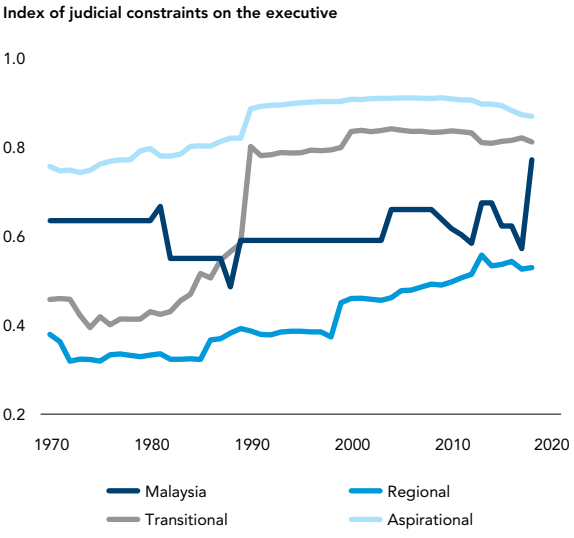
In the Malaysian context, decision-making power has been strongly concentrated in the executive component of the state. Thus, the ability to hold the executive accountable has clear social and economic implications. The charts below show two important dimensions of horizontal accountability based on data from the Varieties of Democracy dataset. Specifically, they indicate the parliament's (see Figure 131) and judiciary's (see Figure 132) ability to oversee the executive and hold it accountable when needed. In terms of both these indicators, Malaysia has lagged significantly behind important comparator groups since the 1970s. This stems from the decades-long centripetal forces that have concentrated decision-making power at the center, thereby weakening the ability of non-executive institutions to effectively monitor and hold the executive accountable, with Malaysia having far more asymmetrical power relationships between these institutions than most high-income countries. The civil society indicator captures the degree to which the government controls the entry and exit of civil society organizations (CSOs) into public life (see Figure 133). Higher values indicate less state control over civil society, which strengthens the ability of CSOs to hold the state accountable. Malaysia has been roughly on par with regional peers in terms of this indicator but continues to lag considerably behind the other two comparator groups. An open culture including sharing of data and other information related to government operations is key to enhancing transparency. The Perikatan Nasional government that assumed power in February 2020 could actively engage with multiple stakeholders that include the CSOs, the private sector and citizens to devise policies and programs. Engaging the public and sharing data will go a long way in building trust in the new government.

FIGURE 131
Malaysia has underperformed on measures of accountability...



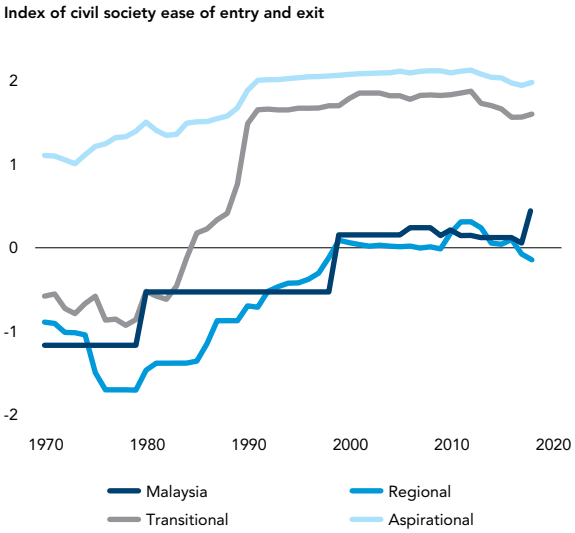
Source: V-Dem v9 dataset

FIGURE 132
...although there have been some gains in recent years



Source: V-Dem v9 dataset

FIGURE 133
...and the space for civil society to hold government to account remains limited



Source: V-Dem v9 dataset

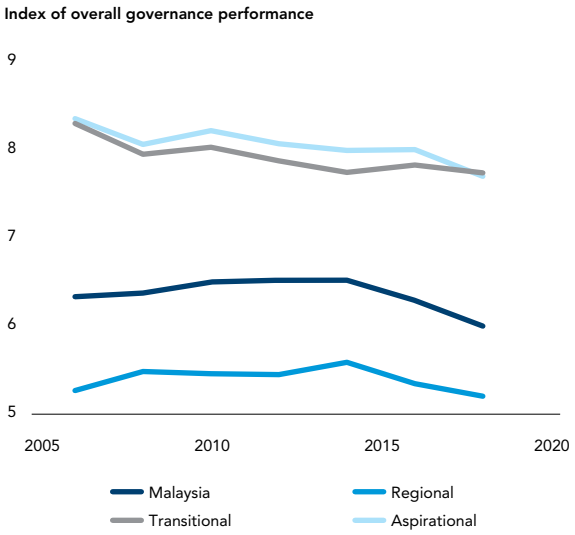
With the change of government in 2018, there was an improvement in accountability in some areas. The gains in legislative accountability resulted largely from important measures that sought to disperse power from the Prime Minister's Department, including by shifting key functions to parliament. In terms of judicial accountability, post-election moves to restore the independence of the judiciary through the appointment of politically neutral figures to key positions strengthened its ability to effectively constrain the executive. Diagonal accountability also increased following the election, largely through measures that reduced control over the media and civil society. However, these gains in all three of these dimensions need to be carried forward by the new government that assumed power in February 2020. For example, a recent report by the International Federation of Journalists (2019) notes that restrictive laws remain in place and that censorship may be becoming increasingly prevalent. On several occasions, the executive has also bypassed new parliamentary institutions that were specifically designed to increase executive oversight.

Civil service capacity and service delivery fall short of comparators

Strong performance on indicators of civil service capacity is associated with positive economic and societal outcomes. The effective regulation of increasingly complex markets and industrial upgrading initiatives requires a highly skilled, consistent, and productive civil service. Simultaneously, ever increasing public expectations of the quality and range of state services increase demands on the civil service, which can be met only through high skill levels and responsiveness. The evidence shows that countries in the transitional group perform significantly better on indicators of civil service capacity than do countries stuck in the middle-income category.

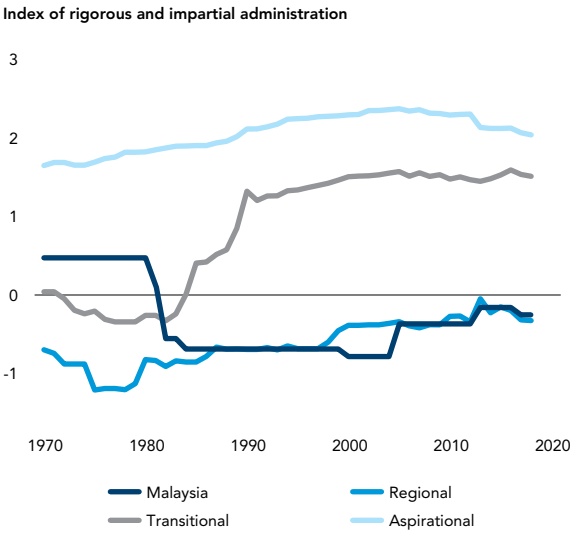
While Malaysia's civil service performed relatively well compared to regional and transitional comparators in the 1970s, its relative performance has generally been in decline since then. It currently lags behind the transitional group by a significant margin. The performance of Malaysia's civil service can be assessed using data from the Bertelsmann Transformation Index (see Figure 134) and the Varieties of Democracy dataset (see Figure 135). The overall civil service performance indicator is based on the mean scores for parameters such as *steering capability*, *resource efficiency*, *consensus-building*, and *international cooperation*. While Malaysia performs relatively well compared to regional peers in terms of overall governance, it performs poorly compared to countries in the transitional and aspirational groups. Similar conclusions can be drawn from Malaysia's performance on the V-Dem's rigorous and impartial administration indicator, where higher scores indicate public officials' greater tendency to abide by the law and to treat cases impartially; lower scores, by contrast, indicate widespread arbitrariness and bias.

FIGURE 134
Overall civil service performance is above regional, but below aspirational peers...



Source: Bertelsmann Transformation Index (BTI)
Note: The BTI does not include all OECD countries, so the Aspirational group is based on a limited number of relevant countries.

FIGURE 135
...and the gap on measures of impartial administration is large



Source: V-Dem v9 dataset

There are lessons from past institutional reform experiences

The Malaysian government has long sought to strengthen institutional performance through reform initiatives, but these have often failed to achieve their stated objectives primarily due to poor implementation. The relative weakness of Malaysia's institutions on a number of key indicators, in other words, is not the result of a lacking awareness or initiative. This is clear from the 2010 New Economic Model (NEM), which was intended to be the main blueprint for the transformation of Malaysia's economy toward high-income status by 2020 (Malaysia 2010).[103] Its prescriptions were widely recognized as sound and theoretically appropriate for catalyzing inclusive and sustainable growth based on productivity gains. Key elements of the NEM included scaling back the state's involvement in a number of economic areas and reducing protections for Government-Linked Corporations (GLCs) in a bid to promote increased competition and to reduce corruption. It also called for a strengthening of bottom-up channels in the decision-making process to improve both accountability and the quality of information on which decisions are based. The NEM was to facilitate innovation through the better allocation of resources for industrial upgrading initiatives. The shift to a 'transparent and market-friendly affirmative action program' that placed greater weight on the needs-based allocation of resources was intended to boost labor productivity across all sectors. Retraining and skills-upgrading in the civil service were to boost its capacity. The NEM was complimented by the flagship National Transformation Program and the Performance Management and Delivery Unit (PEMANDU), which was provided with sufficient resources and power to drive implementation of policy and lead coordination with the bureaucracy, both at the center of government and within line ministries.

The NEM had a number of innovative features and strong public backing, as did many earlier reform initiatives. In the 1980s, several high-profile reform programs were launched to target the public sector, including the Clean, Efficient and Trustworthy Government campaign (1982) and the Privatization Program (1983). The Look East Policy (1982) sought to bring elements of the structure and practice of governance in rapidly developing East Asian countries such as Japan and the Republic of Korea to Malaysia, with the hopes that similar productivity gains could be achieved. A decade later, in 1991, the National Development Policy and Vision 2020 also focused on strengthening public sector institutions. In fact, many of Malaysia's well-regarded National Development Plans (medium-term Malaysia Plans) contained well-conceived institutional reform components (World Bank 2019). Malaysia, in short, has a long history of reform initiatives intended to bring its institutions up to par with those of countries in the transitional and aspirational groups.

> If implementation challenges are not addressed, reforms do not achieve their stated objectives

How can the relatively poor performance of Malaysia's institutions be reconciled with the extensive history of reform initiatives? A growing area of political economy research argues that the limited impact of reform initiatives often has less to do with their *technical content* than with the challenges of *properly implementing them*. Put simply, if implementation challenges are not addressed, reforms do not achieve their stated objectives. In many countries, the economic model prevalent during the low and middle-income phases of a country's development creates a powerful and politically-connected economic elite whose business models are often based on resource mobilization. These elite have little to gain—and in some instances, much to lose—from reforms that seek to shift the basis of growth to increased productivity. Hence, they may mobilize their political influence to preserve institutional arrangements that are favorable to their business models. When this occurs, it creates an implementation gap between the intended outcome of reforms and their actual impact.

This political economy explanation is relevant in the Malaysian context. The NEM's explicit focus on achieving productivity gains and modernizing

[103] Quoting the report: "We are caught in a middle-income trap – we are not amongst the top performing global economies. Amid changes in the external environment, many of the policies and strategies we used to achieve the current state of development are now inadequate to take us to the next stage... We urgently need a radical change in our approach to economic development..." (Malaysia 2010, p. 3-4).

institutions implies extensive implications for a wide range of stakeholders across the public sector and private sector, with firms across most sectors affected. In particular, altering the allocation of public resources would result in powerful business interests losing at least some of the lucrative support they have become accustomed to. Other components of the NEM have implications at the mass level, with deeply-rooted benefits, from direct cash transfers to preferred access to resources, potentially shifting away from important voting blocks. Simply put, even with the positive net benefits of a reform program such as the NEM – which could strengthen the foundations for sustained growth – there are subgroups of relative losers whose objections must be overcome for implementation to succeed.

Overcoming the political economy obstacles inherent to productivity-enhancing institutional reforms is extremely challenging without the establishment of broad and inclusive coalitions between major political, economic, and social interests. The 2018 election was a good start as the then Pakatan Harapan government prioritized institutional reform (Lee 2018), thereby seeking to curb corruption; restore trust in institutions through greater transparency; enhancing the capacity of the public sector; strengthening accountability; and boosting competition and innovation in the private sector. Steps were taken toward enhancing the effectiveness of the institutions responsible for governance and anticorruption, including the creation of the National Centre for Governance, Integrity, and Anti-Corruption; formulating a National Anti-Corruption Plan; strengthening the Malaysian Anti-Corruption Commission; pushing through long due reforms to public procurement practices; addressing checks and balances by reducing the concentration of power in the Prime Minister's Department; and strengthening the Parliament. It is important that these reforms are carried forward by the new government that assumed power in February 2020.

The full and effective implementation of a far-reaching reform agenda requires a medium to long time horizon, making it too early to comprehensively assess the efficacy of recent reforms. Even so, there are early signs that results will be mixed. Despite clear progress in some areas since the change of government in 2018, there are also signs that the implementation gap has affected new reform efforts. In some of those cases, reforms were partially implemented but bypassed when politically expedient, thereby undermining initial gains. In others, implementation did not receive the necessary political backing to achieve the reform's stated objectives. The clear lesson from both previous and current experiences is that while solutions must be technically-sound, that alone is not sufficient to achieve durable and impactful reform: the implementation gap will continue to undermine initiatives in the absence of full backing from key economic, political, and social groups.

The relationship between institutional performance and economic growth is complex and at least partially endogenous, making it difficult to identify precise causal linkages (Pepinsky, Pierskalla, and Sachs 2017; Chang 2011). Nonetheless, there are numerous clear and widely accepted theoretical linkages between institutional performance and the achievement of sustainable growth. This makes Malaysia's poor performance on related indicators concerning. Three factors stand out for their clear contribution to Malaysia's poor performance on indicators of controlling corruption, enabling accountability, and public service capacity. Focusing institutional strengthening on these areas provides the greatest potential for positively contributing to Malaysia's development aspirations.

The state-business nexus is a particularly challenging area

State-owned enterprises (SOEs) have played a major role in Malaysia's efforts to achieve the twin objectives of higher growth levels and wealth redistribution. Malaysia relied on statutory bodies and public enterprises to adopt a state-led development model in the 1970s, before introducing privatization in the 1980s, and then intensifying state-led development in the 2000s. The affirmative action policies articulated in the early 1970s were designed to increase inclusion of *Bumiputera*[104] in the economy, and in the process also expanded the breadth and complexity of government-business relations (Gomez et. al 2018). This resulted in a dense and politically powerful state-business nexus. Some of these SOEs—also known as Government-Linked Companies (GLCs)—are linked to the state through the Ministry of Finance-controlled Government-Linked Investment Companies (GLIC). While the primary objective of GLCs is commercial, the government's controlling stake allows them to be leveraged toward a range of non-commercial objectives. This includes a strong national development and social component, specifically to redress the perceived economic inequalities between ethnic groups through the redistribution of corporate equity and promotion of Bumiputera entrepreneurship. It has also been argued that rents from GLCs have been used to secure political support (Gomez 2012).

The prominence of GLCs in Malaysia's economy cannot be overstated. GLCs account for over 42 percent of the total market capitalization of all public-listed firms in Malaysia (Gomez et al 2019) and dominate a range of key sectors, including utilities, transportation, and warehousing. They also control a major share of strategic sectors such as banking, construction and property development, industrial products technology, and plantations (Gomez et al 2019). Furthermore, Federal ministries hold a number of additional unlisted GLCs that are active in development and industrialization

While the state's involvement in Malaysia's economy may have facilitated growth during the early phases of industrialization, it appears to be increasingly counterproductive today, primarily due to issues with the governance, transparency, and accountability of GLCs. In the early phases of industrialization, the combination of liberal policies toward export-oriented industrialization (especially for multi-national corporations) and targeted interventions in other areas contributed to several decades of rapid growth. The active state interventions also facilitated the growth of a Malay middle-class and Bumiputera entrepreneurs, thereby addressing key social objectives. Other outcomes of the tight state-business nexus are clearly negative, however. Opaque ownership and corporate governance structures hinder accountability, making the control of corruption more difficult. This has been exacerbated by the growing use of shell companies since 2009 (Gomez 2017). The practice of the Prime Minister concurrently serving as the Minister of Finance, as was the case from 1999 to 2018, also resulted in conflicts of interests in the state-business nexus, further exacerbating the accountability deficit. While the Pakatan Harapan government did not continue this practice, there are ongoing questions regarding the government's influence over business and markets through the GLCs. The practice of appointing politically connected individuals to key GLC positions was partially addressed, but not ended. Notably, the new Perikatan Nasional government has appointed some political leaders into GLC leadership positions.

Preferential treatment for select GLCs, especially those that provide valuable rents or that serve social ends, can distort competition and hinder efforts to promote innovation (Gomez 2012). This occurs for a number of reasons. The practice of subjecting large, publicly listed firms to equity redistribution and greater political intervention suppresses the growth of domestic SMEs that wish to avoid that interference. Consequently, they invest less into innovation and growth. Furthermore, there is clear evidence that GLCs crowd out private investment (Menon and Ng 2013). This is especially problematic in sectors where GLCs and private companies compete with each other, since the former receive protection and subsidies that distort competition. Major public infrastructure projects led by state-state GLC-SOE joint ventures likewise distort competition and reduce accountability, as evidenced by several of the controversial 1MDB-linked initiatives.

[104] Bumiputera is a term used in Malaysia to describe Malays and Orang Asli or indigenous peoples of Malaysia or Southeast Asia.

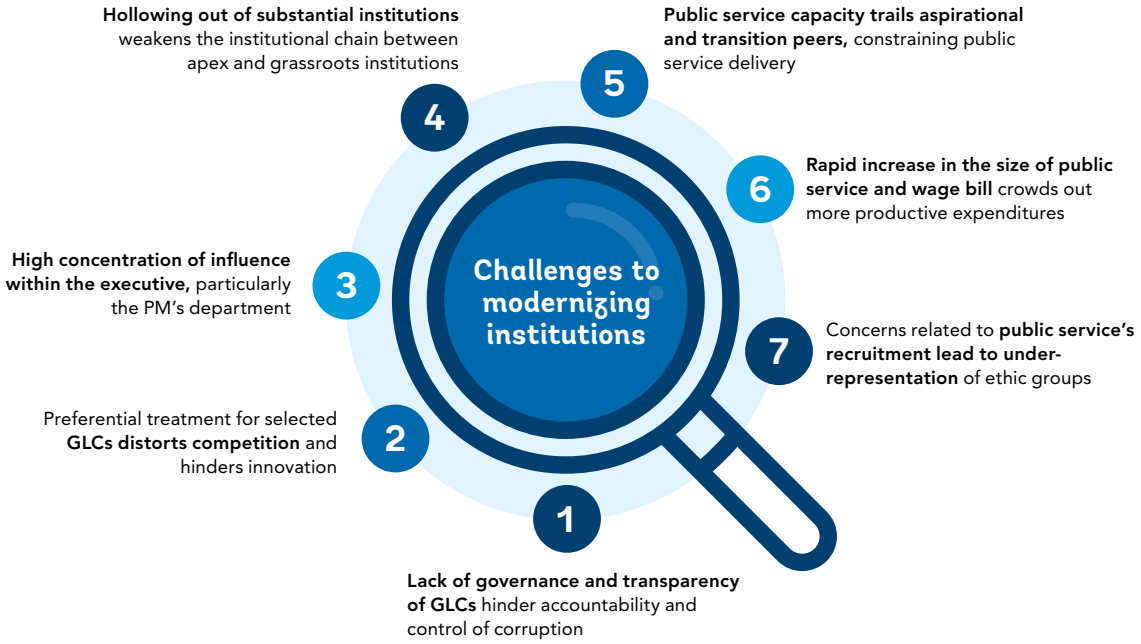
Parliamentary oversight should be strengthened

Legislative oversight, law-making, and representation are essential parliamentary functions for enabling a governance environment that is conducive to the achievement of sustainable economic growth (O'Brien, Stapenhurst, and Prater 2012). For the legislature to effectively fulfil its oversight function, it needs sufficient access to information from other areas of the state, as well as mechanisms that enable it to hold other actors to account. For it to fulfil its law-making and general advisory functions, members of parliament must be empowered to act on their informational advantages and expertise, and the executive must be responsive to the parliament's inputs. For it to fulfil its representation function, the linkages between constituents and their representatives must allow for the unadulterated transmission of information and preferences.

In Malaysia, the balance of resources and competences is tilted strongly in favor of the federal government, leaving subnational governments substantially disadvantaged. The Pakatan Harapan government initiated some reforms to deconcentrate influence in the executive. However, there are still a range of powerful development agencies, programs, and statutory bodies housed within the Prime Minister's Department that are empowered to lead Malaysia's economic and social development and are essentially insulated from oversight by other institutions. While these institutions can facilitate the coordination needed for industrial upgrading by streamlining policy implementation and monitoring, any potential efficiency gains come at a cost of undermining checks and balances. Without being subject to parliamentary debate and oversight, there are few safeguards against inefficient resource usage and corruption.

The ability of parliament to aggregate information and provide the executive and bureaucracy with effective guidance is also undermined by the hollowing out of subnational institutions. With state governments weakened, a key link in the institutional chain that connects apex and grassroots institutions underperforms, which reduces the flow of valuable information. Together with the frequent exclusion of parliamentary expertise from key policy deliberations, this constitutes a lost opportunity to improve the quality of decision-making processes within the state, including on issues related to resource allocation and development priorities. A strong and independent parliament plays an important role in ensuring good governance through its oversight, representation, and law-making functions. In Malaysia, decades of power concentration have reduced the ability of its parliament to fulfill these functions, with clear negative implications for accountability, the control of corruption, and support for innovation. Thus, measures to strengthen parliament must be included in any program to modernize institutions with the objective of achieving sustainable and inclusive growth.

FIGURE 136
Summary of the challenges to modernizing institutions in Malaysia



Source: World Bank staff elaboration

Public service capacity needs to be enhanced

There is ample evidence to support the proposition that bureaucracies characterized by meritocratic recruitment and promotion and predictable, rewarding career paths are associated with higher economic growth rates.[105] Recent studies have emphasized the critical role of good governance in attaining sustainable growth, achieved through a competent and high-capacity civil service. The mechanisms are intuitive. A weak civil service is susceptible to capture by political and economic interests, which increases the risk of favoritism in implementation and administration. Thus, the absence of bureaucratic autonomy is negatively correlated with the attainment of development goals (Cingolani, Thomsson, and de Crombrugghe 2015). Similarly, the absence of meritocratic practices in hiring and promotion is linked with increased corruption (Dahlström, Lapuente, and Teorell 2011). A further study finds that already corrupt bureaucracies may attract job seekers whose primary interests are access to rents – and thus, corruption begets more corruption (Cowley and Smith 2013).

The Malaysian state has often been characterized as strong, with the civil service in particular being held in high esteem due to its nation building functions during the country's formative years. While Malaysia's civil service still ranks well compared to many regional peers, it lags significantly behind transitional and high-income comparators.

[105] The key feature of a meritocratic civil service is that it restricts politicians' power over their administrative agents. Meritocracy is understood as broadly comprising a number of forms. In the narrow, Weberian sense, it refers to a career-based public service, with entry through competitive exams, and government by principles of political neutrality.

