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BASIC STATISTICS OF MALAYSIA, 2018*

(Numbers in parentheses refer to the OECD average)**

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million, OECD: 2017)	32.4		Population density per km² (OECD: 2017)	98.0	(37.7)
Under 15 (%, 2017)	23.8	(17.9)	Life expectancy (years, 2016)	75.3	(80.3)
Over 65 (%, 2017)	6.5	(16.8)	Men (2016)	73.2	(77.7)
International migration stock (%, 2015)	8.3	(10.0)	Women (2016)	77.7	(83.0)
Latest 5-year average growth (%)	1.4	(0.6)	Latest general election	May 2018	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%, OECD: 2017)		
In current prices (billion USD)	358.7		Primary sector	7.8	(2.5)
In current prices (billion MYR)	1447		Industry including construction	36.8	(27.1)
Latest 5-year average real growth (%)	5.2	(2.3)	Services	55.3	(70.4)
Per capita (000 USD PPP, OECD: 2017)	31.4	(44.7)			
GENERAL GOVERNMENT Per cent of GDP					
Expenditure (OECD: 2017)	19.8	(41.0)	Gross financial debt (OECD: 2017)	51.2	(112.4)
Revenue (OECD: 2017)	16.1	(38.8)			
EXTERNAL ACCOUNTS					
Exchange rate (MYR per USD)	4.03		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	1.42		Machinery and transport equipment	44.0	
In per cent of GDP			Mineral fuels, lubricants and related materials	15.6	
Exports of goods and services	69.7	(56.1)	Miscellaneous manufactured articles	11.2	
Imports of goods and services	62.6	(52.0)	Main imports (% of total merchandise imports)		
Current account balance	2.3	(0.3)	Machinery and transport equipment	43.3	
Net international investment position	-5.4		Mineral fuels, lubricants and related materials	14.4	
			Manufactured goods	11.7	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %, OECD: 2017)	65.4	(68.4)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	3.3	(5.8)
Men (OECD: 2017)	77.0	(76.0)	Youth (aged 15-24, %)	10.9	(11.9)
Women (OECD: 2017)	52.9	(60.9)	Long-term unemployed (1 year and over, %, 2016, OECD: 2017)	0.2	(1.7)
Participation rate for 15-64 year-olds (%, OECD: 2017)	68.3	(72.1)	Tertiary educational attainment (aged 25-64, %, 2016, OECD: 2017)***	18.8	(36.9)
Average hours worked per week (OECD: 2017)	45.0	(38.0)	Gross domestic expenditure on R&D (% of GDP, 2015, OECD: 2016)	1.3	(2.5)
ENVIRONMENT					
Total primary energy supply per capita (toe, 2016, OECD: 2017)	2.9	(4.1)	CO2 emissions from fuel combustion per capita (tonnes, 2016)	6.9	(9.0)
Renewables (%, 2016, OECD: 2017)	4.2	(10.2)	Exposure to air pollution (more than 10 µg/m³ of PM 2.5, % of population, 2017)	90.7	(58.7)
SOCIETY					
Income inequality (Gini coefficient, 2015)	0.410	(0.313)	Education outcomes (PISA score, 2012)		
Public and private spending (% of GDP)			Reading	398	(496)
Health care (2016)	3.8	(12.6)	Mathematics	421	(494)
Education (public, 2017)	4.6	(4.5)	Science	420	(501)
			Share of women in parliament (%)	13.9	(29.7)

* The year is indicated in parenthesis if it deviates from the year in the main title of this table.

** Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.

*** Data refers to those aged 25 and over for Malaysia.

Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, World Bank.

Executive summary

Improving the quality of growth

Malaysia's economy is doing well, but social and governance challenges must be addressed. The government prioritises inclusive growth and improving trust in public institutions. Further progress toward the planned target of high-income country status by 2024 will also require focusing on productivity growth with structural reforms to move up the value chain and improve skills. As well, ensuring environmental protection will improve the quality of growth. These issues are in line with the government's priorities.

To strengthen anti-corruption measures, the government launched the National Anti-Corruption Plan 2019-2023 in January 2019 that encompasses measures promoting transparency and accountability at all levels, strengthening effectiveness of public service delivery, and integrity in business.

Growth is projected to be resilient, though with downside risks. Private consumption will remain the main driver of growth, thanks to stable employment conditions and government measures to help low-income families. Risks to the projection are largely on the downside. Rising trade tensions, geopolitical uncertainties, and weaker growth in advanced economies are significant risks for highly open economies like Malaysia.

Figure A. Growth is projected to be resilient, though with downside risks

	2017	2018	2019	2020
Real GDP	5.7	4.7	4.7	4.8
Private consumption	6.9	8.0	6.3	6.5
Exports of goods and services	8.7	2.2	0.8	1.6
Imports of goods and services	10.2	1.3	1.6	1.9
Consumer price index	3.7	1.0	1.7	2.1
Federal government fiscal balance	-2.9	-3.7	-3.4	-3.0
Current account balance	2.9	2.3	2.2	1.9

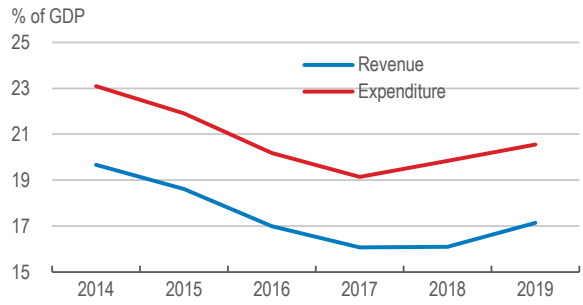
Source: OECD calculations.

The rising cost of living has been a key source of concern for large segments of the population. Although headline inflation has been benign in recent years, food prices have increased fast. This has increased the burden of families, especially the low-income groups that consume more on food items. While the government has introduced many initiatives and programmes to address the issues of rising cost of living, such as direct cash transfers and price controls, progress could also be made by providing a more targeted support, boosting entrepreneurship, improving productivity and employability among the low-income households.

Fiscal policy needs reform

Fiscal sustainability needs to be ensured. Revenue collection is low. The revenue mix relies strongly on direct taxes, and revenues are volatile due to oil-related receipts. This is further reinforced by the recent abolishment of Goods and Services Tax. Nonetheless, expenditure will rise substantially, driven in particular by pension, healthcare and education outlays in light of the government's promotion of inclusive growth, in particular strengthening targeted support to low-income households.

Figure B. The fiscal deficit has increased



Note: Data for 2019 are government's projections.
Source: Ministry of Finance (2018), *Fiscal Outlook and Federal Revenue Estimates 2019*.

StatLink https://doi.org/10.1787/888933967777

The government is rightly prioritising building up fiscal space and medium-term sustainability, highlighting risks associated with the large stock of government debt and contingent liabilities. This will require increasing the low level of tax revenue, preferably by removing some of the many tax exemptions.

Improving budget process transparency and strengthening public debt management are key to fiscal accountability. Alignment of public procurement and governance of state-owned enterprises with international best practices is a basis for maximising expenditure efficiency and

transparency, and reducing the perceived high level of corruption.

Improving green growth policy framework

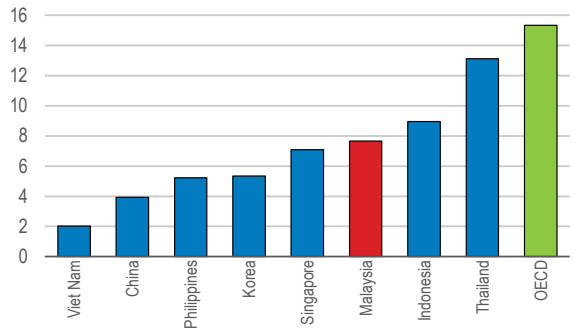
More public participation in environmental protection and promoting vertical coordination across municipalities would make growth greener. Energy subsidies need to be eliminated and replaced with targeted support to low-income groups.

Human capital development is key

The contribution of labour quality to economic growth remains much lower compared to the OECD average.

Figure C. Low contribution of labour quality to economic growth

Annual average, per cent, 2001-18



Source: The Conference Board (2019), *Total Economy Database*, April.

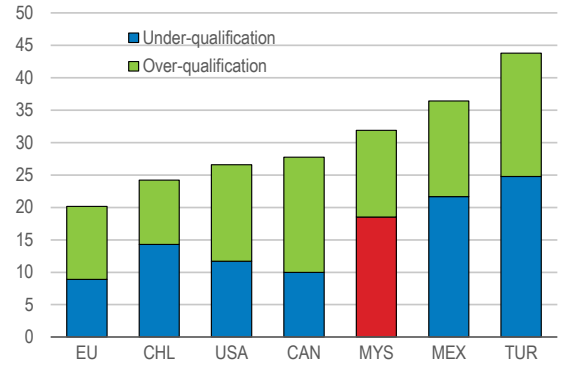
StatLink https://dx.doi.org/10.1787/888933967796

Malaysia faces substantial labour market imbalances. Changes in the sectoral composition of employment in the period 2010-2016 were larger in Malaysia than in most OECD countries, implying that the type of skills needed in the labour market might have changed considerably. Further changes can be expected in the future, under the impulse of automation and population ageing.

Shortages are found across the skills spectrum, with several medium and high-skilled occupations experiencing labour shortages, but also many low-skilled occupations. At the same time, one-third of workers are employed in occupations that do not match their qualification level. These labour market imbalances hinder productivity and make it more difficult to climb up the value chain. Investment in education and training, but also recognition of prior learning, would help under-qualified workers. Policies to stimulate the demand for high-level skills would help those who are over-qualified.

Figure D. Qualification mismatch

Percentage of mismatched workers, 2017 or latest available year



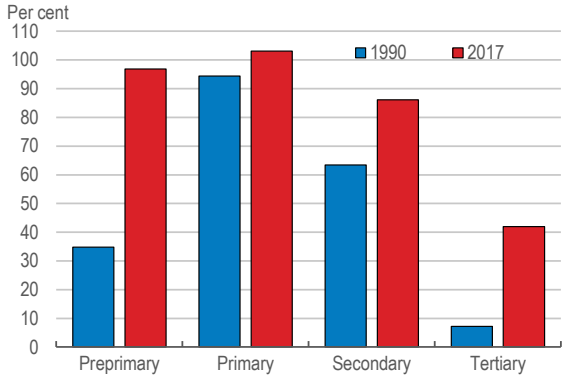
Source: OECD, *Skills for Jobs database*.

StatLink https://doi.org/10.1787/888933967815

Despite significant improvements, a number of educational challenges remain. Malaysia's children enter primary school at age six and only the first six years of primary education are compulsory. Compulsory education should be expanded at both ends. The performance gap in international assessments between Malaysia's education system and other countries has widened, reflecting the fact that a number of neighbouring countries have improved the quality of their education system more rapidly.

As in some other countries, student performance is driven by the family's socio-economic status. A significant portion of the gap between top performing and low-achieving students can be explained by parental education and family income. Regional disparities are still high, reflecting the difficulty to attract qualified teachers to disadvantaged schools. A better use of the teacher workforce could be achieved by reducing teacher administrative workload. Some skills imbalances can be further reduced by improving the responsiveness of the education system and by strengthening the connection between education institutions and businesses.

Figure E. Educational attainment is on the rise
Gross enrolment rates



Source: World Bank, *World Development Indicators database.*

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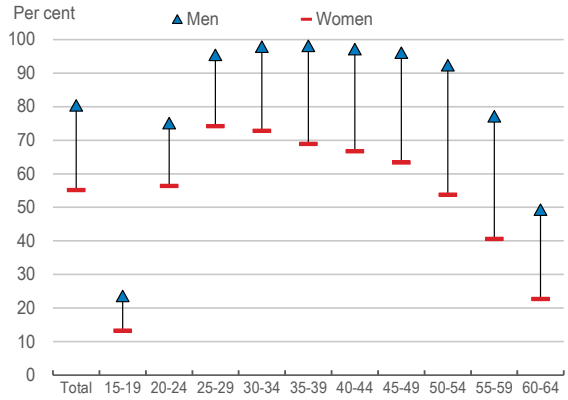
Adults need better access to upskilling and re-skilling opportunities to ensure that their skills remain relevant for the labour market. These opportunities are limited in Malaysia, especially for certain groups, such as low-skilled adults, older adults, inactive women and workers in small and medium-sized enterprises. Promoting the benefits of adult learning, providing high-quality information and individualised advice and guidance services are some of the ways policy can encourage higher and more inclusive participation. In addition, existing training programmes or financial incentives for training are often not aligned with the needs of the labour market. To better align skills demand and supply, information from skill needs assessment exercises can be used to design training programmes and incentives. This information can also be used to identify individuals with skills that do not correspond to the ones in demand in the labour market, and policies can be developed to specifically focus efforts on these vulnerable individuals.

Malaysian women have high levels of educational attainment, but their labour market participation remains low. To activate this pool of unused skills, barriers to labour market participation for women must be reduced. To ensure that both fathers and mothers can earn an income, the reconciliation between work and family life could be made easier by legal implementation of longer maternity leave entitlements, which should be co-financed by the government, and the adoption of flexible work arrangements by employers.

Figure F. Gender gaps in labour market participation increase with age
2018 data by age



Source: Department of Statistics Malaysia.

StatLink https://doi.org/10.1787/888933967853

Helping both parents in paid work also requires investing more in affordable and good-quality early childhood care and education. This would not only be beneficial for parents, but also has positive effects on children's cognitive and social development.

More efforts are needed in creating the conditions that promote the development of a more innovative and dynamic economy that demands higher levels of skills. Technological adoption is critical to boost productivity and transition to a high-income economy. Hence, efforts should continue to attract foreign direct investment and promote entrepreneurship. In addition, the share of manual jobs has increased steadily in Malaysia, whereas the share of high-skilled jobs remained relatively stable in recent years. The demand for low-skilled workers is largely filled by immigrant labour. The economy's reliance on low-skilled immigrants can lower the rate of adoption of new technologies and compromise Malaysia's aspiration to become a technology-driven economy and move up the value-added chain.

MAIN FINDINGS	KEY RECOMMENDATIONS
Macroeconomic policy, fiscal sustainability and inclusive growth	
Growth is projected to be resilient, though with downside risks on the external front, mainly due to slowing global trade. Inflation is low.	Prepare for unexpected shocks by building fiscal space. The fiscal medium-term trajectory should aim at cutting the budget deficit further than the target of 2% of GDP to create a buffer in case of unexpected shocks. Monetary policy should remain vigilant to downside risks.
Low tax revenue collection hinders the promotion of inclusive growth.	Raise tax revenue ratio to GDP by further improving efficiency of tax administration, broadening tax bases, and increasing indirect tax revenue, in particular consumption-related taxes to reduce reliance on oil-related revenues.
The benefits of strong growth have been unevenly distributed.	Strengthen targeted cash transfers to low-income people and access to public services.
Lack of transparency and weak competition in public procurements generate inefficiency.	Ensure full compliance with the proposed Government Procurement Act.
Governance of state-owned enterprises needs more transparency and accountability.	Align the framework of state-owned enterprise governance with the OECD guidelines.
The regulatory framework of public-private partnership needs more transparency.	The regulatory framework needs to be aligned with international best practices throughout the project cycle.
Budget formulation process needs to be transparent and rule-based.	Accelerate the enactment of a Fiscal Responsibility Act.
Anti-corruption measures need to be strengthened.	Monitor and evaluate rigorously the implementation of the National Anti-Corruption Plan (2019-2023)
A large pool of inactive female labour force represents a pool of unutilised skills that weighs on labour productivity growth.	Improve the policy framework of facilitating female labour participation such as maternity leave, childcare and flexible working practices.
Green growth	
Energy subsidies have been reintroduced for most consumers.	Eliminate energy subsidies and, instead, provide targeted cash transfer.
Lack of central and local government co-ordination weighs on urban green growth.	Promote vertical and across-municipality co-ordination on green growth.
The ratio of environment-related taxes is low.	Consider to implement a carbon tax.
Skills development and its use	
Only the first six years of primary education are compulsory.	Lower the school starting age to at least 5 and make secondary schooling compulsory.
Malaysia struggles to attract qualified teachers to disadvantaged schools.	Provide incentives and implement rotation schemes to attract more qualified and experienced teachers to disadvantaged schools.
Teachers in Malaysia spend a significant portion of their time in non-teaching activities.	Continue efforts to reduce teacher administrative workload so that teachers can spend more time preparing lessons or participating in mentoring or professional development activities.
English proficiency among students has deteriorated over time.	Adopt a more student-centred teaching approach and put more emphasis on developing communicational skills.
Older adults, workers in micro-enterprises, workers in the informal sector and women have limited access to training opportunities.	Develop specific programmes and provide incentives to facilitate access to training for these groups of adults
There is limited guidance to help individuals and employers make skills development investments that correspond to the needs of the labour market	Tie guidance services closely to labour market information, and make training incentives more generous for programmes that develop in-demand skills.
The minimum duration of maternity leave is low by international standards	Increase the minimum maternity leave entitlement to at least 14 weeks, in line with international standards.
Employers carry the full burden of maternity leave costs.	Develop a co-financing arrangement for maternity leave, with the majority of the cost carried by the government.
There are too few quality childcare facilities.	Invest in public childcare facilities and provide subsidies to private and workplace facilities.
Migration inflows do not correspond with labour market needs	Consider adopting a more selective approach to the inflow of low-skilled foreign workers, while maintaining open policy for high skilled foreign workers

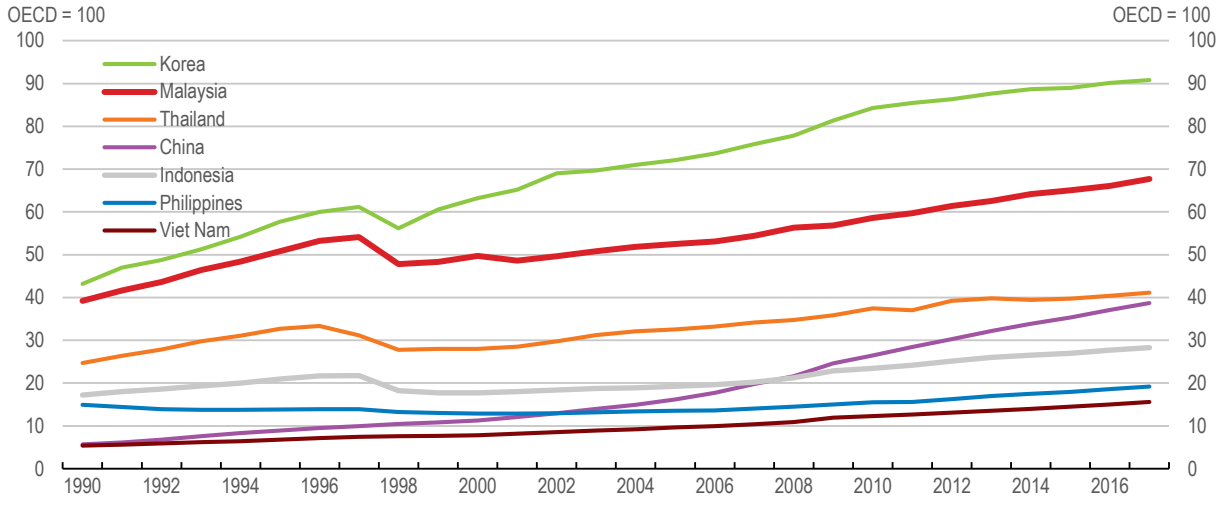
Key Policy Insights

Malaysia's economic performance has been very successful, but social and governance challenges remain

Malaysia has performed very successfully in recent years compared to other emerging market countries, with a rapid catching-up towards living standards prevailing in OECD countries. Malaysia's 2017 per capita GDP (about USD 27 000 in 2011 PPP prices) was close to two-thirds of the OECD average (Figure 1) and exceeded levels in Mexico, Turkey and Chile (Box 1). Thanks to diversification of export products and improved macroeconomic prudence, Malaysia's resilience to external shocks has strengthened. The country's Eleventh Five-year Plan (2016-20) set a target of achieving high-income country status by 2020 while ensuring inclusive and sustainable growth. The Mid-Term Review of the Eleventh Plan, announced in October 2018, postponed the target year to 2024 due to recent macroeconomic developments. To achieve the planned target would require to maintain the pace of growth and to focus on productivity gains. High-quality growth requires further efforts towards social inclusiveness and environmental protection.

Figure 1. Per capita GDP has converged but its pace needs to be accelerated

Per capita GDP, relative to the OECD average, computed at 2011 USD PPP



Source: World Bank, *World Development Indicators database*.

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Box 1. Malaysia's socio-economic development

Since 1970, Malaysia has recorded a remarkable economic growth. Real GDP grew at an average rate of 6.1% per year over 1970 to 2018 period, higher than the average growth of the advanced countries. Thanks to pragmatic policies and strategies, Malaysia has transformed from an agricultural-based to an industrial- and services-based economy. Integration into global supply chain have expanded export activities from commodities to manufactures, in particular electrical and electronics products. Malaysia is now one of the most open economies in the world with total trade accounted for about 130% of GDP. The major trading partners are China, Singapore, the United States, Japan and Thailand, which collectively contributed more than 50% of Malaysia's total merchandise trade since 2010.

With strong growth, Malaysia has maintained full employment since the 1990s. Inflation has been kept low, averaging 3.7% since 1970, supported by effective monetary policy. Nonetheless, rising cost of living is a key concern for low-income families.

Malaysia has promoted access to education and social services, notably healthcare, helping to achieve a significant decline in poverty. Reducing inequality between ethnic groups (Chinese, Indian, Malay and indigenous people) continues to be a priority on the policy agenda to ensure social cohesion. Affirmative policies to empower Bumiputera (Malay and indigenous people) were implemented, including direct intervention to ensure more Bumiputera effective participation in the labour market and accelerated education. These policies have contributed to significant narrowing of inter-ethnicity inequalities (World Bank, 2014).

Renewed priorities of structural reform

Since the general election of May 2018, the new government has prioritised raising the income and purchasing power of the low-income groups. Among others, the new government abolished the goods and services tax (GST) in June 2018. To offset the impact on the fiscal balance, it has reviewed some major infrastructure development programmes. For instance, the East Coast Rail Link project has been renegotiated with China to improve its cost effectiveness with the savings of MYR 21.5 billion or 32.8% from its original cost, as well as greater risk-sharing and higher local content. In addition, the government has reinstated the Automatic Fuel Pricing Mechanism in January 2019 to set fuel prices on a weekly basis and plans to introduce a new subsidy mechanism targeted to households in the bottom 40% income group by the second half of 2019. The priorities for structural reforms were presented in the Mid-Term Review of the Eleventh Malaysia Plan (Box 2). The government has also called for extensive governance reforms to enhance accountability and transparency in such areas as governance of state-owned enterprises and integrity of public procurements, while combatting corruption (Box 3).

Box 2. The government's structural reform priorities

The government's *Mid-Term Review of the Eleventh Malaysia Plan (MTR): New Priorities and Emphases* was launched in October 2018. Premised on the principles of good governance, strong institutions and greater integrity, it focuses on strategies to address issues such as regional disparity, low income of the B40 (people belonging to the bottom 40% income group) households and long-standing structural problems. These strategies are developed along six pillars. Each pillar sets quantitative targets that include international benchmarking to measure progress (Table 1).

Pillar 1: Reforming governance towards greater transparency and enhancing efficiency of public service

This pillar outlines strategies to improve governance as well as uphold accountability and transparency in the public administration. Four priority areas are identified: improving governance at all levels, elevating integrity and accountability, enforcing prudent public finance management, and enhancing public service delivery.

Pillar 2: Enhancing inclusive development and well-being

Underpinned by the emphasis on growth with equity, this pillar focuses on providing equitable opportunities for the people to participate in the country's economic development to ensure greater prosperity and well-being for all Malaysians.

Pillar 3: Pursuing balanced regional development

This pillar focuses on efforts to address imbalances in regional development. Attention is paid to enhancing economic activities in less developed areas and reducing development gaps between urban and rural areas.

Pillar 4: Empowering human capital

This pillar focuses on creating skilful, knowledgeable and innovative human capital to meet the demands of industry. Priority areas comprise of reforming the labour market, improving labour productivity, enhancing access to quality education and training, as well as fostering stronger industry-academia linkages.

Pillar 5: Ensuring environmental sustainability through green growth

This pillar focuses on ensuring sustainability of natural resources and increasing resilience to climate change and disasters while pursuing higher economic growth. Particular attention is paid to strengthening governance on environmental sustainability.

Pillar 6: Strengthening economic growth

This pillar focuses on efforts to strengthen economic growth by enhancing productivity, increasing competitiveness of industries and developing high value-added activities with knowledge-intensive sectors. To this end, priority is given to strengthening structural reform, accelerating innovation and technology adoption, and providing quality infrastructure.

Source: Ministry of Economic Affairs (2018), *Mid-Term Review of the Eleventh Malaysia Plan: New Priorities and Emphases*.

Table 1. Selected target indicators

Pillar 1: Reforming governance towards greater transparency and enhancing efficiency of public service

Indicators	2017	2020 target
Ranking in Corruption Perception Index by Transparency International	62	Top 30
Ranking in Government Efficiency sub-index of the World Competitiveness Yearbook	25	Top 10
Ranking in Online Service sub-index of the United Nations' e-Government Development Index	40[1]	Top 15

Pillar 2: Enhancing inclusive development and well-being

Indicators	2017	2020 target
Gini co-efficient	0.399[1]	0.385
Incidence of Multidimensional poverty (%)	0.86[1]	0.67
Female labour participation rate (%)	54.7	56.5
Hospital beds per 1 000 population	1.9	2.0

Pillar 3: Pursuing balanced regional development

Indicators	2017	2020 target
Urban-rural income disparity ratio	1 : 0.60	1 : 0.67
Coverage of electricity supply (%)	96.1	99

Pillar 4: Empowering human capital

Indicators	2017	2020 target
Compensation of employees to GDP (%)	35.2	38
Student enrolment rate for preschool (%)	90.9	95
Technical and vocational education and training graduates employed within six month after graduation (%)	--	85.0

Pillar 5: Ensuring environmental sustainability through green growth

Indicators	2017	2020 target
Reduction in GHG emissions intensity to GDP relative to the 2005 level	33.0[2]	45.0[3]
Recycling rate of household waste (%)	24.6	30.0
Coastal and marine areas gazetted as protected areas (%)	3.4	At least 10

Pillar 6: Strengthening economic growth

Indicators	2017	2020 target
Real GDP growth (%)	5.1[4]	4.5-5.5[5]
Contribution of small and medium-sized enterprises to GDP (%)	37.1	41.0
Gross expenditure on R&D to GDP (%)	1.4[1]	2.0
Populated areas covered by broadband infrastructure (%)	92.1	95

1. Data for 2016.
2. Taking into consideration forest sink.
3. Target at 2030.
4. Average over 2016-17.
5. Average over 2018-20.

Source: Ministry of Economic Affairs (2018), *Mid-Term Review of the Eleventh Plan: New Priorities and Emphases*.

Box 3. Malaysia's drive to promote greater governance, integrity and anti-corruption

In the general election of May 2018, Malaysia experienced the first-ever transition of ruling parties since the country's independence in 1957. This change occurred against the background of alleged governance problems involving the previous government, in particular the possible embezzlement of funds raised by 1Malaysia Development Berhad (1MDB). 1MDB is a state-owned investment company established in 2009 by the previous administration to drive strategic infrastructure development projects.

However, many concerns were raised on the operations of 1MDB, particularly the use of public funds, the conduct of money transfers, public procurement procedures, the valuation of land, and the awarding of mega-infrastructure projects. All this involved 1MDB generating net debt of MYR 38 billion (some 2.8% of 2017 GDP) (MOF, 2018). A substantial part of this debt is guaranteed by the government.

To restore public trust, the new government has called for extensive governance reforms to enhance accountability and transparency in such areas as governance of state-owned enterprises and integrity of public procurements. The government has established the National Centre for Governance, Integrity and Anti-Corruption (GIACC), which reports directly to the Prime Minister, as well as a Cabinet Special Committee on Anti-Corruption (JKKMAR) chaired by the Prime Minister himself.

The GIACC has been given mandate to coordinate and monitor all initiatives related to governance, integrity and combating corruption. The National Anti-Corruption Plan 2019 -2023 (NACP) was launched in January 2019. It envisions making Malaysia a corruption-free country through three specific goals: accountability and credibility of judiciary, prosecution and law enforcement agencies; efficiency and responsiveness in public service delivery; and integrity in business. It outlines measures to address corruption in all government's administration and business sector. These include measures to strengthen effectiveness of public service delivery, increasing the efficiency and transparency in public procurement and good governance of corporate entities.

Since its launch on 1 June 2018, GIACC has implemented more than 80 initiatives. Some of the key accomplishments include restoring integrity in Parliament thanks to the establishment of six Parliament Select Committees whose members comprise parliamentarians of ruling and opposition parties in August 2018. In addition, a new policy requires the declaration of assets owned by Cabinet members and Parliamentarians. This Asset Declaration information has been published in the Malaysian Anti-Corruption Commission (MACC) Portal. The government has also issued a directive stating there will no longer be political appointments for Malaysian Head of Mission posts. The mechanism of appointment and management of Head of Mission abroad has been improved via the Malaysian Government Administrative Systems Abroad based on the circular which took effect in November 2018.

Apart from the above initiatives there are several other initiatives related to strengthening the governance, integrity and eradicating corruption, which are in progress. Importantly, the initiative to limit the Prime Minister's term to two terms is underway. This requires amendments to the Federal Constitution. The reform of MACC is also underway. The recommendation for appointment of the MACC Chief Commissioner will be done via a Parliament Select Committee. This has been approved by the JKKMAR. MACC has to amend Section 5 of MACC Act. 3 to have this implemented.

On governance issues related to Government-Linked Companies (GLCs) and agencies such as the case of the Federal Land Development Authority and the like – MACC is to form a regulatory body to monitor governance in investment agencies. The other reform that is underway is the separation of the responsibilities of Attorney General and the Public Prosecutor. This requires also changes to the Federal Constitution, which will have to be approved by two thirds of Parliamentarians. The amendments to the specific Constitutions are currently underway.

The robustness of the electoral system in Malaysia has come under scrutiny in the last few general elections. To ensure transparency and robustness of Malaysia's election system, the Election Commission is reviewing the entire electoral process and has presented several recommendations to the JKKMAR in May 2019. One of the key areas that is being studied is the funding of political parties. This reform is in its final stages of drafting.

Establishment of the Independent Police Complaints and Misconduct Commission (IPCMC) is another important reforms. The Royal Malaysian Police has come under tremendous scrutiny for a long time. The draft of IPCMC Bill has now been prepared and is in its final discussions in the Attorney General Chambers.

Empowering the public service by limiting the political interference in the appointment of Secretaries General and Directors General, which typically comes under the purview of the Chief Secretary with recommendations from the Ministry and the Public Service Department, is also an important move to upholding the separation of powers and to ensure government officials remain neutral when delivering their services.

The Malaysian Ombudsman Act is being reformed and will replace the Public Complaints Bureau. On GLCs, the JKKMAR decided that the Ministry of Finance (MOF) will prepare guidelines for the appointment of senior management, chairman and board of directors in GLCs and subsidiary companies; this implies that there will be no political appointees in GLCs.

As public procurement is one of the government activities most vulnerable to corruption, it is therefore under review by the MOF. The Act that is being drafted aims to ensure that all procurement will produce the best value for tax payers' money. Improving the transparency and budget integrity as well as budgeting process are also being done and the following recommendations were presented and agreed at the JKKMAR: i) mid-year budget reviews should be made, ii) criteria(s) for off-budget allocation should be scrutinized, and iii) each expense on public money shall be recorded promptly and will be carefully monitored in accordance with the established financial procedures.

Other areas that are currently in progress include 115 initiatives outlined under the NACP. Finally, the JKKMAR has agreed that, as part of the reform agenda on governance, integrity and anti-corruption, Malaysia should promote its work in international institutions.

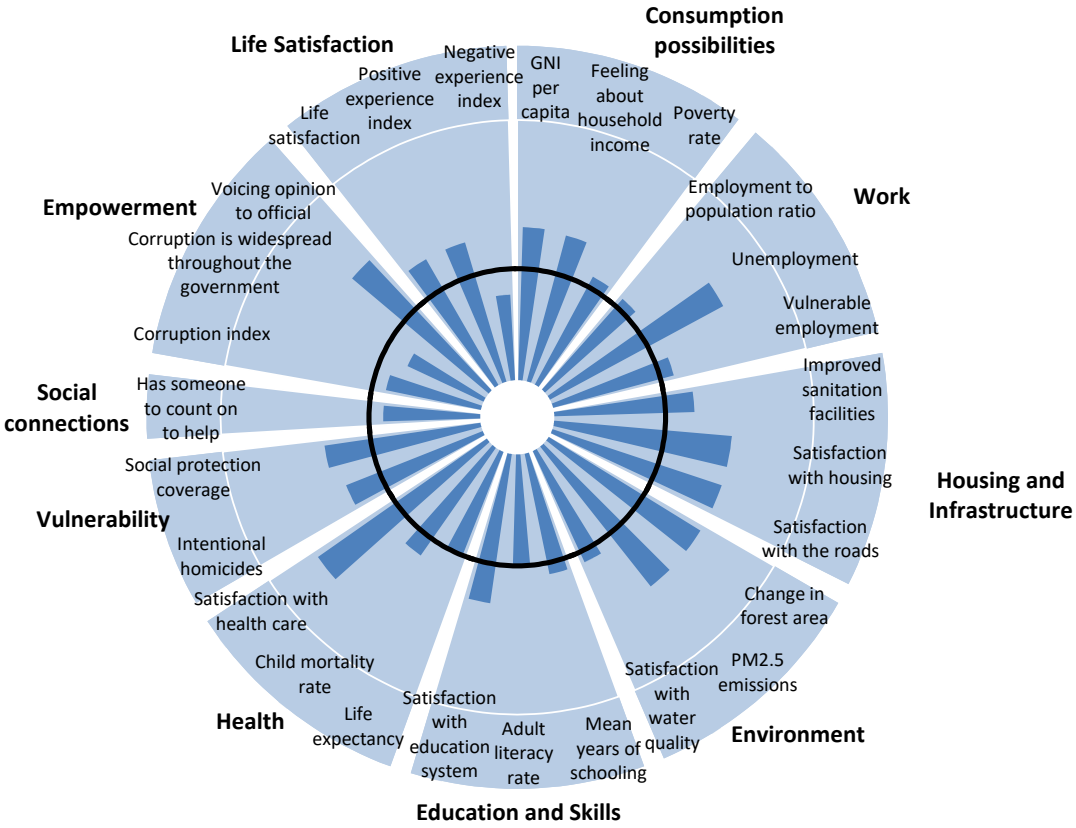
Malaysia's current state of well-being

Well-being is comprised of material well-being (such as income, jobs and housing), but also broader quality of people's lives including healthcare, education, environment and social connections. Malaysia generally performs well across the U.N. Sustainable Development Goals, notably low unemployment, infrastructure development and satisfaction with healthcare, while improvement is needed to improve overall well-being

by rising female labour participation rate and creating high-quality jobs as well as ensuring integrity of the public sector (Figure 2).

Figure 2. Life is good in Malaysia, though improvement is still needed in several areas

2017 or latest available data



Note: The bars represent the observed well-being values for Malaysia and the black circle shows the expected values based on Malaysia's level of GDP per capita. The latter stem from a set of bivariate regressions with GDP as the predictor and the various well-being outcomes as dependent variables from a cross-country dataset of around 150 countries with a population over a million. All indicators are normalised in terms of standard deviations across the panel. The observed values falling inside the black circle indicate areas where Malaysia performs poorly in terms of what might be expected from a country with a similar level of GDP per capita. As this figure only shows outcomes at the national level, disparities between regions might be masked.
Source: OECD (2015), *PISA Database*, www.oecd.org/pisa/data/2015database; Transparency International (2016), *2016 Corruption Perceptions Index*, www.transparency.org/cpi2016; Gallup (2017), *Gallup World Poll*, www.gallup.com/services/170945/world-poll.aspx; and World Bank (2017), *World Development Indicators database*, https://data.worldbank.org/data-catalog/world-development-indicators.

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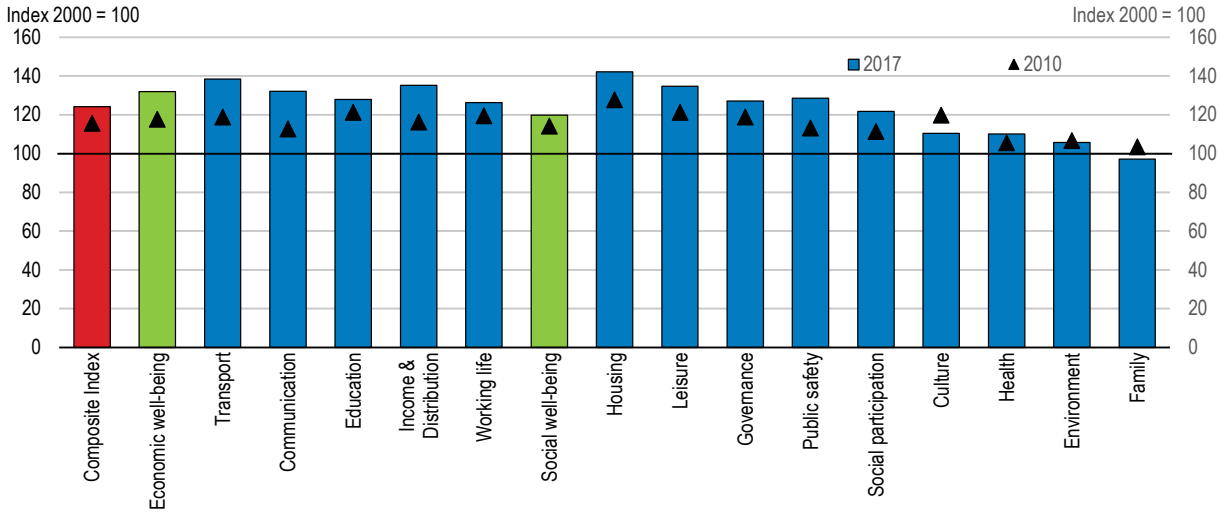
The government produces its own annual index comprising economic and social dimensions, enabling an evaluation of the progress of well-being over time (Figure 3). Economic well-being has progressed in terms of income and distribution, notably the incidence of poverty, real per capita income and the Gini co-efficient, and infrastructure, in particular transport and communication. However, slow progress in areas such as culture (e.g. participation in cultural activities), health (e.g. life expectancy and medical

care quality), environment (e.g. water and air qualities, and forest coverage) and family (e.g. juvenile crimes and household debt) weighed on the improvement of well-being.

Figure 3. Well-being improvements have weakened



Source: Ministry of Economic Affairs, *Malaysia Well-being Index*, http://www.mea.gov.my/ms/statistik-ekonomi/petunjuk-sosial.

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In this context, the key messages of this Economic Survey are:

- Further progress towards the planned target of high-income country status by 2024 will require focusing on productivity growth with structural reforms to move up the value chain and improve skills. The quality of growth needs to be improved by including groups left behind and working on environmental sustainability.
- Ensuring fiscal sustainability is a prerequisite. It requires presenting a more detailed and consolidated plan of mid and long-term fiscal consolidation and introducing measures, in particular in terms of tax revenue.
- Promoting skills development is the foundation upon which Malaysia can build a more productive and inclusive society.

Ensuring resilience to maintain growth momentum

After the moderation in 2016 due to sluggish global demand and weaker commodity prices, real growth picked up firmly from 4.4% in 2016 to 5.7% in 2017, largely due to the recovery in global trade, which strengthened the net external position. Private consumption, supported by strong job creation and government measures to support low-income groups, also spurred growth. Real GDP growth moderated to 4.7% in 2018 owing to the deceleration of export markets as well as unexpected supply disruptions in the commodity-related sectors (Figure 4, panel A and B).

Private consumption is expected to continue to be the main driver of growth, thanks to robust employment conditions (Table 2, Figure 4, panel C). Stronger purchasing power of households supported by various government measures to ease the burden of rising cost of living, especially for low-income households with high marginal propensity to consume, will sustain consumer spending. These measures could include cost of living support (direct cash transfers) to the "B40" (people belonging to the bottom 40% income group) and gradual increases over the next five years of the monthly minimum wage to MYR 1 500 from the current MYR 1 100. Additionally, the freezing of toll rate hikes for 21 highways in 2019, as well as reintroduction of fuel subsidies will provide impetus to private spending expansion. Public investment will exert downward pressure on activities mainly due to the completion of large-scale projects as well as the government's decision to review some major large-infrastructure projects, such as high-speed railways.

Exports of manufactured goods are expected to moderate due to the slowdown of the global trade and the technology cycles. Additionally, the increasing prominence of re-export activities, which have only a marginal impact on value-added in the economy, is also an area of concern. The share of re-export component to total exports increased from 14.5% in 2016 to 20.0% in 2018 and contributed almost 90% of the overall export growth in 2018. The re-exported products are mostly manufactured goods, which accounted for 93% of total re-exports, destined to China, Singapore and Hong Kong, China.

Risks to the projection are largely on the downside. Rising trade protectionism among the major trading partners and expected moderation of global economic growth could hamper the growth of highly open economies like Malaysia, whose ratio of trade to GDP was close to 130% in 2018. Risk could be amplified by Malaysia's active participation in global value chains. As Malaysia's dependence on China for its exports is the highest among regional peers, a sharper-than-expected deceleration in China could have a particularly negative impact (Figure 5). Based on the Malaysian central bank estimates, trade tensions between the United States and China could reduce Malaysia's GDP growth by 1.3-1.5 percentage points in 2019 (Aizuddin, 2018). Negative impact could be exacerbated by a vicious cycle of slower global trade growth and further moderation of China's economy. Malaysia's external position is anticipated to be weaker as the current account surplus continues to narrow down during the projection period.

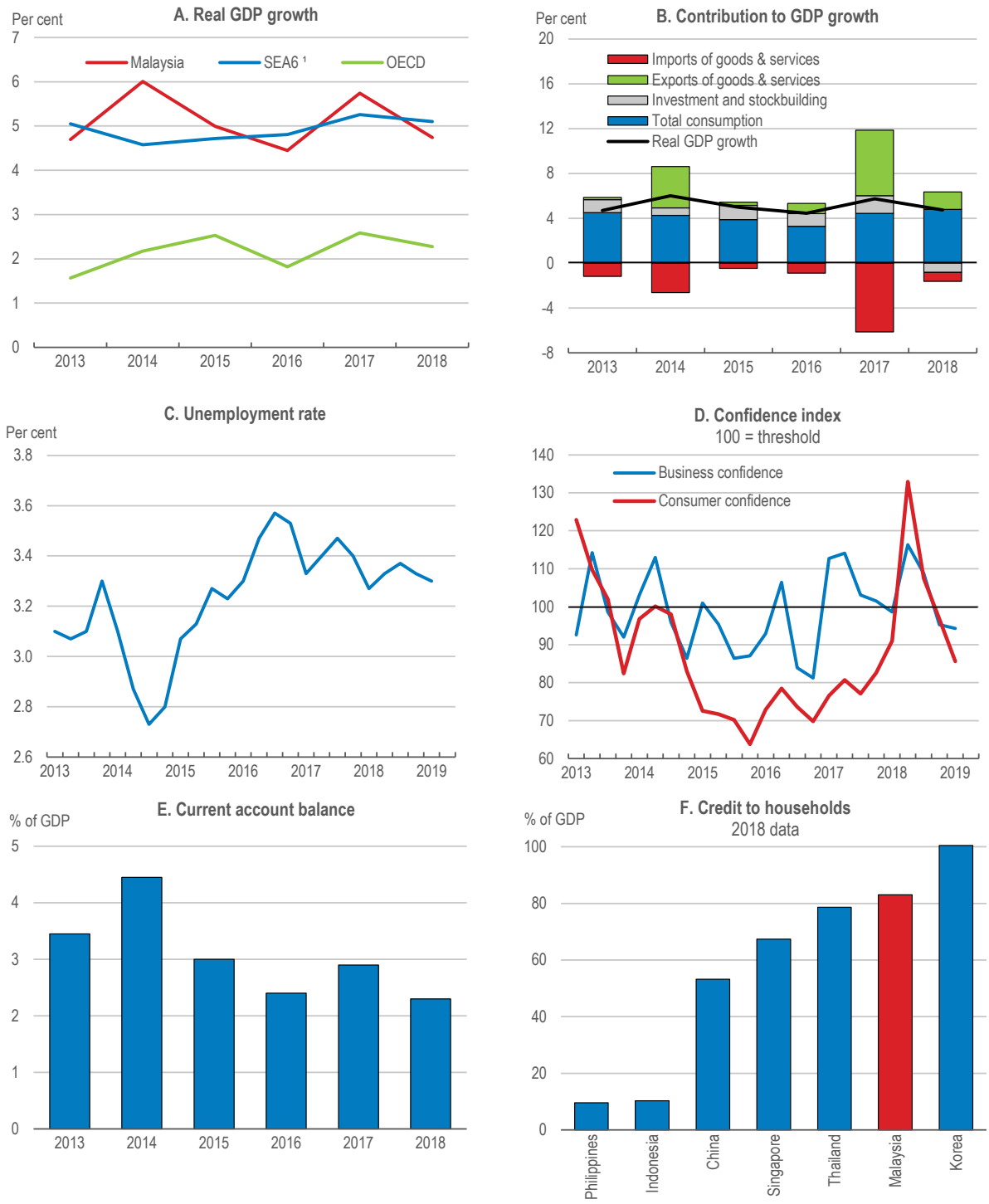
On the domestic front, lingering concerns over the fiscal position could further erode investor confidence (Figure 4, panel D). A lower oil price would pose a risk to the fiscal space due to the declining share of non-oil revenue. Household debt, which rose rapidly in the early 2010s, constitutes another potential risk that weighs on private consumption and financial sector prudence, although a large portion is asset-backed housing loans (Figure 4, panel F). Some tail risks that could have large adverse effects on the economy are discussed in Table 3.

Table 2. Macroeconomic indicators and projections
Annual percentage changes unless specified[1].

	2016	2017	2018	2019	2020
Output and demand [2]					
Real GDP	4.4	5.7	4.7	4.7	4.8
Consumption	4.9	6.6	7.1	5.2	5.5
Private	5.9	6.9	8.0	6.3	6.5
Public	1.1	5.5	3.3	0.3	0.9
Gross fixed investment	2.6	6.1	1.4	2.1	3.6
Private	4.5	9.0	4.3	4.5	6.2
Public	-1.0	0.3	-5.0	-3.3	-3.0
Stockbuilding [3]	0.5	0.0	-1.2	…	…
Exports of goods and services	1.3	8.7	2.2	0.8	1.6
Imports of goods and services	1.4	10.2	1.3	1.6	1.9
Net exports [3]	0.0	-0.2	0.8	-0.5	-0.1
Inflation and capacity utilisation					
Consumer price inflation	2.1	3.7	1.0	1.7	2.1
Unemployment (% of labour force)	3.5	3.4	3.3	3.5	3.5
Output gap (% of potential GDP)	-1.1	-0.8	-0.1	0.0	0.0
Public finances (% of GDP)[4]					
Federal government fiscal balance	-3.1	-2.9	-3.7	-3.4	-3.0
Expenditures	20.2	19.1	19.8	20.5	19.4
Revenues	17.0	16.1	16.1	17.1	16.4
Oil-related revenues[5]	2.5	2.5	3.5	5.3	3.4
Federal government debt	52.7	50.1	51.2	51.6	51.1
External sector and memorandum items					
Oil price (spot market, Brent, USD per barrel)[6]	43.7	54.2	71.0	68.4	70.0
World trade growth (volume)[6]	2.4	5.5	3.9	2.1	3.1
Trade balance (% of GDP)	8.2	8.5	8.4	7.9	7.4
Current account balance (% of GDP)[4]	2.4	2.9	2.3	2.2	1.9
Gross official reserves (end-year, USD billion)	94.5	102.4	101.4	…	…
Total external debt (% of GDP)[4]	72.2	64.5	63.9	…	…
Three-month money market rate, average, in %	3.5	3.4	3.7	…	…
Ten-year Malaysian government securities, average yield, in %	4.2	3.9	4.1	…	…
Household debt (% of GDP)[4]	86.5	82.7	82.1[7]	…	…
Nominal GDP (USD billion, at the market exchange rate)	301	319	358	371	386

1. Through 2018, published data from the Ministry of Finance, Bank Negara Malaysia and the Department of Statistics, Malaysia.
2. At constant 2015 prices.
3. Contribution to GDP growth (percentage points).
4. Based on revised GDP with 2015 as base year.
5. The projection assumes that PETRONAS dividends of MYR54 billion in 2019 as announced in Budget 2019 and MYR26 billion in 2020, similar to the level in 2018.
6. Based on OECD Economic Outlook 105 database.
Source: OECD, *Economic Outlook 105 database*: Department of Statistics, Malaysia: Bank Negara Malaysia; IMF *World Economic Outlook* database.

