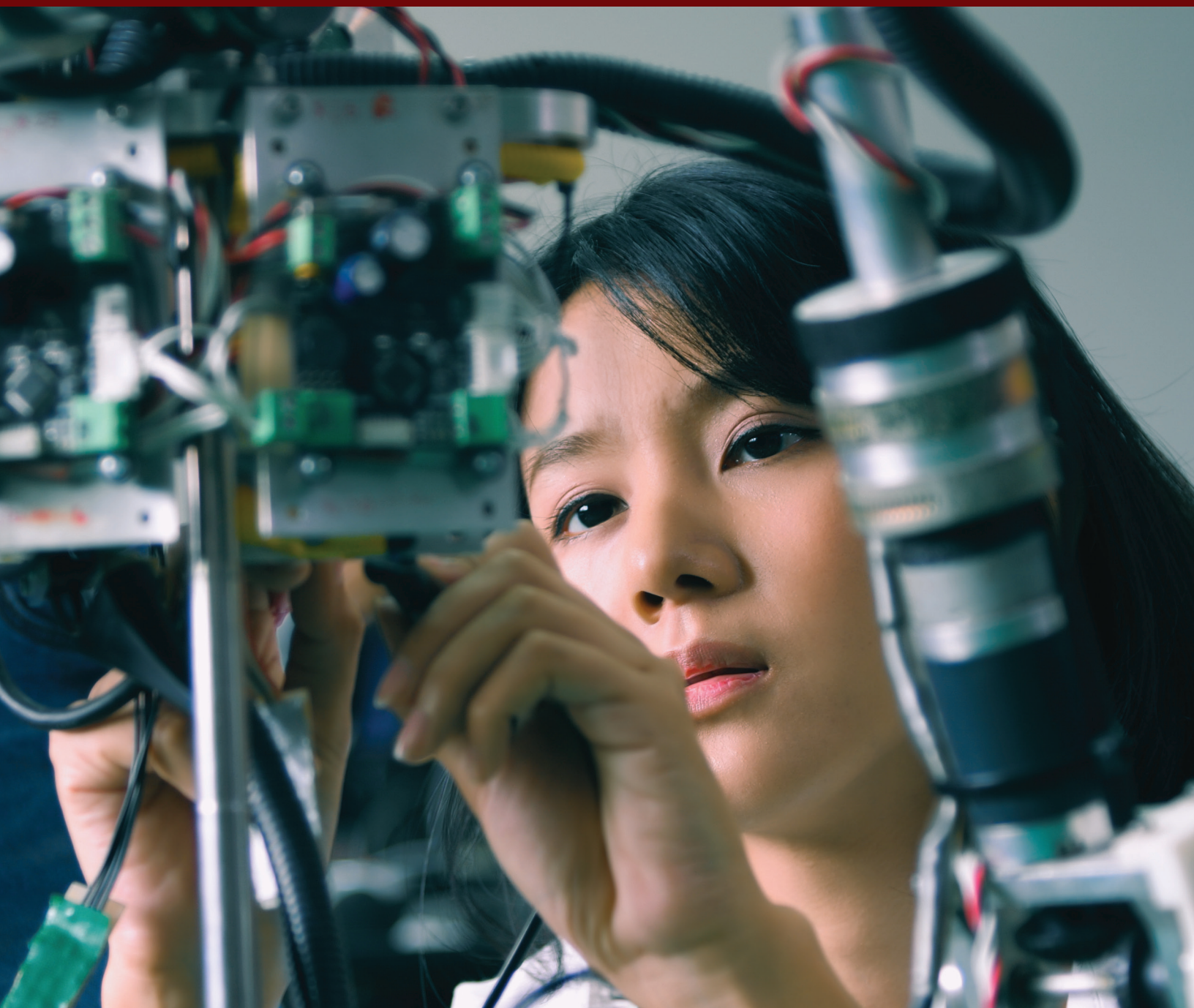


WORLD BANK EAST ASIA AND THE PACIFIC ECONOMIC UPDATE OCTOBER 2025

JOBS



Jobs

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Developing East Asia and Pacific comprises Cambodia, China, Indonesia, Lao People's Democratic Republic (PDR), Malaysia, Mongolia, Myanmar, Papua New Guinea, the Philippines, Thailand, Timor-Leste, Viet Nam, and the Pacific Island Countries.

The **Pacific Island Countries** comprise Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, Samoa, the Solomon Islands, Tonga, Tuvalu, and Vanuatu.

The **ASEAN** member countries comprise Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam.

The **ASEAN-5** comprise Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam.

The analysis in this report is based on the latest country-level data available as of September 26, 2025.

List of Abbreviations

ACFTA	ASEAN-China Free Trade Area
ADB	Asian Development Bank
AEs	Advanced Economies
AI	Artificial Intelligence
AIR	AI Retrainability Index
ATP	Assembly, Testing & Packaging (semiconductor industry)
BACI	International Trade Database at the CEPII
BPO	Business Process Outsourcing
BRICS	Brazil, Russia, India, China, South Africa (and partner countries)
BTA	Bilateral Trade Agreement
C/O	Certificate of Origin
CEPA	Comprehensive Economic Partnership Agreement
CME	Chicago Mercantile Exchange
COFA	Compact of Free Association (North Pacific)
COPD	Chronic Obstructive Pulmonary Disease
CPI	Consumer Price Index
DALYs	Disability-Adjusted Life Years
DVAR	Domestic Value Added in Exports
EBET	Enterprise-Based Education and Training
eCoSys	Electronic Certificate of Origin System
EDA	Electronic Design Automation (software)
EEC	Eastern Economic Corridor (Thailand)
EFTA	European Free Trade Association
EMBI	Emerging Markets Bond Index
EV	Electric Vehicle
FDA	Food and Drug Administration (US)
FDI	Foreign Direct Investment
Fed	Federal Reserve (US central bank)
GDP	Gross Domestic Product
GGDC/ UNU- WIDER	Groningen Growth and Development Centre / United Nations University - World Institute for Development Economics Research
GSP	Generalized System of Preferences
HS	Harmonized System (customs codes)
ICT	Information and Communication Technology
IIF	Institute of International Finance
ILO	International Labour Organization

IMF	International Monetary Fund
IP	Intellectual Property
ISCED	International Standard Classification of Education
ISIC	International Standard Industrial Classification
IT-BPM	Information Technology - Business Process Management
LDC	Least Developed Country
LFS	Labor Force Survey
LMIC	Lower Middle-Income Country
LNG	Liquefied Natural Gas
MAG	Malaysia Aviation Group
MDEC	Malaysia Digital Economy Corporation
MFN	Most Favored Nation
MSME	Micro, Small and Medium Enterprises
NAFTA	North American Free Trade Agreement
NCD	Non-Communicable Diseases
NPL	Non-Performing Loan
NTMs	Non-Tariff Measures
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares (regression)
OT	Oyu Tolgoi (mine in Mongolia)
PBC	People's Bank of China
PHC	Primary Health Care
PMI	Purchasing Managers' Index
PPI	Producer Price Index
PPP	Purchasing Power Parity
Q/Q, Y/Y	Quarter-on-Quarter, Year-on-Year
R&D	Research and Development
RCEP	Regional Comprehensive Economic Partnership
RTI	Routine Task Intensity (index)
SEZs	Special Economic Zones
SMEs	Small and Medium Enterprises
SOC	Standard Occupational Classification
SOEs	State-Owned Enterprises
STEM	Science, Technology, Engineering, and Mathematics
SVAR	Structural Vector Autoregression

TFP	Total Factor Productivity
TRAINS	Trade Analysis and Information System (UNCTAD database)
UMIC	Upper Middle-Income Country
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization

VAR	Vector Autoregression
WDI	World Development Indicators
WIOA	Workforce Innovation and Opportunity Act (US)
WUI	World Uncertainty Index
2SLS	Two-Stage Least Squares (statistical method)

<i>Regions</i>	<i>World Bank Classification and Country Groups</i>
EAP	East Asia and Pacific
ECA	Eastern Europe and Central Asia
LAC	Latin America and the Caribbean

MNA	Middle East and North Africa
SAR	South Asia
SSA	Sub-Saharan Africa

<i>Country/Economy Abbreviations</i>	
CHN	China
EU	European Union
FJI	Fiji
FSM	Federated States of Micronesia
HKG	Hong Kong SAR, China
IDN	Indonesia
JPN	Japan
KHM	Cambodia
KIR	Kiribati
KOR	Republic of Korea
LAO	Lao People's Democratic Republic
MNG	Mongolia
MMR	Myanmar
MYS	Malaysia
NRU	Nauru
PHL	Philippines
PICs	Pacific Island Countries
PLW	Palau
PNG	Papua New Guinea
RMI	Republic of the Marshall Islands
SLB	Solomon Islands
THA	Thailand
TLS	Timor-Leste

TON	Tonga
TUV	Tuvalu
TWN	Taiwan, China
UK	United Kingdom
USA / US	United States
VNM	Viet Nam
VUT	Vanuatu
WSM	Samoa
CR	Cambodian riel
D	Vietnamese dong
F\$	Fiji dollar
K	Myanmar kyat
K	Papua New Guinea kina
Kip	Lao kip
P	Philippine peso
RM	Malaysian ringgit
RMB	Chinese renminbi
Rp	Indonesian rupiah
THB	Thai baht
SIS	Solomon Islands dollar
Tog	Mongolian tugrik
US\$	Timor-Leste (U.S. dollar)
US\$/USD	United States dollar

Abstract

Recent developments and outlook

The East Asia and Pacific (EAP) region's GDP growth remains above the global average but is projected to slow down in 2025 and even further in 2026. High-frequency indicators of economic activity signal slowing momentum. Retail sales are increasing, but consumer confidence has not recovered to pre-COVID levels. Industrial production is strong, but business confidence is low. Exports accelerated ahead of recent tariff hikes, but new export orders are weak.

The sluggishness is due to a less favorable external environment—higher trade restrictions, easing but still elevated global uncertainty, and slowing global growth—and persistent domestic difficulties.

- Higher tariffs could significantly reduce EAP exports to the US. But the impact on total exports and real incomes will be smaller, because most exporters face similar tariffs, exports will eventually shift to other destinations, and domestic value added in exports to the US is a relatively small share of GDP in most countries.
- Increased uncertainty about economic policies at home and abroad can hurt investment and employment decisions in EAP. Firms adopt a “wait-and-see” approach, delaying or scaling back capital expenditures.
- Slowing global growth, with 2025 consensus forecasts revised down since January, could hurt regional prospects. A decline in G7 growth by 1 percentage point would reduce growth in developing EAP by around an estimated 0.6 percentage points within the following year.

Global financial markets have so far defied recent policy turbulence. Therefore, even as EAP countries face real challenges, they are experiencing more benign financial conditions. However, the appreciation of most regional currencies vis-a-vis the dollar could erode export competitiveness. Therefore, the net impact of financial developments is not yet clear.

Even in a difficult external environment, EAP countries can forge a dynamic path. But supporting near term growth through fiscal measures may deliver less durable development benefits than deeper domestic reforms.

Jobs in EAP

Creating more and better jobs lies at the heart of the region's development challenge. Jobs are more than a source of income. They provide dignity, purpose and a pathway to better lives for individuals and their families.

▸ The jobs status

Most people in the EAP region who look for work find it. The employment rate is generally high, but the young struggle to find jobs. One out of every seven young people in China and Indonesia is unemployed. Labor force participation is low in the Pacific and among women (with around a 15 percentage point gap relative to men in Indonesia, Malaysia

and the Philippines). Furthermore, many individuals in the region are in low-productivity or informal jobs. The class of people vulnerable to falling into poverty is now larger than the middle class in most countries.

EAP countries are not fully realizing the benefits of moving workers from less to more productive sectors and firms.

- From the 1970s to 1990s, labor moved from agriculture to more productive manufacturing and services, fueled by dynamic, export-oriented sectors. Since the 2000s, most of the movement is towards low-productivity, often informal services jobs in retail and construction.
- Moving from the sectoral to enterprise level, the unsung heroes of job creation are not small firms but young firms, who account for 57 percent of employment and 79 percent of job creation in Malaysia and Viet Nam between 2000 and 2019. But their role has been dampened because fewer new firms are entering markets. And the post-entry growth of startups is relatively slow in EAP: in the US, surviving startups increase their employment sevenfold by age 30, startups in China increase employment only fourfold, and in Viet Nam less than twofold.

▸ The capacity and opportunity framework

Jobs emerge from the dynamic interplay between economic opportunities and human capacities. Opportunities are shaped by trade patterns, and technology adoption, while capacities depend on access to quality education and training. Development depends on the synchronized enhancement of capacities and economic opportunities.

Capacity. EAP countries have made strides in universalizing basic education. More than half of the region's population has at least secondary education today whereas more than 70 percent had no education in the 1950s, and the share of tertiary educated workers has grown manifold. However, many children fail to acquire foundational skills, the quality of tertiary education is lagging in many countries, and, except for China and Malaysia, the share of graduates in STEM fields is lower than in more advanced economies.

Opportunity. Opportunities depend on what is produced (which depends on economic structure and trade patterns) and how (which depends on technology).

- Trade has driven productive employment, most recently in Cambodia and Viet Nam, but the gains are uneven and can be undermined by adverse external shocks such as protection abroad. EAP countries' own barriers to firm entry and trade protection are an even bigger impediment to opportunities: while manufacturing tariffs are relatively low in EAP countries, non-tariff measures are high; regulatory restrictions on services trade are higher than in the other regions; and in China and Viet Nam, policy barriers impede the mobility of people. All of which shrink opportunities.
- New technologies, especially robotics, have boosted both productivity and industrial employment in fast-adopting Southeast Asian economies. In Viet Nam, for instance, an additional robot adopted per thousand workers raises district-level employment and wages by approximately 6–9 percent and 2–4 percent, respectively. However, the benefits have not been evenly shared. Between 2018 and 2022, industrial robot adoption created around 2 million jobs for skilled formal workers, but it also displaced 1.4 million low-skilled informal workers in routine and manual jobs, who have found refuge in the informal sector.

- AI's impact is not empirically discernible as this technology is still emerging. Southeast Asian economies face a lower risk of job displacement than advanced economies (only 13 percent of jobs involve non-routine cognitive tasks, compared to 39 percent in the latter), but also stand to benefit less from this emerging technology.

Coordination. Countries confront two traps—a *trade trap* (self-reinforcing low-skilled export dependence), and an *innovation inertia* (inadequate investments in skills to adopt technology)—which can stall development. Some signs of the trade trap are evident in Cambodia and Lao PDR, and at a higher skill level, in Viet Nam. An expansion of both capacities and opportunities can generate a virtuous cycle of development as has been the case in today's high income EAP economies.

▸ Policy

Reforms to create more productive jobs in EAP must:

- enhance human capacities, by improving health care, education and training, equipping people with the skills to work with new technologies;
- augment economic opportunities, through investments in infrastructure, from transportation and energy to digital, and improvements in the business environment to facilitate new firm entry and unlock private capital; and
- increase coordination to ensure that enhancements in human capacities and economic opportunities proceed in step.

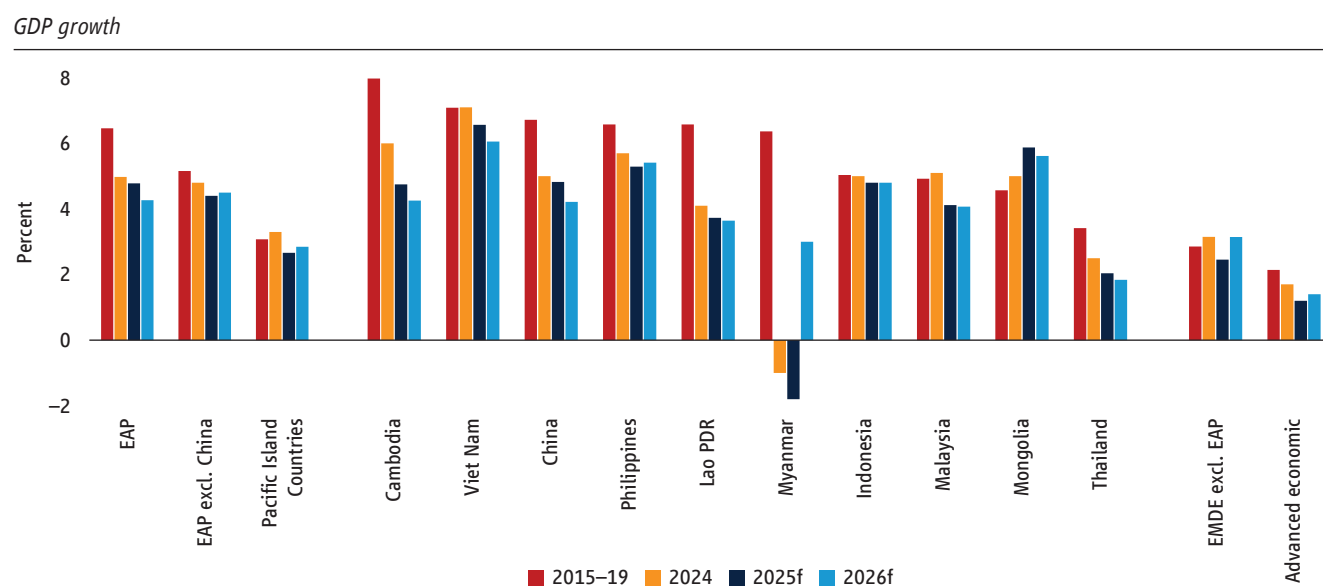
Overview

People in East Asia and Pacific (EAP) thrived because export-oriented, labor-intensive growth created more productive jobs. The region's exports now confront higher protection, greater policy uncertainty and a sluggish global economy. And the region's workers must contend with the growing use of robots, AI and digital platforms. Today, many are in low-productivity or informal jobs, and many of the young cannot find any jobs. The class of people vulnerable to falling into poverty is now larger than the middle class in most countries. The region is still doing well by global standards, but poorly relative to its people's potential and its leaders' ambitions. Most countries have responded to recent tensions by making selective trade concessions or stimulating domestic demand. Bolder domestic reforms would better serve the interests of the people.

Recent growth performance

Growth in EAP countries is slowing down or plateauing as the external environment becomes less favorable and domestic difficulties persist. Growth in China, the region's largest economy, is projected to decline from 4.8 percent this year to 4.2 percent in 2026, because of an expected slowdown in export growth and a likely reduction in the fiscal stimulus in light of rising public debt, as well as continued structural deceleration (figure O1; table O.1). The rest of the region is projected to grow by 4.4 percent in 2025 and 4.5 percent in 2026 in the face of higher trade barriers, elevated global economic policy uncertainty and slower global growth, as well as increased domestic political and policy uncertainty, especially in Indonesia and Thailand. The Pacific Island Countries are projected to grow by only 2.7 percent in 2025 and 2.8 percent in 2026 because they remain vulnerable to both global conditions and climate-related events.

Figure O1. Growth in EAP is projected to decline in 2025, and growth in most EAP countries is unlikely to recover in 2026



Source: World Bank

High-frequency indicators of economic activity signal slowing momentum. Retail sales are increasing, but consumer confidence has not yet recovered to pre-Covid levels. Industrial production is strong, but manufacturing PMIs point to contraction. Exports accelerated ahead of recent tariff hikes, but new export orders are weak.

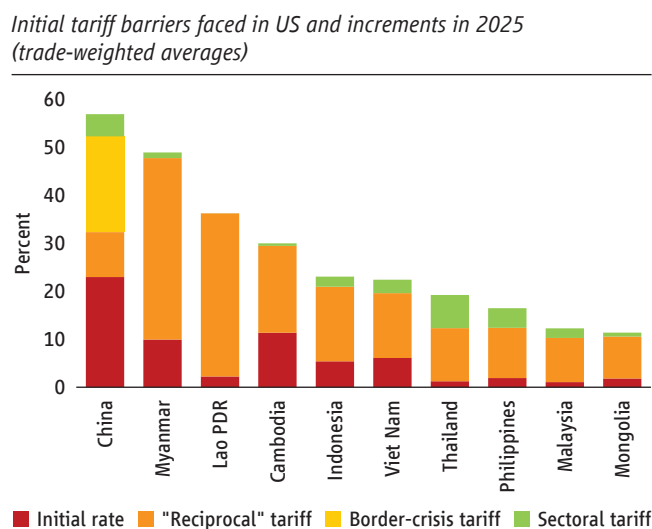
► Factors affecting growth

Three external developments – increased trade restrictions, heightened global economic policy uncertainty, and slowing global growth – are influencing economic performance in the region. At the same time, domestic policy choices, especially the reliance in some countries on fiscal stimulus rather than structural reform, are likely to shape near and longer-term growth outcomes.

Higher tariffs

The rising trend in trade protection poses a challenge for the EAP economies, most of which are highly exposed to external demand. The United States, an important market, has recently introduced higher “reciprocal tariffs” on most of its trading partners, as well as higher tariffs on imports in specific sectors – steel, aluminum, copper, autos and auto parts. While China remains the country facing the highest US tariff rate, in the other EAP countries, the magnitude and the source of the increase in tariff differs. Thailand, Viet Nam, the Philippines and Malaysia are less affected by the US “reciprocal tariffs” due to their export specialization in electronics and semiconductors (which are currently exempted), than Lao PDR, Cambodia and Myanmar which export apparel and other products (figure O2).

Figure O2. The increase in US tariff rates on EAP countries is mostly due to “reciprocal tariffs”



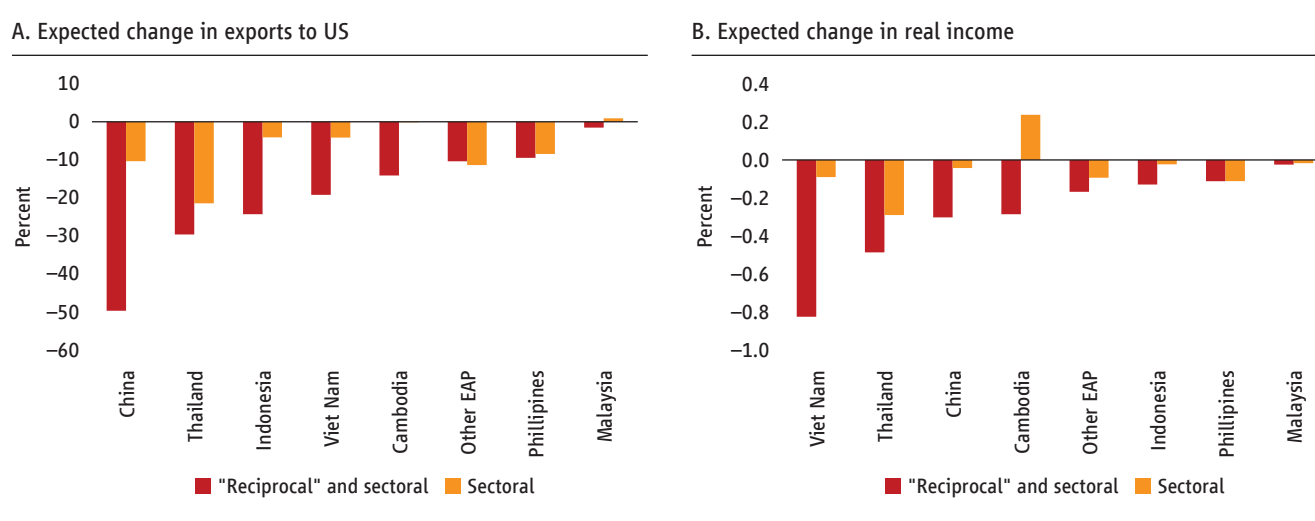
Source: World Bank staff estimates.

Note: The vertical bars represent export weighted averages of US applied tariff rates. The export weights are from 2024.

The overall economic effects of these new tariffs on the EAP countries are difficult to predict. Preliminary estimates from a computational general equilibrium model show that the current US tariffs (including both “reciprocal” and sectoral tariffs) could significantly reduce exports to the US (figure O3). But the model simulations suggest that the eventual impact on real incomes is likely to be moderate, except in Viet Nam, for three reasons. First, the domestic value added in exports to the US is a relatively small share of GDP for most countries other than Viet Nam. Second, the tariffs on specific products have increased for most exporting countries to a similar extent. Therefore, the negative effect of tariffs

is primarily felt through reduced US demand rather than changes in relative competitiveness. Lastly, the model assumes that countries have time to redirect exports to other destinations and therefore the decline in total exports is relatively small. However, these results should be viewed with caution because the costs of shifting patterns of production and exports may be high in specific sectors for individual countries.

Figure 03. Higher tariffs are likely to hurt exports and real incomes



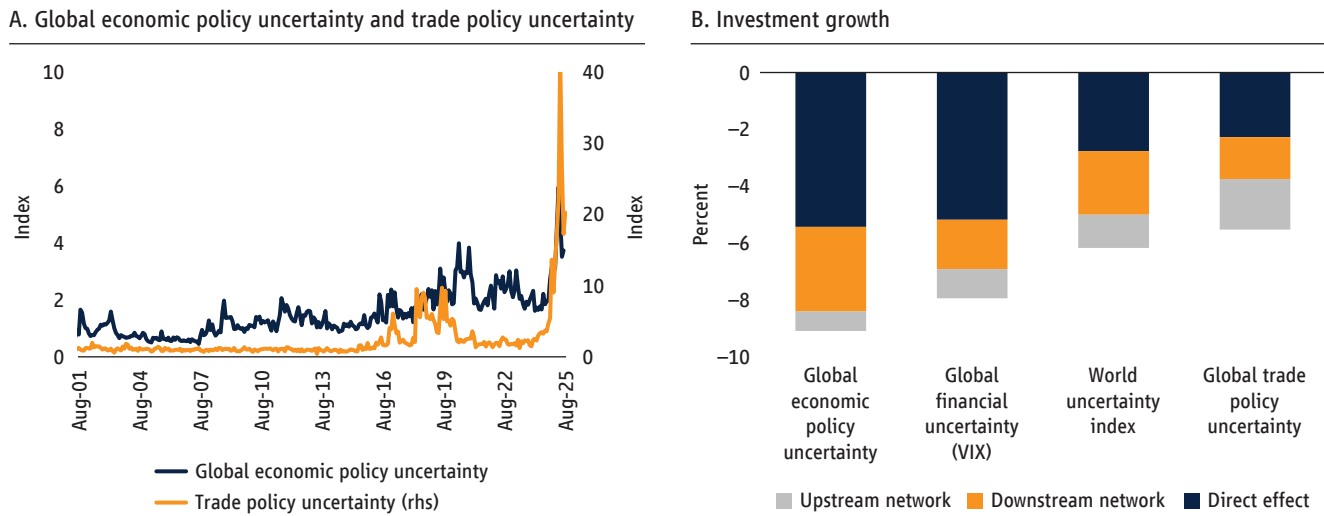
Source: GTAP; World Bank staff estimates

An important trade issue going forward is the implications of an increase in the stringency of the rules of origin that may be applied to avoid "transshipment" or even prevent high imported input content from specific sources. These rules have not yet been specified and are a source of uncertainty. More stringent implicit rules of origin could represent a challenge for some EAP countries, whose exports often rely on imported intermediate inputs, notably from China. However, more stringent rules of origin could also favor greater domestic value added in exports, thus increasing the contribution of exports to domestic economic development.