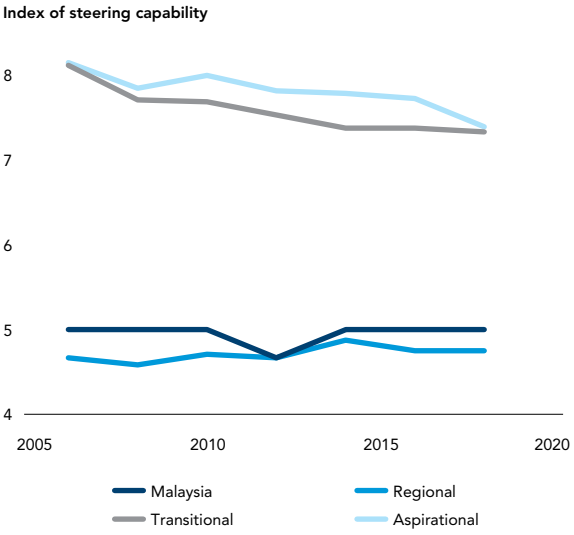
Concerningly, there are also signs of stagnation or even decline in its performance. Its relatively poor capacity not only hinders the achievement of sustainable growth, but it also creates a potentially serious mismatch between the service delivery expectations of an increasingly well-off citizenry and the ability of the public service to provide it. A number of contributing factors have been identified for the growing challenges facing the public service, including the nature and structure of Malaysia's Human Resource Management (HRM) system (World Bank 2019). The highly centralized nature of the HRM system creates an unduly rigid environment that underutilizes the skills of public servants, who are often not well-suited to fulfil their prescribed tasks. The complex remuneration framework, which often appears to inadequately reflect performance, inhibits innovation and may dissuade the most qualified candidates from entering the public sector due to perceptions that it offers relatively poor opportunities. There are also indications of political partiality within the civil service following the decades-long close relationship between the previous government's leading parties and the bureaucracy (Noore Alam Siddiquee 2005).

The rapid increase in the size of the civil service and the associated wage bill has crowded out more productive expenditures, especially over the last decade. With Malaysia's population of approximately 32 million, its public service employs about 1.7 million people, accounting for 11.4 per cent of total wage employment and about 5.0 per cent of the population. The resulting large wage bill puts significant pressure on state finances, consuming resources that could potentially be put to more productive use elsewhere. Simultaneously, the mismatch in skill sets and the large number of support positions reduces the pressure on the civil service to increase efficiency through the adoption of technological advances and innovation, as there is sufficient manpower to rely on labor-intensive and inefficient practices.

There are additional concerns related to the civil service's recruitment and promotion practices. While the presence of Bumiputera in the civil service has always been disproportionately large relative to its population share, the degree of over-representation has increased over time. Even excluding the Police and Armed Forces, Bumiputera comprised nearly 85 percent of public sector employees by 2003 (Lim 2007). The trend has continued, making the civil service increasingly mono-ethnic, with clear implications for the representativeness and performance of the civil service (Woo 2015). In particular, this may dampen the civil service's responsiveness to under-represented ethnic groups, and also reduce trust and perceptions of legitimacy of the government among those groups. The nearly mono-ethnic nature of the civil service also hampers efforts to strengthen the implementation of meritocratic principles. The common perception that the civil service offers only limited opportunities, particularly for non-Bumiputera, has increasingly led to a significant proportion of high skilled candidates demonstrating a preference for private sector careers.

Finally, there is a need for a more rigorous assessment of civil service capacity, as evidence points to a decline in the bureaucracy's ability to implement planned projects and programs. Figure 137 below is based on data from the Bertelsmann Transformation Index. While it captures the broader ability of state actors to steer economic and governance transformations, the central role that planning units play in leading this transformation in the Malaysian context suggests their weakness relative to comparable units in the aspirational and transitional groups.

FIGURE 137
Malaysia's civil service falls well below aspirational peers on measures of steering capability



Source: Bertelsmann Transformation Index
Note: Data are from Bertelsmann Transformation Index's question on steering capacity.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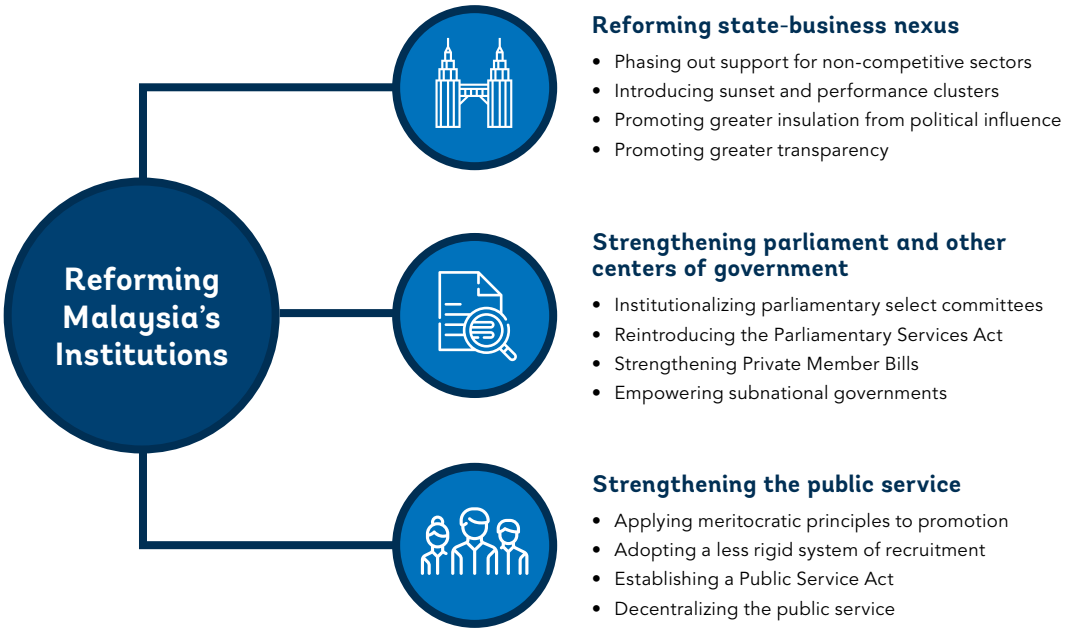
What will it take to transform Malaysia's institutions?

Malaysia must take an encompassing and holistic approach to reforming institutions if its aspirations of achieving sustainable and inclusive growth are to be achieved (see Figure 139). This is because institutions impact growth through a myriad of channels, which ultimately limits the impact of individual and narrowly-focused reforms. The achievement and full implementation of deep and comprehensive reforms requires a supportive coalition of political, economic, and social groups, which may be difficult to attain at present. More modest reforms that can feasibly be implemented would also deliver incremental improvements to institutional performance in the short- to medium-term, however, provided they are sufficiently comprehensive and receive full political backing.

FIGURE 138
Malaysia must take an encompassing and holistic approach to reforming institutions



Source: World Bank staff elaboration

RECOMMENDATION 1

Fully institutionalize the National Anti-Corruption Plan and protect anti-corruption efforts from political interference. Effective anti-corruption measures are challenging and sometimes politically costly to implement. They are vital, however, for strengthening institutions and improving governance outcomes, without which sustainable and high-quality growth may remain elusive. This makes it imperative that the government prioritizes this area and follows through on comprehensive and unconditional institutionalization. The National Center for Governance, Integrity and Anti-Corruption should also continue to receive strong support and an unconditional mandate to fulfil its mission. This is particularly important following the emergence of COVID-19, which will see substantial sums of public funds being dispersed under exceptional conditions that raise the risk of misuse.

RECOMMENDATION 2

Strengthen competition within the state-business nexus. To reduce the substantial costs associated with Malaysia's state-business nexus, a reform of GLCs and

associated policies is required. The full divestment from GLCs may not be feasible in the foreseeable future, given the deeply entrenched and sensitive nature of the social objectives associated with this nexus. There are also legitimate concerns related to Malaysia's approach to privatization, in which assets are sometimes directed toward politically-connected economic elites (Williams 2019). While this type of privatization does sever the direct linkages between state and business, the indirect linkages that replace it may produce many of the same distortions. In the absence of a fundamental restructuring of the state-business linkage, the short- to medium-term challenge is to improve the governance practices and performance of GLCs. Progress toward this goal requires that resources directed toward GLCs primarily support innovation and industrial upgrading, while the allocation of resources to less productive ends is significantly reduced.

Some short- to medium-term measures to consider include the following: phasing out support for non-competitive sectors; introducing sunset and performance clauses to foster competitiveness of GLCs; ensuring greater insulation of GLC governance structures from political influence; and enhancing the transparency of GLCs. Segments of Malaysia's economy remain dependent on low-skilled labor. These are sustained in part through subsidies that reduce the incentives of firms to increase productivity and more efficient usage of inputs, as needed to achieve sustainable growth. In short, artificially propping up sectors and firms that are no longer globally competitive diverts resources from potentially more productive usages and inhibits necessary industrial upgrading. Support for these non-competitive sectors should gradually be phased out. In some areas it may be feasible to do this directly. In others, mechanisms like sunset and performance clauses can facilitate the transition. Sunset clauses work by clearly specifying end dates to subsidies and protections, compelling firms to improve productivity and competitiveness. Performance clauses make subsidies and protections conditional on the attainment of performance targets, including things like skills-upgrading, adoption of new technologies, organizational restructuring, or efficiency targets. As GLCs are highly represented in inefficient sectors, these measures would have a substantial impact on improving GLC productivity and competitiveness.

Deep reforms of GLCs to achieve greater competitiveness and productivity, however, cannot be achieved through incentives alone. A significant risk of capture arises when firms and the state are not kept at arm's length, since an intimate relationship between the two increases the risk that firms are used for alternative objectives beyond development and economic growth. This risk led the OECD to articulate its State-Owned Enterprise guidelines, which explicitly state that the independence of SOE boards should be respected and protected from political influence (OECD 2015). In line with this, Pakatan Harapan pledged that appointments to GLC boards of directors would be based on merit, rather than political considerations. Policies were formulated to clearly define and govern the appointment of board members, with politicians no longer permitted to serve on boards of GLCs (with the exception of Khazanah, which is chaired by the Prime Minister). While these were encouraging initial steps, other practices since 2018 suggested a maintenance, if not consolidation, of political influence over GLCs. The PN government appears to have resumed the practice of using GLC appointments.

The transparent operation of GLCs and the existence of a strong oversight framework are important in ensuring that these GLCs both fulfil their mandated roles and achieve higher levels of performance and competitiveness. Progress toward reforming the state-business nexus requires improving the transparency of GLC management structures. The selection process for the Chairperson, CEO, and members of the board of statutory bodies of GLCs must be transparent and based on a system of key performance indicators to assess qualifications. The absence of adequate transparency at present is compounded by the complex way state-owned enterprises and GLCs are classified, and by the reshuffling of GLCs across the ministries, and lack of clarity on reporting structures. The lack of transparency is far-reaching and prevents meaningful oversight and accountability, increasing the risk of growth-sapping wastage and corruption, and undermining public and investor trust in crucial segments of the economy.

RECOMMENDATION 3

Strengthen parliament to improve governance. The independence, capacity, and effectiveness of the parliament and other centers of government are vital to enabling inclusive and sustainable economic growth. Parliament plays a particularly important role in keeping the executive accountable and answerable; in monitoring the administration of government; and in providing vital advice and coordination.

To strengthen parliamentary oversight and to improve government effectiveness, a number of measures should be considered, including: institutionalizing parliamentary select

committees; reintroducing the Parliamentary Services Act; strengthening private member bills; and strengthening the planning units. Parliamentary select committees consist of a small number of parliamentary members. They are mandated to focus on particular issues, which greatly increases the monitoring and advising capacity of parliament. Select committee systems are widely used in other Westminster parliamentary democracies, including Australia, Canada, India, New Zealand, and the UK, as well as in other non-Westminster OECD countries such as the USA. Their specific agenda and narrow focus allows them to delve more deeply into issues than the full legislature. When properly empowered, they fulfil a crucial check and balance function that can support measures against corruption and the inefficient use of resources.

Enhancing parliamentary independence through the reintroduction of the Parliamentary Services Act would also further parliament's ability to monitor the executive and to hold it to account. The 1963 Act, which enabled the parliament to conduct its own staffing, administration, and financing, was repealed in 1992. Updating the Act offers an opportunity to strengthen and modernize parliament by delineating it from the larger public service, thus providing it with the necessary autonomy to fulfill its mandate. Malaysia can draw upon the experiences of other high-income countries, nearly all of whom have equivalents of the Parliamentary Services Act, to guide these reforms.

Private Member Bills (PMBs) can be a means to decrease parliament's dependence on the executive and to strengthen its legislative capacity. PMBs enable non-cabinet MPs from any party to table bills, which is otherwise the prerogative of the ruling party's cabinet ministers. PMBs may contribute to better decision making by taking advantage of the informational advantages the members of parliament have over the executive by virtue of their closer proximity to constituents. Placing significant and undue procedural restrictions on PMBs reduces their efficacy and makes them dependent on government support. Relative to Malaysia, PMB procedures are markedly different in the parliaments of several high-income comparator countries (Cheng 2019). In the UK, for example, there are three distinct channels for tabling PMBs, which are given precedence over the government's agenda on a select number of days in

each parliamentary session, ensuring that items not on the government's agenda can be heard in parliament.

The economic benefits of decentralization have been well documented. This is largely due to the closer proximity subnational governments have to communities, which grants them informational advantages over their national level counterparts. This theoretically allows them to make better decisions related to resource allocation and program execution, and in the process, strengthen the functioning of parliament as well. Moreover, more autonomous subnational units are more likely to engage in constructive competition with one another, bringing about better policy outcomes. In addition, a growing strand of research argues that strong vertical chains of institutions are important for a range of developmental outcomes, since the bottom-up flow of information is only as strong as the weakest link in the chain. When one of those links is weak, the information on which national level decisions are made is invariably incomplete or flawed, leading to suboptimal outcomes. As a federal country, Malaysia is well positioned to harness the benefits associated with federalism. Yet in order to do so, it must further empower subnational governments by granting them greater financial and non-financial autonomy. At present, budgetary resources are heavily skewed toward the center, leaving the states highly disadvantaged and constrained in their operations (Ostwald 2017). This is a significant lost opportunity to strengthen governance and foster sustainable growth.

RECOMMENDATION 4

Addressing weaknesses in Malaysia's National Development Planning (NDP) system could strengthen its role in identifying and formulating new developmental priorities (World Bank 2019). Beyond supporting growth, a national level development planning system can also support effective responses to emerging challenges like climate change and inequality that require coordinated and government-wide action. The NDP, which has been a central component of Malaysia's development strategy since the 1970s, has changed relatively little over the past decades, while the structure of Malaysia's economy and the challenges it faces have evolved dramatically. This creates a mismatch between structure and demand. To ensure efficacy, the NDP should consider measures to achieve a better balance between comprehensiveness of the planning process (e.g. horizontal and vertical planning) and the quality of implementation. Its typical time horizon should be revisited too: as the global environment continues to become much more volatile and uncertain, the familiar long-term vision complemented by five-year plans may simply not be nimble enough given the rapid pace of change – economic, technological and otherwise. Countries like the Republic of Korea have discontinued the practice of comprehensive and systematic five-year development planning after the 1997-98 Asian financial crisis but have focused, instead, on tools of macroeconomic management such as the Medium-Term Expenditure Frameworks (MTEFs) and the formulation of sectoral plans by individual ministries.

RECOMMENDATION 5

Strengthen the public service. As Malaysia transitions to high-income economy status, the task of formulating and administering policy and programs will become increasingly complex. Malaysia's civil service may struggle to meet this challenge, as indicated by its relatively weak capacity compared to transitional and aspirational countries (World Bank 2019). This makes measures to upgrade the capacity of the civil service imperative if Malaysia is to achieve higher levels of sustainable, inclusive growth. Simply stated, the Malaysian bureaucracy is an essential partner in the achievement of development objectives, with an important role to play to support economic growth and to provide effective public services. A significant body of research, much of it based on the experience of transitional countries, provides clear guidance for the necessary reforms.

As previous sections have made clear, bureaucracies characterized by meritocratic recruitment and promotion and predictable, rewarding career paths are associated with higher economic growth rates. In the Weberian tradition, meritocracy implies that hiring and promotion are based on ability over other considerations. In this model, strong performers are rewarded with the prospect of a rewarding and stable career. These principles are frequently in tension with the tangential social objectives that Malaysia's civil service has directly and indirectly been tasked with addressing. The result is a civil service that is unrepresentative of Malaysia's population, very large on a per-capita basis, and often reliant on relatively labor-intensive procedures.

The application of meritocratic principles to promotion and a move toward a less rigid system of recruitment would improve the civil service's ability to support Malaysia's transition to high-income status. Several core issues within the civil service should be addressed immediately. The relatively low

skill levels of segments of the civil service already leads to suboptimal outcomes. This skill gap will be exacerbated by Malaysia's increasingly sophisticated economy and by the ever-increasing expectations of the population regarding the delivery of public services. Closing the gap will require the civil service to embrace technological innovation and efficiency, which calls for the deployment of high-capacity and well-trained personnel. The efficiency gains will also allow many tasks to be completed by a smaller number of personnel, potentially requiring less resources and relieving pressure from the growing wage bill.

A Public Service Act that establishes the clear separation of powers between civil servants and the political leadership could substantially improve the performance of the bureaucracy and increase resistance to corruption and other malpractices. Malaysia is one of few countries that does not have institutionalized measures of this kind, making it an outlier among its transitional and aspirational counterparts. In 2018, the government formulated an act that specified a clearer delineation of powers and duties between the civil service and the political leadership. To enforce those distinctions, it also specified sanctions for members of the executive who sought to influence the functioning of the bureaucracy outside of the bounds of clearly defined channels. Aside from supporting cleaner and more effective governance, this is important to ensure continuity and the smooth functioning of the civil service during transitions between political leadership. The existing proposal can be further strengthened by repealing certain provisions of the Official Secrets Act and replacing them with measures that clearly define and distinguish between privileged information and information that should be accessible to the public.

In addition, measures should be implemented to decentralize the civil service, which would improve its flexibility and ability to innovate, as well as further insulate it from improper political interference. Malaysia's civil service is highly centralized relative to many comparator countries. This slows recruitment, hinders flexibility, and reduces innovation by constraining policy and procedural experimentation. A more decentralized system would be better able to respond to emerging needs of citizens and would facilitate greater learning across units as they adapt to their specific tasks.

Deepening and institutionalizing measures to increase transparency and curb corruption will have significant long-term growth benefits with many positive spill-over effects. Enhanced transparency and a clean government are both necessary for increasing accountability, limiting inefficient resource usage, and facilitating coordination across units. The Malaysian Administrative Modernization and Planning Unit is working toward improving public access to data from numerous areas of the state and economy. While this initiative is laudable, there remain significant impediments to full transparency, both between government institutions and between these institutions and the public. Similarly, while progress in the area of anti-corruption initiatives is encouraging, much remains to be done. The previously mentioned National Center for Governance, Integrity and Anti-Corruption, the Cabinet Special Committee on Anti-Corruption, and the National Anti-Corruption Plan all include elements that, if fully implemented, would contribute to the reduction of public sector corruption.

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CHAPTER 6

Promoting inclusion

Growth has become less inclusive than in the past, compounding persistent disparities, fueling discontent and encouraging the perception that growth has not benefitted all citizens equitably. Reforms are needed to ensure equal access to quality education and remunerative employment, strengthen Malaysia's shallow social protection system, and ensure greater access to services by those at risk of being left behind.

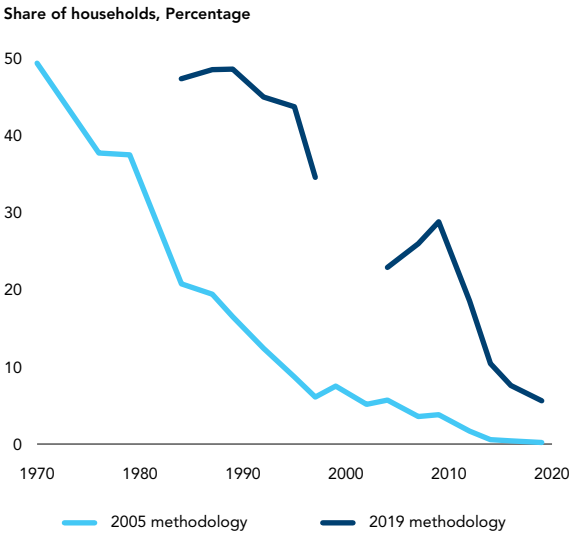
Inclusive growth has driven rapid poverty reduction

In the decades since its independence, Malaysia has achieved broad-based, inclusive growth, with most citizens benefitting from enhanced economic opportunities and higher incomes. In 1970, at around the time the New Economic Policy was introduced, almost one-half of Malaysian households lived below the national poverty line. Since then, Malaysia's GNI per capita has grown more than six-fold in real terms, with gains being well-distributed. Malaysia's national poverty benchmark, commonly referred to as the poverty line income (PLI), was established in 1977 and, until July 2020, had remained essentially unchanged in real terms, with adjustments only for increases in consumer prices. Against that 1970s-era benchmark, in 2016, the PLI averaged RM980 per month for a family of four.[106] The proportion of households living below this line has declined steadily to only 0.2 percent in 2019, with only minor and temporary increases recorded during the Asian financial crisis and the global financial crisis (see Figure 139).

The recent revision of the PLI methodology sets a higher absolute poverty benchmark but does not alter the steep downward trend in absolute poverty in Malaysia. The higher line in Figure 139 estimates the poverty incidence trend from 1984 to 2019 under the new poverty line methodology using Malaysian Household Income Survey data in the World Bank's PovcalNet database.[107] Under the new methodology, the poverty rate in 1984 would have been approximately 47.3 percent in 1984, as compared to 20.7 percent using the old methodology.

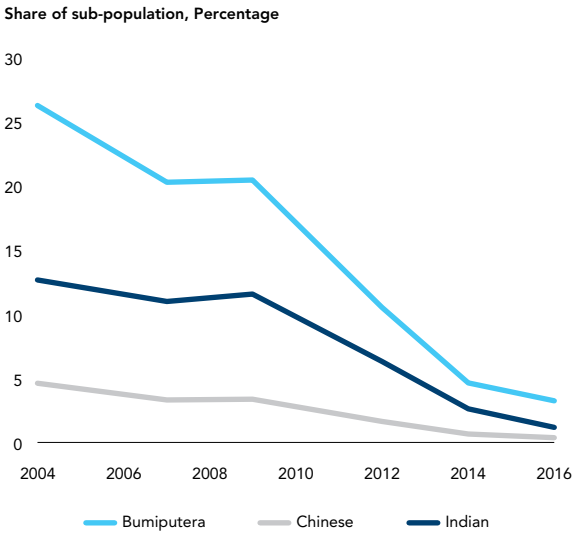
Qualitative data, drawing upon the World Bank-University of Malaya living standards study, also provide evidence of broad-based improvements in incomes. A significant proportion of participants—which were drawn from different ethnic groups across urban and rural Malaysia—stated that incomes have generally increased as a result of better education and employment opportunities, creating a larger group of

FIGURE 139
Poverty has declined rapidly under both the 2005 and 2019 PLI methodologies...