Figure 4. Recent macroeconomic developments



1. SEA6 refers to weighted average growth of South East Asian countries comprised of Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam.
Source: Refinitiv; Department of Statistics, Malaysia; IMF (2019), *World Economic Outlook*, April; OECD, *OECD Economic Outlook database*.

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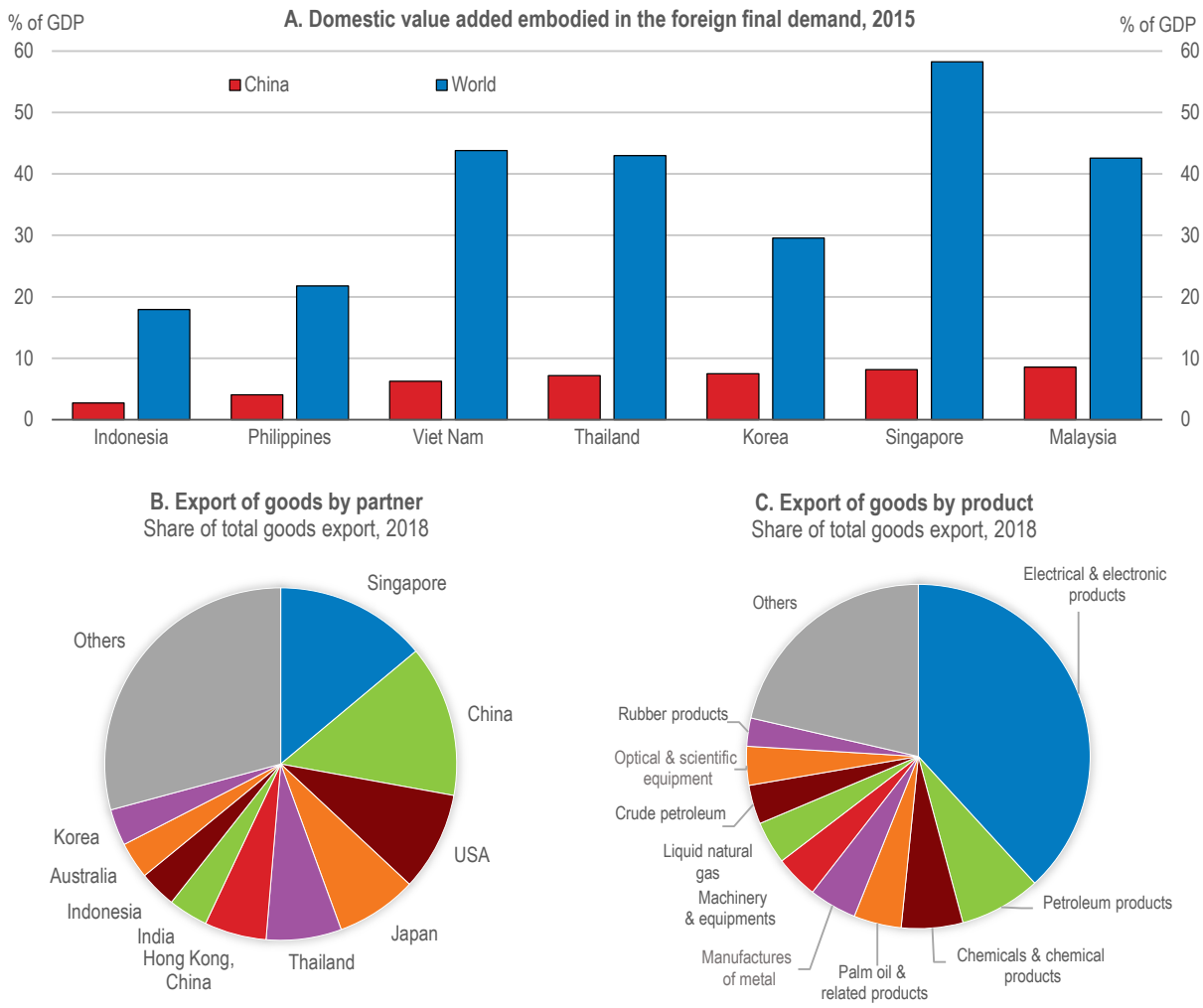
Figure 5. Malaysia's growth is highly reliant on trade



Source: OECD-WTO, *Trade in Value Added database*; Ministry of International Trade and Industry.

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Table 3. Possible shocks to the Malaysian economy

Vulnerability	Possible outcome
Natural disasters	Weather conditions have been erratic due to climate change in recent years. Flood and drought damage agricultural production.
Geopolitical tensions	Regional instability such as North Korea and the South China Sea could undermine investors' confidence.

Monetary and financial market policies underpin resilience

Malaysia's central bank, Bank Negara Malaysia (BNM), has adopted a discretionary monetary policy framework that contrasts with the inflation-targeting policy framework of other South East Asian peers such as Indonesia, the Philippines and Thailand. The framework is based on BNM's aim to ensure a high degree of flexibility on monetary

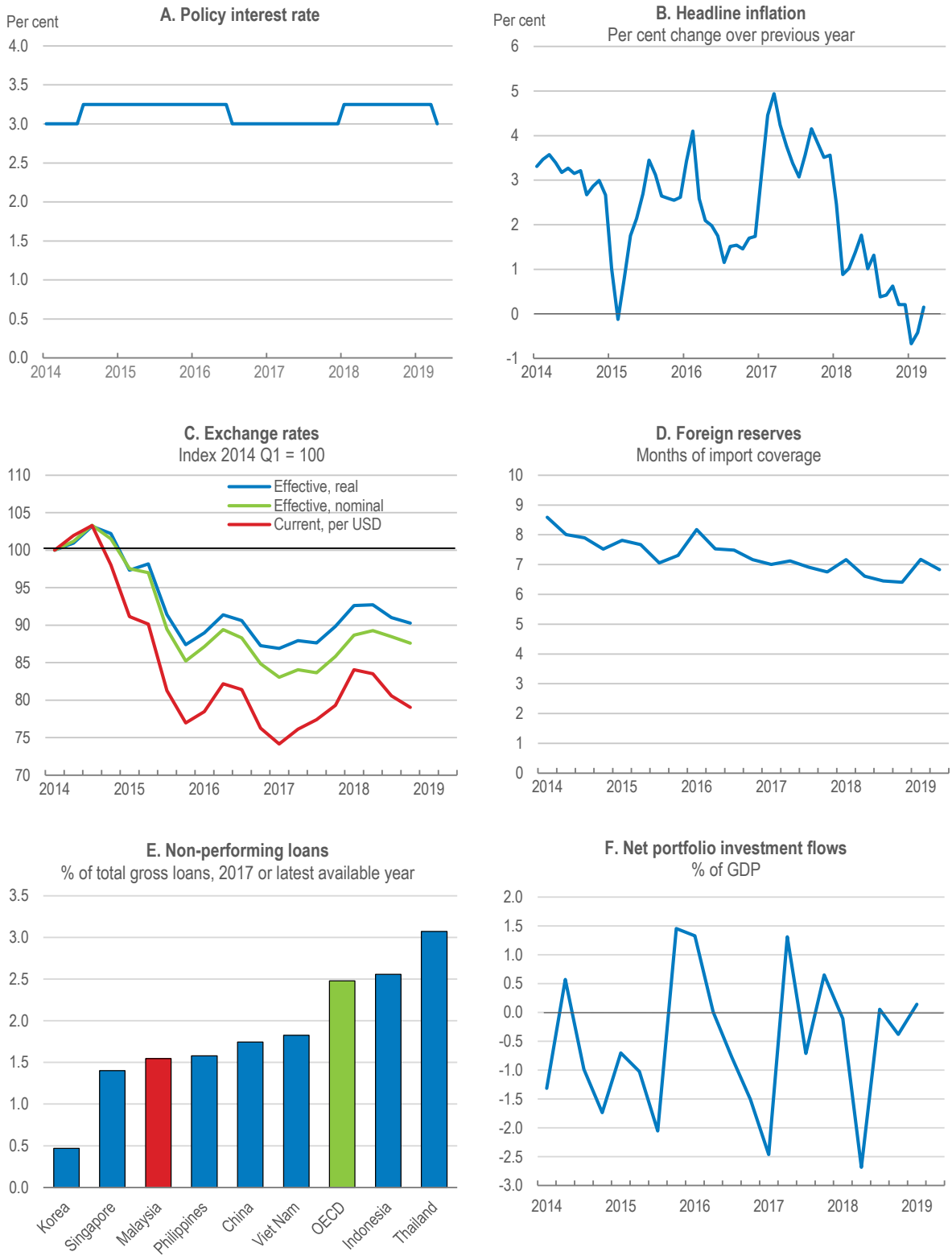
policy actions while taking into account important risks such as asset price bubbles and the destabilising unwinding of these assets (BNM, 2018b).

Nonetheless, stable and low inflation is one of the key policy goals of Malaysia's monetary policy. BNM hiked its policy rate in January 2018 by 25 bps to 3.25% for the first time since July 2014. In May 2019, BNM cut its policy rate to 3.00% to address heightened downside risks, especially from the external front (Figure 6, panel A). Headline inflation in 2018 was moderate due to the dissipating impact of the global oil price increase and stable fresh food supplies arising from favourable weather conditions. Policy measures of the new government aimed to reduce cost of living also helped (Figure 6, panel B). Inflation is likely to remain benign during the projection period partly due to low commodity prices. The prospect of world commodity prices remaining low, following expected slower global economic growth, coupled with administrative measures to address the rising cost of living, will further ease domestic price pressures. The labour market is projected to remain robust with steady job creation keeping the economy at full employment.

The authorities consider that the financial sector remains robust and stable thanks to a prudent domestic banking sector and resilient external position (BNM, 2019). Capital adequacy in the banking sector has exceeded the Basel III requirements and the ratio of non-performing loans is low (Figure 6, panel E). Macroprudential measures adopted by BNM have helped to contain the growth of household debt and house prices, although its household debt-to-GDP ratio remains high compared to other emerging countries in the East Asian region and warrants vigilance (Figure 4, panel F).

On the external front, external debt was 63.9% of GDP at end-December 2018, of which federal government debt was 19.3% and 31% was denominated in Malaysian Ringgit (MYR). While the current account surplus (2.3% of GDP in 2018) could work as a buffer to unexpected external shocks in global financial market, it warrants vigilance due to declining surplus in recent years (Figure 4, panel E). Reflecting non-resident portfolio outflows induced by the monetary policy normalisation of advanced countries and investors' risk-averse sentiment, MYR's exchange rate vis-à-vis USD has depreciated since the beginning of 2018 and the government bond yields have increased. The foreign reserve's monthly import coverage has declined in recent years, though it was still at 6.8 months in Q2 2019 (Figure 6, panel C, D and F). Volatility in global emerging markets as observed in 2018 had only a limited and temporary impact on Malaysia.

Figure 6. Monetary and financial developments have been stable overall



Source: Refinitiv; Bank Negara Malaysia; World Bank, *World Development Indicators database*.

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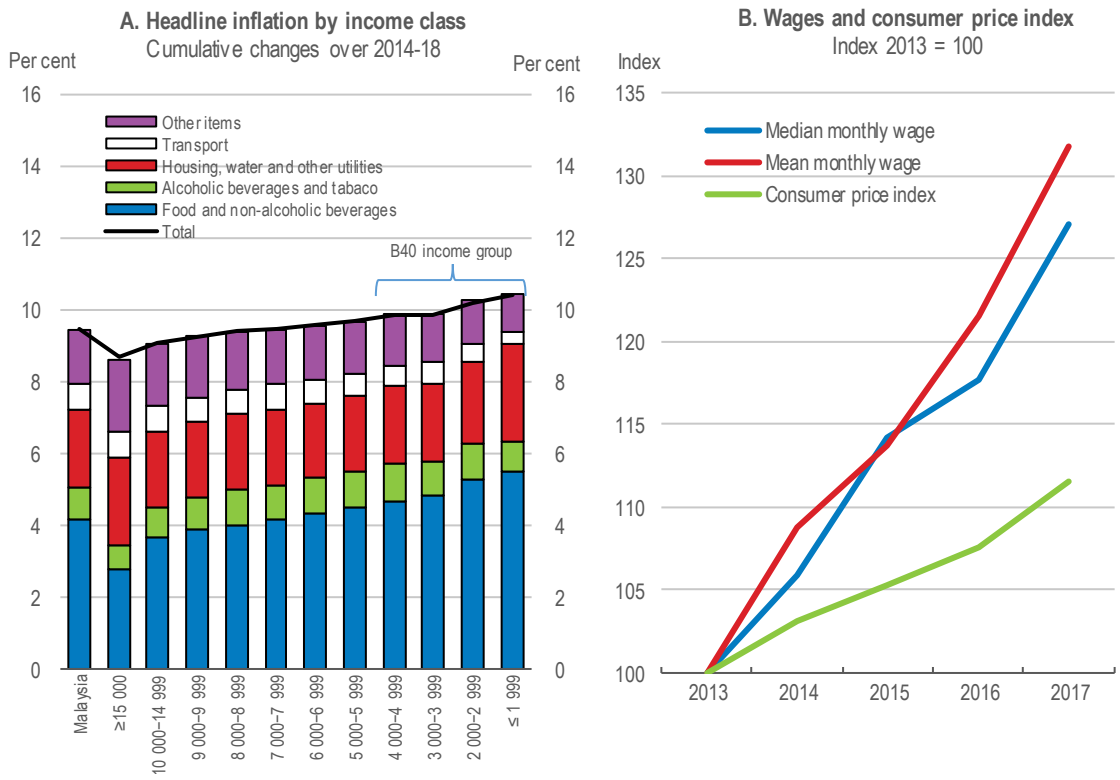
Low-income households are relatively vulnerable to rising cost of living

The rising cost of living has been a key source of concern for large segments of Malaysia's society. Although headline inflation has been moderate in recent years, food prices have been rising much faster. This has increased the burden of the families, especially the low-income groups that consume more on food items. (Figure 7 panel A). Low-income households earning below MYR 2 000 per month spent 95% of their income on goods and services to maintain their living and therefore have little room to cope with higher prices (Khazanah Research Institute, 2018). This category of households accounted for about 10% of total households. However, the situation is even worse if taking other financial needs into consideration, such as for income tax payment, loan repayments and investment: 35.1% of households have a monthly income-expenditure deficit, and 66.3% of households have a surplus of less than 5% of monthly income in 2016.

Figure 7. Inflation has a different impact according to income groups



Source: Department of Statistics Malaysia and OECD calculations.

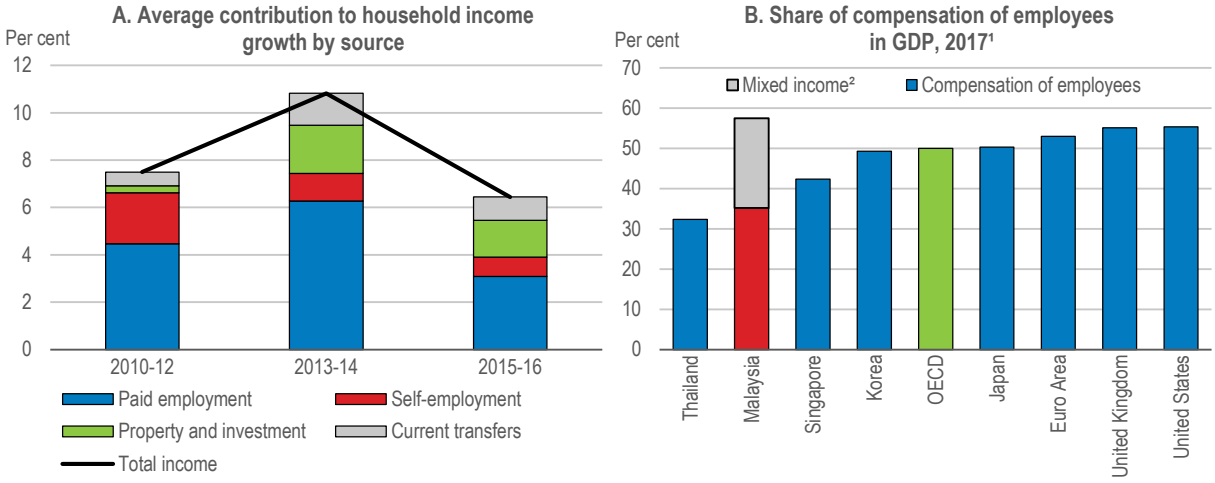
StatLink https://doi.org/10.1787/888933967986

On average, household income growth has moderated in recent years (Figure 8, panel A), mainly because of slower growth of paid employment. Wages and salaries have increased faster than inflation (Figure 7, panel B), but the growth of median wages in real terms (annual average of 3.3% over 2013-17) has been lower than real GDP growth (5.3%), which implies that workers have less benefited from economic prosperity than other agents. As a result, the labour share (proportion of compensation of employees in GDP) remains only about one-third, although the picture is less negative when considering that "mixed income" contributes to the income of self-employed individuals (Figure 8, panel

B). Meanwhile, half of working Malaysians earned less than MYR 2 160 per month or about USD 500 in 2017, indicating that the creation of high-paying jobs is still lacking (MEA, 2018). In addition, income inequality between households, although it has narrowed, remains much higher than the OECD countries average (Figure 9).

Figure 8. Decreasing contribution of paid employment and self-employment to household income

Current prices



1. 2016 data for the Euro area, Japan, Korea, Thailand and the United States.
2. Income earned by self-employed, unincorporated businesses and others.
Source: Ministry of Economic Affairs Malaysia; Department of Statistics Malaysia; Department of Statistics Singapore; Bank of Thailand; OECD, *National Accounts database* and OECD calculations.

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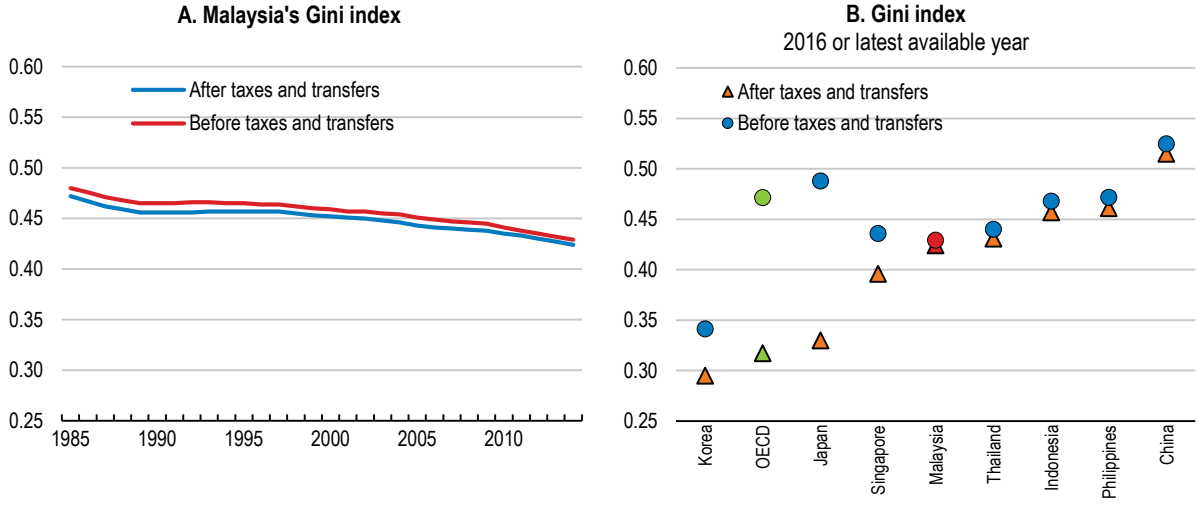
Figure 9. Malaysia's inequality has declined but its tax-and-transfer system has little effect on income distribution



Source: OECD (2018), *Income Distribution database*; F. Solt (2016), "The Standardized World Income Inequality Database", *Social Science Quarterly*, Vol. 97/5, pp. 1267-1281.

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The government has taken measures to address the issues of rising cost of living, especially towards the lower-income group households, and narrow the income disparity. These measures include, among others, direct cash transfers to households with monthly income of MYR 4 000 and below; affordable housing programme for the low-income households; as well as the provision of subsidies and price control for selected essential goods. These measures were, however, not sufficient to compensate for the relatively low income of the B40 households and higher prices of basic goods (BNM, 2018a). Moreover, these subsidies are not targeted and therefore, have a costly impact on the government's fiscal position. This may not be sustainable over the long run. Therefore, successful implementation of measures to uplift household income, notably by promoting entrepreneurship, investment in skills, boosting productivity and improving employability among the low-income households as outlined in the Mid-Term Review of the Eleventh Malaysia Plan is crucial in increasing the purchasing power of the people in a more sustainable manner and ensuring economic growth is more inclusive.

Ensuring fiscal sustainability is prioritised

Reforms of policy settings are needed to ensure medium-term fiscal sustainability (OECD, 2016a). Revenue collection is low and volatile, while expenditure is expected to rise substantially, driven in particular by pension, healthcare and education outlays in light of the government's promotion of inclusive growth. Although Malaysia is committed to fiscal consolidation, challenges remain. Fiscal consolidation efforts need to be reoriented.

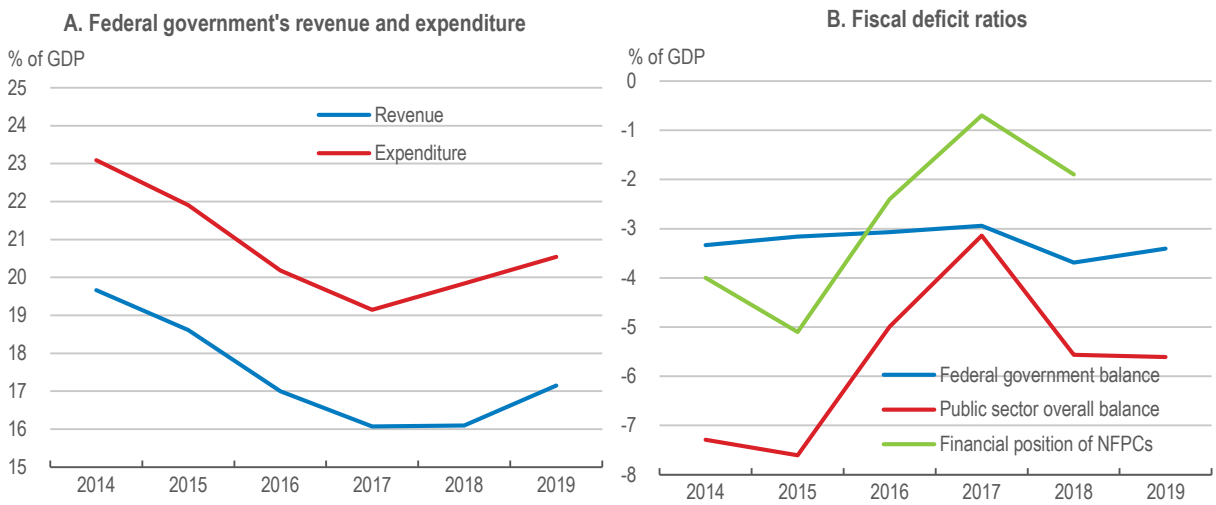
Malaysia has a self-imposed ceiling on the federal government debt of 55% of GDP. At end-2018, the federal government debt was 51.2% of GDP. Debt management practices can be improved, and supplementary budgets should be used only if necessary. Reporting standards need to be strengthened to ensure that large off-balance-sheet assets and other contingent liabilities associated with state-owned enterprises (SOEs) and public-private partnerships (PPP) are appropriately accounted for.

Fiscal policy reform was accelerated with the start of its Fiscal Transformation Programme in 2010. The programme prioritised increasing revenue and improving spending efficiency, while ensuring that fiscal policy is growth-friendly. The programme sets a target of achieving a near-balanced budget in 2020. It also introduced the Goods and Services Tax (GST, or the value-added tax), which replaced the Sales and Services Tax (SST) that was charged on designated goods and services in April 2015. Subsidies were reduced, notably by a substantial removal of energy and food subsidies between 2010 and 2014. To enhance the accountability and transparency of fiscal policy management, the Medium-term Fiscal Framework, which includes key macroeconomic and fiscal projections, has been published since 2015.

In line with the election manifesto of the new government that came into office in May 2018 to reduce the burden of the rising cost of living in recent years, a reduction of the GST from 6% to 0% effective 1st June 2018 was announced and the tax was subsequently removed in September 2018. Implementation issues undermined public support for the GST, notably delays in paying tax refund to enterprises, amounting to MYR 19 billion of outstanding refunds (some 1.4% of 2017 GDP). To offset the decline of fiscal revenue, the SST was reinstated in September, but on a substantially smaller tax base. As a result of these measures and including programmes that were counted as off-budget expenditures in the previous government, the federal government deficit in 2018 rose to 3.7% of GDP, up from 2.8% in the projection at the beginning of the year. The deficit of non-financial public corporations is expected to widen due to increases in current

expenditure following the high number of oil refineries repair and maintenance activities as well as higher input cost in the utility sector (Figure 10).

Figure 10. The fiscal deficit has increased



Note: The public sector overall balance is the sum of the general government revenue and the current balance of non-financial public corporations (NFPCs), minus the total of general government operating and development expenditure and NFPCs development expenditure. Data for 2019 are government's projections.
Source: Ministry of Finance (2018), *Fiscal Outlook and Federal Revenue Estimates 2019*, http://www.treasury.gov.my/fo_2019.html.

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Notwithstanding this increase in the 2018 budget deficit, the government is prioritising fiscal consolidation. It has highlighted fiscal risks associated with the large stock of government debt and contingent liabilities. The government aims to reduce the fiscal deficit to 3.0% of GDP in 2020 and to around 2% of GDP in the medium-term. The fiscal medium-term trajectory should aim at cutting the budget deficit further than the target of 2% of GDP to create a buffer in case of unexpected shocks. In line with this fiscal consolidation path and with the objective of promoting transparency in government procurement, the government has reviewed some large-scale infrastructure projects and proposed a set of measures to increase revenues. This includes streamlining tax incentives to reduce tax leakages and introducing new taxes, including a departure levy for all outbound air travellers and a service tax on imported online services.

The government is progressively assessing options to widen the revenue base, including from digital economy activities, taking into consideration the recommendation by the Task Force on the Digital Economy under the OECD. Existing tax rules are under pressure from the challenges posed by the digitalisation of the economy, and Malaysia is among the countries that have considered new, unilateral digital services taxes. Members of the G-20/OECD process are committed to reaching a consensus-based, long-term solution in 2020, and have not reached a consensus about the need or merit of interim measures, which have made progress towards a consensus-based solution challenging (OECD, 2019). Malaysia should continue to take part in the ongoing work on a global and consensus-based approach to address the tax challenges arising from the digitalised economy.

Table 4. Past OECD recommendations on fiscal policy

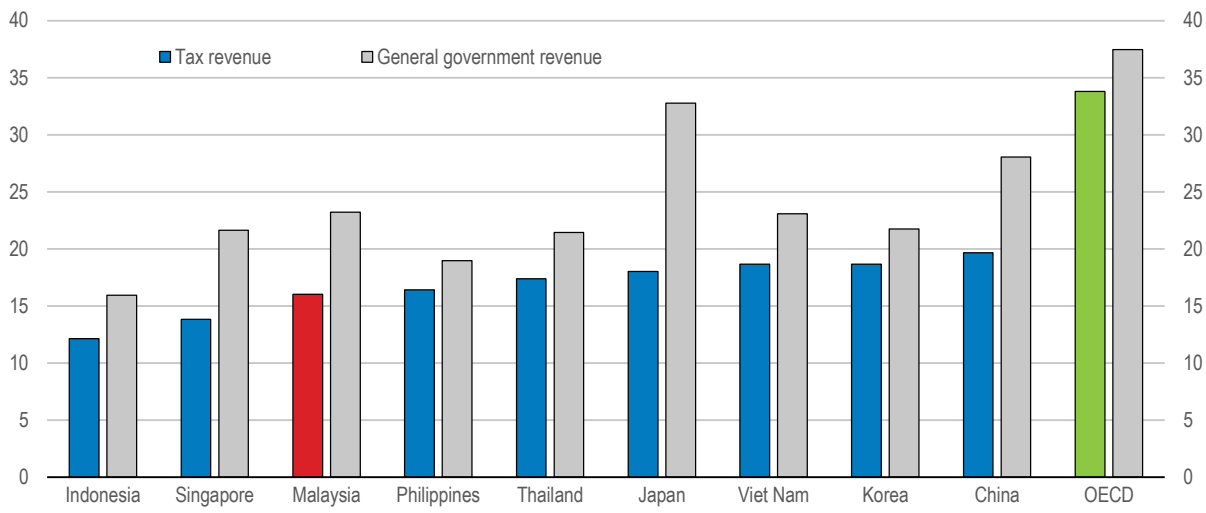
Key recommendations	Measures taken since November 2016
Continue fiscal consolidation to provide a buffer should conditions deteriorate.	The government revised its fiscal deficit target to 3.0% by 2020 in October 2018.
Undertake an independent review of expenditure and revenue needs.	The government asked the World Bank to undertake a public expenditure review for agriculture. The study was completed in February 2019.
Over the medium term, consider: i) gradually reducing exemptions and then raising the rate of the goods and services tax, and ii) increasing the progressivity of income tax.	The GST was abolished and the SST was reintroduced in September.

Building a larger and consistent revenue base to foster inclusiveness

While income inequality has narrowed in the last three decades, Malaysia's tax and transfer system has played a limited role in income redistribution in the same period. For promoting inclusive growth across the country, increasing tax revenue is needed to strengthen social protection. However, overall tax collection is low compared to the OECD average (Figure 11). The ratio of fiscal revenue to GDP has declined in recent years due to falling oil price (Figure 12, panel B). Reforms will be needed to increase tax revenue and finance expenditures to make growth work for all, notably a different tax mix between direct and indirect taxes and widening the tax base, taking into account of the trade-off between efficiency and equity.

Figure 11. Malaysia's tax revenue collection is low

As a percentage of GDP, average 2012-16



Source: IMF (2018), *Global Revenue Statistics* and *World Economic Outlook databases*; IMF (2018), *Viet Nam - IMF Country Report*, No. 18/215; OECD, *Global Revenue Statistics database*.

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Malaysia's tax mix is more reliant on direct taxes, notably corporate income tax, than in other OECD countries and regional peers (Figure 13). After the abolishment of GST in 2018, the tax mix of Malaysia is expected to be more reliant on direct taxes. OECD research suggests that recurrent taxes on immovable property are the least distortive,

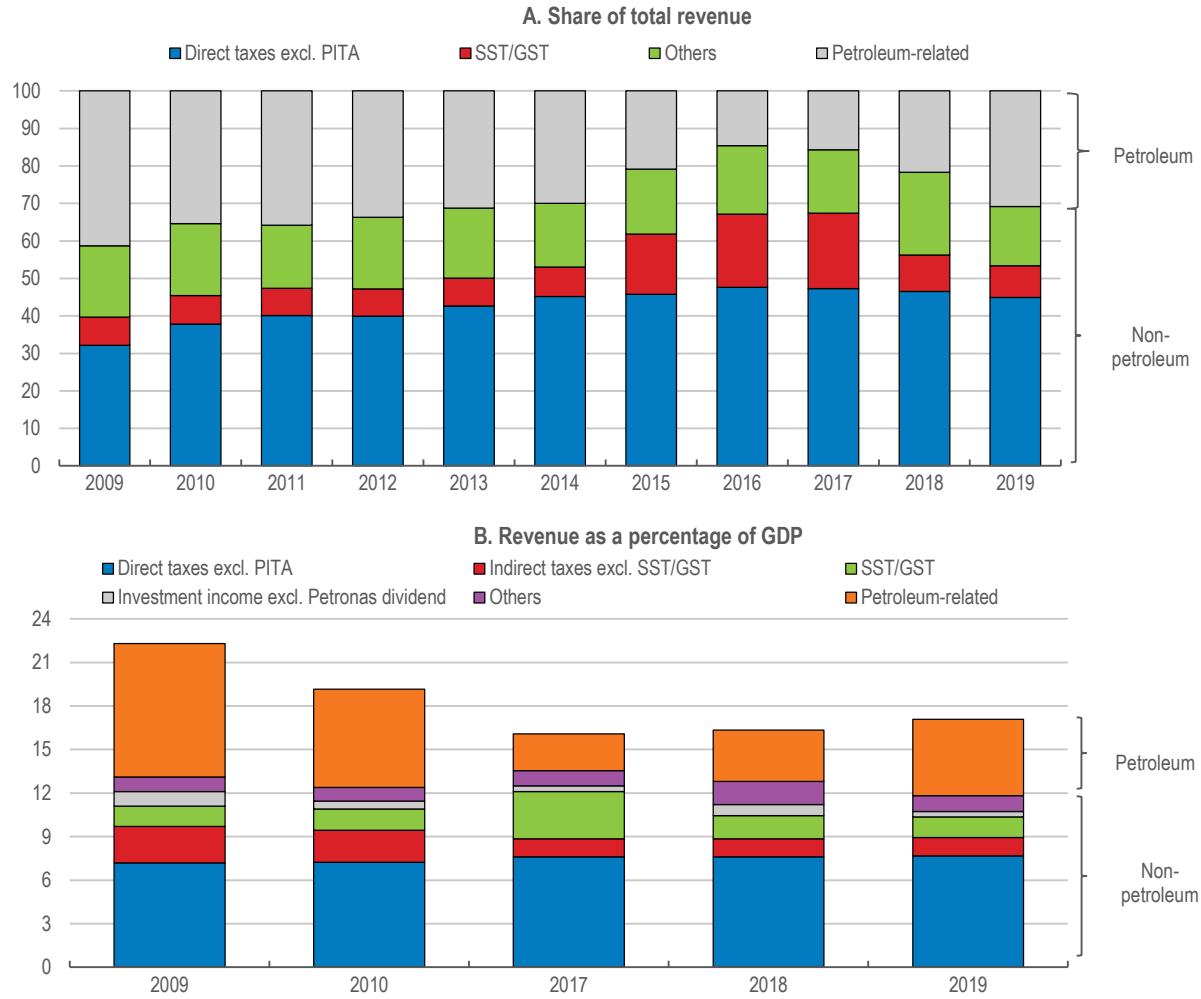
followed by consumption taxes (and other property taxes), personal income taxes and corporate income taxes (Johansson, Å. et.al., 2008). While consumption taxes may impact lower-income more adversely than high-income households, a compensation mechanism could be introduced such as an income-tested tax credit or benefit payment targeted to low income household. (Brys, B, et.al., 2016).

To offset the decline of tax revenue by the abolishment of GST, SST that was reintroduced in September 2018 is levied on manufacturers for domestically produced goods, providers of selected services such as restaurants, telecommunication and electricity, and importers, which contrasts with GST that was levied at all stages of the value chain. The SST rates are set at either 5%, 10% or a specific rate depending on the category of goods, and 6% for services, and the tax base was narrowed substantially compared to the GST, with the number of registered tax persons and establishments reduced to 100 405 compared to 476 023 under GST (Lee, 2018). Likewise, the list of exempted items was expanded ten times from the GST (Lim, 2018[]). The share of the SST in total tax revenue is expected to be 12.5% in 2019, down from GST's 25.9% in 2017. Therefore, the government may consider widening the consumption tax base to increase the contribution of SST, where increasing the coverage of SST from 38% to 50% of private consumption basket could potentially increase the tax collection to the government equivalent to 0.9% of GDP (Table 7). Moreover, tax rates could be streamlined. Recent research on OECD countries indicates that simple and broad-based consumption taxes reduce compliance costs and distortions to consumption decisions arising from differential rate systems, while also being proportional or slightly progressive when measured as the percentage of household expenditure (OECD/KIPF, 2014).

Reforms are needed to expand direct income tax base, as less than 20% of the workforce pay income tax (MOF, 2018). Only 14% of firms paid corporate income tax in 2017 (Fernando Fong, 2017[10]). Towards this end, further strengthening the implementation of strategies to improve the effectiveness of tax collection set by the new government would be crucial. These strategies include, conducting tax enforcement activities more professionally, specifically involving audit and investigation, conducting tax education programmes and improving process of travel restrictions on taxpayers with tax arrears. In addition, there is scope to introduce taxes on capital gains and inheritance, which could contribute to inclusive growth.

High reliance on non-tax revenue (mostly oil, but also proceeds/dividends from SOEs) remains a source of vulnerability given volatile oil prices. Hence, it is a concern if the government continues to rely on such revenue to finance new social measures (Figure 12, panel A). Instead, Malaysia could strengthen the role of the National Trust Fund (KWAN), which can save such revenue in off-balance-sheet funds and use them overtime to finance long-term investment plans (IDEAS, 2015). Efforts should also be taken to conserve use of energy whenever applicable through behavioural change and demand side management. This would mitigate the impact of volatile energy prices on public spending and could be used to promote a counter-cyclical fiscal policy.

Figure 12. The share of non-tax revenue is projected to widen, and the ratio of total revenue to GDP has been falling



Note: PITA refers to the petroleum income tax. Government projections for 2019.
Source: Ministry of Finance (2018), *Fiscal Outlook and Federal Government Revenue Estimates 2019*, Figures 2.1 & 2.2, http://www.treasury.gov.my/pdf/budget/budget_info/2019/revenue/section2.pdf.

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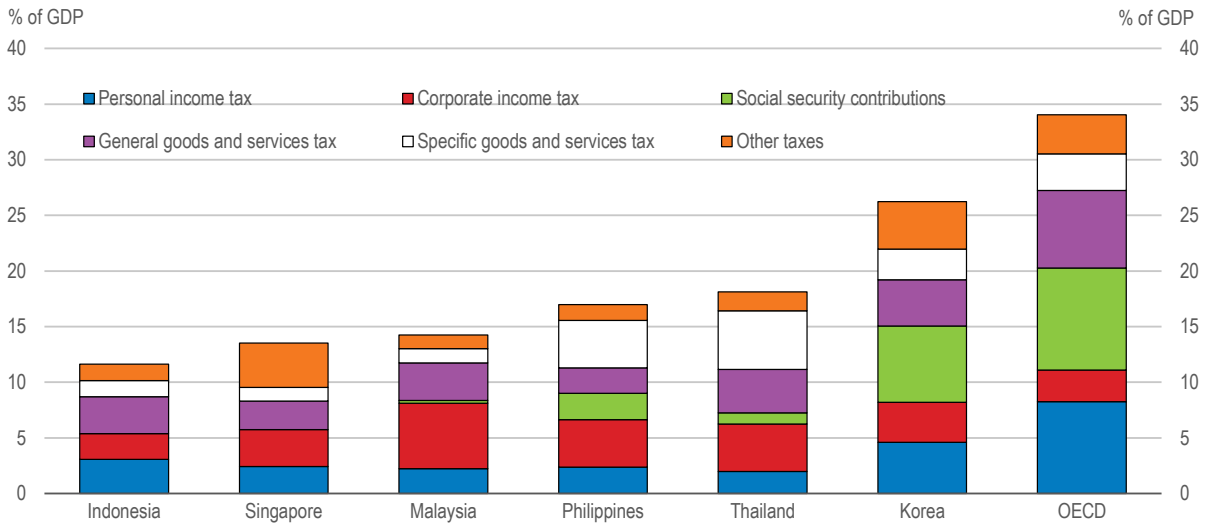
Figure 13. Malaysia's tax mix relies on direct taxes

As a percentage of GDP, 2016



Source: OECD, *Global Revenue Statistics database*.

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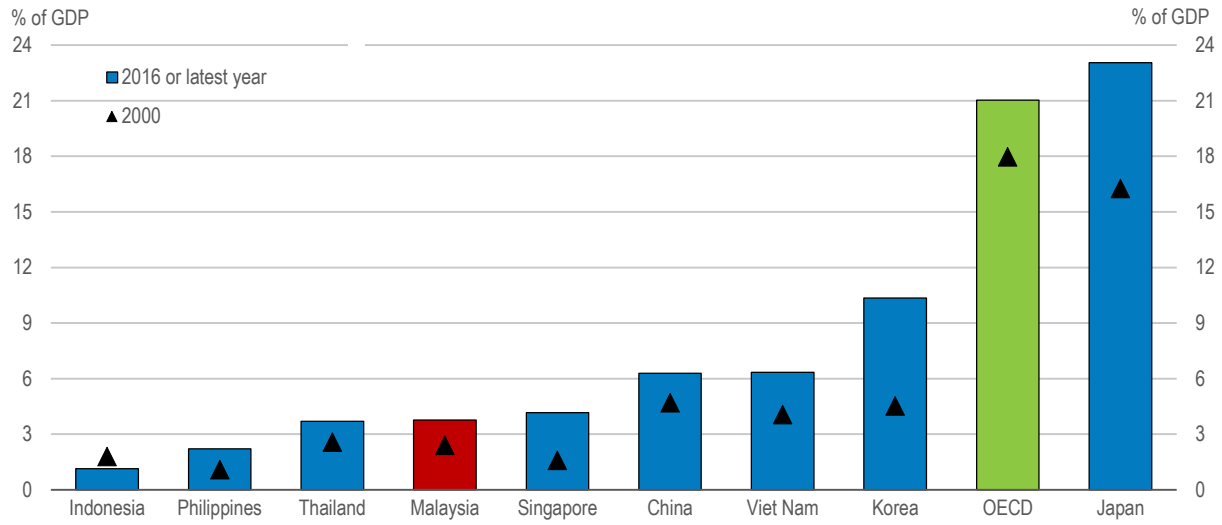
Consolidating expenditure for strengthening social protection

Like in OECD countries and some other emerging market economies, pension and healthcare costs are rising in Malaysia, in part due to demographic changes (Figure 14). In addition, social expenditure is highly fragmented, being provided through a multitude of small scale, specific-purpose programmes by a diverse range of ministries, though coverage is incomplete. In 2017, only 38% of the working-age population (aged from 16 to 60 years) was covered by the public (first-pillar) pension scheme (EPF, 2018). The government has therefore introduced a new pension programme to extend the employee provident fund coverage to include housewives, widows and single mothers enlisted in the *eKasih*, the national database on poverty. The coverage needs to be further improved to ensure income security to be in line with longer life expectancy after retirement (Figure 15).

Figure 14. Public social spending has much room to increase



Source: OECD (2018), *Social Expenditure database;* ILO (2017), *The World Social Protection Report 2017-19*, Table B.16, http://www.social-protection.org/gimi/gess/ShowWiki.action?id=594#tabs-3.

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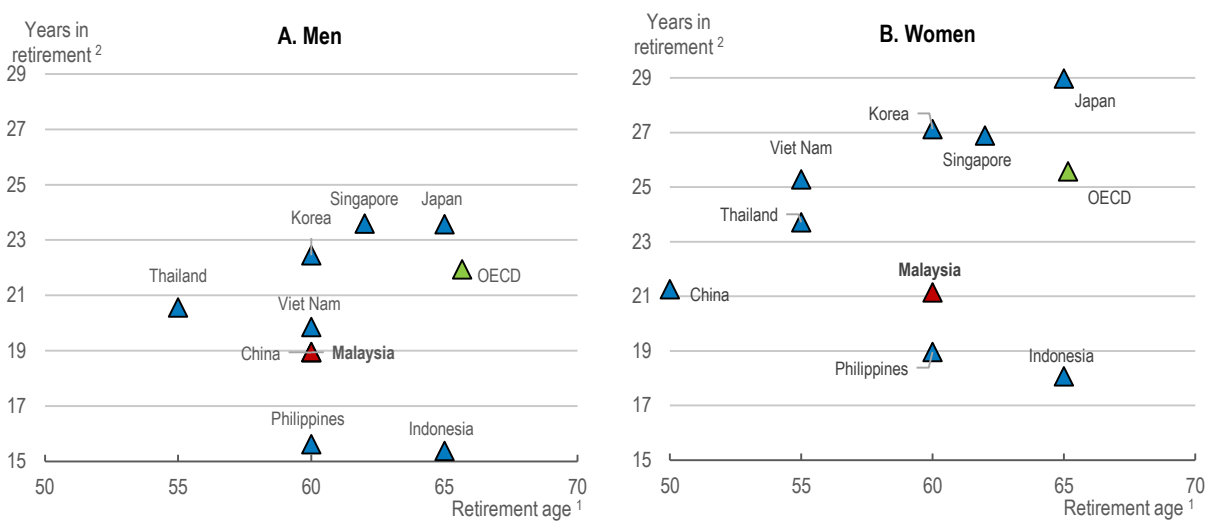
Figure 15. Malaysians can expect a lengthy retirement



1. The age at which a man/woman can retire and receive full benefits. The retirement age for Chinese women refers to those in blue-collar jobs whilst the retirement age for the white-collar jobs is 55.
2. Gap between the retirement age and life expectancy at age 60 (UN estimation for the period 2015-20).
Source: World Bank (2018), Women, Business and the Law Data, http://wbl.worldbank.org/en/resources; United Nations (2017), World Population Prospects: The 2017 Revision, Special Aggregates: Ecological groups, https://esa.un.org/unpd/wpp/Download/SpecialAggregates/Ecological/

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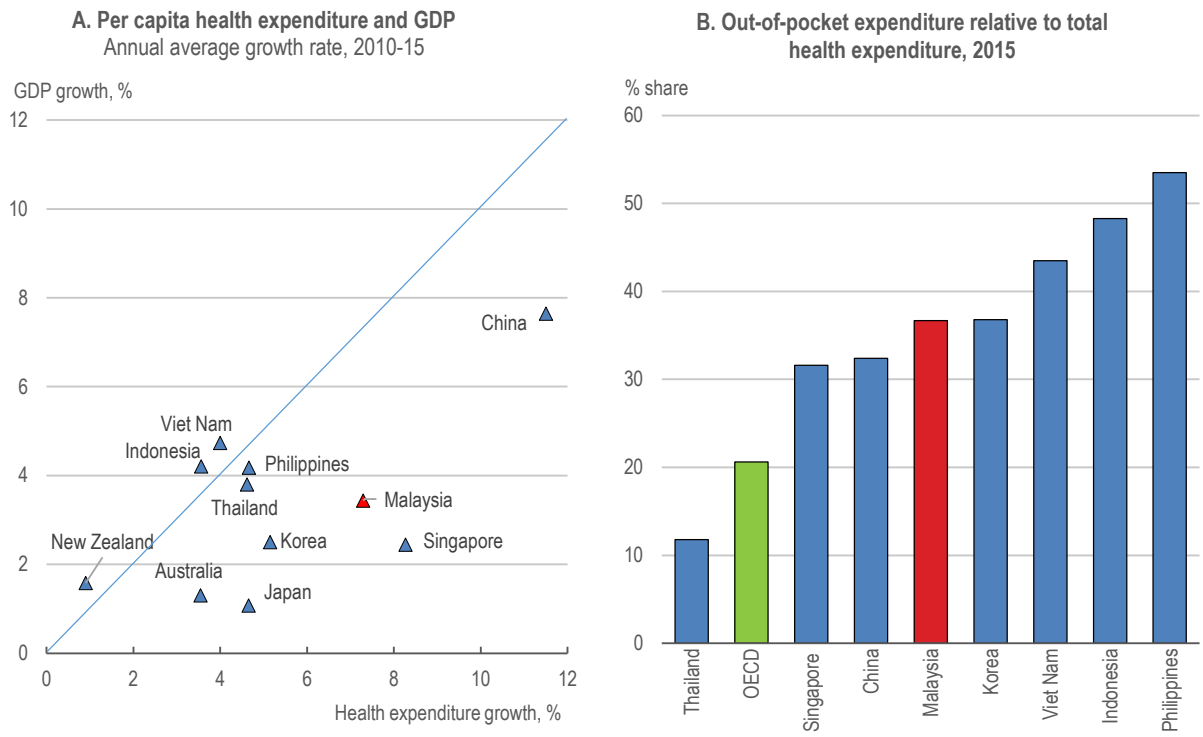
The growth of healthcare expenditure outpaced real GDP growth in recent years (Figure 16). This is in line with other high and middle-income countries in the Asia and Pacific

region reflecting rising living standards, technological progress and the acceleration of ageing (OECD/WHO, 2018). Malaysia's healthcare system is a dual system comprised of public healthcare facilities that are heavily subsidised and require minimal out-of-pocket payments, and private healthcare services that is supported by out-of-pocket payment by patients as well as private personal health insurance schemes, employer funding (employer-sponsored insurance) and direct employer contracting with panel doctors especially for primary care. In total, the share of out-of-pocket payment to the total health care expenditure in 2015 was higher than in the average of the OECD and other upper middle-income countries in the region such as Thailand and China.