A key question is how best the EAP countries could respond to the new tariffs. Most countries have lowered tariffs (and in some cases, non-tariff barriers) exclusively on US imports and promised to increase purchases of specific US products. In some cases, countries have engaged with other trading partners to pursue greater diversification of their trade. These actions may be costly but necessary in an uncertain trading environment. In general, liberalization vis-à-vis all trading partners avoids the costs of trade diversion away from the most efficient sources and hence favors allocative efficiency.

Elevated uncertainty

Economic policy uncertainty, especially regarding trade policy, remains high: a news-based index reached its highest level since 1997 in June 2025 and, though it has eased slightly, it remains elevated (figure 04). Increased uncertainty about future economic policies at home and abroad can hurt investment and employment decisions in EAP. Firms adopt a "wait-and-see" approach, delaying or scaling back capital expenditures to avoid committing resources under unpredictable conditions. Evidence from firms in the region shows that a one-standard-deviation increase in economic policy uncertainty abroad significantly reduces investment growth and slows employment expansion, as firms prioritize liquidity and flexibility over long-term commitments. These effects are transmitted upstream and downstream through production networks.

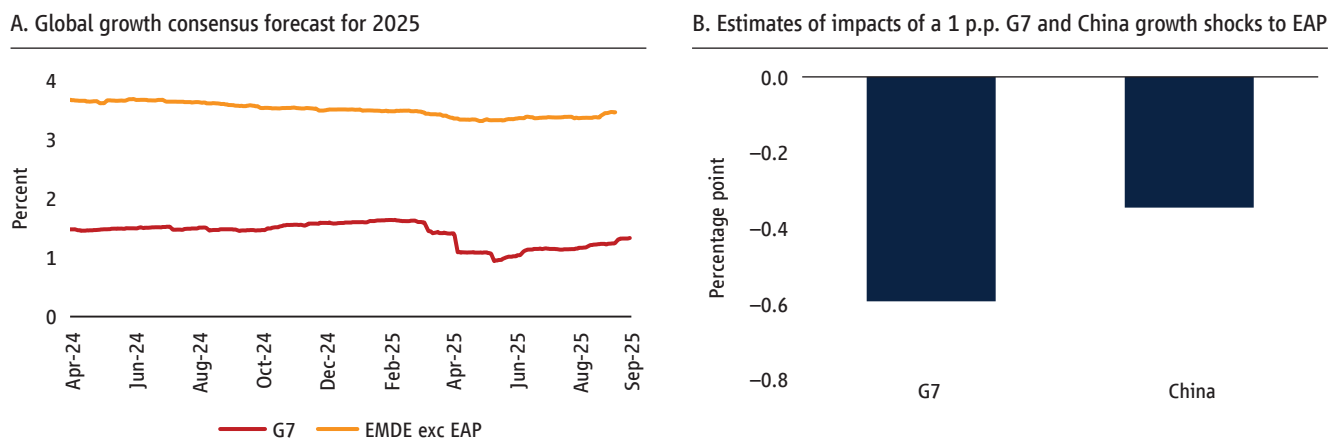
Figure O4. Global economic policy uncertainty, especially around trade, remains elevated, and could hurt investment

Source: Caldara et al. (2020); Ha et al. (2025).

Note. A. Trade policy uncertainty index tracks frequency of uncertainty-related articles in major English language newspapers. The indices for global economic uncertainty and trade policy uncertainty are normalized such that 1 equals their 2000–2015 average. B. Firm quarterly panel, OLS regression. See Part I for further details.

Lower global growth

Global growth prospects have softened, with 2025 consensus forecasts revised down since January (figure O5). The slowdown in the rest of the world would exert a significant negative impact on developing EAP. A decline in G7 growth by 1 percentage point reduces output growth in developing EAP by around an estimated 0.6 percentage points within the following year, with the effects operating primarily through weaker external demand, lower commodity prices, and tighter financial conditions. A decline in China's growth by 1 percentage point is estimated to lower growth in the rest of developing EAP by 0.3 percentage points.

Figure O5. Global growth is forecast to decline, which could negatively affect growth in developing EAP

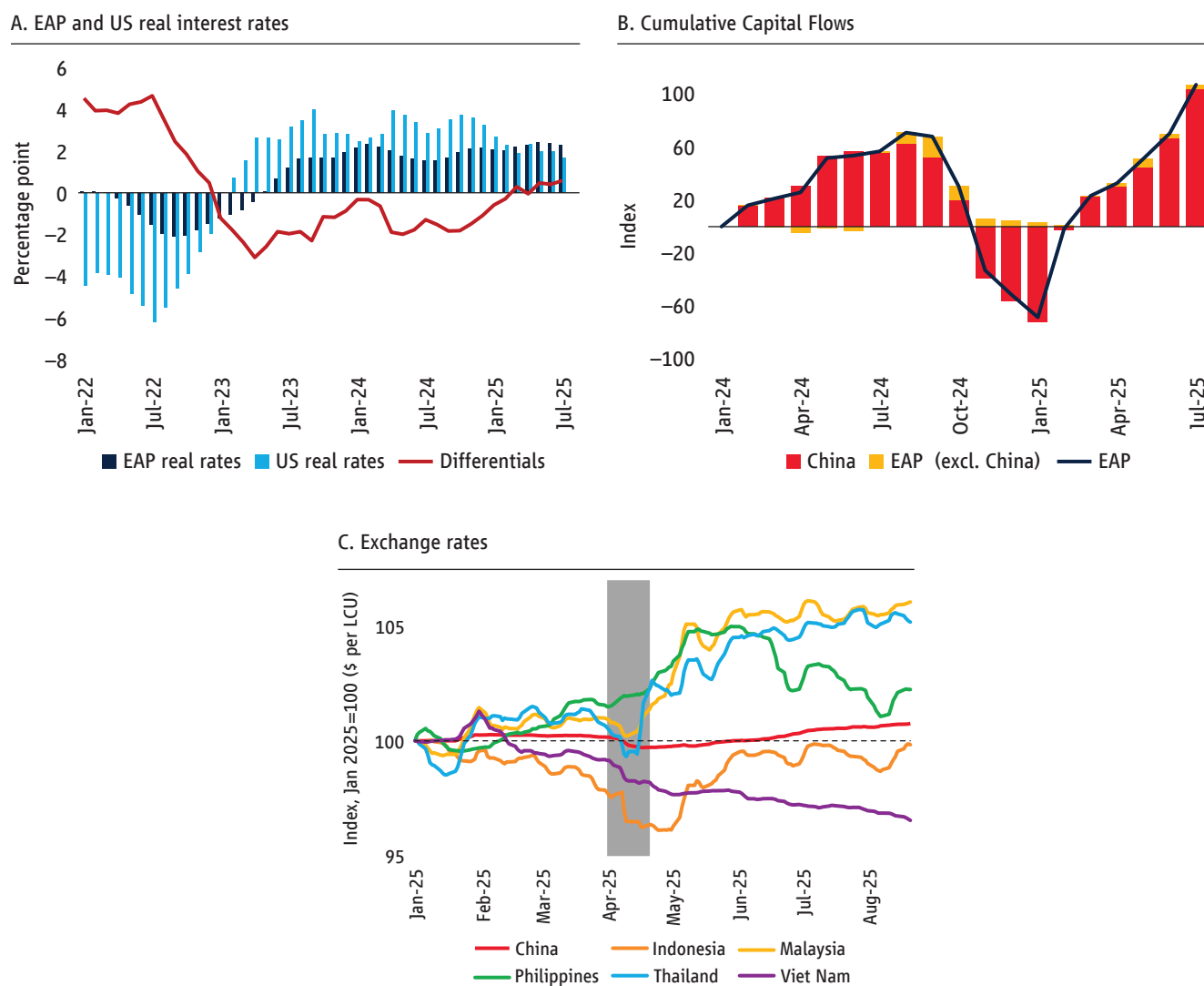
Source: Consensus forecasts World Bank estimates.

Notes: B. Figure shows the impact of one percentage point decrease in G7 and China growth. Effects estimated using a structural Bayesian VAR model. See Part I for further details.

Financial easing

Global financial markets have so far defied recent policy turbulence. Therefore, even as EAP countries face real challenges, they are experiencing more benign financial conditions. Central banks in major advanced economies have lowered policy rates, and their real interest rates are now lower than those in the EAP economies (figure O6). As a result, EAP countries have more space to ease monetary policy, and strong international portfolio inflows have improved financing for EAP firms. However, the resulting appreciation of most regional currencies vis-a-vis the dollar could erode export competitiveness. Therefore, the net impact of financial developments is not yet clear.

Figure O6. EAP real interest differentials with advanced economies have widened, leading to capital inflows and appreciation of currencies



Source: Haver Analytics

Domestic reforms

Even in a difficult external environment, EAP countries can forge a dynamic path. But supporting near term growth through fiscal measures may deliver less durable development benefits than deeper domestic reforms.

Growth in some EAP countries is relatively high, but measures to sustain growth today may not be conducive to growth tomorrow. In China and Indonesia, for example, current growth (of about 5 percent per annum) exceeds estimates of potential growth largely thanks to government support. In China, the fiscal deficit is expected to increase from 4.5 percent in 2019 to 8.1 percent in 2025, and public debt to 70.8 percent of GDP this year, which may limit the scope for stimulus and hence growth in 2026. In Indonesia, the issue is more the direction of government spending rather than the size of the deficit, which is expected to remain within the country's fiscal rules. For example, the current focus is on subsidies for food, transport and energy sectors and state-directed investment to boost aggregate demand. In both countries, reforms, such as addressing non-tariff barriers, especially in services, as well as deregulation and business licensing simplification (in the case of Indonesia), could enhance potential growth and productive job creation.

In other countries, recent structural reforms are likely to improve economic efficiency and support growth. For instance, the Philippines has opened key sectors to greater competition—including logistics, telecoms and renewable energy – and is seeking to build the capabilities of the labor force through the newly enacted Enterprise-Based Education and Training (EBET) framework. Viet Nam too has launched a wave of institutional reforms aimed at creating a more efficient state. In late 2024, the government began significant bureaucratic restructuring, reducing ministries and agencies, consolidating local governments (reducing provinces from 63 to 34 and removing district-level governments); streamlining public employees (reducing staff by 20 percent or at least 100,000 employees over 5 years); and reforms such as the new Land Law, State Budget Law, and streamlined business services to improve the investment climate. In both countries, improved economic performance will depend on the implementation of the reforms.

Table O1. GDP growth forecast

	2015–19	2020	2021	2022	2023	2024	Oct 2025 forecast		Apr 2025 forecast	
							for 2025	for 2026	for 2025	for 2026
East Asia & Pacific	6.5	1.2	7.7	3.5	5.2	5.0	4.8	4.3	4.0	4.1
East Asia & Pacific (excluding China)	5.2	–3.8	2.9	6.0	4.3	4.8	4.4	4.5	4.2	4.5
Pacific Island Countries	3.1	–10.3	–2.9	10.2	5.9	3.3	2.7	2.8	2.6	2.7
China	6.7	2.2	8.6	3.1	5.4	5.0	4.8	4.2	4.0	4.0
Indonesia	5.0	–2.1	3.7	5.3	5.0	5.0	4.8	4.8	4.7	4.8
Malaysia	4.9	–5.5	3.3	8.9	3.6	5.1	4.1	4.1	3.9	4.3
Philippines	6.6	–9.5	5.7	7.6	5.5	5.7	5.3	5.4	5.3	5.4
Thailand	3.4	–6.1	1.6	2.6	2.0	2.5	2.0	1.8	1.6	1.8
Viet Nam	7.1	2.9	2.6	8.5	5.1	7.1	6.6	6.1	5.8	6.1

(continued)

Table O1. (continued)

	2015–19	2020	2021	2022	2023	2024	Oct 2025 forecast for 2025	Apr 2025 forecast for 2026	Apr 2025 forecast for 2025	Apr 2025 forecast for 2026
Cambodia	8.0	–3.6	3.1	5.1	5.0	6.0	4.8	4.3	4.0	4.5
Lao PDR	6.6	0.5	2.5	2.7	3.7	4.1	3.7	3.6	3.5	3.4
Mongolia	4.6	–4.4	1.6	5.0	7.2	5.1	5.9	5.6	6.3	5.2
Myanmar	6.4	6.6	–12.0	4.7	1.0	–1.0	–1.8	3.0	–1.0	1.5
Papua New Guinea	4.0	–3.2	–0.8	5.7	3.8	3.8	4.3	3.2	4.3	3.2
Timor-Leste	5.2	–8.3	2.9	4.0	2.4	4.1	4.0	3.4	3.5	3.4
Palau	1.0	–9.1	–13.4	–1.3	1.9	7.1	5.7	3.5	11.9	3.5
Fiji	3.1	–17.0	–4.9	19.8	7.5	3.8	2.9	3.0	2.6	2.9
Solomon Isl.	3.0	–3.3	2.6	2.4	2.7	2.5	2.5	2.7	2.6	2.7
Tuvalu	6.7	–4.3	0.2	0.4	3.9	3.5	3.0	2.6	2.8	2.3
Marshall Isl.	4.8	–1.8	1.0	–1.1	4.0	3.0	2.5	4.1	3.7	3.0
Vanuatu	3.5	–5.0	–1.6	5.2	2.1	0.9	1.7	2.8	–1.8	2.3
Kiribati	5.8	–0.6	8.5	4.6	2.7	5.2	3.9	3.2	3.9	3.0
Tonga	2.3	0.5	–1.3	–2.3	2.1	2.1	2.7	2.3	2.2	1.8
Samoa	3.4	–3.1	–7.1	2.3	15.2	4.6	2.1	2.5	5.3	2.6
Micronesia	2.0	–1.8	–3.2	–0.9	0.8	0.7	1.1	1.5	1.3	1.4
Nauru	1.7	0.7	7.2	2.8	0.6	1.8	2.1	1.9	1.4	1.3

Sources: World Bank.

Note: Percent growth of GDP at market prices. Values for 2024 for the small island economies refer to GDP growth estimates. Values for Timor-Leste represent non-oil GDP. For the following countries, values correspond to the fiscal year: Myanmar (April 1–March 31), Federal states of Micronesia, Palau, and Republic of the Marshall Islands (October 1–September 30); Nauru, Samoa, and Tonga (July 1–June 30).

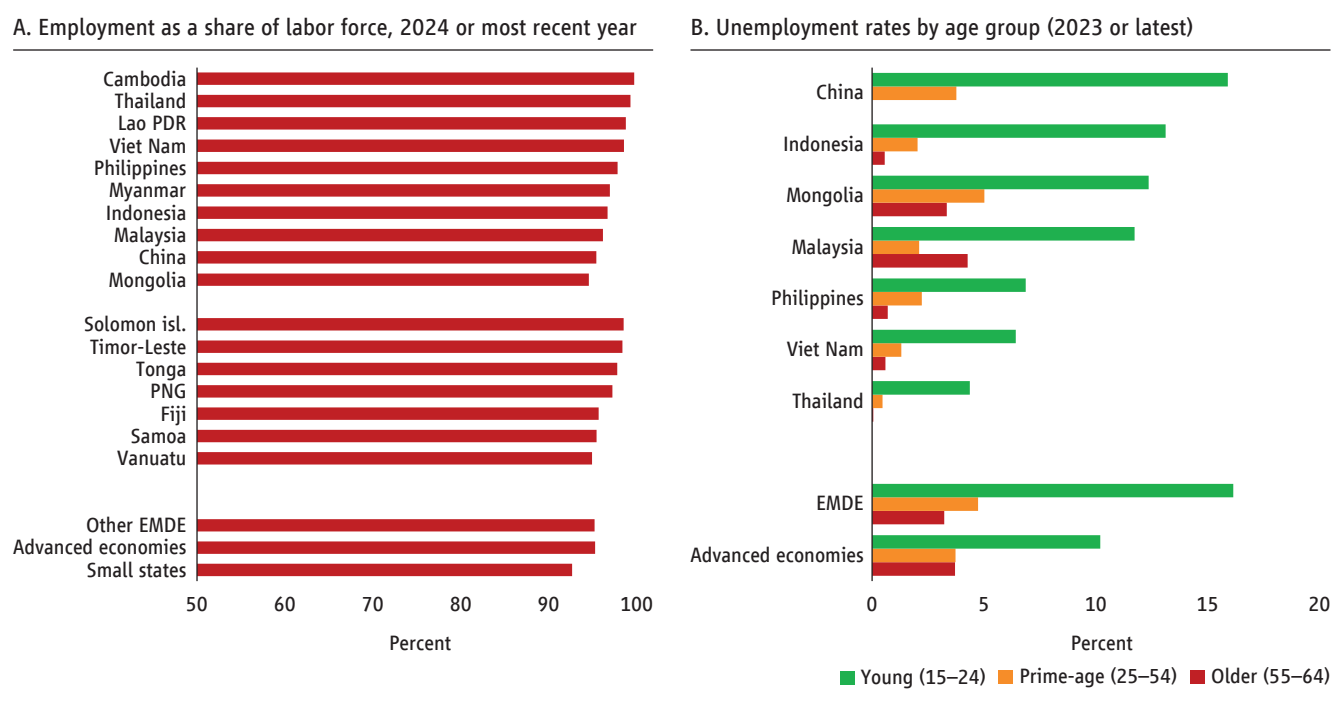
Jobs in EAP

Changes in technology, trade, and demographics are challenging the traditional model of export-led, labor-intensive growth in EAP. The spread of industrial robots, artificial intelligence (AI), and digitalization is boosting productivity and creating new jobs while displacing others. Increasing trade barriers are impacting countries' patterns of trade, and hence the structure of economies and employment. Contrasting demographic trends - aging populations in China and Malaysia and youth bulges in Indonesia and Cambodia – are shaping labor endowments. Altogether these complex changes will have far-reaching consequences for EAP labor markets.

► The jobs status

Most people in the EAP region who look for work find it. The overall employment rate is high compared to other regions, but young people struggle to find jobs in China, Indonesia and some other countries (figure O7). Labor force participation is low in several countries, especially in the Pacific and especially among women. In contrast to other developing regions, the working age population is shrinking in EAP as a whole – and projected to decline by 200 million between 2025 and 2050. However, there are differences within the region: China, Viet Nam and Thailand are aging, while the Philippines, Indonesia, and Cambodia are seeing youth bulges.

Figure O7. The employment rate is generally high in EAP, but the young are struggling to find jobs, especially in countries like China and Indonesia

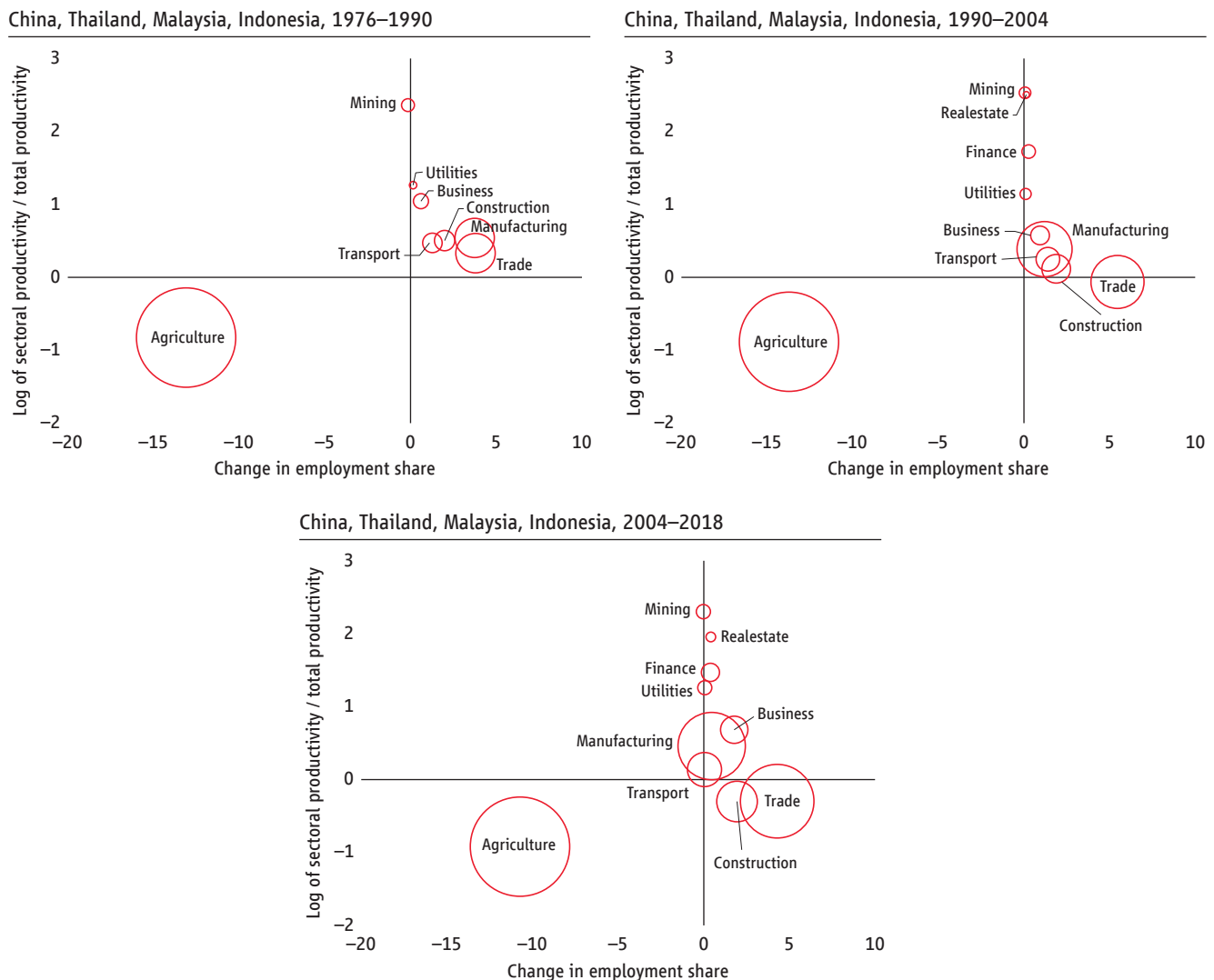


Source: Based on WDI, ILO.

Note: In Panel A, both employment and labor force are defined for the age 15+ population. In Panel B, China's prime-age refers age 25+.

Making jobs more productive is vital for most EAP economies since labor productivity remains relatively low and below the global average, except in China and Malaysia (figure O8). *Creating job opportunities* is important, not just for the young and women, but more broadly in the Pacific Islands as the share of the working-age population in employment is below the global average.

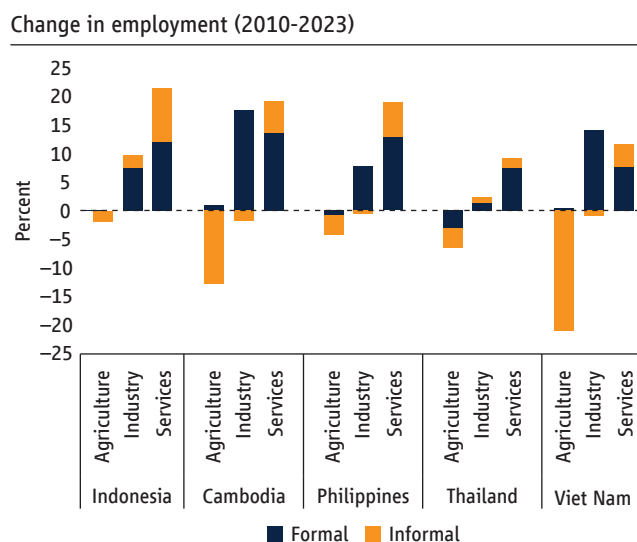
Figure O9. Workers are moving from low-skilled agriculture to low-wage services sectors, rather than to higher-skilled manufacturing as in the past...



Source: OECD, WDI

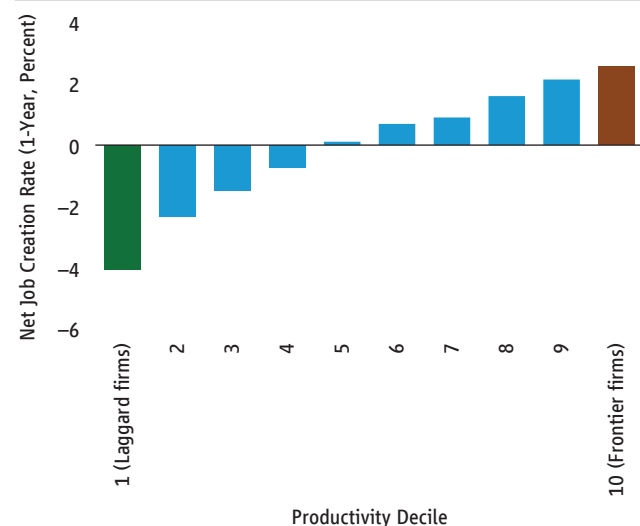
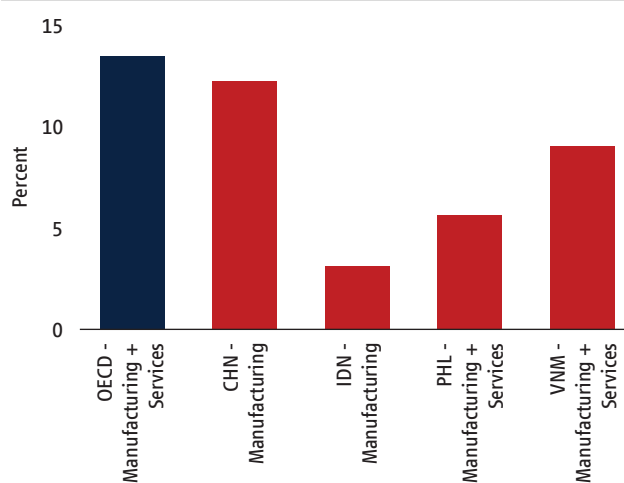
Note: figure shows average of China, Indonesia, Malaysia and Thailand. Bubble size denotes relative employment size in the initial year.

Apart from employment reallocation between sectors, EAP countries also do not seem to benefit fully from the reallocation of labor from less to more productive firms. On the positive side, less-productive firms within an industry do shed employment and the more-productive firms do increase employment (figure O11). And the relationship appears to strengthen toward the extremes of the productivity distribution—the laggard and frontier firms. However, the responsiveness of employment to productivity in EAP is low relative to benchmarks in more-flexible labor markets. For instance, a doubling of productivity in a firm leads to a 3 to 8 percent increase in employment in Indonesia, the Philippines and Viet Nam, compared to a 13 percent increase for the OECD.