Source: Department of Statistics Malaysia and World Bank's PovcalNet
Note: There is a break in the 2019 methodology series because the 1999 and 2002 Household Income Surveys are not in the PovcalNet database.

FIGURE 140
...with a narrowing of poverty rates across ethnic groups



Source: World Bank staff calculations using DOSM Household Income Survey data

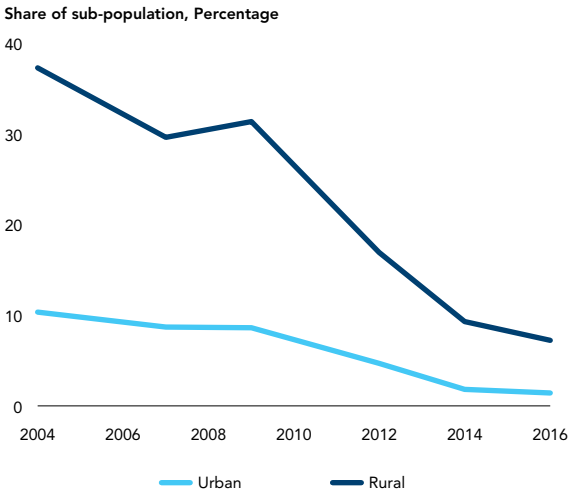
[106] In Malaysia, household-specific PLIs are constructed based on the consumption needs of the household using detailed information about the age and gender composition of the household. The PLIs are also adjusted for consumer price differences across states, federal territories, and rural/urban areas of residence. Thus, the RM980 cited is a national average, with higher or lower PLIs applying to households with differing demographic compositions or in different locations.
[107] The poverty estimates are generated by using DOSM's estimate of 7.6 percent below the poverty line in 2016 under the revised methodology to calibrate the poverty line in PovcalNet and comparing that with historical data going back to 1984.

middle-income Malaysians at present than a generation ago. Nevertheless, many focus group participants noted that while the majority have benefited and enjoy improved standards of living, a substantial number of Malaysians are still living in poverty (see Box 12).

While some ethnic and geographic disparities in the incidence of poverty persist, these have declined dramatically over time. Figure 140 shows the incidence of poverty across Malaysia's three main ethnic groups (using an absolute poverty line anchored on 50 percent of median income) in 2004.[108] By this measure, in 2004, the poverty rates for households headed by Bumiputera stood at 26.3 percent, for Indian households at 12.7 percent, and for Chinese Malaysians at 4.6 percent. By 2016, these rates had narrowed to 3.2, 1.2 and 0.4 respectively. Most of this convergence took place in the period from 2009 to 2014, with the rate of poverty reduction decelerating for all groups between 2014 and 2016. While poverty rates in rural areas have been consistently higher than in urban areas, those disparities are also becoming less pronounced (see Figure 141). From 2004 to 2016,[109] poverty in urban areas fell from 10.3 to 1.4 percent, while poverty in rural areas declined from 37.2 to 7.2 percent. With the convergence taking place in the context of increasing urbanization, this implies that the percentage of poor people who live in urban areas is increasing, although the majority of poor people still live in rural areas (see Figure 142). In fact, these figures understate the growth of urban poverty because, unlike Malaysia's official PLI, the 50 percent median poverty line used here is not adjusted for higher prices in urban areas.

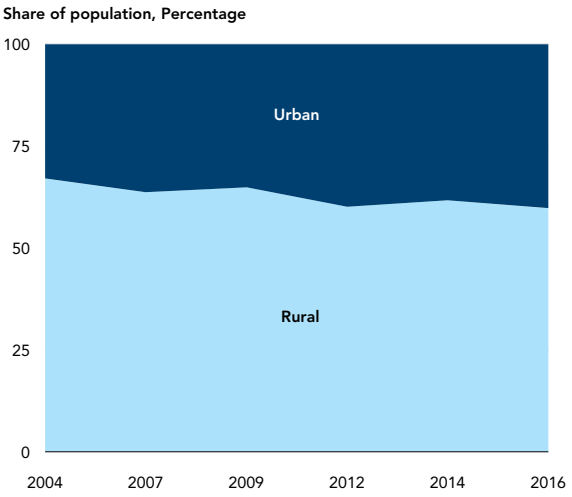
The recent updating of Malaysia's official PLI brings it more into alignment with national poverty lines used by its peers. From 1977 until 2019, Malaysia's PLI had remained essentially unchanged in real terms, representing the same standards of deprivation that were applied in 1977, despite Malaysia's remarkable economic transformation and growing prosperity over the decades. As a result, Alston (2019) and many others have claimed that the official poverty statistics did not reflect the true state of poverty and exclusion in Malaysian society. Malaysia's PLI based on the 2005 methodology was lower than those in most upper-middle and high-income countries, and lower than several lower-middle-income countries. Figure 143 depicts the relationship between household income per capita and poverty lines, including Malaysia's old (2005 methodology) and new (2019 methodology) poverty lines. Malaysia's old poverty line is close to that of lower-middle-income ASEAN neighbors, whereas almost all of the transitional peers have poverty lines that are 2–8 times higher. In contrast, Malaysia's new poverty standard is near the median for its transition and OECD peers, and higher than those in ASEAN comparators.

FIGURE 141
Differences in poverty rates across urban and rural areas have also decreased...



Source: World Bank staff calculations using DOSM Household Income Survey data

FIGURE 142
...although the majority of Malaysians in poverty still live in rural areas



Source: World Bank staff calculations using DOSM Household Income Survey data

[108] This 2004 "anchored" poverty line adopts the OECD relative approach of setting the line at 50 percent of national median income, and then transforms it into an absolute poverty line by holding its real value constant over time. That is, the value of the 2004 line is adjusted only for inflation and not for real income growth. The income measure used is gross income per adult equivalent using the OECD equivalence scale. The poverty line and household incomes are not adjusted for spatial price differences; therefore, these results tend to underestimate poverty for people living in high-cost areas and overestimate poverty for those in low-cost areas.
[109] This report went to press shortly after the 2019 Household Income and Basic Amenities Survey report was released. Where possible, this report includes the summary results for 2019 published in DOSM (2020). More detailed analysis only covers through 2016 because the 2019 HIS microdata are not yet available.

BOX 12

Perspectives on poverty from across Malaysia

The joint World Bank-University of Malaya study on living standards in 2019 found that perceptions on poverty reduction differ among Malaysians. A significant proportion of participants stated that incomes have generally increased as a result of better education and employment opportunities, creating a larger group of middle-income Malaysians at present than a generation ago.

> *"When I was in my 20s (around 1994), those who worked for the government received low salaries. There was no increment, so many people preferred to work in the private sector. It was also hard to be promoted if you worked for the government. Since 2002, the government started increasing the salary for government workers."*
> ***[Selangor, Bumiputera]***

> *"In the past, I think most people were less educated. Parents at that time... They didn't hold professional jobs, they were not well educated so they can only do business. There are more professionals nowadays so there are more middle-income earners. In the past, there are a lot less. I think, because of economy... they were less professional and lack of technical knowledge."*
> ***[Selangor, Chinese]***

> *"There are more middle-income people now, even in Sabah and Sarawak, particularly with the opportunities created by the tourism industry. People have more job opportunities now, and earn higher incomes. If they can't find jobs locally, they come over to KL. In my opinion, many people from Sabah and Sarawak aren't too badly off financially. This is certainly true for the younger ones. The older ones... their children... I think the younger ones will have greater opportunities in the future in terms. For the older ones I am not sure."*
> ***[Selangor, Chinese]***

> *"For me, when I compare the past with the present, people used to work on estates on plantations. Nowadays, there are far more industrial job opportunities, enabling us to move out of poverty to middle-income status. Yes, there are still poor people among Indians. On the other hand, there are people who make an effort to study and work in factories, they become upper-middle-income."*
> ***[Selangor, Indian]***

> *"I think the Indian community has climbed up from low income to the middle class level due to their own efforts, without any help from MIC or the Government. I can feel the amount of pain endured by the Indians community as a whole. It has moved on through its own effort and wisdom."*
> ***[Selangor, Indian]***

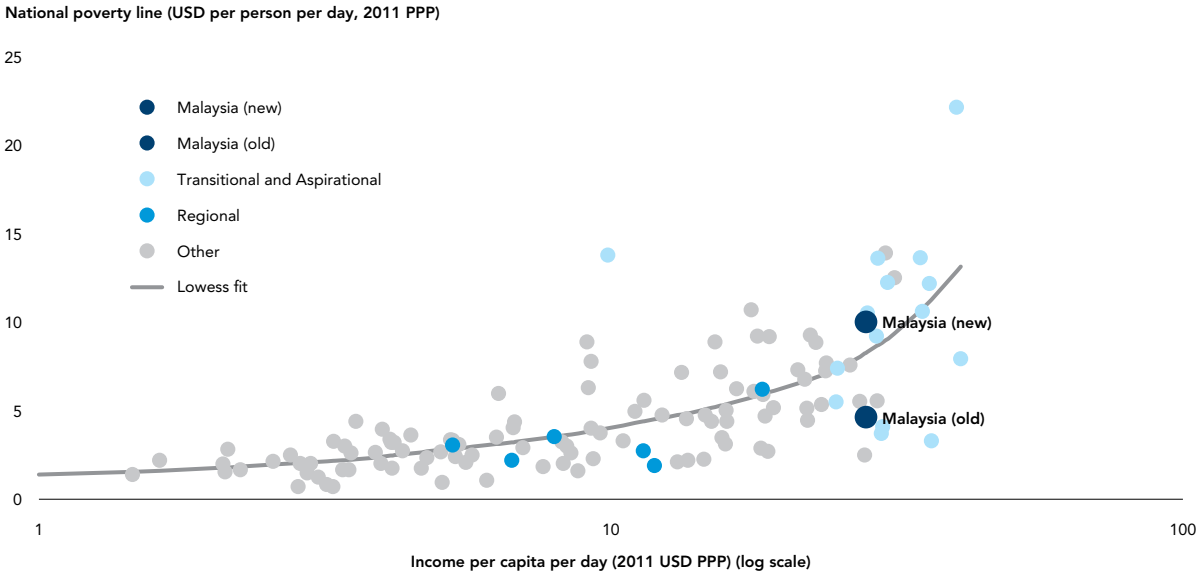
Nonetheless, other participants, including younger workers and ethnic minorities, stated that not all groups have experienced increases in their incomes...

> *"I think over the past five years the younger generation would have found it difficult when they first began to work. People like us, who are now stable, already 50 years and above, won't find it difficult. Those who have worked for more than 20 years, their income has certainly increased. Again, those who just started to work would see the difference."*
> ***[Selangor, Bumiputera]***

> *"I think there's a lot of lower-income people in Malaysia, particularly the indigenous people, who aren't included in the government's report. If you factored in the indigenous people, the percentage of poor category could be higher."*
> ***[Selangor, Chinese]***

> *"They do not have the basic necessities of life, such as electricity or water. This is a shock to me. My perception of poverty is when someone who doesn't have a house, they can't meet their basic needs as human beings. That's why it is related to quality of life."*
> ***[Selangor, Bumiputera]***

FIGURE 143
The recent update of Malaysia's income poverty line puts it at a level closer to its transitional peers

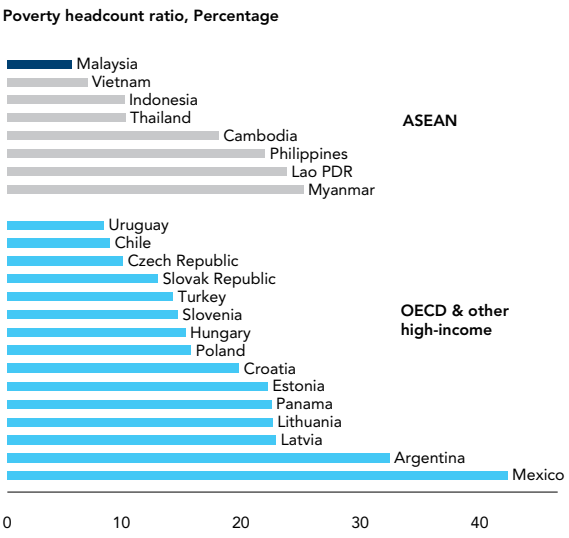


Source: Malaysia estimates from World Bank staff calculations, other countries from Ravallion and Chen (2018)

As countries develop and become richer, they generally increase the real value of their poverty lines, in effect raising the minimum standard of living to a level considered to be socially acceptable. Figure 144 shows the poverty rates for ASEAN member countries and several OECD and other high-income countries, which correspond to the national absolute poverty lines shown in Figure 143. The substantially higher poverty rates observed in OECD and other countries that have made the transition to high-income status are not because of high inequality in those countries, but rather reflect the fact that these countries have deliberately taken the decision to set higher standards for their poverty thresholds. In these countries, the poverty thresholds, whether absolute or relative, are updated to reflect evolving views regarding societal expectations and perceived standards, with the poverty status serving as a meaningful parameter for the formulation and implementation of policy. Moreover, the poverty standards in high-income countries are typically set as part of an open and contestable process, informed by widespread access to household surveys and other data collected using public funds. Public access to economic data, especially microdata, is far more restrictive in Malaysia than in most upper-middle and high-income countries. Reforms to expand data access—while preserving confidentiality through well-established anonymization protocols—can stimulate economic research, enhance the evidence base for policy formulation, and increase trust in government (World Bank 2017).

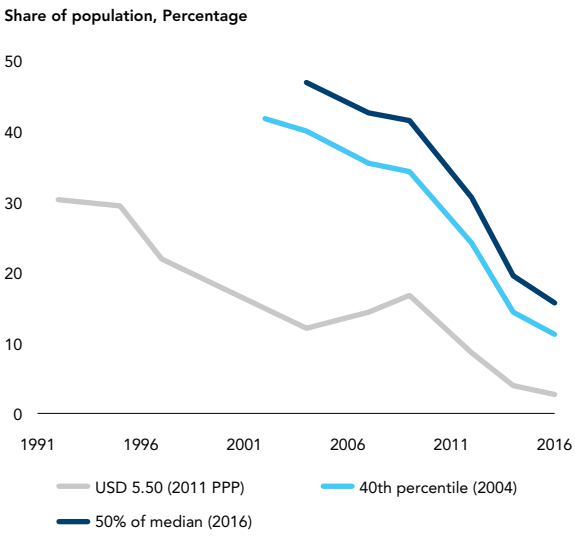
Malaysia's adoption of a poverty standard that is more commensurate with its current level of development does not "undo" Malaysia's history of rapid poverty reduction. Rather, it acknowledges Malaysia's progress, while at the same time providing a more useful benchmark for policy efforts to ensure that Malaysia's prosperity continues to be shared widely among its people. A higher poverty line necessarily implies a higher poverty rate, however, a rapid decline in poverty over time could still be demonstrated. Figure 145 shows Malaysia's poverty rates under several alternative poverty line definitions: (i) World Bank's upper-middle-income poverty line of US$5.50 per person per day (PPP-adjusted); (ii) an OECD-style poverty line set at 50 percent of median income in 2004; and (iii) a poverty line set at the 40th income percentile (the dividing line between the B40 and M40) in 2004. All three are held fixed in real terms—that is, all are absolute poverty lines—and all show a steep decline in poverty rates, regardless of the level of the poverty line.

FIGURE 144
Poverty rates at national poverty lines in ASEAN, OECD and high-income countries are 7–42 percent



Source: World Bank and Department of Statistics Malaysia

FIGURE 145
At any poverty line, poverty in Malaysia has declined rapidly over time



Source: PovcalNet and World Bank staff calculations using DOSM HIS data

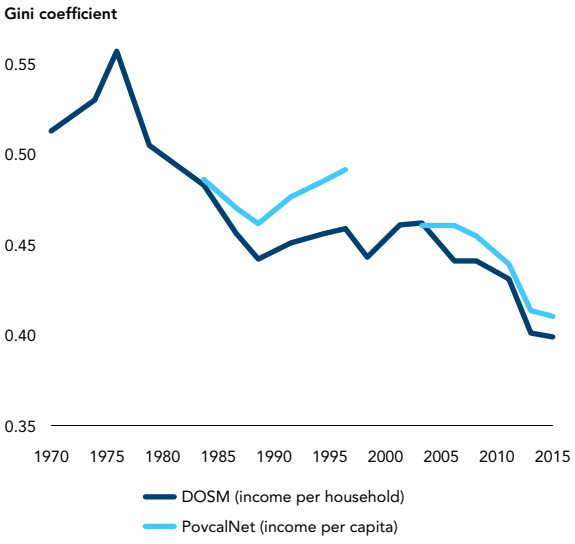
Income inequality steadily decreased until 2014 but hasn't changed since then

In Malaysia, poverty reduction has been supported by a decline in income inequality, which has also fostered economic inclusion. A decomposition of the growth and distribution components of poverty reduction in the period from 2004 to 2016 (for which microdata are available) shows that 68 percent of Malaysia's poverty reduction can be attributed to the increase in average incomes, with the remaining 32 percent accounted for by the decline in income inequality. The distribution share is large relative to other countries, especially considering the fact that rapid growth is often associated with increasing inequality, which to some degree would counteract the growth component's contribution to poverty reduction. This section examines inequality trends using relative measures of inequality, with the subsequent section exploring trends in absolute income inequality.

While income inequality in Malaysia has declined over the past 50 years, it has not been a steady process. Figure 146 shows the evolution of the Gini coefficient of income inequality based on time series data from the Household Income Survey. The Gini estimates from DOSM and the World Bank's PovcalNet show similar trends, with most of the differences attributable to the use of total household income in the DOSM estimates and the use of household income per capita in the PovcalNet estimates. Both of these measures show that income inequality declined rapidly in the period from 1976 to 1989, before increasing slightly until 2004, after which the trend toward greater equality resumed for another 10 years, up until 2014. The Gini coefficient was essentially unchanged in the period from 2014 to 2016, and then increased to 0.407 in 2019 (using DOSM's income per household approach). Deeper scrutiny is needed to understand the reasons for this possible reversal of the overall decline in income inequality and avoid an extended period of increasing inequality, as occurred from 1989 to 2004.

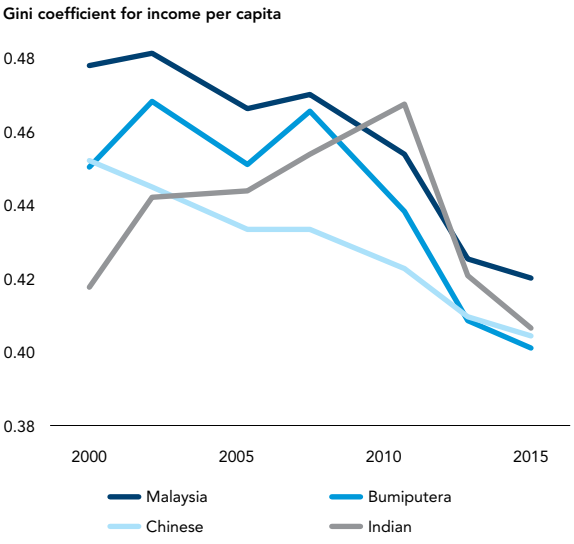
A reduction in income inequality can be demonstrated both within and between Malaysia's main ethnic groups. Unpacking the reduction in income inequality in the period from 2002 to 2016, we can see that differences in the average incomes across ethnic groups (between-group inequality) have declined and that inequality within ethnic groups has also declined. The latter is shown in Figure 147, which demonstrates very different within-group inequality trends for the different ethnic groups. Coincidentally,

FIGURE 146
Income inequality has declined substantially but unevenly over time...



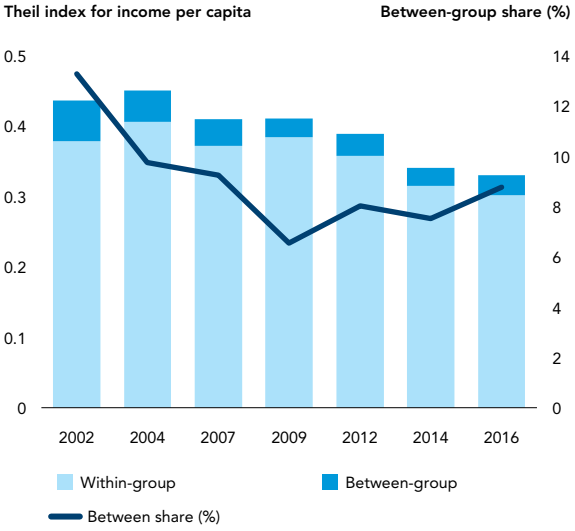
Source: DOSM and World Bank, PovcalNet
Note: There is a break in the 2019 methodology series because the 1999 and 2002 Household Income Surveys are not in the PovcalNet database.

FIGURE 147
...with a similar pattern observed for inequality within ethnic groups



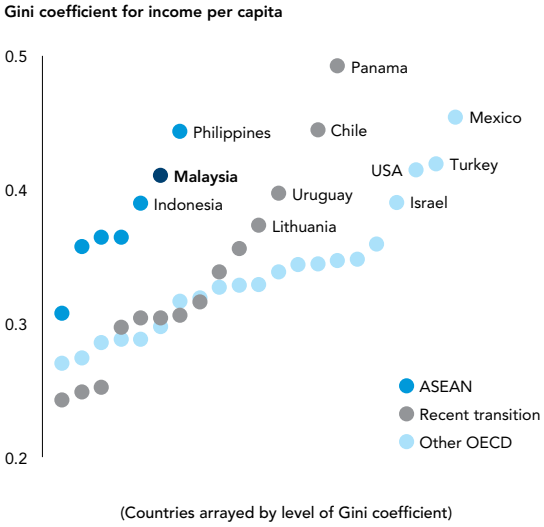
Source: World Bank staff calculations using DOSM Household Income Survey data

FIGURE 148
Most of the decline in inequality is from within-group inequality



Source: World Bank staff calculations using DOSM Household Income Survey data

FIGURE 149
Malaysia's income inequality is high relative to comparator countries



Source: World Bank, PovcalNet

the within-group Gini coefficients for the three groups converge to almost the same value in 2016, all falling to within a very narrow band from 0.40 to 0.41.

Income inequality in Malaysia is higher relative to comparator countries

Inequality *within* ethnic groups accounts for the large majority of income inequality in Malaysia. In the period from 2002 to 2016, only 7 to 13 percent of total income inequality in Malaysia could be attributed to between-group inequality (see Figure 148).[110] Over most of that period, both the within- and between-group components were on a declining trend, with the between group share of total inequality declining through 2009, before increasing slightly through 2016.

Despite Malaysia's overall decline in income inequality since 1970, it remains high relative to comparator countries. Figure 149 presents the most recently available Gini coefficients for three sets of comparator countries: countries that have recently made the transition to high-income status, other OECD countries, and ASEAN member countries.[111] This figure shows that Malaysia's income inequality is higher than that in the majority of countries in each of the three country groups. Thirty-six of the 42 countries considered have lower levels of income inequality than Malaysia, with the only exceptions being Chile, Mexico, Panama, the Philippines, Turkey and the United States. It should also be noted that survey-based income inequality almost certainly underestimates the true level of inequality, to varying degrees, because of disproportionate refusals to respond to survey questions at both ends of the income spectrum, and especially for those in the top income bracket.