Figure 16. Healthcare expenditure is rising fast



Source: OECD (2018), *Health at a Glance: Asia/Pacific 2018.*

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To ensure better financial risk protection, greater efficiency and sustainability of the healthcare system, it is critical to mobilise out-of-pocket expenditures into organised financing vehicle through pre-payment mechanism and single risk pooling such as promoting health insurance systems. The public healthcare system has a strong network of facilities. However, it faces serious challenges such as overcrowding in urban areas and insufficient accessibility in rural areas. There is a risk of an increasingly two-tiered system, where overcrowded and understaffed public facilities serve the poor, and private facilities serve the better off. However, for chronic and serious illness, various levels of the population including the rich still utilize the public healthcare sector.

Improving healthcare is a key priority in the 2019 budget, with spending increasing by 7.8% compared with the 2018 budget. The government introduced a new national health

protection schemes in 2019, *mySalam*. It is a MYR 2 billion health insurance scheme to provide coverage to individuals aged between 18-55 years old belonging to B40 households. This programme provides benefits for 36 critical illness and also daily income replacement of MYR 50 per day for a maximum of MYR 700 per annum (14 days) at any government or qualified hospitals.

Another scheme, *Peduli Kesihatan* for the B40 group or *PeKa B40* is a paradigm shift through an innovative approach towards enhancing preventive care targeted to those aged 50 years and above by providing free health screening through private primary care clinics based upon public-private-partnerships. The *PeKa B40* also provides three other benefits, which are health aids, incentives to complete cancer treatment and transportation incentives. While these measures could contribute to the efficiency and effectiveness of the healthcare system, major reforms of the financing structure such as a publicly managed non-profit health insurance that ensures sustainability, equity and universal access to quality healthcare still remains an issue to be addressed (OECD, 2016a).

Strengthening investment on education and skills development, in particular targeted to people belonging to low income group could improve income distribution. This could reduce reliance on social protection, and thereby contributes to fiscal sustainability.

Table 5. Past OECD recommendations on promoting inclusive growth

Key recommendations	Measures taken since November 2016
Promote flexible work arrangements and invest more in early childhood care, lifelong learning and reskilling.	The number of employees eligible for training under Human Resources Development Fund expanded to include more sub-sectors and SMEs over 2015-18.
Develop a comprehensive social protection system, including by implementing an employment insurance scheme.	The Employment Insurance System Act 2017 was implemented in January 2018 that provides retrenched workers with temporary financial support and re-training. Self-employment Social Security Act 2017 was implemented in June 2017 that provides social security for self-employed persons in the informal sector.
Increase pension access ages in line with improvements in healthy life expectancy and reduce exemptions for early withdrawal.	Continuous study is ongoing on increasing the compulsory retirement age in accordance to life expectancy and productivity of civil servants.
Enrol future public employees in the defined contribution scheme covering private sector employees	The government is to conduct the study on a more sustainable pension scheme in the future. The study is scheduled to be completed in 2020.
Improve social services, transport and broadband connectivity in remote rural areas.	Initiatives will be undertaken in 2018-20 to improve road network, access to water, electricity supply and digital infrastructure in rural areas.

Improving public procurement as a basis for maximising expenditure efficiency

Public procurement carried out by the government and SOEs accounts for 15-20% of Malaysia's GDP (MEA, 2018). To maximise expenditure efficiency, it is necessary to streamline procurement procedures: a variety of fragmented instruments governing public procurement creates inconsistency and lack of accountability (Xavier and Xavier, 2017). For example, competition in bidding is hampered by measures such as local content requirements in services and a specific threshold above which foreign firms can participate (Gourdon, 2018).

To address these shortcomings, the government is to implement a set of comprehensive reform measures to ensure transparency and accountability of public procurement, which also covers PPP projects. The proposed measures include a comprehensive and effective

legal framework, enforcement of open tenders, promoting transparency by enlarging the scope of disclosure via websites, capacity building, the breaking of the monopoly of SOEs in selected procurement procedures (such as imported rice and medicines), and the alignment of procurement procedure with international best practices such as the OECD Recommendation on Public Procurement, and the Open Contracting Partnership (OECD, 2015b).

Going forward, enhancing competition in public procurement is expected by the implementation of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) that stipulates liberalisation of public procurement. The CPTPP includes Malaysia's gradual liberalisation of the public procurement market to firms of the CPTPP member countries, though its scope is limited to procurement by the federal government.

Improving budget process transparency

Increasing transparency in the use of public funds is crucial to the budget process. In comparison with the OECD and regional peers, Malaysia still has room to improve transparency and accountability, notably with a pre-budget report and an independent review and analyses of macroeconomic and fiscal assumptions. The government announces the Medium-Term Fiscal Framework that includes fiscal projection for the next three years. Long-term perspectives on total revenue and expenditure could contribute to investors' confidence (Table 6).

Table 6. More could be done to improve budgetary transparency

Budgetary information made publicly available, 2018

● Publicly available; ○ Not publicly available; and x: Not applicable

	Budget proposal	Budget approved	Methodology and economic assumptions for establishing fiscal projections	Sensitivity analyses of fiscal and/or macroeconomic models	Budget circular	Independent reviews/analyses of macroeconomic and/or fiscal assumptions	Pre-budget report	Long term perspective on total revenue and expenditure
Indonesia	●	●	●	●	●	x	●	○
Malaysia	●	●	○	○	●	x	x	○
Philippines	●	●	●	●	●	x	●	●
Singapore	●	●	○	○	○	○	x	○
Thailand	●	●	●	○	●	x	○	○
Viet Nam	○	●	●	x	●	x	●	x
OECD Total								
● Publicly available	33	33	28	24	20	28	23	24
○ Not publicly available	0	0	5	6	12	1	5	1
x Not applicable	0	0	0	3	1	4	5	8

Note: OECD total is based on responses by 33 OECD countries due to missing data for the United Kingdom and the United States.
Source: OECD/ADB (2019), *Government at a Glance: Southeast Asia 2019*.

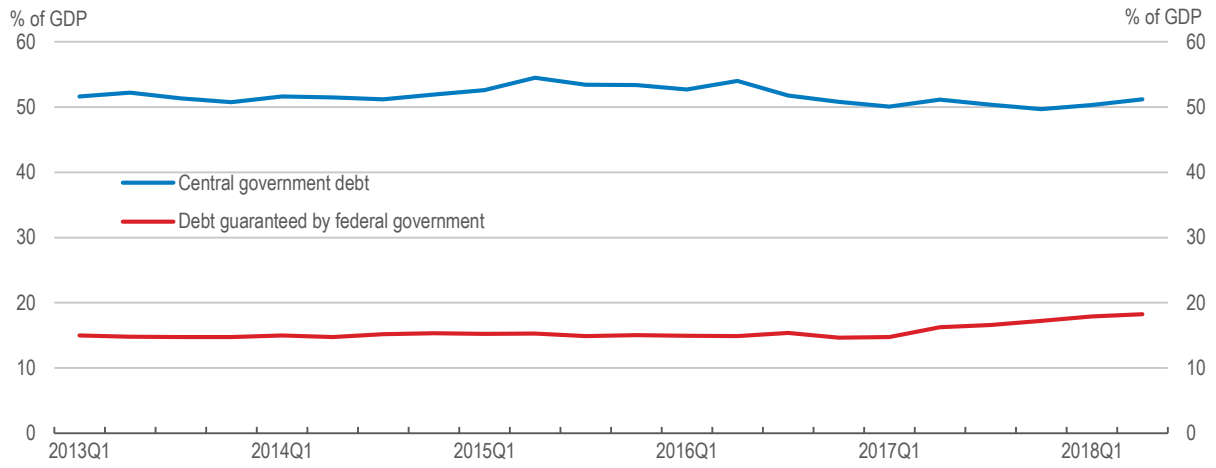
The government's priority to improve the transparency of the budgetary process is reflected in its plan to table a Fiscal Responsibility Act by 2021. The act aims to prevent arbitrary spending that could cause higher-than-expected public debts.

Risk management of contingent liabilities needs to be strengthened

The government has prioritised the management of contingent liabilities in a context of achieving long-run fiscal consolidation. Malaysia's contingent liabilities comprise loan guarantees to SOEs, at 18.1% of GDP at the end of June 2018, and commitments to pay

lease payments for PPP projects, at 12.9%. Contingent liabilities totalling 31% of GDP is high considering that the federal government's debt was 51.2% at end-2018 (Figure 17).

Figure 17. Government's debt guarantee has risen



Source: Bank Negara Malaysia.

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Contingent liabilities, which could finance infrastructure investment without immediate impact on the federal government fiscal balance, are significant sources of fiscal risks due to the uncertain financial commitments that they involve. Increased uncertainty regarding the fiscal consolidation path could undermine investor confidence, resulting in a higher cost of financing the fiscal deficit. Anticipation of a bailout could produce moral hazard that further exacerbates the risk of failures. While it is hard to gauge the likelihood with which these contingent liabilities will turn into the real fiscal burden, the government revealed that some SOEs could not service their debt – their outstanding loan guarantees amounted to around 11% of GDP (MOF, 2018).

Underdeveloped institutional settings such as the lack of transparent approval process and reporting requirements as well as insufficient risk sharing could amplify the risk of contingent liabilities materialising. An OECD report on best practice in the area of contingent liability management recommends centralisation of risk management of the government debt portfolio, including contingent liabilities (OECD, 2006). The government has a plan to establish a single oversight authority to consolidate information on assets and liabilities of SOEs as well as publish a comprehensive financial report (MEA, 2018). More transparent SOE governance could help to reduce this risk.

The presence of SOEs in Malaysia is quite significant particularly in natural resources, agriculture and public utility services such as telecommunications and public transport. Enterprises partially owned by the government account for about half of the Kuala Lumpur Composite Index and include seven of the ten largest public listed companies (Menon, 2017). In addition to providing public utility services, SOEs also play a role in social development in line with the government policy framework – providing affordable housing, regional development and promotion of small- and medium-sized enterprises. In 2017, development expenditure, which includes infrastructure development and social development by SOEs, accounted for 7% of GDP, while the government's expenditure

for these purposes was at 4.2% (MOF, 2017). The government provides loan guarantees to selected SOEs' infrastructure development projects and loans for social development purposes.

Reliance on off-balance-sheet spending via SOEs, while useful for much-needed infrastructure spending, risks spilling over into uneconomic projects and presents a longer-term risk to debt servicing, sovereign ratings and accountability. Greater transparency is called for to mitigate the aforementioned related risks. Both quantitative and qualitative information on credit guarantees should be disclosed based on their expected cost and in such a way as to give a complete picture of the government's total financial position, both as part of debt management reporting and budgetary documentation (Ülgentürk, 2017).

A simultaneous review of SOE management structures and practices is also needed to improve outcomes and minimise contingent liability risks. A government-promoted reform of SOEs was launched via a Transformation Programme for Government-linked Companies in 2005-15. The programme was targeted to public listed SOEs that introduced key performance indicators as well as performance-based contracts and compensation, along with a change in the composition of SOE boards and senior management. Management was given a clear mandate and sophisticated indicators to improve SOE performance within a set time frame. These reform measures contributed to enhancing SOEs management through better utilisation of capital and other resources (Kim & Zulfiqar Ali, 2017).

However, the government is still involved in the appointment of management board members and senior management; where this arrangement may involve the risk of cronyism and patronage to vested interests if not properly managed. Ensuring transparency and accountability of the management of SOEs is required, as recommended in the OECD Guidelines on Corporate Governance of State-Owned Enterprises (OECD, 2015a). These guidelines include best practices for SOE corporate governance: e.g., SOE boards should be equipped with the necessary autonomy and independence to achieve clearly defined performance objectives, absent political interference, and any state representatives nominated to serve on SOE boards should have equivalent legal responsibility as other board members. For an example of recent reform, guided by the OECD Guidelines, Colombia has achieved SOE governance reform including strengthening ownership co-ordination and the professionalism and independence of SOE boards, coupled with more structured nomination processes; and the issuance of aggregate annual reports on the performance of all of Colombia's enterprises where the government is the majority owner (OECD, 2017a). More broadly, the government has started to review and streamline SOEs' activities. This could reduce the scope of government debt guarantees that are potentially distortive to the market.

Policy framework of public-private partnership needs to be more transparent

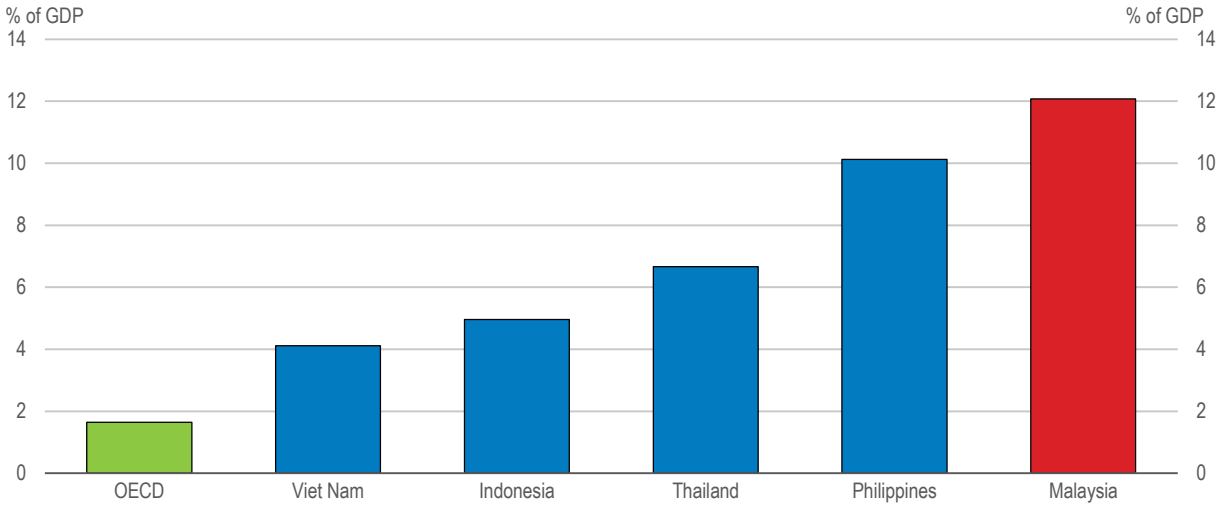
Malaysia is a pioneer of PPP for its infrastructure and social development, which started in the early 1980s. The PPP projects cover projects such as hospitals, education and skills training centres. Malaysia's capital stock of PPP projects is quite high compared with regional peers and the OECD average (Figure 18).

The government has prioritised strengthening the transparency of PPP contracts by reviewing the current PPP regulatory framework and introducing guidelines to further facilitate the implementation of PPP models. This was initiated because a large portion of PPP projects in recent years were directly negotiated with private sector partners without

an open tender process, and the government provided land instead of paying commissions. The new PPP guideline makes open tender obligatory and introduces price auctions of government land to avoid undervaluation.

Figure 18. Malaysia's capital stock of PPP projects is high

2015 data or latest available year



Source: IMF (2017), *Investment and Capital Stock database*, January.

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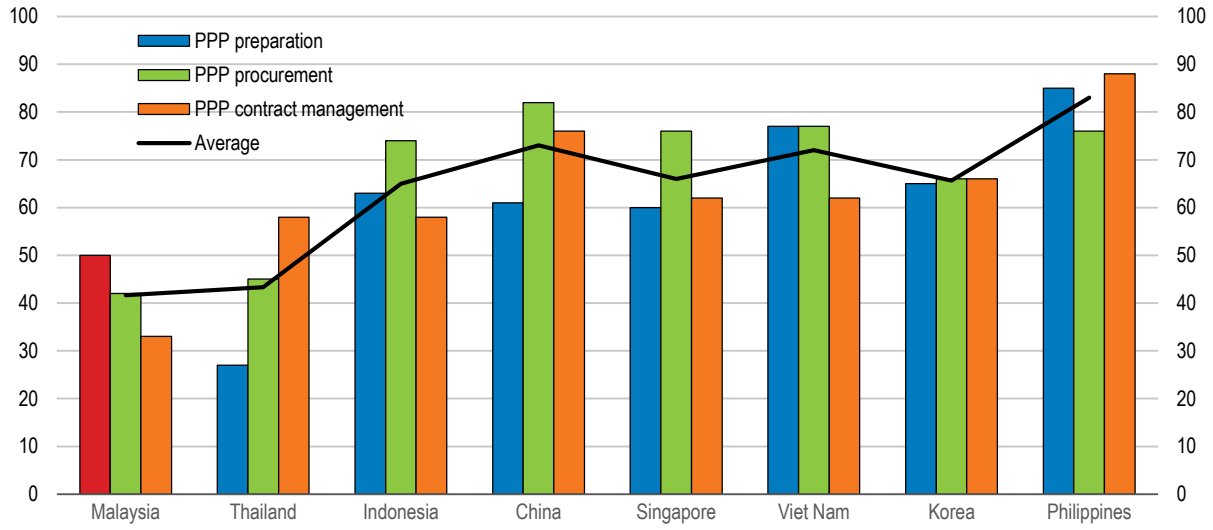
In addition to the need to improve transparency, Malaysia's regulatory framework of PPP projects still has much room for improvement to meet the international best practice (Figure 19). The regulatory framework need to be strengthened to ensure transparency and risk sharing to address unexpected changes of circumstances. The required framework includes a standardised PPP model contract (Preparation of PPPs); notification of the results of PPP procurement process, negotiation with the selected bidder before contract signing and publication of contract (Procurement of PPPs); and modification of the PPP contract and circumstances that may occur during its lifetime, and a dispute resolution mechanism (PPP Contract Management). Improvements on these issues could help to reduce the risk of contingent liabilities materialising (see above) and ensure better public service delivery.

Figure 19. Malaysia can improve the preparation, procurement and management of PPPs

Benchmark score, 2018



Note: The higher the score, the more the framework is aligned with international best practice.
Source: World Bank Group/PPIAF (2018), Benchmarking Public-Private Partnerships Procurement 2018.

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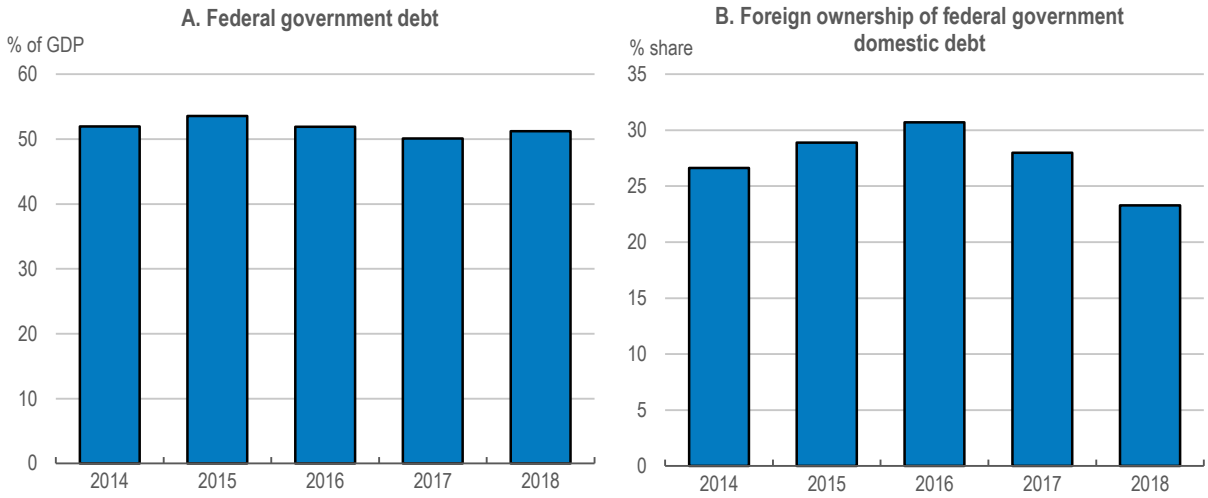
Strengthening public debt management as key to fiscal sustainability

The federal government debt was equivalent to 51.2% to GDP at end- 2018, below the self-imposed government ceiling (Figure 20, panel A). 97% of outstanding federal government debt was domestically issued and denominated in MYR, which mitigates the exposure to unexpected external shocks. Foreign ownership of the federal government debt has declined in recent years, partly reflecting capital outflows triggered by the monetary policy normalisation in advanced countries (Figure 20, panel B).

The federal government debt could be on a sustainable path if the government's commitment to fiscal consolidation to reduce the fiscal deficit to some 2% of GDP in the medium -term, down from 3.7% in 2018, is materialised and similar efforts are continued (Figure 21). However, the materialisation of contingent liabilities could weigh on the fiscal consolidation path. This projection does not include other fiscal risks, notably a lower-than-expected oil price and further materialisation of contingent liabilities.

To strengthen public sector debt management, the government established the Debt Management Office (DMO) in May 2019. The DMO will ensure bond issuance and overall borrowings by the government, statutory bodies and government-owned companies is conducted in an orderly manner as well as restructuring the relevant bonds and borrowings where possible as cost cutting measures. This office will also formulate strategies to reduce the government's debt and liability burden and ensure government debt and liabilities are kept in check. Additionally, a system of public accounting on an accrual basis will be introduced by 2021. This will contribute to improving disclosure of debt, liabilities and assets across government ministries and agencies (Lim, 2018).

Figure 20. Federal government debt remains below the ceiling



Source: Ministry of Finance (2018), *Fiscal Outlook and Federal Revenue Estimates 2019*, http://www.treasury.gov.my/fo_2019.html.

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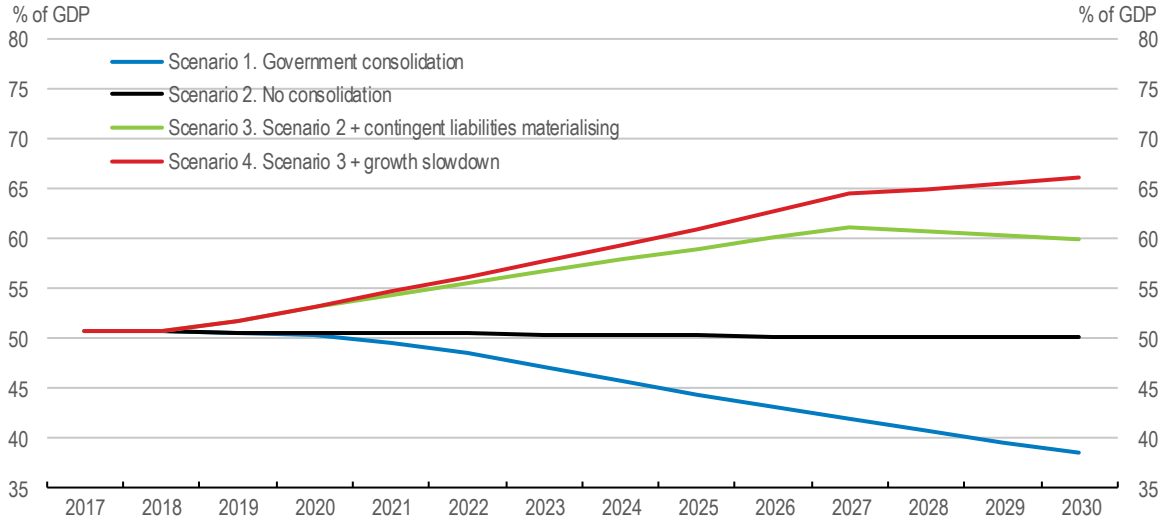
Figure 21. Federal government debt scenarios



Note: The government consolidation scenario (scenario 1) assumes that the primary deficit reaches 0.1% by 2022 and continues afterwards. No consolidation scenario (scenario 2) assumes that the primary deficit will remain at 1.5% from 2019 onwards. Contingent liabilities materialisation scenario (scenario 3) assumes that contingent liabilities of SOEs that are unable to service their debt at 11% of GDP at the end of June 2018 are to be materialised by 1.4% of GDP over the period 2020-27. Assumption of the primary deficit is taken from scenario 2. These three scenarios assume nominal GDP growth rate at 7.2% and interest rate at 3.9% based on the 2011-18 average. Scenario 4 assumes that by 2030 real growth rate slows to the average real growth rate of OECD emerging market economies comprised of Chile, Hungary, Mexico, Poland and Turkey over 2025-30, whose real growth rate is 3% and nominal growth rate is 5%. Other assumptions are taken from scenario 3.

Source: Refinitiv; Ministry of Finance (2018), *Fiscal Outlook and Federal Revenue Estimates 2019;* OECD (2014), "Long-term baseline projections, No. 95 (Edition 2014)", *OECD Economic Outlook: Statistics and Projections (database)*, https://doi.org/10.1787/data-00690-en.

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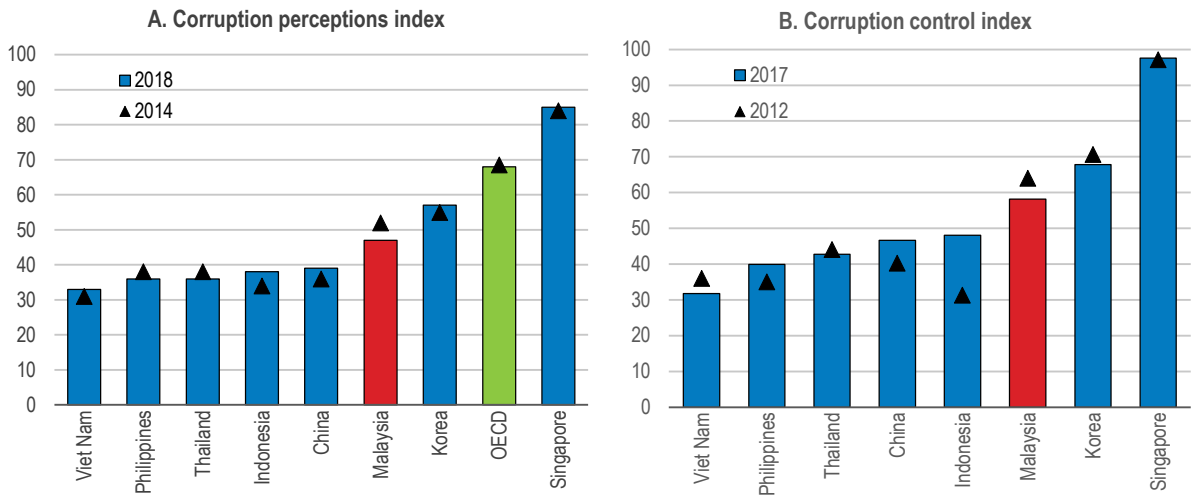
Ensuring integrity is key to efficient fiscal system

The new government has rightly prioritised ensuring public sector integrity. Efforts to combat corruption have stepped up as a basis for efficient public expenditure and compliance with revenue collection. However, Malaysia's integrity measures still have considerable room to improve compared with the OECD average (Figure 22), not least in the wake of a series of alleged cases of public fund embezzlement that hampered the accountability of the public sector. To avoid misconduct stemming from lack of transparency, the OECD Recommendation on Public Integrity stresses the importance of the roles of external oversight and control over the measures ensuring integrity, and of stakeholders' engagement with policy development and implementation (OECD, 2017c).

Figure 22. Malaysia needs to fully implement anti-corruption plans



Note: In panel A, index ranges from 0 (highly corrupt) to 100 (very clean). In panel B, data is percentile ranking of 214 countries and territories.
Source: Transparency International (2018), *Corruption Perceptions Index 2018*; World Bank, *The Worldwide Governance Indicators, 2018 Update*.

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Box 4. Quantifying the fiscal impact of the selected key recommendations in the Survey

The key recommendations in this Survey impact both the expenditure and revenue sides of the federal government budget. While recommendations on lowering school starting age, hiring administrative staff, improving quality of pre-primary education and increase the minimum maternity leave entitlement incur cost to the government, improving tax administration efficiency, broadening tax bases and introducing carbon tax would strengthen the government's fiscal position thanks to higher tax revenue collection.

Table 7 provides a summary of the impact of key recommendations on the federal government's fiscal balance. The estimates are the direct impact of the respective key recommendations and are based on publicly available information.

Table 7. Estimated fiscal impact of selected key recommendations

Key recommendations	Impact on fiscal balance, % to GDP
Deficit decreasing recommendations	**3.9**
Improve efficiency of tax administration[1]	2.0
Broaden tax bases, and increasing indirect tax revenue, in particular consumption-related taxes[2]	0.9
Introduce carbon tax[3]	1.0
Deficit increasing recommendations	**1.2**
Lower the school starting age to at least 5[4]	0.6
Invest in public childcare facilities and provide subsidies to private and workplace facilities[5]	0.2
Reduce teacher administrative workload so that teachers can spend more time preparing lessons or participating in mentoring or professional development activities	0.3
Increase the minimum maternity leave entitlement to 98 days, in line with international standards[6]	0.1
Net impact on fiscal balance	**+2.7**

Note: [1] Assuming the share of individual taxpayers increase from 25% to 30% of total employment and corporate taxpayers increase from 14% to 20% of total registered companies.

[2] Broaden the sales and services tax base by increasing its coverage from 38% to 50% of private consumption basket.

[3] Assuming carbon tax at EUR7.7 or MYR35.6 per tonne of CO_2 emissions (based on the average carbon tax rate of 14 OECD countries in 2015). The net contribution to revenue collection may be lower if the carbon tax is implemented together with programmes to ease the impact of potential rising cost of living.

[4] The number of teachers and classes is estimated to increase by 19% in order to support an additional one schooling year. In addition, the one-off capital expenditure to build required schools is estimated at 2% of GDP.

[5] Assuming increase the share of public expenditure on pre-primary education to the average of OECD countries.

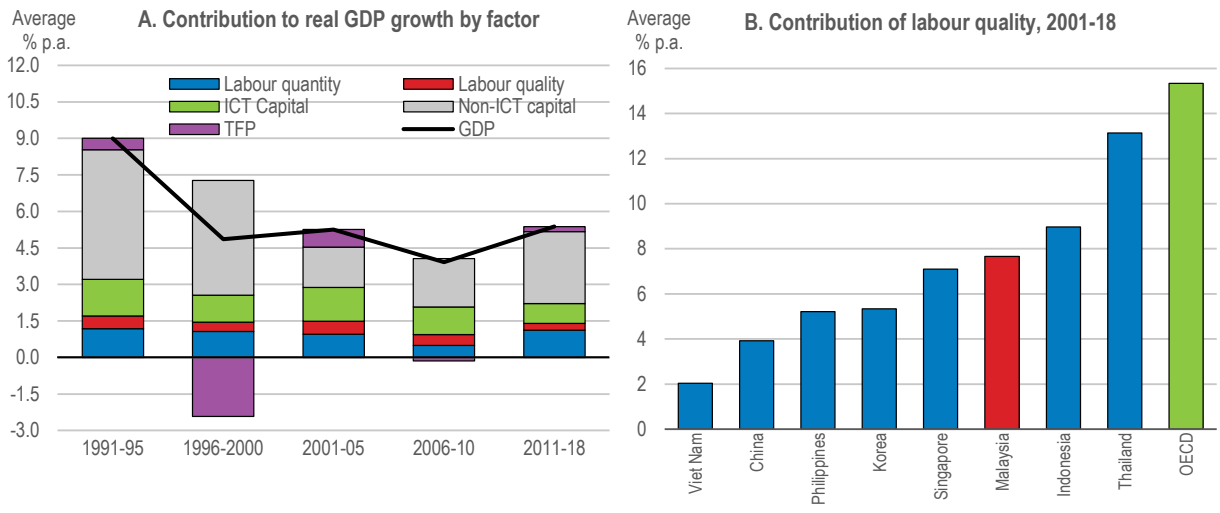
[6] Assuming maternity leave increases from 60 days to 98 days and the government share half of the cost.

Source: UNESCO Institute for Statistics, OECD, Department of Statistics Malaysia, and OECD calculations

Fostering growth and productivity

Since the mid-1990s, Malaysia has embarked on a programme to promote innovation and productivity, so as to transform the Malaysian economy from an input-driven to a knowledge-based one (EPU, 2015b). Despite the intensity of public investment and initiatives aiming to boost productivity, Malaysia's productivity levels remain weak and the economy is still highly dependent on, and driven by factor inputs, especially non-ICT capital accumulation, mainly on residential and non-residential buildings (Figure 23 panel A).

Figure 23. Contribution of labour quality to economic growth is low



Note: Measures of labour quality are based on the skill composition of workers, proxied by their educational attainment.
Source: The Conference Board (2019), *Total Economy Database*, April.

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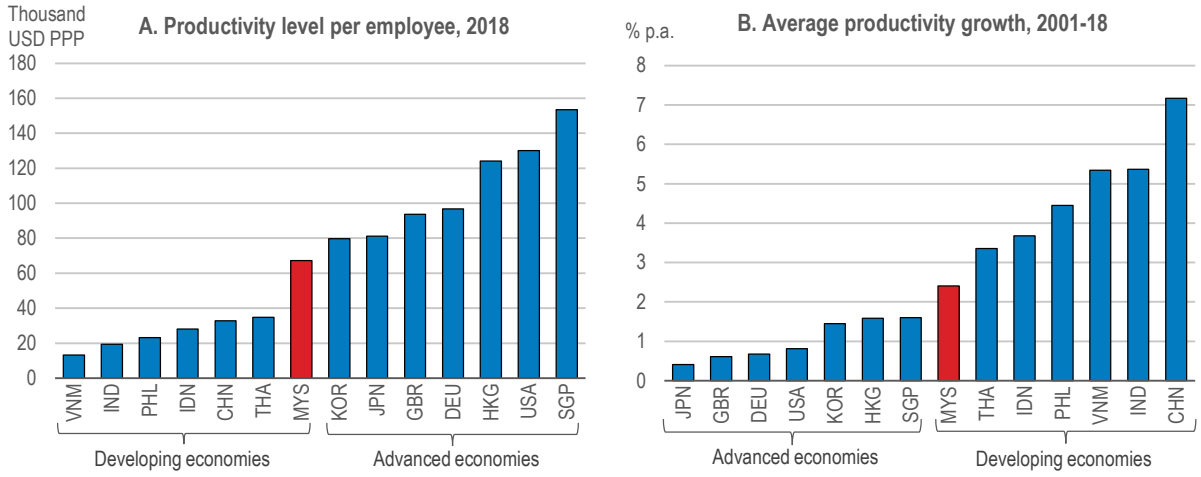
Malaysia's labour productivity increased rapidly during the first half of the 1990s, with the seventh fastest growth among 50 economies at 5.4% per year over 1991-97. However, the performance has deteriorated after the Asian Financial Crisis. Nonetheless, Malaysia's productivity level continues to lag behind most advanced countries. For instance, based on purchasing power parity terms, Malaysia's productivity level in 2019 was about half that of the United States and Singapore (Figure 24). On the other hand, Malaysia's productivity level is ahead of its regional peers like Thailand, China, Indonesia, India and Viet Nam. However, these countries experience higher productvity growth than Malaysia, implying a rapid catching up of these countries.

Figure 24. Labour productivity level still lags behind advanced countries



Source: The Conference Board (2019), *Total Economy Database*, April.

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Human capital development is one of the critical challenges in boosting Malaysia's labour productivity. The importance of human capital development has been highlighted in most the development plans or industry-specific masterplans in Malaysia. In the recent examples, empowering human capital has been identified as one of the pillars in the Mid-Term Review of the Eleventh Malaysia Plan. The National Industry 4.0 Policy Framework outlined upskilling existing and producing future talents as one of the five strategic enablers and the Malaysia Productivity Blueprint identified building workforce of the future as the first thrust at the national level.

Currently, Malaysia's industries are excessively dependent on semi- and low-skilled workers and foreign labour (MEA, 2018). Although the growth of skilled workers (at 3.9% per year over 2016-18), outpaces that of semi- and low-skilled workers combined at 0.9%, the share of skilled workers to total employment is still low at 27.2% as compared to the target of 35% by 2020 set by the government (EPU, 2015a). As a result, the contribution of labour quality to economic growth remains low. On average, labour quality contributed about 8% to real GDP growth over 2001-18, much lower than the OECD average (Figure 24 panel B).

Human capital has a strong association with the determinants of economic growth, such as innovation, and political and economic institutions. Skilled workers are crucial to facilitate innovation and technology adoption as well as promote upgrading of activities to unlock the potential of economic growth. Improving basic skills among the population of Malaysia, with all youth reaching basic skill level by 2030, would contribute to a 0.71 percentage points increase in long-run economic growth (Hanushek and Woessmann, 2015).

Raising female labour participation is expected to contribute to productivity gains. A large group of inactive women represents a pool of unused skills that could be activated to contribute to the country's productivity and reduce skills imbalances. Policies that help women get access to job opportunities that corresponds to the skills they have will ensure that skills are used as efficient as possible (see the thematic chapter).

Efforts need to be intensified in producing high-quality talent pool to support the Malaysian government's aspiration of becoming an advanced and inclusive country (see the thematic chapter).

Accelerating liberalisation facilitates productivity gains

Malaysia has benefitted from inflows of foreign direct investments (FDI) in creating a competitive industrial base, in particular the manufacturing sector. However, since the 1990s, Malaysia saw its share of inward FDI stock in ASEAN decline rapidly, partly as a result of increased competition for FDI by other countries in the region. While Malaysia has unilaterally liberalised its regulatory framework of FDIs, the restrictions on FDIs remain relatively high compared with the OECD average, notably services sector (OECD, 2018a).

In spite of the success that Malaysia has achieved, the country still faces challenges to attract FDI and stimulate its demand for high skill jobs. In the OECD FDI Regulatory Restrictiveness Index, Malaysia currently scores 0.25 (0=open, 1=closed) (OECD, 2018a). This score is higher than the averages of OECD members, non-OECD members as well as ASEAN members. As for investment protection, Malaysia's several investment laws still have room of improvement such as lack of provisions on non-discrimination, environmental impact and sustainable development (see the thematic chapter). According to some of its main trading partners and key business sector groups, despite some improvements in recent years, Malaysia still has scope to further strengthen its intellectual property rights protections, especially in the area of patent protection (European Commission, 2018[33]; U.S. Chamber of Commerce, 2019).

Liberalisation would be further accelerated by the ratification of the Comprehensive and Progressive Trans Pacific Partnership Agreement (CPTPP). The CPTPP's objective is to create a comprehensive trade and investment regulatory framework which facilitates market access among partner countries. It aims to go beyond traditional Free Trade Agreements' provisions by addressing outstanding issues including the development of digital economy and the role of both SOEs and SMEs in the global economy. The CPTPP includes 30 chapters covering, *inter alia*, trade in goods and services, electronic commerce, government procurement, intellectual property rights protection, labour, environment as well as dispute settlement (OECD, 2018a). The government is expected to finalise in the second half of 2019 a study on the possible benefits and drawbacks of ratifying the CPTPP.

Promoting services liberalisation contributes to overall productivity

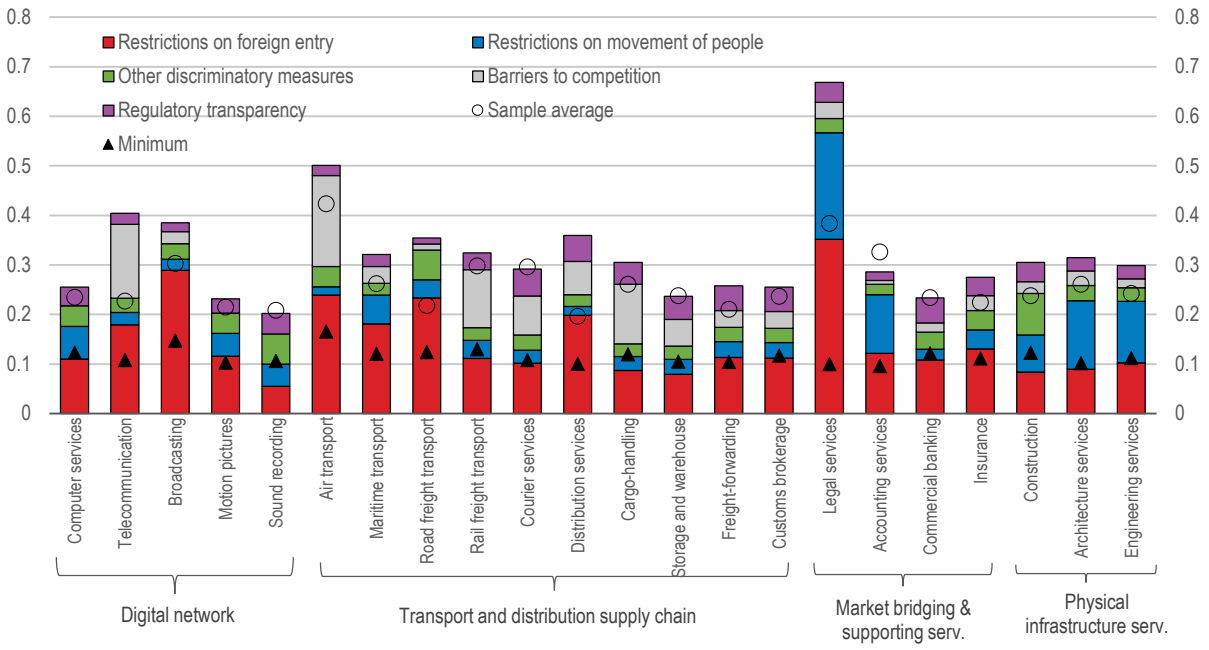
Malaysia's services sectors employ over 60% of its workforce and account for over half of its GDP, making services a major contributor to the country's economic growth, productivity, and earnings. Open and well-regulated services markets also facilitate access to information, skills, technology, funding, and enable the movement of skilled labour across borders.

The OECD Services Trade Restrictiveness Index (STRI) shows that there is room to liberalise the regulatory framework affecting services trade in Malaysia (Figure 25). Restrictions to the temporary movement of skilled people, including intra-corporate transferees, contractual and independent suppliers, are also prominent in key intermediate services that support global value chains such as professional services or computer services.

Some requirements apply economy-wide, affecting all services sectors in Malaysia. Labour market tests, for instance, are applied to foreign natural persons seeking to provide services on a temporary basis as intra-corporate transferees. There are, however, no similar requirements for contractual and independents services suppliers. The duration of stay for intra-corporate transferees is 24 months while the other two categories of services suppliers can only stay up to 12 months on their initial permit through a Professional Visit Pass.

Figure 25. There is room to further liberalise services regulations in Malaysia

Services Trade Restrictiveness Index by sector ranging from 0 (open) to 1 (closed), 2018



Note: The STRI indices take values between zero and one, one being the most restrictive. They are calculated on the basis of the STRI regulatory database which contains information on regulation for the 36 OECD members, Brazil, China, Colombia, Costa Rica, India, Indonesia, Malaysia, Russia and South Africa. The STRI database records measures on a Most Favoured Nations basis. Preferential trade agreements are not taken into account. Air transport and road freight cover only commercial establishment (with accompanying movement of people).

Source: OECD, Services Trade Restrictiveness Index database, http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm.

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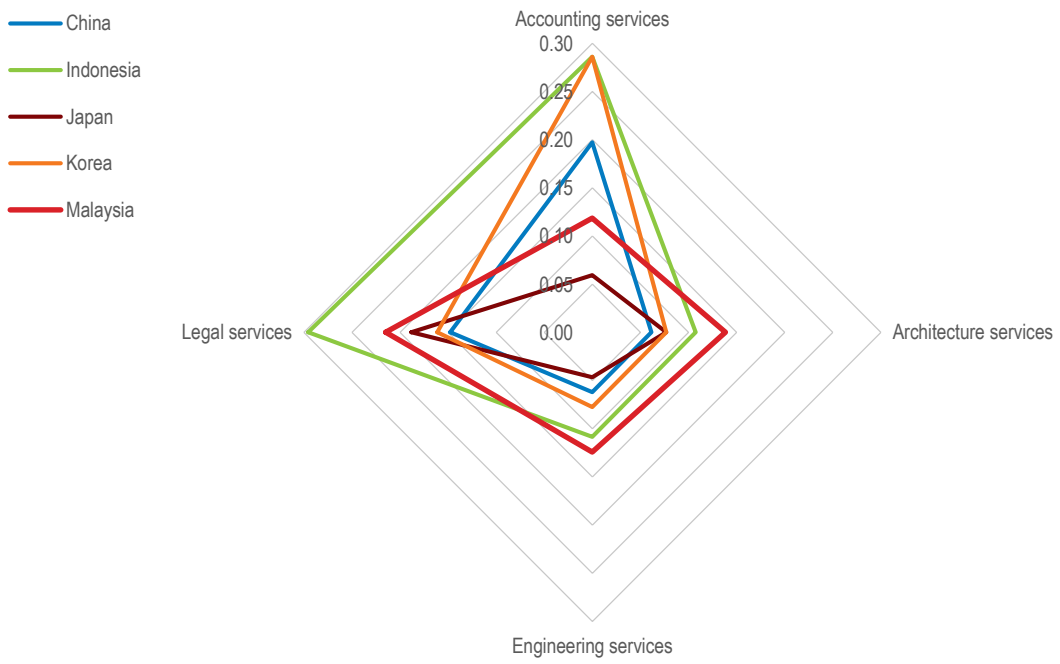
In skilled labour intensive services, notably professional services, licensing conditions are key to gaining access to the market (Figure 26). In legal services, for instance, foreigners willing to practice domestic law in Malaysia need to obtain their qualifications in certain specific universities and must be residents in Malaysia. The practice of international law, on the other hand, is subject only to having a local residency. In other regulated professions, such as accounting and auditing, some foreign qualifications can be more easily recognised. Nonetheless, those with non-recognised qualifications must pass a qualifying examination at The Malaysian Institute of Accountants.

Figure 26. Restrictions to movement of people in STRI, by professional services

Index from 0 (open) to 1 (closed), 2018



Source: OECD, *Services Trade Restrictiveness Index database*, http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm.

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Malaysia has progressively eased restrictions to the movement of people by the liberalisation of trade in services provided for in Economic Partnership Agreements and Free Trade Agreements that go beyond the market access commitments made on the movement of natural persons under the World Trade Organisation's General Agreement on Trade in Services. Malaysia has also facilitated to mutual recognition of qualifications, an issue which is closely related to the movement of skilled labour. For instance, in 2014, ASEAN members agreed to the Mutual Recognition Arrangement in intra-ASEAN trade in services that consists of eight sectors including engineering services, architectural services and accounting services.

In sum, there is room to further liberalise services regulations in Malaysia and ease the conditions affecting the temporary movement of skilled people through removing the labour market testing for intra-corporate transferees and raising the duration of initial stay for contractual and independent services suppliers. There is also room to improve the licensing conditions for professional services suppliers.