Figure O10. ...and from agriculture to informal services jobs

Source: ILOSTAT

Note: Figure shows changes of employment compared to the total employment in 2010. Philippines show changes from 2012 to 2022.

Figure O11. Jobs are reallocated towards more productive firms in EAP, but the process creates fewer jobs than in the OECD**A. Net jobs creation rate after one year, by firm productivity decile****B. Responsiveness of employment to firm productivity**

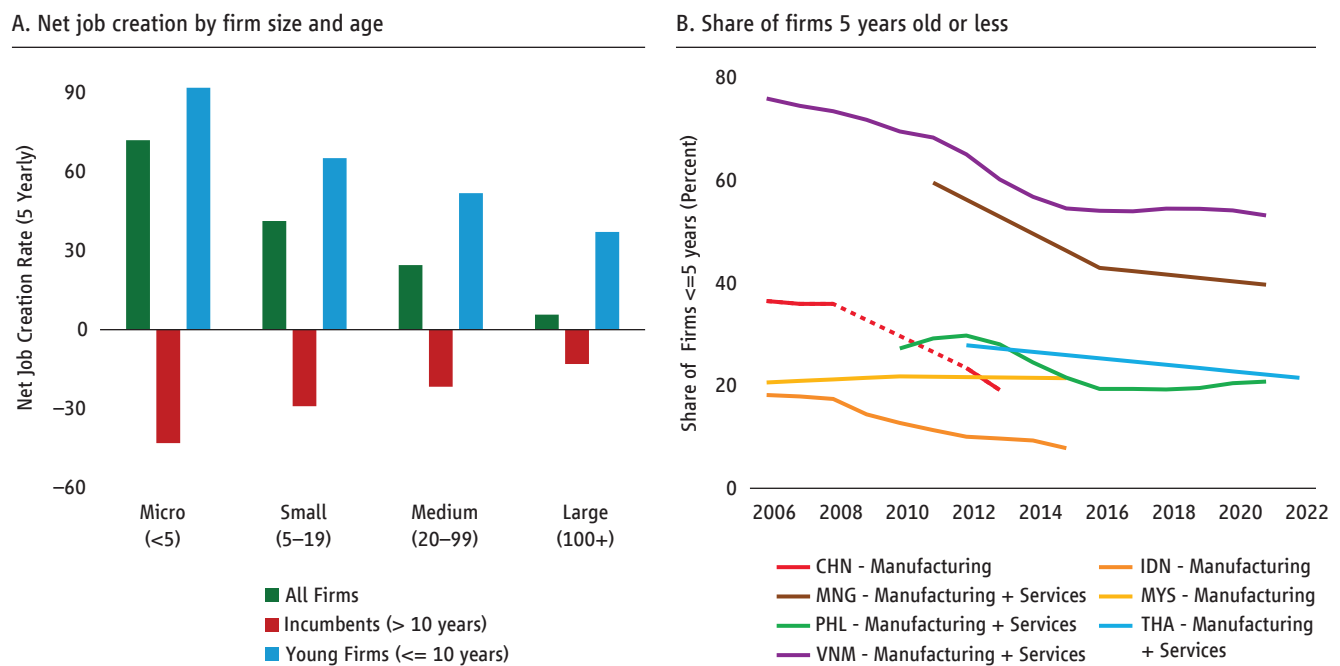
Sources: Based on statistical office data for EAP, OECD is from Calligaris et al. (2023)

Notes: Reflects firm regressions of 5-year changes in employment on 1-year change in total factor productivity, following the methodology of Calligaris et al. (2023). Regressions control for country-2-digit industry-year fixed effects, initial productivity groups, initial employment and 1-year change in employment. OECD estimates reflect the unweighted average of 9 OECD economies.

Young firms (5 years old or less) play an outsized role in job creation and destruction, but new enterprise entry rates have been declining in EAP. A common perception is that small firms are the main drivers of employment growth. In fact, it is firm age rather than size that matters most. In Malaysia and Viet Nam, young firms account for 57 percent of total employment but contribute 79 percent of job creation and only 52 percent of job destruction (through exit or downsizing) (figure O12).

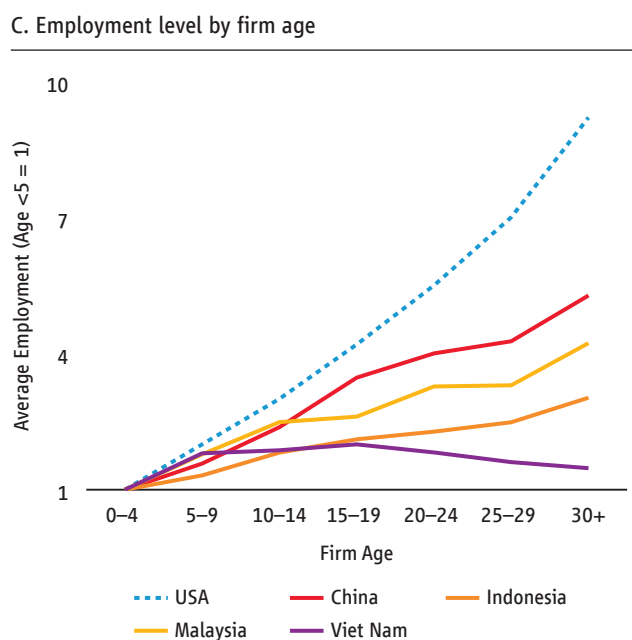
However, in the EAP countries for which we have firm-level data, the shares of young firms have fallen in all except Malaysia, reflecting the decline in firm entry rates. Furthermore, post-entry growth of startups is relatively slow in EAP. In flexible labor markets such as the United States, young firms follow “up-or-out” dynamics: the most productive expand rapidly, while the least productive quickly exit. In the US, surviving startups increase their employment sevenfold by age 30 (Figure O12C). In contrast, and acknowledging the vast differences in institutional, financial, and regulatory contexts, startups in China increase employment only fourfold, and in Viet Nam less than twofold.

Figure O12. Most jobs are created by young firms regardless of their size, but the share of young firms has been falling, and post-entry employment growth is relatively slow



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(Figure O12. continued)

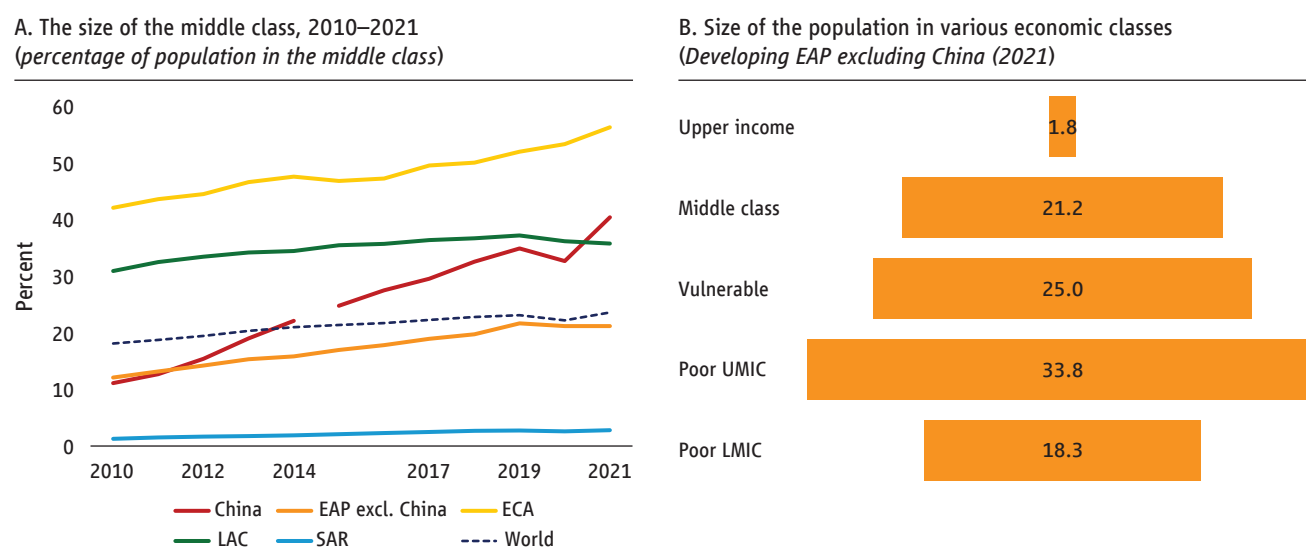


Note: A. Unweighted average of MYS manufacturing (2000-15), VNM manufacturing (2001-21), VNM services (2001-21). Regressions control for 2-digit industry and year fixed effects, with firm employment weights. Net job creation rate calculated following Davis et al. (1996). B. Vertical axis shows the unweighted average of the share of young firms (5 years old or less) within each two-digit industry. Malaysia data are only available for 2005, 2010 and 2015, Mongolia data for 2011, 2016, and 2021 and Thailand data for the years 2012 and 2022. All other data is available annually. Dotted lines for China reflect a linear interpolation between time periods observed in the data. C. The figure shows the evolution of average employment along the firm lifecycle, with the employment of the youngest age group is normalized to one. Following Hsieh and Klenow (2014), employment growth is estimated over 5 year periods for each age cohort, 2-digit industry and year, using value-added weights in each industry.

Evidence from several countries suggests that the presence of state-owned enterprises (SOEs) in a sector is associated with lower entry, job creation and productivity-enhancing resource reallocation. In Viet Nam, for example, the presence of SOEs is correlated with slower rates of firm entry. In China, Indonesia and Viet Nam, the net job creation of SOEs is on average 6 percentage points lower than of private firms in the same sector. In Indonesia, SOEs tend to exhibit lower productivity than private firms within the same manufacturing sector. Furthermore, the presence of SOEs is associated with reduced job creation and productivity of other firms in the sector.

Finally, the process of structural transformation and job creation is linked to the evolution and size of the middle class in the EAP region. First in Malaysia and Thailand, and more recently in China and Viet Nam, the movement of people from agriculture to more productive jobs in manufacturing and services, has led to the emergence of a middle class which includes more than 40 percent of the population. In most other countries in the region, where structural change has been slower or has involved movement to lower-productivity services jobs, more people inhabit the vulnerable class, in which people risk falling into poverty, than the middle class (figure O13).

Figure O13. The size of the middle class has grown in EAP over the last decade primarily due to progress in China; in much of the rest of the region, more people live in a state of vulnerability than in the middle class

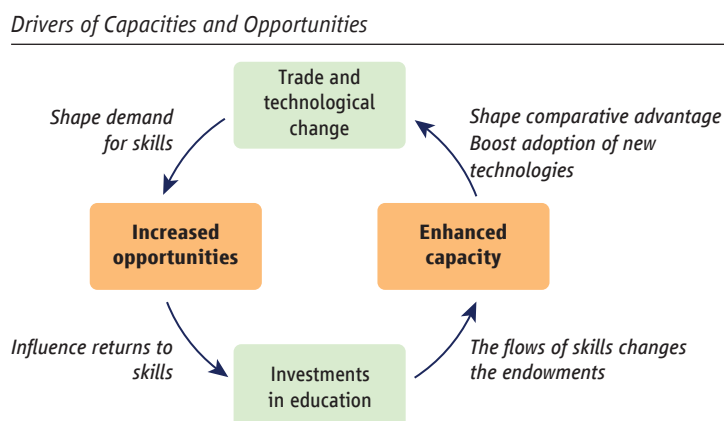


Sources: Krah, Montalva and Tiwari (2025)

Note: 1/ Individuals living below \$4.20/day are classified as "Poor LMIC" Individuals at or above \$4.20/day but below \$8.30/day are "Poor UMIC" Those who are not currently "Poor UMIC" but have a greater than 10 percent risk of becoming "Poor UMIC" are classified as "vulnerable," with per-capita income/consumption between \$8.30 and less than \$15/day. Individuals with per-capita income/consumption at or above \$15/day and below \$56/day are classified as the "middle class," and those with \$56/day or more as "upper income." 2 / The estimates are based on household living standards surveys in each country; where data are unavailable for specific years, values are obtained via interpolation or projections.

► Understanding key jobs-related issues in EAP

Economic opportunities and human capacities are interdependent, and jobs are the outcome of their dynamic interplay (figure O14). Today's opportunities depend on the existing stock of skills, which shape a country's comparative advantage (and hence trade patterns) and capacity for adopting new technologies. Future opportunities depend on current skill investments that determine how a country's skills stock evolves. Opportunities today and in the future are influenced by global developments in trade and technology as well as a country's trade, industrial and other policies. On the capacity side, the ability to acquire skills depends on access to and the quality of education and training services. These demand and supply factors create a complex dynamic in which skills investment is shaped by present and anticipated opportunities as well as by the capacity of skill creating institutions.

Figure O14. The dynamic interplay between capacities (skills supply) and opportunities (skills demand)

Source: World Bank staff's illustration.

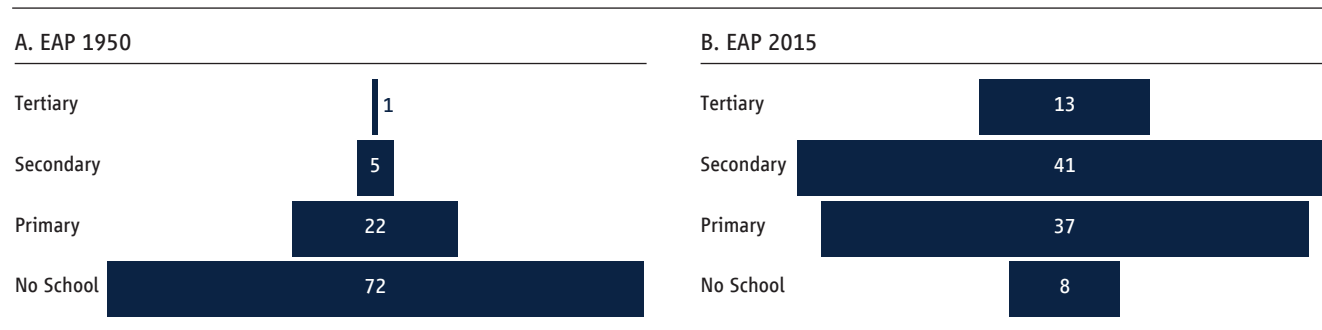
Development is fundamentally about enhancing a country's human capacities and increasing the sophistication of its economic activities. This can be illustrated by comparing three EAP countries, Cambodia, Viet Nam, and Malaysia. Each country demonstrates unique profiles of capacities and opportunities shaped by differences in endowments, trade integration, and technological sophistication. Cambodia primarily exports apparel, involving low-skilled tasks performed by its workforce which has largely received a weak basic education. Viet Nam assembles and exports sophisticated electronic and automotive products, supported by a workforce with strong foundational skills, though limited tertiary education. Malaysia tests, assembles and packages integrated circuits, relying on a tertiary-educated workforce capable of performing more technically demanding tasks.

Each country has made remarkable progress but aspires to enhance further the capacity of its workforce and the sophistication of its economic activity. But they face three types of problems: weaknesses in capacity, constraints on opportunity, and inadequate coordination between the two.

Capacity

EAP's improvements in human capital are nominally significant. Several EAP countries emulated the educational progress of today's high-income economies by: first, universalizing basic education, then expanding secondary education, and finally increasing tertiary access (figure O15). This pattern has been followed by the region's high-income economies like the Republic of Korea and Singapore, and thereafter by Thailand, Malaysia and Viet Nam. The least developed economies of Cambodia, Lao PDR and the Pacific have lagged in achieving universal basic education.

However, EAP's nominal educational upgrading can be deceptive, as more schooling does not always mean better skills. Significant gaps in education quality across EAP countries result in many children and youth missing out on the acquisition of foundational –literacy, numeracy, and socio-emotional— skills. In 14 of the region's 22 middle-income countries, more than half of 10-year-olds are unable to read and understand age-appropriate reading material – they experience learning poverty. While most EAP countries have expanded tertiary education over the last two decades, the workforce is lacking in the technical, digital and other job-specific skills needed in advanced manufacturing and services. The shares of the college-educated in the workforce remain below one third, and the quality of college education is also lagging in many EAP countries. Except for China and Malaysia, the share of graduates in STEM fields is lower than in more advanced economies.

Figure O15. Educational population structures in EAP and HICs, circa 1950-2015

Sources: Based on Barro and Lee (2013) dataset (online update 2021).

Notes: Figures show simple average across 8 EAP countries with more than 1 million population. Numbers are in the share of population aged 25 and 64.

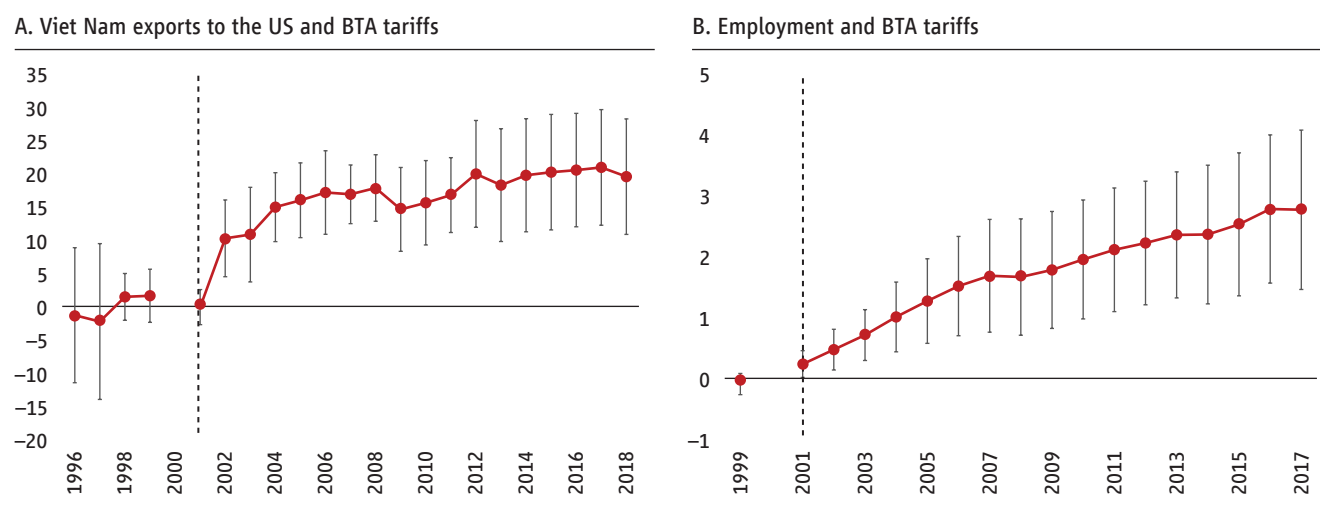
Opportunity

Economic opportunities for workers today are derived from what is produced and how it is produced. What is produced depends on the structure of an economy and its pattern of trade. How goods and services are produced depends on the technology used. Trade and technological change have been powerful drivers of development and higher productivity jobs but face constraints.

Trade

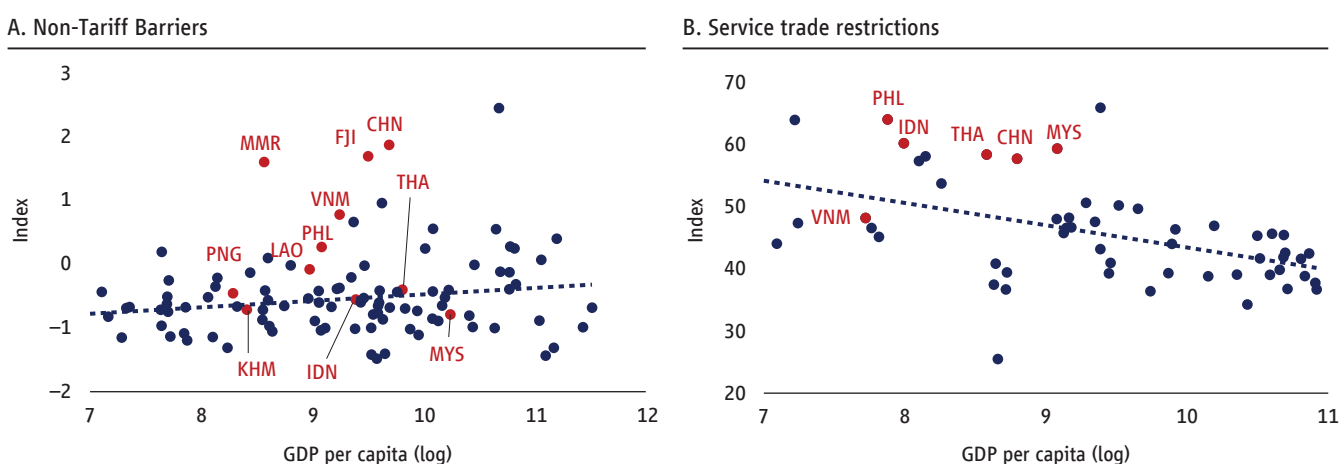
In the EAP region, trade has helped the shift of employment from low-productivity agriculture to higher productivity manufacturing. For instance, the reduction in US tariffs on Vietnamese exports to the US in 2001, from 32% to 3% on average, led to a surge in manufacturing exports. In the first 6 years after US tariffs reduction, total manufacturing employment grew 50 percent more in industries more exposed to the reduction, and twice as fast after 16 years (figure O16). Evidence from other South East Asian economies also illustrates how trade exposure has generally supported employment and wage growth, particularly in manufacturing.

The strong beneficial impact of trade does however have three less positive aspects. First, not all countries have seen productivity-enhancing structural transformation. For example, in Indonesia the share of manufacturing employment has remained virtually unchanged in the last three decades. Second, the gains from trade have not been evenly distributed within countries. While trade integration has boosted productivity and employment in core sectors, rural and lagging regions often remain excluded from these gains. The uneven distribution of benefits is reflected in the wage polarization between workers in GVC-linked firms and those in domestic-oriented or informal enterprises, and in the limited participation of SMEs in higher-value segments of the chain. Third, the increasing GVC exposure of EAP employment creates vulnerability to external shocks. In recent years, supply chain disruptions, as well as demand fluctuations or increased import barriers in major markets, have affected jobs, especially among low-skilled and informal workers.

Figure O16. Improved access to the US market boosted exports and jobs in affected industries in Viet Nam, as well as jobs

Source: McCaig, Pavnick, Wong (2025).

The opportunities offered by trade are limited not just by restrictions abroad but also by restrictions in EAP countries. While manufacturing tariffs are relatively low in EAP countries, non-tariff measures in manufacturing and restrictions on services trade limit competition (figure O17). Services trade restrictions are higher in most EAP countries than in countries at a similar level of development.

Figure O17. Most EAP countries restrict goods trade more than other economies at comparable levels of development, and even more so services trade

Source: Panel A: UNCTAD (2023), Panel B: World Bank (2024)

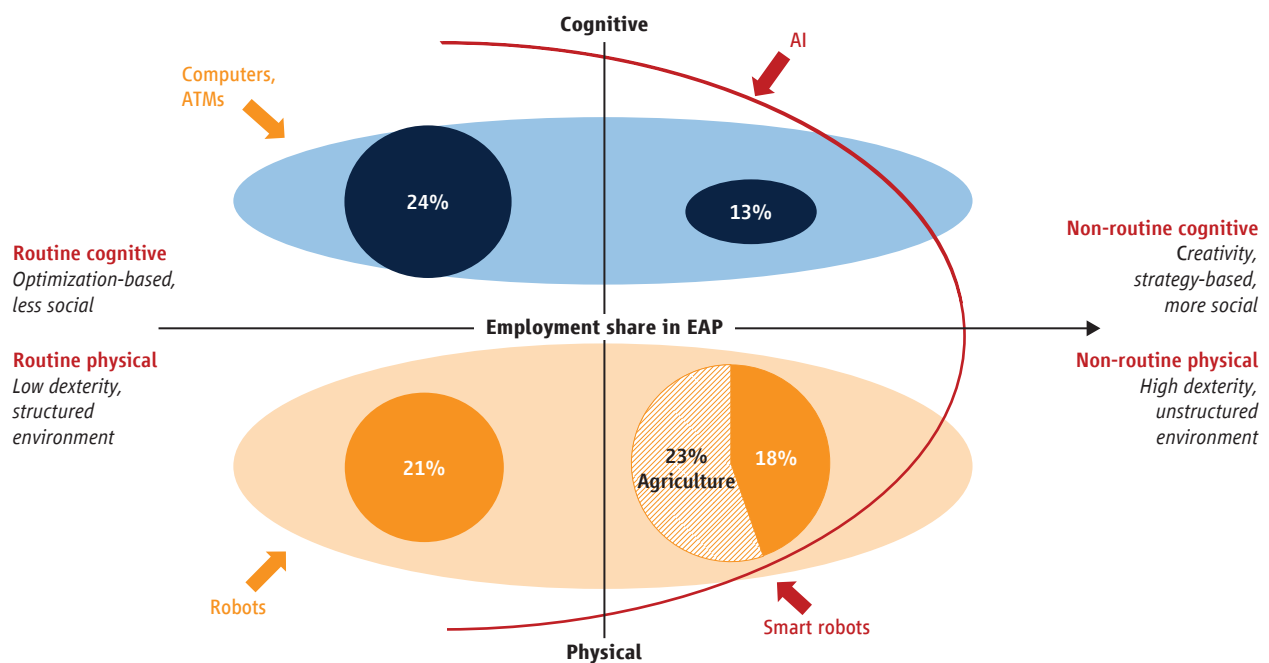
Note: Panel A shows the average difference between the number of border NTMs applied by an economy in each product and the average number of measures applied to that product based on TRAINS NTM data in 2021. Averages are computed by weighing each product by its importance in world trade.

Technology

How things are made affects the demand for labor and hence economic opportunity. There is strong evidence of the contribution of technological progress to productivity growth, including in EAP economies. For instance, the adoption of industrial robots has been shown to increase total factor productivity and value-added per worker. Whether an adopted technology leads to net job losses or gains depends on the balance between its displacement and productivity effects. The productivity effect originates from the lower production costs and prices from automation, which leads to higher product demand, greater output and therefore more jobs.

Robots and AI could affect many jobs in EAP, but differently than in advanced economies. EAP countries employ more people in agriculture and routine manual occupations and fewer people in cognitive task occupations (Figure O18). This occupational structure reflects successful industrialization in countries such as China, Malaysia, Thailand, and Viet Nam and the relatively weaker condition of services in the region. The adoption of new technologies also depends on their prices and the wages of the potentially affected workers.