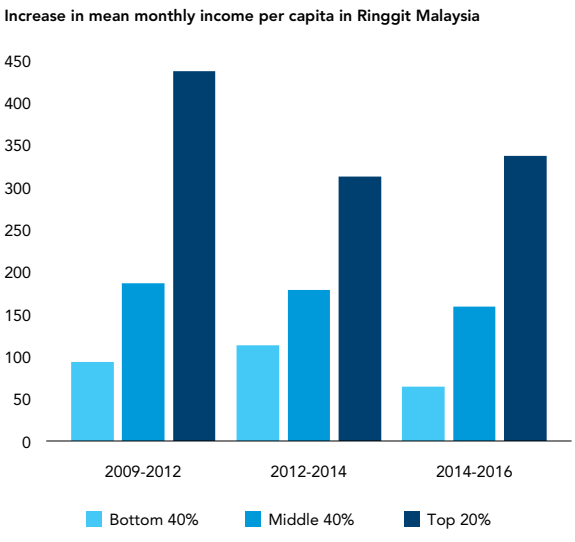
[110] The relatively small between-group share has been a consistent pattern in Malaysia going back to work by Anand (1983) is frequently observed in other countries as well. This is partly because the between-group share tends to be lower when the number of groups small. The Theil index is used for these decompositions because the Gini index is not additively decomposable by sub-group.
[111] Note that the Gini coefficients for Indonesia, Lao PDR, Myanmar, Thailand, Turkey and Vietnam are based on consumption, whereas all others are based on income. Other things being equal, consumption inequality tends to be lower than income inequality.

Absolute inequality has been increasing, as expected in a growing economy

While relative income inequality has been declining, absolute income inequality has been increasing. The most commonly used inequality measures, such as the Gini index or income shares, use a relative concept of inequality. That is, income is measured as a proportion of the average income or aggregate household income. By contrast, recent work by Khazanah Research Institute (2018), World Bank (2019a) and Ravallion (2019) have highlighted growing absolute gaps in income levels. Absolute income disparities also feature prominently in the core strategy documents for the Shared Prosperity Vision 2030. In Malaysia, even as the B40 have gained a larger share of the growing economic pie in the period from 2009 to 2014, higher-income groups experienced larger incremental income gains in ringgit terms (see Figure 150).[112] Since 1970, the changes in relative and absolute income (using the relative and absolute forms of the Gini index) show almost completely opposite trends (see Figure 151). This figure shows that while relative income inequality has fallen since 1970, absolute income inequality has increased by a factor of more than four.[113]

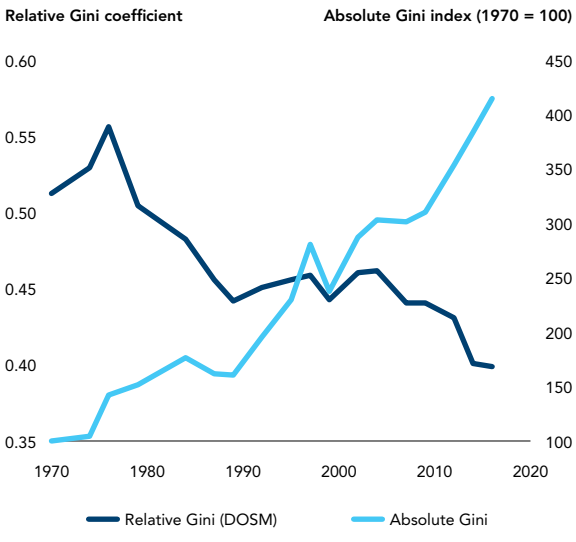
With one of the major targets of Malaysia's Shared Prosperity Vision 2030 being to reduce absolute income inequality, what is the scope for achieving this goal? An analysis of growth and inequality data from both Malaysia and globally can be instructive. Figure 152 summarizes annual growth for both average income and relative inequality for 1,400 growth spells calculated from more than 1,600 harmonized household surveys in the PovcalNet database. Figure 153 shows the same for annual growth of average income and absolute inequality. These figures show that average income growth is weakly correlated with changes in relative inequality, but very strongly correlated with changes in absolute income inequality. When the economy is growing and household incomes are increasing, absolute income gaps also tend to increase, largely because of the "base effect" for higher-income

FIGURE 150
Absolute income gaps have been increasing between the B40, M40 and T20...



Source: World Bank staff calculations using DOSM Household Income Survey data

FIGURE 151
...resulting in opposite trends in relative and absolute income inequality

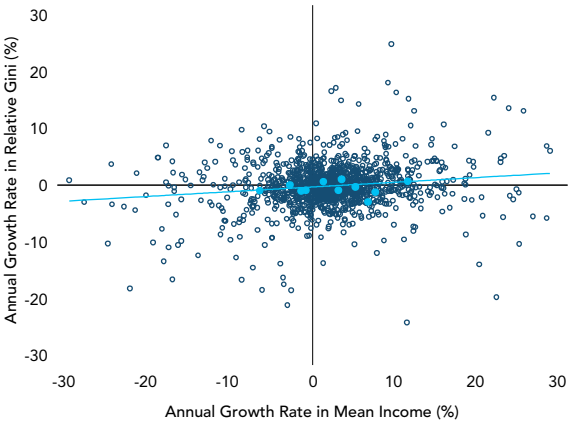


Source: World Bank, PovcalNet

[112] However, the larger incremental income gains of the M40 and T20 were proportionately smaller than the existing income gaps between them and the B40, which explains how B40 households could gain a larger share of total income even though their incremental income gain is smaller.
[113] The little-used absolute variant of the Gini index is constructed the same way as the relative Gini, except it does not normalize for mean income. Therefore, the absolute Gini is not bounded by zero and one, and the scale is determined by the currency and time period used for the income data. In this case we have normalized the absolute Gini to the level of absolute inequality in the base year, 1970.

FIGURE 152
Relative inequality is weakly correlated with household income growth...

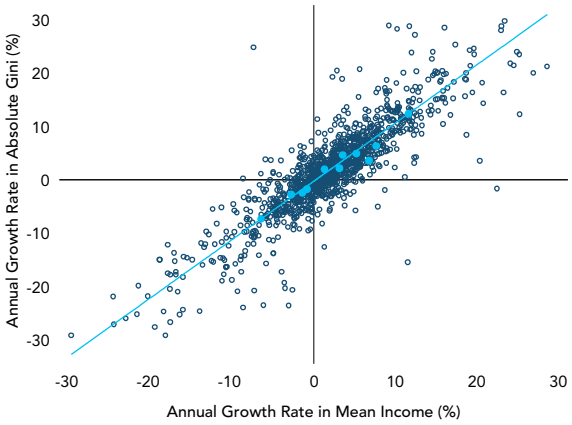
Annual growth rate of Relative Gini against annual growth rate of mean income, all countries, Malaysia highlighted in blue



Source: World Bank staff calculations using PovcalNet data

FIGURE 153
...whereas absolute income inequality and income growth are highly correlated

Annual growth rate of Absolute Gini against annual growth rate of mean income, all countries, Malaysia highlighted in blue



Source: World Bank staff calculations using PovcalNet data

households. Conversely, most of the instances in which absolute income gaps declined were during periods of economic contraction, when average household incomes were falling. Across all countries, income growth combined with decreasing absolute income inequality (shown in the lower right quadrant of Figure 153 is relatively rare, occurring in only 9 percent of the growth spells examined. Moreover, in most of those cases, income growth was modest, with two-thirds of the annual income growth rates in that quadrant being less than 2 percent. Of the 11 Malaysian growth spells included in the data, there are four periods during which absolute income inequality decreased, all of them contemporaneous with declining average household incomes. Similarly, findings from the World Bank-University of Malaya study point to the tensions related to rising absolute inequality, despite decreases in relative inequality (see Box 13).

The Malaysian and international evidence suggest that rapid economic growth and reductions in absolute income inequality are likely to be incompatible goals. Thus, a singular focus on eliminating absolute income gaps could undercut potential income growth across the income spectrum. Indeed, in many of the cases in Figure 153 in which absolute income gaps were decreasing, incomes were falling for both low- and high-income households; they were just falling faster (in absolute terms) for the high-income households. However, incomes of

When the economy is growing and household incomes are increasing, absolute income gaps also tend to increase, largely because of the "base effect" for higher-income households

low- and high-income Malaysians will still converge as long as relative income inequality declines, as it has for most of the past 50 years. For instance, from 1970 to 2016 the income share of the bottom 40 percent increased from 11.5 percent to 16.4 percent (DOSM 2017), despite increasing absolute gaps in the B40's average incomes compared with the M40 and T20. It should be possible to accelerate the income convergence process through improving access of the B40 to more remunerative employment and adopting more redistributionist fiscal policies. Even if absolute income gaps increase, those gaps will diminish in importance as the B40's base effect grows and their share of total income increases.

BOX 13

Perspectives on incomes from across Malaysia

In the joint World Bank-University of Malaya qualitative study, nearly half of all focus group participants stated that households need dual incomes and/or multiple jobs per earner to make ends meet. This is consistent with the discussion earlier on increasing absolute income inequality, indicating that lower-income households do not have adequate incomes in absolute terms (RM), despite the decrease in relative income inequality and poverty in recent years.

> *"We have no disposable income. Every penny we earn, we know how it will be spent. That is why a lot of us housewives are taking on miscellaneous jobs, to support our husbands with extra income."*
> ***[Klang Valley, Bumiputera]***

> *"Back then, a salary of RM1,000 it was enough for household needs, getting married, buying a car. But not now. We have to work with a low pay of RM1,200. Malaysia has developed, but the rakyat [people] has been left behind because incomes have not increased."*
> ***[Terengganu, Kuala Terengganu, Bumiputera]***

> *"In the past, I earned RM900, which was enough to feed nine children. The salary hasn't gone up, the only thing going up is the cost of living. It is not in balance."*
> ***[Klang Valley, Bumiputera]***

> *"The incomes of the older generation was not high, but they were still able to afford to have five children and more. In the same situation now, with five or more children, that family would be suffering. In the past, a total income of RM800–RM1,000 could support six people or more. Nowadays, you can barely support three people, and even that is a nightmare."*
> ***[Klang Valley, Chinese]***

> *"I think we burden ourselves with expenses despite our low income. It used to be very difficult to buy a handphone. Now even children have their own mobile phones. Our lifestyle makes life difficult for us financially. Twenty-five years ago, it was not like this. I think we have the same amount of money but due to lifestyle changes, it feels like it's not enough now."*
> ***[Terengganu, rural, Bumiputera]***

Participants in the joint World Bank-University of Malaya qualitative study frequently commented on the disparity between economic growth and the well-being of the people. The participants felt that Malaysia's economic growth did not reflect the actual lives of Malaysians, with most people not better off, despite the fact that the economy had developed rapidly and allowed some people to attain upward income mobility.

> *"Something that can be provided physically, yes, we children are better off. But something that is about the mind and the soul, we are not better off."*
> ***[Klang Valley, Chinese]***

> *"We don't see a correlation in the happiness index and the high-income index of a country. I don't think our country is happy. There is no benefit for the country from becoming very developed."*
> ***[Selangor, Bumiputera]***

> *"My children's education level and lifestyle are much better than me. But after they grow up, I noticed that they faced different kinds of pressures than our generation did. This is mainly due to the imbalance between income and the cost of living. I felt that their lives are much harder than mine was at the same age."*
> ***[Selangor, Chinese]***

> *"While the majority of people have achieved middle-income status, most of us nowadays have financial commitments with banks, from phone, tv, washing machine, credit cards, etc. We are all in debt now due to easy pay schemes, etc."*
> ***[Selangor, Indian]***

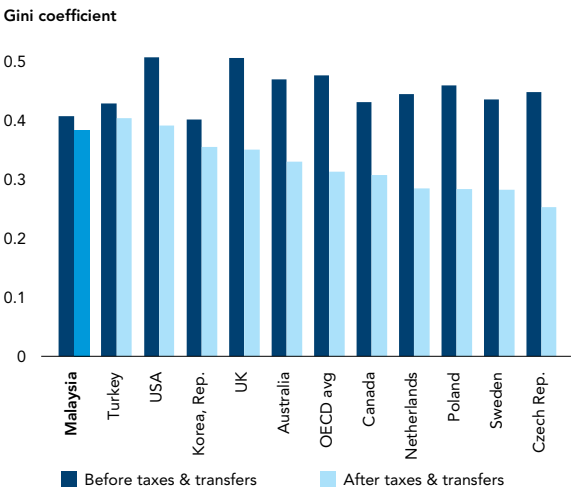
Malaysia's fiscal policy could be more effective at promoting inclusion

Most high-income countries use fiscal policy—both revenue collection and public spending—to redistribute income and to promote greater inclusion. High-income status is narrowly defined in terms of having an average GNI per capita above a certain threshold level. By contrast, being a *developed country* implies, among other things, greater economic security for the population and widely available high-quality public services. The development of social protection systems, extensive public services, and other aspects of a developed society requires substantial human and financial resources and a clear and robust policy framework. The extent to which these systems and services foster greater inclusion depends on the incidence of benefits and the incidence of taxes that pay for those benefits. Put simply, it depends on who benefits from public spending and who pays for it. This remainder of this chapter examines performance indicators for Malaysia's social protection system and explores avenues for making it more effective, and Chapter 7 takes an in-depth look at the revenue side, examining how to raise enough financing to support a robust social protection system and to do so in a way that promotes and reinforces equitable outcomes.

On average, Malaysia's fiscal policy is much less redistributive than those of high-income OECD countries. Figure 154 compares the Gini coefficient for income inequality across countries, contrasting income per capita before and after taxes and transfers. Among this set of countries, Malaysia has one of the most equal distributions of income before taxes and transfers. Only the Republic of Korea's is lower than Malaysia's, with Turkey's (the other upper-middle-income country in the comparison) being slightly higher. However, the picture changes entirely if disposable incomes after taxes and transfers are examined. Fiscal policies in the European and North American countries reduce the Gini coefficient by 12 to 20 percentage points compared to the income distributions before taxes and transfers, with smaller reductions in inequality occurring in the Republic of Korea (5 percentage points) and Turkey (3 percentage points). Malaysia's reduction in the Gini is only 2 percentage points, resulting in the third-highest level of inequality in terms of disposable income in the group, being marginally more equal than Turkey and the United States.

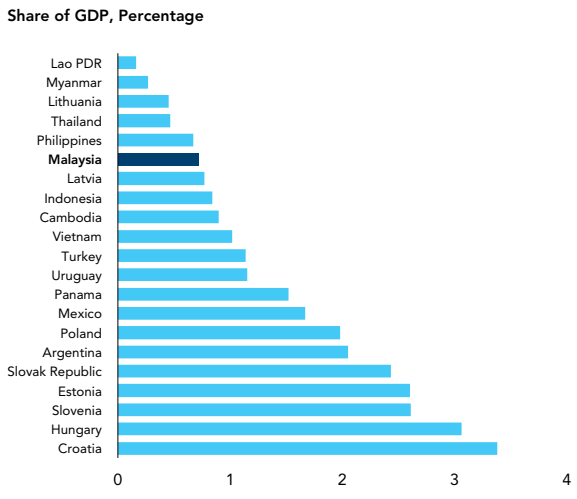
To a large extent, the very limited impact of fiscal policy on income distribution in Malaysia is the result of its relatively low level of spending on social safety nets. Malaysia spends about 0.7 percent of GDP on social safety nets, placing it in the middle of the pack compared to its seven ASEAN neighbors in Figure 155, all of which have lower GNI per capita. This level of safety net spending is considerably lower than the expenditure of 1.5 to 3.4 percent of GDP found in almost all of the countries that have graduated to high-income status since 2000.

FIGURE 154
Malaysia's fiscal policy has little impact on income inequality...



Source: OECD and World Bank staff calculations using DOSM Household Income Survey data

FIGURE 155
...in part because of Malaysia's relatively low spending on social safety nets



Source: World Bank (2018b)

Malaysia's social protection system is broad but shallow

Aging and changes in the nature of work challenge the effectiveness of social protection programs based on "standard" employment relationships. The "standard" employment relationship (long-term full-time wage employment for a single employer) forms the basis for many risk-sharing policies, especially those related to income security, but it has never really been standard in developing and emerging economies. In addition, many current risk sharing policies have been threatened by the changing nature of work: Disruptive technologies have begun to erode existing sources of employment, societal expectations regarding the provision and quality of public services and facilities have increased, and changing demographics and a rapidly aging society have started to put pressure on traditional family-based support networks. As a result, more people have been working in part-time work, self-employment, the gig economy, and zero-hour contracts. Globally, coverage of traditional risk-sharing policies has been either stagnating or declining (World Bank 2019c).

What is required as Malaysia progresses toward high-income status is the development of a comprehensive social protection system encompassing social assistance, social insurance and labor market programs attuned to aging and the changing nature of work. In addition to labor market programs discussed in the jobs chapter, two main types of programs are usually included in the definition of a comprehensive social protection system: non-contributory social assistance programs (also known as safety net programs) such as cash transfers, school feeding and targeted food assistance; and contributory social insurance programs such as old-age and disability pensions and unemployment insurance. Together, these programs can foster three objectives: first, resilience for the vulnerable through insurance against the impact of drops in well-being from shocks; second, equity for the poor through protection against destitution and the promotion of equality of opportunity; and third, opportunity for all through the promotion of human capital in children and adults and the connection of men and women to more productive employment (World Bank 2012).

Malaysia's social protection system is broad and shallow: it reaches most of the target population, but the level of benefits is quite limited. By far the largest component of Malaysia's social protection system involves the provision of social assistance. By contrast, social insurance spending is more limited in Malaysia. The World Bank's *Atlas of Social Protection – Indicators of Resilience and Equity* (ASPIRE) harmonized global database estimates that as of 2016, Malaysia's social assistance programs covered 67.0 percent of its citizens. In contrast, nearly half of Malaysia's labor force was covered by social insurance programs, but as is the nature of insurance, only a fraction (8.4 percent of the work force) received social insurance payments in that year. Hence, we focus on social assistance in the comparisons that follow. Three common measures to assess the performance of social assistance programs are the *coverage, adequacy and benefit incidence*, with a focus on the bottom 20 percent of the income distribution. These three performance indicators are examined in the paragraphs that follow.

In terms of coverage, Malaysia's social assistance programs reach almost all of the poorest 20 percent, a high coverage rate by international standards. The ASPIRE database has recent harmonized and largely comparable social assistance data for Malaysia and 14 other countries that are either regional peers (ASEAN members) or transitional peers (countries that transitioned to high-income status in the past 20 years or are poised to do so soon). As Figure 156 shows, in Malaysia, social assistance programs of one type or another reach 98.2 percent of the bottom 20 percent, based on data from the 2016 HIS. This is slightly higher than the rate for the Slovak Republic, and considerably higher than all other comparator countries.

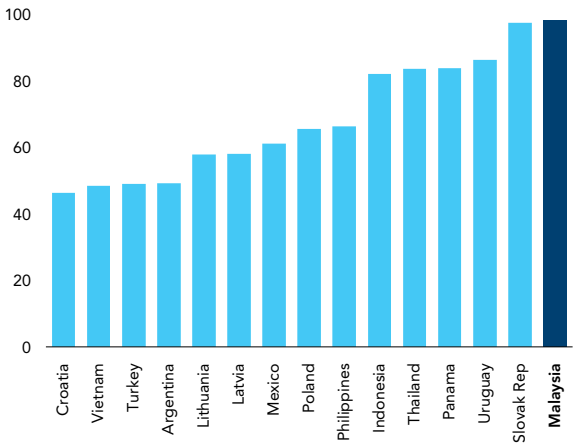
In terms of adequacy, Malaysia's level of social assistance benefits is lower than that in almost all comparator countries. The adequacy of social assistance payments is calculated as the total transfer amount received by all beneficiaries in a particular group as a share of the total post-transfer income or consumption of beneficiaries in that group, with the group in this case being the poorest 20 percent. The adequacy rate in Malaysia is 7.8 percent, meaning that for those in the B20 who receive social assistance, the assistance represents only 7.8 percent of post-transfer income (see Figure 157). This is lower than the rates in all the comparator countries in this exercise except Vietnam. The low adequacy rate is attributable to both the low levels of social safety net spending noted earlier (see Figure 155) and the high coverage rate (see Figure 156), meaning that the total funds are more limited and that they are distributed more widely. Adequacy rates among the other seven ASEAN countries included here

range from 27.3 percent in Indonesia, which has a lower social assistance coverage rate than Malaysia, to 4.6 percent in Vietnam. Interestingly, the adequacy rates are very different in Turkey (8.8 percent) and Mexico (26.0 percent), the two countries in the comparison that, like Malaysia, are upper-middle-income countries at the cusp of achieving high-income status.

In Malaysia, the B20 receive a relatively small proportion of total social assistance benefits because a substantial portion goes to higher-income groups, such as the M40. *Benefit incidence* refers to the amount of social assistance benefits received by a population sub-group relative to the total value of benefits received across the entire population. In Malaysia, only 29.5 percent of social assistance benefits go to the B20, which is lower than that in any comparator country (see Figure 158). In about half of the comparator countries, the percentage of total benefits going to the bottom 20 percent ranges from 33 to 44 percent, rising to more than 50 percent of program benefits in Argentina, Indonesia, Poland, Turkey, and Vietnam. While the B20's share of benefits in Malaysia is certainly larger than those of richer quintiles, 37.2 percent of benefits go to the M40 and 9.5 percent of benefits are received by the top 20 percent (see Figure 159).

FIGURE 156
Malaysia's coverage of the bottom 20 percent is excellent...

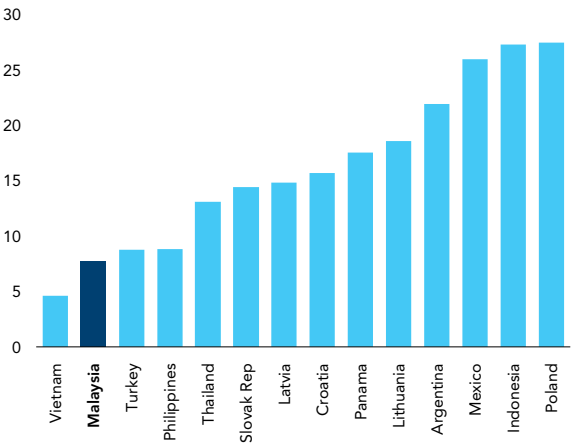
Share of people in the bottom 20 percent, Percentage



Source: World Bank staff calculations based on ASPIRE database

FIGURE 157
...but the benefit amount is small compared even to B20 incomes

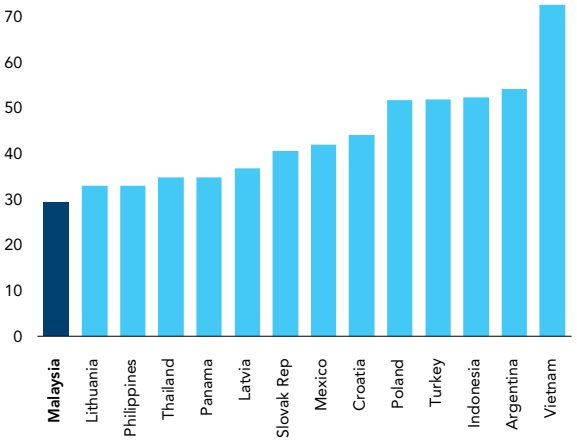
Benefit amount as a share of household income, Percentage



Source: World Bank staff calculations based on ASPIRE database

FIGURE 158
A relatively small percentage of social assistance benefits go to the B20...