Table 8. Past OECD recommendations on boosting productivity

Key recommendations	Measures taken since November 2016
Follow through with the revised school curricula based on international benchmarking and the improvements to teacher evaluation, training and upskilling.	Benchmarking and collaboration with international organisations such as International Bureau of Education and UNESCO are continued.
Increase the collaboration of tertiary institutions with industry to deliver job-ready graduates, with a focus on technical and vocational education and training.	TVET institutions collaborated more than 1 000 firms that benefitted more than 10 000 students in 2016-17. New partnership models are to be implemented that aims to improve TVET quality through increased apprenticeship, hands-on training and specialised employer training programme.
Commission an independent review of public sector productivity.	The Public Service Department, in collaboration with the Malaysia Productivity Corporation has been conducting measurement of public sector productivity since 2015.
Streamline innovation system governance through clear mandates for the National Science Council and Research Management Agency.	A centralised research management agency will be established to coordinate public research and development, commercialisation and innovation activities, including resource sharing in an integrated manner.
Enhance the independence, staffing and financial resources of the regulator. Expand merger control powers	A high-level steering committee has been established to review monopoly concessions awarded in the past.
Amend insolvency laws to facilitate the rescue of viable firms. Introduce out-of-court insolvency procedures.	The new Bankruptcy Act was implemented in 2017 that aligns the bankruptcy framework with the international best practice.
Pursue further investment liberalisation to boost services sector growth and competition.	The Comprehensive and Progressive Agreement for Trans-Pacific Partnership was signed in March 2018, while its ratification is being discussed. Free Trade Agreements are being negotiated with the European Union.

Strengthening the policy framework for environmental sustainability and green growth

Malaysia's rich biodiversity and heavily forested environment are an irreplaceable asset. Their conservation and sustainable use are critical to the future prosperity both of the country and of its neighbours. Recent climate change poses challenges to Malaysia's economic growth, as erratic weather conditions damaged agricultural production and thereby exports such as palm oil and rubber (agricultural products accounted for 13.5% of goods exports in 2016). Climate change has also exacerbated the risk of natural disasters such as floods, droughts and storms, especially in coastal cities and towns.

Under the Paris Climate Agreement, Malaysia has pledged to reduce the greenhouse gas (GHG) emission intensity of GDP by 45% by 2030 relative to 2005 in its Intended Nationally Determined Contribution. A target of a 35% reduction was set unconditionally while a further 10% reduction is contingent upon receiving sufficient climate change related financing, technology transfer and capacity building assistance from developed countries. To achieve this target, Malaysia's economic development path needs to become less carbon intensive (Figure 27, panel A). The government has made commitments to a series of measures for environmentally sustainable development, including increasing the share of renewable energy in the electricity capacity mix to 20% by 2025, up from current 4.7% (Figure 27, panel C). Reliance on coal power plants – one of the major sources of CO_2 emissions – will be curtailed. Conservation of the forest areas is key to maintaining biodiversity and containing GHG. Malaysia has also committed at the 1992 Rio Earth Summit to maintain at least 50% forest cover from total land mass and has reiterates its commitment at the Rio+20 UN Conference on Sustainable Development in 2012. While

forest coverage has improved in recent years, risks still exist by illicit logging (Figure 27, panel F). To enforce forest area management against these risks, in Brazil, for example, high-resolution satellite imaging is used to monitor forest areas for effective enforcement (OECD, 2017b).

Fragmentation and lack of co-ordination of environmental policy governance generate gaps between planning and implementation. To address this problem, the government established the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) in 2018 by integrating functions across ministries related to energy, environment, climate change and green technology. MESTECC is supported by the central agency Ministry of Economic Affairs which partakes on broad policy range and inclusive development. In addition to strengthening governance at the central government level, promoting public participation could help to promote effective implementation. However, experience of participation in Environmental Impact Assessment did not meet the desired objective due to lack of public awareness (Zain and Omar, 2018).

Utilising market mechanisms such as phasing out distortive energy subsidies could contribute to green growth. Energy subsidies, if not targeted to the poor, often disproportionally benefit wealthier segments of society, who consume more of the subsidised products. This applies in particular to transport fuels. Fossil-fuel subsidies often encourage wasteful use of energy and discourage investment in energy efficiency and low-carbon technologies, thereby increasing energy-related carbon dioxide (CO_2) emissions (IEA, 2017). Consistent with this view, fuel subsidies were eliminated in December 2014. However, the government reintroduced fuel subsidies in June 2018 for all consumers but will be replaced with a new subsidy mechanism targeted to households in the bottom 40% income group by the second half of 2019. This should help reduce energy subsidies and provide support for low-income households. Malaysia should also strengthen the taxation of fossil fuel combustion, for example with a carbon tax. This would help reduce carbon emissions and air pollution, while providing a steady flow of substantial tax revenues (Table 7). OECD research on 20 countries (though mostly European) suggests that it may be sufficient to use one third of the revenues to protect low-income households from affordability risks (Flues and van Dender, 2017).

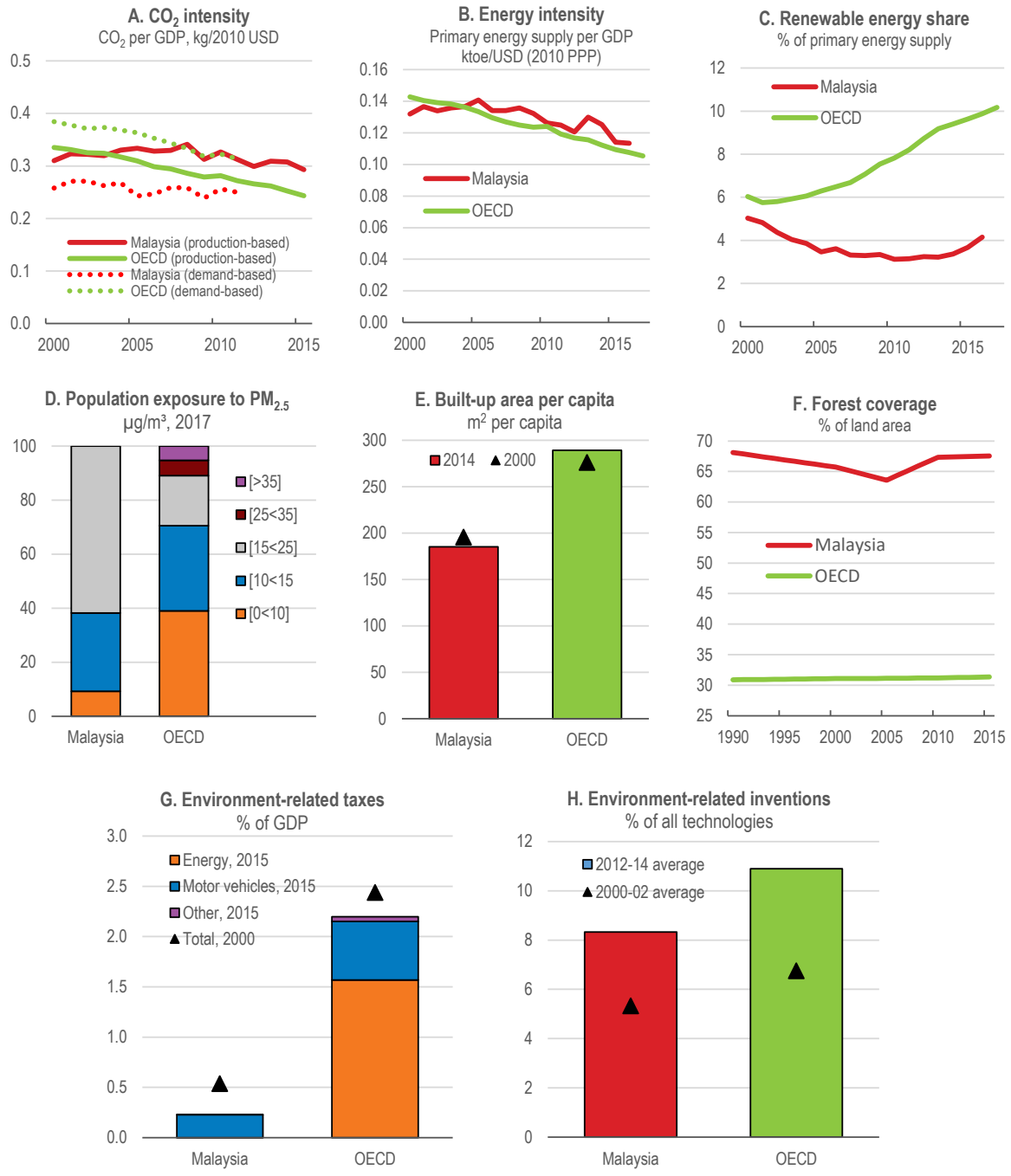
Policies for green growth in Malaysia are particularly important in urban areas, given the concentration of economic activities and the growing environmental challenges. While urbanisation comes with strong development potential, soaring resource consumption harms environmental performance. For example, in Iskandar Malaysia population will increase by some 50% between 2015 and 2025.The built-up areas have already increased by 53.5% between 2000 and 2010 (an annual growth rate of 6.7%), to a large extent driven by the booming housing market. As a consequence, agricultural land has declined by half, and natural areas by 10% since 2005. Although more than half of Malaysia's municipal solid waste generated is organic or paper, the overall recycling rate remains less than 20%. Insufficient sewerage management also endangers the water quality of local river systems and residents' health (OECD, 2016b). An integrated approach by local government, producers and local communities is required to improve waste management and recycling. Moreover, while accessibility to public transport is already relatively low, at 39%, it is forecast to decline further to 14% by 2025 under a business-as-usual scenario, which severely affect job opportunities and quality of life for low-income households. Sustainable urban transport policies need to be put much higher on the green growth agenda, and be better co-ordinated with land-use planning, for example, through transit-oriented development.

Urban green growth strategies can effectively address these urgent challenges in Malaysia, as policy complementarities and synergies can be better sought at the city scale to maximise policy outcomes and reduce trade-offs. For instance, waste-to-energy technology can support waste treatment efforts while easing the pressure on energy supply systems. Disaster risk management is also an essential and therefore complementary element for urban green growth in Malaysia (OECD, 2018b). The central government needs to recognise the role cities can play in each green growth opportunity area and promote collaborative action vertically as well as across municipalities. In particular, metropolitan areas in Malaysia are characterised by a lack of formal and informal collaboration among local governments, despite a critical need for such co-ordination (OECD, 2016b). Moreover, capacity building of local government officials underpins effective co-ordination and enforcement of environmental policy. In an urban setting, there is need to conjure up greater green mobility too, e.g. anticipating more energy efficient vehicles, electric vehicles and ensuring more biofuel component. In addition, more public-private interface platform in urban setting should also be established in order to reduce gaps between government and entrepreneurs.

Table 9. Past OECD recommendation on green growth

Key recommendations	Measures taken since November 2016
Increase the use of market mechanisms and stricter environmental standards to strengthen green growth strategies.	The Energy Performance Contracting Fund was launched in 2017 to accelerate energy efficiency initiatives conducted by energy service companies. A comprehensive new Energy Efficiency and Conservation Act is being drafted in pursuit of achieving national aspirations of GHG emissions.

Figure 27. Economic development path needs to be less carbon-intensive



Source: OECD (2018), *OECD Environment Statistics database* (Green Growth Indicators; Patents); *OECD National Accounts database*; IEA (2018), *IEA Energy Prices and Taxes database*; World Bank, *World Development Indicators database*.

StatLink https://doi.org/10.1787/888933968366

References

Aizuddin, M. (2018), "Escalating Trade Tensions and Potential Spillovers to Malaysia", *Bank Negara Malaysia Quarterly Bulletin - Third Quarter 2018, Kuala lumpur*.

BNM (2019), *Economic and Financial Developments in the Malaysian Economy in the Fourth Quarter of 2018*, Bank Negara Malaysia, Kuala Lumpur.

BNM (2018a), *Annual Report 2017*, Bank Negara Malaysia, Kuala Lumpur, http://www.bnm.gov.my/files/publication/ar/en/2017/ar2017_book.pdf (accessed on 14 September 2018).

BNM (2018b), *Governor's Remarks at the 40th Harvard Business School Alumni Club Malaysia Anniversary Dinner: "Public Policy Perspective – Some Thoughts and Contemplations from A Central Banker"*, Bank Negara Malaysia, Kuala Lumpur, http://dx.doi.org/www.bnm.gov.my/index.php?ch=en_speech&pg=en_speech&ac=790&lang=bm.

Brys, B. et al. (2016), "Tax Design for Inclusive Economic Growth", *OECD Taxation Working Papers*, No. 26, OECD Publishing, Paris, https://dx.doi.org/10.1787/5jlv74ggk0g7-en.

EPF (2018), *Social Protection Insights, Vol.3*, Employers' Providend Fund, Kuala Lumpur.

EPU (2015a), *The Eleventh Malaysia Plan Strategy Paper 1 : Unlocking the Potential of Productivity*, Economic Planning Unit, Prime Minister's Department, Purtajaya.

EPU (2015b), *The Eleventh Malaysia Plan, 2016-2020*, Economic Planning Unit, Prime Minister's Department, Putrajaya.

European Commission (2018), *Report on the protection and enforcement of intellectual property rights in third countries: Commission Staff Working Document*

Fernando Fong, V. (2017), "Individual tax base small, hence the need for GST", *New Strait Times*, https://www.nst.com.my/news/nation/2017/11/308744/individual-tax-base-small-hence-need-gst (accessed on 29 Dec 2018).

Flues, F. and K. van Dender (2017), The impact of energy taxes on the affordability of domestic energy, *OECD Taxation Working Papers*, https://dx.doi.org/10.1787/08705547-en

Gourdon, J. (2018), "Mapping the OECD Government Procurement Taxonomy with International Best Practices: An Implementation to ASEAN Countries", *OECD Trade Policy Papers*, No. 216, OECD Publishing, Paris, http://dx.doi.org/10.1787/1bd4d59a-en.

Hanushek, E. and L. Woessmann (2015), *Universal Basic Skills: What Countries Stand to Gain*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264234833-en.

IDEAS (2015), "*The New Face of KWAN: Proposals to improve Malaysia's Natural Resource Fund",* Policy IDEAS No.19, Instutute for Democracy and Economic Affairs, Kuala Lumpur.

IEA (2017), *Southeast Asia Energy Outlook 2017*, IEA, Paris, https://dx.doi.org/10.1787/9789264285576-en.

Johansson, Å. et al. (2008), "Taxation and Economic Growth", *OECD Economics Department Working Papers*, No. 620, OECD Publishing, Paris, https://dx.doi.org/10.1787/241216205486.

Khazanah Research Institute (2018), *The State of Households 2018: Different Realities*, Kuala Lumpur.

Kim, C. and Zulfiqar Ali (2017), "Efficient Management of State Owned Enterprises: Challenges and Opportunities", *Policy Brief*, Vol. No.2017-4/Asia Development Bank Institute, Tokyo, https://www.adb.org/sites/default/files/publication/390251/adbi-pb2017-4.pdf.

Lee, H. (2018), "SST – for better or worse?", *The Star Online, 1 September*, https://www.thestar.com.my/business/business-news/2018/09/01/sst-for-better-or-worse/ (accessed on 29 December 2018).

Lim, G. (2018), *2019 Budget Speech*, Ministry of Finance, Putrajaya.

MEA (2018), *Mid-Term Review of the Eleventh Malaysia Plan*, Economic Planning Unit, Ministry of Economic Affairs, Putrajaya. [9]

Menon, J. (2017), "Government-linked Companies: Impact on the Malaysian Economy", *Policy Ideas No.45* Institute for Democratic and Economic Affairs, Kuala Lumpur.

MOF (2018), *Fiscal Outlook and Federal Revenue Estimates 2019*, Ministry of Finance, Putrajaya, http://www.treasury.gov.my/fo_2019.html.

MOF (2017), *Economic Report 2017/18*, Ministry of Finance, Putrajaya.

OECD (2019), *Addressing the Tax Challenges of the Digitalisation of the Economy*, OECD Publishing, Paris

OECD (2018a), *OECD Investment Policy Review of Southeast Asia*, OECD Publishing, Paris.

OECD (2018b), *Building Resilient Cities: An Assessment of Disaster Risk Management Policies in Southeast Asia*, OECD Green Growth Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264305397-en.

OECD (2017a), *Corporate Governance in Colombia*, Corporate Governance, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264281134-en.

OECD (2017b), *Investing in Climate, Investing in Growth*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264273528-en.

OECD (2017c), *OECD Recommendation on Public Integrity*, OECD Punblishing, Paris..

OECD (2016a), *OECD Economic Surveys: Malaysia 2016: Economic Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-mys-2016-en.

OECD (2016b), *Urban Green Growth in Dynamic Asia*, OECD Green Growth Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264266360-en.

OECD (2015a), *OECD Guidelines on Corporate Governance of State-Owned Enterprises*, OECD Publishing, Paris.

OECD (2015b), *The OECD Recommendationon Public Procurement*, OECD Publishing, Paris, http://www.oecd.org/gov/public-procurement/recommendation/.

OECD (2006), "Explicit Contingent Liabilities in Debt Management", in *Advances in Risk Management of Government Debt*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264104433-7-en.

OECD/ADB (2019), *Government at a Glance Southeast Asia 2019*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264305915-en.

OECD/KIPF (2014), "The Distributional Effects of Consumption Taxes in OECD Countries", *OECD Tax Policy Studies*, Vol. No.22/OECD Publishig, Paris, https://dx.doi.org/10.1787/9789264224520-en.

OECD/WHO (2018), *Health at a Glance: Asia/Pacific 2018: Measuring Progress towards Universal Health Coverage*, OECD Publishing, Paris, https://dx.doi.org/10.1787/health_glance_ap-2018-en.

Ülgentürk, L. (2017), "The role of public debt managers in contingent liability management", *OECD Working Papers on Sovereign Borrowing and Public Debt Management*, No. 8, OECD Publishing, Paris, http://dx.doi.org/10.1787/93469058-en.

US Chamber of Commerce (2019), *2019 International IP Index*, Washington D.C.

World Bank (2014), *Malaysia Economic Monitor: Towards a Middle-Class Society (December 2014)*, Kuala Lumpur.

Xavier, G. and A. Xavier (2017), "Public Procurement in Malaysia: Is There a Need for Reform?", *The Law Review 2017*.

Zain, F. and D. Omar (2018), "Survey on Public Participation of Malaysia's MTR Project with reference to Environmental Impact Assessment", *Journal of Advanced Manufacturing Technology*, Vol. Vol.12/No1 (2).

Annex 1.A. Key recommendations in the first OECD Economic Assessment of Malaysia (November 2016)

Key recommendations	Measures taken since November 2016
Maintaining resilient growth	
Continue fiscal consolidation to provide a buffer should conditions deteriorate.	The government revised its fiscal deficit target to 3.0% by 2020 in October 2018.
Undertake an independent review of expenditure and revenue needs.	The government asked the World Bank to undertake a Public Expenditure Review for agriculture. The study was completed in February 2019.
Over the medium term, consider: i) gradually reducing exemptions and then raising the rate of the goods and services tax, and ii) increasing the progressivity of income tax.	The GST rate was abolished and the SST was reintroduced in September.
Increase the use of market mechanisms and stricter environmental standards to strengthen green growth strategies.	The Energy Performance Contracting Fund was launched in 2017 to accelerate energy efficiency initiatives conducted by energy service companies. A comprehensive new Energy Efficiency and Conservation Act is being drafted in pursuit of achieving national aspirations of GHG emissions.
Boosting productivity	
Follow through with the revised school curricula based on international benchmarking and the improvements to teacher evaluation, training and upskilling.	Benchmarking and collaboration with international organisations such as International Bureau of Education and UNESCO are continued.
Increase the collaboration of tertiary institutions with industry to deliver job-ready graduates, with a focus on technical and vocational education and training.	TVET institutions collaborated more than 1 000 firms that benefitted more than 10 000 students in 2016-17. New partnership models are to be implemented that aims to improve TVET quality through increased apprenticeship, hands-on training and specialised employer training programme.
Commission an independent review of public sector productivity.	The Public Service Department, in collaboration with the Malaysia Productivity Corporation has been conducting measurement of public sector productivity since 20156.
Streamline innovation system governance through clear mandates for the National Science Council and Research Management Agency.	A centralised research management agency will be established to coordinate public R&D&C&I activities, including resource sharing in an integrated manner.
Enhance the independence, staffing and financial resources of the regulator. Expand merger control powers.	A high-level steering committee has been established to review monopoly concessions awarded in the past.
Amend insolvency laws to facilitate the rescue of viable firms. Introduce out-of-court insolvency procedures.	The new Bankruptcy Act was implemented in 2017 that aligns the bankruptcy framework with the international best practice.
Pursue further investment liberalisation to boost services sector growth and competition.	The Comprehensive and Progressive Agreement for Trans-Pacific Partnership was signed in March 2018, while its ratification is being discussed. Free Trade Agreements are being negotiated with the European Union.

Pursue further investment liberalisation to boost services sector growth and competition	
Promote flexible work arrangements and invest more in early childhood care, lifelong learning and reskilling.	The number of employees eligible for training under Human Resources Development Fund expanded to include more sub-sectors and SMEs over 2015-18.
Develop a comprehensive social protection system, including by implementing an employment insurance scheme.	The Employment Insurance System Act 2017 was implemented in January 2018 that provides retrenched workers with temporary financial support and re-training. Self-employment Social Security Act 2017 was implemented in June 2017 that provides social security for self-employed persons in the informal sector.
Increase pension access ages in line with improvements in healthy life expectancy and reduce exemptions for early withdrawal.	Continuous study is ongoing on increasing the compulsory retirement age in accordance to life expectancy and productivity of civil servants.
Enrol future public employees in the defined contribution scheme covering private sector employees	The government is to conduct the study on a more sustainable pension scheme in the future. The study is scheduled to be completed in 2020.
Improve social services, transport and broadband connectivity in remote rural areas.	Initiatives will be undertaken in 2018-20 to improve road network, access to water, electricity supply and digital infrastructure in rural areas.

Thematic Chapter

1. Reducing skills imbalances to foster productivity growth

The importance of skills development as a game changer

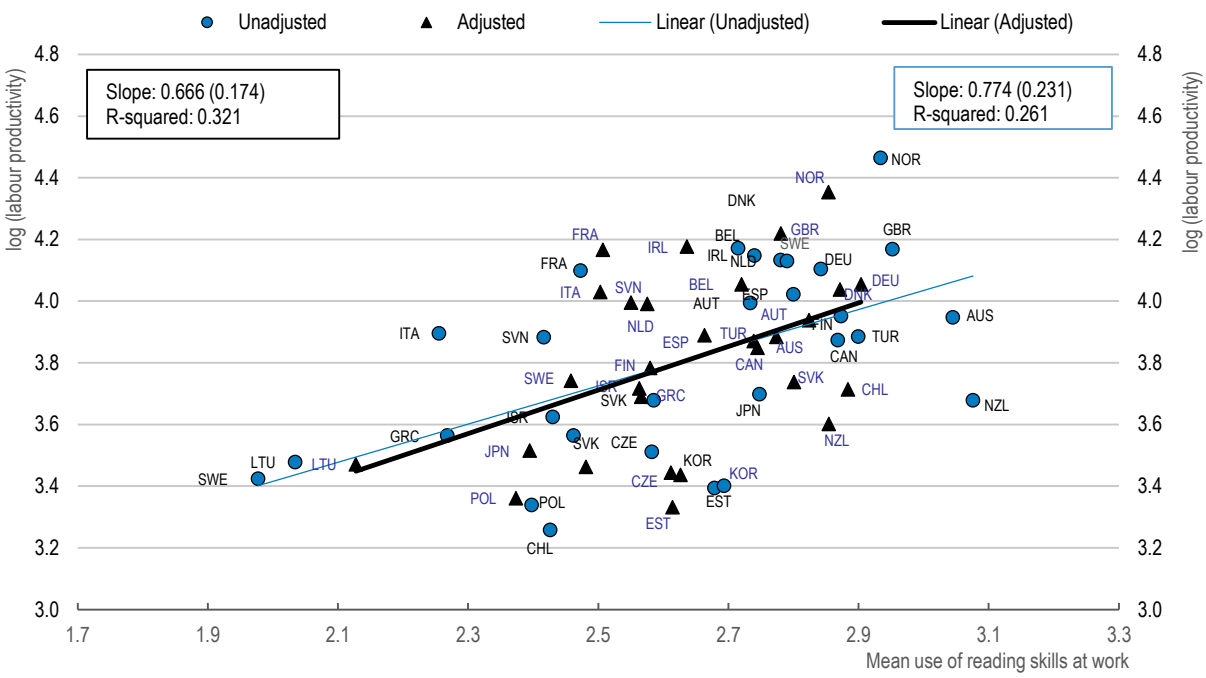
Higher levels of skills allow countries to reach higher levels of output and productivity. Therefore, skills and productivity policies are strongly intertwined and mutually reinforcing. Since the seminal work by Solow (1957), the relationship between skills and economic development has extensively been recognised in the economics literature.

Higher levels of education and skills have been identified as key drivers of productivity growth, allowing people to execute more difficult tasks and to solve more complex problems (Rincon Aznar, Forth, Mason, O'Mahony, & Bernini, 2015). Education and skills can also affect productivity in the long run through indirect channels and spillover effects. For example, highly skilled workers can pass their knowledge on to workers in other workplaces or surrounding economic areas (Lucas, 1988). The empirical evidence also suggests significant complementarities between skills and innovation. A more skilled workforce can facilitate the creation and adoption of new technologies (Benhabib & Spiegel, 1994; Acemoglu, Aghion, & Zilibotti, 2006). At the macro level, higher levels of skills also promote both physical and R&D investments (Romer, 1990; Romer, 1986).

Hanushek & Woessmann (2012) use cross-country data and find that higher secondary school test scores are also associated with higher average annual growth rates in GDP per capita. PIAAC data shows that numeracy skills play a strong role in supporting labour market outcomes. Higher levels of skills are associated with a higher probability of being employed in quality jobs and accessing to higher wages (OECD, 2016a; Hanushek et al., 2014). By contrast, people with low level of skills are more likely to work in non-standard and temporary job and earn lower wages and to show lower levels of job satisfaction.

However, not only the level of skills matters for productivity but also how effectively skills are used. PIAAC data shows that many skills are not fully used in workplaces. A significant share of employees are overqualified or underqualified for their jobs or work in areas that do not match their field of study. These skills mismatches can have a significant impact on productivity. For example, Adalet McGowan & Andrews (2015) find that higher skill and qualification mismatch is associated with lower labour productivity. Similarly, PIAAC data shows that the use of reading skills at work correlates strongly with output per hour worked (Figure 1.1).

Figure 1.1. Labour productivity and the use of reading skills at work



Note: Lines are best linear predictions. Labour productivity is equal to the GDP per hour worked, in USD current prices 2012 for Round-1 and 2014 for Round-2 countries/economies. Adjusted estimates are based on OLS regressions including controls for literacy and numeracy proficiency scores. Standard errors in parentheses. Malaysia does not participate in PIAAC and therefore is not shown in the figure.

Source: OECD (2016), *Skills Matter: Further Results from the Survey of Adult Skills*, Figure 4.3; Survey of Adult Skills (PIAAC) (2012,2015), Table A4.3.

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To enjoy the same success in the future as in the past, Malaysia will need to ensure that more people develop the right skills and use them effectively in the workplace. Special attention needs to be devoted to supporting disadvantaged students and adults in developing critical skills and reducing the skills imbalances in the labour market, which can contribute to higher productivity and growth.

In light of the importance of skills for fostering labour productivity, this chapter examines evidence of skills imbalances in Malaysia and assesses Malaysia's performance in a number of key policy areas that can help reduce imbalances. The first section provides an overview of skill imbalances in the Malaysian labour market and presents new evidence from the OECD Skills for Jobs database. The subsequent sections discuss how Malaysia performs in four policies areas that are important for minimising imbalances: i) improving teacher quality and practices, ii) strengthening the connection between education institutions and employment, iii) providing training opportunities during working life, and iv) making better use of women's skills. The final section focuses on demand side polices that can support Malaysia to move towards a high-skill equilibrium and discusses areas of action to improve the conditions that promote the development of a more innovative and dynamic economy.

The key messages of this chapter related to skills imbalances and productivity are:

- Malaysia faces substantial labour market imbalances, including shortages in a number of occupations and skills. Shortages are found across the skills spectrum, with several medium-and high skilled occupations experiencing shortage pressures. The same happens in many low-skilled occupations. At the same time, a significant share of workers are employed in occupations that do not match their education level. These imbalances call for policy intervention in many areas, including education and training as well as policies to stimulate the demand for high-level skills and policies to promote job-quality.
- Despite significant improvement in educational outcomes, a number of challenges remain. Regional disparities are still high and teacher practices can be improved to make a better use of the teacher workforce. Some skills imbalances can be further reduced by improving the responsiveness of the education system and by strengthening the connection between education institutions and businesses.
- Adults need better access to upskilling and re-skilling opportunities to ensure that their skills remain relevant for the labour market. These opportunities are limited in Malaysia, especially for certain groups, such as low-skilled adults, older adults, inactive women and workers in small and medium-sized enterprises. In addition, existing training programmes or financial incentives for training are often not aligned with the needs of the labour market.
- Malaysian women have high levels of educational attainment, but their labour market participation remains low compared to that of similarly educated men. To activate this pool of unused skills, barriers to labour market participation for women must be reduced. To ensure that both fathers and mothers can earn an income, the reconciliation between work and family life could be made easier. Helping both parents in paid work also requires investing more in affordable and good-quality early childhood education and care. This would not only be beneficial for parents, but also has positive effects on child cognitive and social development.

The state of skills imbalances in the Malaysian labour market

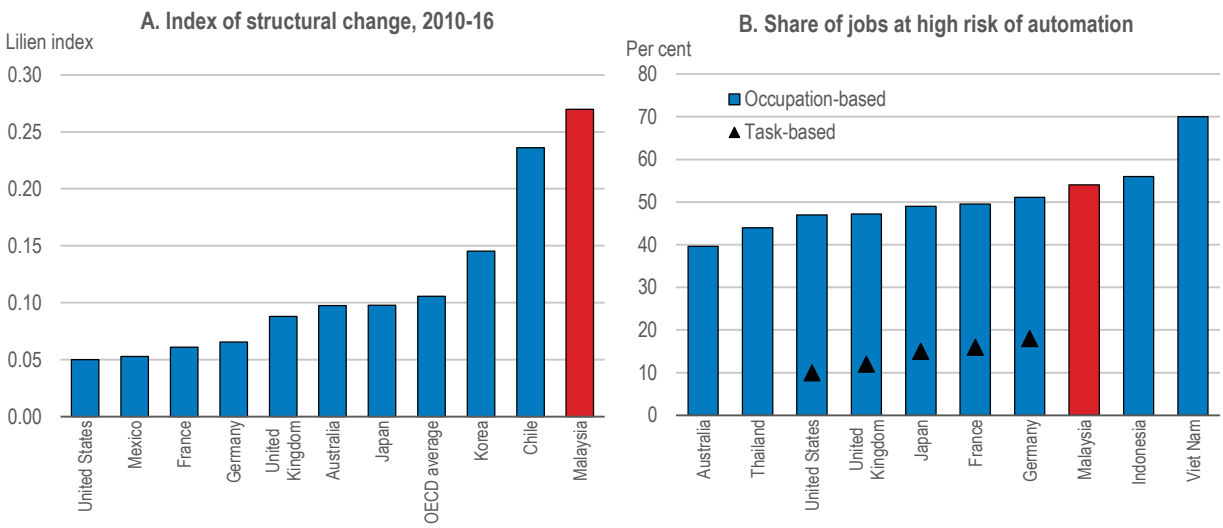
Skills imbalances can hamper productivity growth

The demand for skills is changing as a result of several trends such as technological progress, globalisation and demographic changes. Structural change creates employment opportunities in some – often altogether new – occupations and industries and decreases opportunities in others, thereby altering the skills demanded in the labour market. In the past decade, some countries have seen their economies transform more rapidly than others, (Figure 1.2, panel A). Changes in the sectoral composition of employment in the period 2010-2016 were much larger in Malaysia than in most OECD countries, implying that the type of skills needed in the labour market might have changed considerably.

For many countries, the biggest changes to their economic structure may yet be to come. There is a vibrant debate about the impact of technology on jobs in the future. It is likely that cutting-edge technology will result in the automation of more and more complex tasks at accelerating speed, fundamentally changing the skills that are required for many jobs. Some jobs may even become entirely redundant. Estimates show that 54% of jobs in Malaysia have a high risk of automation (Khazanah Research Institute, 2017), which is more than in most OECD countries (Figure 1.2, panel B). Recent OECD research suggests

that these estimates might overstate the risk of automation, and that only 14% of jobs across the 32 OECD countries analysed have a high risk of automation (Nedelkoska & Quintini, 2018). An additional 32% of jobs are found to have a medium risk of automation, meaning that they are likely to see significant changes in how they are carried out. Similar task-based estimates are not available for Malaysia, but these findings suggest that the share of jobs at high risk of automation might be significantly lower than the 54% (Figure 1.2). Nonetheless, the fact remains that the risk is relatively high in Malaysia compared to OECD countries like Australia and the United States. While these numbers give an interesting indication of the share of jobs that could be automated, they do not tell us how fast these changes will happen.

Figure 1.2. The Malaysian labour market is undergoing structural changes



Note: The Lilien index measures the extent to which employment in different sectors of the economy grows or shrinks at different speeds (OECD, 2012). The OECD average in panel A excludes Canada, New Zealand, Spain and Turkey. Occupation-based estimates for the risk of automation in panel B are based on Frey and Osborne (2017), whereas task-based estimates come from Nedelkoska and Quintini (2018).

Source: OECD (2012), *Structural Change and Growth: Trends and Policy Implications.* Panel A: OECD calculations using national accounts data (OECD countries) and Labour Force Survey data (Malaysia); Panel B: L. Nedelkoska and G. Quintini (2018), "Automation, Skills use and Training", *OECD Social, Employment and Migration Working Papers*, No. 202, Paris; C. Frey and M. Osborne (2017), "The Future of Employment: How Susceptible are Jobs to Computerisation?", *Technological Forecasting and Social Change*, Vol. 114, pp. 254-280; J. Bowles (2014), "Chart of the Week: 54% of EU Jobs at Risk of Computerisation", Bruegel blog post; Ceda (2015), *Australia's Future Workforce?*, Committee for Economic Development of Australia , Melbourne; J. Chang and P. Huynh (2016), "ASEAN in Transformation: The Future of Jobs at Risk of Automation", *Bureau for Employers' Activities Working Paper*, No. 9, International Labour Office, Geneva; Khazanah Research Institute (2017), "The Times They Are A-Changin': Technology, Employment, and the Malaysian Economy", *Discussion Papers*, No. 1/17, Khazanah Research Institute, Kuala Lumpur; and Nomura Research Institute (2015), "49% of the Japanese Working Population Could be Replaced by Artificial Intelligence, Robots and Similar", News Release.

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At the same time, the supply of skills is changing in many countries due to factors such as the gradual increase in labour market participation of women, improvements in educational attainment and greater migration flows. In light of these structural changes, it is becoming increasingly important to ensure that the skills of workers are effectively

aligned with the needs of the labour market. Imbalances between the supply and demand for skills can emerge in the form of 'skill shortages' - when adequate skills are hard-to-find in the current labour market- or in the form of 'skill surpluses' - when certain skills are in excess in the labour market relative to the demand (OECD, 2017b). In addition, imbalances also comprise skill mismatch when a workers' skills or qualifications exceed or fall short of those required for the job under current market conditions (OECD, 2017b[52]; Shah and Burke, 2005). Mismatch can be measured along different dimensions, including skills, qualifications and field of study.

Estimates suggest that substantial gains in productivity can be achieved by reducing skills mismatches (Adalet McGowan & Andrews, 2015). Skills shortages have been found to contribute to lower productivity of firms in several countries, including Ireland and Canada (Tang & Wang, 2005; Bennett & Mcguinness, 2009). Also at the firm level, under-qualification is found to have a negative effect on productivity in Belgian firms, while over-qualification has positive productivity effects (Kampelmann & Rycx, 2012). This finding was recently confirmed for the group of OECD countries, but while over-skilling is found to be associated with higher productivity at the firm level, it contributes to lower labour productivity on aggregate, because it tends to constrain the growth of other relatively more productive firms that could more efficiently utilise these workers.

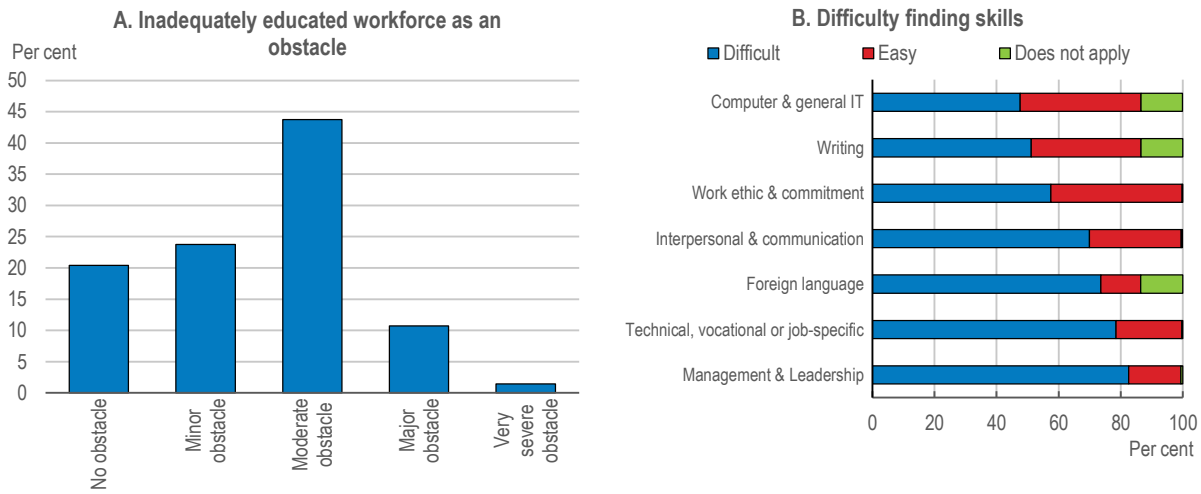
The importance of reducing skills imbalances for productivity has been acknowledged by the Malaysian government, stating in its 2017/18 Economic Report that "Skill shortages and mismatches in the workforce are among the major challenges in boosting productivity" (Ministry of Finance, 2018) . Similarly, the 2017/18 Productivity Report (Malaysia Productivity Corporation, 2018) highlights that shortages of skilled professions pose challenges in several sectors, including professional services, private healthcare and tourism. Evidence-based policy action is needed to reduce the negative effects of skill imbalances on productivity. Countries that want to reduce the skills imbalances in their labour markets need to have a good understanding of where the shortages, surpluses and mismatches are, and use this information to (re-)design policies.

Malaysian firms face challenges in getting workers with the right skills

Measures of skill imbalances are often derived from employer surveys which include questions on hiring intentions and recruitment difficulties. One such employer survey, namely the World Bank Enterprise Survey (World Bank, 2015a) , finds that almost all of the around 1 000 surveyed firms in Malaysia have had some difficulty in finding workers with the right skills for their vacancies in the last two years. Management and leadership skills are most often reported as difficult to find (82.5% of firms), followed by technical, vocational and job-specific skills (78.5%), foreign language skills (73.5%), and interpersonal and communication skills (69.9%) (Figure 1.3). At the same time, the difficulty to find the right skills is generally not seen as a major obstacle to current operations of the firms. Only 12.2% of employers see this as a major obstacle, compared to 20% of manufacturing employers in South Asia and 14% in East Asia and the Pacific.

Figure 1.3. Finding the right skills is an obstacle for many Malaysian firms

Share of firms



Note: Difficulty finding skills refers to enterprises who had vacancies during the last two years.
Source: World Bank (2015a), *Enterprise Surveys: Malaysia 2015 - Country profile*, The World Bank Group.

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At the national level, the 2018 National Employment Returns survey finds that two thirds of Malaysian private sector employers with at least five employees had difficulties filling up certain vacancies. Overall, 60% of vacancies were considered hard-to-fill. These difficulties were most common in management and skilled agricultural occupations (68% of vacancies are hard-to-fill), and least common among clerical occupations (39%). Among employers with hard-to-fill vacancies, 61% believed that the reason for the hiring difficulty was a lack of competency or skill level of job applicants. Lack of skills are particularly problematic among applicants for vacancies in crafts and trades occupations and service and sales occupations. (ILMIA & Ministry of Human Resources, 2018).

The difficulty to find workers with the required skills was also reported in a survey of Malaysian employers conducted by the World Bank and TalentCorp in 2014 focusing on skill shortages among recent graduates. The survey shows that around 50% of employers find that fresh graduates from local universities miss the ability to work independently, and lack problem-solving, analytical and critical thinking skills and creativity. A staggering 81% of employers report that graduates lack communication skills. Many employers therefore also find that university curricula should be more applicable to industry needs and have a practical component (World Bank, 2014).

While these results suggest that shortages in the Malaysian labour market are substantial, they need to be interpreted with caution, as they rely on subjective perceptions of employer self-reports, which is particularly problematic when they do not have a consistent and accurate assessment of skill shortages (OECD, 2017b). The resulting lack of objectivity limits the capacity of these surveys to inform cross-country comparison, making it difficult to put the intensity of national skill shortages into international perspective. For a thorough understanding of labour market imbalances, findings from employer surveys need to be complemented with more quantitative labour market information.

The labour market faces shortages in a variety of occupations and skills

Given the need for an objective and comparable cross-country set of indicators on skill needs, the OECD created the Skills for Jobs database in 2017. The database measures skill shortages and surpluses, as well as qualification and field-of-study mismatch, using quantitative information from large-scale datasets (e.g. labour force surveys). Box 1.1 provides more details on how the *Skills for Jobs* indicators are measured.

Box 1.1. The OECD Skills for Jobs Indicators

Shortages and surpluses

To analyse the degree of skill shortages and surpluses in countries' labour markets, the *Skills for Jobs* methodology uses five sub-indicators to extract signals of occupational shortage/surplus pressure: i) employment growth, ii) hours worked growth, iii) unemployment rate[a], iv) change in the share of underqualified workers, and v) hourly wage growth. For each occupation, the long-run trends of these indicators are measured relative to the economy-wide trends. The five indicators are aggregated into a final occupational shortage index.

To get an understanding of the actual *skills* that are in shortage or surplus (rather than the occupations), the occupational shortage indicator is translated into a skill need indicator by using information on skills requirements by occupation (from the United States Department of Labor's O*NET database).[b] The final skills needs indicator shows the degree of shortage or surplus for a wide range of skills, abilities and knowledge types.

Qualification and field-of-study mismatch

Qualification and field-of-study mismatch measure the misalignment between a workers' occupation and his/her qualification level and field-of-study, respectively. Workers are said to be underqualified when their highest educational attainment is below the usually observed qualification level in the worker's occupation. In the opposite case, when a worker's qualification level is above the standard qualification level in his/her occupation, this worker is overqualified. Similarly, a worker is mismatched in terms of field-of-study when the field-of-study of his/her highest attained qualification does not match with the field generally required in the worker's occupation.

[a] The Malaysian Skills for Jobs analysis uses data from the Malaysian Labour Force Survey, and results for the occupational shortage index are based on four sub-indicators (as unemployment by occupation was not available).

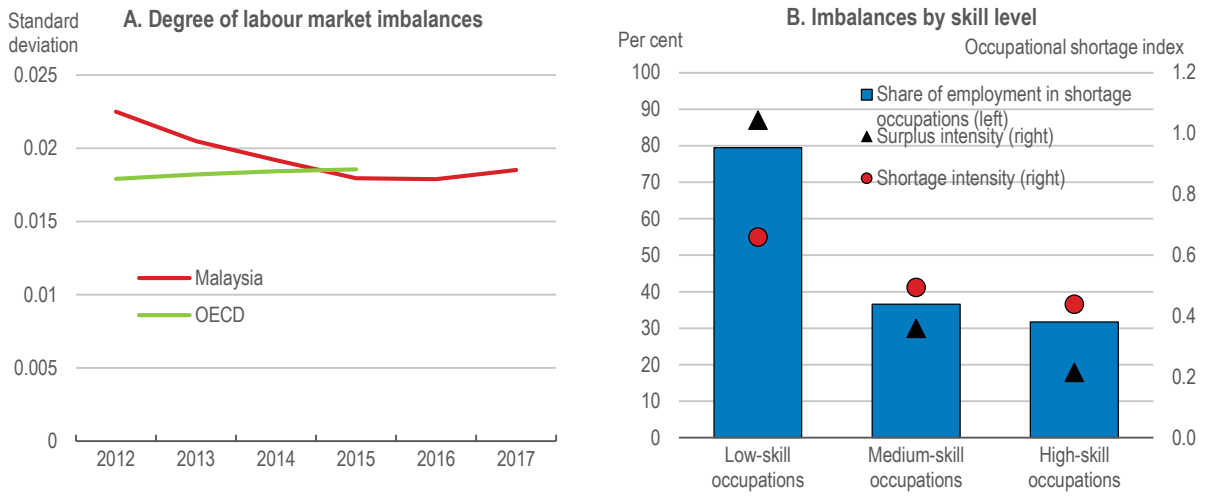
[b] The assumption is made that skill requirements by occupations are the same in Malaysia as in the United States. While the cross-country validity of O*NET has been confirmed for a range of OECD countries, some concerns have been raised regarding the use of O*NET for low-income countries.

Source: Adapted from OECD (2017b), *Getting Skills Right: Skills for Jobs Indicators*, https://dx.doi.org/10.1787/9789264277878-en

The *Skills for Jobs* indicators show substantial labour market shortages and surpluses in in the Malaysian labour market. The overall degree of labour market imbalance rose slightly in 2017 after several years of decline, and is close to the average observed across OECD countries (Figure 1.4, panel A).

Figure 1.4. Labour market imbalances are pervasive in Malaysia

Overall degree of imbalance and by skill level



Note: The standard deviation in panel A is the average of the standard deviations of the five sub-indicators of the occupational shortage index. The occupational shortage/surplus intensity (panel B, right scale) can range between 0 and 2.5. Low-skill occupations include all elementary occupations, and high-skill occupations all managers, (associate) professionals and technicians.
Source: OECD, *Skills for Jobs database*, using *Labour Force Survey* data.

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Panel B of Figure 1.4 groups all occupations by skill level to give an indication of the types of occupations in shortage and the intensity of the shortages. The graph shows that 79% of workers in low-skilled occupations are employed in occupations that are found to be in shortage. This is much higher than for medium-skill and low-skill occupations, where 37% and 32% of employment, respectively, is found to be shortage. The graph also shows that the intensity of shortages and surpluses (i.e. the value of the occupational shortage index for occupations in shortage or surplus respectively) differs between skill level groups. Low-skill occupations that are in shortage experience significantly stronger shortage pressures than medium- and high-skill occupations in shortage. Likewise, the low-skill occupations in surplus (representing only 21% of total low-skill employment) face more intensive surpluses than those experienced by high-skill surplus occupations. Imbalances in low-skill occupations are therefore significantly polarised, with both large shortages and large surpluses: Agricultural labourers (which employs a significant share of the Malaysian workforce) and refuse workers feature among the occupations with the largest shortages, whereas street sales and service workers and cleaners and helpers are among the occupations with the largest surpluses. These results show that the demand for certain low-skill jobs remains very high, confirming the fact that low-skilled jobs represent a large and growing share of total employment in Malaysia. On the other hand, the results also highlight that shortages are found at all skill levels.

The detailed Skills for Jobs results at the occupational level for Malaysia confirm that strong shortages can be found in a large variety of occupations, like for example teaching professionals (high-skilled), personal service workers (middle-skilled) and food preparation assistants (low-skilled) (Table 1.1). The same holds for surpluses, which are

observed in occupations like production and service managers (high-skilled), metal and machinery workers (middle-skilled), and cleaners and helpers (low-skilled).