Figure O18. Jobs in EAP are more exposed to robots and other automation technologies than to AI



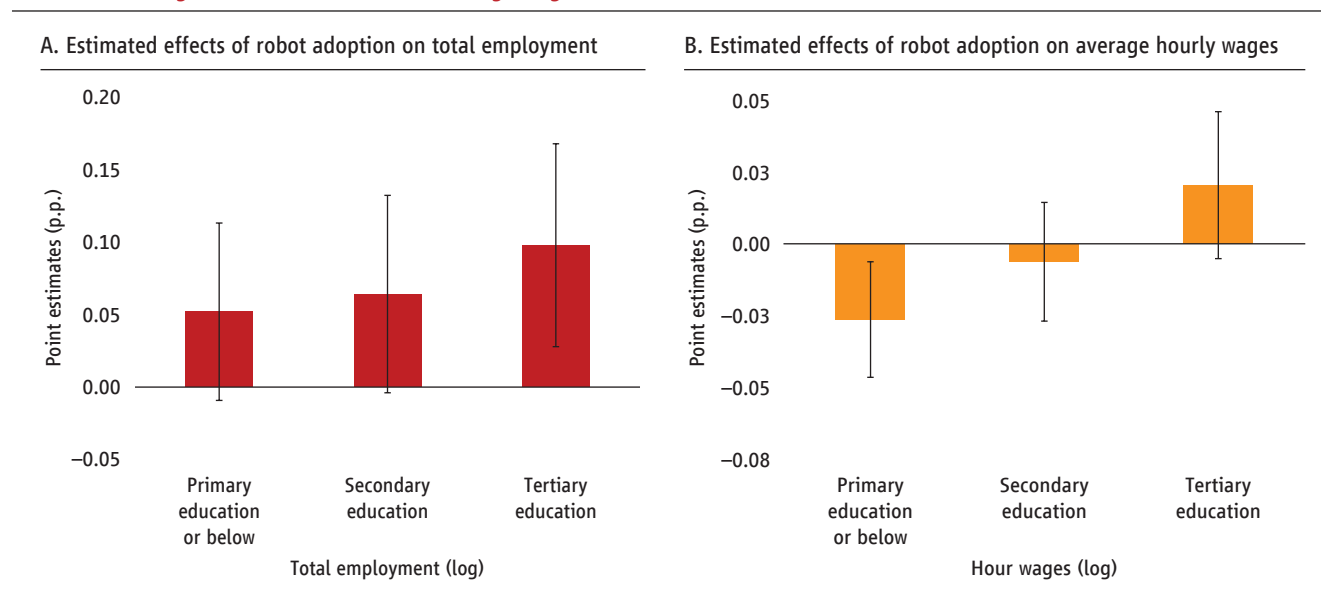
Sources: Arias et. al. (2025).

Note: Horizontal axis shows reversed Routine task intensity (RTI) index calculated following Acemoglu and Autor (2011); Vertical axis shows reversed nonroutine physical task content. Bubble size represents employment share in each industry across 6 EAP economies.

Contrary to the evidence from advanced economies, the analysis in Arias et al (2025) for five Southeast Asian economies (Indonesia, Malaysia, the Philippines, Thailand and Viet Nam) finds that robot adoption has boosted employment and labor earnings. In Viet Nam, for instance, an additional robot adopted per thousand workers raises the exposed district's total employment and average labor wages by approximately 6 to 9 percent and 2 to 4 percent, respectively. The reason for the overall positive impacts of robot adoption in these economies may be their comparative advantage in manufacturing and relatively small size, because of which firms face a high price elasticity of demand in global markets. This high elasticity means the productivity-driven reductions in costs and prices translate into big export-driven increases in the scale of production which offset the labor-saving effects of robots. China and Viet Nam, which have seen the most rapid growth in robot penetration, have also seen a faster rise in the share of exports and industrial employment.

However, the benefits of automation have not been evenly shared across all workers. ASEAN-5 locations experiencing greater robot adoption have seen increases in employment and earnings of the higher-educated, but lower average wages of the least-educated workers (figure O19). Between 2018 and 2022, industrial robot adoption created around 2 million jobs for skilled formal workers, but it also displaced 1.4 million low-skilled formal workers, in routine and manual jobs, across the five ASEAN countries studied.

Figure O19. ASEAN-5 locations experiencing greater robot adoption have seen increases in the employment and earnings of the higher-educated, but lower average wages of the least-educated workers



Source: Arias et. al. (2025).

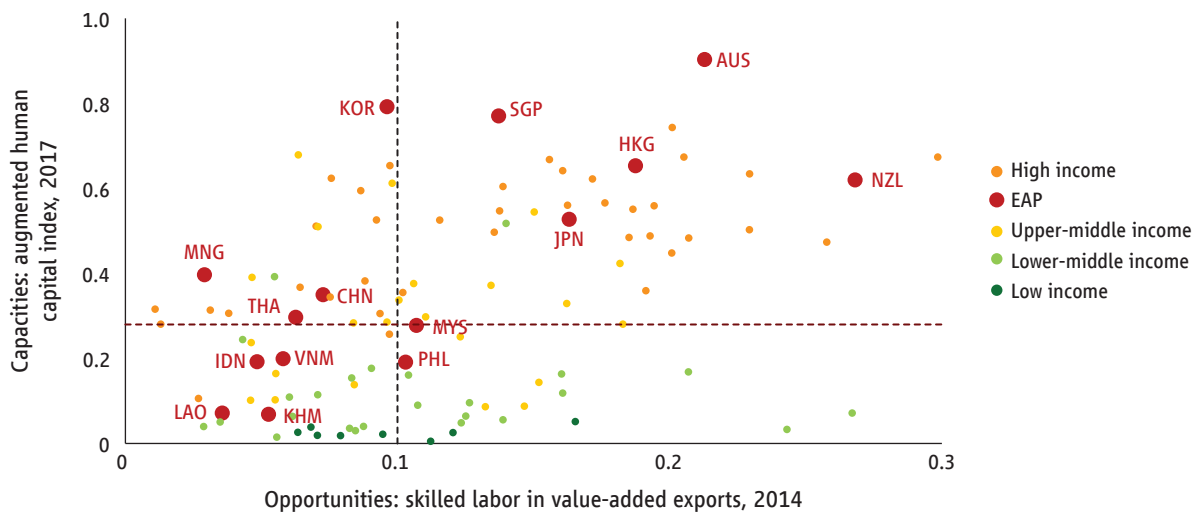
Notes: The figure shows 2SLS estimates of the effects of exposure to robots on local labor market outcomes in ASEAN-5 countries. Exposure to robots is measured as the interaction between the baseline employment composition by industry in each administrative divisions and robot adoption by industry-year in each country, and instrumented with global exposure to robots, following Acemoglu and Restrepo, (2020). See Arias et. al. (2025) for further details.

It is too early to assess the economic viability and actual rates of AI adoption as well as the impact on jobs. Only about 13 percent of jobs in Southeast Asian economies involve non-routine cognitive tasks, compared to the 39 percent share in advanced economies. These countries, thus, face a lower risk of job displacement by AI, but also stand to benefit less from this emerging technology. To reap the benefits of new technologies, EAP countries need to address the impediments to their adoption. The relative inertia of frontier firms in EAP may be because firms do not have adequate incentives, such as the spur of international competition, and because they lack the relevant capabilities, such as access to high quality skills and infrastructure.

Coordination

Figure O20 illustrates the relationship between capacities and opportunities across a wide set of economies in the development spectrum. The human capital index augmented by tertiary enrollment rates is used as an indicator of capacities or skills, while the skilled labor content of exports is a measure of opportunities or skills demand. Economies can be positioned in four quadrants: low opportunities and low capacities, which can reflect underdevelopment traps; high capacities without matching opportunities, which lead to skill underutilization; high opportunities without sufficient capacities, which manifest in skill shortages; high opportunities and high capacities, which are the result of a virtuous cycle of development.

Figure O20. The interplay between capacities and opportunities across the development spectrum



Source: WDI, Labor content of exports database (Cali et al. 2016)

The trade trap and innovation inertia

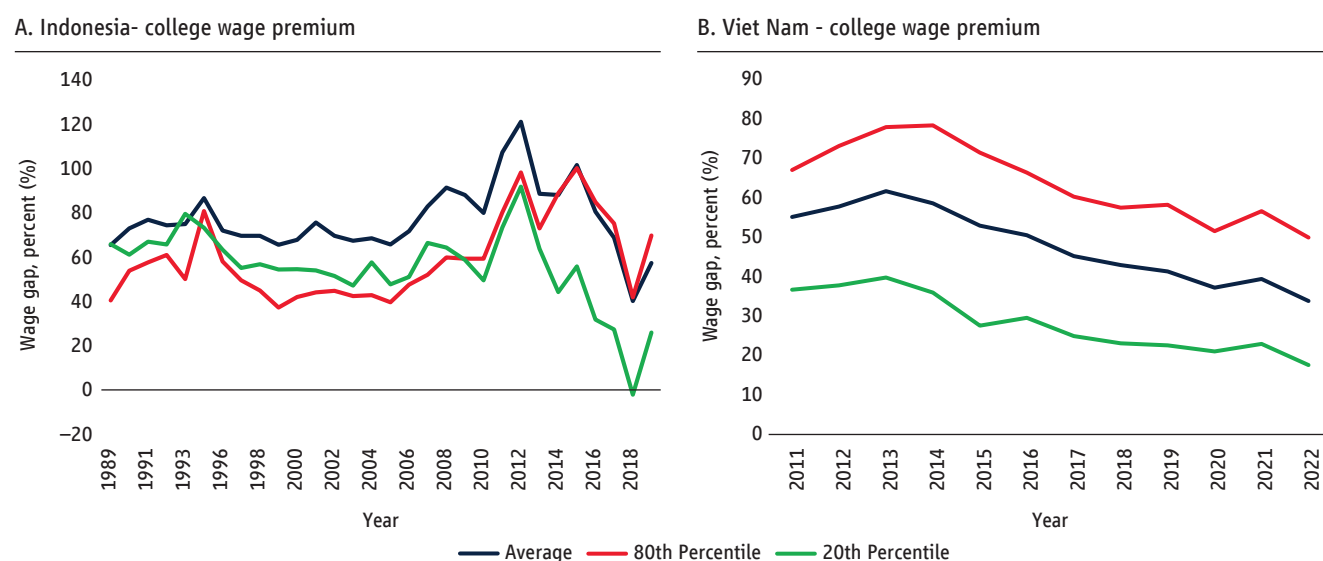
Trade and technological change have been powerful drivers of development and higher productivity jobs, especially in the EAP region as demonstrated by the experience of both high income and developing countries. But at least two types of problems can arise as a country seeks to develop, a *trade trap* and *innovation inertia*.

Consider a country that is relatively well-endowed with low- or middle-skilled workers. If trade creates more opportunities for that class of workers than for higher skilled workers, it can reduce the higher skill wage premium and the incentive for workers to acquire more sophisticated skills. For instance, a panel analysis of data spanning over 100 countries and 50 years finds that growth in less skill-intensive exports depresses average educational attainment while growth in skill-intensive exports increases schooling. The result may be a *trade trap* that locks countries into a particular stage of development, as may be the case in Cambodia and Lao PDR, and at a higher skill level, in Viet Nam.

Innovation inertia can arise from ignorance and uncertainty about technological developments, or credit constraints, which prevent individuals from anticipating and preparing for them. And because people do not invest in the necessary skills, firms cannot adopt the new technologies. Although the EAP region has experienced technology advances, most countries, except for China, underperform on several key indicators of innovation. Recent evidence shows that the region's most sophisticated firms are particularly far behind the most-sophisticated firms globally.

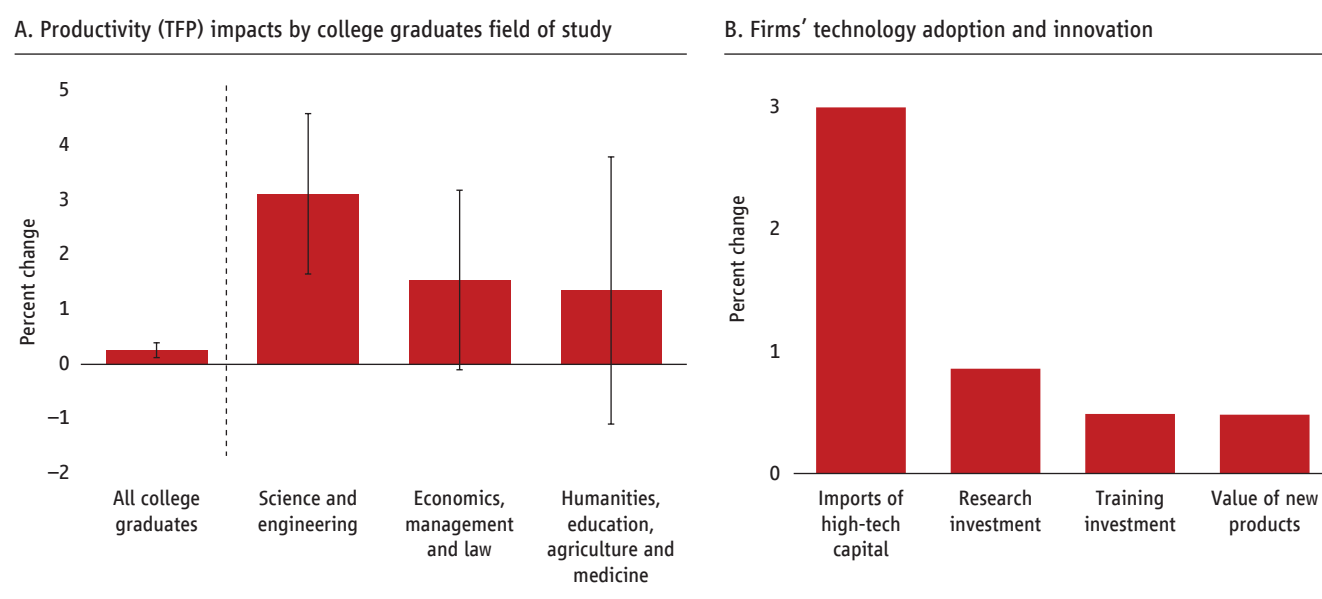
Dealing with these “chicken and egg” problems and breaking out of these traps without creating skills surpluses or shortages requires sophisticated coordination. Poorly synchronized policies can make the problem worse. On the trade front, changes in comparative advantage require an accumulation of skills by a critical share of the population, but this takes time. Since a period of skills development must precede the emergence of new opportunities, transitory underutilization of skills may be inevitable. The evolution of the college premium in Indonesia and Viet Nam, which has fallen in recent years (figure O21), may reflect the expansion of skills in some areas faster than the demand for them. On the technology front, changes in demand for skills can be abrupt and, where they have not been anticipated, transitory shortages are unavoidable.

Figure O21. Evolution of the college premium in selected EAP countries: opportunities seem not to be keeping pace with capacity in some countries



Source: World Bank staff's estimation using LFS microdata and the methodology of Katz and Murphy (1992).

Nevertheless, there is evidence that an exogenous expansion in the supply of skills can mitigate the risk of a trade trap and innovation inertia, by enabling a transition to higher value-added manufacturing and services and increasing the demand for and returns to skills. This has underpinned the successful economic transformations of today's high income EAP economies such as the Republic of Korea and Singapore. Recent studies show that in China the massive expansion of tertiary education since the early 2000s boosted the productivity, exports, and innovation of manufacturing firms (figure O22).

Figure O22. The expansion of tertiary education in China boosted firm productivity and innovation*Impacts of an increase in the share of tertiary-educated workers, between 1998-2002 and 2003-2007**Note:* Based on Che and Zhang (2017).

► Policy

While a broad range of policies affects jobs, this report focuses on reforms affecting opportunity, capacity and coordination. Reforms should focus first on eliminating impediments to entry and competition, which would allow dynamic and productive firms to flourish and create new job opportunities. Second, reforms should seek to support the common good by facilitating the building of human capital and infrastructure. Third, in some cases, policy may seek to do good by helping individuals and firms anticipate future developments and coordinate their actions, to ensure a match between job opportunities and people's skills.

Opportunity

Workers' opportunities are affected by policies at the national, industrial and individual level.

- Both domestic and foreign trade policies can lead to structural change that influences the sectoral allocation of workers and hence their productivity. Services reforms in Viet Nam are associated both with more than 5 percent growth in the productivity of frontier firms in these same sectors and with more than 10 percent productivity growth in the frontier downstream manufacturing firms.
- Industry level policies can affect the entry and exit of enterprises, the extent of competition between them, as well as the technologies they choose, and hence the derived demand for labor. Barriers to new enterprises entry can dampen options for workers by inhibiting the emergence of the most dynamic job-generating young firms.

- Barriers to worker mobility directly limit their opportunities. For example, in China and Viet Nam, the household registration systems have curtailed rural-urban migration, keeping many farmers in low-productivity agricultural jobs. In Indonesia, reducing barriers to internal mobility could lead to productivity and labor income gains of around 20 percent. Relatively rigid labor market regulations in some EAP countries can become impediments to hiring and therefore limit opportunities for new workers and for productive reallocation.
- Finally, misplaced taxes and subsidies can hurt job opportunities. Exemptions and allowances (for example, for depreciation) can lead to higher effective tax rates on labor than on capital complementary to automation technologies and thus favor excessive automation and sub-optimally lower employment.

Capacity

Improving human capital has at least four dimensions.

- First is fixing the foundation of basic skills on which more-advanced skills can be built. Investing in teacher training is estimated to produce benefits in terms of discounted lifetime earnings that are 10 times larger than the costs.
- Second is equipping future workers with the skills that complement new technologies as well as the ability to innovate. Investments in tertiary education, therefore, need to emphasize the development of workers' advanced cognitive, technical, and socioemotional skills.
- Third, is to invest in upskilling and reskilling to support lifelong learning and help workers manage labor market transitions. Training programs work best when they build transferable skills that align with new technologies like AI.
- Fourth, is enhancing the abilities of managers. Differences in management quality are an important contributor to productivity differences across countries, and recent research suggests that management quality can be improved.

Coordination

Coordination failures can inhibit the synchronized evolution of skills and opportunities. Five types of coordination would help workers.

- First, coordination failures may require more direct intervention for skills with positive externalities or nascent demand. The Republic of Korea and Singapore have used public-private partnerships to synchronize the skills supply and demand through long-term strategic planning, skills sector councils, and targeted subsidies.
- Second, digital job intermediation platforms, such as online job boards and freelance marketplaces, can facilitate matches and mobility. The existence of digital platforms has led to more efficient and lower cost of matching between buyers and sellers of products (e-commerce) and services (logistics, transportation, finance). Platform diffusion in Viet Nam increased the shares of small enterprises and self-employed workers.

- Third, coordinated migration could help with the demography related labor imbalances and yield mutual economic benefits. For aging economies, like Japan and the Republic of Korea, allowing some international workers from younger countries like Cambodia, Indonesia, and the Philippines could mitigate the negative growth effects of aging and meet their crucial need for old-age care workers.
- Fourth, there are gains from coordination in developing social protection schemes for workers outside of mandatory social insurance systems given the growing prevalence of gig work. Self-employed workers in Malaysia are willing to accept a slight reduction in their incomes in exchange for regular contributions to social insurance schemes, such as unemployment insurance and pensions.
- Finally, there is scope for coordination in the development of infrastructure that is needed for successful engagement in the digital economy. A suitable regulatory environment could help encourage private firms to collaborate in expanding high-speed network infrastructure.

I. Recent developments and outlook

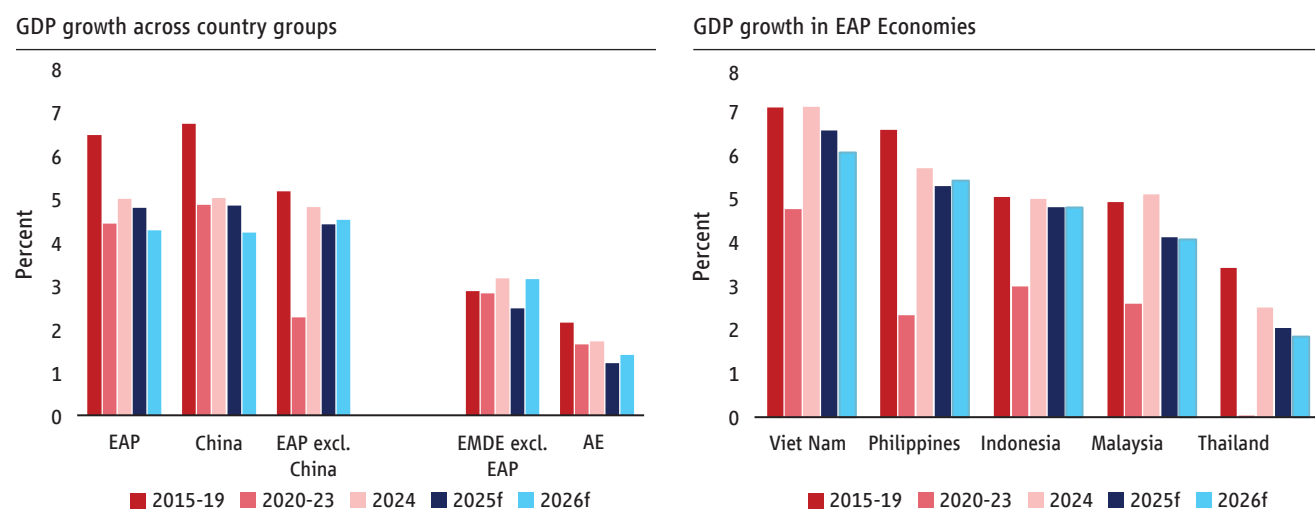
GDP growth in the East Asia and Pacific (EAP) region remains above the global average but is projected to slow down in 2025 and even further in 2026. The sluggishness is due to a less favorable external environment—rising trade restrictions, easing but still elevated global uncertainty, and slowing global growth—and persistent domestic difficulties.

Recent growth has been supported primarily by private consumption. But, while retail sales are growing steadily, consumer confidence remains below pre-COVID-19 levels. Moreover, private investment remains weak in many countries, due to raised policy uncertainty, high debt, and subdued business sentiment. Industrial production has expanded, but manufacturing PMIs point to future contractions. Exports have been strong, in part due to the increased front-loading of shipments in anticipation of higher tariffs, but new export orders are weak and will be susceptible to increased protection and exchange rate appreciation vis-à-vis the US dollar. Monetary policy remains supportive, amidst low inflation and improved financial conditions, while fiscal policy has been expansionary in China and Thailand. However, increased policy uncertainty, especially in Indonesia and Thailand could weigh on economic performance.

I.1. Recent developments

Growth in developing East Asia and Pacific (EAP) remains above the global average but it is set to slow down in 2025. China's economy is projected to grow by 4.8 percent in 2025, compared to 5.0 percent in 2024 (figure I.1; table I.1). The rest of the region is projected to grow by 4.4 percent in 2025, compared to 4.8 percent growth in 2024. The Pacific Island Countries are projected to grow by 2.7 percent in 2025, down from an estimated 3.3 percent in 2024. The slowdown reflects external factors, including rising trade barriers, elevated global economic policy uncertainty and slower global growth, as well as domestic factors, such as elevated political and policy uncertainty in some countries.

Figure I.1. Growth in EAP is projected to decline in 2025, and growth is unlikely to recover in 2026 in most countries



Source: World Bank

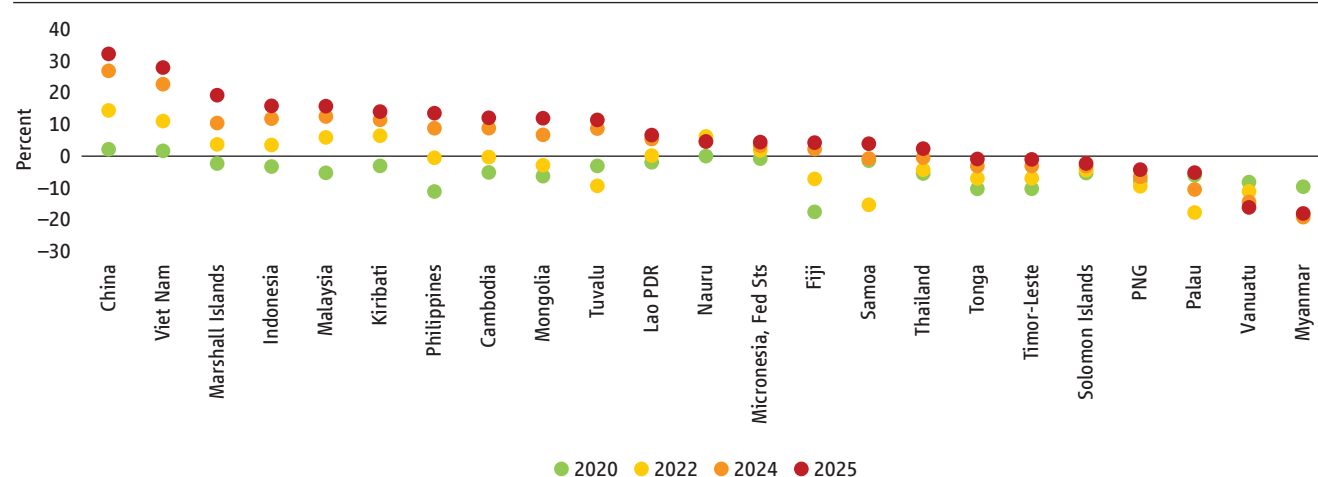
Growth in the region is projected to slow even further to 4.3 percent in 2026. That is mostly because growth in China, the region's largest economy, is projected to decline from 4.8 percent this year to 4.2 percent in 2026. China's growth in 2025 is being supported by exports in the early part of the year and continued strength in manufacturing production. But growth is expected to slow down in 2026, because of an expected slowdown in export growth and a likely reduction in the fiscal stimulus in light of rising public debt, as well as continued structural deceleration. Recently signaled support for consumers may lift short-term growth but longer-term growth will depend on deeper structural reforms.

The rest of the EAP region is forecast to grow at 4.5 percent in 2026 as global economic policy uncertainty dissipates and global economic growth rebounds. Growth in the Pacific Island Countries is projected to increase to 2.8 percent in 2026 as the global economy recovers and tourism improves.

While output per capita has surpassed pre-pandemic levels in most of the larger EAP economies, recovery has been uneven across the region. Per capita output in China and Viet Nam is now about 30 percent higher than in 2019. But by 2025 output remained below 2019 levels in several Pacific Island countries (PICs) as well as in Myanmar (figure I.2). The slow recovery in PICs has been exacerbated by natural disasters, including severe cyclones in 2023 and a significant earthquake in 2024 in Vanuatu. Meanwhile, Myanmar's economy continues to be affected by political instability and conflict, while a recent earthquake has had significant human costs and caused widespread infrastructure damage.