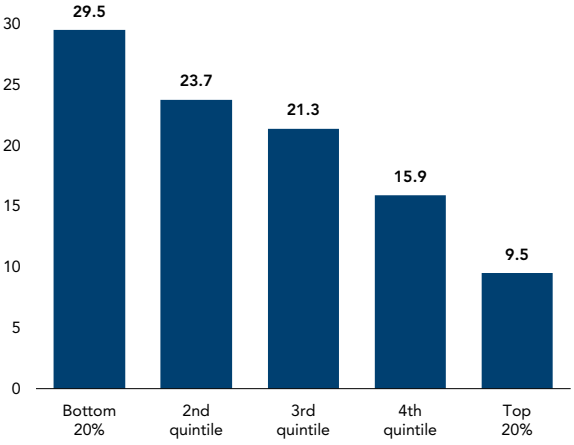
Share of total program benefits received by the bottom 20 percent, Percentage



Source: World Bank staff calculations based on ASPIRE database

FIGURE 159
...because the M40 and T20 also receive a large share of social assistance

Share of total program benefits received, Percentage



Source: World Bank staff calculations based on ASPIRE database

Better delivery of social spending would promote greater inclusion and development

Achieving greater inclusion and development in a high-income Malaysia requires not only more social spending, but also smarter social spending. This applies not only to expenditure on the social protection system, but to social spending more broadly. Fiscal resources are always finite. While higher levels of social spending (financed by higher revenues from progressive taxation) are necessary to attain the degree of inclusion found in most high-income countries, it is imperative that the spending is also directed where it is needed the most. Some social spending is untargeted by design, two notable examples being universal health care and universal education through secondary school. However, in the case of other forms of public social expenditure, a more limited scope is justified (for example, in the case of cash transfers). In Malaysia, these are often either untargeted or targeted using criteria that are not well-aligned with needs, making them less cost-effective than they could be.

There is significant potential for Malaysia's social protection system to more actively facilitate human capital development and productive employment. Currently, there are few policies that link beneficiaries of social assistance programs to efforts that build their human capital or improve their productive inclusion in the labor market. Facilitating this would require better coordination across social assistance, education and labor market programs so that those receiving social assistance could build the skills and gain the work experience needed to move into productive employment. The Bantuan Rakyat 1Malaysia (BR1M) and Bantuan Sara Hidup (BSH) cash transfer programs are two programs with clear potential to more actively facilitate human capital development. BR1M was established in 2013 as a means-tested cash transfer program. BSH replaced BR1M in 2019, retaining a similar income eligibility structure, with a slightly modified benefits regime.[114] To promote human capital development, BSH/BR1M recipients could benefit from information provided through accompanying measures, such as measures to raise parents' awareness of best practices for providing nurturing care. These beneficiaries could also be supported to make better choices and to increase the use of services provided by various agencies. BSH/BR1M also has potential to leverage goals such as higher old age savings and incentives for workers to formalize, potentially by the use of a very small share of transfers as deposits into beneficiaries' accounts with the Employees' Provident Fund (EPF) as a nudge for beneficiaries to join EPF.

Malaysia's social protection system could also benefit from standardization and harmonization in terms of institutional environment and delivery systems. Malaysia's institutional environment could benefit from a National Social Protection Masterplan as the basis for standardization and harmonization. Such a Masterplan could describe both a comprehensive package of social protection and a roadmap for realizing this package. In addition, standardization and harmonization of the delivery of social assistance programs and other social protection interventions is a crucial part of a social protection system. While decisions regarding eligibility and enrollment (or "targeting") are only one aspect of the delivery chain, they tend to receive much attention. Currently, Malaysia has several different approaches to targeting – in terms of the unit of targeting, eligibility criteria, and methods of eligibility assessment. There also several different information systems by different ministries or agencies that are not harmonized or integrated.

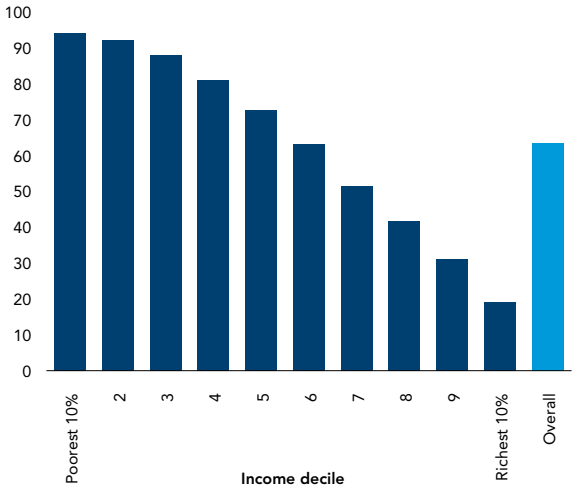
The BR1M and BSH cash transfer programs are two examples of programs that could be better targeted. Although touted as a program for the B40, BR1M benefits flowed to many higher-income households, while an estimated one-in-eight B40 households did not receive them. The same is likely true of BSH.[115] Among the B40, an estimated 93.7 percent of the poorest decile received BR1M benefits, tapering down to 80.9 percent in the fourth decile (see Figure 160). Research by UNICEF indicates that the under-coverage in the B40 is most likely attributable to lack of awareness of the program, with an intake process that is seen by beneficiaries as burdensome. Overall, 63.3 percent of all households reported receiving BR1M transfers, with the figure standing at 88.5 percent for

[114] BR1M provided cash benefits to households with monthly incomes less than RM4,000 and individuals with incomes less than RM2,000. BSH varies the amount of the transfer according to the number of children in each household. Households with monthly incomes of RM2,000 or less receive a base transfer of RM1,000 per year. The base annual cash transfer for households earning RM2,001–3,000 is RM750, while for those earning RM3,001–4,000 it is RM500. In addition to the base transfer, all households earning RM4,000 or less receive an additional annual amount of RM120 per child for up to four children. BSH is Malaysia's largest social cash transfer program, with total annual benefits amounting to approximately RM5 billion.

[115] At the time of writing the most recent Household Income Survey data available is from 2016, which corresponds to when BR1M was in place. Similar information was collected for BSH in the 2019 HIS, which is not yet available for analysis.

FIGURE 160
BR1M had substantial inclusion and exclusion errors in coverage...

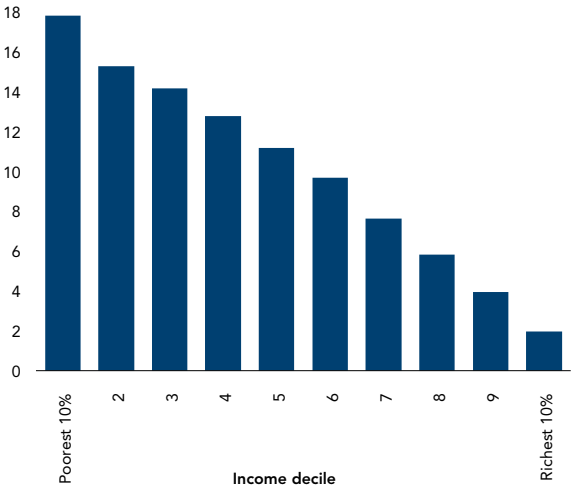
Share of households receiving BR1M benefits, Percentage



Source: World Bank staff calculations using DOSM Household Income Survey data

FIGURE 161
...resulting in a large share of benefits going to higher-income groups

Share of total program benefits received, Percentage

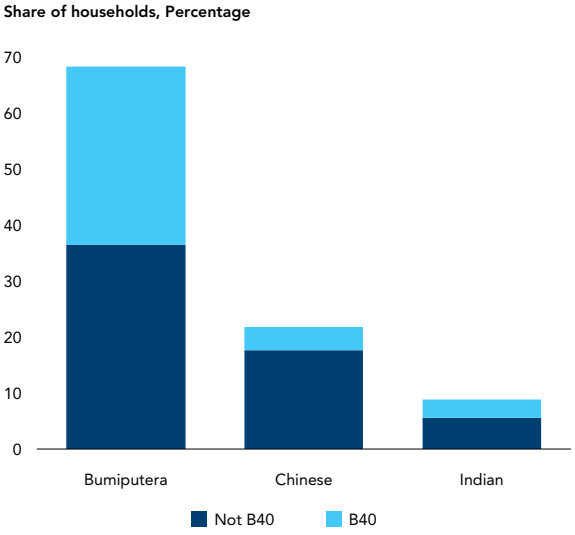


Source: World Bank staff calculations using DOSM Household Income Survey data

the B40 and at 46.4 percent for the top 60 percent (M40 plus T20). Thus, while poorer households received a larger share of the benefits, a substantial amount of benefits also leaked to higher-income households that were not the intended beneficiaries of the program (see Figure 161).

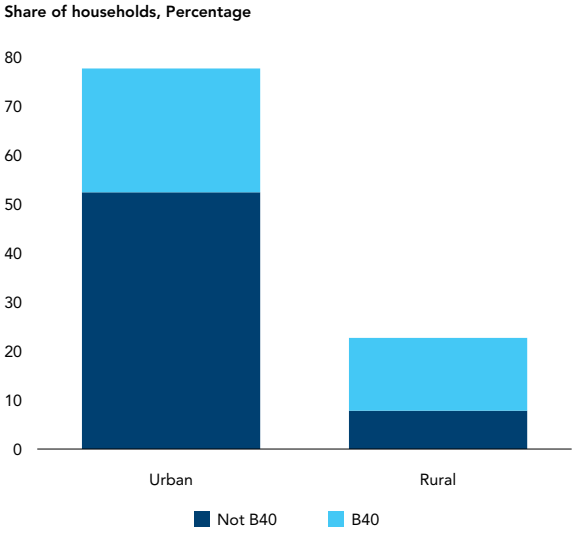
Core social assistance programs that are provided in addition to BSH are very progressive but are low in coverage because of the relatively small budget allocation. In addition to BSH, a core set of social assistance benefits and welfare services are provided by the Department of Social Welfare (JKM)

FIGURE 162
The B40 includes Malaysians of all ethnicities...



Source: World Bank staff calculations using DOSM Household Income Survey data

FIGURE 163
...and likewise, the B40 may be found in urban or rural areas



Source: World Bank staff calculations using DOSM Household Income Survey data

under the Ministry of Women, Family and Community Development. Altogether, the JKM implements ten programs for specific vulnerable groups, including older persons, children, the disabled, and the chronically ill. There were almost 500,000 beneficiaries of JKM programs in 2017; total spending on the programs amounted to about RM1.5 billion, or 22.9 percent of the allocation for BR1M in the same year. The JKM programs are strongly progressive, but coverage even among the B20 is very low. In 2016, 14.7 percent of the B20 received assistance from JKM, and the share declines with each income quintile. In total, 10.1 percent of the B40 were covered. The low level of coverage is unsurprising given the relatively small budget allocation and narrow targeting for these programs. The average transfer per person for JKM programs in 2016 was RM263 per month, which is about 66.5 percent of the average post-transfer income for social assistance beneficiaries in the B20.

Despite their flaws, means-tested programs such as BR1M and BSH and those implemented by JKM are arguably a more effective means to promote inclusion than economic and social policies based on ethnicity, location, or criteria other than need. As noted earlier in this chapter, income inequality between Malaysia's main ethnic groups has decreased since 2002 (see Figure 148), with poverty having declined most rapidly among the Bumiputera (see Figure 140). Likewise, rural poverty has fallen much faster than urban poverty (see Figure 141). However, that is not to say that all rural dwellers or Bumiputera have escaped poverty, and it is also true that there is still poverty in urban areas and among the Malaysian Chinese and Indian communities (see Box 14 for findings from the World Bank-University of Malaya study on the perspectives on economic opportunities from across different ethnic groups). The same argument applies if one takes a higher-income threshold, such as the 40th percentile (B40). This is illustrated in Figure 162, which shows that while the majority of the B40 are Bumiputera, so are the majority of those not in the B40. The proportion of B40 households within each ethnic group is largest among the Bumiputera, but the B40 also includes substantial numbers of Malaysians of Chinese or Indian descent. Figure 163 depicts the distribution of the B40 by urban or rural area of residence, showing that while rural residents are more likely to be in the B40, the majority of the B40 actually live in urban areas.[116]

Likewise, a significant proportion of the B40 live in Malaysia's most prosperous states. Figure 164 shows the percentage of the B40 that live in each of the states and Federal Territories. Sabah and Sarawak have both large populations and relatively low household incomes, and therefore account for a large

[116] The figure understates the share of the B40 in urban areas because the incomes are not adjusted for higher prices in urban areas.

BOX 14

Perspectives on opportunities from across Malaysia

In terms of social spending, participants in the joint study conducted by World Bank-University of Malaya generally agreed that there are differences in opportunities given to different ethnic groups in Malaysia. Most participants recognized the importance of education as a means of achieving better career and income growth in the future, and they hope for equality in government-based assistance, such as educational opportunities and scholarships, across ethnic and income groups.

"It's true, we get more privileges. Just look at UITM, the university only caters for Bumiputera and not for the Chinese or Indians."
[Terengganu, rural, Bumiputera]

"Ok. I think the government needs to focus on "Modal Insan". They need to focus on giving education to the B40 group. This group of people need free education. Either education in terms of skill or academics. But personally I think they should provide more skill-based education, like vocational training, TVET, based on the person's passion. Some have passion in automotive, some might be passionate in sewing. That can be polished further to become a source of income. So with these skills they can bring themselves out of poverty. I think the government has provided something similar to this before, so I think the government should continue in doing this."
[Terengganu, rural, Bumiputera]

"Many Indians don't have the opportunity to be educated. The quota system must be fair. The actual allocation should reach the needy non-Bumiputera."
[Selangor, Indian]

"I'm not satisfied with the government nowadays. In education, the rate is 90 percent against 10 percent (90 percent Malays; 10 percent Chinese, Indians, and other races), we also pay tax what, why need to give them until 90 percent?"
[Selangor, Chinese]

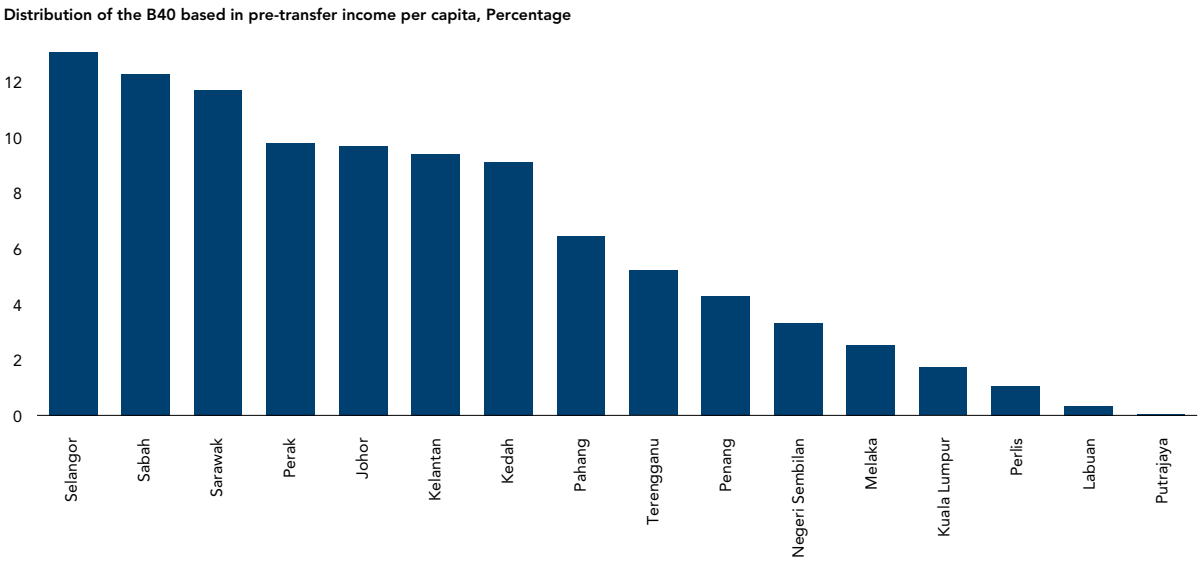
"My hope is for the future generation. The government should focus on education. It should be the same and equal as the Chinese and other races. Don't focus on one race. Also, about politics. I hope they can play their part in improving the education system. Changing languages back and forth from English to Malay and back to English is redundant."
[Terengganu, rural, Bumiputera]

proportion of Malaysia's B40 (12.3 percent and 11.7 percent, respectively). However, Selangor and Johor, which have some of the highest average incomes in Malaysia, are home to an almost equal proportion of the B40 (13.1 percent and 9.7 percent, respectively). Based on average gross incomes per household and other development characteristics, the Shared Prosperity Vision 2030 strategy has identified six relatively underdeveloped states as warranting special attention and resources: Kedah, Kelantan, Perlis, Sabah, Sarawak, and Terengganu. While this geographic focus may have merit on the basis of the average characteristics of these states, they account for only one-half of the B40 in Malaysia. Therefore, such location-based policies need to be complemented by needs-based policies to ensure that prosperity is indeed shared widely.

As Malaysia ages rapidly and the importance of "standard" employment relationships wanes, it will be important to deepen financial protection for those already contributing to social insurance while expanding the coverage of risk-sharing policies. The coverage of pension savings institutions remains some way from being complete. Abdur Rahman et al. (2019) estimate that 41 percent of the labor force were uncovered by EPF or pension arrangements for civil servants or members of the armed forces in 2017. The EPF is a defined-contribution provident fund with a regular minimum contribution rate of 7 percent for employees and 12 to 13 percent for employers. There are no redistributive elements or tax financing (apart from a very modest voluntary matching contribution scheme for the self-employed). Seventy percent of contributions are placed in Account 1, which is dedicated to old age benefits, while the remaining 30 percent goes into Account 2, which can be used for home purchase or loans, tuition for tertiary education, and payment of the costs of specified treatments for major medical procedures and illnesses.

Although workers contributing to the EPF are technically "covered," many workers move in and out of standard employment and therefore their EPF contribution histories tend to be inadequate to support a reasonable level of old-age income protection. Thus, Malaysia faces a dual agenda of deepening financial protection for those already contributing to retirement savings schemes while expanding coverage to reach the almost 40 percent of the labor force currently outside the pension savings net. For those already in EPF, there is a need to continue reforms that strengthen income protection in old age. The link to the labor market is also crucial, with a need over time to encourage longer working lives. In terms of coverage expansion, there is a need for innovation to bring informal workers currently uncovered into some formal pension arrangement. A first step would be expanding old age protection through a modest non-contributory social pension for those without adequate protection coupled with strengthened efforts to incentivize participation in contributory schemes through matching grants and behavioral nudges.

FIGURE 164
A large proportion of the B40 live in states with high median incomes such as Selangor and Johor



Source: World Bank staff calculations using DOSM Household Income Survey data

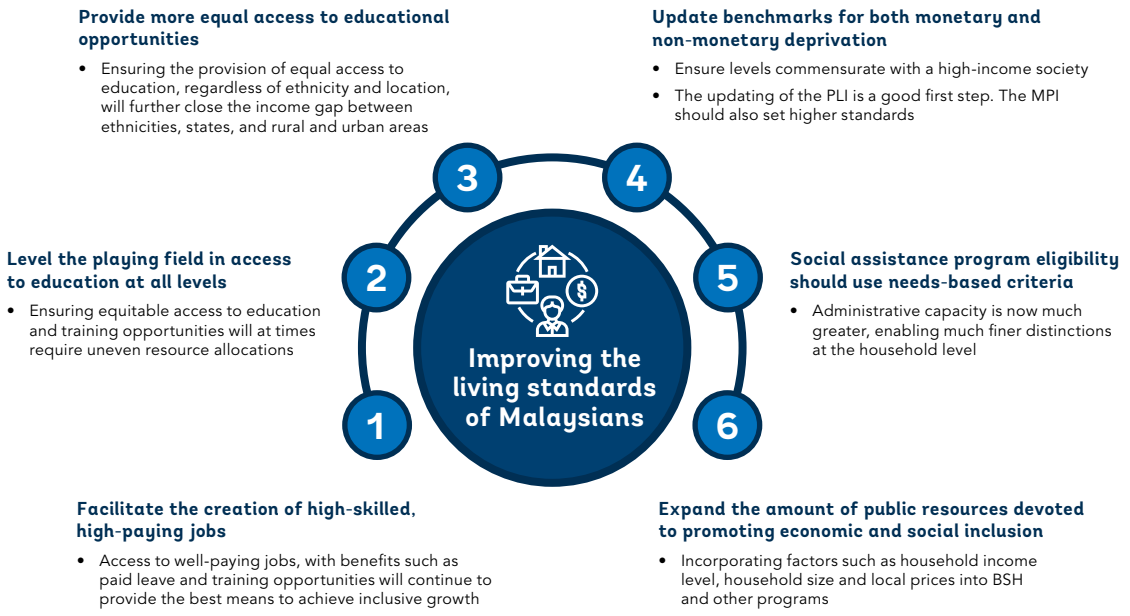
What will it take to improve living standards for all in Malaysia?

Malaysia's ascension to high-income status will be an important milestone, but it will be a hollow achievement if a substantial portion of the population is excluded from the benefits. For most of its post-independence history, Malaysia's economic growth has been broad-based, supported by investments in human capital and physical infrastructure and ethnicity-based affirmative action policies that may have reduced poverty and narrowed, but not eliminated, inequalities of opportunity or outcomes. However, many challenges remain, and the affirmative action policies that may have contributed to inclusion in the past may not be sufficient or appropriate going forward as a high-income and developed economy. Successful high-income countries have not only raised their average incomes, they have also raised the "socioeconomic floor", that is, the minimum basic standard of living that every citizen can expect to achieve. They have also provided higher levels of economic security and reduced vulnerability, so that households are not at risk of falling into poverty because of illness, job loss, death of a breadwinner, natural disaster or other shocks. In this section, we summarize several key policy recommendations to help ensure that all Malaysians share in the prosperity that comes with being a high-income economy (see Figure 165).

RECOMMENDATION 1

The centerpiece of policies to promote inclusive development should be measures to increase disadvantaged Malaysians' access to high-skilled, high-paying jobs. Chapter 4 has emphasized the importance of productive employment at ascending levels of sophistication and productivity as the foundation of Malaysia's future prosperity. Historically, Malaysia's pattern of rapid growth with declining poverty and inequality has been grounded on the expansion of job opportunities and on increased labor productivity to support higher wages. Better access

FIGURE 165
Malaysia's ascension to high-income status not only would entail raising average incomes but raising the socioeconomic floor



Source: World Bank staff elaboration


Kentucky Dairy
Cassata
Big Drum

to well-paying jobs, with benefits such as paid leave, training opportunities, and so on, will continue to provide the best means to achieve inclusive growth and shared prosperity for most Malaysians. To maximize equitable growth, it is essential that people are able to prepare and compete for these jobs, with merit-based hiring, remuneration, and promotion. Public investments in human capital and physical infrastructure combined with private investments in complementary capital are needed to achieve sustainable increases in productivity levels.

RECOMMENDATION 2

Level the playing field with respect to access to education at all levels and to occupational training and upskilling. Because of existing inequalities of opportunity and access to services, ensuring equitable access to education and training opportunities will at times require uneven resource allocations to allow those who have been chronically deprived to catch up. Education and training should facilitate both physical and occupational mobility, so that an individual entering the job market or changing career paths is equipped to move to wherever his or her skills can generate the highest return. Making up for current or past inequities should be premised on the actual experiences of the beneficiaries, with minimal resort to easy but blunt markers such as ethnicity, religion, or location, which may have some meaning at the aggregate level but are potentially misleading in specific cases.