Table 1.1. Substantial shortage and surpluses can be found in a variety of occupations

Top 10 shortage occupations	Top 10 surplus occupations
Agricultural, Forestry, Farming and Fishery Labourers	Market-oriented Skilled Forestry, Fishery and Hunting Workers
Stationary Plant and Machine Operators	Food Processing, Wood Working, Garment and Other Craft and Related Trades Workers
Education and Social Services Workers	Street and Related Sales and Services Workers
Personal Services Workers	Cleaners and Helpers
Teaching Professionals	Other Clerical Support Workers
Refuse Workers and Other Elementary Workers	Building and Related Trades Workers (excluding Electricians)
Legal, Social and Cultural Professionals	Subsistence Farmers, Fishermen, Hunters and Gatherers
Chief Executives, Senior Officials and Legislators	Metal, Machinery and Related Trades Workers
Food Preparation Assistants	Production and Services Managers
Electrical and Electronic Trades Workers	Drivers and Mobile Plant Operators

Note: 2-digit MASCO-2008 occupations. See OECD (2017b) for details on the methodology.
Source: OECD, *Skills for Jobs database*, using *Labour Force Survey* data.

The imbalances of skills, abilities and knowledge types also show a mixed picture (Table 1.2): Certain high-level cognitive skills are in shortage, but so are some physical and manual skills. The strong shortages of knowledge of education and training and certain social sciences and humanities reflect shortages in high-skill occupation such as teaching, social and cultural professionals, but also for personal and social services workers (middle-skill). These occupations also contribute to the observed shortages of teaching-related skills (e.g. learning strategies and instructing) and social skills (e.g. social perceptiveness and service orientation), which are required in many different jobs. In addition to certain cognitive abilities, mainly related to communication (i.e. oral expression and speech clarity), also some more manual abilities are found to be in shortage (e.g. trunk and static strength). The shortages found for a range of soft skills, such as social and communication skills, is consistent with the hiring difficulties reported by Malaysian employers (see above). The largest surpluses are observed for manufacturing-related knowledge and abilities, but also for some more administrative skills (e.g. administration and management knowledge and management of financial and material resources skills). The latter can be explained by the fact that some occupations that use these skill intensively are found to be in surplus (e.g. certain managers, professionals in administration and clerical workers). Nonetheless, administrative skills are important in many different jobs, and investment in strong fundamentals of these skills remains important.

Table 1.2. Skill shortages and surpluses are found across the skills spectrum

Largest shortages and surpluses

Top 5 shortage		
Knowledge	**Skills**	**Abilities**
Education and Training	Learning Strategies	Trunk Strength
History and Archaeology	Instructing	Stamina
Biology	Writing	Oral Expression
Sociology and Anthropology	Social Perceptiveness	Speech Clarity
Therapy and Counselling	Service Orientation	Static Strength
Top 5 surplus		
Knowledge	**Skills**	**Abilities**
Building and Construction	Operations Analysis	Reaction Time
Mechanical Knowledge	Management of Financial Resources	Depth Perception
Design	Management of Material Resources	Spatial Orientation
Administration and Management	Mathematics Skills	Number Facility
Transportation	Quality Control Analysis	Response Orientation

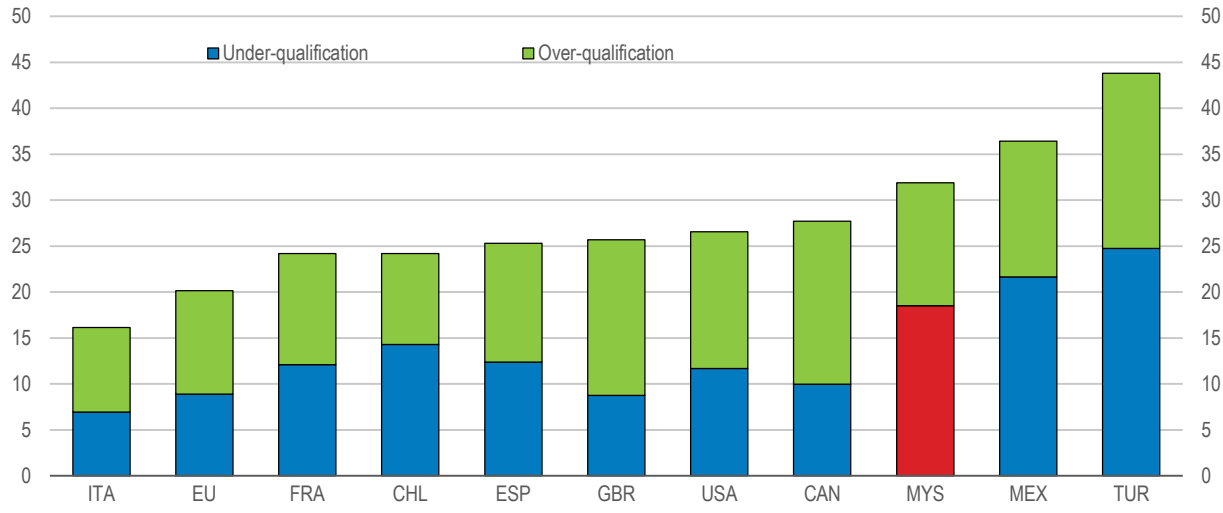
Note: See OECD (2017b[1]) for details on the methodology.
Source: OECD, *Skills for Jobs database*, using *Labour Force Survey* data.

The Skills for Jobs results are broadly consistent with the findings from the Malaysian Critical Skills Monitoring Committee, which identifies annually the critical occupations in the Malaysian labour market (see Section 1.6.2 for more details). The latest list of critical occupations includes both high-skilled and medium-skilled occupations. Low-skilled occupations are excluded from the analysis. While the critical occupations list looks at a much more disaggregate level of occupations, findings are broadly consistent with the above *Skills for Jobs* results. Like the Skills for Jobs indicators, the list identifies a number of management occupations, science and engineering professionals and teachers as critical, as well as certain plant and machine operator jobs and electrical and electronic trades workers. In addition, the critical occupations list also finds shortages of several IT professionals and technicians jobs. The critical occupations analysis should be expanded to also include low-skill occupations, in order to get a full picture of the Malaysian labour market (and be more comparable to the Skills for Jobs analysis).

Finally, in addition to substantial shortages and surpluses, the Malaysian labour market also has a significant share of workers who are mismatched in terms of qualification level. In 2017, 18.5% of workers were under-qualified for their occupation, and an additional 13.4% were over-qualified (Figure 1.5). This is higher than the mismatch levels observed in European countries, where on average 9% of workers are under-qualified and 11% over-qualified, but lower than in Turkey and Mexico. As discussed below, the presence of over-qualification in the Malaysian workforce is consistent with the inability of the labour market to absorb all the higher education graduates. Under-qualification, on the other hand, might reflect that employers have difficulties finding workers with the right qualification level and resort to hiring under-qualified workers. It should be noted, however, that under-qualified workers are not necessarily under-skilled for their jobs, as often workers acquire skills informally. A system of recognition of prior learning can help to certify these skills and make them more visible to employers (see Section 1.6).

Figure 1.5. Many workers are employed in jobs that do not match their education level

Percentage of workers over-qualified or under-qualified for their job, 2017 or latest available year



Note: Workers are mismatched by qualification when their education level is higher or lower than the one most frequently observed in the occupation they are employed in. Calculations are based on four education levels: no schooling, primary, secondary and tertiary. The EU refers to the average of the EU-28 countries plus Iceland, Norway and Switzerland. Data refer to 2015 for Canada and Turkey, and 2016 for Mexico.
Source: OECD calculations based on *Labour Force Survey* data.

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The state of imbalances in the Malaysian labour market calls for policy action in multiple domains. First, to tackle and avoid imbalances in medium-skilled and high-skilled occupations, a sufficient supply of vocational and higher education graduates with skills corresponding to these labour market needs has to be ensured. Second, lifelong learning policies need to be put in place to give adults access to upskilling and re-skilling opportunities that will help them keep their skills relevant and up-to-date. Third, skills need to be activated as much as possible, making sure that all skills available in the labour market are put to good use. Finally, in light of the remaining strong demand for low-skilled workers and the substantial share of over-qualified workers, efforts need to be made to stimulate the demand for higher level skills and move up the global value chain. Workers currently employed in low-skill jobs need to have access to training opportunities to prepare them for the future changes in the labour market, while it should also be ensured that the quality of these low-skilled jobs remains up to standard.

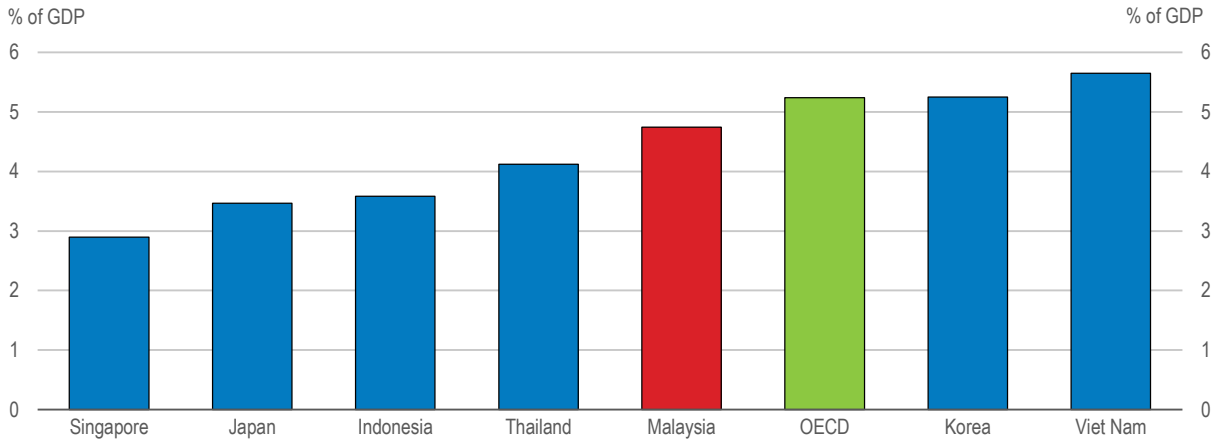
Overview of Malaysia's education performance

Educational attainment has been on the rise

Over the past decades, Malaysia has made significant efforts to increase the educational attainment of its population. To a large extent, these achievements were made possible by sustained governmental efforts to increase the expenditure on education at all levels. Government expenditure on education was 4.7% of GDP in 2017, only 0.5 percentage points lower than that of OECD countries, and significantly higher than that of other countries in the region (Figure 1.6).

Figure 1.6. Government expenditure on education is relatively high

As a percentage of GDP, 2017 or latest available year



Source: World Bank, *World Development Indicators database*.

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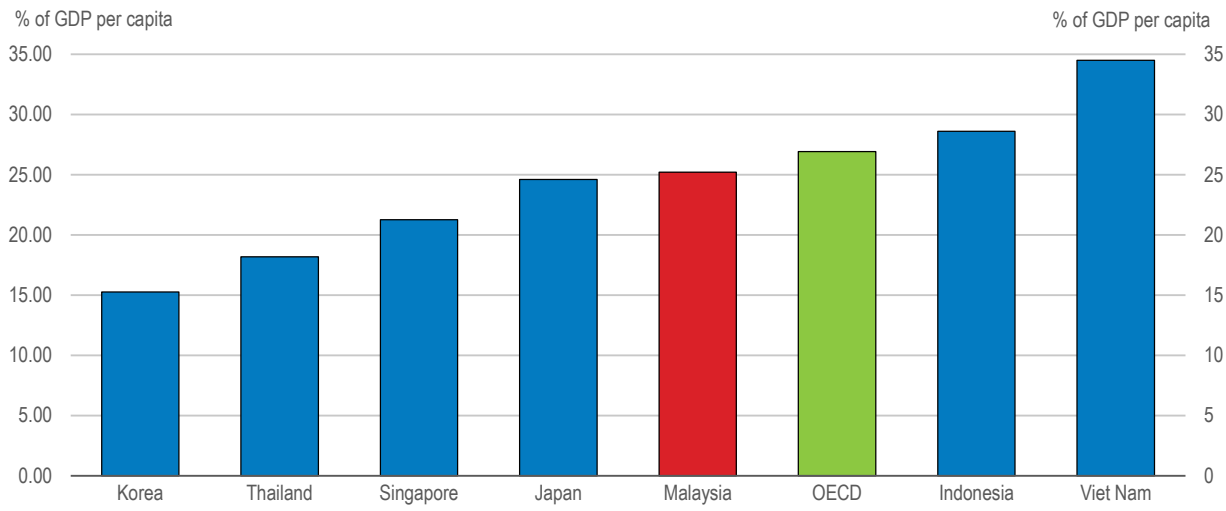
As a percentage of total government expenditure, government expenditure on education has increased from 16.7% in 2006 to almost 20%, as announced in the 2019 Budget. This proportion is significantly higher than in peer countries in the region and almost twice the OECD average and reflects the commitment of the government to putting education at the core of Malaysia's development strategy.

Government expenditure per student has also increased significantly. The per-student spending at the primary and secondary levels rose by roughly four and five percentage points in the period 1999-2016, respectively. Notably, at the pre-primary level, total expenditure expressed as the percentage of total government expenditure on education increased from 0.32% in 1992 to 3.2% in 2017. Finally, government expenditure per student in tertiary education is comparable to that of OECD countries (25.2% and 26.9% of GDP per capita, respectively) and is higher than that of most countries in the region (Figure 1.7).

Figure 1.7. Government expenditure per student in tertiary education is high

As a percentage of GDP per capita, 2017 or latest available year



Source: World Bank, *World Development Indicators database*.

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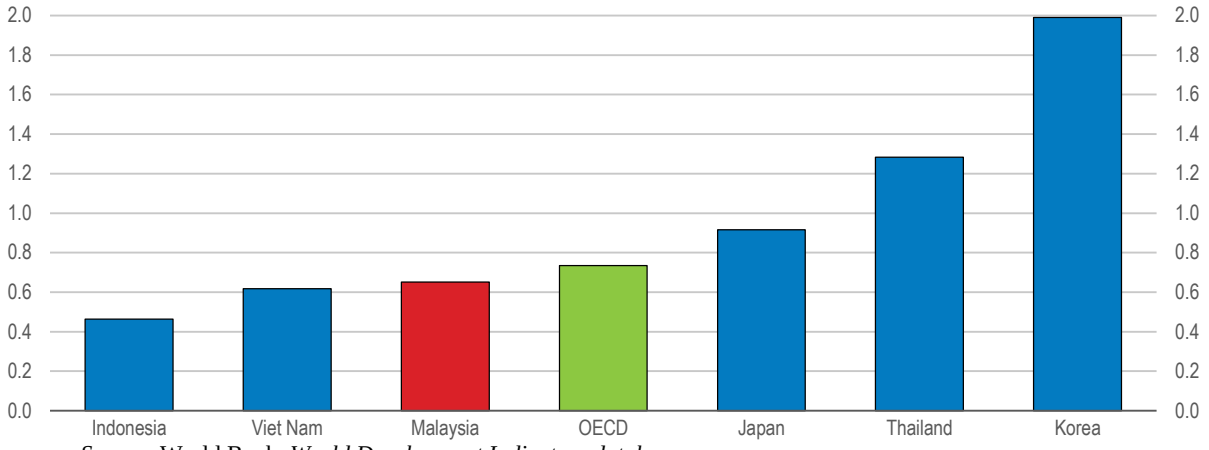
Per-student government expenditure in primary and secondary education is 16.4% and 23% of GDP, respectively (UIS data), which is lower than per-student expenditure in tertiary education. These numbers imply that for every Ringgit spend on a student in tertiary education the government spends only 65 cents on a primary student and 91 cents on a secondary student. That is 35% and 9% less on a primary and secondary student than on the average tertiary education student, respectively.

These differences in expenditures per student across levels are not unusual when compared internationally. Overall, OECD countries spend on average 26% and 15% less per primary and secondary student when compared to a tertiary student, respectively. However, some countries such as Korea or Japan, spend proportionally more per student at lower levels of education than Malaysia. The Korean Government, for instance, spends 99% and 86% more per student in primary and secondary education, respectively, than on the average tertiary education student (Figure 1.8). Comparatively high investment in tertiary education has a number of drivers. The difference in costs are mainly driven by higher teacher salaries and larger investments in infrastructure (e.g. labs).

Figure 1.8. Expenditure on students in tertiary education is higher than for those at lower levels in the education system

Ratio of per student spending in primary to tertiary education, 2017 or latest available year



Source: World Bank, *World Development Indicators database.*

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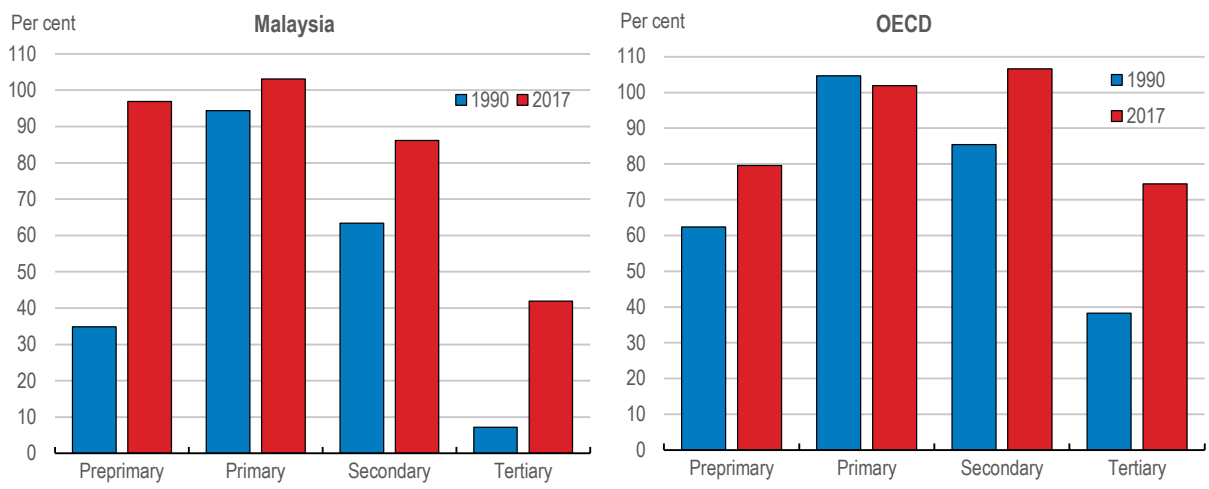
Because of the budgetary expansion in education, Malaysia has been able to increase enrolment rates at all levels of education. According to UNESCO Institute for Statistics (UIS), Malaysia has reached almost universal access to primary education and the gross enrolment rate in secondary education reached 86.2% in 2017. The most significant progress has been observed at the pre-primary and tertiary level. In the former, the gross enrolment rate almost tripled during the period 1990 to 2017, raising from 34.9% to 96.9%, although quality issues remain. Similarly, the gross enrolment rate at the tertiary level increased from 7.2 % in 1990 to 41.9 % during the same period (Figure 1.9).

Figure 1.9. Enrolment in education has been on the rise

Gross enrolment rates



Note: Gross enrolment rates refer to the total enrolment rates in education, regardless of age, expressed as a percentage of the population of official education age. Gross enrolment rates could exceed 100% due to over-aged or under-aged students. Pre-primary education in Malaysia covers 5 to 6 year olds, while in most OECD countries it covers a younger age group and has a three-year duration. According to the Educational Planning and Research Division of Ministry of Education Malaysia, the gross enrolment rates in primary and secondary education were 97.9 % and 91.1% in 2017, higher than those reported by UIS.

Source: World Bank, *World Development Indicators database*.

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The government has set an ambitious 13-year plan to enhance Malaysia's education system. In 2011, the government launched a comprehensive review of the education system and developed the Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education) and the Malaysia Education Blueprint 2015-2025 (Higher Education) (Ministry of Education Malaysia, 2013[62]; Ministry of Education Malaysia, 2015) hereafter "the Blueprints", seek to understand the current performance and challenges, establish a clear vision and aspirations for students and the education system and define a strategic and operational plan to enhance the education system at all levels. From pre-school to post-secondary education, the Blueprints identify 11 shifts to be introduced between 2013-2025 (Ministry of Education Malaysia, 2013). The objectives are built around five system aspirations for the Malaysian Education System: access, quality, equity, unity, and efficiency and proposes concrete actions to transform the teaching profession, improve education outcomes in specific areas (e.g. languages) as well as to improve the governance of the education system, among others.

Similarly, the Blueprints identify 10 shifts for the Higher Education system, which aim at improving the quality and equity of the system (Ministry of Education Malaysia, 2015). Furthermore, the Blueprints propose stakeholder-specific recommendations as well as recommendations to strengthen the system as a whole in areas such as financing and governance.

The Blueprints propose specific actions sequenced across three waves to fulfil the proposed objectives by 2025. Despite the comprehensive analysis of the objectives and the means by which these objectives will be achieved, the Blueprints do not provide an estimate of the costs of the reforms for the government and stakeholders. However, a simple comparison of the current distribution of government expenditure on education suggests that Malaysia's further expenditure expansions should prioritise investments at the lower levels of education.

One of Malaysia's top education priorities is to ensure that every child attends primary and secondary school. Despite the significant increase in gross enrolment rates at these levels, only the first six years of primary education are compulsory. Malaysia should expand its compulsory education at both ends.

First, Malaysia should lower the school starting age to at least 5, and as in a number of OECD countries (OECD, 2018a), make preschool compulsory. Research shows that the returns to investing in preschool education can be high and that it can help reduce inequality and raise productivity (Heckman & Carneiro, 2003). Furthermore, results from the OECD Programme for International Student Assessment (PISA) show that the number of years spent in ECEC (ISCED 0) is a strong predictor of level of performance reached at later stages (OECD, 2017c).

Second, Malaysia needs to make secondary schooling compulsory. UIS data shows that one out of four students of secondary school age is out of the school system (24.6%). Expanding compulsory education beyond primary would certainly help retain adolescents and youth in school and give them better labour prospects. Recognising its importance, the Malaysian government is currently reviewing the Education Act to extend mandatory schooling to secondary level and should persevere in this goal.

The objective of expanding mandatory schooling is clearly emphasised in the Blueprints. Expanding mandatory schooling would allow Malaysia to decrease dropout rates and to retain vulnerable students longer in the education system. The returns to raising compulsory schooling can be sizable, especially for marginal students and for those

belonging to the lowest quantiles of the skills distribution (Brunello, Fort, & Weber, 2009; Harmon, 2017).

Despite success in increasing attainment, educational quality remains a concern

Malaysia achieved near universal access from pre-primary through secondary education and has made significant progress in providing access to tertiary education. The government is committed to reaching universal access and ensuring that every school-age child goes to school and has made significant efforts in reaching the out-of-school children by strengthening the link with rural communities, reducing the financial burden of schooling on parents (e.g. the KWAPM trust fund), and providing complementary assistance to students with special needs.

Despite these achievements, educational quality remains a concern. The Examination Syndicate (*Lembaga Peperiksaan*) conducts three major examinations at different stages of the school cycle which allow to measure student performance in a number of subjects over time. The Primary School Achievement Test (UPSR), Form 3 Assessment (PT3), and Malaysian Certificate of Education (SPM) measure student academic achievement at the primary, lower secondary and upper secondary levels, respectively. Subjects tested include English language, Bahasa Melayu, Mathematics and Science, among others. In addition to these examinations, the Ministry of Education conducts pre-university examinations such as the Malaysian Higher Religious Certificate (STAM) and the Malaysian Higher School Certificate (STPM).

In general, student performance in these exams has improved over time as evidenced by the percentage of students obtaining passes and excellent grades. Nevertheless, there remain significant differences in performance across and within subjects, reflecting sizable regional and gender gaps. For example, the urban-rural achievement gap in UPSR increased by 32% from 2012 to 2017 (Ministry of Education Malaysia, 2018a). Similarly, there are still differences across types of schools. For example, National-type Chinese (SJKC) and National schools (SK) outperform National-type Tamil schools (SJKT) by 3.5 percentage points, although this gaps has decreased significantly since 2005 (Ministry of Education Malaysia, 2013).

In 2013, the Ministry of Education began to conduct studies to assess students' level of literacy in Science, Mathematics and Reading, focussing on higher order thinking skills (HOTS) of students in their second and third years of secondary school. Results of the recent 2017 study showed that the majority of students have a low performance in Mathematics and Science, and that only one out of five students performed well in English language In contrast, four out of six students achieve a high score (more than 500 points in the test) in Bahasa Melayu. (Table 1.3).

Table 1.3. Student performance in science and mathematics is weaker than in languages

Results of the Assessment on Literacy Competence in Science, Mathematics and Reading Series 1, 2017

	Student Achievement			
Literacy	High x ≥ 500	Medium 400≤ x <500	Low x < 400	Number of Students
Scientific	41,109 (10.9%)	142,898 (35.2%)	222,155 (54.7%)	406,162
Mathematics	94,901 (23.5%)	9,197 (15.7%)	246,202 (60.9%)	404,444
Bahasa Melayu	163,050 (40.1%)	159,496 (39.2%)	84,338 (20.7%)	406,884
English Language	78,517 (19.3%)	179,043 (44.1%)	148,751 (36.6%)	406,311

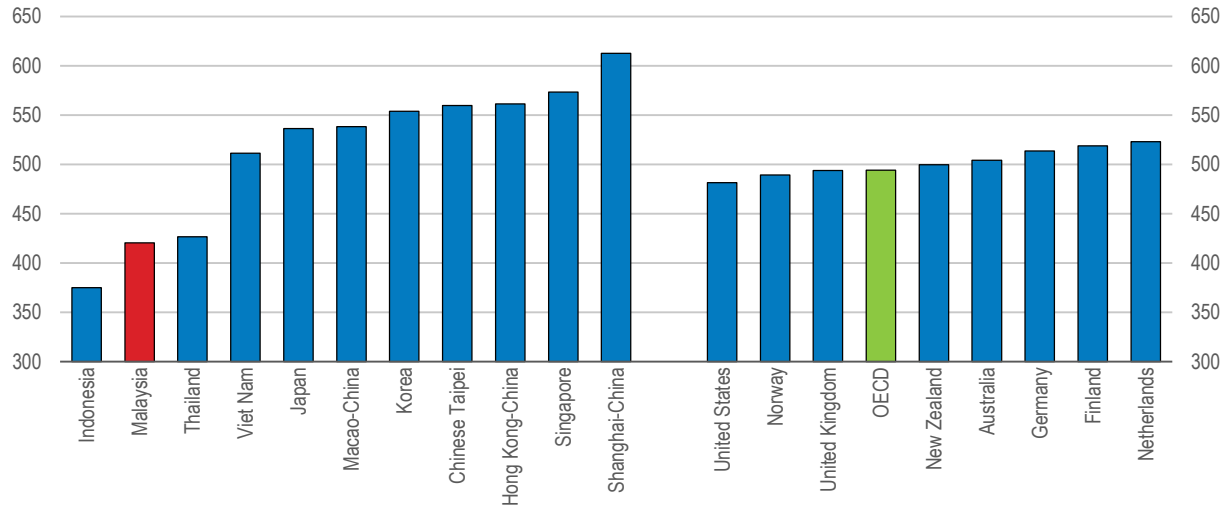
Source: Ministry of Education Malaysia (2018a)

The first goal ("shift") in the Preschool to Post-Secondary Education Blueprint is to "provide equal access to quality education of an international standard" (Ministry of Education Malaysia, 2013). While Malaysia has made significant progress locally, the performance gap in international assessments between Malaysia's education system and other countries has grown, reflecting the fact that a number of neighbouring countries have improved more rapidly. Acknowledging that this can affect Malaysia's long-run relative competitiveness, the government aims to benchmark school curricula to the standards of high-performing education systems and aspires to make substantive improvements in international assessments.

The performance of Malaysian students in reading, mathematics and sciences, as measured by PISA, is comparatively low. Malaysia performed poorly on the 2012 PISA test, the most recently comparable results (the PISA 2015 sample for Malaysia did not meet the PISA response-rate standard), ranking in the bottom 20% of the distribution (Figure 1.10). These results are significantly lower than those of neighbouring countries such as Viet Nam, Japan, Korea, and to a lesser extent, Thailand. Furthermore, despite a 17-points increase in Mathematics, scores in reading and science declined between 2009 and 2012.

Figure 1.10. Malaysian students performed relatively poorly in PISA 2012

Mean score in mathematics, 2012



Source: OECD (2014), *PISA 2012 Results: What Students Know and Can Do*, Volume I, revised edition, February.

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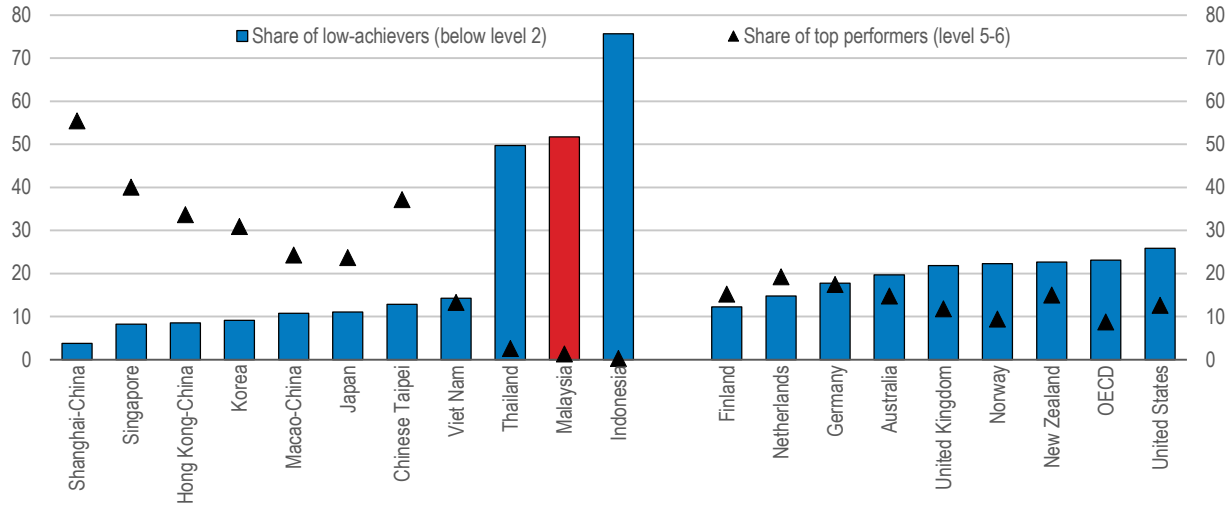
A decomposition of the PISA 2012 results shows that roughly half of the students (51.8%) are scoring below level 2 in the PISA assessment scale in Mathematics (Figure 1.11). Furthermore, the share of top-performers -students scoring in levels 5 or 6 in the PISA assessment scale- is only 1.3%. Unfortunately, as mentioned earlier, the response rate in the PISA 2015 assessment fell short of the standard PISA response rate (51% vs. 85%) and the results may not be comparable to those of other countries or to results for Malaysia from previous years (OECD, 2013b). However, the result from PISA 2018, which will be available in 2019, may offer new insights about Malaysia's comparative performance and can be helpful in assessing the effectiveness of the reforms implemented over the past decade.

Figure 1.11. A relatively high percentage of Malaysian students achieve low scores in PISA

Share of low-achievers and top performers in mathematics, PISA 2012 results



Source: OECD (2014), *PISA 2012 Results: What Students Know and Can Do*, Volume I, revised edition, February.

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Malaysia has also been participating in the Trends in International Mathematics and Science Study assessment (TIMSS) since 1999. TIMSS is a comprehensive assessment of mathematics and science for students in grades 4 and 8. The most recent 8th grade TIMSS results show an encouraging trend. Despite a significant decrease in TIMSS scores between 1999 and 2011, the latest assessment indicates a clear recovery. In the 2015 assessment, Malaysia ranked 22 out of 39 participating countries and showed a clear improvement with respect to previous assessments (Mullis, Martin, Foy, & Hooper, 2016).

The Malaysia Education Blueprint (Preschool to Post-Secondary Education) acknowledges significant disparities in student outcomes (Ministry of Education Malaysia, 2013). Significant gaps exist between and within states, between types of schools and between urban and rural areas. As in many other countries, socio-economic status is highly correlated with student performance. A significant portion of the gap between top and low performing students can be explained by variables such as parental education and family income, and students from schools with high concentrations of low-income students tend to perform poorly in national examinations. PISA results show that in Malaysia 60% of the variation in student performance can be explained by the PISA index of economic, social and cultural status of students and schools (OECD, 2013c).

Malaysia has set up an ambitious plan to reduce such disparities, especially to close the urban-rural gap. The government is committed to improving the infrastructure of schools in rural and remote areas and to providing additional resources and pedagogical support. School budgets should prioritise investing in high-quality human resources such as school leaders and teachers, who play a critical role in reducing educational inequality in their schools (OECD, 2017g).

Strengthening the quality of skills among Malaysian youth in absolute and comparative terms requires a strategic approach. The Ministry of Education has developed an ambitious plan aimed at strengthening the education system and is committed to providing substantive economic support to develop such plans. However, economic resources are not always a sufficient condition for education success.

Improving student outcomes by strengthening teacher quality and practices

Teachers are the most important input in the school-based learning process. Research shows that teacher performance has a significant impact on student performance and that higher-quality teachers can have a long lasting effect on students outcomes (Hanushek, 2010[74]; Santiago, 2002[75]; Darling-Hammond, 2017). For instance, Chetty, Friedman, & Rockoff (2014) find that students assigned to high valued-added teachers are more likely to attend college, and earn higher salaries. For these reasons, teacher policies are central to countries' education agenda.

Teacher policy is concerned with three intermediate goals: attracting talented people to teaching, and retaining them; developing effective teachers; and matching teachers with students in the most favourable way. (Bruns, 2014; OECD, 2018c).

Analysis drawing on PISA data shows that high-performing countries share a number of policies concerning teacher's selection and development. High-performing countries are characterised by having a mandatory and extended period of school-based clinical training as part of the pre-service teacher training or of the induction period, offer substantive opportunities for professional development and have strong teacher appraisal mechanisms, which focus on teachers' continuous improvements (OECD, 2018c).

The teacher workforce in Malaysia has expanded significantly over the past decade. The total number of teachers has increased from 191 394 in 2006 to 423 566 in 2018 (Ministry of Education Malaysia, 2006; Ministry of Education Malaysia, 2018b). This expansion has been associated to a change in the composition of the teacher workforce. Approximately two-thirds of the teachers are under 40 years old. Data from OECD Teaching and Learning International Survey (TALIS) 2013 shows that teachers are on average 38.9 years old, four years younger than in most other TALIS countries (OECD, 2013a). Therefore, teachers in Malaysia have on average less years of working experience than those in other countries (13.6 vs. 16.2 years, respectively). The turnover rate is also higher. Teachers report to have on average 7.2 years of experience as teachers at their current schools, almost three years less than teachers in other TALIS participating countries.

Malaysia has developed a comprehensive plan to improve teaching standards and enhance career pathways and progression. It includes raising entry requirements for new intakes, enhancing teacher working conditions, emphasizing continuous professional development and revamping career progression (Ministry of Education Malaysia, 2013). For example, the Government has proposed to raise the minimum qualification of all preschool teachers. The minimum academic requirement to qualify as a preschool teacher is a Diploma in Early Child Care and Education (ECCE). The Cabinet approved this reform in 2016 and it is being implemented gradually.

However, a number of challenges remain and special attention should be given to three areas. First, Malaysia needs to ensure that all students have access to high-quality teachers. Second, teacher performance can be further improved by reducing the administrative burden to teachers and by reducing class size, and finally, teaching practice of English language should be improved to address the declining level of English proficiency among students.

Improving disadvantaged students' access to quality teachers

Attracting talented people to the teaching profession is difficult. The factors that determine the attractiveness of the teaching profession are similar across countries. These factors include occupational status, work environment, sense of personal contribution and the financial rewards associated with the given profession (OECD, 2018c). In many countries, the teaching profession is not well rewarded by the society, the economic returns of pursuing different career paths may be large and the opportunities for professional development are scarce. These factors hinder the attraction of more people to the teaching profession and can become a serious barrier for improving countries' education systems.

Over the past years, Malaysia has improved the qualification of applicants to teaching programmes and the percentage of applicants scoring below the minimum academic requirement has been reduced significantly. However Malaysia struggles to attract qualified applicants and teachers for specific subjects and locations (Ministry of Education Malaysia, 2013). In order to tackle this problem, the Ministry of Education (MOE) places new teachers who have been appointed permanent appointees by the Education Service Commission (SPP) based on vacancies and the needs of the options regardless of the school location. It also provides a special "hardship" allowances and offers attractive placement for teachers after completing a posting in a disadvantaged school.

Despite these efforts, high-quality teachers usually prefer to teach in large metropolitan areas or in schools with better facilities. The resulting uneven distribution of talented teachers across the country can reinforce regional disparities and hinder inclusive growth. Hard-to-staff schools are usually located in rural or poor areas and in remote locations. These schools are not popular among teachers and usually have high levels of staff turnover (Marwan, Sumintono, & Mislan, 2012; World Bank, 2010). Students attending these schools may have more learning needs than those from richer areas.

Disparities in teacher quality across schools are not unique to Malaysia. Most countries face significant challenges to attract and retain top teachers in disadvantaged schools. Moreover, PISA data shows that inequalities in access to quality teachers and teaching affect both countries with a tradition of centralised and decentralised teacher selection and allocation approaches; and that these outcomes are strongly related to inequalities in learning outcomes between advantaged and disadvantaged students (OECD, 2018c)

Attracting qualified teachers to disadvantaged school can be an effective tool to reduce regional disparities and to reduce the influence of socio-economic background on student performance. PISA data shows that countries in which teachers' qualifications and experience are significantly better in advantaged schools than in disadvantaged schools tend to have larger performance gaps related to students' socio-economic status and therefore less equitable outcomes (OECD, 2018c).

Governments use a variety of incentives to make hard-to-staff schools more attractive. Some of these incentives include pay benefits (e.g. Korea, United States and France) and travel, housing and relocation bonuses. Some countries, like Australia, offer transfer benefits that allow teachers to transfer to an attractive location after a period of service in a disadvantaged school, or special professional development opportunities such as postgraduate studies (Bentley & Savage, 2016). Box 1.2 analyses the cases of Japan and Korea, two countries that have been able to attract outstanding teachers to disadvantaged schools.

Box 1.2. How Japan and Korea attract excellent teachers to disadvantaged schools

Disadvantaged students in Japan and Korea are at least as likely as advantaged students to be taught by high-quality teachers, as measured by characteristics such as years of experience, being certified for all the subjects taught, and, for science teachers, having a university degree with a major in science.

In **Japan**, teachers are expected to periodically change schools throughout their career. This is intended to ensure that all schools have access to effective teachers and a balance of experienced and beginner teachers. The allocation of teachers to schools is decided by the local education authority, and the exact rules followed may differ.

In **Korea**, all teachers are held to high standards, which contributes to the country's high levels of performance and equitable distribution of teachers. Other elements contributing to the high calibre of the teaching force are the highly respected status of teachers, job stability, high pay, and positive working conditions, including high levels of teacher collaboration. A mandatory rotation scheme for teachers in Korea means that teachers are required to move to a different school every five years. Within this scheme, multiple incentives are offered to attract teachers to high-needs schools, including additional salary, smaller classes, less instructional time, additional credit towards future promotion

to administrative positions, and the ability to choose the next school where one works. The latter two career incentives are seen as particularly attractive.

Source: Adapted from OECD (2018c[2]), *Effective Teacher Policies: Insights from PISA*, https://doi.org/10.1787/9789264301603-en

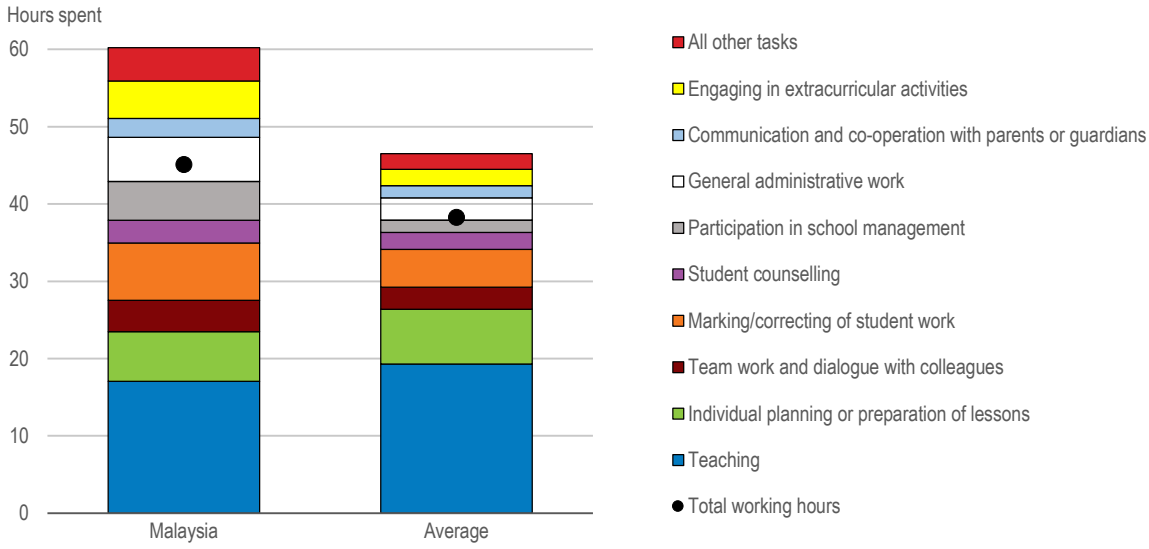
Decreasing the difference in student performance related to socio-economic and rural-urban status in the country will require more qualified and experienced teachers in disadvantaged schools as well as appropriate targeted support. The "Delivering Equality of Opportunity in Schools" (DEIS) programme in Ireland is a good example of a comprehensive intervention to support students in disadvantaged schools. The DEIS benefits about 20% of schools in Ireland and provides schools with additional per-pupil funding, additional staff and targeted support for school leaders and teachers (e.g. improved access to training, mentoring or coaching schemes). Primary schools in the most disadvantaged areas receive additional staff while students in secondary schools also receive greater access to career-guidance professionals. The programme works in collaboration with pre-established programs aimed at increasing school attendance, participation and retention, and providing school-community liaison services (OECD, 2018c).

Tapping the potential of the teacher workforce

What teachers do with their time matters for the skills outcomes of students. Teachers in Malaysia report spending less of their average lesson time on actual teaching and learning than most other TALIS countries. Teachers also report spending a high percentage of their time on administrative tasks and keeping order in the classroom (maintaining discipline). On average, teachers spend roughly one out of five hours in keeping order in the classroom, one out of eight in administrative task, and spend more hours per week marking and correcting work than other TALIS countries. In sum, teachers in Malaysia spend 29% of their time on non-teaching duties, almost 8 percentage points higher than other participating countries (Figure 1.12).

Figure 1.12. Malaysian teachers spend a lot of time on non-teaching duties in addition to teaching

Teachers' working hours



Note: The average is calculated across the TALIS 2013 participating countries and subnational entities. The sum of hours spent on different tasks may not be equal to the number of total working hours because teachers were asked about these elements separately. Data presented in this figure represent the averages from all the teachers surveyed, including part-time teachers.
Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing, Paris.

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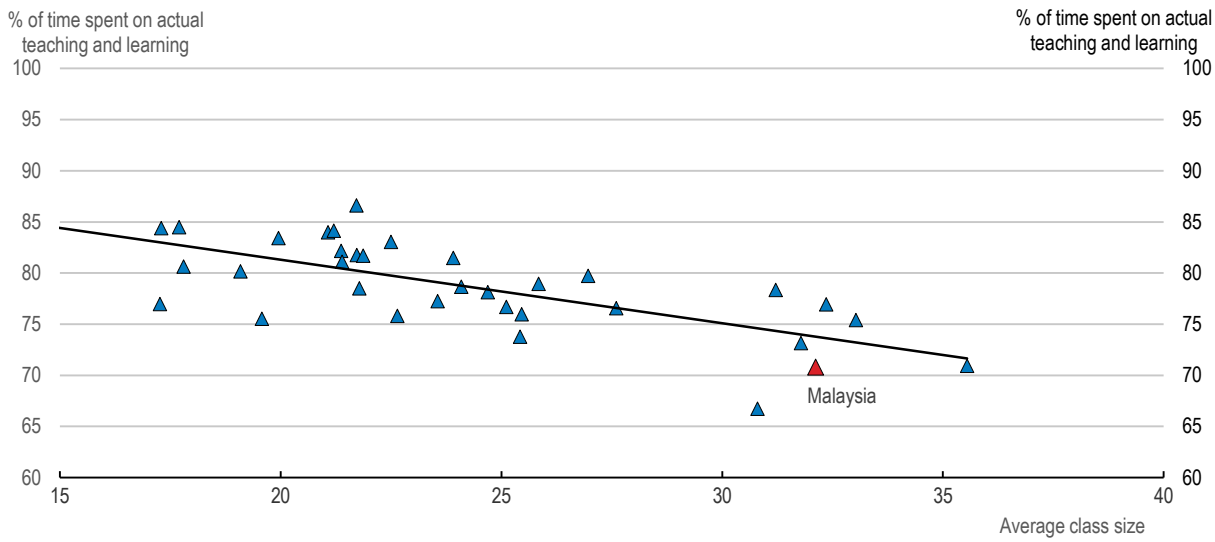
Moreover, TALIS 2013 data shows a negative correlation between class size and time spent on teaching duties. In countries with smaller average class sizes, teachers spend more time on actual teaching and less time on administrative or non-teaching activities (Figure 1.13). Therefore, reducing the administrative burden could be one of the possible mechanisms by which class size reduction can improve student outcomes. The Ministry of Education has taken concrete steps to reduce teacher's burden. For example, it has standardised a number of forms and monitoring processes and has asked schools to reduce teachers' participation in administrative committees. Malaysia should continue the efforts in freeing up teachers time to spend preparing lessons or participating in mentoring or professional development activities that can have a direct impact on student performance.

Figure 1.13. Smaller class sizes are linked to lower non-teaching workload of teachers



Note: The sample includes TALIS 2013 countries for which class size information was available in year 2014: Australia, Brazil, Chile, Czech Republic, Estonia, Finland, France, Iceland, Israel, Italy, Japan, Korea, Latvia, Malaysia, Mexico, Netherlands, Poland, Portugal, Spain, Slovak Republic and Sweden.
Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing, Paris.

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Reducing teacher administrative workload is essential to reaching higher teaching standards while identifying the bottlenecks and finding effective solutions requires active participation of teachers and principals in the process. The UK "Reducing Teacher Workload" and the Chilean "Todos al Aula (All to the classroom)" programs, discussed in Box 1.3, are examples of participative processes involving multiple stakeholders and administrative levels aimed at identifying solutions to reduce excessive administrative burden of teachers.

Box 1.3. Reducing administrative workload in school: United Kingdom and Chile

The **United Kingdom** is working to remove unnecessary workload for teachers and leaders, so they can focus on teaching and their own development. The department of Education is working with the profession, the teaching unions, and others to reduce unnecessary teacher workload. The government committed to move to a simpler system of accountability, a period of stability with no new tests or assessment for primary schools and no changes to the national curriculum for the remainder of the current parliament, beyond those already announced. It also established a workload advisory group to explore data collection in schools and to make recommendations to help reduce it.

The program developed a survey that asked teachers for their views about unnecessary or unproductive tasks, strategies that work in schools to manage workload, and what governments and schools can do to minimise workload. More than 44 000 people responded to the survey.

In 2018, the program produced a workload reduction toolkit that provides support for schools with a range of materials to help review and streamline workload through solution-focused and collaborative discussions. This toolkit is accompanied by a short advice document with tips from school leaders on ways to reduce workload. The Toolkit provided specific guidance on how to identify, address and evaluate the issue in every school.