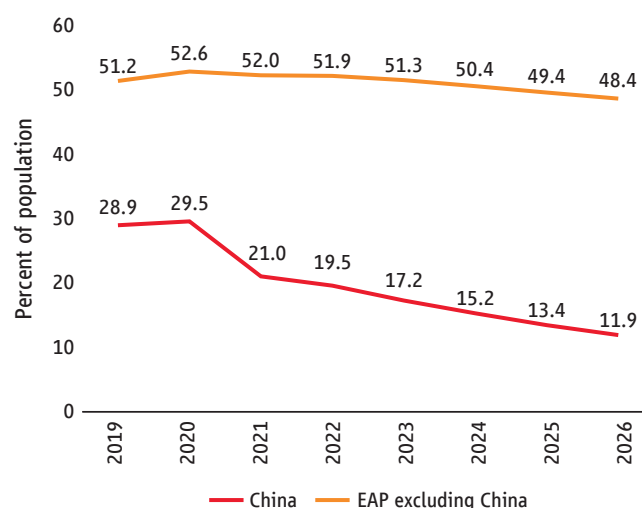
Figure I.2. While output per capita is well above pre-pandemic levels in most of the larger economies, it remains below those levels in several Pacific Island Countries and Myanmar

GDP per capita compared to 2019



Source: World Economic Outlook Database, April 2025, IMF. World Bank staff estimates.

Poverty rates in the region continue to decline. In China, the pace of poverty reduction is expected to slow in 2025 compared to 2024, based on the upper-middle-income poverty line (US\$8.30/day, 2021 PPP). The poverty rate is projected to fall from 15.2 percent in 2024 to 13.4 percent in 2025, with an estimated 23 million people escaping poverty (figure I.3). In the rest of the region, the projected rate of poverty reduction in 2025 is about two-thirds that of China's. Looking ahead, the region's 2026 growth outlook suggests a moderate slowdown in poverty reduction. Overall, about 25 million people in the region are expected to escape poverty between 2025 and 2026, further contributing to the rise of a more sizeable middle class.

Figure I.3. Poverty rates are expected to decline further

Source: World Bank staff's estimation.

Note: Poverty estimates are based on growth forecasts, population projections, and historical growth elasticities of poverty. The estimates presented are based on the 2021 purchasing power parity (PPP) conversion factors and the upper-middle-income poverty line of US\$8.30 per person per day, while earlier estimates were estimated against the US\$6.85 line in 2017 PPP factors.

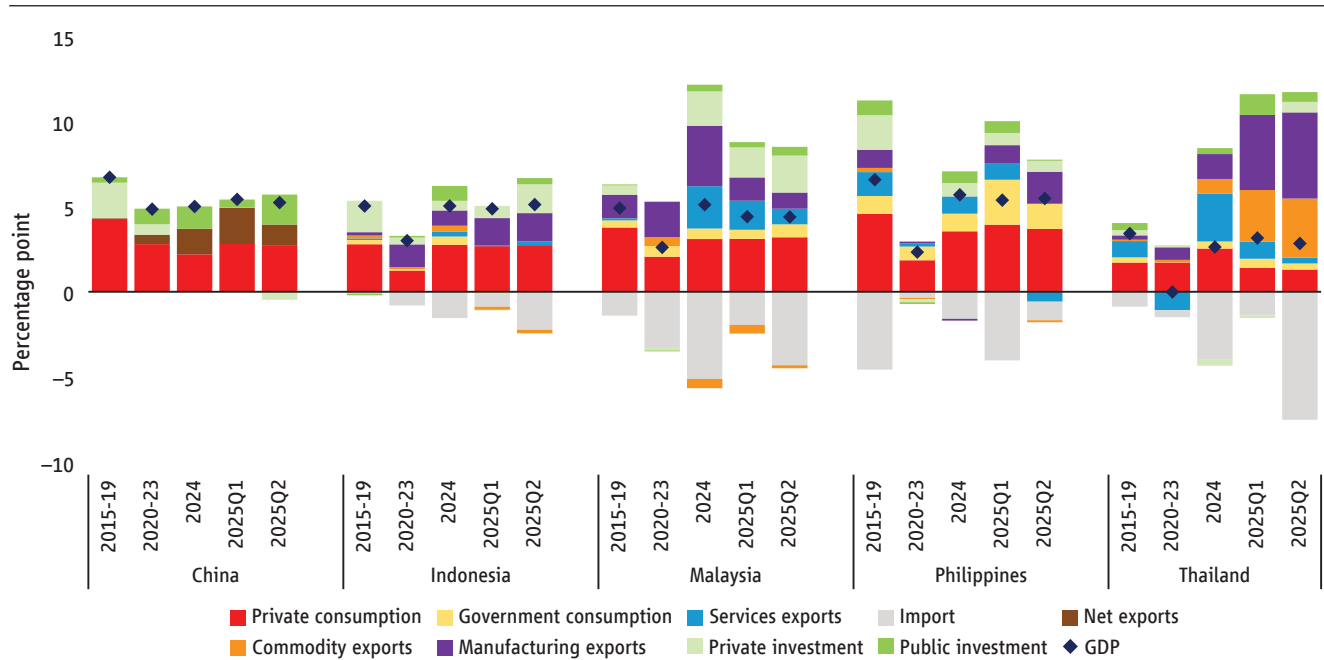
► Components of demand

Private consumption supported growth in all major economies during the first half of 2025, but its contribution has been declining in Thailand (figure I.4). Manufacturing exports have supported growth in Indonesia, the Philippines, and Thailand possibly reflecting the front loading before the US tariff increase. Meanwhile, contributions of services exports have shrunk across the economies. Public investment has supported growth in China, while the contribution of private investment has been limited, except in Indonesia and Malaysia.

Consumption

Consumption has been an important driver of growth in East Asia, with retail sales continuing to expand across the region and remaining above pre-pandemic levels in several economies (figure I.5). However, consumer confidence remains weaker than before the pandemic, and elevated policy uncertainty together with high household debt in some countries—notably Thailand, China, and Malaysia—pose risks to the durability of consumption growth (World Bank, 2025). These factors suggest that while consumption will continue to support activity in the near term, its contribution to growth is likely to remain more modest than in the past.

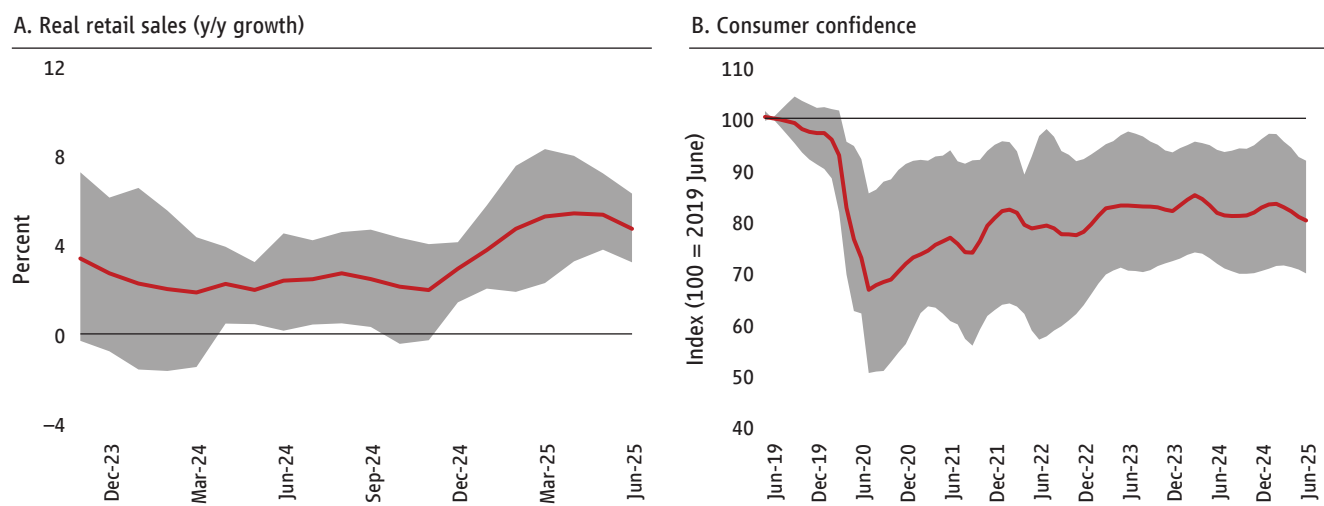
Figure I.4. Consumption supporting growth, but contribution declining; exports surged in anticipation of tariffs while private investment remained weak in some countries



Source: Have Analytics; World Bank staff estimates

Notes: The red bar for China denotes total final consumption and includes household and government consumption.

Figure I.5. Retail sales have continued to increase but consumer confidence remains below pre-Covid trends across the region



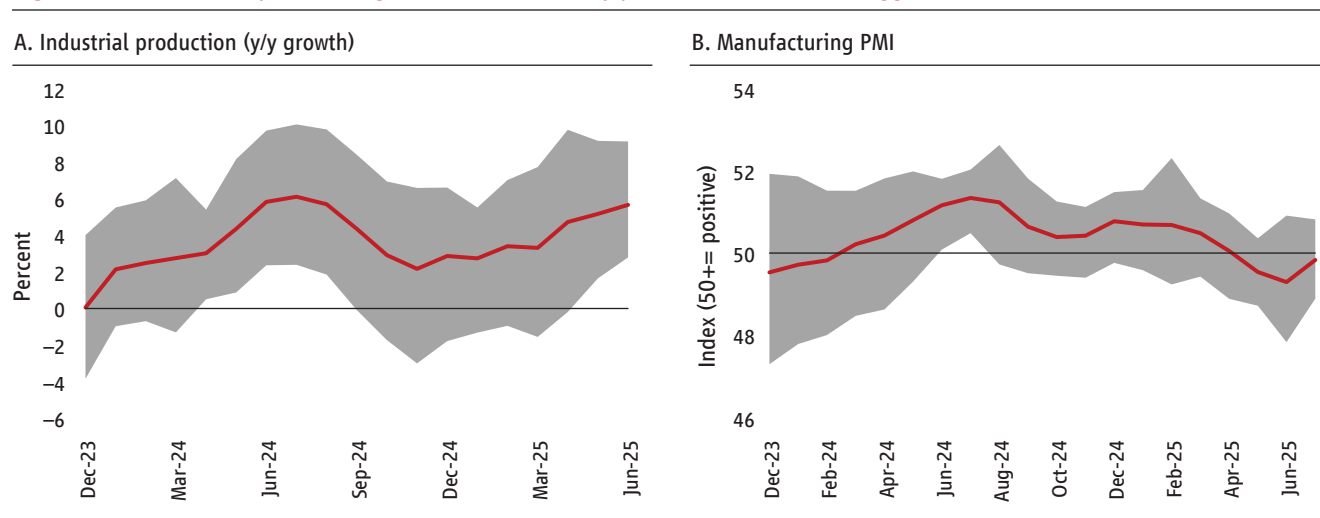
Source: Have Analytics

Note: Redline shows the average of China and ASEAN-5 countries. Gray area shows 25th-75th range. 3-month moving average

Industrial production and investment

Industrial production has been growing on a year-over-year basis in several East Asian economies. Malaysia, Viet Nam, and the Philippines have benefited from a pickup in semiconductor production and exports, particularly in data centers and AI-related demand. By contrast, manufacturing PMIs across the region have edged down, with headline indices in many markets slipping below the neutral 50 threshold and new orders remaining subdued (figure I.6). Taken together, the strength in industrial output suggests resilience in current activity, while the softer PMI readings suggest worsening sentiment.

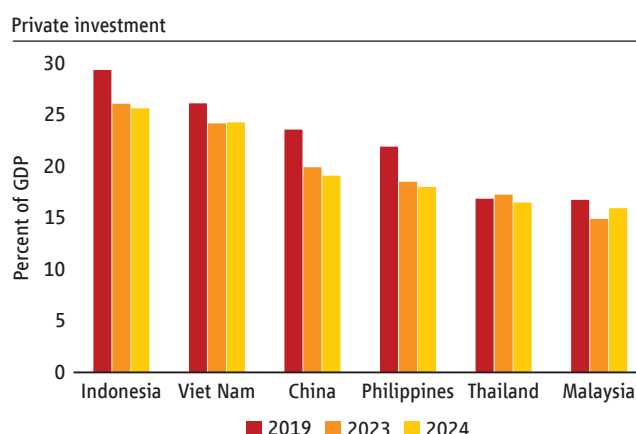
Figure I.6. Industrial production growth has been mostly positive, but PMI index suggests contraction



Source: Haver Analytics

Note: Redline shows the average of China and ASEAN-5 countries. Gray area shows 25th-75th range. 3-month moving average

Private investment remains below pre-pandemic levels in most economies due to high debt, tighter credit, and policy uncertainty (Figure I.7). In 2024, China's private investment declined, with gains in manufacturing investment partly offsetting declines in real estate investment. Thailand saw a decline amid tighter credit, while Malaysia recorded growth supported by foreign investment in ICT and manufacturing. Public investment in China, Indonesia, and the Philippines helped partly offset private-sector weakness. High debt and continued policy uncertainty abroad are likely to limit investment growth going forward.

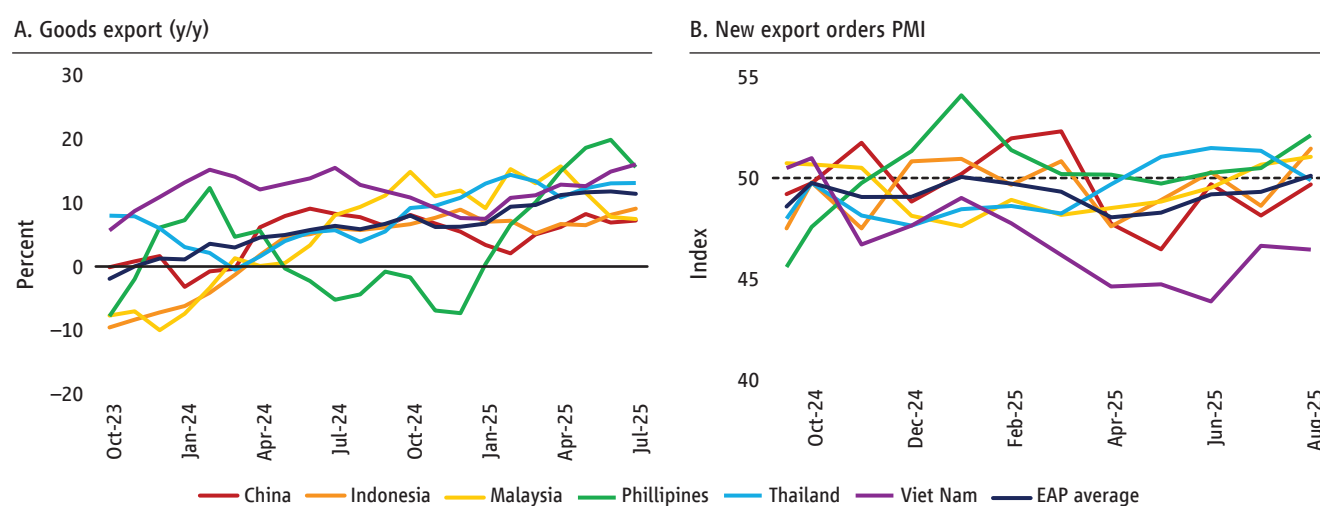
Figure I.7. Private investment was weaker than in the pre-pandemic period across the region

Sources: Haver Analytics; Government Finance Statistics; World Bank staff estimates. Philippines Quarterly Fiscal Program; World Development Indicators; World Bank staff estimates.

Note: A. Other than Thailand and Malaysia, private investment are estimated by using fixed assets investment statistics.

Exports

In 2025, goods exports across East Asia showed generally positive trends, though new export orders remain subdued (figure I.8). China's merchandise exports grew 6.1% year-on-year in the first seven months, supported by strong external demand. Viet Nam's exports rose 14% in July, largely driven by electronics, while the Philippines saw a 26.1% jump, boosted by higher gold shipments. Exports also increased in Indonesia (up 9.7% in May), Malaysia (manufactured goods up 9% in July), and Thailand (up 11% in July), reflecting a mix of electronics, machinery, and pre-tariff shipments. Despite these gains, rising subsidies, tariffs, and export restrictions in many G-20 economies continue to pose potential headwinds for future growth.

Figure I.8. Exports accelerated, possibly due to anticipation of additional tariffs; But new export orders remain weak

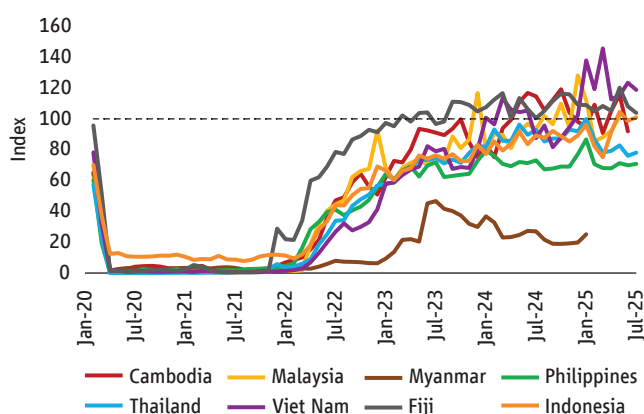
Source: Haver Analytics.

Note: A. 3-month moving average

Tourism

Travel-related services and tourist arrivals have recovered to pre-pandemic levels in some countries but remain below them in others (figure I.9). Cambodia, Fiji, Malaysia, and Viet Nam have seen arrivals return to or exceed pre-pandemic numbers, while in other East Asian and Pacific economies, arrivals have plateaued, in part due to the slower rebound of China's outbound tourism. In addition, discretionary spending by tourists remains below pre-pandemic levels in countries such as Thailand and Cambodia, limiting the overall contribution of travel to domestic economic activity.

Figure I.9. Tourist arrivals have peaked below the pre-pandemic level in some countries



Source: Haver Analytics

Financial sector developments

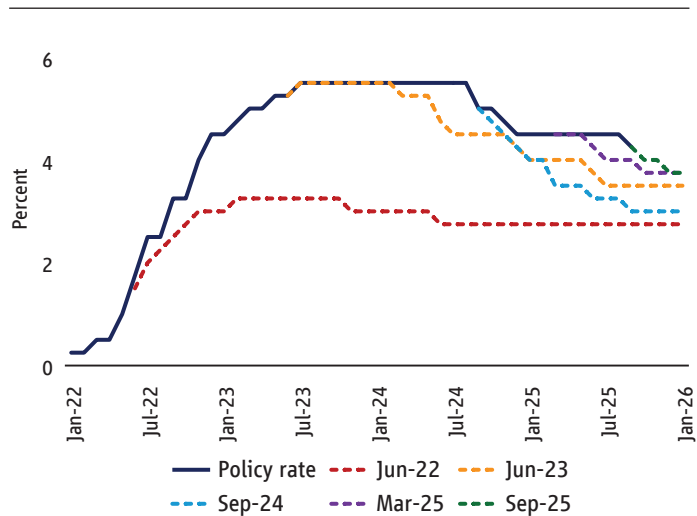
Global financial markets have so far defied recent policy turbulence. Therefore, even as EAP countries face real challenges, they are experiencing more benign financial conditions. Central banks in major advanced economies have lowered policy rates (figure I.10). And, in the region, sovereign spreads have tightened since April.

Interest rates, capital flows and exchange rates dynamics

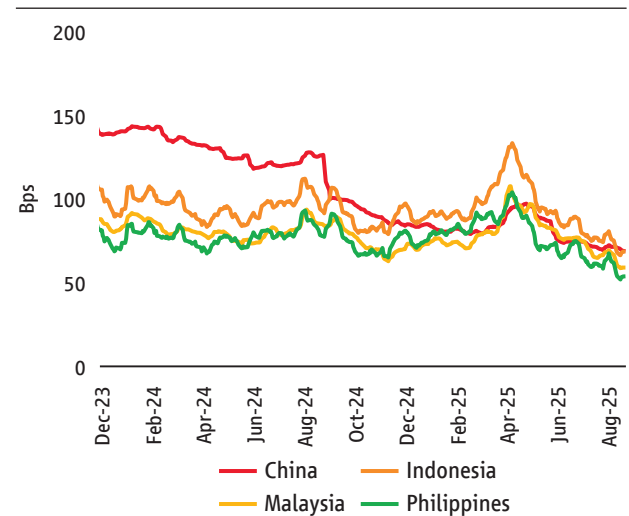
At the same time, real interest rates in the region are now higher than those in advanced economies and capital inflows have increased. As policy rates in advanced economies decline, their real interest rates have fallen. Nominal interest rates in EAP are trending down, though they remain relatively high in Indonesia and the Philippines compared to other ASEAN-5 countries and China. But inflation in the region's economies continues to decline even faster than declines in policy rates. The combination of lower rates abroad and easing inflation at home has resulted in higher real interest rates in EAP compared to advanced economies, leading to higher capital inflows and creating more monetary policy space to pursue expansionary policies (figure I.11).

Figure I.10. Financial conditions have improved as expectation of further US policy rate reductions have increased and sovereign spreads in EAP economies have declined

A. Expectation of Fed funds target rate



B. Sovereign spreads, selected EAP economies

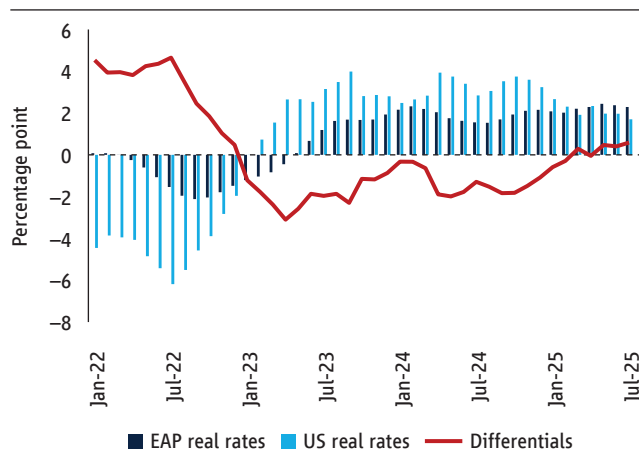


Source: JP Morgan; CME FedWatch

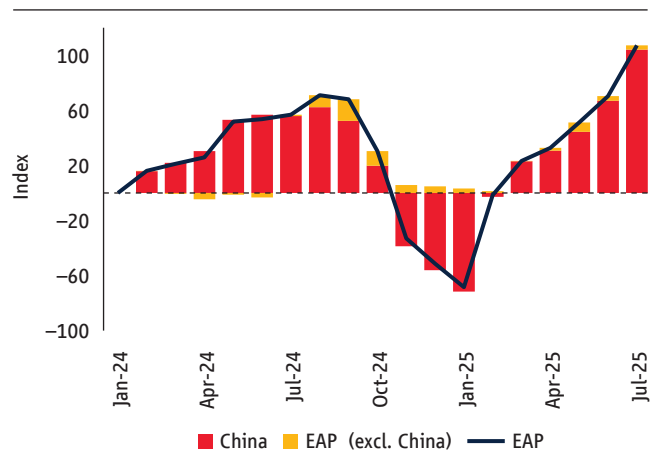
Note: B. Figure shows Emerging Markets Bond Index (EMBI) split spreads

Figure I.11. Real interest differentials with advanced economies are increasing, leading to capital inflows

A. EAP and US real interest rates



B. Cumulative Capital Flows

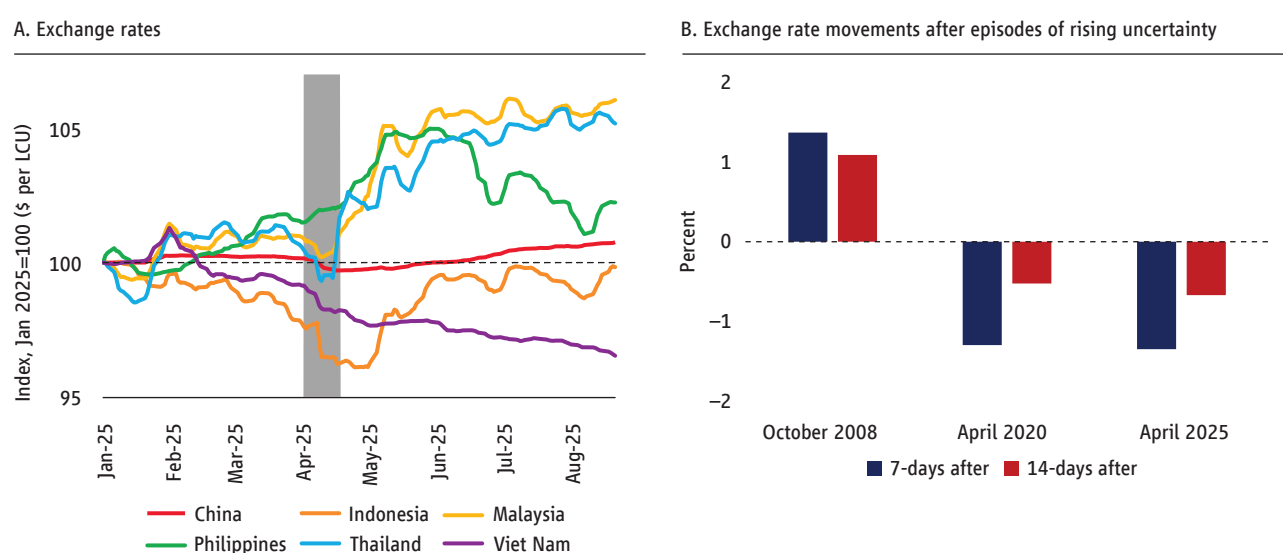


Data source: Haver Analytics

Note: Viet Nam's capital flow series covers equities only. The Philippines' debt data are unavailable from October 2024 through July 2025.

However, a notable development that could further add to the headwinds for the EAP countries comes from the movement of exchange rates. Contrary to expectations, following the announcement of the new US tariffs, the US dollar depreciated against most other currencies (including most EAP countries' currencies, except for Viet Nam (figure I.12; Box I.B1). This is the opposite of what happened at the height of the Global Financial crisis in the Fall of 2008, when the US dollar appreciated significantly in the international markets. The resulting appreciation of most regional currencies vis-a-vis the dollar could erode export competitiveness. Therefore, the net impact of these financial sector developments is not yet clear.

Figure I.12. Currencies in the region's economies, except in Viet Nam, appreciated, contrary to expectations

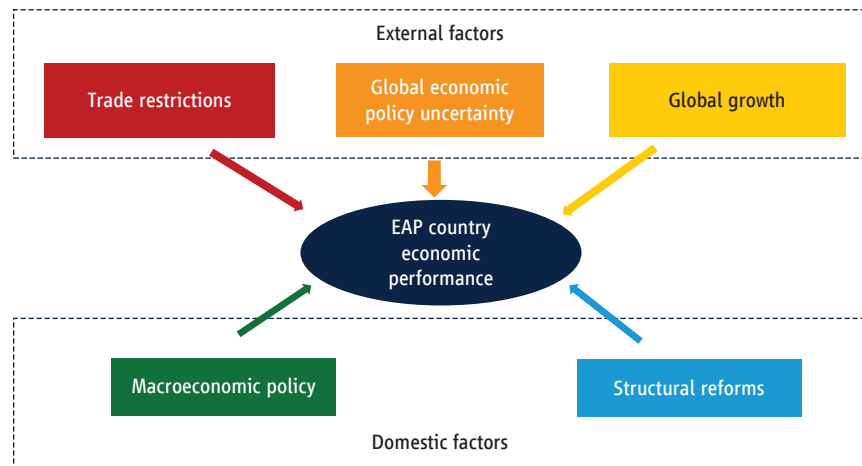


Source: Haver Analytics

Note: B. Bars show cumulative exchange rate changes following identified uncertainty episodes. Episodes are defined following Bloom (2009) as dates when the uncertainty measure exceeds 1.65 standard deviations above its Hodrick–Prescott–detrended ($\lambda = 129,600$) mean, using daily VIX, U.S. EPU, and U.S. TPU series for 1990–2025.