RECOMMENDATION 3

Provide more equal access to educational opportunities. Both within Malaysia and at a global level, there is ample evidence to indicate that higher levels of educational attainment and better-quality education enable lower-income people to achieve upward economic and social mobility. Thus, ensuring the provision of equal access to education, regardless of ethnicity and location, will further close the income gap between ethnicities, states, and rural and urban areas. Examples of exclusive policies and programs include Malaysia's system of high performing schools (*Sekolah Berprestasi Tinggi*), which are typically located in urban areas for students from higher socioeconomic backgrounds, and MRSM schools/UiTM universities for Bumiputera.

RECOMMENDATION 4

Benchmarks for both monetary and non-monetary deprivation should be commensurate with levels of a high-income society. While Malaysia has made admirable progress in reducing poverty based on the deprivation thresholds established in the 1970s, regular updating of those thresholds is advised. In advanced countries, benchmarks such as income poverty lines and multidimensional poverty indices (MPI) are generally aligned with the minimum socially acceptable standard of living in that society. This goes beyond basic survival needs to encompass living standards consistent with living in dignity and making it possible to participate fully in society without stigma. The philosophical and political basis for this is rooted in the notion of the social contract, which all developed nations have in some form or other to protect their citizens from falling into abject destitution.[117] The recent updating of the PLI in Malaysia is a welcome preliminary step, but its construction is still tied to extreme poverty rather than notions of poverty in high-income countries. An upgrading of the MPI—particularly the non-income dimensions—is also needed for it to serve a useful role in monitoring and understanding progress toward improving the well-being of all Malaysians. Ideally, the PLI, MPI, and other relevant deprivation standards should be updated through a transparent consultative process that involves government, civil society, and the public at large, as opposed to a purely technocratic and opaque exercise. This process would be aided by reforms to expand access to anonymized economic and social data, as is the norm in high-income countries.

RECOMMENDATION 5

As a principle of equitable and efficient public spending, provision of social assistance program eligibility should be based on needs-based criteria. At one time, given the nature of inequities in Malaysia and the government's more limited administrative capacity, group-based criteria, such as ethnicity or location, may have been justified when determining eligibility for social assistance or favored access to public services. That case is much harder to make today. That is not to say that there is complete equality across these groups, but rather that these individual and group characteristics are not reliable indicators of deprivation. In addition, administrative capacity is now much greater, enabling much finer distinctions at the

[117] This is distinct from the much narrower usage of the term "social contract" frequently employed in Malaysia, which refers specifically to provisions in the Malaysian constitution pertaining to citizenship and racial identity.

household level. BSH is a case in point: it is effectively a color-blind, location-blind social assistance program based on the needs of individual households, as documented by income records. Deprivation and exclusion should be addressed wherever it is found at the individual or household level, not only where it exists as some aggregate tendency.

RECOMMENDATION 6

Expand the amount of public resources devoted to promoting economic and social inclusion and make better use of existing capacity to target resources.[118] When, as in the case of BSH, policies are intended to be needs-based, the available information is often used inconsistently or not used at all. The inconsistency may be seen by comparing the PLI methodology with the BSH eligibility criteria. While the past and current PLI methodologies are not perfect, they do have the appealing feature of being closely tailored to a household's needs, based on its demographic composition and the prevailing prices of basic goods in a given area. By contrast, BSH and other programs (and even the definition of the B40) only uses income at the household level, without taking into consideration factors such as the number of people living within the household or local prices. Thus, Malaysia is using an elaborate household-specific approach to produce a summary poverty statistic, while at the same time applying a much less precise approach to determine which households should receive program benefits and at what level. This is the exact opposite of what most countries do, leading to additional inclusion and exclusion errors that diminish the equity and efficiency of public expenditure and, more importantly, preventing some of the poorest households from receiving the assistance they need.

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[118] Approaches to increasing the resource base are discussed in detail in the chapter on financing shared prosperity.

CHAPTER 7

Financing shared prosperity

Financing the transition to high-income status will require an enhanced effort to raise more revenue and spend it effectively. Reforms are needed to increase tax revenues, strengthen the social safety net, and effectively target assistance.

Malaysia needs to collect more and spend better

As the recommendations made throughout this report suggest, fiscal policy is vital to facilitate Malaysia's transition to high-income status. For Malaysia to achieve increased competitiveness, the government will need to modernize Malaysia's investment ecosystem, to attract quality investments, to increase coordination of research funding and to align incentives for researchers. As outlined in the institutions chapter, the public service should be improved through the implementation of meritocratic recruitment processes. Concurrently, to strengthen governance, the federal government would need to empower sub-national governments. All of these measures would require stable funding from the government.

More importantly, greater, more effective social and human capital expenditure is necessary to ensure that Malaysia's transition to high-income status facilitates the achievement of a higher quality of life and well-being for all Malaysians. In particular, to achieve these goals, it is necessary to improve primary health care; to ensure universal access to high-quality early childhood education; and to improve the availability, quality and affordability of child and elderly care to promote greater economic opportunities for women. All of these measures would definitely entail increased government financing, as would the recommended measures on upskilling and reforming the workforce, including through increased efforts to collect labor market data. Similarly, as highlighted in the chapter on inclusion, the marginal impact of Malaysia's fiscal policy on narrowing the income distribution gap and the rather underdeveloped social protection system need to be enhanced through increased government spending.

At the same time, Malaysia's economy should always be anchored on strong economic fundamentals, with sufficient fiscal space to mitigate the impact of shocks to the economy. The COVID-19 crisis underscores the importance of having a sufficient fiscal buffer to mitigate the economic impact of the pandemic, with governments around the world implementing large-scale economic rescue plans and stimulus packages. In an environment of growing uncertainty, there is a clear need to increase policy space and maneuverability, even if this means adapting fiscal rules (see Box 15).

BOX 15

Fiscal rules in times of crisis

The severe economic downturn due to the COVID-19 pandemic has put fiscal rules in many countries to the test. As governments around the world rallied fiscal responses to counter the economic impact of the outbreak, some faced constraints imposed by fiscal rules enacted in the past to ensure fiscal discipline. This has shed some light on the effectiveness and design of fiscal rules. According the IMF Fiscal Rule Dataset, there are 96 countries with at least one of the following types of fiscal rules: (i) debt rule; (ii) expenditure; rule (iii) revenue rule; (iv) balanced budget rule. Beyond the numerical limits imposed by these rules, certain features also vary across countries such as the coverage, as in whether the rule pertains to the general or central government; and the legal basis and existence of an independent monitoring authority. Some countries also have formal enforcement mechanisms and sanctions for violation, while others also have "escape clauses".

The aftermath of the global financial crisis saw the emergence of rules referred to as 'second generation' fiscal rules. The GFC, at the time, was a severe test for the existing (first generation) set of fiscal rules, so it led to significant amendments and changes in those rules (Caselli, Eyraud, et al. 2018). The second generation of fiscal rules tend to be more flexible and enforceable compared to the first generation. Although some first-generation fiscal rules had features such as escape clauses, most failed to specify the circumstances under which to trigger the escape clause or how (parliamentary vote or not) and did not specify a path of return to compliance. Second generation fiscal rule tend to specify all these different steps and mechanisms.

Malaysia has one of the oldest and most resilient fiscal rules. Malaysia has a Budget Balance Rule and a Debt Rule that were both enacted in 1959 and still remain in place today.[119] Although there were some revisions to the rules (last one in 2009), they have stood the test of time, so much so that only Japan has a fiscal rule older than that of Malaysia.[120] As long as the rule is not discarded, its duration/resilience is not affected by deviation periods. For instance, between 1982 and 1992, Malaysia's public debt was well above 55 percent of GDP peaking at almost 100 percent in 1986, but since 1993 it has remained below the limit and stood at 52.5 percent of GDP at the end of 2019 (*Figure 166: Public debt ratio has risen since the GFC, eroding fiscal space,* see Figure 166). The average annual public debt-GDP ratio was about 40 percent between 2000 and 2008, but since the GFC (2009), it rose to almost 51 percent, and thus eroding the fiscal space created in the preceding eight years. The COVID-19 crisis is projected to push the public debt-GDP ratio passed the 55 percent limit.

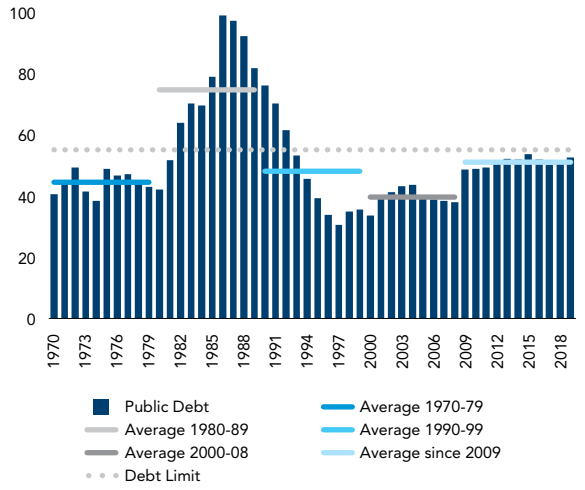
However, Malaysia's fiscal rules lack important features that have been associated with the second-generation fiscal rules in other countries. In particular, Malaysia's fiscal rules lack flexibility or a well-specified escape clause for cases such as severe economic disruption resulting from an external shock (such as a pandemic). For instance, increased operational spending is more suitable in a crisis where economic activity is deliberately restricted, yet the Golden Rule stipulates that the government should only borrow to fund development projects. The lack of a well specified escape clause also exacerbates policy uncertainty.

Malaysia scores 0.5 on the IMF Fiscal Index, which measures the strength and quality of fiscal rules. The index assesses on five dimensions (i) institutional coverage; (ii) independence of the monitoring and enforcing entity; (iii) legal base; (iv) flexibility to respond to shocks and (v) correction mechanisms and sanctions. Malaysia's fiscal rule index (strength) is characterized by the independence of the monitoring entity and the statutory nature of the rule. Among countries that most

[119] The Balanced Budget Rule (Golden Rule) (since 1959): Government follows the golden rule, whereby the government only borrows for development/capital spending. The Loan (Local) Act 1959 (paragraph 3,5) and Government Funding Act 1983 (paragraph 3,4) says "Sums raised must be paid into the Development Fund and usage of the funds is specified under Schedule 2 of the Development Funds Act 1966."
The Debt Rule: The Loan (Local) Act 1959 and Government Funding Act 1983 cap federal government domestic debt at 55 percent of GDP (measured as the sum of outstanding Malaysian Government Securities (MGS), Government Investment Issuance (based on Islamic principles) and Islamic Treasury Bills, and also syndicated loans raised within the country) (from 2009, 45 percent of GDP in 2008 and 40 percent of GDP in 2003). This is complemented by other legal rules, such as limits on external debt (RM35 billion) and Treasury bills issued (RM10 billion).
[120] These durations are as of 2015, when the IMF dataset stops, and are no affected by re-calibration of the rule such changing a numerical limit or adding new characteristics such formal enforcement mechanism.

FIGURE 166
Public debt ratio has risen since the GFC, eroding fiscal space

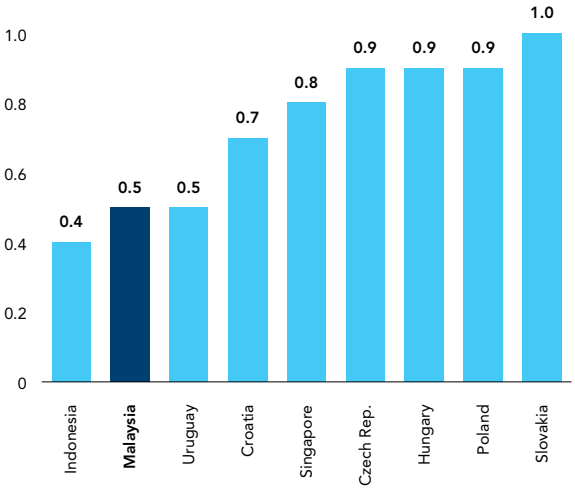
Public debt to GDP ratio, Malaysia, 1970-2018, Percentage



Source: Haver; World Bank staff calculations

FIGURE 167
Malaysia's fiscal rules score below many of its aspirational peers

IMF Fiscal Index, Malaysia and selected comparators



Source: IMF Fiscal Rule Dataset; World Bank staff calculations

recently became high-income economies, Malaysia's aspirational peers, the fiscal index ranges from 0.5 (Uruguay) to 1 (Slovakia) (see Figure 167).[121]

To strengthen its fiscal rules, Malaysia would need to adopt some of the features of the second-generation fiscal rules. Possible improvement measures would be drawn from the three components of effective fiscal rules (International Monetary Fund 2009): (i) a clear and well established link between any numerical target or limit and the fiscal objective; (ii) flexibility to respond to shocks; and (iii) an institutional mechanism. These features are paramount to ensure fiscal resilience in the face of severe external shocks.

1 Link numerical target and limit to fiscal objective

- For instance if objective is debt sustainability then a balance budget rule is more suitable since it has a clear link to debt-GDP ratio.

2 More flexible and operation focus

- A more flexible fiscal rule **allows authorities to effectively respond to various unexpected shocks.** For a commodity exporter like Malaysia, this could help with the highly cyclical nature of commodity prices.
- Although challenging at times, it is **crucial to differentiate between temporary and persistent shocks.**

3 Institutional mechanism

- **A well specified escape clause** with specific circumstances that would trigger it and a procedural guidance on how to trigger it.
- **A clear roadmap** on how the correct deviations: (i) timeframe and (iii) magnitude of correction (whether or not the deviation should be offset).

[121] Malaysia's aspirational peers (HI economies) include Croatia, Czech Rep., Hungary, Poland, Slovakia and Uruguay.

Revenue collection is on a downward trend, lagging comparators

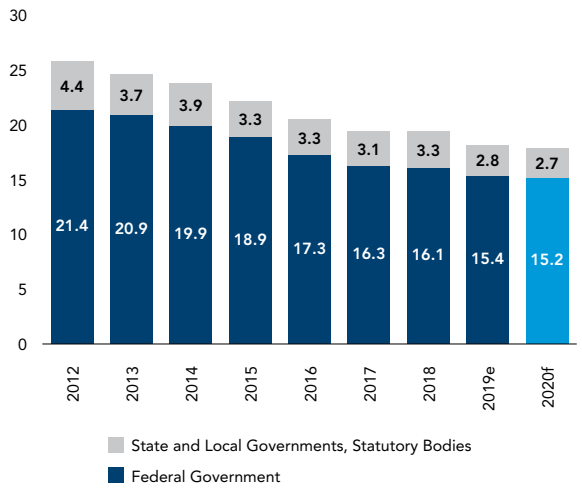
Government revenue has been on a steady decline since 2012 (see Figure 168). As of end-2019, adjusted general government revenue is projected to stand at 17.4 percent of GDP, 25.8 percent lower than its level in 2012, one of the steepest declines in revenue in recent years. The decline has been mainly driven by the decreasing share of petroleum-related revenues, reflecting global declines in commodity prices. Relative to international comparators, Malaysia's revenue collection in 2019, in proportion to GDP, is well below the average figure for upper-middle-income countries (17.4 percent versus 28 percent) and high-income countries (36 percent) (see Figure 169). Malaysia's general declining trend in revenue collections constrains the government's scope to provide the public services that its expanding middle-class will increasingly expect as the country transitions to high-income status.

Malaysia's government under-collects in key revenue areas, including personal income taxes. On average, the share of personal income tax in proportion to GDP in Malaysia has stood at 2.2 percent. By contrast, the average share for upper-middle-income countries is 2.8 percent of GDP, while for high-income countries it stands at 8.2 percent of GDP (see Figure 170).[122] While the government has introduced a new income tax band for taxpayers with taxable income exceeding RM2 million (to be taxed at 30 percent beginning 2020), the marginal income tax rate for other high-income bands remains relatively low compared to many regional and high-income countries, at 25 to 28 percent. As of 2018, only 16.5 percent of Malaysia's workforce of around 15 million were subjected to individual income tax.[123] The under-collection in personal income taxes is further exacerbated by the numerous reliefs and rebates given to all taxpayers, regardless of income level.

Malaysia's declining trend in revenue collections constrains the government's scope to provide the public services that its expanding middle-class will increasingly expect

FIGURE 168
Malaysia's revenue collection has been on a steady decline since 2012...

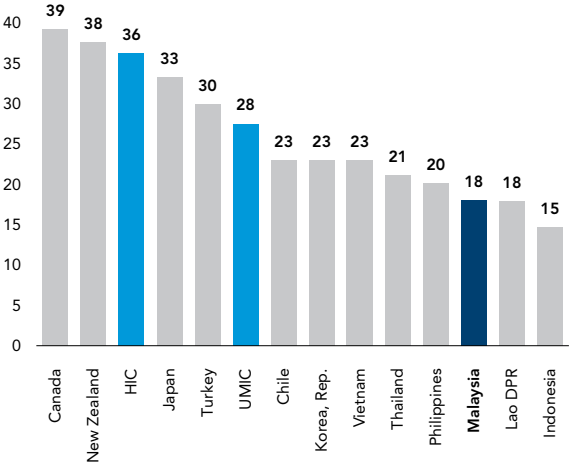
General government revenue, Percentage of GDP



Source: World Bank staff calculations based on MOF data

FIGURE 169
...and is well below the average of comparator countries

General government revenue, Percentage of GDP

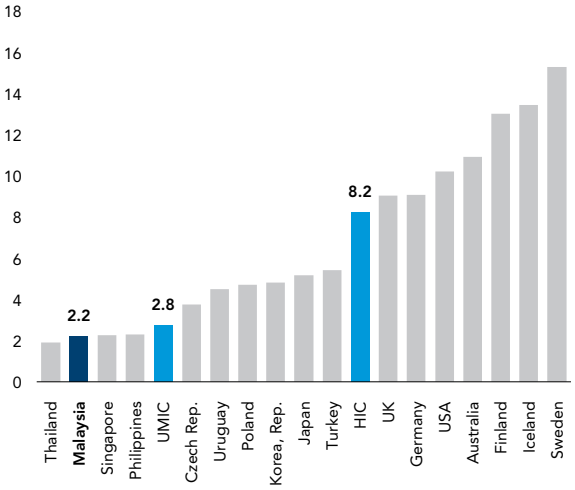


Source: World Bank staff calculations based on MOF and IMF data

[122] Average for 2012-2017.
[123] Fiscal Outlook and Federal Government Revenue Estimates 2020.

FIGURE 170
Malaysia's personal income tax revenue collection trails comparators...

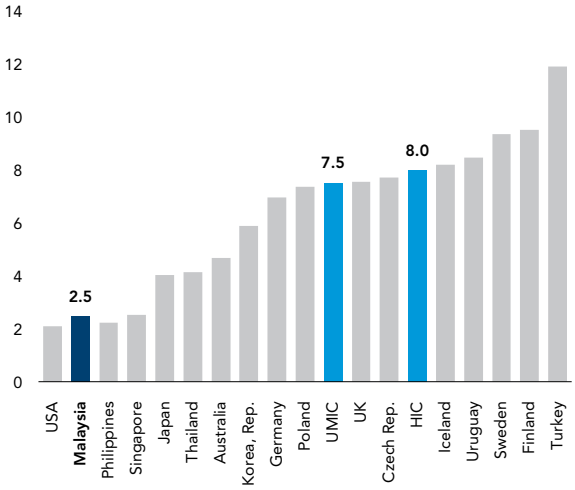
Personal income tax, Percentage of GDP, Average 2012-2017



Source: World Bank staff calculations based on IMF and MOF data

FIGURE 171
...as does consumption tax collection as a share of GDP

Goods and services tax, Percentage of GDP, Average 2012-2017



Source: World Bank staff calculations based on IMF and MOF data

As with the case of personal income tax, Malaysia also under-collects in the area of consumption tax (see Figure 171). Tax revenue on goods and services in proportion to GDP stands at an average of around 2.5 percent, considerably lower than in other upper-middle (7.5 percent) and high-income countries (8.0 percent).[124] The implementation of the goods and services tax (GST) in 2015 was intended to diversify revenue sources and to partially offset the revenue decline over the medium-term. Its abolition in 2018 and subsequent replacement with the initial sales and service tax (SST) framework further contributed to a shortfall in revenue of about RM20 billion (1.4 percent of GDP) and to the overall decline in government revenue. The current SST framework grants significant exemptions for many items, including non-essential items that are not typically part of the B40 consumption basket, including lobster, avocado, quinoa, and peaches.

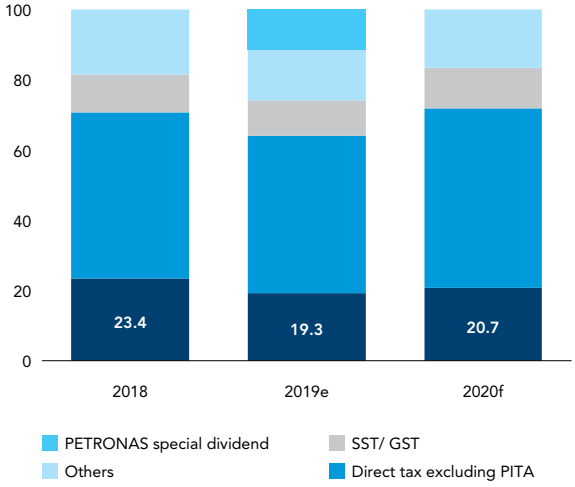
Despite the government's efforts to diversify revenue sources, it is still overly dependent on petroleum-related revenue. Petroleum-related revenue is estimated to account for 19.3 percent of total revenue in 2019 (see Figure 172). As a result, the government's revenue stream is highly susceptible to volatility in commodity prices. For example, in 2015 and 2016, the government had to recalibrate its budget halfway throughout the calendar year due to the fact that commodity prices fell below the government's initial projections. The reliance on petroleum-related revenue, especially on dividends from Petronas, is particularly significant at the time when there is an increased need for funds, such as during economic crises or when there is an unexpected shortfall in other forms of revenue.[125]

Malaysia's highly centralized budget process implies that there is limited revenue-raising activity at the state and local government levels. The bulk of state and local government revenues consist of non-tax revenue, mainly in the form of transfers from the federal government. State and local governments have limited authority to set tax rates. Thus, state revenues in proportion to GDP is consistently lower than 10 percent (see Figure 173). State taxes include export and land tax, taxes on mines, an entertainment tax, an excise duty on liquor, and duties on timber in Sabah and excise duties in Sarawak. Local government and municipal taxes include a self-assessed income tax, which is a property tax collected on the basis of the annual assessment of rental value or the value-added (*Cukai Pintu*). To date, the amount of revenue collected is low, as it is affected by the administrative system and the delivery of services by local authorities. State and local governments' limited capacities to generate revenue underscores their dependence on funding by the federal government revenue.

[124] Average for 2012-2017.
[125] In 2019, a special one-off dividend transfer from Petronas was allocated toward the clearance of outstanding income tax and GST refunds.