Chile plans to de-bureaucratise school administration so that teachers and management teams can dedicate more time to improving teaching and pedagogical activities.

The project called "*Todos al Aula*" (*"All to the classroom"*) seeks to simplify and reduce the administrative and regulatory burden on schools to free up time of school principals and teachers so they can focus on pedagogical activities. The Ministry of Education conducted an online consultation with all the school principals in the country and formed regional working groups and collected views from school principals and teachers from all over the country. This work has been overseen by a group of experts who proposed 46 recommendations, which will be implemented in 2019 – 2022. One of the recommendations – labelled "Super Simple" – seeks to reduce by 50% the administrative burden imposed to schools by the Education Superintendence and to communicate regulations in a simpler and more accessible manner.

Source: Department of Education (2019), *Reducing teacher workload*, https://www.gov.uk/government/publications/reducing-teachers-workload/reducing-teachers-workload; Ministerio de Educación (2019), *Todos al Aula: 46 propuestas para reducir la burocracia en las escuelas*, https://www.mineduc.cl/2018/11/09/todos-al-aula-reducir-burocracia-escuelas/

As the United Kingdom and Chilean cases show (Box 1.3), a bottom-up process of consultation with teachers and principals, backed by an independent expert committee, can be more effective in finding solutions to reducing teachers' unnecessary workload. In the United Kingdom, the strategy focuses on reducing or eliminating marking, improving lesson planning, and making the data management process more efficient.

Malaysian teachers spend comparatively more time marking than teachers in other TALIS-participating countries (OECD, 2014a). While effective marking is an essential part of the education process, there is little evidence that providing extensive written comments on every piece improves students learning and it consumes a significant portion of teachers time (Independent Teacher Workload Review Group, 2016a). The UK Independent Teacher Workload Review Group recommends shrinking the importance of marking and focusing on the quality rather than the quantity of the comments, which need to be meaningful, manageable and motivating. The Workload Review Group reorganised the planning activities to foster collaboration across teachers. Based on the Japanese 'Lesson Study' model, teachers jointly plan their lessons and watch these being delivered before teaching it to another class (Independent Teacher Workload Review Group, 2016b). This methodology allows teachers to focus on creating resources for subjects they master. Finally the Review Group calls on all parties in the education system to reduce the unnecessary burdens of data management by ensuring that every data collection has a clear purpose, and that the process is as efficient as possible (Independent Teacher Workload Review Group, 2016c). Polices to reduce teachers' workload can also include hiring additional non-teaching staff to replace teachers performing administrative duties and adopting technological tools to automatize tasks such as grading and making notes.

Reducing teacher workload requires a joint effort between teachers, principal and local or central authorities. Accountability mechanisms should not require schools to produce excessive data analyses or reports beyond what is strictly necessary to achieve an effective monitoring. Malaysia is committed to allowing greater school-based management and autonomy for schools that meet a minimum performance. These changes would take place during Wave 3 (2021-2025) and would be accompanied by sharper accountability on the part of school principals (Ministry of Education Malaysia, 2013). These mechanisms must ensure that the increased autonomy does not increase at the expense of additional workload on school staff.

Improving teachers' capacity to teach English

Increased globalisation has increased the value of foreign languages and mastering a second language has become a key skill in modern labour markets and in the academic environments.

English language proficiency in Malaysia is well above that of many other countries in the region. For a long time English has played an important role in the education system. A reform in 2003 made English the language of instruction of science and mathematics in schools *(Pengajaran dan Pembelajaran Sains dan Matematik dalam Bahasa Inggeris* or PPSMI). However, the policy coincided with a deterioration in the performance in these two subjects and on 2009 the Cabinet abolished the PPSMI although kept its commitment to improve the English language. In 2016, for example, the Government introduced a pilot programme, the Dual Language Programme (DLP) in 1 364 schools that gives the students the opportunity to choose the language of instruction in science and mathematics.

Students perform better in Bahasa Malaysia than in English language at all levels and the level of English proficiency is widely perceived to have declined over time. This perception is shared by policy makers and employers alike and is supported by the recent results of the Assessment on Literacy Competence in Science, Mathematics and Reading, which shows that only one out of five student perform well in English (Ministry of Education Malaysia, 2018a).

The deterioration of English proficiency can affect Malaysia's long-term competitive advantage within the region and needs to be addressed promptly. The government has the aspiration that upon leaving school, students should be able to work in both in Bahasa Malaysia and English and has set a plan to address this issue. Malaysia expanded the Literacy and Numeracy Screening programme (LINUS) to include English proficiency and is piloting innovative programmes to increase teachers' exposure to English language.

The decline in English proficiency can be attributed to various factors. For example, World Bank (2013) shows that the share of English teachers proficient in English increases with teachers' age. Teachers born in the 1960s are 5 percentage points more likely to be proficient in English than those born in the 1980s. Therefore, as the teacher workforce becomes younger, students become less exposed to highly qualified English teachers. Nevertheless, the concept of teacher proficiency has evolved over time.

For a long time, it was believed that native-English teachers would be more effective teachers than those for whom English is the second or third language. Recent research shows that teacher pedagogical methods can be more important than teacher level of proficiency (Freeman, 2017; Richards, 2017; De Bot, 2014), and the concept of teacher proficiency has expanded to include teaching and pedagogical skills. Indeed, non-native English teachers - the majority of English teachers in Malaysia- can be as effective as natives provided that they use the right pedagogical approaches and stimulate their students through interactive activities.

A study by Sawir (2005) analyses the language difficulties of international students from East and South East Asia in Australia, who face serious learning difficulties and lack confidence in speaking and taking a proactive role in classrooms. The study finds that most learning difficulties are grounded in weaknesses in students' prior learning experiences. In most Asian countries, teaching mostly focuses on English grammar rather than on communicative competences. This is largely reflected in the balance of activities in the classrooms. Typical lessons are didactic (one-way) rather than conversational in form. OECD (2012a) compares the English pedagogical approach in Germany and Korea and show that German schools foster a more interactive language-learning environment in which the students are trained to use the language skills in class to engage with each other and the teacher. On the other hand, the Korean system puts the teacher at the centre of the learning process and directing questions at him can be a sign of disrespect. Students have little interaction with each other and the opportunities to participate in class are limited. Moreover, participation is further discouraged by the fact that making mistakes by speaking incorrectly is socially penalised.

Despite significant efforts to supersede traditional English teaching methods, practices such as rote memorisation and repetition are still prevalent in Malaysia's schools (Lim, 2013). A strong emphasis is given to the teaching of reading and writing skills and to the mastering of grammar (Normazidah & Musa, 2012). Further efforts are needed to better balance the teaching of the four language skills: speaking, writing, reading and listening. Also, lectures should step away from the scholastic approach. Teachers should put more emphasis on oral communication, devoting more time to listening and speaking activities and lesser to the teaching of grammatical rules while encouraging students to participate in class and helping them build confidence in using the language.

Some Asian countries have introduced large-scale reforms to address the low levels of English proficiency. For example, Viet Nam launched in 2008 the Viet Nam's National Foreign Language 2020 Project to improve English proficiency among students but the programme has delivered poor results. Nguyen (2017) shows that the programme has

failed in balancing teaching time for the four language skills -speaking, writing, reading and listening-, and to increase teacher-student interactions. Teachers also lack appropriate equipment. The Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) has developed a new vision for English education. However, its implementation has been challenging. For example, Roux (2016) shows that even though teachers are open towards adopting new teaching methods they do not believe to have the adequate level of skills to teach English more interactively.

As English is widely spoken in the country and there are plenty of learning opportunities outside the classroom, the Government is taking concrete steps towards utilising this opportunity. The Ministry of Education has implemented the Highly Immersive Programme (HIP), which provides concrete opportunities to increase student proficiency in the English language in and outside of the classroom. Similarly, the Ministry through the Higher Education Department has launched the Ecosystem for English Language Learning and Assessment in Higher Education, a programme which is focused on strengthening English communication skills of higher education students through both virtual and physical interactions with other students and teachers.

Malaysia has to make sure that teachers develop the right teaching skills to teach English more effectively (Rashid, Abdul Rahman, & Yunus, 2016). Programmes such as the English for Preschool Teachers (EPT), the English Language Enhancement Programme in Schools (PPKBIS) and the Professional Up-Skilling of English Language Teachers (Pro-ELT), a British Council Project funded by the Ministry of Education, need to be supported. Furthermore, international collaboration initiatives such as the one with Cambridge English Language Assessment should be further encouraged.

Learning a second language is a complex process and research has only given partial answers to policy questions. There is no ‘one-size fits all’ solution that can be recommended to teachers and school systems to improve English learning outcomes. However, best international practices suggest that Malaysia should adopt a more student-centred approach and focus more on developing communicational skills so that students can better navigate within the working and social environments.

Strengthening the connection between education and employment

Fostering collaboration between education institutions and businesses

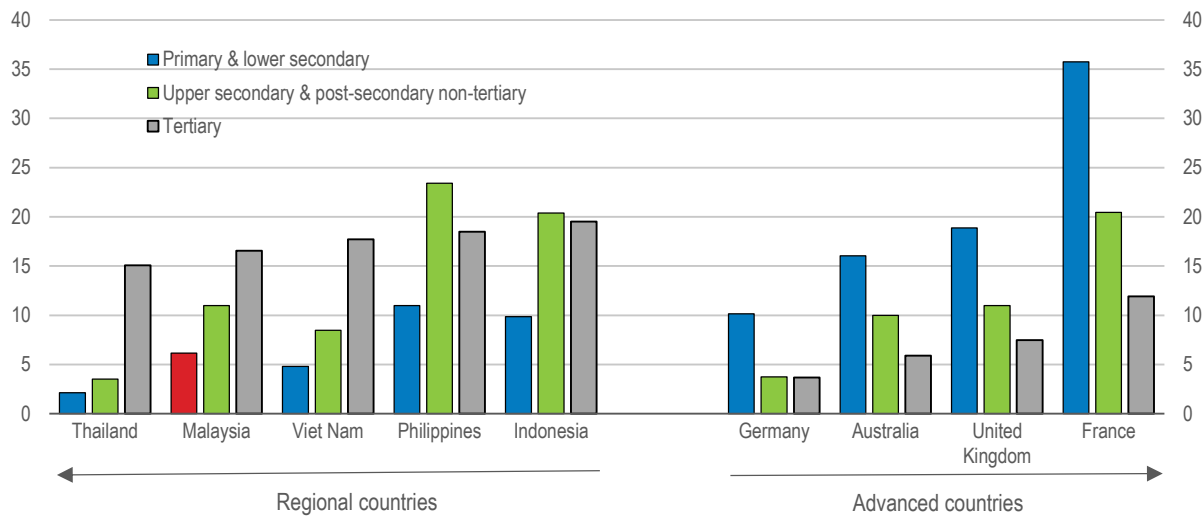
Technical and Vocational Education and Training (TVET) and Higher Education play a vital role in developing a wide range of high-level skills in the labour market. By applying various practices including different forms of collaboration with social partners, education institutions can enhance the market relevance of their programmes. Recent analysis stresses that the partnerships between education institutions and employers provide benefits to all parties involved (OECD, 2018b). Students develop the skills that employers seek which fosters quick transition into the labour market while enhancing pay, amongst other advantages. Employers are provided with the skilled labour force they need. In addition, academic staff in TVET and higher education institutions remains up-to-date with current workforce practices and skills needs while building relationships with businesses.

OECD data as well as other national and international sources (See Section 1.2) suggest that skills imbalances in Malaysia are significant. Employers report that fresh graduates lack certain critical skills and that they have little preparation to face real-world problems. A survey conducted by TalentCorp and the World Bank found that the vast majority of

firms consider that university curricula do not equip students with adequate 'industrial training' and rated communication and creativity skills as a major deficit among graduates (World Bank, 2014). This may partially explain the relatively high youth unemployment rate for graduates from tertiary education (Figure 1.14). Data from a 2015 tracer study in Malaysia suggest that 25% of tertiary graduates are unemployed six months after graduating (Ibrahim & Mahyuddin, 2016). These labour market outcomes contrast sharply with the significant increase in the research output of Malaysian universities during the last years and with the increase in performance in international rankings (MOE & Clarivate Analytics, 2018). In the 2019 QS Asia University Rankings, for example, five Malaysian universities are in the top 50 of the ranking.

Figure 1.14. Youth unemployment rate among tertiary education graduates is relatively high in Malaysia

Youth unemployment rate (aged 15 to 24), per cent of the labour force, 2018 or latest available year



Source: ILOSTAT.

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The difficulties of youth in finding jobs and businesses finding people with the right skills can be linked to poor relationship between education and business practices. Recent OECD work identifies the main types of partnerships that education institutions and industries can establish (OECD, 2018b). Firstly, social partners can play a formal role in the governance of education institutions. Secondly, employers together with academic staff can be involved in the design and review of curricula to ensure they meet the labour market needs. Thirdly, work-based learning, usually developed in collaboration with social partners, can be embedded into the curricula. Finally, the relevance of education programs can also be enhanced by encouraging staff mobility between education institutions and social partners.

Malaysia is taking concrete steps to strengthen the collaboration between industry and education. For example, a new system of accreditation of TVET programmes, the Single Quality Assurance System of TVET, is being developed. In this new scheme, stakeholders will play a more active role in TVET accreditation policies, setting standards and priorities. Second, a number of institutions have been successful in establishing direct links with business, such as the Penang Skills Development Centre (PSDC), which is

dedicated to meet the immediate human resource needs of the business community and whose graduates exhibit an employability rate close to 100%. Similarly, Polytechnic and Community Colleges have regular engagement with industries through Industry Advisory Councils (IAC), and have developed work-based-learning and mobility programmes aimed at connecting lecturers and students with industry. In a similar vein, the Ministry of Education has developed the "2u2i" programme, which with the collaboration of industry, seeks to provide students with real work environment experiences before graduation. Finally, the Manpower Department at the Ministry of Human Resources has established formal alliances with industry and education institutions to provide training to students and adults in fully-equipped facilities with new machines and technology for training purposes.

Further and more systematic efforts should be directed towards tightening the connection between the skills needed in the labour markets and those supplied at the secondary and post-secondary education levels. Reducing skill gaps will help reducing the unemployment among university graduates as well as making a better use of the pool of talents. Box 1.4 presents a set of practices that other countries and institutions have implemented to tackle similar problems.

Finally, Malaysia should also strengthen the governance of its TVET system, which is highly fragmented. Responsibilities are scattered across a number of ministries, each of which manage their own TVET institutions. This division has led to multiple and non-standardised curriculum and qualification systems, which creates parallel systems that limits their comparability and hinders student mobility across institutions (Rasul, Hilmi, Ashari, & Azman, 2015). The Government is taking concrete steps towards a more coherent and unified TVET system. For example, it is considering establishing a single Quality Assurance TVET agency, and in the same vein, the newly established TVET Empowerment Committee is expected to not only improve labour market relevance and raise the standards of quality of TVET education, but also to harmonise the system and propose effective governance arrangements.

Box 1.4. Fostering collaboration between education institutions and businesses: country practices

In **Norway,** social partners participate as external members in the governing boards of domestic higher education institutions. The Universities and University Colleges Act stipulates that 4 out of 11 seats on each higher education governance board must be taken up by an external member (including social partners). In this way, social partners with close links to the labour market are able to contribute to decision-making processes relating to the institution's strategy for education, research or other engagement activities.

In **Canada**, most provincial governments have passed legislation requiring colleges to establish "programme advisory committees" (PACs) that focus on collaborative development of curricula. PACs generally consist of 5 to 12 members including college staff, students and a selection of external participants with experience in a particular field. Among others, these committees act as a venue for social partners to identify skills that graduates need to find employment in associated occupations or provide suggestions for content to be included in the programme.

In the **United States**, Rhodes College has successfully embedded work-based learning into curricula. Its career service centre, responsible for matching employers and students, delivers various programmes such as Third-party internship programmes or Alumni-

supported work-based learning opportunities. In the former, Rhodes College partners with third parties to provide access to established internship programmes. The latter draws on financial support from alumni to fund specific work-based learning opportunities.

Source: Adapted from OECD (2018b), *Higher Education in Norway: Labour Market Relevance and Outcomes*, https://dx.doi.org/10.1787/9789264301757-en

Improving career guidance services and preparing students to enter the labour market

Students in TVET and Higher Education can also benefit from higher quality career guidance services. These are, particularly for students close to the completion of their programmes, an important way of enhancing labour market outcomes by facilitating a smooth transition to the world of work. Sometimes the root cause of poor labour market outcomes is not correlated with underdeveloped professional, technical or transversal skills. Instead, poor outcomes can be caused by students' lack of knowledge regarding how to communicate their skills to employers, effectively narrow down and navigate the range of employment opportunities or actively seek them out. In this context, the Department of Higher Education offers a number of programmes, such as the Gap Year, aimed at upgrading student's communication skills, critical thinking and leadership skills to facilitate the transition to the labour market. Similarly, the Manpower Department (JTM) in the Ministry of Human Resources provides counselling and support to students in their training institutions get an appropriate job after graduation. The Mid-term Review of the Eleventh Malaysia Plan also stated that it is imperative to equip TVET students with essential soft skills and positive working attitude to improve employability.

OECD (2018b) identifies various effective ways of improving career guidance services according to the models followed by career service centres across European higher-education institutions and from which Malaysia can learn. These centres go beyond assisting students in the transition process to the labour market by helping them develop the transversal skills required to succeed too.

For instance, the career service centre at the Loughborough University (United Kingdom), recognised as the best one in the country by Times Higher Education, runs two complementary initiatives: the Loughborough University Graduate Attributes, a list of transversal skills that employers value and resources for how students and faculty can develop them; and the Loughborough Employability Award, a document allowing students to record and show employers the transversal skills they have developed through extracurricular activities. Also, the career counselling service at the Tartu University in Estonia supports the development of entrepreneurial skills through support for business idea analysis, consultation in business model development or advice in start-up and spin-off company development (OECD, 2018b).

Furthermore, some higher education systems facilitate the collection and dissemination of career guidance best practice via specialised networks, professional organisations and research labs. For instance, many Finnish higher-education institutions are part of the Learning Network for Working Life Competencies in Academic Studies, which is a network that documents the effect of programmes for developing career competences (Thomsen, 2014).

Providing opportunities for up- and re-skilling during working life

The majority of people affected by structural changes are already in the workforce. Adult learning systems therefore play a key role in up- and re-skilling to respond to changing skill needs. Yet, this is also where the challenge lies. Today as in the past, adult learning remains the "weak link in the lifelong learning agenda" (OECD, 2005[3]). In many countries adult learning systems lack focused attention and resources, putting in doubt their readiness to address future skill challenges.

Evidence suggests that Malaysian adults have limited access to training opportunities

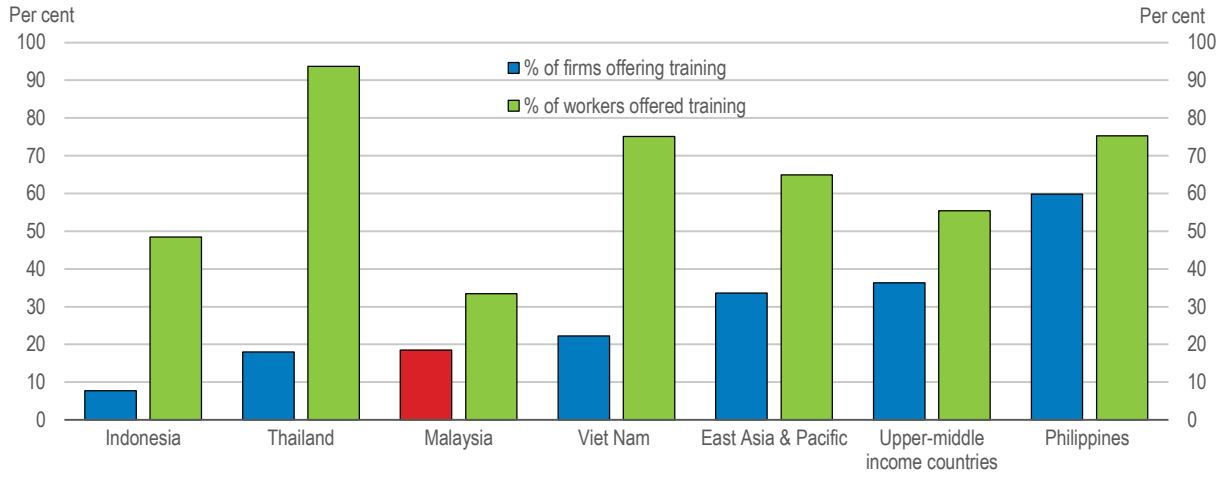
Information on participation in adult learning opportunities in Malaysia is scarce, especially when it comes to internationally comparable data. The available data generally come from small-scale international surveys, and while they give an indication of the prevalence of training opportunities, the data are not very representative.

According to the World Bank Enterprise Survey, which contains information from 1 000 registered firms with at least five employees, only 19% of employers in Malaysia provided organised training activities to their workers in 2015 (Figure 1.15). This share is much lower than the average in East Asia and the Pacific (34%) and upper-middle income countries (36%). Not only the share of firms providing training is low, but also the intensity is low: in manufacturing firms that provide training to their workers, only 33% of workers received training (compared to 65% in East Asia and the Pacific and 55% in upper-middle income countries). Training is mainly provided for technical, vocational and job-specific skills, but also in the area of work ethics and commitment. The main reasons for firms not to provide training is that there is no need for training (67% of non-training employers) and that training is too expensive (20%) (World Bank, 2015a).

At the national level, the National Employment Returns survey shows that 59% of private sector establishments with at least five employees sent their employees to training in 2017. In house-training is more often used than external training, with 40% of establishments sending their employees to in-house training only, 26% to external training only and 21% to both types of training. Training provision is most common among employers in the education sector (84%), the information and communication sector (79%) and the financial and insurance sector (76%). Much less training is provided by employers in the agricultural sector (46%), wholesale and retail sector (47%) and the transportation and storage sector (48%) (ILMIA & Ministry of Human Resources, 2018).

Figure 1.15. Relatively few firms train their workers in Malaysia

Training provision by employers



Note: Data refer to 2015 for Indonesia, Malaysia, Philippines and Viet Nam, to 2016 for Thailand, and to 2011-18 for the group averages. Data on the share of workers offered training refer to manufacturing firms only. The sample of workers is restricted to full-time permanent workers. Only training that has a structured and defined curriculum (e.g. classroom work, seminars, lectures, workshops, and audio-visual presentations and demonstrations) is included.

Source: World Bank (2015a), *Enterprise Surveys: Malaysia 2015 - Country Profile*, The World Bank Group.

StatLink https://doi.org/10.1787/888933968651

While these numbers suggest that training opportunities for Malaysian adults are limited, better data with a broader coverage of the adult population would be needed to make a thorough assessment of adult learning participation in Malaysia. In many OECD countries, questions on participation in training activities are included in labour force surveys. In addition, some countries have specific individual-level or employer surveys focussing on the topic of training, like for example the European Adult Education Survey (AES) and Continuing Vocational Training Survey (CVTS).

Key policy areas to improve the adult learning system

The importance of lifelong learning for the Malaysian population has been stressed in several strategic documents. The Malaysia Education Blueprint (Higher Education) (2015-2025) states that "Lifelong learning enables Malaysians to meet the changing skill needs of a high-income economy and maximises the potential of individuals who are currently outside the workforce through reskilling and upskilling opportunities". Interesting policies have been put in place in Malaysia to foster adult learning. The Human Resources Development Fund is the largest adult learning policy in the country, providing workplace training to workers and job seekers for existing and future jobs. More details on the functioning of the system are provided in Box 1.5 and further throughout this section.

Certain further education institutions, such as polytechnics and community colleges, also offer lifelong learning courses in various fields. In the period 2013-2018, over 1.5 million participants attended around 73 000 lifelong learning programmes in Community Colleges. Likewise, different skills accredited centres are increasingly providing part-time training programmes that are accessible for adult learners. As an example, around 51 500

students participated in part-time courses at the Industrial Training Institute under the Ministry of Human Resources in 2018 (compared to 39 000 participants in 2005).

OECD (2019a) identifies five key policy areas to improve the readiness of the adult learning system to respond to changing skill needs: i) coverage and inclusiveness, ii) alignment, iii) quality, iv) financing, and v) governance.

Box 1.5. The Malaysian Human Resource Development Fund

The Human Resource Development Fund (HRDF) was set up in 1993 in an effort to encourage employers to provide and finance training opportunities. Employers contribute to the fund through a 1% levy on their total payroll, known as the Human Resource Development Levy. Firms with less than 10 Malaysian employees are not required to pay the levy, although firms with between five and nine Malaysian employees can contribute on a voluntary base at a rate of 0.5% of their total payroll. The HRDF currently covers employers in 63 sectors, but suffers from substantial non-compliance with registration requirements.

Employers who contribute to the fund can apply for training grants to defray all or a major portion of the "allowable costs" of training their employees. Training must be in the area of direct benefit to their business operations. The HRDF has put in place several training schemes that are eligible for reimbursement under the levy system. The largest scheme is the Training Assistance Scheme (*Skim Bantuan Latihan*), under which employers receive a training grant to support training programmes that correspond to their own training needs, with the aim to retrain and upgrade their employees' skills in line with their operational and business requirements. Other schemes are more specific, and support, for example, recognition of prior learning, joint training provision between multiple firms, and the purchase of training equipment. The contributed funds remain in the employers' 'training account' for a period of five years. If the funds are not used by the employer within that period, the unused funds are pooled and used by the HRDF for general skills development purposes. From 2016 onwards, 30% of all collected funds were pooled and used for strategic skills development purposes (i.e. outside of the employer training grants system). However, this 30% Pool Fund was suspended in 2018.

In 2017, the fund collected MYR 726.6 million through the levy and disbursed MYR 684.7 worth of grants. Since the inception of the fund in 1993, around 22 000 employers registered and 2.3 million individuals were trained. Recent evidence suggests that HRDF registration increases a firm's likelihood of providing training by 24 percentage points and increases the share of workers trained by 19 percentage points.

Source: HRDF (2017); *Nurturing Workforce Potential - Annual Report 2017*, https://www.hrdf.com.my/wp-content/uploads/2016/12/11-HRDF_Annual_Report_2017.pdf; World Bank Group (2017), *Study on the Effectiveness of the Human Resources Development Fund*,

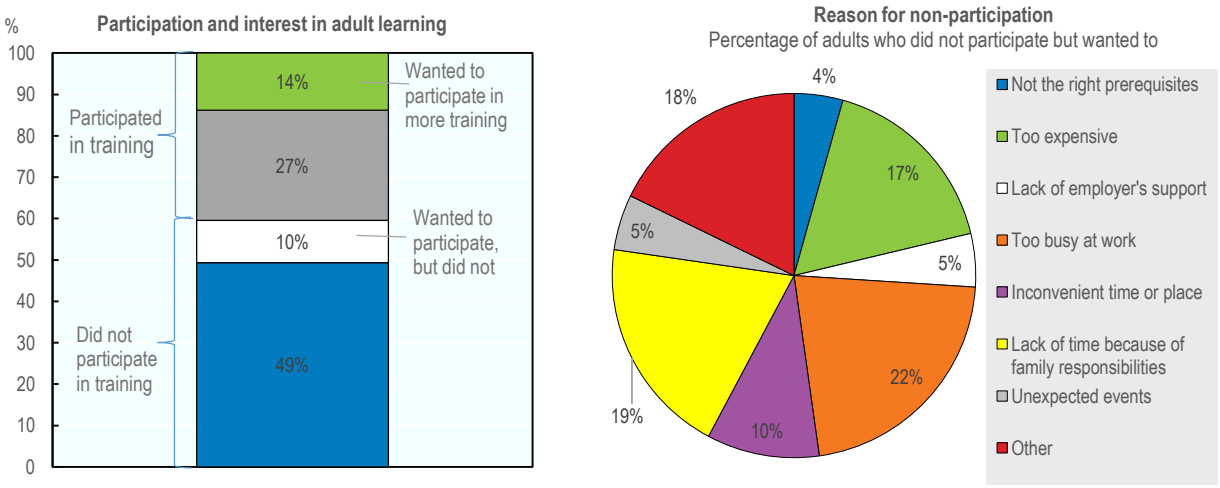
Coverage: Bringing down barriers to participation

Adult learning systems must provide sufficient opportunities for participation in training, while ensuring that all adults have equal access to these opportunities. Participation in adult learning differs widely across countries. In OECD countries, for example, the share of adults participating in job-related formal or non-formal training in a given year equals 41% on average, but ranges from 16% in Turkey to 58% in Denmark. The majority of adults not participating in adult learning opportunities also do not want to participate

(Figure 1.16). Among the Asian countries for which data are available, the lack of interest is highest among Japanese adults (88% of adults who do not participate in training state that they are not interested), followed by Singapore (76%) and Korea (71%). There is evidence to suggest that adults, in particular those with low skills, are unable to recognise the need to develop their skills further (Windisch, 2015). Hence, the engagement of adults in learning activities should go beyond providing opportunities to those who ask for them. Promoting the benefits of adult learning, providing high-quality information and individualised advice and guidance services are some of the ways policy can encourage higher and more inclusive participation.

Figure 1.16. Adults face multiple barriers to participation in training activities

Reasons for not participating in job-related formal or non-formal adult learning (OECD average)



Note: Average of OECD countries participating in PIAAC formal and non-formal job-related education and training.

Source: Priorities for adult learning Dashboard, based on PIAAC (2012, 2015); OECD (2019a), *Getting Skills Right: Future-Ready Adult Learning Systems*.

StatLink https://doi.org/10.1787/888933968670

Career guidance helps individuals understand their skill set and development needs and navigate available learning opportunities. To be effective, career guidance takes into account timely labour market information and the outputs of skill assessment and anticipation exercises. In most countries, career guidance is delivered through a range of channels, including public employment services (PES), specialised guidance services, career guidance websites, as well as by education providers and social partners. Some countries have developed one-stop-shops to ensure individuals get all the information they need to make informed decision in one place. Beyond guidance services, online databases on education and training allow individuals to make informed training decisions. To understand which offer best suits their needs, these databases should contain detailed information about available courses, as well as information on outcomes and satisfaction of beneficiaries. The Danish website *UddannelsesGuiden* (www.ud.dk), for example, brings together information on general education, higher education and adult/continuing education. It further includes information on the structure of the Danish labour market, the role of industries and businesses and descriptions of the most common occupations and jobs in the Danish labour market. Users can access further information and guidance

via chat, phone or email. In Malaysia, the Employment Insurance System (EIS), which is currently under development, is taking up the role of a traditional PES, which includes providing career guidance. Today, only 267 career guidance advisors are employed by the EIS. To become an effective player in the adult learning space, the EIS needs to be further reinforced. Notwithstanding its capacity constraints, the EIS is engaged in some promising initiatives, such as the development of a job portal based on international good practices.

Another key obstacle for adults to participate in training opportunities is a lack of time, be this for family or work related reasons (Figure 1.16). To overcome this barrier, adult learning programmes should ideally be flexible. Many countries offer some or several forms of flexible learning provision, including on a part-time basis, in the evenings, on weekends, as distance learning, or in a modular and/or credit-based format. In Malaysia, the accumulation of credits and learning outcomes is possible through partial qualifications, professional certifications, modularisation of programmes, short courses, part-time courses in Community Colleges and Polytechnics, micro-credentialing, stackable qualifications in the TVET sector, and via Massive Open Online Courses (MOOCs). Public and private higher education institutions have been developing MOOCs under the Malaysia MOOC initiative launched in 2014. Over 800 MOOCs have been developed in different domains, including around one hundred TVET MOOCs developed by polytechnics, some of which take a blended approach and combine online learning and traditional face-to-face education to provide hands-on experience (The Star Online, 2018). Since 2016, MOOCs can be transferred for credits to formal programme with the publication of a guide on Credit Transfer for MOOC by the Malaysian Qualifications Agency. Flexibility is also enhanced through a credit transfer system for vertical or horizontal transfers between programmes, institutions and sectors. This includes the articulation policy and mechanisms for mobility between academic and TVET sectors.

Modular approaches are especially helpful in providing adult learners with greater flexibility on their learning path and can be combined with processes for the recognition of prior learning. They allow adult learners to focus on developing the skills they currently lack, complete self-contained learning modules on these skills and combine these modules to eventually gain a full (formal) qualification. Research suggests that such provision can broaden access to formal qualifications, in particular for disadvantaged groups (Kis, 2018). In Mexico, participants in the Model for Life and Work programme *(Modelo Educación para la Vida y el Trabajo*, MEVyT), which provides learning opportunities for youth and adults to catch up on primary and secondary education, can combine different modules that cover a variety of topics. Some of the modules are delivered on an online platform (Box 1.6).

Box 1.6. Flexible basic education for youth and adults in Mexico

The Model for Life and Work programme (*Modelo Educación para la Vida y el Trabajo*, MEVyT) in Mexico provides learning opportunities for youth and adults to catch up on primary and secondary education. The programme integrates basic literacy learning with skills training and allows the learners to obtain officially recognised and accredited primary and secondary qualifications. The programme is very flexible, allowing participants to select different modules at the initial, intermediate (primary education) and advanced (lower secondary education) level. The modules cover a wide range of topics, including civic education, language and communication, mathematics and science, social development and citizenship. Some modules also have a focus on the world of work, such as "My business" and "Working in harmony".

The modular structure of the programme allows learners to design their own curriculum by selecting modules according to their prior skills, needs, interests and the speed at which they learn. This flexibility also allows learners to decide when, where and how they want to learn. Individuals can study on their own or participate in group-learning in a community learning centre or a mobile learning space.

To allow for even greater flexibility, an online version of the programme was introduced. Students can participate in a range of modules on an online platform (*MEVyT en linea*). The platform currently mainly provides the basic modules (i.e. language and communication, mathematics and science) at the intermediate and advanced level, but also a few of the diversified modules (e.g. parenting, the prevention of violence). To help individuals with low digital skills access the online training modules, basic digital skills programmes are offered in community learning centres.

Source: UNESCO Institute for Lifelong Learning (2016a), *Education Model for Life and Work, Mexico*, https://uil.unesco.org/case-study/effective-practices-database-litbase-0/education-model-life-and-work-mexico; Instituto nacional para la educacion de los adultos (2018), *MEVyT en línea*, http://mevytenlinea.inea.gob.mx/inicio/index.html

Another important tool to provide more flexibility to adults is Recognition of Prior Learning (RPL), which allows skills and knowledge obtained non-formally or informally to be certified. To effectively address barriers to adult learning, recognition of prior learning must be transparent, streamlined and ensure the buy-in of all relevant stakeholders, including employers and education and training providers. In Malaysia, recognition of prior learning exists in two forms: Accreditation of Prior Experiential Learning (APEL) and Recognition of Prior Achievement (RPA). The former refers to recognition of knowledge and skills to access or get credits for higher education programmes, whereas the latter grants national skills certificates based on the National Occupational Skills Standards. Employers can obtain financial assistance through the HRDF system when getting recognition for their employees' skills and experiences according to the competency level of the employee in enhancing the number of skilled workers in the national labour market. Only 1 026 training place were approved under this Recognition of Prior Experiential Learning scheme in 2017.

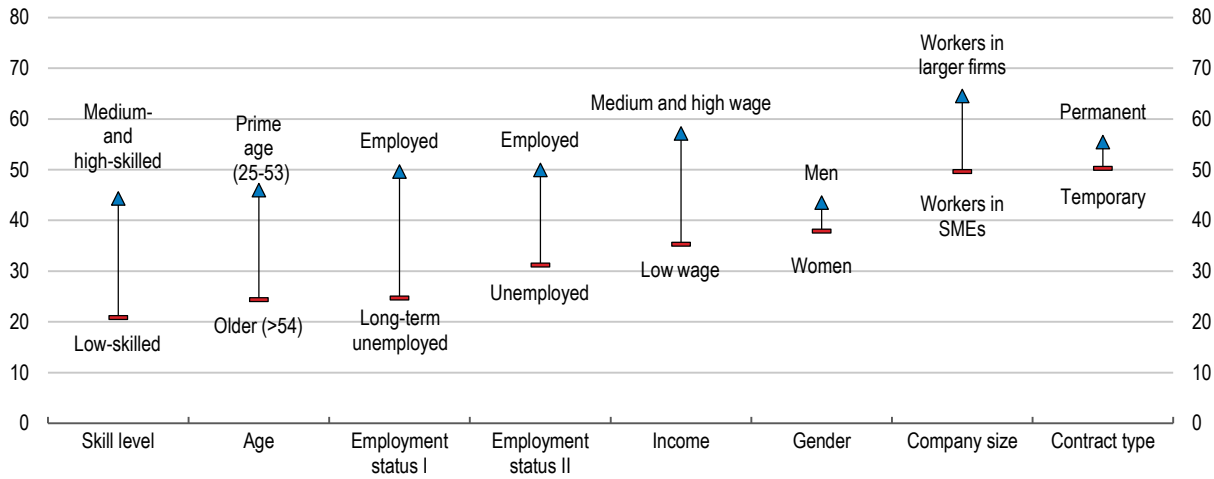
Inclusiveness: Underrepresented groups need targeted support

Certain groups of adults generally have less access to training opportunities than others. In all OECD countries, participation is lower among older adults, low-skilled adults, low-wage workers, workers in small and medium-sized enterprises (SMEs) and (long-term)

unemployed adults. Strong differences in participation also exist in some countries between men and women, and between workers on permanent and temporary contract (Figure 1.17). The three Asian countries with available data (i.e. Japan, Korea and Singapore), all have relatively low participation of underrepresented groups. The gaps in the three countries are particularly large compared to the OECD average in the gender, wage and contract type dimensions. In addition, Korea also has relatively low participation of workers in SMEs and low-skilled adults. Singapore scores poorly in all of inclusiveness dimensions. Although data for Malaysia are not available, it can be expected that similar groups have lower access to training opportunities.

Figure 1.17. Not everyone has the same access to adult learning opportunities

Percentage of adults participating in job-related formal and non-formal adult learning (OECD average)



Note: Average of OECD countries participating in the Survey of Adult Skills (PIAAC).
Source: Priorities for adult learning Dashboard, based on PIAAC (2012, 2015); OECD (2019a), *Getting Skills Right: Future-Ready Adult Learning Systems*.

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Lower participation in training by workers in SMEs could present a particular challenge in Malaysia, where SMEs represent 98.5% of all registered business establishments and 66% of total employment. Moreover, 76.5% of SMEs are micro-enterprises, defined as having less than five employees or sales turnover of less than RM 300 000. As SMEs often lack the knowledge and capacity to offer training opportunities to their employees, they would benefit from additional support services. In Malaysia, the HRDF has specific schemes targeted at SMEs, like for example the SME Skills Upgrading Programme that aims to increase the knowledge, skills and competencies of employees of SMEs, and the Human Resources Capability Building Programme which purpose is to increase the Human Resources skills of SMEs. However, since the HRDF is only available for employers with at least five employees (and only compulsory for those with at least 10 employees), many small firms do not have access to these training programmes. Some non-HRDF registered companies have access to other financial incentives, such as the Talent ProCertification that provides tax deductions for training costs incurred to enable employees to obtain various industry-recognised professional certifications. In some OECD countries, access to training opportunities for SMEs is facilitated by encouraging partnerships with large companies. In Korea, for example, the *Human Resources*

Development Ability Magnified Programme (CHAMP) facilitates collaboration between SMEs and large companies in providing training. Often the involved companies are part of the same supply-chain (OECD, 2019a).

With much adult learning taking place at work, unemployed (or inactive) adults need dedicated opportunities to develop their skills and improve their employability. Unemployed adults, and especially those who have been unemployed for a long time, might not have the skills required by employers. In Malaysia, multiple training programmes have been put in place to help jobseekers into employment. The HRDF *Future Workers Training Scheme* is a pre-employment training programme that supports employers to train their future workers with the required skills and competences before entering employment as permanent workers. The scheme has a sub-programme specifically targeted at rural youth (*Rural Accelerated Industry Skill for Employment*). In light of the relatively high unemployment rate of graduates in Malaysia, several programmes exist to enhance the employability of graduates. The *Skim Latihan 1Malaysia* programme, recently rebranded as the Professional Training and Education for Growing Entrepreneurs programme (PROTÉGÉ), provides soft skills and on-the-job training to graduates who are unemployed or underemployed, with priority given to underprivileged graduates. Training costs are covered by employers, which can benefit from a tax deduction or from HRDF grants. Since 2011, around 68 000 graduates participated in the training programme. With the recent introduction of an Employment Insurance System (EIS) in Malaysia, job seekers receiving benefits will have increased access to support services, including job-hunting assistance and training allowances.

In Malaysia, as in many other countries, a large share of women are outside of the labour market (see next section). Special programmes have been put in place in Malaysia to help women develop skills to get access to job opportunities. In 2015, TalentCorp launched the Career Comeback Grants whereby employers can receive grants for implementing or enhancing programmes or campaigns to recruit women returnees and for hiring and retaining women returnees. The programme helped 820 women return to work in the period 2015-2018. In 2019, the programme has been further enhanced to upskill and reskill women returnees to make them more marketable to employers. In addition, individual income tax exemptions are granted to those women who returned to work between October 2017 and December 2020. Another programme targeted at inactive women exists under the HRDF, the Housewives Enhancement And Reactivate Talent Scheme (HEARTS). This scheme aims to help women develop skills to be self-employed and work from home, so that women can combine their family responsibilities with work activity. A range of training programmes for aspiring and active female entrepreneurs are also available in Malaysia (OECD, 2017h) (see Section 1.6.2). Several OECD countries have put in place specific guidance and training programmes to help women (re-)enter the labour market. In Ireland *Women ReBOOT* supports inactive women in developing the skills and self-confidence to re-enter the technology sector after a career break. The programme includes group seminars, technology and knowledge training, individual coaching and in-company work placements. Women ReBOOT is an enterprise-led initiative co-funded and supported by *Skillnet Ireland* (OECD, 2019a).

While educational attainment in Malaysia has grown spectacularly in recent decades, an important share of the adult population only has at most finished primary education (26%). Low educational attainment is more common in rural than in urban areas. To ensure that low-educated adults have access to decent jobs and can flourish in a changing world of work, they need to have access to up-and re-skilling opportunities. According to the World Bank Group, low-skilled workers in Malaysia receive substantially less training than their

mid-skilled and high-skilled colleagues (World Bank Group, 2017). The Malaysian government provides multiple literacy programmes, especially targeted to the rural and the indigenous population (UNESCO, 2015). The Functional Literacy Education Programme, for example, provides basic literacy classes, courses on income generating activities, and co-curriculum activities. In addition to traditional literacy programmes, efforts are also being made to increases digital and vocational skills in rural areas. The Community Development Department in the Ministry of Rural and Regional Development provides a range of basic skills programmes, such as sewing and cooking. Many countries have specific programmes and initiatives in place to engage low-skilled adults in learning. In light of the importance of providing a variety of training opportunities to low-skilled adults, South Africa is setting up a community education and training system. The institutions are currently mainly providing second chance primary and secondary education, but are planned to expand to also offer vocational programmes and non-formal training (OECD, 2019b).

Another group that could be particularly affected by changes in the workplace are older adults. As a result of population ageing, the relative size of this group is growing progressively. A higher retirement age, introduced in Malaysia in 2012, also means that workers remain active for a longer time. These changes increase the need for investing in skills of older workers to ensure that their skills remain up to date and in line with the needs of employers. A small-scale survey among manufacturing firms in Malaysia showed that training participation among workers aged 45 and above is extremely low (Noor & Rahmah, 2008). This is confirmed by data from the HRDF, which show that training participation is much lower among workers aged 45 and above than among their younger colleagues (World Bank Group, 2017). Outside of the workplace, around 60 000 senior citizens participated in lifelong learning courses in Community Colleges in the period 2013-2018, representing only a small share of total students (around 1.5 million in the same period). This low participation rate among older workers is consistent with finding from OECD countries (Figure 1.17).

In some OECD countries, specific guidance and training programmes are available for older workers (OECD, 2019a). In the Netherlands, workers aged 45 and more can participate in subsidised career development guidance (*Ontwikkeladvies*). These guidance activities help older workers understand the future prospects of their current job, and give insight into their skills profile and career opportunities. Participants develop a personal development plan that describes the actions that will be taken to ensure employment until retirement age. Taking a different approach by targeting employers, the German public employment agency supports training of low-skilled and older workers in SMEs through their programme *WeGebAU*. SMEs receive a 75% subsidy to the training costs of workers 45 years of age and older. Micro-enterprises with less than 10 employees receive a 100% subsidy of training costs. The training of low-skilled workers is additionally supported through a wage subsidy for the duration of the training to compensate employer for any financial losses. Ensuring that older adults have access to guidance services and training opportunities will not only ensure that their skills remain relevant, but will also contribute to keeping these workers in the labour force. The labour market participation rate of older adults remains low, with only 59% of Malaysian adults aged 55 to 59 participating in the labour market in 2016 and 36.5% of adults aged 60 to 64 (ILO labour statistics). In light of the prevailing labour market shortages and population ageing, it will be of crucial importance to put the skills of older adults to use by activating this group adults. Activation policies for older workers include training, but also employment assistance,

job quality measures, prevention of discrimination by employers, and the promotion of good practices in the management of an age-diverse workforce (OECD, 2018d).

Aligning adult learning opportunities with labour market needs

To effectively support the career progression of individuals, adult learning needs to be aligned with labour market needs. This is especially true in the context of a rapidly changing demand for skills and in the presence of skills imbalances. This alignment can take place in three broad ways. First the content of adult learning programmes needs to be responsive to current, but also future, skill needs in the labour market. Secondly, incentives for participants and providers need to be set to guide the choice of courses towards skills in demand. Third, adult learning must respond to changing skill demands by specifically targeting those adults who are specialised in skills that have become or are likely to become obsolete.

To facilitate the alignment of adult learning policy with changing skill demands, it is of crucial importance that policy makers, individuals and employers have a good understanding of these changing skill needs, so that they can make informed decisions on adult learning investments. Countries differ widely in terms of methods used to identify their skill needs, but also in terms of the level at which these exercises are conducted and stakeholder involvement (OECD, 2016b). Since 2016, the Critical Skills Monitoring Committee, comprised of the Institute for Labour Market Information and Analysis (part of the Ministry of Human Resources) and TalentCorp, publishes annually a list of Malaysian critical occupations. The occupations on the list are considered to face significant labour market shortages that could be alleviated through government interventions. The criteria for being included in the list are that the occupations are skilled, in high demand and are of strategic importance to economic development. To identify the occupational shortages, the Critical Skills Monitoring Committee combines a top-down quantitative analysis with bottom-up qualitative evidence from stakeholders (Critical Skills Monitoring Committee, 2019).

According to TalentCorp, the Critical Occupations List will be used to refine human-capital related public policies, such as upskilling, scholarships, higher education, immigration, and technical vocational education and training (TVET). Currently, the list is being used for migration policy (TalentCorp's Returning Expert Programme and Residence Pass-Talent) and as a tool to review requests for new programmes in public higher education institutions. The list has become the reference source for information on in-demand jobs. In OECD countries, results from skills assessment and anticipation exercise have mainly been used by governments to update occupational standards; design or revise training policies for workers or the unemployed; design, revise or decide on the allocation of courses provided in formal education (especially VET programmes and apprenticeships). In addition, some governments use this information to guide migration policy, as well as their transition to a digital or green economy. Social partners (employer organisations and trade unions) also use this information to lobby governments on education and employment policy, develop training programmes, or provide advice to their members on skill development. Both social partners and governments use the information for broad dissemination purposes to inform workers and students about trends in current or future skill demand and supply (OECD, 2016b).