▸ Factors affecting growth

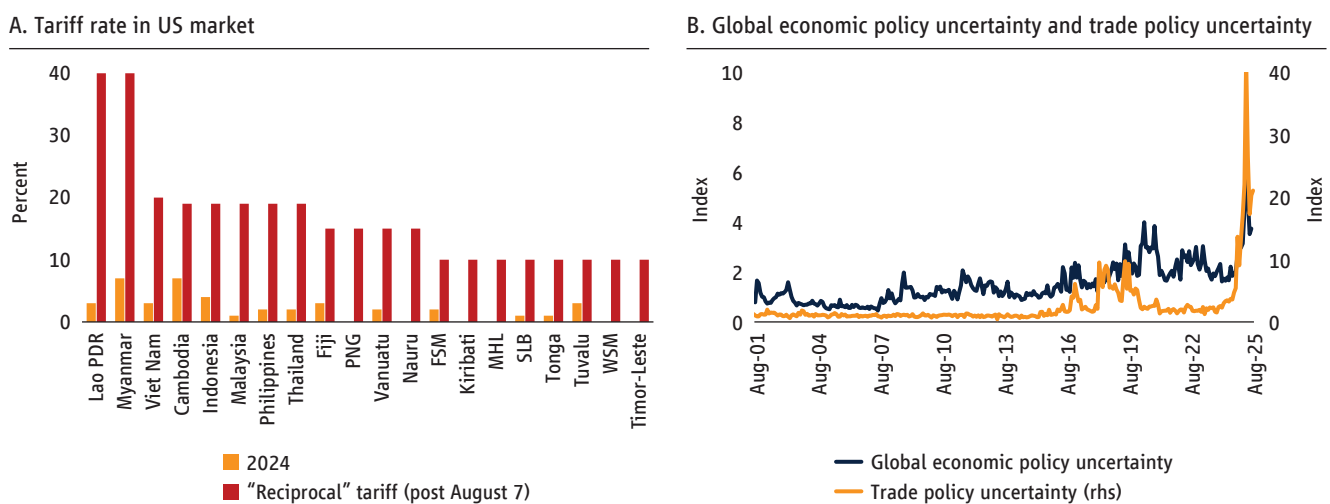
Three external developments - increased trade restrictions, heightened global economic policy uncertainty, and slowing global growth – are influencing growth performance in the region. At the same time, domestic policy choices, especially the reliance in some countries on fiscal stimulus rather than structural reform, are likely to shape near and longer-term growth outcomes (figure I.13).

Figure I.13. Both external and domestic factors are shaping near-term economic performance in EAP countries

Source: World Bank staff illustration.

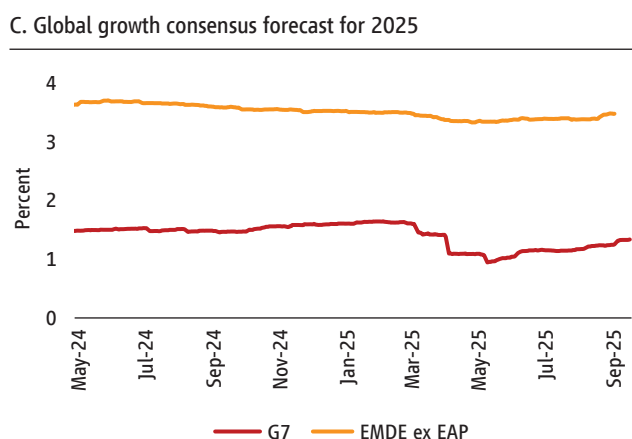
External factors

The external environment remains challenging for developing EAP economies. First, the United States, a key trading partner, has recently introduced “reciprocal tariffs.” Second, economic policy uncertainty, especially regarding trade policy, remains high: a news-based index reached its highest level since 1997 in June 2025 and, though it has eased slightly, remains well above the historical mean. Third, global growth prospects have softened, with 2025 forecasts for the G7 and for emerging markets and developing economies revised down since January (figure I.14).

Figure I.14. Compared to April 2025, EAP countries are facing higher tariffs, lower but still high trade policy uncertainty, and slower global growth

(continued)

(Figure I.14. continued)



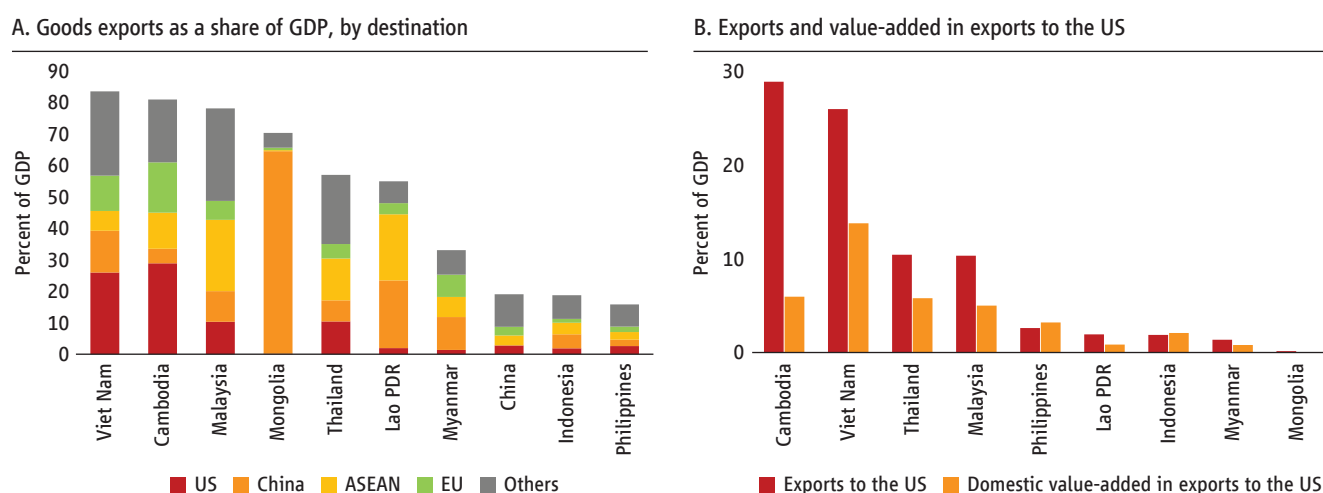
Source: Caldara et al. (2020); World Bank; Consensus forecasts

Note: A. US “reciprocal” tariff announced on August 1 and export weighted MFN tariffs in 2024 (trade weights of 2023). B. Trade policy uncertainty index tracks frequency of uncertainty-related articles in major English language newspapers. The indices for global economic uncertainty and trade policy uncertainty are normalized such that 1 equals their 2000–2015 average.

Higher trade restrictions

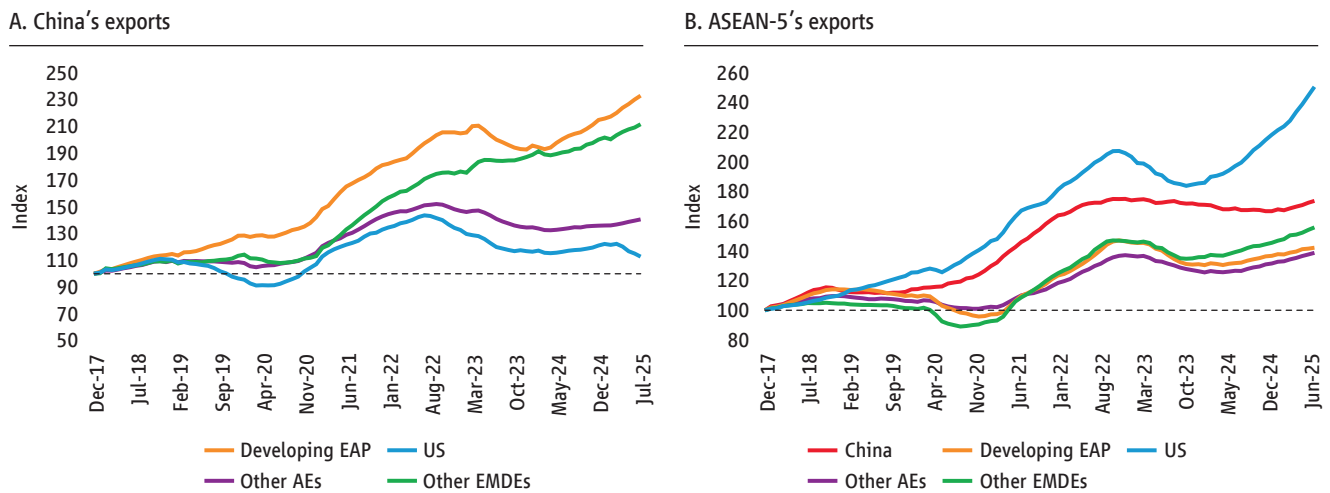
The rising trend in trade barriers poses a significant challenge for the EAP economies, which are particularly vulnerable to shifts in external demand. Cambodia and Viet Nam are especially exposed to changes in access to the US market, followed by Thailand and Malaysia—though the exposure in terms of value-added exports is much lower than the exposure in terms of gross exports (figure I.15). The exposure to the US market of the EAP countries increased because of the tariff advantage they enjoyed vis-a-vis China in recent years (figure I.16).

Figure I.15. Several EAP economies are highly exposed to external demand



Source: BACI, Haver Analytics, OECD Trade in value added database.

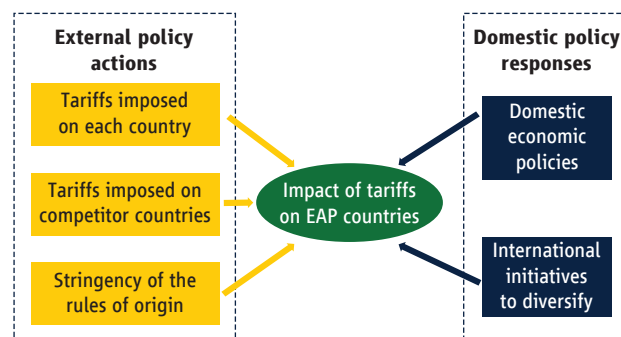
Note: Exports shows 2024 data for China and ASEAN-5 countries, 2023 data for others. Domestic value-added exports shows 2022 data.

Figure I.16. China's exposure to the US market has declined in recent years while ASEAN-5 economies' exposure has increased

Source: Haver Analytics

Note: 12-month moving average indexed to December 2017 (=100). Individual ASEAN-5 country charts are in the Appendix.

In assessing the impact of the new tariffs, several conceptually distinct but interconnected dimensions matter (figure I.17). On the one hand, relevant external factors include (i) the absolute tariff levels faced by each country; (ii) the relative tariff levels (especially relative to China); and (iii) the stringency of rules of origin, which remain unknown at this stage. On the other hand, internal factors include iv) the economic policies implemented in response to the tariffs, as well as v) the scope for diversification, both across export and imported input markets.

Figure I.17. Factors determining the impact of tariffs on the EAP countries

Source: World Bank staff's illustration.

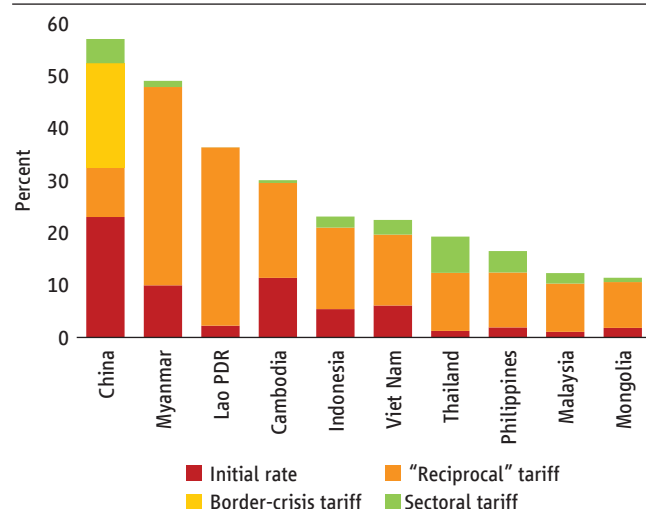
On April 2nd, the United States announced the introduction of “reciprocal tariffs” on most of its trading partners, but then on April 9th, a pause of 90-days was granted to negotiate bilaterally with each trading partner. At the time of this writing, several agreements have been reached, notably between the US and Japan, the Republic of Korea, Viet Nam, Thailand, the Philippines, Indonesia, and Malaysia. Negotiations between the US and China have yet to be concluded. As a result of these agreements, the tariffs that were ultimately implemented—effective as of August 7—are substantially lower than those initially announced in April for most countries. Nevertheless, they remain considerably higher than the relatively low tariff rates the US applied to EAP countries exports prior to April 2025. The US also imposed higher tariffs on imports in specific sectors—steel, aluminum, copper, autos and auto parts. Both China and the US have also imposed restrictions on exports of products like semiconductors and essential minerals which could have longer term effects on patterns of trade (Box I.B2).

While Figure I.14, reports the “reciprocal tariffs” announced by the US, Figure I.18, reports a calculation of the average tariff rates applied by the US against the main EAP countries, weighing the tariff rate applied to each product by the shares in the country’s total exports to the US in 2024. Importantly, the figure disaggregates the elements of the tariffs: “reciprocal”, sectoral and the pre-existing tariffs. For China, another relevant category is the “border-crisis” tariffs, which comprises tariffs imposed under the International Emergency Economic Powers Act (IEEPA) with the stated goal of combatting the flow of synthetic opioids from Canada, Mexico, and China. As the Figure shows:

- While China remains the country with the highest tariff rate, in the other EAP countries, the source of the increase in tariff differs: Thailand, Viet Nam, the Philippines and Malaysia are facing lower average tariffs than the “reciprocal tariffs” would suggest due to their export specialization in electronics and semiconductors (which are currently exempted), while Lao PDR, Cambodia and Myanmar see their average tariff rate predominantly determined by the “reciprocal tariffs”.
- At the aggregate level, the tariff gap in the US market (defined as the difference between the US tariff against China and the US tariff against a particular country) is larger now than it was a year ago for most EAP countries (figure I.19). This fact, however, does not constitute definitive evidence of an increased competitive edge vis-à-vis China. The change in edge depends on relative changes in the consumer prices, which in turn reflect relative changes in tariff rates, producer prices, markups, and the elasticity of demand. Moreover, an obvious caveat to this analysis is that aggregate results mask important sectoral heterogeneity, which we report in the appendix. For instance, the tariff gaps are higher in electronics and transport equipment than in textiles, where countries like Lao PDR and Myanmar now face protection rates in the US markets higher than those faced by China.

Figure I.18. The increase in US tariff rates on EAP countries is mostly due to “reciprocal tariffs”

Initial tariff barriers faced in US and increments in 2025
(trade-weighted averages)

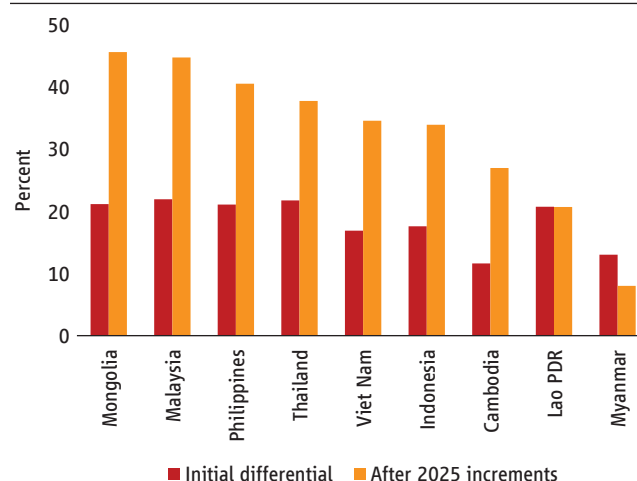


Source: World Bank staff estimates.

Note: The vertical bars represent export-weighted averages of US applied tariff rates. The export weights are from 2024. For each country, the overall tariff rate is then decomposed into several determinants: the contribution to total protection stemming by the tariff rates prevailing before 2025, the contribution stemming from the “reciprocal tariffs” (considering the exemptions) and from the sectoral tariffs.

Figure I.19. At the aggregate level, the tariff gap between China and most other EAP countries in the US market is larger now than it was a year ago for most EAP countries

Tariff differential between US tariffs applied to China vs other EAP countries (trade-weighted averages)



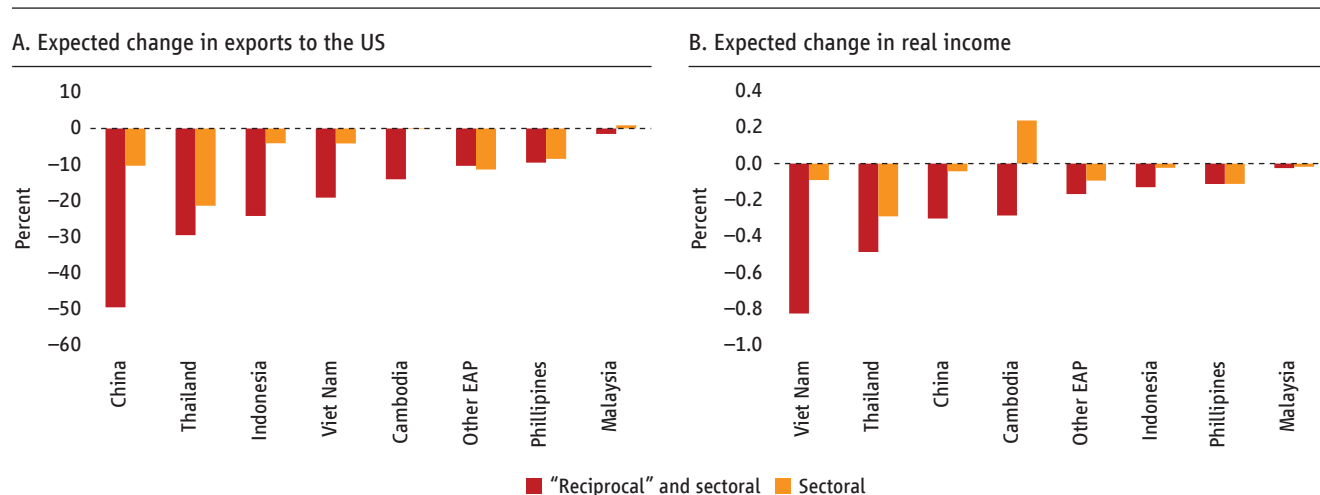
Source: World Bank staff estimates.

Note: the 2025 difference in US tariff applied to China and the US tariff on each country is computed as the difference between the total tariffs as reported in figure I.9.

The overall economic effects of these new tariffs on the EAP countries are difficult to predict and as discussed will depend on the absolute and relative tariffs that are ultimately imposed¹, the ability of EAP firms and countries to diversify their export portfolios, as well as on the domestic policy responses. Preliminary estimates from a computational general equilibrium model show that the current US tariffs (including both “reciprocal” and sectoral tariffs) could significantly reduce exports to the US. But the model simulations suggest that the eventual impact on real incomes is likely to be moderate, except in Viet Nam, for three reasons. (Figure I.20, red bars). First, the domestic value added in exports to the US is a relatively small share of GDP for most countries other than Viet Nam. Second, the tariffs on specific products have increased for most exporting countries to a similar extent. Therefore, the negative effect of tariffs is primarily felt through reduced US demand rather than changes in relative competitiveness. Lastly, the model assumes that countries have time to redirect exports to other destinations and therefore the decline in total exports is relatively small. However, these results should be viewed with caution because in reality the costs of shifting patterns of production and exports may be high in specific sectors for individual countries.

The orange bars in Figure I.20 report the estimated impact of a hypothetical situation where the “reciprocal tariffs” are not applied, while the sectoral tariffs are still in place. In this scenario, the estimated impact on the fall of exports to the US and real income are lower, with Thailand being the country potentially most affected.

¹ Box I.B3 presents some circumstantial evidence that market sentiments are sensitive to absolute and relative tariffs.

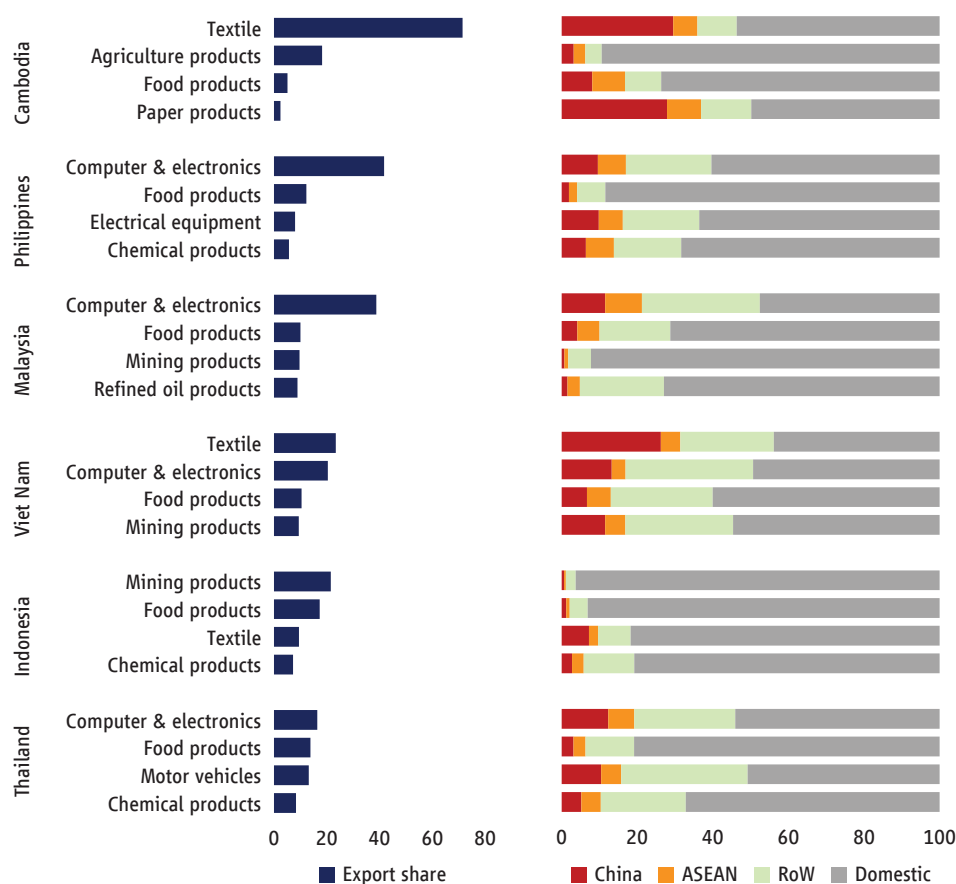
Figure I.20. Higher US tariffs are likely to hurt exports and real incomes

Source: GTAP; World Bank staff estimates

A key unresolved trade issue going forward are the implications of an increase in the stringency of the rules of origin applied by the US to avoid “transshipment” or even high imported input content from specific sources. While not yet fully specified in the recent bilateral agreements, there are likely to be tougher rules and a stronger demand for a more accurate tracing of the origin of the exported products.

More stringent rules of origin could represent a challenge for some EAP countries, whose exports often rely on imported intermediate inputs, notably from China. As Figure I.21 shows, a significant share of production in several important export sectors in many EAP countries is represented by foreign value added. Clear examples are, for instance, textiles in Cambodia and Viet Nam, Computer and Electronics in Philippines, Malaysia, Viet Nam and Thailand, and motor vehicles in Thailand. However, an upside is that more stringent rules of origin could also favor greater domestic value added in exports, thus increasing the contribution of exports to domestic economic development. As an example of this, recent research reveals how in the case of Viet Nam, the increase in foreign demand from the US in the period 2018-2020 increased the domestic value-added content of exports (figure I.22a). Moreover, this increase was more pronounced in those industries where the US revealed a preference for more stringent rules of origin under NAFTA (figure I.22b).

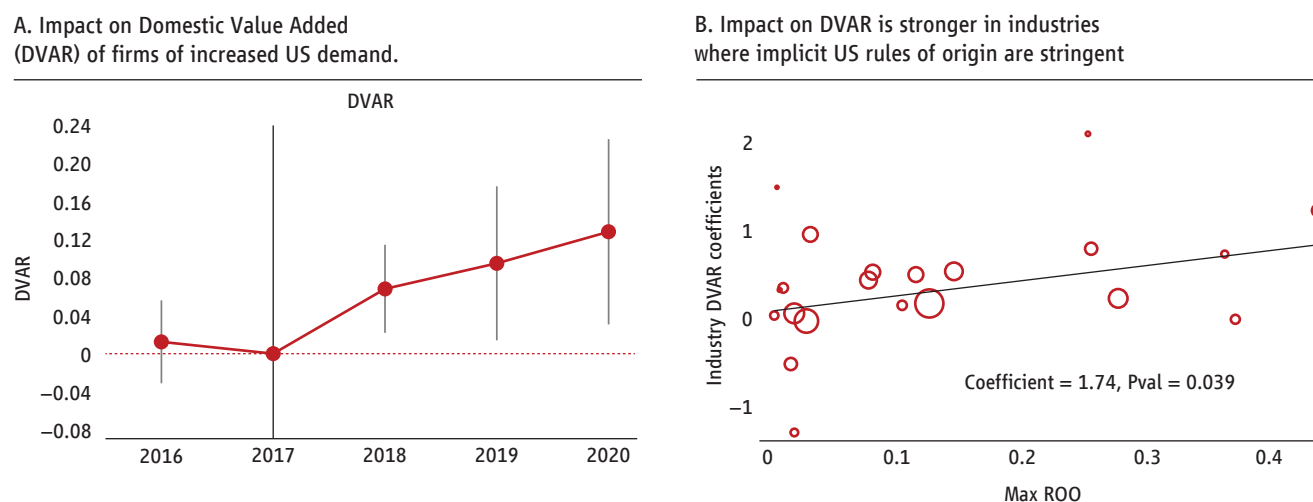
A final question is how best EAP countries could respond to the imposition of US tariffs. From a purely efficiency perspective, broad-based trade reforms are the best response; i.e. any liberalization is implemented vis-à-vis not just one but all trading partners; and reforms are not limited to just tariffs on goods, but also include non-tariff barriers affecting both goods and services. Simulations depicted in figure I.23 qualitatively support the first proposition. As for the second proposition, the liberalization of service trade that took place in Viet Nam in the period 2008-2016 generated a sizeable increase in productivity both in the services sectors (2.9% yearly over the period 2008-2016), as well as in the manufacturing sectors using services as intermediate inputs (3.1% yearly), as shown in figure I.24. Duggan et al (2013) show that the liberalization of foreign investments in service sectors in Indonesia accounted for 8 percent of the observed increase in manufacturers' total factor productivity over the period 1997-2009.