FIGURE 172
Petroleum-related revenue remains a significant contributor to government finance

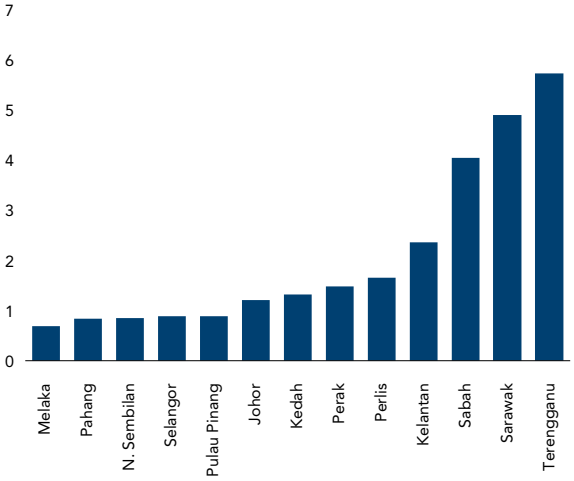
Revenue items, Percentage of GDP



Source: MOF

FIGURE 173
State revenue as a share of its GDP remains very small

State government revenue, Percentage of State GDP, 2017



Source: DOSM

Malaysia's generous tax incentives system also contributes to the narrowing of the government's revenue base. Since the late 1960s, Malaysia has made use of a wide range of tax incentives to stimulate private sector development. Over time, the total number of incentive instruments has grown considerably, as has the list of sectors eligible for incentives. The cost of such incentives, quantified in terms of tax foregone, is estimated to amount to around 0.8-1.3 percent of GDP, or 6.0-8.9 percent of tax revenue. The extent to which these incentives have a positive economic impact is questionable, with a study by the World Bank[126] showing that four out of five firms in Malaysia would have still invested, even without the incentives. Furthermore, while these investments may have benefited the economy in the past, there are growing indications to suggest that the net benefits from these incentives have plateaued in recent years.

At present, there are few mechanisms to progressively tax those in the higher-income bracket. Currently, capital gains are not taxed in Malaysia, except for gains arising from the disposal of real property or shares of property or on the sale of shares in a real property company.[127] The current rate for these taxes is 30 percent for properties disposed within the first three years of acquisition; 20 percent within four years; and 15 percent within five years, with the rate declining to 10 percent for disposals in the sixth year and thereafter. Nevertheless, the framework does little to tax gains accrued through asset price inflation, with no indication that the government plans to implement a wealth or inheritance tax.

[126] World Bank Group. 2017. Global investment competitiveness report 2017-2018: Foreign Investor Perspectives and Policy Implications.
[127] The government have mooted the idea of implementing capital gains tax on financial assets in 2018, however that was met with several pushback from the financial sector and investors.

A rising debt service and wage bill limits spending in other key areas

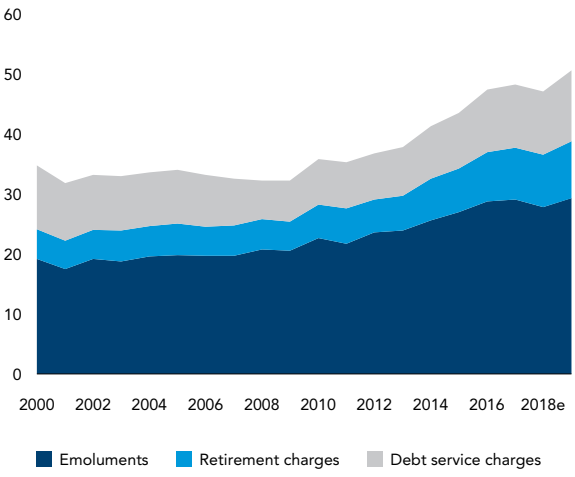
Government expenditure has been mainly channeled to committed expenditures, such as to meet obligations related to salaries, pension and debt service payments, all of which continue to increase. In the period from 2012 to 2019, the combined expenditure on these three items has increased from 37.1 percent to 51 percent of total government expenditure. While the government has taken steps to moderate this growth, expenditure on these items will continue to constitute a major share of the total. Conversely, other operating expenditures, including on supplies and services, subsidies and social assistance, and grants and transfers, have undergone a rigorous process of rationalization as part of the government's fiscal consolidation efforts.

The combination of locked-in expenditures and ongoing fiscal consolidation constrains the government's development and social spending (see Figure 174 and Figure 175). In addition to reductions associated with the rationalization of operating expenditures, development spending has also been on a declining trend. In the period from 2010 to 2019, development expenditure declined from 6.4 percent to 3.6 percent of GDP. The bulk of the development spending has been channeled toward economic services (2.2 percent of GDP),[128] primarily for transportation-related infrastructure projects. Spending on social services is much lower, at 1.0 percent of GDP,[129] with most of this channeled toward the education sector, particularly for the construction and maintenance of schools.

To date, the bulk of expenditure on subsidies has been allocated for fuel subsidies and the cash assistance program (*Bantuan Rakyat 1Malaysia*, BR1M/ *Bantuan Sara Hidup*, BSH). The estimated total expenditure on blanket fuel subsidies has been estimated to reach to an average of RM20 billion annually.[130] Blanket subsidies are regressive in nature, with the benefits are enjoyed disproportionately by higher-income households, An estimation done by BNM in 2013 suggests that the richest 20 percent of households in Malaysia received about 42 percent of the blanket fuel subsidy.[131] Following a government subsidy rationalization initiative, the blanket subsidy system was replaced with a floating mechanism between 2015 to early 2018. However, a broad-based fuel subsidy was reinstituted in 2018 and 2019. The government first introduced its cash assistance program (BR1M) in

FIGURE 174
Rising locked-in expenditures represent a major portion of overall spending...

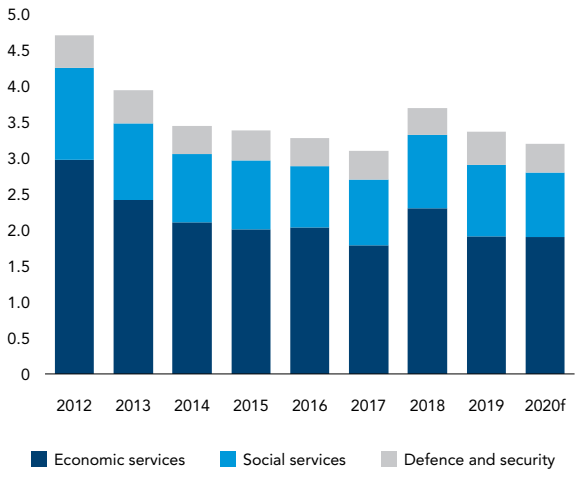
Share of expenditure items, Percentage of GDP



Source: World Bank staff calculations based on MOF data

FIGURE 175
...putting a constraint on development and social spending

Development expenditure, Percentage of GDP



Source: World Bank staff calculations based on MOF data

[128] 2012-2019 average.
[129] 2012-2019 average.
[130] https://www.treasury.gov.my/pdf/economy/er/1415/chapter4.pdf.
[131] Bank Negara Malaysia's Annual 2014 Annual Report, "Price Reforms: Motivation, Impact and Mitigating Measures" https://www.bnm.gov.my/files/publication/ar/en/2014/cp04_001_box.pdf

2012 as a form of direct, targeted assistance to lower-income groups to ease the pressures arising from the government's rationalization of subsidies. Since then, the allocation for BR1M (later renamed BSH) has increased, going up from RM2.6 billion in 2012 to RM5 billion in 2019. Other subsidies have been applied for essential items such as flour and cooking oil, and social assistance programs have been implemented for selected groups, including senior citizens, disabled and other vulnerable groups.

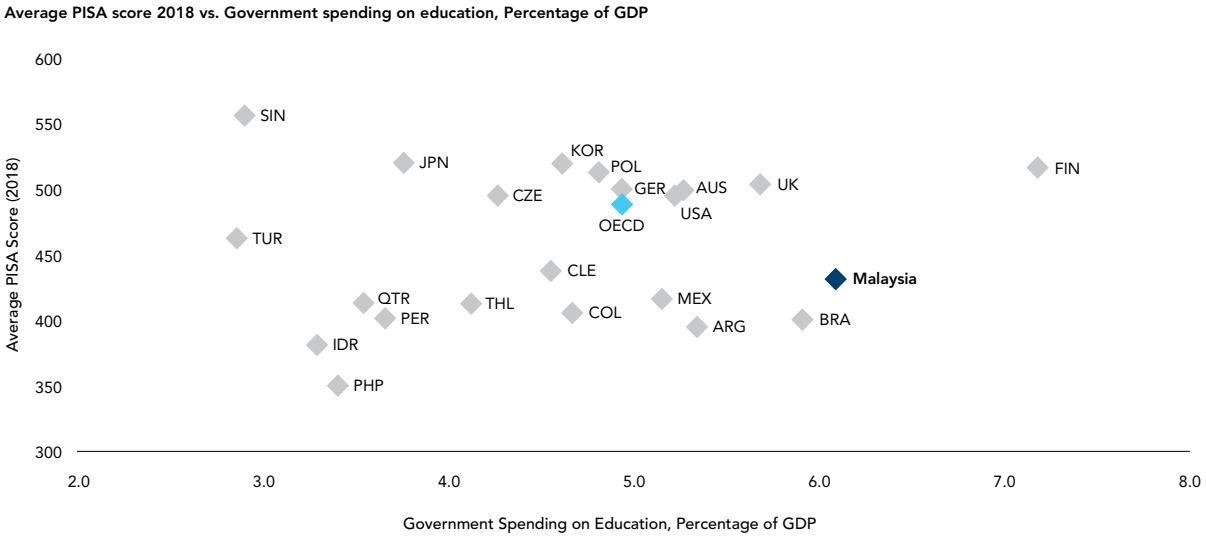
The current social protection system could be improved, particularly in terms of depth. Currently, BR1M benefits flowed to many higher-income households, an estimated one-in-eight B40 households did not receive them, with the same is likely true of BSH. In addition, while poorer households received a larger share of the benefits, a substantial amount of benefits also leaked to higher-income households that were not the intended beneficiaries of the program. As such The BSH programs for example, could be better targeted. The impact could be improved by increasing the total outlay and benefits, incorporating household size and location into the program's eligibility criteria, and applying benefit formulas. A stylized simulation of BSH's performance using the Household Income and Expenditure Survey data shows that an estimated 76.6 percent of the program benefits accrue to B40 households; 20.8 percent to M40 households; and less than 3.0 percent to T20 households.

Findings from the 2011 World Bank Public Expenditure Report show that Malaysia's social spending is relatively inefficient, including its expenditure on areas such as education. Malaysia's education systems are outliers, in that they are very expensive relative to nearly all comparator countries. At the same time, sectoral outcomes do not reflect these high costs, suggesting inefficiencies (see Figure 176), with poor targeting of intended beneficiaries. The basic education sector suffers from a high level of inefficiency due to the poor targeting of students for its various social assistance programs including scholarships and food programs, with a significant share of subsidies accruing to the non-poor. Consumer subsidies are distributed very unequally and inequitably, mostly benefiting the middle- and, in particular, high-income groups. In addition, there are high levels of leakage of social protection benefits to the to those not most in need. In terms of inter-sectoral efficiency, Malaysia spends quite a lot on education but less on health and social protection, suggesting that there is space for reallocations, particularly if accompanied by measures to improve efficiency.

Malaysia's constrained development and social expenditure has limited the effectiveness of fiscal policy as a redistributive tool to facilitate the achievement of shared prosperity. Malaysia's Gini coefficient of market income (before government transfers and income tax payments) is lower than the

FIGURE 176

Malaysia's spending on education is high relative to comparators, yet outcomes do not match the high level of spending



Source: World Development Indicators, OECD
Note: Government Expenditure is based on latest available data, 2012-2014

average for OECD countries, implying a lower level of income inequality. However, through progressive taxation and social safety net systems, OECD countries are able to achieve a significant reduction in income inequality and thus a lower Gini coefficient compared to in Malaysia.

Higher revenue could be achieved by making the tax framework more progressive

The persistent decline in government revenue, with its continued dependency on petroleum related revenue, underscores the critical need for it to diversify its revenue base and to increase its revenue collection through the imposition of a more progressive taxation system (see Figure 177). As Malaysia transitions to high-income status, societal expectations regarding the provision and quality of public services and facilities are likely to continue to increase over time. Without major structural changes to the current taxation framework, it will become increasingly challenging for the government to meet these expectations. In addition, in the context of a more uncertain and challenging global economic environment, it is vital for Malaysia to preserve fiscal space to enable it to mitigate the impact of any negative shocks to the economy. The IMF, based on its latest assessment framework, suggests that Malaysia has limited fiscal space, with the focus should be geared towards building fiscal space for future expansionary fiscal policy.[132] While Malaysia's fiscal policy response in recent times, could be argued to be counter-cyclical as evidenced by the increase in the fiscal deficit during the 2008 global financial crisis and the ongoing COVID-19 crisis, more could be done to improve progressivity and diversifying away from volatile oil and gas revenues.

A detailed analysis of Malaysia's existing personal income tax framework could help to identify ways to enhance its progressivity and to increase revenue collection. First, an analysis based on simulation models would provide a clearer picture of individuals' tax burden or liabilities and enable a better estimation of the fiscal impacts of the various tax reliefs and exemptions. Second, findings from the analysis would help to inform policy makers to design a more optimal and progressive personal income tax framework that includes better targeting of reliefs and exemptions, subsequently enabling increased social spending.

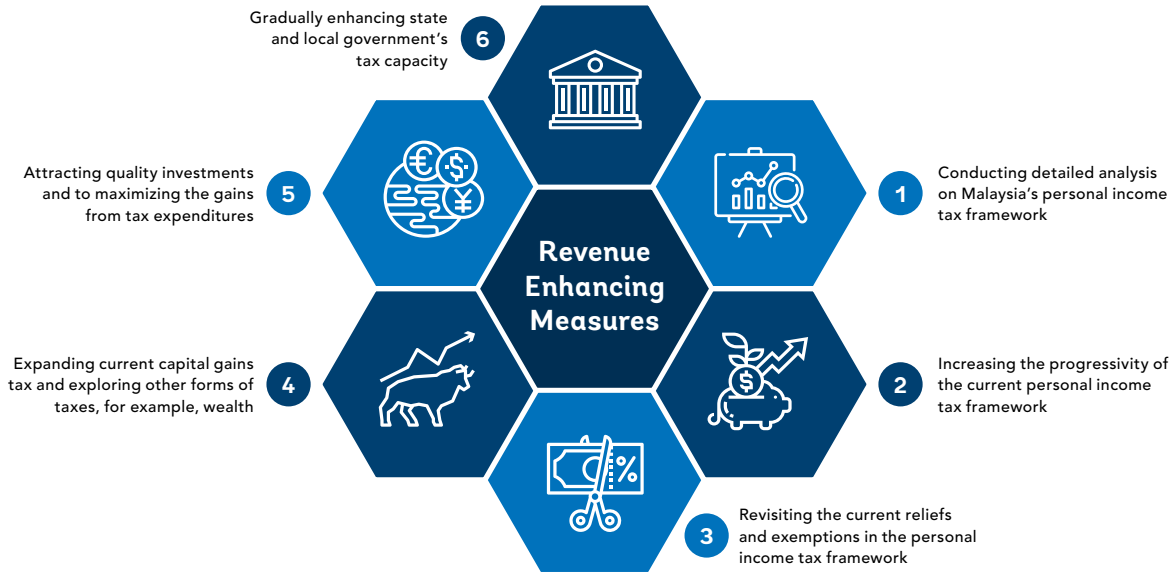
Further increases to the progressivity of the current personal tax income framework could enable the government to increase its revenue collections in the near-term. While the introduction of a new income tax band for taxable income in excess of RM2 million at 30 percent is a step in the right direction, there are still areas where the framework could be made more progressive. The marginal income tax rate of 25 to 28 percent for other high-income band (those earning between RM400,000 to RM1 million annually) is relatively lower than other regional and high-income countries. These rates could gradually be raised over the near-term, particularly as incomes continue to increase.

In addition, revisiting the current reliefs and exemptions granted under the current personal income tax structure could contribute to increased revenue collection and thus to improving the efficiency of social and subsidies spending. Tax reliefs and exemptions can be classified as a form of indirect social spending. Currently, all taxpayers are eligible, including those in the high-income bracket, which would suggest that there is a trade-off between worthwhile goals such as providing for medical expenses and equity, with relatively rich households will benefiting most (or, in the case of Malaysia, almost exclusively) from the exemptions. A re-examination of the current system of reliefs and allowances could help to identify which income groups benefit the most from these reliefs; to improve social spending targeting; and to create savings which could be channeled to other social spending programs.

The current capital gains tax could be expanded, with an exploration of other forms of progressive taxes, such as a wealth tax. As a first step in the near term, this could be achieved by extending the current real property gains tax (RPGT) framework to include

[132] "Assessing Policy Space: An Update and Stocktaking", (2018) IMF Policy Paper.

FIGURE 177
Summary of revenue enhancing measures



Source: World Bank staff elaboration

owners of multiple properties. Furthermore, this could be complemented by raising the stamp duty on purchases of higher-value properties and on purchases of second or non-owner-occupied homes. Nevertheless, over the medium-term, there is scope for other forms of taxation, including capital gains tax on investment income and wealth tax. The government could explore a number of avenues to tax income from investments, which are more stable. For example, this could include the introduction of a capital gains tax on those whose savings in the Amanah Saham Bumiputera investment scheme[133] or the Employees Provident Fund (EPF) is above a certain threshold. Other option could also include taxing lump-sum or phased withdrawal of EPF according to an individual's income tax rate at retirement.

It is also important to strengthen Malaysia's competitiveness to attract quality investments and to maximize the gains from tax expenditures. This could be achieved through the better targeting of investment promotion, including the focused use of incentives, to enable economic upgrading, high-value job creation and inclusive growth. To initiate this, the government should revisit its overarching development objectives and the strategic directions of investment policy, to enable the prioritization of efforts to attract the investment activities that contribute most to the achievement of national aspirations. These efforts should be complemented by more effective coordination across the many investment promotion agencies that operate at the national, subnational and sectoral levels.

Measures should be taken to gradually enhance state and local governments' tax capacities over the medium term. Granting state and local government greater control over their tax collection and administration would achieve two broad objectives. Firstly, enhancing state and local governments' revenue generating capacities would reduce their reliance on federal government transfers, thus enabling the federal government to retain more resources to undertake key spending at the national level. Secondly, it would enable sub-national governments to achieve greater financial independence and to induce higher levels of financial discipline in fiscal planning. Higher federal grants and transfers tend to be associated with inefficient state tax regimes, implying that the state governments have been unable to mobilize their tax potential to the maximum, preferring to rely on federal transfers.[134] As an initial step, state and local governments could explore the imposition of a vacancy tax on unsold properties and the implementation of an online assessment tax collection system.

[133] Amanah Saham Bumiputera is a unit trust fund with the objective is to provide an alternative savings vehicle for Malaysian Bumiputera. It aims to generate long-term, consistent and competitive returns for investors.
[134] Abdul Jalil, A.Z. & Abdul Karim, N. "Understanding Malaysian State Governments Fiscal Behavior: The Role of Intergovernmental Transfers" (2009).

Measures to enhance revenues should be coupled with more effective social spending

For the government to manage its high level of locked-in expenditures, it will probably need to focus on managing its rate of increase, rather than drastically reducing it over time. Given the public service's aspiration to attract the best talent and to move toward merit-based recruitment, significantly reducing the public sector wage bill may not be consistent with this objective. The government has already implemented a number of short-term measures to contain the increase in the wage bill, such as the temporary freezing and reviewing hiring in the civil service. In addition, under the federal constitution, debt service charges are capped at 15 percent of revenue, which has helped to contain the rise in committed spending. One area of possible reform relates to ensuring that the pension payments scheme is more sustainable.[135] Currently, the civil service pension scheme is based on a defined benefit system and is non-portable between the public and private sectors, which does not conform to best international practice. Moving toward either a full or partial[136] defined contribution scheme may enable better planning and better management of the government's pension liabilities.

While the government's expenditure on social safety net programs should be increased, it should also be more effectively targeted. For example, the framework for the existing cash transfer program, BSH, could be enhanced by factoring in household size and price differences across locations/regions. Stylized simulations by the World Bank[137] suggest that while BSH framework is achieved broad coverage, the depth of the program is quite limited, resulting in only very modest reductions in income poverty and inequality. Beyond BSH, core social assistance programs under the department of social welfare (JKM), despite having some of the best targeting outcomes, and as such expanding these programs within the given fiscal space. In addition, minimizing the fragmentation in the overall social safety net system can improve its spending efficiency. Moving forward, any plans to implement a targeted fuel subsidies program should involve a number of measures to improve equity, including transforming it into a transport subsidy; focusing on the B20; and removing any vehicle ownership requirements. The transport subsidy could also make use of the BSH database and adopt a cash transfer method. Overall, any potential savings from adopting a more targeted approach could be channeled toward increasing the depth of other social safety nets.

Moving toward either a full or partial defined contribution scheme may enable better planning and better management of the government's pension liabilities

Achieving spending efficiency, especially in social sectors such as education, could entail the reallocation of spending items. A high proportion of the recurrent education budget is tied up in teacher salaries, with inefficiencies in teacher staffing norms, allocation strategies, and teacher training college graduates' feelings of entitlement to employment. The World Bank 2011 Public Expenditure Review recommends that to address significant inefficiencies, expenditure on emoluments should be reduced in order to free up the resources needed to enhance the quality of basic education. In addition, this could be complemented by measures to decentralize authority and to improve targeted support.

[135] In the World Bank's 2011 Public Expenditure Review for Malaysia, it was highlighted that public service pensions are likely to continue to exert increasing fiscal pressure.
[136] One option could be contribution to KWAP as a baseline coupled with an occupational supplement.
[137] See previous editions of the Malaysia Economic Monitor, Realizing Human Potential, December 2018 and Making Ends Meet, December 2019.

What will it take to finance shared prosperity?

As Malaysia moves toward achieving high-income status, societal expectations are increasing. As a result, the need for increased revenue to address these challenges is becoming a key challenge. Malaysia's collected revenues have been on a downward trend since 2012, driven by a confluence of factors, including the under-collection of personal and consumption taxes, the provision of generous tax incentives and the failure to develop new sources of revenue. To address these challenges, the following measures have been identified.

RECOMMENDATION 1

Increase the progressivity of the personal income tax framework and revisit the reliefs and exemptions as means of both raising more revenue and redistributing income. This would help to both increase (and diversify) revenues in an area where Malaysia under-collects relative to key aspirational comparators, while also helping to improve the distribution of income.

RECOMMENDATION 2

Expand the capital gains tax and explore other forms of taxes on non-earned income. As Malaysia looks toward the high-income transition it will be appropriate to consider new sources of revenue and which are deployed in high-income economies. Currently the real property gains tax is very restricted in application with over generous reliefs. Inequality in wealth is significantly larger than inequality in income in Malaysia, and taxing a share of the gains made from asset price inflation would provide an important new source of public sector revenue.

RECOMMENDATION 3

Broaden indirect taxation by restricting zero rated and exempted items to a more limited set of goods and services. A gradual lifting of the SST exemptions and zero-ratings on selected non-essential items, particularly those not within the B40 consumption basket, could also facilitate increased revenue without jeopardizing the purchasing power of lower-income households. However, efforts to increase the indirect tax effort would need to be accompanied by associated measures to increase progressivity elsewhere in the fiscal framework, such as via greater taxation on income and wealth as well as pro-poor social expenditures.

RECOMMENDATION 4

Treat tax expenditures in the same way as any other form of public expenditure, subject to the same standards of cost/benefit analysis and publish an annual statement of tax expenditures as part of the budget. Malaysia spends a significant share of public revenue on tax expenditures with the objective of promoting investment and job creation (as much as 9 percent of corporate income taxes are foregone through tax incentives). However, there is currently limited transparency in how these tax expenditures are deployed and what return the public sees from this investment. The standard of disclosure for tax expenditures should be the same as for regular expenditures, with publication of an annual statement of tax expenditures every year as part of the budget.