Despite some good practices in the use of skill assessment and anticipation information in OECD countries, governments and social partners still face several barriers when it comes to using the available information. In general, the identified barriers are twofold:

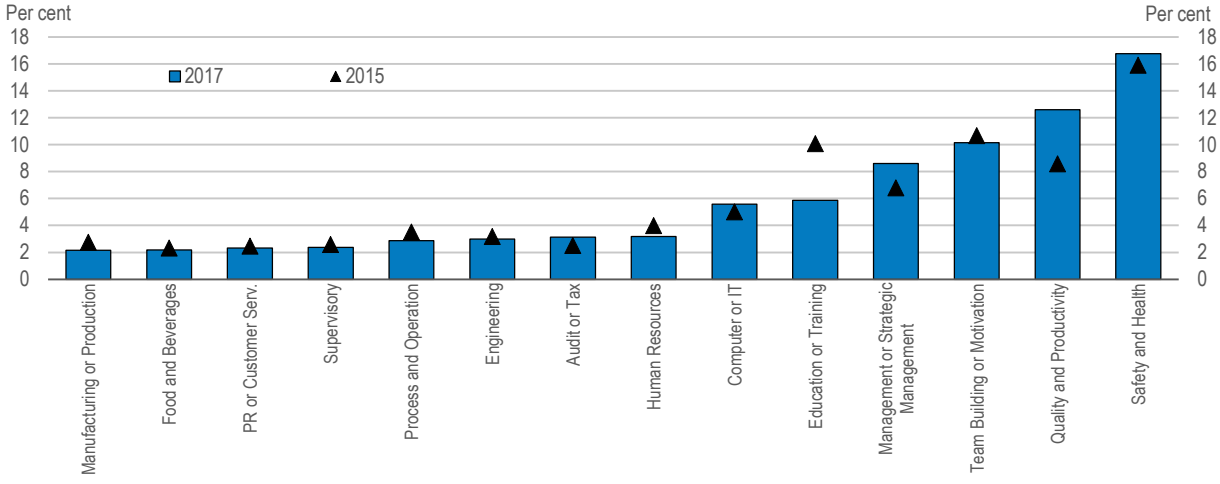
i) involving and co-ordinating with stakeholders; and ii) bringing the skills assessment and anticipation exercises closer to the needs and requirements of policy-makers. (OECD, 2016b).

While this type of information can help employers to get a general understanding of the skill needs in the labour market, it remains important for employers to analyse their own specific skill needs. European CVTS data show that 70% of employers with at least ten employees in European OECD countries analyse their skills needs, but also that smaller firms engage in this type of analysis much less frequent than big firms. Malaysian SMEs that contribute to the HRDF can receive the support of a training needs analysis consultant to systematically identify their training needs. In 2017, only 20 SMEs participated in this support scheme.

Nonetheless, Malaysian employers could greatly benefit from a more thorough analysis of their skills and training needs. In 2018, the three most important skills areas for HRDF-financed training were: Safety and Health, Quality and Productivity, and Team Building or Motivation (Figure 1.18). In 2017, these three areas accounted for 39.5% of training places and 31.6% of approved financial assistance (HRDF, 2017). While training in these areas can certainly be important, it does not necessarily contribute to significant up- or re-skilling of workers and job seekers in light of structural changes in the labour market. Helping employers assess their training needs, will help them make informed choices on effective investments in skill development. In many countries, the training provided by employers does not correspond well with their actual skills needs. Across European OECD countries, only 13% of firms have a complete overlap between the skills they identify as priority for the development of the firm and the skills they are training their workers in (OECD, 2019a). Moreover, a recent analysis of training funds in Italy revealed that the training levy is often used to finance compulsory training activities, such as occupational health and safety, rather than focussing on developing the skills that could enhance the competitiveness of firms and the productivity of workers (OECD, 2019c).

Figure 1.18. Many of the HRDF training opportunities are in the area of health and safety

As a percentage of all HRDF-approved training places



Note: Only includes skill areas that represent at least 2% of training places in 2017.
Source: Human Resources Development Fund (HRDF), *Annual Reports*.

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In addition to ensuring that employers can effectively assess their training needs, it is also important that the opportunities provided by training providers correspond with the needs of the labour market. A recent analysis of the effectiveness of the HRDF highlighted that some employers are concerned about the relevance of HRDF training programmes, and sometimes seek providers outside of the HRDF. Moreover, the analysis shows that some of the skills areas for which employers face hiring difficulties are not covered by HRDF training programmes (World Bank Group, 2017).

Information from skill needs assessment exercises, like the Critical Occupations List, can be used to guide participation in and provision of adult learning programmes. In many OECD countries, certain government-subsidised programmes are restricted to the development of in-demand skills, or more generous incentives are provided for these programmes than for others (OECD, 2019a). In Estonia, registered job seekers can access training opportunities through a system of training vouchers (*Koolituskaart*). These training vouchers have recently also been made available for certain groups of employees, under specific conditions. In the case of low-wage older workers and low-skilled workers, the condition to use the training vouchers is that the training has to be related to ICT skills or skills identified as being in shortage by the Estonian Qualifications Authority. Estonian employers hiring job seekers for certain occupations that are in shortage and of growing importance in the labour market can receive training grants (Recruitment Training Grant - *Koolitustoetus töötajate värbamiseks*) to partially compensate for the cost of training the new hires. In Korea, a training account system for job seekers partially subsidises training cost, with the amount of the subsidy depending on the employment rate in the related occupation. Subsidies are therefore more generous for trainings related to areas with strong skill demand. This type of steering of adult learning programmes does not seem to be common in Malaysia.

To better align skills demand and supply, information from skill needs assessment exercises can also be used to identify individuals with skills that do not correspond to the ones in demand in the labour market, and policies can be developed to specifically focus efforts on these vulnerable individuals. Incentives can be targeted, for example, towards workers and firms in sectors that are facing declining demand, have a high risk of automation or face significant changes in how work is organised. In Malaysia, retrenched workers can access up-skilling and reskilling opportunities, as well as career counselling through the HRDF Outplacement Centres. While the services of the centres are open to all retrenched workers, training can only be accessed by adults previously employed by HRDF registered firms. In 2018, this programme has been reviewed and the Employment Insurance System is now financing training programs for insured workers who have lost their jobs, as such facilitating adult learning and narrowing the skills gap. These types of services can also be offered to workers with a high risk of job loss, like in Australia where Structural Adjustment Packages (SAPs) are provided to assist employees in areas with poor labour market prospects (Box 1.7).

Box 1.7. Supporting Australian works in areas of structural change

In Australia, Structural Adjustment Packages (SAPs) are provided to assist employees in areas where expectations of future employment opportunities for workers in the industry are low or where large-scale closures may affect the local labour market. Targeted employment assistance under SAPs can involve skills and training components for adult learners.

In 2018 a Stronger Transitions Package was introduced to support individuals in five regions impacted by structural change to transition to new jobs and prepare for the jobs of the future. The package includes a Pre-retrenchment Skills and Training Support measure, which can provide targeted services such as comprehensive skills assessments; job search preparation; resilience training; language, literacy and numeracy support; digital literacy training; financial management information; exploring self-employment options; health and wellbeing support, and industry awareness experiences.

Source: Adapted from OECD (2019a), *Getting Skills Right: Future-Ready Adult Learning Systems*, https://doi.org/10.1787/9789264311756-en

Ensuring that training has the desired impact

As efforts are being made to ensure access to training for all, it becomes increasingly important to ensure that the quality of training is and remains at high levels. Adult learning programmes are unlikely to have the desired impact on skills development if the training provision itself is of low quality. Further, it is important that information about the quality of adult learning provision is communicated widely, such that prospective participants can make informed choices. As argued by OECD (2005[3]), poor-quality learning programmes and a lack of awareness of programme outcomes can contribute to under-investment and low participation in adult learning. The key challenge of quality assurance in adult learning is that training is often non-formal and delivered by a large and diverse range of providers, including public and private training institutions and employers. Furthermore, the trend towards more flexible adult learning provision, for example through e-learning, poses new challenges for quality assurance.

In some OECD countries, quality standards have been put in place that guide training providers in developing and implementing high-quality programmes. In Japan, for example, quality assurance guidelines have been put in place and from 2018 onward, training providers who comply with the quality assurance guidelines are being certified (Box 1.8). In many countries, training providers who want to deliver publicly funded training programmes need to be certified or accredited (OECD, 2019a). In Malaysia, training providers who want to deliver HRDF training programmes need to register online and pay a registration fee. Registered training providers receive a star rating (0-5) based on self-evaluation information submitted to the HRDF. The information is verified by star rating inspectors based on documents and inspections. Under the Star Rating system, participating training providers are assessed according to different criteria such as training programmes, customer management, capacity and capability building, quality system and office management. Of the 1 505 providers that had been rated by the end of 2017, only 67 received a 5-star rating and 199 a 4-star rating (HRDF, 2017). The Star Rating system is currently only used internally by the HRDF, mainly as a way to encourage providers to invest in quality improvements. There are plans to make the Star Ratings publicly

available, with the aim to better help employers and workers make informed training choices.

Box 1.8. Implementing quality assurance guidelines for private training providers in Japan

In Japan, guidelines for vocational training services at private providers were developed in 2011 by the Ministry of Health, Labour and Welfare. The guidelines present specific measures to improve the quality of vocational training services and management of private providers based on an international quality standard. From 2018 onward, training providers who comply with the quality assurance guidelines are being certified. Compliance is assessed on the basis of documents submitted by the training providers and on-site visits.

Workshops are organised for training providers to get familiar with and better understand the quality assurance guidelines. The workshops aim to develop knowledge and skills required to conduct vocational training using a cycle of planning, doing, checking and acting:

- Plan: Identifying training needs and setting curricula and courses
- Do: Conducting training efficiently
- Check: Evaluating and auditing training
- Act: Reviewing and improving training

The government is considering making participation in workshops compulsory for training providers that want to offer publicly funded training programmes.

Source: (OECD, 2019b), *Community Education and Training in South Africa*, https://doi.org/10.1787/9789264312302-en; (JEED, 2018), *2018 Outline of Services*, https://www.jeed.or.jp/english/u603g2000000008u-att/u603g200000000fi.pdf

To ensure that individuals who deliver HRDF-funded training have the skills to provide high-quality training, the HRDF funds a training programme that aims to equip trainers with the necessary pedagogical skills. This Train the Trainer programme is targeted at trainers working at training providers and government institutions, but also internal trainers at firms. The Train the Trainer programme is compulsory for all HRDF trainers who do not have a formal training qualification or equivalent experience. After completion of the Train the Trainer programme, trainers are encouraged to participate in a workshop on Evaluation of Effectiveness of Training. This workshop for trainers and programme evaluators aims to provide skills in evaluating training programmes and validating assessments. In 2017, 3 229 trainers participated in the Train the Trainer programme and 106 trainers in the Evaluation of Effectiveness of Training workshops.

When training is of high quality and aligned with the needs of employers, it is more likely to lead to positive impacts on firms, workers and the economy. An evaluation of the effectiveness of HRDF-supported training showed that training had a positive impact on the participants and on their employers. While training an additional one percentage point of the workforce is found to be associated with a nearly 1 percent increase in productivity among all firms in Malaysia, the increase amounts to 3 percent among HRDF-registered firms (World Bank Group, 2017).

Adequately financing the adult learning system

Adult learning systems need to be adequately financed in order to function well. Although there is no benchmark for a 'sufficient level' of spending, it is clear that adult learning receives less overall funding compared to other education areas. As the demand for adult learning will likely increase in the context of the mega-trends that are changing the skills needs of the labour market, the financial resources devoted to adult learning programmes will need to be adjusted. The main contributors to the financing of adult learning are generally governments, employers and individuals. Available estimates for selected OECD countries show that today the state on average bears the smallest share of the financial burden (21% of total spending on adult learning on average), followed by individuals (23.3%) and the largest share of adult learning costs rests with employers (45%) (FiBS & DIE, 2013).

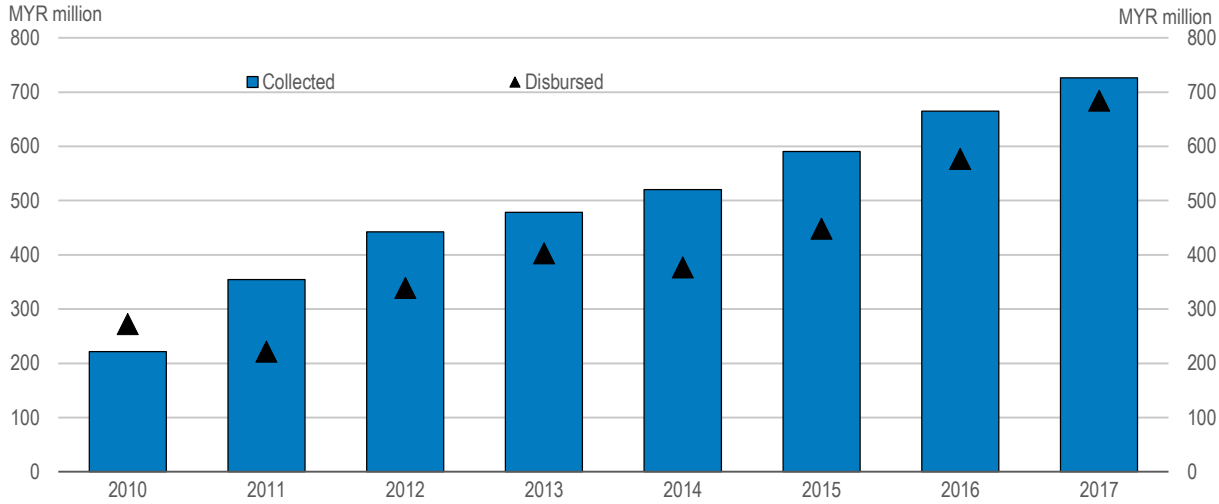
As in many countries, information on financial resources attributed to adult learning in Malaysia is scarce. According to the UNESCO Global Report on Adult Learning and Education (GRALE), public expenditure on education and training of adults accounted for 0.692% of GNP and 10% of total education expenditure in 2010 in Malaysia (UNESCO Institute for Lifelong Learning, 2013). The latest GRALE information shows that public spending as a proportion of public education spending remained almost the same in Malaysia in the period 2009-2014, but is expected to increase in the next few years. Based on this information, public expenditure on adult education and training (relative to the income level) is high in Malaysia compared to most high and middle-income countries.

Malaysian employers are important financiers of adult learning through their levy-contributions to the HRDF (Box 1.5). In 2017, the fund collected MYR 726.6 million through the levy and disbursed RM 684.7 worth of grants. Because the Human Resources Development's levy collection by HRDF outpaces the levy disbursement, there is balance of yet to be utilised levy in HRDF (Figure 1.19). At the end of 2017, the fund's built up assets amounted to a total of MYR 1.65 billion. Levy systems exist in many OECD and non-OECD countries to incentivise employers to contribute to the financing of adult learning (UNESCO, 2018; OECD, 2019a), with varying levy rates and designs (Table 1.4). Aside from levy systems, governments have put in place multiple financial incentives to encourage employers to finance training opportunities for workers and job seekers, including subsidies, tax credits and loans.

While it difficult to pin down how much should be spent on education and by whom, there is a need to implement a 'healthy mix' of co-financing, ensuring that different actors - including government, employers and individuals - contribute to their capacity and nobody is left behind. Individual learning accounts, like the ones implemented in France (Box 1.9), easily allow for contributions from different actors.

Figure 1.19. Funds collected from employers for training have not been put to full use

Levy amount collected and disbursed by the HRDF



Note: As employers have multiple years to use their levy contributions, the difference between collected and disbursed funds not only reflects underutilisation of funds but also the time lag between collection and use of funds.
Source: Human Resources Development Fund (HRDF), *Annual Report*, various years.

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Table 1.4. Different types of training levy systems are used internationally

Training levies in selected OECD and non-OECD countries

Country	Levy-rate (% of payroll)	Differentiation	Type
Australia	1.5%	No	Levy-exemption
Belgium	0.1% to 0.6%	By sector	Levy-exemption
Canada (Quebec)	1%	No*	Levy-exemption
Denmark	DKK 2 702 **	No	Levy-grant/revenue-generating
France	0.55% to 1%	By firm size	Levy-grant
Greece	0.24%	No	Levy-exemption
Hungary	1.5%	No	Levy-exemption/revenue-generating/levy-grant
Ireland	0.7%	No	Levy-exemption/revenue-generating
Italy	0.3%	No	Levy-grant
Korea	0.1% to 0.7%	By firm size	Levy-grant
Netherlands	Up to 2%	By sector	Levy-grant
Poland	0.25%	No	Levy-grant
Spain	0.7% (of which 0.1% on workers)	No	Levy-exemption
United Kingdom	0.5% to 2.5%	By fund	Levy exemption
Non-OECD countries			
Brazil	1% to 1.5%	By firm size	Revenue-generating
Malaysia	1%	No*	Levy-grant
South Africa	1%	No*	Levy-grant/revenue-generating

Note: *Canada, Malaysia and South Africa exempt the obligatory payroll contribution for firms below a certain payroll threshold. **Denmark has a lump sum of DKK 2 702 per full-time employee per year paid to the AUB, which reimburse wages paid to employees undergoing off-the-job training. In levy-exemption schemes, only firms that spend less than the levy rate on training need to contribute. In levy-grant scheme firms can claim back (part of) their contribution for financing training activities. Revenue-generating schemes are used to finance general training programmes.
Source: OECD (2019a).

Box 1.9. Co-financing adult learning: The French individual learning accounts

An individual learning account (*Compte Personnel de Formation*) was introduced for all adults in France in 2015. At the end of each year, individuals get training credits on their individual account based on the time spent in employment and working time during the year. An individual who worked full-time during the entire year gets EUR 500 of training credits added to his account, until the account reaches EUR 5 000. Certain vulnerable groups, such as low-skilled adults, receive a large number of credits (e.g. EUR 800 per year with a maximum of EUR 8 000 for low-skilled adults). The accumulated training credit is personal and remains valid even when changing employer or when becoming unemployed. The training credits accumulated on the CPF can only be used at the initiative of the individual. Employees wishing to use their training hours during working time first have to ask permission from their employer.

Employers are the main contributors to the financing of the individual learning accounts. All employers with at least ten employees contribute 0.2% of their annual wage bill to fund the individual learning accounts. When individuals do not have sufficient credits in their account to finance the training they want to participate in, co-financing arrangements can be made. Additional credits can be added to the account by the individuals themselves, but also by employers, social partner organisations, the public employment service, and national and regional governments.

Source: Adapted from OECD (2017d), *Getting Skills Right: France*, https://dx.doi.org/10.1787/9789264284456-en

Setting up an adult learning governance structure that facilitates coordination between stakeholders

Adult learning is a complex policy field. It encompasses programmes designed to pursue a variety of objectives and reach different target groups, e.g. basic skills courses for the low-skilled, second-chance programmes for school dropouts, professional training for workers, training for the unemployed, or language classes for migrants. As a result, responsibility for adult learning policy is often split across several ministries, different levels of governance, and a variety of other actors (e.g. social partners, training providers; NGOs). The different actors involved in adult learning have different responsibilities, pursue different goals, administer separate budgets, and often do not perceive themselves as being part of a joint "adult learning system". The sheer diversity within adult learning systems suggests that strong coordination mechanisms are essential to ensure that training courses are not duplicated, and that policies are developed in a coherent manner and complement each other (OECD, 2019a). The issue of coordination is explicitly identified as a problem for lifelong learning in Malaysia in the Mid-Term Review of the Eleventh Malaysia Plan, stating that "Lifelong learning initiatives lack coordination in terms of planning and implementation. This is exacerbated by the absence of an effective regulatory framework. Thus, there is a need to ensure programmes are coordinated effectively and resources are utilised optimally."

Most countries foster coordination through formal coordinating bodies and/or informal regular meetings or ad-hoc coordination for specific projects. In Malaysia, a coordination technical committee on lifelong learning, as well as a steering committee have been put in place (UNESCO Institute for Lifelong Learning, 2016b). These coordinating bodies chaired by the Secretary General and the Minister of Education, respectively, set the

policy framework and direction for the lifelong learning agenda for the country. The committees bring together ministries and agencies providing lifelong learning programmes.

Establishing an adult learning strategy is another way to reach policy coherence. By helping countries identify their vision, objectives, and priorities for action, adult learning strategies can encourage different actors to work together towards a common objective in a coherent manner. Virtually all OECD countries have developed some type of policy strategy document to support adult learning, either through a stand-alone adult learning strategy, by including adult learning as part of a wider strategy (e.g. employment strategy; skills strategy), or by focussing on a specific aspect of adult learning (e.g. ICT and digital skills; low-skilled adults) (OECD, 2019a). In Malaysia, the broad strategic plan for adult education is included as a chapter in the Malaysia Education Blueprint 2015-2025 (Higher Education). A process of public consultation was conducted to develop this Blueprint, gathering inputs from key stakeholders through town-hall meetings, focus groups and surveys. In total, more than 10 500 people were engaged over two years (Ministry of Education Malaysia, 2015).

In some OECD countries, adult learning strategies go beyond setting the general policy priorities and overall objectives, and establish measurable (quantitative) targets to be achieved within a predefined deadline. Setting targets can help different actors to work together towards a common goal, and allow countries to monitor progress. In order to ensure that policy directions are effectively implemented and targets are achieved, governments can allocate dedicated funding to the implementation of adult learning strategies. In addition, some countries monitor progress in the achievement of the adult learning strategy, and keep track of progress either through mid-term reviews/reports, and/or by setting up dedicated overseeing bodies/expert groups. In Ireland, the *Further Education and Training Strategy 2014 – 2019* puts forward an implementation plan, identifying the main and supporting stakeholder for each action step. To reach the strategic goals, an allocation of nearly EUR 826 million was made in 2014, and another 645 million in 2018. The implementation of the strategy is overseen through mid-term reviews that assess progress in the implementation of the plan. (OECD, 2019a).

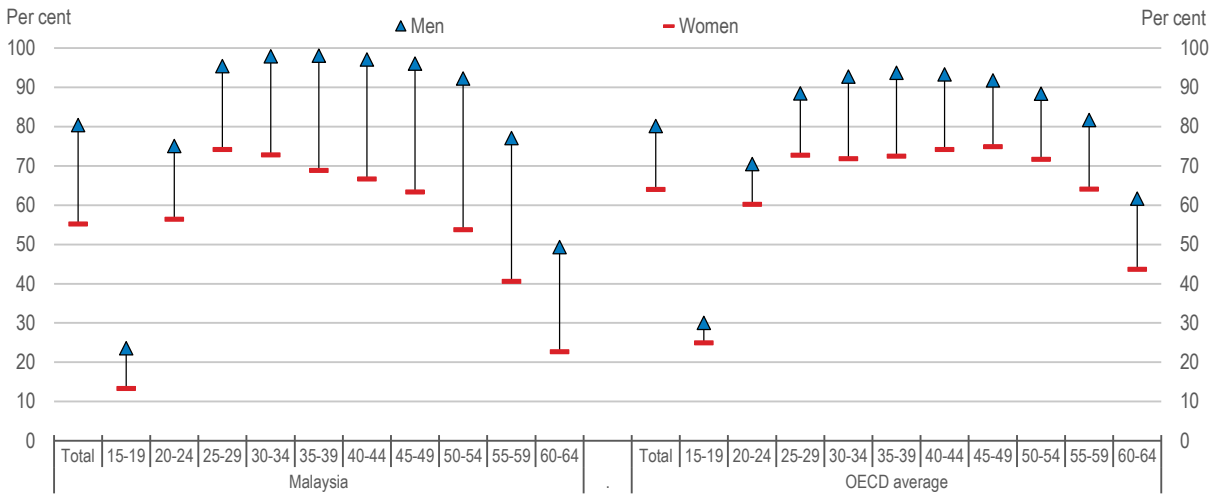
Making better use of women's skills

Women's labour market participation rate in Malaysia is low

While educational attainment does not differ much between men and women in Malaysia, significant differences exist with regard to participation in the labour market (Figure 1.20). Only 55.2% of working age women are active in the labour market (i.e. employed or unemployed), compared with 80.4% of men. This gap is larger than in OECD countries, where the difference only equals 16 percentage points. In most OECD countries, the gap in participation rates between men and women reaches its peak in the age group of 30 to 39 year olds, after which it decreases for older age groups (and increases again slightly for the oldest age groups). In Malaysia, by contrast, the gap significantly increases at the age of 30 to 34, and continues to grow for older age groups. These numbers suggest that many women leave the labour market in their early thirties, probably because of childcare responsibilities, and do not return to work after that. The Malaysian government has set the goal to increase female labour market participation to 56.5% by 2020. Initially, this target was set at 59%, but because of slow progress the target has been revised downward.

Figure 1.20. Gender gaps in labour force participation in Malaysia increase with age

Labour force participation rate by gender, 2018/2017



Note: 2018 data for Malaysia and 2017 data for OECD average.
Source: Department of Statistics Malaysia, Table A1.1; OECD, *Labour Force Statistics database*.

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This large group of inactive women represents a pool of unused skills that could be activated to contribute to the country's productivity and reduce skills imbalances. While the labour market participation rate is particularly low among women with low levels of educational attainment, also women with medium and high education levels participate much less than similarly educated men. These women's inactivity represents a lost investment in education. In the majority of OECD countries, gender gaps in employment rates have been on the decline (OECD, 2017f). Nonetheless, certain groups of women face particularly strong barriers to labour market participation, including mothers and women with lower levels of education, skills and income. At the same time, women who are in employment often work in less well-paid occupations and sectors, and more women than men work part-time. Policies that help women get access to job opportunities that correspond to the skills that they have, will ensure that skills are used as efficient as possible. This will help reduce skills imbalances and avoid lost investment in education and training.

Reducing barriers to labour market participation for women

OECD (2017f) identifies three key policy areas that have been proven to be effective in reducing barriers to labour market participation for women: i) employment-protected paid leave around childbirth and when children are young, ii) subsidised childcare, and iii) a statutory right to request flexible work. In addition, and as highlighted in the previous section, women who have been out of the labour market would also benefit from career guidance and targeted training measures. These policies can help women (re-)enter the labour market and make better use of their skills.

Parents need to be able to take sufficient time off work for childcare responsibilities

The Malaysian Employment Act states that every private sector female worker has the right to at least sixty (consecutive) days of maternity leave. Women are entitled to receive a maternity allowance, equal to their previous wage, from their employer when they have worked for the employer for at least ninety days during the nine months before the leave and at some point during the last four months. Until 2012, statutory maternity leave and entitlement provisions in the Employment Act only covered workers up to a maximum monthly wage, leaving out certain, especially highly educated, women (Bhatt, 2014). Unlike in OECD countries, the full cost of the maternity allowance in Malaysia is covered by employers (World Bank Group, 2018b). Having employers bear the full cost of the maternity allowance, in addition to having to pay the wage cost of the worker replacing the worker on maternity leave, could create strong disincentives for employers to hire women of childbearing age. The minimum of 60 days of maternity leave in the private sector is below the 14 weeks minimum that is stipulated in the ILO Maternity Protection Convention. In line with the principles of a caring society, maternity leave in the public sector is more generous, with leave entitlements of between 60 and 90 days up to a maximum of 360 days throughout the duration of service. In addition to paid maternity leave, female civil servants can take up to five years of unpaid leave for the care or breastfeeding of a child. The Malaysian government recently announced plans to increase the minimum to 98 days (or 14 weeks) in the private sector. According to the International Labour Organisation, the optimal duration of maternity leave equals at least 18 weeks (ILO, 2014).

Employment protection of women during pregnancy and maternity leave is limited in Malaysia, compared with other countries in the region and OECD countries. Women are only protected from dismissal during the maternity leave period, and not during pregnancy or an additional period after maternity leave, and there is no guaranteed right to return to work (ILO, 2014). In the public sector, it has become a norm and understood that female officers will eventually return to their job after giving birth. Leave entitlements for fathers only exist for civil servants (7 days), but some private sector employers provide paternity leave on a voluntary basis. In around half of OECD countries, fathers are granted paternity leave and in a growing number of countries parents can now also take parental leave (i.e. a longer period of employment-protected leave that is available to both parents). Parental leave may help reduce discrimination against women in the workplace and particularly in hiring. The reason is that if men and women are roughly equally likely to take leave, employers will be less reluctant to hire women of childbearing-age. However, fathers are often hesitant to take leave as they fear the career implications. While the share of men in parental leave remains relatively low in most OECD countries, it has been on the rise. To encourage the use of parental leave by fathers, and therefore also contribute to changing gender norms, more and more OECD countries are turning towards reserving non-transferable periods of paid parental leave exclusively for use by fathers (OECD, 2016c).

Affordable and reliable childcare services need to be available

To help women return to work, affordable and reliable early childhood care and education (ECCE) services must be available. These services are not only important to facilitate female labour market participation, but are also proven to be crucial for developing children's skills. During the first years of life, children require high quality care, attention and stimulation. Poor learning environments during early stages of life can have a negative effect on education and labour market outcomes during adulthood (Gertler et al., 2014).

Similarly, research shows that early childhood interventions are more cost-effective than interventions in later stages of life (Heckman & Carneiro, 2003). Therefore, ensuring access to high-quality ECCE services should be a top priority, together with lowering the mandatory school age.

The availability of childcare services in Malaysia is limited, and quality issues prevail. Recent estimates show that Malaysia would need 38 333 registered childcare centres to cater the number of children under 4 years old that need childcare, but in 2018 there were only 4 400 child care centres registered with the Department of Social Welfare (Kannan, 2018). Moreover, only 36% of childcare workers looking after children four years and below have the required minimum qualification (i.e. participation in a 28-day childcare course leading to a *Permata* certificate). At the level of pre-school education (for 4-6 years old), the government plans to increase the minimum academic requirements to at least a diploma in ECCE. However, many pre-school teachers, especially in private institutions, do not fulfil these requirements today (Foong, Veloo, Dhamotharan, & Loh, 2018). While qualification levels in early childhood development differ strongly between countries, in most OECD countries childcare workers have a vocational level diploma (usually at children's nurse level, upper secondary vocational) and pre-primary school teachers have qualifications at the same level as primary school teachers (OECD, 2012b).

Numerous factors affect the quality of ECCE services. However, the child-to-staff ratio is a quantifiable and objective component of structural quality that can be used to compare different systems. A lower staff-to-teacher ratio allows caregivers to provide a more personalised care enhancing children's skills development. For example, Chetty et al. (2011) show that students enrolled in the STAR project in Tennessee who were assigned to smaller classes in kindergarten are significantly more likely to attend college and exhibited long term gains in non-cognitive measures. The child-to-teacher ratio of 22:1 in Malaysian pre-schools managed by the Ministry of Education (for children aged 4 to 6) is well above the OECD average of fourteen children per teacher (Ministry of Education Malaysia, 2018b[81]; OECD, 2017g). The ratio is lower in Malaysian pre-schools managed by other agencies (13:1 on average across ABIM, JAIN, PERPADUAN, KEMAS and private schools) (Ministry of Education Malaysia, 2018b). Despite the fact that there is no scientific consensus on the optimal child-to-staff ratio (Perlman, et al., 2017), a number of countries regulate this aspect of ECCE. For example, in the United States, the American Academy of Pediatric and the National Association for the Education of Young Children suggest ratios ranging from 4:1 to 10:1 depending on the age of children and class size. Similarly, in Australia the National Quality Framework sets out the minimum ratio requirements ranging from 4:1 to 10:1. Malaysia's current ratio is high by any international standards, especially in public schools, and reaching lower ratios should be a substantial part of the ECCE expansion plan.

The Malaysian government has put into place financial incentives to encourage employers to provide on-site childcare facilities for children of employees. Government offices receive an incentive of MYR 200 000 when establishing a childcare centre, and MYR 10 million has been allocated to build 50 day-care centres in government agencies. Private sector employers can benefit from a double tax deduction for costs of providing and maintaining childcare centres at the workplace. At the same time, a 10% Industrial Building Allowance is available for buildings used as childcare centres. To help parents pay for childcare services, tax reduction and subsidies have been introduced. Employees receive a double deduction on childcare allowances, and subsidies are available for low-income families that use public sector workplace childcare centres or private registered child care centres. Some OECD countries, like Iceland, Denmark and Sweden, have

managed to achieve high participation rates in childcare that vary little with income, by combining heavily-subsidised income-tested fees with a sufficient supply of childcare facilities. As pointed out by OECD (2017f), the need for childcare does not disappear once children enter pre-primary or primary school, as school hours are often incompatible with a full-time working week. A few OECD countries, like Sweden and Denmark, have developed extensive out-of-school-hours care systems for school-age children.

A healthy work-life balance should be facilitated

Flexible work arrangements can help men and women balance work and family responsibilities. Nonetheless, many workers, and especially women, in Malaysia have limited opportunities for flexible work. A small-scale survey of working women in Malaysia showed that 90% of women are interested in using flexible work arrangements, but only 20% of respondents had actually ever used these types of arrangements. The study finds that women who had access to flexible arrangements were able to better balance their time (Subramaniam, Tan, Baah, & Atory, 2015). Similar findings come from a recent Monster survey, which says that the biggest issue pushing Malaysian women to quit their jobs is the lack of flexibility (75%) (Monster, 2018). 58% of working mothers in Malaysia are unable to work from home and 36% do not have any option for flexible working arrangements. As a result, 46% report that they want more flexibility. While flexible work opportunities seem to be scarce, nine out of ten firms agree that offering work-life practices is a key strategy to address future workforce need (TalentCorp, 2018a). Work-life practices are seen by more than 80% of employers as beneficial for engagement and motivation, talent retention, and productivity. The public sector has been leading the way, with civil servants enjoying flexibility in various ways, including through flexible working hours.

The Work-life practices (WLPs) initiative by TalentCorp represents the future of how work is done and what the workforce of the future expects. This initiative aims to encourage more employers to implement WLPs towards a better balance between work and life integration and to provide a family-friendly work environment. WLPs are also sometimes targeted to mothers. TalentCorp's roles includes providing advisory support in WLPs implementation, conducting and publishing WLPs studies, and organising annual LIFE AT WORK awards with the aim to recognise employers' Diversity and Inclusion agenda focusing on WLPs practices. One interesting part of the Work-life practices initiative is the repository of best practices developed in cooperation with the Malaysian Ministry of Women, Family and Community Development. This repository not only includes best practices, but also case studies, success stories and opportunities for jobs with flexible work arrangements. In some OECD countries, laws and collective agreements have been introduced to ensure that workers have access to flexible work arrangements (Box 1.10).

Box 1.10. Promoting flexible work arrangements in OECD countries

Granting employees a "right to request" flexible workplace arrangements

Some governments have introduced laws that are designed to guarantee employer provision of some flexible working arrangements, and sometimes these are targeted specifically at fathers and mothers. For example, in countries such as Australia, Finland, Norway and Sweden, the right to flexible working is targeted at carers and/or parents of young children. By contrast, a 'right to request' flexible working is granted to all employees, irrespective of their reasons for seeking change in Belgium, France, Germany, New Zealand and the Netherlands for workers in firms with 10 employees or more, and since 2014 in the United Kingdom. Employees can also appeal in the courts in case employers refuse such a request.

Encouraging social partners to cover flexible workplace practices in collective bargaining agreements

Collective agreements are very important when it comes to regulating working hours. In most of the Nordic countries, but also in Germany and the Netherlands where the use of flexible working arrangements is high, most workers are covered by collective agreements that stipulate rights to shorter working hours and/or to flexible working. However, employee-friendly working arrangements are rarely a priority in collective bargaining where issues about salary and employment protection often dominate, although this does vary across sectors. Governments can play an active role in the promotion of social dialogue on workplace flexibility. For instance, in Germany in 2011 the federal government and social partners signed the "Charter on Family-Oriented Working Hours" calling on all "stakeholders to actively pursue the opportunities of family-oriented work hours and innovative working-hour models in the best interest of the German economy".

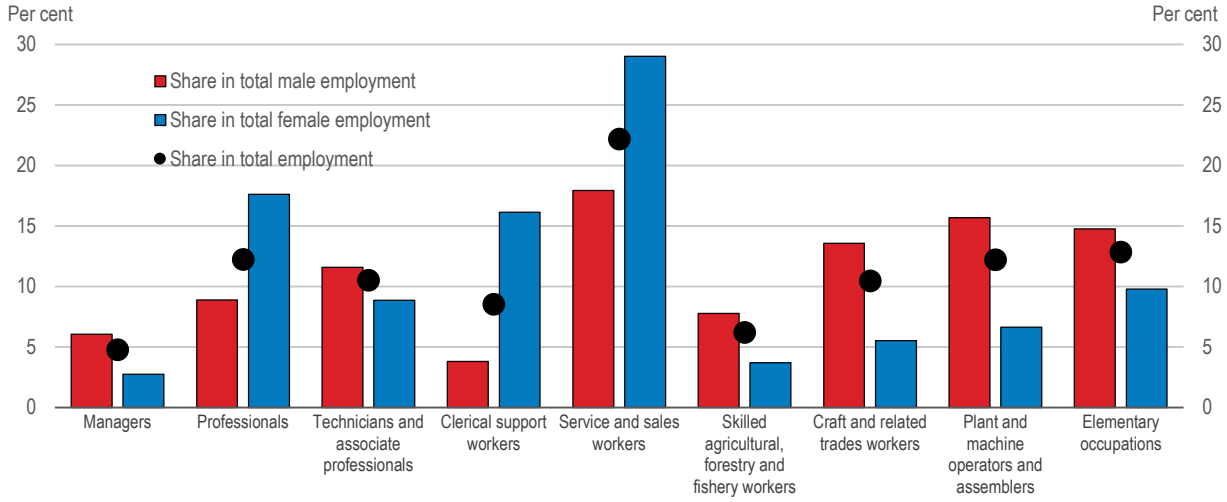
Source: Adapted from OECD (2016d), *Be Flexible! Background brief on how workplace flexibility can help European employees to balance work and family*, https://dx.doi.org/10.13140/RG.2.2.31072.69125

Women should have equal access to career progression opportunities

In addition to a lack of family-friendly labour market policies, women might also be discouraged from participating in the labour market because of job quality issues and limited progression opportunities. Across OECD countries, women are still far less likely than men to work full-time, earn less than men, are less likely to reach management and executive levels, and tend to be in lower-paid sectors and occupations (OECD, 2017f). According to the latest Malaysian Salaries and Wages Survey report, monthly median wages of men in 2017 were only marginally higher than for women (1.2% difference), while the gap in average monthly wages equalled 6.6%. According to Ismail, Farhadi and Wye (2017), wage discrimination, rather than occupational segregation, is a principal contributor to the observed wage differentials among men and women in Malaysia. Figure 1.21 shows that a large share of women work in Professionals, Clerical Support Workers, and Service and Sales Workers occupations. This confirms that women in Malaysia are not disproportionately employed in low-paid occupations.

Figure 1.21. Female workers are not overrepresented in low-skill or low-wage occupations

Per cent of workers per occupation, 2017



Source: Department of Statistics Malaysia, *Malaysian Labour Force Survey*.

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Only 2.7% of female workers are employed in management occupations, compared to 6% of men. In an effort to increase the number of women in management positions, the 30% Club was launched in Malaysia in 2015, following the example of the United Kingdom. The goal of the initiative is for appointment processes to become gender-neutral. By 2020, Malaysia wants to have 30% women representation on the boards of publicly listed companies. At the end of 2018, 24.4% of board seats on the top 100 listed companies were occupied by women, up from 19.2% the year before (Bursa Malaysia, 2019). The problem of under-representation of women in management positions is not unique to Malaysia. In OECD countries, women sat on 20% of seats on the boards of publicly listed companies in 2016 (OECD, 2017f). Most OECD countries have initiated policies to promote gender balance on boards and in senior management. Those that have introduced quotas have seen more immediate increases in the number of women on boards, while those that have taken a softer approach, using disclosure or targets, have seen a more gradual increase over time. Most countries either require businesses to disclose the gender balance on their boards or, as part of their corporate governance codes, compel companies to comply or explain. The majority of OECD countries also practice some form of gender quota action to increase female representation in politics.

Women are also generally less likely to be self-employed. In OECD countries, one in ten employed women is self-employed, almost half the rate of self-employed men (17%) (OECD, 2017f). To encourage and facilitate entrepreneurial activity among women in Malaysia, several financial schemes have been set up for female entrepreneurs, including collateral-free sharia-compliant loans under the BizWanita Financing for Women Entrepreneurs Scheme and the Women Entrepreneurs Financing Programme of the government-owned SME Bank Malaysia (OECD, 2017f). In addition, training and coaching programmes are available for female entrepreneurs to further develop their entrepreneurial and management skills. The Leaders Entrepreneurship Acceleration Programme (LEAP) of the Centre for Entrepreneur Development and Research (CEDAR) is an integrated coaching and financing programme dedicated to Malaysian women

entrepreneurs aspiring to accelerate their business growth. The programme equips women entrepreneurs with the knowledge and skills to enhance their strategic business skills and helps them develop business proposals for the Women Entrepreneur Financing Programme application (CEDAR, 2019). Other countries, like Korea and the United States, foster female entrepreneurship by earmarking parts of public procurement to women-owned businesses (OECD, 2014b).

Moving towards a high–skill equilibrium

Boosting productivity in Malaysia will require efforts that go beyond improving in the education system, fostering adult learning and promoting a better use of skills in the economy. Reducing skills imbalances by stimulating skills developments and skills use need to be matched with comparable efforts in creating the conditions that promote the development of a more innovative and dynamic economy that demands higher levels of skills.

Malaysia need to move to a higher-skills equilibrium. Further efforts are needed to build a sound strategy to boost foreign direct investment, promote entrepreneurship and encourage the adoption of technology.

Attracting foreign direct investment (FDI)

The role of inward Foreign Direct Investment (FDI) in stimulating high skill job creation has been well documented. Multinational corporations (MNCs) demand highly skilled labour, provide attractive employment opportunities to a highly skilled workforce, and also employ a larger share of skilled workers than do local firms (Blomström & Kokko, 2001). Although MNCs setting up their affiliates in foreign countries may not always result in a formal knowledge and technology transfer, there is still a significant chance of "spill-overs" into the local economy (Blomström & Kokko, 2001). In a study conducted by Yunus, Said & Azman-Sami (2015), specifically for Malaysian manufacturing industries between 2000 and 2008, FDI spill-over effects were found to be significant for skills upgrading which has, in turn, been leading to an augmented demand for skilled labour.

While there is a long list of components of an investment attraction and regulation strategy, OECD (2018e) identifies four elements as especially pertinent to the ASEAN region: investment incentives, investment protection, regulation of the entry and operations of foreign investors, and responsible investment. Malaysia's performance across the four dimensions has been uneven. Malaysia has several investment laws covering domestic and foreign investments, which ensure a large degree of investor protection against expropriation, guarantee of free transfer of funds, possible recourse to investment arbitration, and adherence to international conventions on arbitration and International Investment treaties. Also, Malaysia has been extensively targeting specific activities undertaken by MNCs, such as enhancing and providing skills and training or investing into R&D and high-tech activities, through four different types of tax incentive schemes (tax deductions and reductions, holiday and trade tax exemptions). Moreover, Malaysia has committed to developing a National Action Plan on Business and Human Rights based on the UN Guiding Principles on Business and Human Rights in 2015.

Use of tax and other incentives aimed at fostering linkages between MNCs and SMEs and their skills has proven very effective in Malaysia. Under the Industrial Linkage Programme, investors can claim tax deductions for costs involved in providing support to

local suppliers, including training, product development and testing, and factory auditing to ensure local supplier quality. A Global Supplier Programme offers financial and organisational support to MNCs, if specialists from their foreign affiliates are seconded to local firms (for up to two years) for the purposes of local upgrading. Studies have shown that these programmes have been effective in establishing linkages and boosting productivity in the SME sector in Malaysia (UNCTAD, 2011), while having influenced MNCs, such as Intel, in their decisions to develop local SMEs as suppliers in the country.

In spite of the success Malaysia has achieved through its sustained policy interventions, the country still faces challenges on the horizon as it seeks to continue to attract FDI and stimulate its demand for high skill jobs. According to OECD (2018e), Malaysia currently scores 0.25 (0=open, 1=closed) on the OECD FDI Regulatory Restrictiveness Index 2016. This score is higher than the averages of OECD members, non-OECD members as well as ASEAN members. As for investment protection, Malaysia's several investment laws still lag behind those of Indonesia, for instance, and lack provisions on non-discrimination or environmental impact and sustainable development. Finally, Malaysia has yet to implement its National Action Plan on Business and Human Rights (OECD, 2018e).

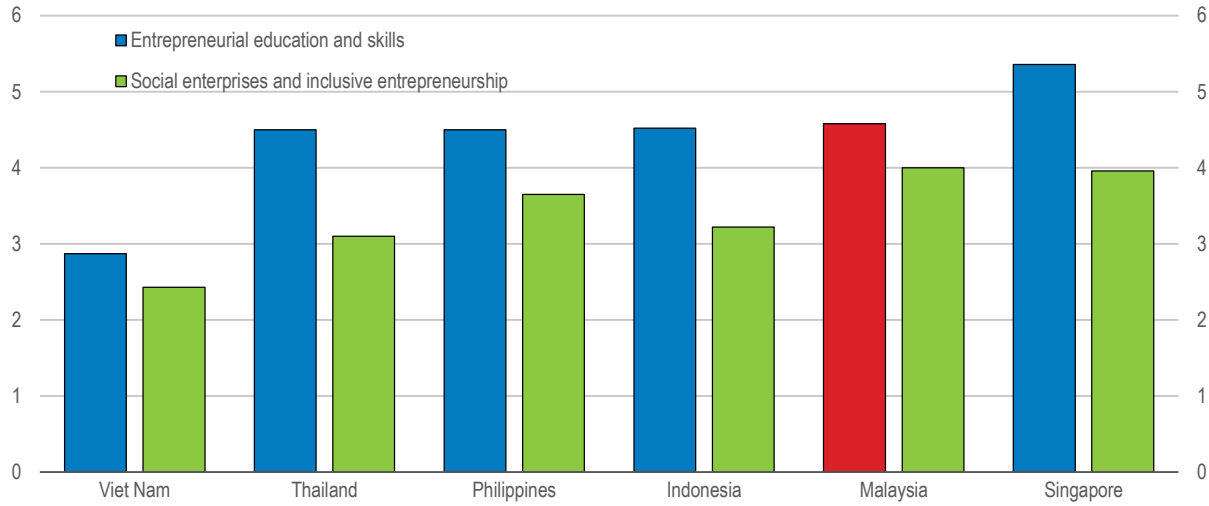
Stimulating entrepreneurship

The most common reason leading researchers and experts to promote entrepreneurial education is that entrepreneurship is seen as a major engine for job creation and thus economic growth (Wong, Ho, & Autio, 2005). At the same time, Gibb (2002) notes that the uncertain and complex world we live in requires all people and organisations in society to be increasingly equipped with entrepreneurial competencies while more and more people with higher-level general skills are required under the conditions of deregulated and flexible markets. Helping "job seekers" become "job creators" will, in the long run, thus increase demand for high skill jobs.

Malaysia has one of the most advanced policy frameworks in the region for the development of skills to boost entrepreneurial success and the promotion of entrepreneurship that is social and inclusive. Its score on policies to promote entrepreneurial education and skills is 4.58, compared to a regional median of 4.27. On policies promoting social and inclusive entrepreneurship, it scores 4.00, compared to a regional median of 2.77 (Figure 1.22). This indicates that policies have been put in place and that initiatives are currently being implemented. Its policies in these two areas are tailored to different demographic groups (OECD/ERIA, 2018).

Figure 1.22. Entrepreneurial policy in Malaysia

Results from the SME Policy Index



Note: Scores are on a scale of 1 to 6, with 6 being the highest. The entrepreneurial education and skills index assesses *i)* the sophistication and intensity of policies and programmes to develop entrepreneurial skills among SMEs; and *ii)* policies and programmes that promote entrepreneurial mindsets, particularly from school age. The social enterprises and inclusive entrepreneurship assesses *i)* the maturity of the ecosystem for social enterprises and the depth of policies to facilitate their creation and operation; and *ii)* the policies and activities in place to level the playing field for entrepreneurship among three target groups: women, youth and persons with disabilities.