Figure I.21. Increasingly stringent – still undisclosed - rules of origin could challenge exporters in some countries/sectors*Countries' top export products and their origin of value-added*

Source: OECD Trade in Value-added database. Data for 2019.

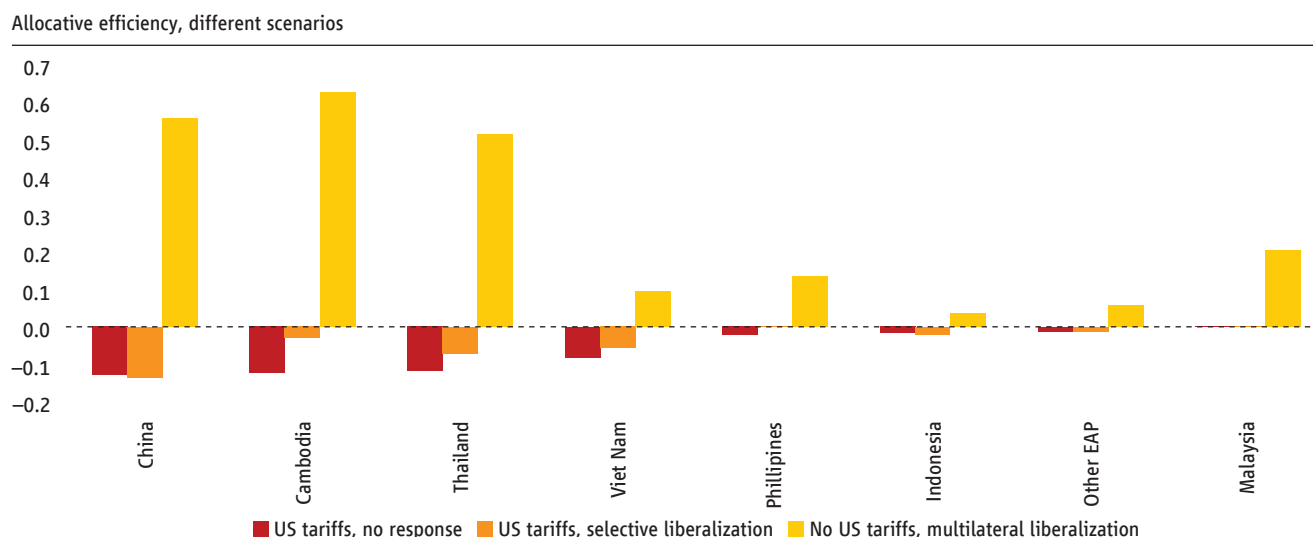
In practice, most countries have lowered tariffs (and in some cases, non-tariff barriers) exclusively on US imports and promised to increase purchases of specific US products (Table A1 in the appendix). In some cases, countries have engaged with other trading partners to pursue greater diversification of their trade both across trading partners and across products. Such diversification, reported in informal discussions with firms in Viet Nam, Thailand and Cambodia, is economically costly but may be desirable given the ever-increasing unpredictability of international markets.² The introduction of more stringent US rules of origin may also confront firms with a trade-off between diversifying import sources away from China and diversifying export destinations away from the United States.

² Export promotion agencies can serve as a tool to boost exports and help reduce the costs involved in pursuing a more diversified export portfolio (Lederman et al, 2010; Volpe Martincus, and Carballo, 2010).

Figure I.22. Rules of origin could also induce increases in domestic value added: e.g. in firms in Viet Nam

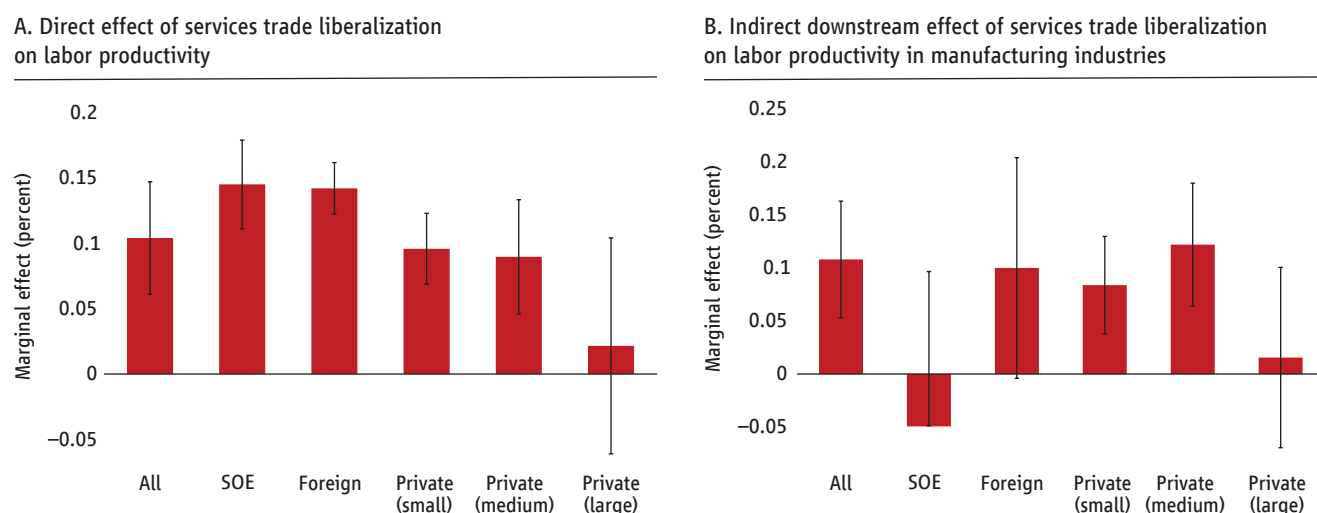
Source: Agarwal, Barattieri and Mattoo, in progress.

Note: Left Panel: Dependent Variable is the Domestic Value Added in total Exports computed using match firms and custom trade data, following the methodology by Kee and Tang (2016). The main independent variable is a measure of foreign demand shocks originating in the US: the exposure of firms to exports in 2017 to different HS2 products, multiplied by the change in imports in the US from all sourced except Viet Nam in the period 2017-2019. Controls include firms' size, firms' fixed effects and industry-time fixed effects. Balanced panel of roughly 4000 manufacturing firms. Right panel: Average coefficients of DVAR by 2-digits industries (vertical axis) against share of incidence of Rules of Origin in NAFTA (horizontal axis, computed using data from Conconi et al (2018)).

Figure I.23. Responding to foreign protection in goods trade by liberalizing vis-a-vis all trading partners leads to greater allocative efficiency

Source: Original analysis for this publication using the Global Trade Analysis Project (GTAP) model and WDI.

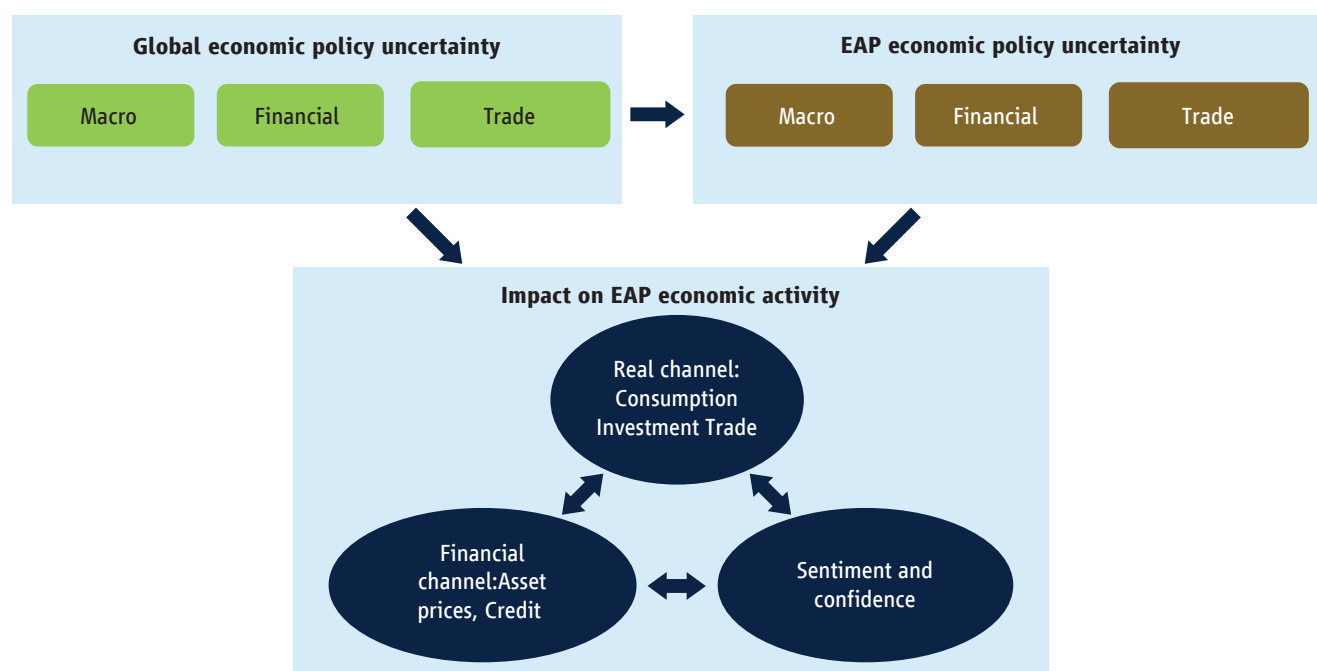
Note: Model simulations report the projected impact on allocative efficiency (measured as real GDP in the model) in several EAP countries under different scenarios: 1) 2025 increase in US tariffs with no response from the countries; 2) 2025 increase in US tariffs with preferential access granted to the US; 3) Full trade liberalization by all countries.

Figure I.24. Services trade liberalization has direct and indirect productivity gains

Source: World Bank (2024b)

Elevated policy uncertainty

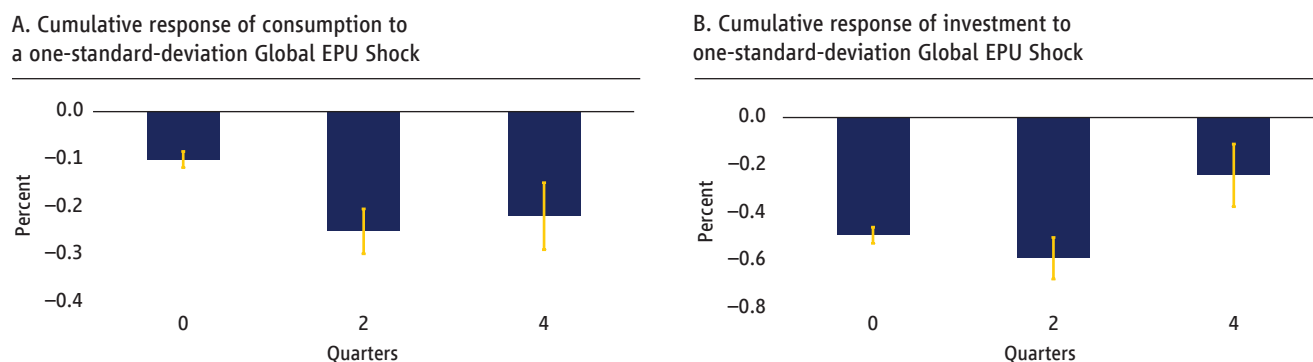
Increased uncertainty about future economic policies at home and abroad can negatively impact a country's economic activity in EAP through multiple channels (Ha, Islamaj, and Mattoo, 2024; figure I.25). These channels often reinforce each other, creating a feedback loop that deepens economic downturns.

Figure I.25. Increased uncertainty can be transmitted to the EAP region through both real and financial channels

Source: World Bank staff's illustration

First, increased uncertainty can negatively affect economic activity in EAP through real channels. It dampens external demand, lowers trade, and delays consumption and investment. Spillovers can also transmit through third-country effects if demand weakens more broadly. These impacts are amplified in trade-dependent economies integrated into global value chains, as is the case in EAP economies. Empirical estimates suggest that a one-standard-deviation increase in external policy uncertainty reduces consumption by 0.3 percent and investment by 0.6 percent after six months (figure I.26).

Figure I.26. Increased economic policy uncertainty abroad is associated with lower consumption and investment

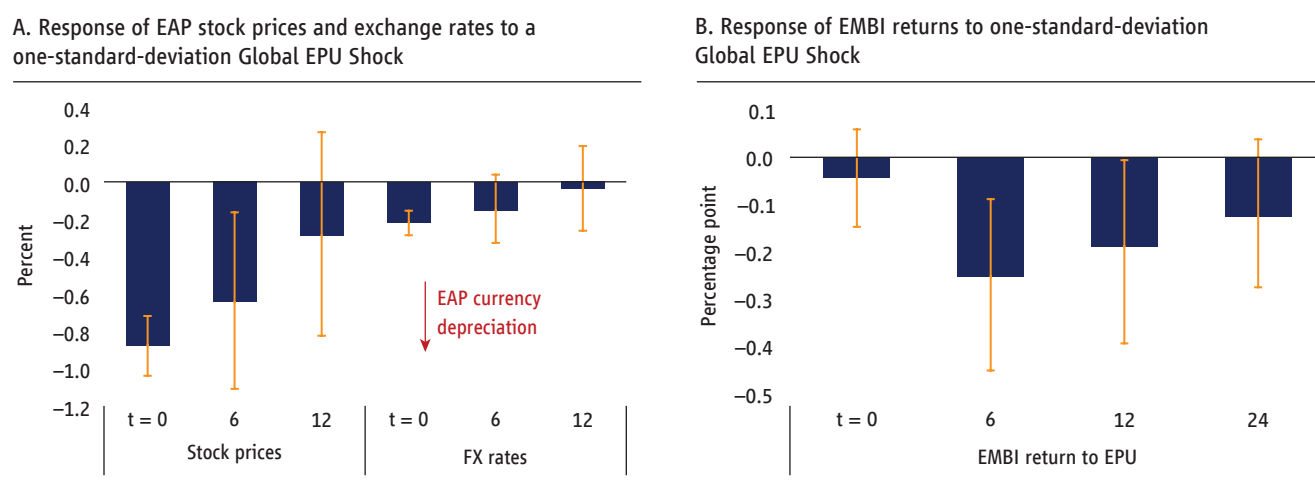


Notes: Cumulative impulse responses of consumption and investment growth (%) from a quarterly panel SVAR (1996Q2–2025Q2) for Indonesia, Malaysia, the Philippines, and Thailand. The model (Cholesky-ordered) includes: global uncertainty, country-specific WUI, US real GDP, RMB exchange rate, domestic CPI, real consumption, real investment, exchange rates per USD, and stock price index (all in logs).

Second, uncertainty can depress asset prices in EAP countries, eroding wealth and raising credit costs, ultimately hurting consumption and investment. Increased economic policy uncertainty in advanced economies has been shown to hurt asset prices in source countries and eventually in EAP economies, as well as increasing financial market volatility both at home and in EMDEs (Glichrist et al., 2014, Caballero et al., 2019; Caggiano et al., 2021, Akinci et al., 2023). VAR-based estimates indicate that spikes in policy uncertainty negatively affect regional stock markets, reducing equity returns, and tightening financing conditions (figure I.27).

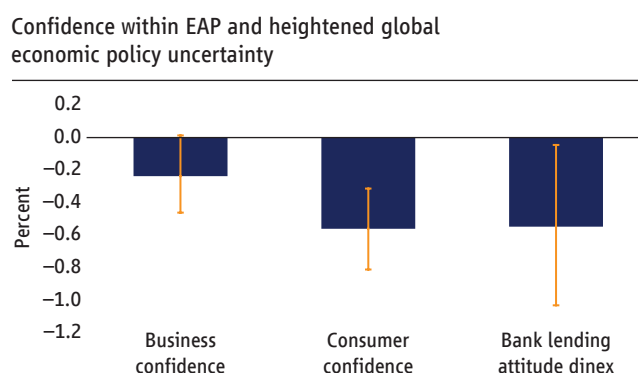
Third, heightened uncertainty abroad, especially if global or in major partner countries, can transmit to higher country-specific uncertainty in individual EAP countries through the confidence channel (Carrière-Swallow and Céspedes 2013; Londono et al. 2021; Miescu 2023; Georgiadis et al. 2024). Domestic economic uncertainty also negatively impacts economic confidence and sentiment in EAP countries (Ha and So 2023) (figure I.28).³

³ Several studies document the transmission of uncertainty shocks for individual EAP countries. Cheng (2017) explores the impact of foreign and domestic uncertainty shocks on Korea, Rep.'s economy. Fontaine et al. (2018) study the spillover effects of economic policy uncertainty in China. Arbatli et al. (2017) examine policy uncertainty in Japan. Apaitan et al. (2022) provide evidence of uncertainty transmission in Thailand. Shah et al. (2019) investigate the international transmission of uncertainty shocks in Malaysia. Nguyen and Vo (2024) study economic policy uncertainty transmission from Viet Nam. Kuncoro (2024) examines inflation uncertainty for Indonesia and the Philippines.

Figure I.27. Elevated policy uncertainty can negatively affect EAP stock prices and tighten financing conditions

Source: World Bank estimates.

Note: The results are based on a panel Vector autoregression estimated for 2000m1-2019m12 for four EMDEs in EAP (MYS, IDN, PHL, THA). The model includes, in this order, the US production, CPI, uncertainty, China production, CPI, uncertainty measure, and domestic (EAP) industrial production, prices, stock prices, exchange rates, and corresponding financial asset prices. Bars show dynamic responses of EAP variables to a one-standard-deviation increase in uncertainty in the U.S. US policy uncertainty is based on Baker, Bloom, Davis (2016).

Figure I.28. Increased economic policy uncertainty can lead to lower consumer and business confidence

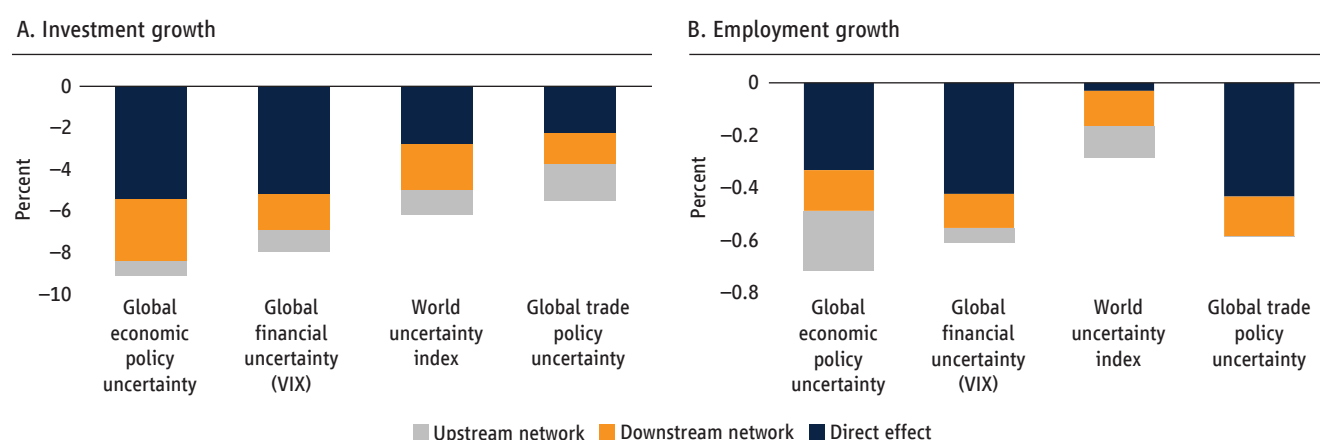
Source: World Bank estimates. Baker, Bloom, Davis (2016)

Note: The results are based on a panel Vector autoregression estimated for 2000m1-2024m12 for four EMDEs in EAP (MYS, IDN, PHL, THA). The model includes, in this order, the US production, CPI, uncertainty, China production, CPI, uncertainty measure, and domestic (EAP) industrial production, prices, stock prices, exchange rates, and corresponding financial asset prices. Bars show dynamic responses of EAP variables to a one-standard-deviation increase in uncertainty.

Apart from estimates of the macroeconomic impact of uncertainty, there is also evidence that uncertainty dampens firm-level investment and employment. When uncertainty about future demand, policy, or financial conditions rises, firms adopt a “wait-and-see” approach, delaying or scaling back capital expenditures to avoid committing resources under unpredictable conditions. Empirical evidence from EAP economies shows that a one-standard-deviation increase

in economic policy uncertainty abroad significantly reduces investment growth and slows employment expansion, as firms prioritize liquidity and flexibility over long-term commitments (figure I.29).⁴ These effects amplify upstream and downstream through production networks.

Figure I.29. EAP firm investment and employment are negatively affected by increased uncertainty



Source: Ha et al. (2025).

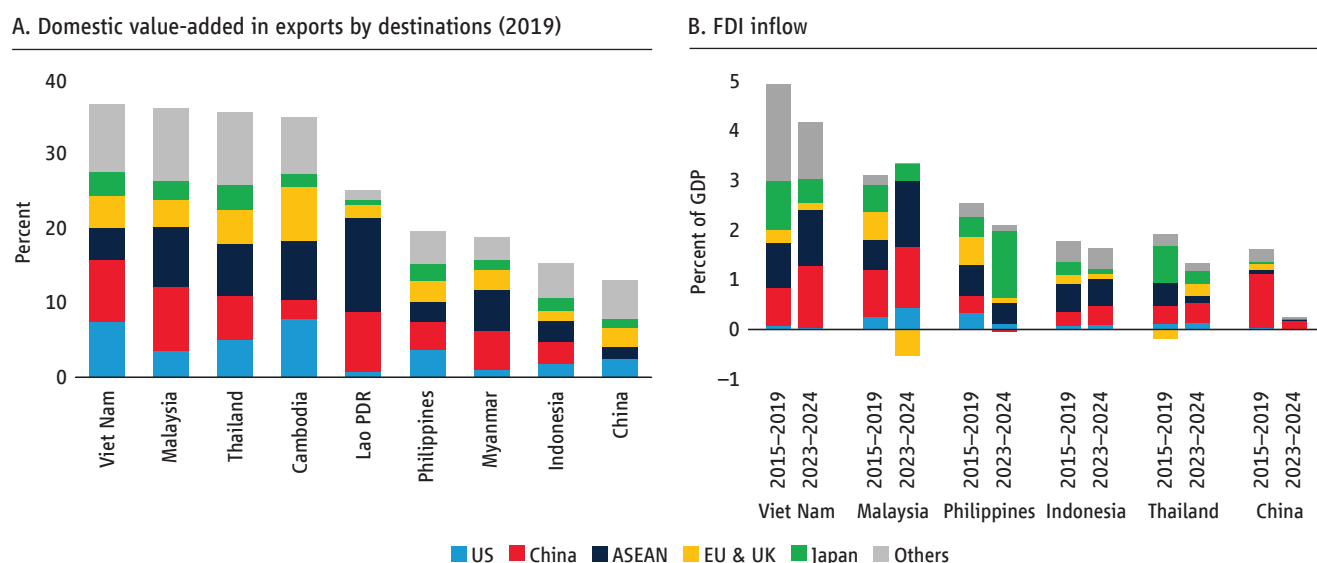
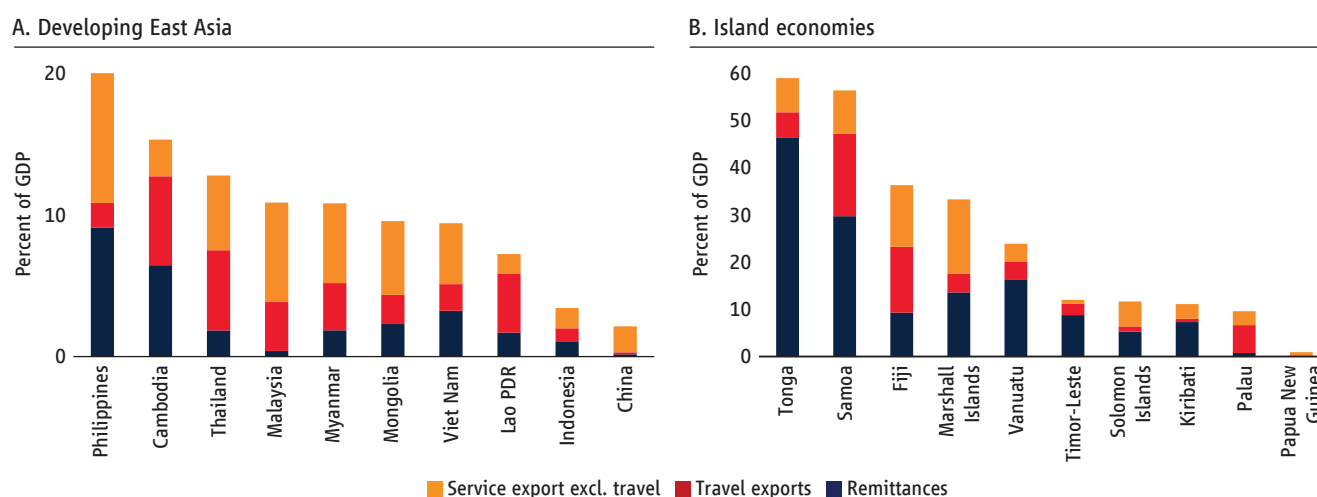
Note: Firm quarterly panel, OLS regression on each Uncertainty Measure: $\ln(Y_{it}) - \ln(Y_{i,t-1}) = \alpha_i + \beta_i \cdot \text{UNC}_t + \gamma' X_{it} + \varepsilon_{it}$, where $Y_{it} \in \{\text{Investment, Employment}\}$; α_i are firm fixed effects; X_{it} includes leverage, Tobin's Q, $\ln(\text{total assets})$. Sample includes all listed firms in Indonesia, Malaysia, Philippines, Thailand, Viet Nam for the period 2000-2024.

Lower global growth

EAP economies are exposed to developments in large economies through trade and financial linkages. A significant part of domestic value added in EAP economies is ultimately absorbed in China, EU and the US as well as in other ASEAN economies (figure I.30). A large part of FDI inflow in most EAP economies is from China, followed by ASEAN and Japan. However, most EAP economies are more financially integrated with the major global financial hubs than with each other. The region is most exposed to the US on portfolio flows and to Japan on cross-border lending. Financial volatility in these two countries will affect economic activity in the EAP countries through these linkages.