RECOMMENDATION 5

Explore options for developing new sources of revenue at the state and local level, including localized sales and income taxes, as a means of both increasing revenues as well as decentralizing center-local fiscal relations. Malaysia's center-local fiscal relations are under growing pressure with service delivery increasingly entrusted to local authorities, yet revenue collection remaining heavily centralized. Granting additional tax raising powers and improving tax collection process to local authorities would help boost revenue collection, provide a pathway toward subnational financing of development needs, and increase accountability between local government and citizens.

RECOMMENDATION 6

Improve spending efficiency through better targeting and reducing fragmentation around the various social protection programs that target households. Increases in locked-in expenditures have constrained the government's fiscal space, limiting its capacity for development and social spending. To address this, the government could consider measures to improve spending efficiency, including more standardized and commonly used targeting system, to complement revenue enhancing initiatives.

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BOX 16

Sustainable finance in Malaysia

Increasingly, high-income nations have been adopting policy frameworks that mutually reinforce the achievement of greater economic growth and the conservation of natural capital, with both of these priorities having long been expressed by the Malaysian government. In 2009, Malaysia formulated the New Economic Model, which underlined the government's commitment to achieving three sustainable development goals: high-income, inclusivity and sustainability. The goals defined in the NEM are consistent with the economic, social and environmental elements of the 2030 Agenda for Sustainable Development. Together with the 17 SDG), this Agenda was adopted at a special United Nations summit in September 2015.

According to the Securities Commission Malaysia, over the next five years Malaysia is projected to need RM45 billion to manifest its commitments towards sustainable, resilient and inclusive development, as defined through the 17 SDGs. In the 11th Malaysia Plan (2016-2020), Malaysia also identified green growth as a key element for the achievement of sustainable development. Malaysia's financial sector, with its vibrant capital markets and with its global leadership position in Islamic finance, can and should play a significant role in providing both the necessary funding and leadership in the adoption of sustainable practices. This funding requirement is significant, so it is important that Malaysia leverages on its well-developed financial markets and global leadership in Islamic finance to generate maximum benefits.

In Malaysia, sustainable finance entered the mainstream in 2010, when the government launched the Green Technology Financing Scheme (GTFS). The aim of the Scheme was to support the development of green technology in Malaysia through partial loan guarantees and interest subsidies to reduce the borrowing costs for eligible companies. The next iteration, GTFS 2.0, was launched for 2019-2020.

In 2015, the first social *sukuk* (sharia compliant bonds) were launched on Malaysia's capital markets. These initial bonds were issued under guidelines issued by the Securities Commission Malaysia for Sustainable and Responsible Investment (SRI) *sukuk* to improve the accessibility of quality education in Malaysian government schools.

> Malaysia's largest institutional investors are all signatories to the UN Principles for Responsible Investment, reflecting their commitment to sustainable investment

The first green *sukuk* was introduced in 2017, with the private sector adopting it as its preferred capital market instrument to fund renewable energy and green building projects. Innovative variations soon appeared, with SDG *sukuk* and sustainability *sukuk* being introduced in 2018 and 2019 respectively, and with the total issuance reaching a value of RM8.1 billion by the end of 2019. In 2019, the SC launched the Sustainable and Responsible Investment Roadmap for the Malaysian Capital Market (SRI Roadmap) to facilitate the capital market's participation in Malaysia's sustainable development.

In 2017, Bank Negara Malaysia launched Value-Based Intermediation (VBI) to strengthen the roles and impact of Islamic banking institutions in the development of a sustainable financial ecosystem. With broadly similar objectives to other frameworks, such as Environmental, Social and Corporate Governance (ESG); Sustainable, Responsible, Impact Investing; and Ethical Finance, its main distinguishing characteristic was its foundation on *Shariah* values. In 2019, this initiative was followed by the launch of the Climate Change and Principle-Based Taxonomy, commonly referred to as "green taxonomy," which at the time of this publication, is being jointly developed by BNM, SC and the World Bank. This green taxonomy aims to assist financial institutions to identify and classify economic activities that could contribute to climate change objectives. Malaysia's largest institutional investors, Employees Provident Fund, Kumpulan Wang Persaraan, and Khazanah Nasional Berhad, are all signatories to the UN Principles for Responsible Investment, reflecting their commitment to sustainable investment.

To continue driving sustainable development in Malaysia, the development of the appropriate financing mechanisms, including sustainable bonds, ESG investment funds, and green loans, should be considered. Developing a well-established green or sustainable taxonomy enables the clear identification and categorization of financial assets, allowing financial institutions to create products such as green loans for both institutional and retail markets. At least one major bank in Malaysia has already begun to offer sustainable banking products to retail and business clients. Innovations such as these should be further encouraged through capacity building, the provision of incentives, or even regulatory action.

In turn, these sustainable banking assets could be financed by green or sustainable bonds. An increased supply of green or sustainable bonds would support a larger pool of investible sustainable assets for ESG investors, which in turn encourages the formation and growth of ESG investment funds, driving the demand for sustainable assets, resulting in a virtuous growth cycle. The increased visibility of the growing sustainable capital and credit markets encourages the participation of the general public, exposing the average retail investor to concepts of sustainable development and investing.

The Malaysian government could facilitate substantial growth in its nascent sustainable finance industry to help it meet its own future financing needs, either by issuing sovereign sustainable instruments such as SDG *sukuk* or green *sukuk* or by encouraging GLCs to make such issuances, as these companies represent a substantial portion of the debt capital market. Malaysia's unique combination of vibrant capital markets, a well-regulated banking sector, global leadership position in Islamic finance, and emerging sustainable industries, provides it with an opportunity to catalyze a major shift towards sustainable development while at the same time reinforcing its position as the global leader in Islamic financial innovation.

Annex: The Long Term Growth Model and its extensions

The Long Term Growth Model (LTGM) is an series of Excel-based tool to analyze long-term growth scenarios building on the celebrated Solow-Swan Growth Model. The tool can also be used to assess the implications of growth (and changes in inequality) for poverty rates. The focus of the tool is on simplicity, transparency and ease-of-use: there are no macros, and the very low data requirements mean the tool can be applied in almost any country. The tool is useful for planning/vision documents and country reports, but is not designed for short-term forecasting. The building blocks of growth are savings, investment and productivity, but the model also analyzes human capital, demographics, the external sector (external debt, FDI, current account balance) and labor force participation by gender.

LTGM-Public Capital Extension (LTGM-PC)

Underlying the simulations in this paper is the following base model, reproduced here in an abridged manner from Devadas and Pennings (2019). All the simulations are run using the Excel-based toolkit constructed based on this model.

1.1 The production function

We assume a Cobb-Douglas specification, where the public and private capital stocks have unitary elasticity of substitution. The following production function at time, t:

$$Y_t = A_t\, S_t (K_t^P)^{1-\beta} (h_t L_t)^{\beta} \tag{1}$$

Each firm takes technology (TFP), A_t and public services S_t as given, that is, these are externalities to the firm. K_t^P is the private capital stock, $h_t L_t$ is effective labor, which can be further decomposed into h_t , human capital per worker and L_t, the number of workers. $1-\beta$ and β are private capital and labor income shares. Next, we consider the following specification for public services S_t:

$$S_t = \left[\frac{G_t}{K_t^{P\zeta}}\right]^{\phi} \tag{2A}$$

$G_t$is the efficient physical public capital stock – the public capital that is actually used in production. ζ captures whether public capital is subject to congestion (or not). ϕ is the *usefulness* of public capital (more technically the elasticity of output to efficient public capital).

$$G_t = \theta_t K_t^{Gm} \tag{2B}$$

Due to corruption, mismanagement or pork-barreling, only a fraction $\theta_t \leq 1$ of measured public capital is useful for production. The measured capital stock K_t^{Gm} is what is recorded in international statistical databases, constructed using the perpetual inventory method. θ_t is the average *efficiency/quality* of the public capital stock. Equations (1), (2A) and (2B) can be written in a more conventional production function as:

$$Y_t = A_t (\theta_t K_t^{Gm})^{\phi} (K_t^P)^{1-\beta-\zeta\phi} (h_t L_t)^{\beta} \tag{3}$$

Equation (3) can be translated into per worker terms by dividing both sides by L_t:

$$y_t \equiv \frac{Y_t}{L_t} = A\left[\theta_t (L_t)^{1-\zeta} k_t^{Gm}\right]^{\phi} (k_t^P)^{1-\beta-\zeta\phi} h_t{}^{\beta} \tag{4}$$

where y_t is output per worker and k_t^P is private capital per worker and k_t^{Gm} is measured public capital per worker (note the lower case). $L_t = \varrho_t \omega_t N_t$, where N_t is total population, ω_t is the working age-population ratio and ϱ_t is the labor participation rate (labor force-to-working age population ratio). The above equation can then be used to calculate growth rates of output per worker from t to $t+1$:

$$\frac{y_{t+1}}{y_t} = \left[\frac{\omega_{t+1}}{\omega_t}\frac{\varrho_{t+1}}{\varrho_t}\frac{N_{t+1}}{N_t}\right]^{(1-\zeta)\phi} \left[\frac{A_{t+1}}{A_t}\right] \left[\frac{\theta_{t+1}}{\theta_t}\right]^{\phi} \left[\frac{k_{t+1}^{Gm}}{k_t^{Gm}}\right]^{\phi} \left[\frac{k_{t+1}^{P}}{k_t^{P}}\right]^{1-\beta-\zeta\phi} \left[\frac{h_{t+1}}{h_t}\right]^{\beta} \tag{5}$$

Equation (5) can be rewritten in terms of growth rates from t to $t+1$:

$$1 + g_{y,t+1} = [(1 + \Gamma_{t+1})^{(1-\zeta)\phi}](1 + g_{A,t+1})(1 + g_{\theta,t+1})^{\phi}(1 + g_{k^{Gm},t+1})^{\phi}(1 + g_{k^{P},t+1})^{1-\beta-\zeta\phi}(1 + g_{h,t+1})^{\beta} \quad (6)$$

where the growth rate of a variable x from t to $t+1$ is denoted by $g_{x,t+1}$, and Γ is the growth rate of the number of workers:

$$1 + \Gamma_{t+1} = (1 + g_{\varrho,t+1})(1 + g_{\omega,t+1})(1 + g_{N,t+1}) \quad (7)$$

$1 + \Gamma_{t+1}$ drops out from equation (6) in the congestion default ($\zeta = 1$).

To obtain output per capita, y_t^{PC} from equation (4), $y_t^{PC} \equiv \frac{Y_t}{N_t} = \frac{Y_t}{L_t}\varrho_t\omega_t$. Rewriting this equation in terms of growth rates:

$$1 + g_{y,t+1}^{PC} = (1 + g_{y,t+1})(1 + g_{\varrho,t+1})(1 + g_{\omega,t+1}) \quad (8)$$

To obtain output growth, we multiply (8) with population growth:

$$1 + g_{Y,t+1} = (1 + g_{y,t+1}^{PC})(1 + g_{N,t+1}) \quad (9)$$

1.2 Public and private capital accumulation, and changes in the efficiency/quality of public capital

The measured quantity of public capital (as in international statistical databases) accumulates according to a standard capital accumulation identity, with the next period's stock coming from the previous period's undepreciated stock, $(1 - \delta^G)K_t^{Gm}$ (where δ^G is the public capital depreciation rate) and new public investment, I_t^G.

$$K_{t+1}^{Gm} = (1 - \delta^G)K_t^{Gm} + I_t^G \quad (10)$$

The gross growth rate of measured public capital (not per worker) is:

$$K_{t+1}^{Gm}/K_t^{Gm} = (1 - \delta^G) + \frac{I_t^G/Y_t}{K_t^{Gm}/Y_t} \quad (11)$$

The growth rate of measured public capital *per worker*, which enters equation (6), is:

$$1 + g_{k^{Gm},t+1} \equiv \frac{K_{t+1}^{Gm}}{K_t^{Gm}}/\frac{L_{t+1}}{L_t} = \frac{(1 - \delta^G) + \frac{I_t^G/Y_t}{K_t^{Gm}/Y_t}}{(1 + g_{\varrho,t+1})(1 + g_{\omega,t+1})(1 + g_{N,t+1})} \quad (12)$$

The stock of efficiency-adjusted public capital (which is actually used in production) evolves based on the previous period's efficiency-adjusted undepreciated stock and efficiency-adjusted new investment $\theta_t^N I_t^G$.

$$G_{t+1} = (1 - \delta^G)G_t + \theta_t^N I_t^G \quad (13A)$$

θ_t is the average efficiency of existing public capital (rather than the efficiency of new investment). Substituting $G_t = \theta_t K_t^{Gm}$ into Equation 13A and rearranging as 13B, one can see the θ_{t+1} evolves as a weighted average of the quality of existing public capital θ_t, and the quality of new investment θ_t^N.

$$\theta_{t+1} = \theta_t \frac{(1-\delta^G)K_t^{Gm}}{(1-\delta^G)K_t^{Gm} + I_t^G} + \theta_t^N \frac{I_t^G}{(1-\delta^G)K_t^{Gm} + I_t^G} \quad (13B)$$

As such, the quality/efficiency of the stock of public capital only changes when the quality of new investment projects is different from that of the existing public capital stock: $\theta_t^N \neq \theta_t$. Using equation (13B), the growth in quality which enters equation (6) can be written as follows:

$$1 + g_{\theta,t+1} \equiv \frac{\theta_{t+1}}{\theta_t} = \left[(1 - \delta^G) + \frac{\theta_t^N}{\theta_t}\frac{I_t^G/Y_t}{K_t^{Gm}/Y_t}\right]/(K_{t+1}^{Gm}/K_t^{Gm}) \quad (14)$$

The quantity of private capital follows the same accumulation process as public capital. But with δ^P as the private capital depreciation rate, and I_t^P as private investment. The growth rate of private capital per worker is as follows:

$$1 + g_{k^P,t+1} = \frac{(1 - \delta^P) + \frac{I_t^P/Y_t}{K_t^P/Y_t}}{(1 + g_{\varrho,t+1})(1 + g_{\omega,t+1})(1 + g_{N,t+1})} \quad (15)$$

1.3 Analysis of the drivers of growth

To better understand and simplify the analysis of the drivers of growth, we take a log-linear approximation of equation (6). Specifically, equations (12), (14) and (15) are substituted into equation (6). Then, taking logs and using the approximation $ln(1+g) \approx g$ (for small g) we arrive at the following:

$$g_{y,t+1}^{PC} \approx g_{A,t+1} + \beta\left(g_{\varrho,t+1} + g_{\omega,t+1} + g_{h,t+1}\right) - (1-\beta)(g_{N,t+1}) + \phi\left[\theta_t^N \frac{I_t^G/Y_t}{\theta_t K_t^{Gm}/Y_t} - \delta^G\right] + (1-\beta-\zeta\phi)\left(\frac{I_t^P/Y_t}{K_t^P/Y_t} - \delta^P\right) \quad (16)$$

1.4 Implementation

The future growth rates of the labor participation rate ($g_{\varrho,t+1}$), the working age-population ratio ($g_{\omega,t+1}$), population ($g_{N,t+1}$) and pure TFP ($g_{A,t+1}$), are exogenously determined. The growth rate of measured public capital per worker ($g_{k^{Gm},t+1}$) is given by equation (12), using the growth rate of the public capital stock (equation (11)) as an intermediate step. Private capital per worker growth ($g_{k^P,t+1}$) is as given by equation (15). The growth rate of the efficiency of public capital ($g_{\theta,t+1}$) as given by equation (14) using the growth rate of the public capital stock (equation (11)) as an intermediate step.

Finally, the model is closed by updating public capital-to-output using equation (17) and the private capital-to-output ratio using equation (18) (with the growth rates in per-worker terms):

$$\frac{K_{t+1}^{Gm}}{Y_{t+1}} = \frac{K_t^G}{Y_t}\frac{(1+g_{k^{Gm},t+1})}{1+g_{y,t+1}} \quad (17)$$

$$\frac{K_{t+1}^P}{Y_{t+1}} = \frac{K_t^P}{Y_t}$$

LTGM – Total Factor Productivity Extension (LTGM-TFP)

The LTGM-TFP is an Excel-based companion to the standard LTGM that helps users assess a country's potential for improving its TFP growth rate over the next few decades. The LTGM-TFP toolkit combines a country's scores for innovation, education, market efficiency, infrastructure, and institutions—which have been shown in the literature to affect TFP growth—into a new "TFP determinant index". Based on a fixed-effects regression model, the "TFP determinant index" then quantifies the future path for TFP growth in the LTGM-TFP toolkit for each country. That TFP growth path can be fed into the standard LTGM or LTGM-PC spreadsheets to determine paths for GDP growth or poverty reduction. The detailed methodology is described in the companion working paper (please cite when using the toolkit: Kim and Loayza 2019). The brief summary of the methodology is as follows.

First, we calculate annual TFP growth rates by differencing the log-transformed TFP levels of year *t* and *t-1* using TFP level data from Penn World Table 9.0.

Second, we construct a subcomponent index for each category of TFP determinants using a factor analysis. For each category, we select indicators based on whether they measure an important characteristic, have been used in the literature, and have data available across countries and over time.

1. Innovation index

We choose the following indicators: Public and private expenditure on R&D as a percentage of GDP $(R\&D_{c,t})$ as an indicator of the effort to create new technologies; and the number of patent applications by residents and nonresidents $(patent_{c,t})$ and the number of scientific and technical journal articles $(article_{c,t})$ as indicators of the outcome of R&D activities. The constructed index is as follows.

$$Innov_{c,t} = 0.41 * z(R\&D_{c,t}) + 0.34 * z(patent_{c,t}) + 0.39 * z(article_{c,t}),$$
$$\text{where } z(X) \text{ is standardized } X, \frac{\text{X}-\text{mean}(X)}{\text{standard deviation }(X)}.$$

2. Education index

We choose the following indicators: Government expenditure on education as percentage of GDP $(eduexp_{c,t})$ as an indicator of public investment in foundational human capital; the shares of population aged 25 and over with completed secondary education $(secondary_{c,t})$ and with completed tertiary education as indicators of educational attainment among workers $(tertiary_{c,t})$; and a standardized international test score $(pisa_{c,t})$ – a single average of scores in math, science, and reading on the Programme for International Student Assessment (PISA) – as an indicator of educational quality. The constructed index is shown below.

$$Edu_{c,t} = 0.20 * z(eduexp_{c,t}) + 0.36 * z(secondary_{c,t}) + 0.36 * z(tertiary_{c,t}) + 0.39 * z(pisa_{c,t})$$

3. Market efficiency index

We select the World Bank Doing Business scores $(business_{c,t})$ as an indicator of output market efficiency, which measure the regulatory environment in terms of ease for firms to start a business, trade across borders, register property, get credit, and the like. We choose the International Monetary Fund (IMF) Financial Development Index $(financial_{c,t})$ as an indicator of financial market efficiency, which measures the level of financial development by including the size and liquidity of financial markets, ease for individuals and firms to access financial services, and the ability of financial institutions to provide services at low costs with sustainable revenues. As indicators of labor market efficiency, we construct a composite index, using factor analysis, consisting of minimum wage (% of value added per worker) $(minwage_{c,t})$, severance pay for redundancy dismissals (weeks of salary) $(severance_{c,t})$, and the share of women in wage employment in the nonagricultural sector $(women_{c,t})$ from World Bank databases. The constructed index is shown below.

$$Effi_{c,t} = 0.43 * z(business_{c,t}) + 0.43 * z(financial_{c,t}) - 0.34 * z(labor_{c,t}),$$

$$where\ labor_{c,t} = 0.45 * z(minwage_{c,t}) + 0.47 * z(severance_{c,t}) - 0.47 * z(women_{c,t})$$

4. Infrastructure index

We select fixed-telephone and mobile subscriptions (per 100 people) $(tele_{c,t};\ mobile_{c,t})$; the length of paved roads (km per 100 people) $(road_{c,t})$; electricity production (kw per 100 people) $(elect_{c,t})$; and access to an improved water source and improved sanitation facilities (% of population) $(water_{c,t}; sanit_{c,t})$.

$$Infra_{c,t} = 0.23 * z(tele_{c,t}) + 0.14 * z(mobile_{c,t}) + 0.21 * z(road_{c,t}) + 0.21 * z\,(elec_{c,t}) \quad +$$

$$0.22 * z(water_{c,t}) + 0.23 * z(sanit_{c,t})$$

5. Institutions index

We select the World Bank Worldwide Governance Indicators. These include measures of voice and accountability (citizens' participation in selecting their government and freedom of expression) $(va_{c,t})$; control of corruption (the extent to which public power is exercised for personal gain) $(cc_{c,t})$; government effectiveness (the quality of public services and policy formulation and implementation) $(ge_{c,t})$; political stability (the absence of politically motivated conflict) $(ps_{c,t})$; regulatory quality (the ability of government to formulate and implement regulations that promote private sector development) $(rq_{c,t})$; and the rule of law (the extent to which citizens have confidence in and abide by laws) $(rl_{c,t})$.

$$Inst_{c,t} = 0.18 * z(va_{c,t}) + 0.19 * z(cc_{c,t}) + 0.19 * z(ge_{c,t}) + 0.16 * z(ps_{c,t}) + 0.18 * z(rq_{c,t}) + 0.19 * z(rl_{c,t}).$$

Third, we combine the five subcomponent indexes into a single overall index using the principal component analysis.

$$Index_{c,t} = 0.43 * z(Innov_{c,t}) + 0.44 * z(Edu_{c,t}) + 0.46 * z(Effi_{c,t}) + 0.47 * z(Infra_{c,t}) + 0.43 * z(Inst_{c,t}).$$

Lastly, to quantify the relationship between the overall determinant index and TFP growth, we build a regression model in which TFP growth rate is a function of a time-lagged overall determinant index and a time-lagged TFP level with country- and time-effects (equation below). We rescale the overall index to be from 1, representing the lowest performance, to 100, the best across countries over the last three decades.

$$Annualized\ TFP\ growth_{c,(t,t-5)} = \beta_0 + \beta_1 ln\ (Index_{c,t-5}) + \beta_2 ln\ (rtfpna)_{c,t-5} + \theta_c + \delta_t + \varepsilon_{c,t}.$$

where $Annualized\ TFP\ growth_{c,(t,t-5)}$: annualized TFP growth over t-5 and t
$Index_{c,t-5}$: overall determinant index, rescaled 1 to 100
$rtfpna_{c,t-5}$: $TFP\ level\ (2011 = 1)$
θ_c: country effect
δ_t: time effect
$\varepsilon_{c,t}$: residuals

LTGM – Human Capital Extension (LTGM-HC)

An extension, based on the World Bank Human Capital Index, allows for an analysis of the long-run growth effects of improved learning quality and health outcomes. Education quality here is measured using normalized test scores and is embodied in each child when they are in school. The health of the population is approximated in two ways. First, the Adult Survival Rate (ASR) is the fraction of current 15-year-olds who would survive to age 60, assuming that the current age-specific mortality rates apply throughout their lifetime. Second, the stunting rate is measured as the fraction of 5-year-old children who have a height that is more than 2SDs below the median. The simulations assume that other growth drivers, besides human capital (e.g. investment, productivity), continue at their historical trend rates.

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