Source: OECD/ERIA (2018), *SME Policy Index: ASEAN 2018: Boosting Competitiveness and Inclusive Growth*, Table 3.2, OECD Publishing, Paris/Economic Research Institute for ASEAN and East Asia, Jakarta, https://doi.org/10.1787/9789264305328-en.

StatLink https://doi.org/10.1787/888933968784

Under Malaysia's Education Blueprint (Preschool to Post-Secondary) 2013-2025, entrepreneurship values are integrated into leadership skills, one of six key attributes taught to students at all education levels (Ministry of Education Malaysia, 2013). Malaysia has put strong emphasis on fostering entrepreneurship especially at the level of higher education and connecting it with existing businesses. In 2008, SME Corp. and the Ministry of Higher Education initiated an SME-University Internship Programme to be adopted at all public universities. Malaysian universities also offer various degrees in entrepreneurship, for example bachelor and master degrees at the University of Malaysia Kelantan. Moreover, Malaysia stands out as the only ASEAN country with a mechanism for monitoring entrepreneurial learning in universities undertaken mainly by the Malaysian Qualification Agency. In terms of promoting entrepreneurial skills, different initiatives are being executed in Malaysia by various ministries and government agencies. Examples include the INSKEN Business Scale-Up Programme, run by the Prime Minister's Department, which aims to provide comprehensive training in entrepreneurial skills to scale up 500 companies and the Malaysia Tech Entrepreneur Programme (MTEP). The latter is an initiative by the Malaysia Digital Economy Corporation (MDEC) and the Government of Malaysia to attract tech talents and aspiring entrepreneurs from around the globe to Malaysia to setup their start-ups and expand their business to the ASEAN region.

Further, in promoting entrepreneurship, Malaysia pays special attention to vulnerable populations. For instance, the Single Mother Skill Incubator Programme (I-KIT),

implemented by the Department for Women's Development under the Ministry of Women Family and Community Development, now embedded in the Development of Women Entrepreneurship Initiatives (DeWI) programme, provides intensive skills training and entrepreneurship assistance to low-income single mothers.

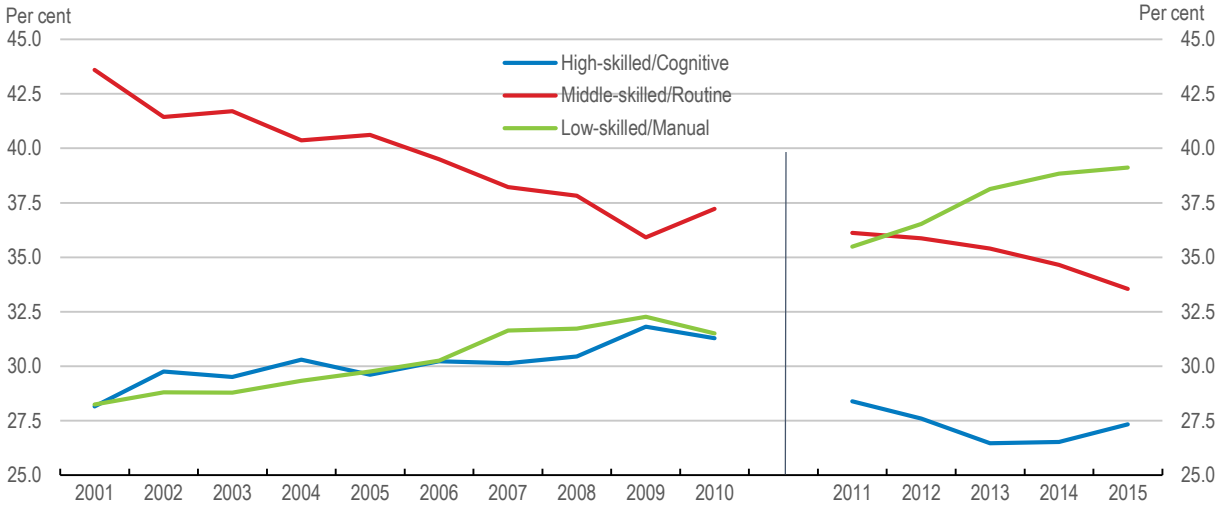
Clearly, Malaysia has developed substantial initiatives to promote entrepreneurial education and skills. OECD (2018f) suggests various approaches of further enhancing them. Firstly, a one-stop information centre acting as a repository of all available programmes and assistance related to the promotion of entrepreneurial skills could be set-up to direct interested participants and aspiring entrepreneurs to the appropriate implementing agencies and help them better understand available programmes and determine which are most appropriate for their immediate needs and interests. At present, several programmes offer similar benefits and have similar target groups. Information on the available initiatives from varied agencies should be collated and categorised by key characteristics and target groups. Moreover, more concrete measures to deliver entrepreneurial learning in schools should be developed. The current national education blueprint calls for every student to possess an entrepreneurial mind-set, but the document has no clear guidelines on how to deliver lessons on entrepreneurship. Without such guidelines, it is up to schools to decide on the depth and extent of their lessons on the topic which makes the effectiveness of entrepreneurial learning difficult (OECD, 2018f).

Making the most of migration while encouraging the adoption of technology

Technological adoption and productivity gains play a critical role in supporting the transition to a high-income economy. Whether or not firms adopt technology depends on a variety of factors, including technology diffusion, attitudes towards technology and costs. When the cost of technology investment is substantially higher than labour costs, and labour is readily available, firms do not see the immediate benefits of investing in technology. Across developed countries, the adoption of technologies has contributed to the declining importance of employment in routine-intensive jobs in the labour market (i.e. job polarisation). Technology has been gradually substituting for labour in these routine jobs, generally performed by middle-skilled workers. This declining share of middle-skill employment in recent decades has been documented extensively for developed countries, see for example OECD (2017a), and Figure 1.23 shows that a similar pattern has also been observed recently in Malaysia.

Recent estimates of the risk of automation suggest that in the short to medium-term technology could increasingly automate jobs that are currently carried out by low-skilled workers (Nedelkoska & Quintini, 2018). The occupations with the highest estimated risk in OECD countries are food preparation assistants; cleaners and helpers; labourers in mining, construction, manufacturing and agriculture; and assemblers. When low-wage labour is readily available to work in these occupations, this could slow down the adoption of technology. This was confirmed by Lordan & Neumark (2018), who show that minimum wage increases in the United States increase the acceleration of job automation. Figure 1.23 shows that the share of low-skill manual jobs grew steadily in recent years in Malaysia, whereas the share of high-skilled jobs remained relatively stable (or even declined modestly). Moreover, jobs requiring low levels of skills have accounted for about 80% of vacancies in 2017-2018 (MIDF Research, 2018).

Figure 1.23. Routine jobs have been losing importance in the Malaysian labour market
Cognitive, routine and manual jobs as a share of total employment



Note: Due to a break in the occupational classification, data before and after 2011 (MASCO 1998 vs. MASCO 2008) are not comparable. Cognitive occupations are those in MASCO groups 1 to 3 (i.e. managers, professionals, technicians and associate professionals), routine occupations are those in groups 4, 7 and 8 (i.e. clerical workers, craft and related trade workers, plant and machine-operators and assemblers), and manual occupations are those in groups 5 and 9 (i.e. sales and service workers and elementary occupations).
Source: Department of Statistics Malaysia, *Employed persons by state and occupation database*.

StatLink https://doi.org/10.1787/888933968803

Malaysia's large pool of low-skilled labour also reflects the inflow of low-skilled migrants. Worldwide migration flows have been rising over the past few decades. In 2017, about 258 million people around the world were living outside their country of birth (OECD, 2018g), and this number is unlikely to fall in the near future. Migration flows have played an important role also in Malaysia. Registered foreign workers represent 17% of total employment, while illegal immigrants account for a further 10% (World Bank Group, 2018a). Most immigrants are low skilled and only 5.2% have tertiary education. The share of low-skilled migrant workers in total employment increased from 9.5% in 2010 to 15% in 2015, with these workers being heavily concentrated in specific economic sectors. BNM (2018b) shows that immigrants account for about 25% of the employment in the agricultural, construction and manufacturing sectors. In 2017, excluding irregular workers, foreign workers in low-skilled occupations comprised 20% of manufacturing employment (ADBI-OECD-ILO, 2019).

These patterns have created concerns in Malaysia that economic growth is slowing down as the economy persists to rely on low value added, low productivity activities (Jordaan, 2018). A large number of low technology-intensive firms and sectors have relied on low-skilled immigrants to remain competitive in the increasingly open Malaysian markets. Moreover, it has been argued that strong reliance on low-skilled immigration can also induce foreign investors and multinationals to feel less encouraged to invest in technology-intensive activities, preferring other destinations, including neighbouring economies (BNM, 2018b).

Arguably, immigration can be expected to have a wage effect on native workers but the empirical evidence shows that the effect is mixed and largely dependent upon the degree of substitutability between local and migrant workers. For example, in the short-term, migrants can lower local wages of workers with similar skills but can also increase wages

of those with skills which are complementary (Ottaviano and Peri, 2012). In the medium and long-term, migrants can induce native workers to become more specialised in less manual-intensive occupations, generating positive wage effects (Foged & Peri, 2016). Evidence suggests that immigrant labour in Malaysia slightly increases the wages of most Malaysian workers: increasing immigration by 1 percent results in an increase in local wages of 0.14 percent, suggesting that low-skilled immigrant labour expands employment opportunities more than it substitutes for unskilled workers (World Bank, 2015b[168]; Özden and Wagner, 2014). However, some evidence suggests that migration has had a small negative impact on local wages in some sectors and that most of these effects are driven by the substitution of workers in the manufacturing sector (Athukorala & Devadason, 2012; Adams & Ahsan, 2014).

Research shows that on aggregate, the impact of immigration on Malaysia's labour markets has been positive so far. In the context of increasing educational attainment of the Malaysian workforce and a tight labour market, immigrant labour has been able to fill gaps in low- and middle-skilled jobs. This in turn has positive effects on output, export and investment. According to World Bank estimates, a 10 percent net-increase in low-skill foreign workers increases real GDP by 1.1% (World Bank, 2015b). Similarly, Jordaan (2018) finds that high-skilled and low-skilled foreign workers generate positive productivity effects in Malaysian manufacturing industries. This can be explained by the fact that low-skilled immigrants can increase productivity through the interaction with workers with complementary skills and medium to high-skilled locals (World Bank, 2015b).

Although the evidence about the impact of immigration on productivity in Malaysia remains limited, the government needs to devote special attention to the potential long-term impacts of immigration. Malaysia needs to develop a stable longer-term immigration policy consistent with its development agenda and with labour market needs. The recognised benefits of low-skilled immigration need to be weighed against its potential to undermine Malaysia's productivity growth. Building on international practices, one option for Malaysia could be to attract immigrants who have the skills that are particularly needed in the labour market. For example, some OECD countries have programmes in place to facilitate the entry of migrants who have skills that are hard to find in their labour markets. In the United Kingdom, labour market information is used to create Shortage Occupation Lists. Employers can bring in immigrant workers for vacancies in these occupations, when unable to find a suitable candidate in the United Kingdom or the European Economic Area (OECD, 2017e). In Canada, a human capital-based ranking system is used to select migrants as a way to ensuring that those with the skills to succeed are admitted as quickly as possible. The system has a welcome strong link to the labour market, which ensures responsiveness and facilitates integration (OECD, 2016e). Along these lines, Malaysia restricts the entry of foreign workers to the manufacturing, construction, plantation, agriculture and services sectors. Similarly, positions that are applicable for expatriate status are restricted to certain managerial, professional and high skills jobs, and explicitly bans 40 occupations from applying. These lists of sectors and occupations should have a tighter targeting and be closely monitored and updated to ensure that admittance is informed by labour market needs. At the same time, illegal employment of foreigners should continue to be discouraged through monitoring and enforcement of rules.

Not only the influx of low-skilled immigrants can pose challenges to productivity, but also emigration of highly skilled Malaysians. The World Bank estimates that of the more than 1 million Malaysian-born individuals living abroad, one third have high levels of

skills. Most of them are in neighbouring Singapore, although there were almost 300 thousand Malaysia-born individuals over the age of 15 living in OECD countries in 2010 (OECD, 2015). Migration outflows are driven by better education opportunities and higher salaries and career prospects in countries such as Singapore, Australia and the United States. Moreover, migration is further facilitated by an extensive network of Malays in receiving countries.

Recognising this challenge, Malaysia has put in place a special program to incentivise the return of high-skilled Malaysians living abroad. The Returning Expert Program, run by TalentCorp, offers attractive incentives to individual to repatriate. The program offers a 15% flat tax rate on chargeable employment income for a period of five years, tax exemptions for all personal effects brought into Malaysia, purchase of one new locally Complete Knock-Down car or to import an eligible car exempted of duties, and a fast track application process for foreign spouses to become permanent residents. The Returning Expert Program has approved more than 5066 applications since 2011 and the number of applications in 2018 increased by 20% compared to the previous year (TalentCorp, 2018b). A study by Carpio, Ozden, Testaverde, & Wagner (2016) finds that the program increases the probability of return by 40% for applicants with a pre-existing job offer in Malaysia. However, it finds no significant effect for those who apply without a job offer.

Targeted measures such as the Returning Expert Program, although important, are no substitute for a more comprehensive strategy to make Malaysia more attractive not only to high-skilled Malaysians living overseas but for qualified non-Malaysians as well. Indeed, high-skill immigrants can bring new ideas and promote innovation, encouraging occupational upgrading, and promoting firm creation (Beerli, Ruffner, Siegenthaler, & Peri, 2018). Moreover, they can transfer their skills to local workers. In this regard, and recognising the importance of facilitating the attraction of foreign talent, Malaysia established in 2015 a special service – MYXpats – to facilitate the processing of expatriate-related documentation and permits. The MYXpats Centre is a joint initiative by TalentCorp together with the Immigration Department of Malaysia (JIM) and overseen by the Ministry of Home Affairs (MOHA), and approved more than 40 000 Employment Passes for eligible expatriates wanting to work in Malaysia in 2018.

Table 1.5. Policy Recommendations

Main findings	Key recommendations
Education system	
Only the first six years of primary education are compulsory.	**Lower the school starting age to at least 5 and make secondary schooling compulsory.**
Malaysia struggles to attract qualified teachers to disadvantaged schools.	**Provide incentives and implement rotation schemes to attract more qualified and experienced teachers to disadvantaged schools.**
Teachers in Malaysia spend a significant portion of their time in non-teaching activities.	**Continue efforts to reduce teacher administrative workload so that teachers can spend more time preparing lessons or participating in mentoring or professional development activities.**
English proficiency among students has deteriorated over time.	**Adopt a more student-centred teaching approach and put more emphasis on developing communicational skills.**
Graduates lack certain critical skills and have little preparation to face real-world problems when entering the labour market.	Promote involvement of employers in the design and review of curricula to ensure they meet the labour market needs and embed work-based learning modules intro the curricula.
Adult Learning	
Data collection on participation of adults in training and employers' provision of training is lacking.	Add additional questions to existing household and/or employer surveys or building new surveys focussing on the topic of adult learning.
Information on training opportunities and providers is scattered.	Develop an easy-to-use online database that provides information on all available training opportunities and providers, together with an indication of their quality.
Older adults, workers in micro-enterprises workers in the informal sector and women have limited access to training opportunities.	**- Develop specific programmes and provide incentives to facilitate access to training for these groups of adults.** - Reinforce the Employment Insurance System to become a key player in the adult learning system that provides guidance and support to underrepresented groups
There is limited guidance to help individuals and employers make skills development investments that correspond to the needs of the labour market.	**Tie guidance services closely to labour market information, and make training incentives more generous for programmes that develop in-demand skills.**
Female labour market participation	
The minimum duration of maternity leave is low by international standards	**Increase the minimum maternity leave entitlement to at least 14 weeks, in line with international standards.**
Employers carry the full burden of maternity leave costs.	**Develop a co-financing arrangement for maternity leave, with the majority of the cost carried by the government.**
There are too few quality childcare facilities.	**Invest in public childcare facilities and provide subsidies to private and workplace facilities.**
Childcare workers often lack the minimum training requirements.	Implement a stronger enforcement of minimum training requirements in childcare centres and pre-schools and gradually increase these training requirements.
The childcare occupation is facing significant shortages.	Attract more workers to the childcare profession by making working conditions more attractive.
Limited flexibility at work makes it difficult for parents to have a healthy work-life balance.	Actively promote the benefits of flexible working practices among employers and develop tools to share information on how to implement these practices.
High-skill demand	
Information on available support measures for entrepreneurship is scattered.	Establish a one-stop information centre acting as a repository of all available programmes and assistance related to the promotion of entrepreneurial skills.
Migration inflows do not correspond with labour market needs	**Consider adopting a more selective approach to the inflow of low-skilled foreign workers, while maintaining open policy for high-skilled foreign workers.**
Governance	
Weak coordination between the different actors involved in the skills system weaken its overall performance	Develop a national skills strategy based on whole-of-government collaboration and stakeholder engagement.

References

Acemoglu, D., Aghion, P., & Zilibotti, F. (2006). Distance to Frontier, Selection, and Economic Growth. *Journal of the European Economic Association, 4*(1), 37-74. doi:10.1162/jeea.2006.4.1.37

Adalet McGowan, M., & Andrews, D. (2015). Labour Market Mismatch and Labour Productivity: Evidence from PIAAC Data. In *OECD Economics Department Working Papers* (Vol. 2015). OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/5js1pzx1r2kb-en

Adams, R., & Ahsan, A. (2014). *Managing International Migration for Development in East Asia.* World Bank Group. Retrieved 04 02, 2019, from www.worldbank.org

ADBI-OECD-ILO. (2019). *Building Partnerships for Effectively Managing Labor Migration: Lessons from Asian countries.* forthcoming 2019.

Athukorala, P.-c., & Devadason, E. (2012). The Impact of Foreign Labor on Host Country Wages: The Experience of a Southern Host, Malaysia. *World Development, 40*(8), 1497-1510. doi:10.1016/j.worlddev.2012.04.025

Beerli, A., Ruffner, J., Siegenthaler, M., & Peri, G. (2018). *The Abolition of Immigration Restrictions and the Performance of Firms and Workers: Evidence from Switzerland.* National Bureau of Economic Research, Cambridge, MA. doi:10.3386/w25302

Benhabib, J., & Spiegel, M. (1994). The role of human capital in economic development evidence from aggregate cross-country data. *Journal of Monetary Economics, 34*(2), 143-173. doi:10.1016/0304-3932(94)90047-7

Bennett, J., & Mcguinness, S. (2009). Assessing the impact of skill shortages on the productivity performance of high-tech firms in Northern Ireland. doi:10.1080/00036840601007450

Bentley, T., & Savage, G. (2016). *Educating Australia : Challenges for the decade ahead.* Retrieved 12 16, 2018, from https://www.mup.com.au/books/educating-australia-hardback

Bhatt, J. (2014). *An Analysis of the Legal Protection of Pregnancy and Maternity at the Workplace.* Monash University, Melbourne. Retrieved 11 26, 2018, from https://books.google.fr/books/about/An_Analysis_of_the_Legal_Protection_of_P.html?id=vcerswEACAAJ&redir_esc=y

Blomström, M., & Kokko, A. (2001). *FDI and Human Capital: A Research Agenda.* Retrieved 01 15, 2019, from http://www.oecd.org/dev/2699493.pdf

BNM. (2018b). *Annual Report 2017.* Bank Negara Malaysia, Kuala Lumpur. Retrieved 09 14, 2018, from http://www.bnm.gov.my/files/publication/ar/en/2017/ar2017_book.pdf

Bowles, J. (2014). *Chart of the Week: 54% of EU jobs at risk of computerisation.* Bruegel blog post. Retrieved 11 15, 2018, from http://bruegel.org/2014/07/chart-of-the-week-54-of-eu-jobs-at-risk-of-computerisation/

Brunello, G., Fort, M., & Weber, G. (2009). Changes in Compulsory Schooling, Education and the Distribution of Wages in Europe. *The Economic Journal, 119*(536), 516-539. doi:10.1111/j.1468-0297.2008.02244.x

Bruns, B. (2014). *Great teachers : how to raise student learning in Latin America and the Caribbean.* Retrieved 12 13, 2018, from http://documents.worldbank.org/curated/en/432391468089383429/Great-teachers-how-to-raise-student-learning-in-Latin-America-and-the-Caribbean

Bursa Malaysia. (2019). *Bursa Malaysia rings the bell for gender equality.* Media Releases . Retrieved 03 25, 2019, from http://www.bursamalaysia.com/corporate/media-centre/media-releases/6029

Carpio, X., Ozden, C., Testaverde, M., & Wagner, M. (2016). *Global Migration of Talent and Tax Incentives Evidence from Malaysia's Returning Expert Program.* Retrieved 01 25, 2019, from http://econ.worldbank.org.

Ceda. (2015). *Australia's future workforce?* Committee for Economic Development of Australia , Melbourne. Retrieved 11 15, 2018, from http://www.ceda.com.au/CEDA/media/ResearchCatalogueDocuments/Research%20and%20Policy/PDF/26792-Futureworkforce_June2015.pdf

CEDAR. (2019). *Women Entrepreneur Financing Programme (WEP-LEAP).* Retrieved 03 25, 2019, from https://www.cedar.my/women-entrepreneur-financing-programme-wep-leap.html

Chang, J.-H., & Huynh, P. (2016). ASEAN in Transformation: The future of jobs at risk of automation. In *Bureau for Employers' Activities Working Paper* . International Labour Office, Geneva. Retrieved 11 15, 2018, from https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---act_emp/documents/publication/wcms_579554.pdf

Chetty, R., Friedman, J. N., & Rockoff, J. E. (2014). Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood. *American Economic Review, 104*(9), 2633-2679. doi:10.1257/aer.104.9.2633

Chetty, R., Friedman, J., Hilger, N., Saez, E., Schanzenbach, D., & Yagan, D. (2011). How Does Your Kindergarten Classroom Affect Your Earnings? Evidence from Project Star. *The Quarterly Journal of Economics, 126*(4), 1593-1660. doi:10.1093/qje/qjr041

Critical Skills Monitoring Committee. (2019). *Critical Occupations List 2018/2019 - Technical Report.* Retrieved 05 17, 2019, from https://www.talentcorp.com.my/clients/TalentCorp_2016_7A6571AE-D9D0-4175-B35D-99EC514F2D24/contentms/img/TalentCorp_CriticalOccupationsList_TechReport_2018-2019.pdf

Darling-Hammond, L. (2017). *Empowered educators : how high-performing systems shape teaching quality around the world.* Retrieved 12 17, 2018, from https://www.wiley.com/en-fr/Empowered+Educators:+How+High+Performing+Systems+Shape+Teaching+Quality+Around+the+World-p-9781119369608

De Bot, K. (2014). The effectiveness of early foreign language learning in the Netherlands. *Studies in Second Language Learning and Teaching, 4*(3). doi:10.14746/ssllt.2014.4.3.2

Department of Education. (2019). *Reducing teacher workload.* Retrieved 05 29, 2019, from https://www.gov.uk/government/publications/reducing-teachers-workload/reducing-teachers-workload

FiBS, & DIE. (2013). *Developing the adult learning sector - Lot 2: Financing the Adult Learning Sector.* Retrieved 08 06, 2018, from http://lll.mon.bg/uploaded_files/financingannex_en.pdf

Foged, M., & Peri, G. (2016). Immigrants' Effect on Native Workers: New Analysis on Longitudinal Data. *American Economic Journal: Applied Economics, 8*(2), 1-34. doi:10.1257/app.20150114

Foong, L., Veloo, P., Dhamotharan, M., & Loh, C. (2018). Private Sector Early Child Care and Education in Malaysia: Workforce Readiness for Further Education. *Kajian Malaysia, 36*(1), 127-154. doi:10.21315/km2018.36.1.6

Freeman, D. (2017). The Case for Teachers' Classroom English Proficiency. *RELC Journal, 48*(1), 31-52. doi:10.1177/0033688217691073

Frey, C., & Osborne, M. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change, 114*, 254-280. doi:10.1016/J.TECHFORE.2016.08.019

Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeerch, C., Walker, S., Grantham-McGregor, S. (2014). Labor market returns to an early childhood stimulation intervention in Jamaica. *Science, 344*(6187), 998-1001. doi:10.1126/science.1251178

Gibb, A. (2002). Creating Conducive Environments for Learning and Entrepreneurship: Living with, dealing with, creating and enjoying uncertainty and complexity. *Industry and Higher Education, 16*(3), 135-148. doi:10.5367/000000002101296234

Hanushek. (2010). The economic value of higher teacher quality. *Economics of Education Review, 30*, 466-479. doi:10.1016/j.econedurev.2010.12.006

Hanushek, E., & Woessmann, L. (2012). Do better schools lead to more growth? Cognitive skills, economic outcomes, and causation. *Journal of Economic Growth, 17*, 267-321. doi:10.1007/s10887-012-9081-x

Hanushek, E., Schwerdt, G., Wiederhold, S., & Woessmann, L. (2014). Returns to skills around the world: Evidence from PIAAC $. *European Economic Review, 73*, 103-130. doi:10.1016/j.euroecorev.2014.10.006

Harmon, C. (2017). How effective is compulsory schooling as a policy instrument? *IZA World of Labor*. doi:10.15185/izawol.348

Heckman, J., & Carneiro, P. (2003). *Human Capital Policy.* Retrieved 01 06, 2019, from https://www.nber.org/papers/w9495.pdf

HRDF. (2017). *Nurturing Workforce Potential - Annual Report 2017.* Human Resources Development Fund, Kuala Lumpur.

Ibrahim, D., & Mahyuddin, M. (2016). Youth Unemployment in Malaysia: Developments and Policy Considerations. In *Bnak Negara Malaysia Annual Report 2016.* Retrieved 09 14, 2018, from http://www.bnm.gov.my/files/publication/ar/en/2016/cp04_003_box.pdf

ILMIA, & Ministry of Human Resources. (2018). *National Employment Returns (NER) 2018.* Ministry of Human Resources.

ILO. (2014). *Maternity and paternity at work: Law and practice across the world.* International Labour Office, Geneva. Retrieved 11 26, 2018, from https://www.ilo.org/global/topics/equality-and-discrimination/maternity-protection/publications/maternity-paternity-at-work-2014/lang--en/index.htm

Independent Teacher Workload Review Group. (2016a). *Eliminating unnecessary workload around marking.* Retrieved 12 18, 2018, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/511256/Eliminating-unnecessary-workload-around-marking.pdf

Independent Teacher Workload Review Group. (2016b). *Eliminating unnecessary workload around planning and teaching resources.* Retrieved 12 18, 2018, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/511257/Eliminating-unnecessary-workload-around-planning-and-teaching-resources.pdf

Independent Teacher Workload Review Group. (2016c). *Eliminating unnecessary workload associated with data management.* Retrieved 12 18, 2018, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/511258/Eliminating-unnecessary-workload-associated-with-data-management.pdf

Instituto nacional para la educacion de los adultos. (2018). *MEVyT en línea.* Retrieved 07 13, 2018, from http://mevytenlinea.inea.gob.mx/inicio/index.html

Ismail, R., Farhadi, M., & Wye, C.-K. (2017). Occupational Segregation and Gender Wage Differentials: Evidence from Malaysia. *Asian Economic Journal, 31*(4), 381-401. doi:10.1111/asej.12136

JEED. (2018). *2018 Outline of Services.* Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers. Retrieved 10 30, 2018, from https://www.jeed.or.jp/english/u603g2000000008u-att/u603g200000000fi.pdf

Jordaan, J. (2018). Foreign workers and productivity in an emerging economy: The case of Malaysia. *Review of Development Economics, 22*(1), 148-173. doi:10.1111/rode.12334

Kampelmann, S., & Rycx, F. (2012). The impact of educational mismatch on firm productivity: Evidence from linked panel data. *Economics of Education Review, 31*(6), 918-931. doi:10.1016/J.ECONEDUREV.2012.07.003

Kannan, H. (2018). More than 80% of caregivers for children not registered with government. *New Straits Times*. Retrieved 11 27, 2018, from https://www.nst.com.my/news/nation/2018/08/400568/more-80-caregivers-children-not-registered-government

Khazanah Research Institute. (2017). The Times They Are A-Changin': Technology, Employment, and the Malaysian Economy. In *Discussion Papers.* Khazanah Research Institute, Kuala Lumpur.

Kis, V. a. (2018). Making skills transparent: recognising vocational skills acquired through work-based learning. *OECD Education Working Papers*.

Lim, T. (2013). *Analyzing Malaysian English Classrooms: Reading, Writing, Speaking and Listening Teaching Strategies.* University of Washington. Retrieved 04 01, 2019, from https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/25020/Lim_washington_0250O_12452.pdf

Lordan, G., & Neumark, D. (2018). People versus machines: The impact of minimum wages on automatable jobs. *Labour Economics, 52*, 40-53. doi:10.1016/J.LABECO.2018.03.006

Lucas, R. (1988). On the mechanics of economic development. *Journal of Monetary Economics, 22*(1), 3-42. Retrieved from https://EconPapers.repec.org/RePEc:eee:moneco:v:22:y:1988:i:1:p:3-42

Malaysia Productivity Corporation. (2018). *25th Productivity Report.* Retrieved 05 31, 2019, from https://drive.google.com/file/d/10jE_MFSYmZnkeVNGqG4_GOpYp1ZgL4r1/view

Marwan, A., Sumintono, B., & Mislan, N. (2012). Revitalizing Rural Schools: A Challenge for Malaysia.

MIDF Research. (2018). *Economic Review: May 2018 Labour Market.* Retrieved 09 14, 2018, from http://www.midf.com.my/images/Downloads/Research/Econs-Msia-May-Labour-MIDF-160718.pdf

Ministerio de Educación. (2019). *Todos al Aula: 46 propuestas para reducir la burocracia en las escuelas.* Retrieved 05 31, 2019, from https://www.mineduc.cl/2018/11/09/todos-al-aula-reducir-burocracia-escuelas/

Ministry of Education Malaysia. (2006). *Quick Facts 2006.* Retrieved 01 15, 2019, from http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan032199.pdf

Ministry of Education Malaysia. (2013). *Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education).* Ministry of Education, Putrajaya. Retrieved 12 11, 2018, from https://www.moe.gov.my/index.php/en/dasar/pelan-pembangunan-pendidikan-malaysia-2013-2025

Ministry of Education Malaysia. (2015). *Malaysia Education Blueprint 2015-2025 (Higher Education).* Ministry of Education Malaysia, Putrajaya. Retrieved 11 19, 2018, from https://www.um.edu.my/docs/default-source/about-um_document/media-centre/um-magazine/4-executive-summary-pppm-2015-2025.pdf?sfvrsn=4

Ministry of Education Malaysia. (2018a). *Annual Report Malaysia Education Blueprint 2013-2025.* Ministry of Education, Putrajaya. Retrieved 12 10, 2018, from www.moe.gov.my

Ministry of Education Malaysia. (2018b). *Malaysia Education Statistics: Quick Facts 2018.* Retrieved 04 01, 2019, from https://www.moe.gov.my/index.php/en/muat-turun/laporan-dan-statistik/quick-facts-malaysia-education-statistics/563-quick-facts-2018-malaysia-educational-statistics/file

Ministry of Finance. (2018). *Malaysia Economic Report 2017/18.* Ministry of Finance. Retrieved 05 31, 2019, from http://www.treasury.gov.my/pdf/economy/er/1718/chapter3.pdf

MOE, & Clarivate Analytics. (2018). *Research and Innovation Performance of Malaysian Universities 2013-2017.* Retrieved 04 01, 2019, from http://discover.clarivate.com/malaysia_report_2018?utm_campaign=Report_Research_Innovation_Malaysia_SAR_SEA_2018&utm_source=owned_display&utm_medium=owned

Monster. (2018). *#SheMakesItWork Campaign 2018* -. Retrieved 11 27, 2018, from https://www.monster.com.sg/career-advice/shemakesitwork-campaign-2018-7612.html

Mullis, I., Martin, M., Foy, P., & Hooper, M. (2016). *TIMSS 2015 International Results in Mathematics.* Retrieved 12 13, 2018, from http://timssandpirls.bc.edu/timss2015/international-results/wp-content/uploads/filebase/full%20pdfs/T15-International-Results-in-Mathematics.pdf

Nedelkoska, L., & Quintini, G. (2018). Automation, skills use and training. In *OECD Social, Employment and Migration Working Papers.* OECD Publishing, Paris. doi:http://dx.doi.org/10.1787/2e2f4eea-en

Nguyen, T. (2017). *Vietnam's National Foreign Language 2020 Project after 9 years: A Difficult Stage.* Retrieved 12 26, 2018, from www.iafor.org

Nomura Research Institute. (2015). 49% of the Japanese Working Population Could be Replaced by Artificial Intelligence, Robots and Similar. *News Release*. Retrieved 11 15, 2018, from https://www.nri.com/jp/news/2015/151202_1.aspx

Noor, Z., & Rahmah, I. (2008). The Effects of Worker, Job and Industrial Characteristics on the Receipt and Intensity of Training in Malaysia. *The Journal of Human Resource and Adult Learning, 4*(1). Retrieved 11 16, 2018, from http://www.hraljournal.com/Page/22%20Zulridah%20Mohd%20Noor.pdf

Normazidah, C., & Musa, M. (2012). Exploring English Language Learning And Teaching In Malaysia. *GEMA Online™ Journal of Language Studies, 35*(1). Retrieved 04 02, 2019, from https://core.ac.uk/download/pdf/11492256.pdf

OECD. (2005). Promoting Adult Learning. In *Education and Training Policy.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264010932-en

OECD. (2012a). Languages in a Global World: Learning for Better Cultural Understanding. In B. Della Chiesa, J. Scott, & C. Hinton (Eds.), *Educational Research and Innovation.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264123557-en

OECD. (2012b). *Starting strong III : a quality toolbox for early childhood education and care.* OECD, Paris. Retrieved 12 04, 2018

OECD. (2013a). *Education GPS Country profile Malaysia.* Retrieved 12 14, 2018, from http://www.oecd.org/education/school/TALIS-Country-profile-Malaysia.pdf

OECD. (2013b). PISA 2012 Results: What Students Know and Can Do (Volume I): Student Performance in Mathematics, Reading and Science. In *PISA.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264201118-en

OECD. (2013c). PISA 2012 Results: Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed. In *PISA.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264201132-en

OECD. (2014a). TALIS 2013 Results: An International Perspective on Teaching and Learning. In *TALIS.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264196261-en

OECD. (2014b). Enhancing women's economic empowerment through entrepreneurship and business leadership in OECD countries. In *Background report to China Development Research Foundation project on enhancing women's economic empowerment through entrepreneurship and business leadership in the midst of China's new urbanisation.* OECD, Paris. Retrieved 02 13, 2019, from http://www.oecd.org/gender/Enhancing%20Women%20Economic%20Empowerment_Fin_1_Oct_2014.pdf

OECD. (2015). *Connecting with Emigrants: A Global Profile of Diasporas 2015.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264239845-en

OECD. (2016a). Skills Matter: Further Results from the Survey of Adult Skills. In *OECD Skills Studies.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264258051-en

OECD. (2016b). Getting Skills Right: Assessing and Anticipating Changing Skill Needs. In *Getting Skills Right.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264252073-en

OECD. (2016c). Parental leave: Where are the fathers? In *Policy Brief.* OECD, Paris. Retrieved 12 04, 2018, from www.oecd.org/

OECD. (2016d). *Be Flexible! Background brief on how workplace flexibility can help European employees to balance work and family.* Retrieved 11 27, 2018, from https://www.oecd.org/els/family/Be-Flexible-Backgrounder-Workplace-Flexibility.pdf

OECD. (2016e). *Hiring for success-Challenges for Canada's Labour Migration System Recruiting for success Challenges for Canada's Labour Migration System.* OECD, Paris. Retrieved 02 14, 2019, from http://www.oecd.org/migration/mig/recruiting-for-success-Canada.pdf

OECD. (2017a). How technology and globalisation are transforming the labour market. In *OECD Employment Outlook 2017.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/empl_outlook-2017-7-en

OECD. (2017b). Getting Skills Right: Skills for Jobs Indicators. In *Getting Skills Right.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264277878-en

OECD. (2017c). Starting Strong 2017: Key OECD Indicators on Early Childhood Education and Care. In *Starting Strong.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264276116-en

OECD. (2017d). Getting Skills Right: France. In *Getting Skills Right.* OECD Publishing, Paris. doi:http://dx.doi.org/10.1787/9789264284456-en

OECD. (2017e). Getting Skills Right: United Kingdom. In *Getting Skills Right.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264280489-en

OECD. (2017f). *The Pursuit of Gender Equality: An uphill battle.* OECD Publishing, Paris. Retrieved 11 26, 2018, from https://www.oecd-ilibrary.org/docserver/9789264281318-

en.pdf?expires=1543247115&id=id&accname=ocid84004878&checksum=BBDFDE518B6177E8971100649135EB18

OECD. (2017g). Educational Opportunity for All: Overcoming Inequality throughout the Life Course. In *Educational Research and Innovation.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264287457-en

OECD. (2017h). *Strengthening Women's Entrepreneurship in ASEAN.* OECD, Paris. Retrieved 01 15, 2019, from www.oecd.org/southeast-asia/

OECD. (2018a). *Education at a Glance 2018: OECD Indicators.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/eag-2018-en

OECD. (2018b). Higher Education in Norway: Labour Market Relevance and Outcomes. In *Higher Education.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264301757-en

OECD. (2018c). Effective Teacher Policies: Insights from PISA. In *PISA.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264301603-en

OECD. (2018d). Council Recommendation on Ageing and Employment. In *Policy Brief on Ageing and Employment.* OECD, Paris. Retrieved 04 25, 2019, from https://legalinstruments.oecd.org/public/doc/333/333.en.pdf

OECD. (2018e). *OECD Investment Policy Review of Southeast Asia.* OECD Publishing, Paris. Retrieved 01 15, 2019, from http://www.oecd.org/investment/oecd-investment-policy-review-southeast-asia.htm

OECD. (2018f). SME Policy Index: ASEAN 2018: Boosting Competitiveness and Inclusive Growth. In *SME Policy Index.* OECD Publishing, Paris/ERIA, Jakarta. doi:https://dx.doi.org/10.1787/9789264305328-en

OECD. (2018g). *International Migration Outlook 2018.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/migr_outlook-2018-en

OECD. (2019a). *Getting Skills Right: Future-Ready Adult Learning Systems.* Paris: OECD Publishing.

OECD. (2019b). Community Education and Training in South Africa. In *Getting Skills Right.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264312302-en

OECD. (2019c). Adult Learning in Italy: What Role for Training Funds ? In *Getting Skills Right.* OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/9789264311978-en

OECD/ERIA. (2018). SME Policy Index: ASEAN 2018: Boosting Competitiveness and Inclusive Growth. In *SME Policy Index.* OECD Publishing, Paris/Economic Research Institute for ASEAN and East Asia, Jakarta. doi:https://dx.doi.org/10.1787/9789264305328-en

Ottaviano, G., & Peri, G. (2012). Rethinking the effect of immigration on wages. *Journal of the European Economic Association, 10*(1), 152-197. doi:10.1111/j.1542-4774.2011.01052.x

Özden, Ç., & Wagner, M. (2014). *Immigrant versus Natives? Displacement and Job Creation.* The World Bank. doi:10.1596/1813-9450-6900

Perlman, M., Fletcher, B., Falenchuk, O., Brunsek, A., McMullen, E., & Shah, P. (2017). Child-Staff Ratios in Early Childhood Education and Care Settings and Child Outcomes: A Systematic Review and Meta-Analysis. *PloS one, 12*(1), e0170256. doi:10.1371/journal.pone.0170256

Rashid, R., Abdul Rahman, S., & Yunus, K. (2016). Reforms in the policy of English language teaching in Malaysia. *Policy Futures in Education, 15*(1), 100-112. doi:10.1177/1478210316679069

Rasul, M., Hilmi, Z., Ashari, M., & Azman, N. (2015). *Transforming TVET in Malaysia: Harmonizing the Governance Structure in a Multiple Stakeholder Setting.* Retrieved 04 01, 2019, from www.tvet-online.asia

Richards, J. (2017). Teaching English through English: Proficiency, Pedagogy and Performance. *RELC Journal, 48*(1), 7-30. doi:10.1177/0033688217690059

Rincon Aznar, A., Forth, J., Mason, G., O'Mahony, M., & Bernini, M. (2015). *UK skills and productivity in an international context.* The National Institute of Economic and Social Research. Retrieved 01 06, 2019, from file:///C:/Users/Espinoza_R/Downloads/BIS-15-704-UK-skills-and-productivity-in-an-international_context.pdf

Romer, P. (1986). Increasing Returns and Long-Run Growth. *Journal of Political Economy, 94*(5), 1002-1037. Retrieved 01 06, 2019, from https://www.jstor.org/stable/pdf/1833190.pdf?refreqid=excelsior%3Ac94c0fecf1f15b67f591002b9855448c

Romer, P. (1990). Endogenous Technological Change. *Journal of Political Economy, 98*(5). Retrieved 01 06, 2019, from http://pages.stern.nyu.edu/~promer/Endogenous.pdf

Roux, P. (2016). *Reforming English Education in Japan: A Survey with Elementary School Teachers.* Retrieved 12 19, 2018, from http://portal.dl.saga-u.ac.jp/bitstream/123456789/122514/1/roux_201603.pdf

Santiago, P. (2002). Teacher Demand and Supply: Improving Teaching Quality and Addressing Teacher Shortages. In *OECD Education Working Papers* (Vol. 2002/1). OECD Publishing, Paris. doi:https://dx.doi.org/10.1787/232506301033

Sawir, E. (2005). Language difficulties of international students in Australia: The effects of prior learning experience. *International Education Journal, 6*(5), 567-580. Retrieved 12 21, 2018, from http://iej.cjb.net

Shah, C., & Burke, G. (2005). Skills Shortages: Concepts, Measurement and Policy Responses. *Australian bulletin of labour, 31*(1). Retrieved 04 02, 2019, from https://dspace.flinders.edu.au/xmlui/handle/2328/27700

Solow, R. (1957). *Technical Change and the Aggregate Production Function.* Retrieved 01 06, 2019, from https://faculty.georgetown.edu/mh5/class/econ489/Solow-Growth-Accounting.pdf

Subramaniam, G., Tan, P. L., Baah, R., & Atory, N. A. (2015). Do flexible working arrangements impact women's participation in the labour market? A multiple regression analysis. *Malaysian Journal of Consumer and Family Economics, 18*.

TalentCorp. (2018a). *Life At Work: Report on the Implementation and Outcomes of Work-Life Practices in Corporate Malaysia.* Retrieved 12 03, 2018, from https://www.mdbc.com.my/wp-content/uploads/2018/05/Life-At-Work-Report-on-WLP-Implementation-and-Outcomes-in-Corporate-Malaysia.pdf

TalentCorp. (2018b). *Returning Expert Programme: Your Passport Home.* Retrieved 02 01, 2019, from https://bit.ly/2CTGqT1

Tang, J., & Wang, W. (2005). Product Market Competition, Skill Shortages and Productivity: Evidence from Canadian Manufacturing Firms. *Journal of Productivity Analysis, 23*(3), 317-339. doi:10.1007/s11123-005-2213-y

The Star Online. (2018). Growing from strength to strength. Retrieved 12 03, 2018, from https://www.thestar.com.my/news/education/2018/09/02/growing-from-strength-to-strength/

Thomsen, R. (2014). A Nordic perspective on career competences and guidance – Career choices and career learning. In *NVL & ELGPN concept note.*

UNCTAD. (2011). *Best Practices in Investment for Development: How to create and benefit from FDI-SME Linkages - Lessons from Malaysia and Singapore.* United Nations Conference on Trade and Development, New York/Geneva. Retrieved 01 15, 2019, from http://www.unctad.org,http://www.unctad.org,http://www.unctad.org,

UNESCO. (2015). *Education for All 2015 National Review: Malaysia.* Unesco, Paris.

UNESCO. (2018). *Funding skills development - the private sector contribution.* UNESCO, Paris. Retrieved 11 19, 2018, from http://www.unesco.org/open-access/terms-use-ccbysa-en

UNESCO Institute for Lifelong Learning. (2013). *Second Global Report on Adult Learning and Education - Rethinking Literacy.* UNESCO Institute for Lifelong Learning, Hamburg. Retrieved 11 19, 2018, from http://unesdoc.unesco.org/images/0022/002224/222407E.pdf

UNESCO Institute for Lifelong Learning. (2016a). *Education Model for Life and Work, Mexico.* Retrieved 07 13, 2018, from http://uil.unesco.org/case-study/effective-practices-database-litbase-0/education-model-life-and-work-mexico

UNESCO Institute for Lifelong Learning. (2016b). *Third Global Report on Adult Learning and Education - The Impact of Adult Learning and Education on Health and Well-Being; Employment and the Labour Market; and Social, Civic and Community Life.* UNESCO Institute for Lifelong Learning, Hamburg. Retrieved 11 19, 2018, from http://www.unesco.org/

Windisch, H. (2015). Adults with low literacy and numeracy skills: A literature review on policy intervention. In *OECD Education Working Papers* (Vol. 2015). OECD Publishing, Paris. doi:http://dx.doi.org/10.1787/5jrxnjdd3r5k-en

Wong, P., Ho, Y., & Autio, E. (2005). Entrepreneurship, Innovation and Economic Growth: Evidence from GEM data. *Small Business Economics, 24*(3), 335-350. doi:10.1007/s11187-005-2000-1

World Bank. (2010). *Malaysia economic monitor : inclusive growth.* Retrieved 05 29, 2019, from http://documents.worldbank.org/curated/en/956321468087840820/pdf/639430WP0Malay00Box0361533B0PUBLIC0.pdf

World Bank. (2013). *Malaysia Economic Monitor: High-Performing Education.* Retrieved 09 14, 2018, from www.worldbank.org/my

World Bank. (2014). *Malaysia Economic Monitor: Boosting Trade Competitiveness.* Retrieved 09 14, 2018, from www.worldbank.org/my

World Bank. (2015a). *Enterprise Surveys: Malaysia 2015 - Country profile.* The World Bank Group. Retrieved 05 29, 2019, from www.worldbank.org

World Bank. (2015b). *Malaysia Economic Monitor: Immigrant Labour.* World Bank. Retrieved 01 09, 2019, from www.worldbank.org/my

World Bank Group. (2017). *Study on the Effectiveness of the Human Resources Development Fund.*

World Bank Group. (2018a). *Productivity Unplugged: The Challenges of Malaysia's Transition into a High-Income Country.* Retrieved 09 14, 2018, from http://documents.worldbank.org/curated/en/185861527855417221/pdf/126781-WP-PUBLIC-P160562-World-Bank-Report-08-Productivity-Unplugged-FA-Full-Web.pdf

World Bank Group. (2018b). *Women, Business and the Law 2018.* World Bank, Washington, DC. doi:10.1596/978-1-4648-1252-1

Yunus, N., Said, R., & Azman-Saini, W. (2015). Spillover effects of FDI and trade on demand for skilled labour in Malaysian manufacturing industries. *Asian Academy of Mangement Journal*, *20*(2). Retrieved from https://www.researchgate.net/publication/284726678_Spillover_effects_of_FDI_and_trade_on_demand_for_skilled_labour_in_Malaysian_manufacturing_industries

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Growth is set to moderate in the near term, mainly due to slowing global trade. The rising cost of living has been a source of concern for large segments of the population. Progress could be made by providing a more targeted support, boosting entrepreneurship, improving productivity and employability among the low-income households.

Fiscal policy needs reform. Building up fiscal space and ensuring medium-term sustainability will require increasing the low level of tax revenue. Improving budget process transparency and strengthening public debt management are key to fiscal accountability.

Human capital development is needed to boost productivity and promote inclusive growth. Labour market imbalances hinder productivity and make it more difficult to climb up the value chain. Investment in education and training would help under-qualified workers. Policies to stimulate the demand for high-level skills would support those who are over-qualified.

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