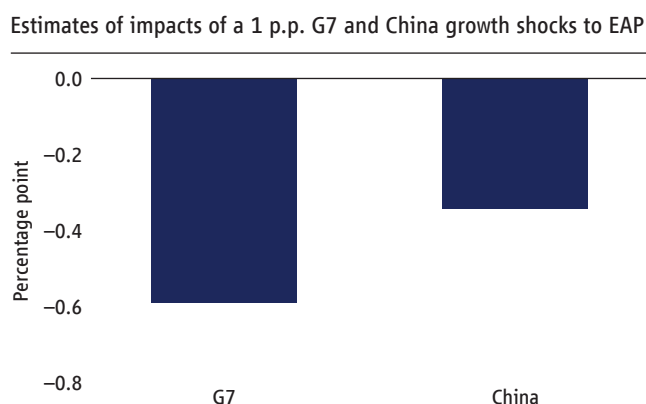
Tourism is a vital source of earnings not only for small island economies, such as Vanuatu, Fiji, and Samoa, but also for some of the other countries, such as Cambodia and Thailand (figure I.31). Remittances dominate foreign flows in Tonga and Samoa but are also important for the Philippines, the Marshall Islands, and Kiribati. Remittances matter for sustaining household consumption, reducing poverty, and providing a buffer against shocks. In some economies, they account for double-digit shares of GDP, helping to ease balance-of-payments pressures. However, heavy reliance on remittances also creates vulnerabilities, as income flows are sensitive to labor market conditions in host countries and to migration policies abroad.

⁴ Similar patterns emerge in studies focusing on firm-level uncertainty: heightened uncertainty lowers investment rates by around 0.5% and employment growth by 1.4%, while also weakening firms' responsiveness to positive sales shocks, reflecting the real options logic that uncertainty raises the value of postponing irreversible decisions (Handley and Li 2020). These effects are particularly pronounced for financially constrained firms and in sectors with high adjustment costs, underscoring the importance of stable policy environments for sustaining private investment and job creation.

Figure I.30. EAP economies are exposed to large economies through trade and FDI flows**Figure I.31.** Remittances, travel and services exports are significant for many EAP countries

The slowdown in the rest of the world would exert a significant negative impact on developing EAP. A 1 percentage point decline in G7 growth reduces output growth in developing East Asia by around an estimated 0.6 percentage points within the following year, with the effects operating primarily through weaker external demand, lower commodity prices, and tighter financial conditions (figure I.32). A 1 percentage point decline in China's growth is estimated to lower growth in the rest of developing East Asia by 0.3 percentage points, underscoring China's influence on economic activity in the region's economies.

Figure I.32. Output growth declines in the rest of the world will negatively affect growth in developing East Asia



Source: World Bank estimates.

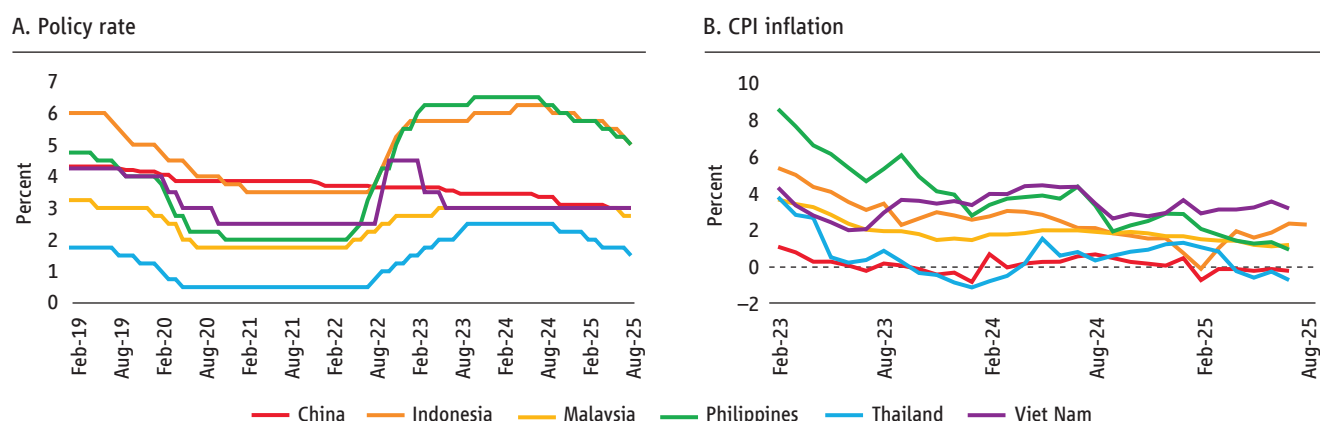
Notes: Figure shows the impact of one percentage point decrease in G7 and China growth. Effects estimated using a structural Bayesian VAR model that includes the following variables: US monetary policy reaction shock, U.S real GDP growth, China real GDP growth, commodity weighted prices for recipient country, recipient country real GDP growth, and recipient country exchange rate to the US dollar. EAP countries included in the estimation are Indonesia, Malaysia, the Philippines, and Thailand. The models are estimated from 2000Q1 to 2022Q4, except in Malaysia which starts in 2005Q1.

Domestic factors

Macroeconomic policy

Monetary policy

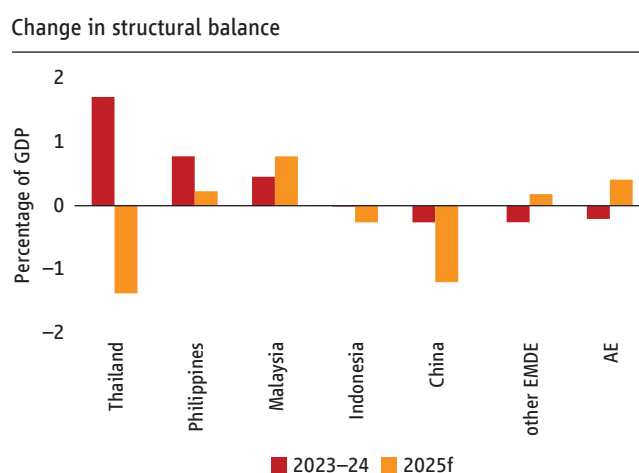
Monetary policy in the region has generally remained accommodative, supporting growth as inflation stays largely contained within central bank targets in most major economies (figure I.33). Exceptions include Lao PDR and Myanmar, where high inflation reflects significant currency depreciation and, in Myanmar's case, supply disruptions from conflict and trade restrictions. In China, weak domestic demand and sectoral supply-demand imbalances continue to exert downward pressure on consumer and producer prices. Cuts to policy rates and the reserve requirement ratio, together with support for the property sector and equity markets, are easing financial conditions, although weak credit demand and a slow housing market may limit the growth impact.

Figure I.33. Monetary stance has been supportive as inflation has continued to decline

Source: Haver Analytics

Fiscal policy

Fiscal policy has been expansionary in China and Thailand but less so in the rest of the region (figure I.34). China stepped up support in late 2024 through subsidies and property market measures and announced a sizable 2025 fiscal package, including higher infrastructure investment, business equipment and consumer subsidies, and increased social spending. Thailand ended its Digital Wallet program, but some cash transfer programs continue to support low-income households. The government has redirected THB 157 billion stimulus budget (0.8 percent of GDP), previously planned for universal transfers, has been earmarked for nationwide water and transport infrastructure, though implementation lags may limit near-term effects.

Figure I.34. Fiscal policy has been expansionary in China and Thailand but not in the rest of the region

Source: World Economic Outlook Database, April 2025

In contrast, the Philippines, and Viet Nam are engaged in fiscal consolidation via revenue increases through taxes and mandatory dividend payments by state-owned enterprises (Philippines is also consolidating by reducing expenditures over the medium-term), while Lao PDR faces spending cuts under unsustainable government debt. Indonesia's fiscal deficit widened in the first half of 2025 as revenues declined more sharply than spending. The government projects an increase in total expenditure in 2025, as well as higher structural deficit, with a refocus of spending on subsidies for food, transport and energy sectors and state-directed investments. While such measures could be expansionary in principle, weak implementation and rising social unrest risk offsetting their intended impact.

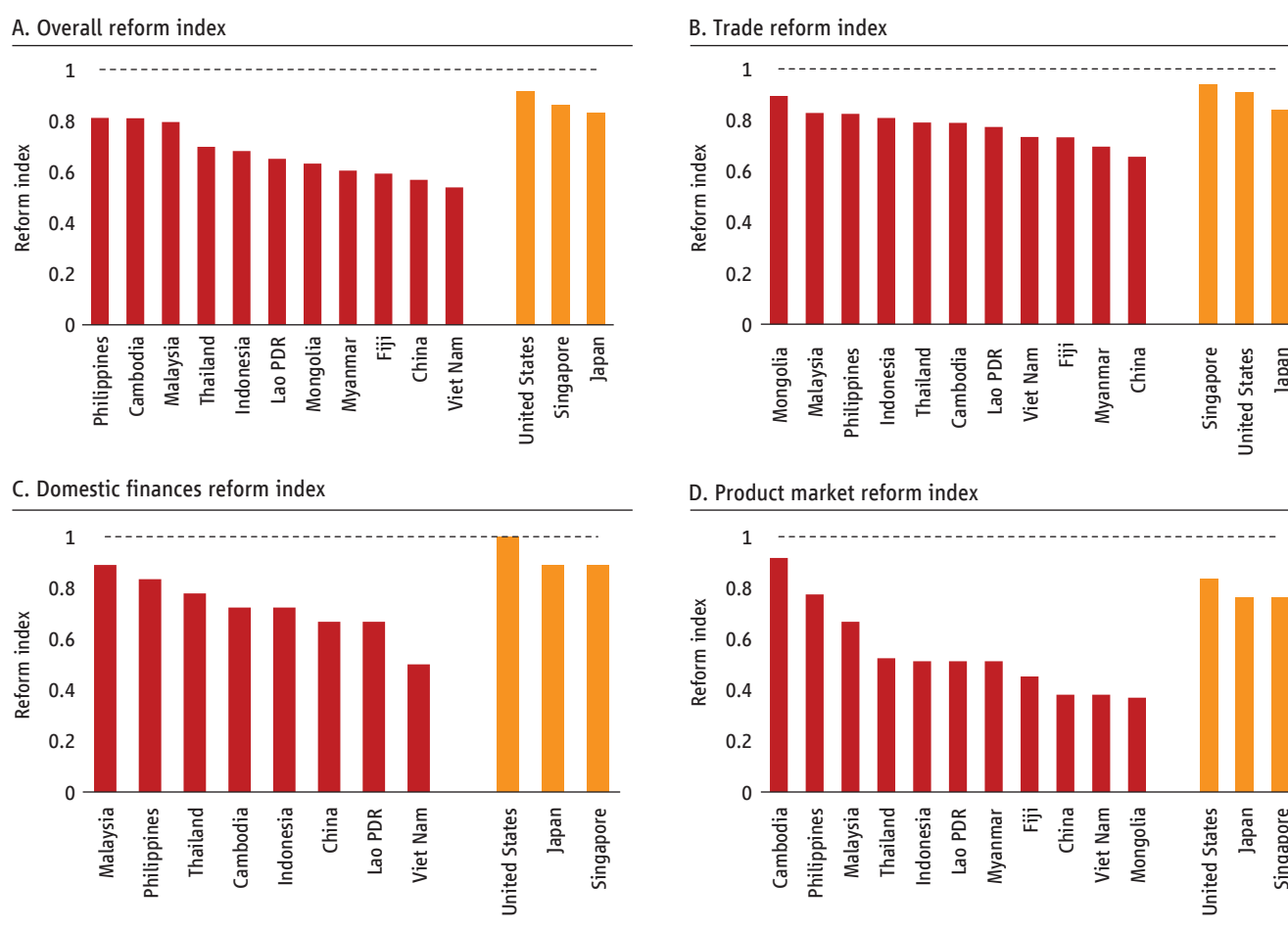
Structural reform

Major economies in the EAP region undertook wide-ranging structural reforms from the early 1980s through the early 2000s, spanning trade, domestic finance, and product markets. Since then, however, the pace of reforms has slowed (World Bank, 2023). To an extent, the slowing reform is a consequence of significant prior liberalization which leaves limited room for further reforms, especially the politically difficult “last mile” improvements in policy. Nevertheless, the latest available data across all reform areas suggest that there are still sizeable gaps in reforms of developing EAP countries relative to a sample of advanced economies (figure I.35). Some of these issues are discussed further in Part II of this Update, but, notably, in recent years, the Philippines and Viet Nam have initiated meaningful new reforms, signaling renewed momentum.

Recent structural reforms in some countries are likely to improve economic efficiency and support growth. For example, in the Philippines, recent reforms are expected to further enhance investment and productivity by opening key enabling sectors to greater competition—including logistics and telecoms (through initiatives such as the Public Service Act amendment, and the recently passed Konektadong Pinoy Act) and renewable energy (through the decision to remove the sector from the FDI negative list)—and is seeking to build the capabilities of the labor force through the newly enacted Enterprise-Based Education and Training (EBET) framework, which supports reskilling and upskilling. Sustaining this momentum will require effective implementation of these reforms, complemented by efforts to improve the business environment (it takes 106 days to register a foreign firm) and a strong commitment to fiscal consolidation to safeguard the fiscal space needed to maintain infrastructure investment without compromising macroeconomic stability.

Viet Nam too has launched a wave of institutional reforms aimed at creating a more efficient state. In late 2024, the government began significant bureaucratic restructuring, reducing ministries and agencies, consolidating local governments (reducing provinces from 63 to 34 and removing district level government); streamlining public employees (reducing staff by 20 percent or at least 100,000 employees over 5 years); and reforms such as the new Land Law, e-government platforms, and streamlined business services to improve the investment climate. At the same time, new policies aim to accelerate the country's shift toward clean energy, supported by new frameworks such as the Direct Power Purchase Agreement that facilitates renewable energy use by large firms. These reforms aim to boost growth, attract high-tech investment, and enhance worker welfare while reinforcing Viet Nam's transition toward a modern, innovation-driven economy.

In some other EAP countries, growth is relatively high but measures to sustain growth today may not be conducive to growth tomorrow. In China and Indonesia, for example, current growth (of about 5 percent per annum) exceeds estimates of potential growth largely thanks to government support (World Bank, 2019; World Bank, 2024a; World Bank 2024b). In China, the fiscal deficit is expected to increase from 4.5 percent in 2019 to 8.1 percent in 2025, and public debt to 70.8 percent of GDP this year, which may limit the scope for stimulus and hence growth in 2026. In Indonesia, the issue is more the direction of government spending rather than the size of the deficit, which is expected to remain within the country's fiscal rules. For example, the current focus is on subsidies for food, transport and energy sectors and state-directed investment to boost aggregate demand. In both countries, reforms, such as addressing non-tariff barriers, especially in services, as well as deregulation and business licensing simplification, could enhance potential growth and productive job creation.

Figure I.35. But countries will need to address the significant “reform gap” between EAP countries and advanced economies...

Source: World Bank staff's estimates, based on earlier work by Alesina et al. (2020).

Note: Overall and sectoral reform indices are continuous indicators taking a value in the [0-1] interval. A higher value indicates greater degree of liberalization (lower intensity of restrictions). Lines represent 3-year-moving-average fits. Trade reforms is a composite index capturing the degree of liberalization in tariffs and the current account. Domestic finances reform captures the degree of liberalization in credit and interest rate controls, banking entry and supervisions, privatization, and security markets. Product market reform captures the degree of liberalization in two representative sectors of electricity and telecommunication. All indicators reported in 2020, except for Domestic finances reform index for Japan, Singapore, and United States (2014).

I.2. Economic outlook

Developing EAP is projected to grow by 4.8 percent in 2025, a moderate slowdown compared to 5.0 percent in 2024, as rising trade barriers, elevated policy uncertainty, and slower global growth weigh on economic activity (Table I.1). China is forecast to expand by about 4.8 percent, with property-sector weakness and external uncertainty dampening demand. In the rest of the region, growth is projected to be 4.4 percent, compared to 4.8 percent in 2024, underpinned by resilient consumption and sustained public investment in several economies.

Table 1. GDP growth forecast

	2015-19	2020	2021	2022	2023	2024	Oct 2025 forecast		Apr 2025 forecast	
							for 2025	for 2026	for 2025	for 2026
East Asia & Pacific	6.5	1.2	7.7	3.5	5.2	5.0	4.8	4.3	4.0	4.1
East Asia & Pacific (excluding China)	5.2	-3.8	2.9	6.0	4.3	4.8	4.4	4.5	4.2	4.5
Pacific Island Countries	3.1	-10.3	-2.9	10.2	5.9	3.3	2.7	2.8	2.6	2.7
China	6.7	2.2	8.6	3.1	5.4	5.0	4.8	4.2	4.0	4.0
Indonesia	5.0	-2.1	3.7	5.3	5.0	5.0	4.8	4.8	4.7	4.8
Malaysia	4.9	-5.5	3.3	8.9	3.6	5.1	4.1	4.1	3.9	4.3
Philippines	6.6	-9.5	5.7	7.6	5.5	5.7	5.3	5.4	5.3	5.4
Thailand	3.4	-6.1	1.6	2.6	2.0	2.5	2.0	1.8	1.6	1.8
Viet Nam	7.1	2.9	2.6	8.5	5.1	7.1	6.6	6.1	5.8	6.1
Cambodia	8.0	-3.6	3.1	5.1	5.0	6.0	4.8	4.3	4.0	4.5
Lao PDR	6.6	0.5	2.5	2.7	3.7	4.1	3.7	3.6	3.5	3.4
Mongolia	4.6	-4.4	1.6	5.0	7.2	5.1	5.9	5.6	6.3	5.2
Myanmar	6.4	6.6	-12.0	4.7	1.0	-1.0	-1.8	3.0	-1.0	1.5
Papua New Guinea	4.0	-3.2	-0.8	5.7	3.8	3.8	4.3	3.2	4.3	3.2
Timor-Leste	5.2	-8.3	2.9	4.0	2.4	4.1	4.0	3.4	3.5	3.4
Palau	1.0	-9.1	-13.4	-1.3	1.9	7.1	5.7	3.5	11.9	3.5
Fiji	3.1	-17.0	-4.9	19.8	7.5	3.8	2.9	3.0	2.6	2.9
Solomon Isl.	3.0	-3.3	2.6	2.4	2.7	2.5	2.5	2.7	2.6	2.7
Tuvalu	6.7	-4.3	0.2	0.4	3.9	3.5	3.0	2.6	2.8	2.3
Marshall Isl.	4.8	-1.8	1.0	-1.1	4.0	3.0	2.5	4.1	3.7	3.0
Vanuatu	3.5	-5.0	-1.6	5.2	2.1	0.9	1.7	2.8	-1.8	2.3
Kiribati	5.8	-0.6	8.5	4.6	2.7	5.2	3.9	3.2	3.9	3.0
Tonga	2.3	0.5	-1.3	-2.3	2.1	2.1	2.7	2.3	2.2	1.8
Samoa	3.4	-3.1	-7.1	2.3	15.2	4.6	2.1	2.5	5.3	2.6
Micronesia	2.0	-1.8	-3.2	-0.9	0.8	0.7	1.1	1.5	1.3	1.4
Nauru	1.7	0.7	7.2	2.8	0.6	1.8	2.1	1.9	1.4	1.3

Sources: World Bank.

Note: Percent growth of GDP at market prices. Values for 2023 for the small island economies refer to GDP growth estimates. Values for Timor-Leste represent non-oil GDP. For the following countries, values correspond to the fiscal year: Federal states of Micronesia, Palau, and Republic of the Marshall Islands (October 1 - September 30); Nauru, Samoa, and Tonga (July 1 - June 30).

Growth is set to moderate across most economies in 2025, except for Mongolia, and several Pacific Island countries. Mongolia's growth is expected to accelerate to 5.9 percent, driven by higher copper production from the OT mine and a strong agricultural rebound. Pacific Island Countries are experiencing a slowdown in growth after a post-pandemic rebound, with variations across nations driven by tourism, fiscal policies, and external shocks. In Papua New Guinea, rising production at the Porgera gold, which was producing below capacity in 2024 after restarting production in late 2023, and Ok Tedi copper mines and strong agriculture output are supporting growth. Growth in Vanuatu is rebounding supported by stronger construction activity linked to post-earthquake reconstruction, even though growth remains

marginal at 1.7 percent. In Tonga growth is accelerating to 2.7 percent in 2025 due to public infrastructure investment, and recovery in agricultural production after El Niño effects last year, and Micronesia is benefiting from a rebound in public investment linked to infrastructure development.

Common shocks, different buffers. Three common factors—rising trade restrictions, elevated policy uncertainty, and slowing global growth—will continue to weigh on economic activity, but their impacts are likely to vary across economies with differing domestic demand momentum, policy space, and external exposure. Front-loaded export shipments into H1 2025 in response to increased trade barriers are now giving way to weaker new orders. Heightened policy and trade uncertainty are likely to prompt firms to delay investment and hiring. Slower global growth is softening external demand, particularly for countries reliant on trade and remittances. Economies with stronger macro anchors, more robust domestic demand, and greater capacity to redirect trade are better positioned to absorb these shocks.

Mapping the three shocks.

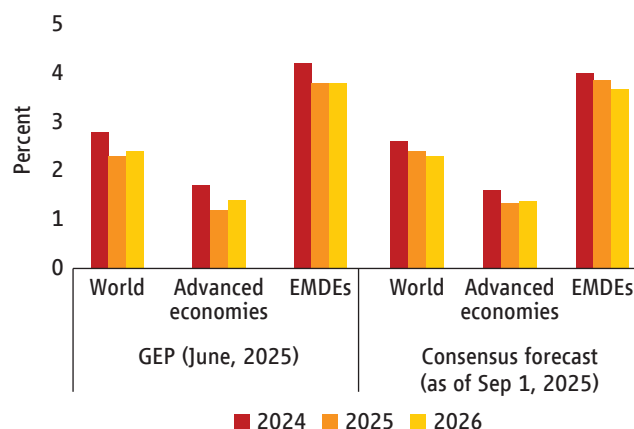
- *Trade restrictions:* Export frontloading in H1 2025 provided a temporary boost, but new orders are now softening. The new tariff regime—lower than initially announced but still above pre-2025 norms—has uneven impacts across economies depending on their export composition. Exporters of electronics (Malaysia, Viet Nam, Thailand) see partial relief, as a broad range of electronics, including smartphones, laptops, flat-panel displays, solid-state storage devices, and semiconductor components, are excluded from the additional “reciprocal” tariffs, although the exception may be temporary. By contrast, garment exporters (Cambodia) face steep tariffs, while China in the process of making significant bilateral adjustments is reorienting shipments toward non-US markets.
- *Uncertainty:* Uncertainty, particularly around trade policy, has eased somewhat since April 2025 following recent agreements with the United States. Still, it is expected to remain elevated into 2026, as key details—such as tariffs related to rules-of-origin—remain unclear, and a potential agreement with China is unlikely to start taking shape until the end of this year. Elevated uncertainty could weigh on investment and hiring across the region. Empirical evidence suggests that spikes in uncertainty tend to weaken industrial production, depress equity markets, and tighten financial conditions. In addition, domestic policy and political uncertainty, such as in Indonesia and Thailand, could further constrain consumption and investment growth.
- *Global growth:* EAP’s high openness means weaker partner growth is quickly transmitted through trade, tourism, remittances and financial channels. Some forecasts for global growth suggest a modest improvement of economic activity in advanced economies in 2026, but most forecasters expect global growth to stay lower than in 2024 in the near term (figure I.36). A 1-percentage-point (p.p.) slowdown in G7 growth can reduce developing EAP’s growth by 0.6 p.p. in the subsequent year (around 0.3 p.p. in the case of a China growth shock), which underscores the case for strengthening domestic demand buffers and advancing market-opening reforms, rather than pursuing retaliatory trade measures.

By 2026, overall regional growth is expected to decelerate to around 4.3 percent, reflecting a slowdown in China to 4.2 percent, partly offset by a slight pickup in the rest of the region to 4.5 percent.

In China, growth in 2026 will slow due to an expected slowdown in export growth and a likely reduction in the fiscal stimulus in light of rising public debt, as well as continued structural deceleration. The ongoing property sector downturn,

weak consumer confidence, and elevated economic policy uncertainty about the trade regime will continue to weigh on growth. Supply-demand imbalances in specific industries risk further dampen manufacturing investment that already shows signs of slowing. Structural headwinds such as sluggish productivity and rapid aging will weigh on potential growth, while fiscal stimulus is likely to be limited by rising public debt. The fiscal deficit is expected to increase from 4.5 percent in 2019 to 8.1 percent in 2025, and public debt to 70.8 percent of GDP this year, which may limit the scope for stimulus and hence growth in 2026 (Box I.B4).

Figure I.36. Global growth forecasts continue to suggest muted global growth



Source: Global Economic Prospects, June 2025; Consensus Economics; World Bank staff calculations.

In Indonesia, growth in 2026 is projected to remain at 4.8 percent, same as in 2025 as government continues efforts to stimulate demand. Targeted fiscal stimulus in food, transport and energy sectors, coupled with social assistance programs, are aimed at supporting private consumption which is expected to contribute about 54 percent to economic growth in 2025-2027. Investment growth is also projected to gradually increase and average 6.2 percent during 2025-2027. This pick-up is driven by three strategies: state-led investment via Danantara,⁵ monetary easing to boost private sector credit,⁶ and FDI-led through downstreaming, deregulation, and special economic zones reform targeting energy, natural resources, manufacturing and services.⁷ Rising domestic demand is expected to offset weaker contributions from net-exports as terms-of-trade deteriorate following lower growth in China, softening commodity prices and continued global trade uncertainty.

⁵ Danantara is expected to raise financing from SOE dividends, domestic markets, and international investors to implement a series of planned projects in infrastructure, natural resources downstreaming, renewable energy, and food security among others.

⁶ BI is expected to further lower policy rates (already 100 bps cuts in 2025) and inject liquidity through open market operations, while MOF is leveraging its treasury cash surplus to inject liquidity through state-owned banks, aiming to boost private sector borrowing and support the flagship cooperatives program (cooperatives are private member entities at local levels).

⁷ As a result, FDI is projected to return to its pre-covid level of around 1.5 percent of GDP.

Both implementation and the direction of the government spending in Indonesia are cause for concern. Implementation problems would dampen the short-term impact. The focus on subsidies for food, transport and energy sectors, as well as state-directed investment could provide some shorter-term growth but do not support long term growth aspirations due to the limited effects of such measures on overall productivity. This aligns with the observed decline in Indonesia's estimated potential growth, which currently stand at 4.1 percent (down from 5.7 percent in 2010).

Growth in 2026 is projected to decline compared to 2025 in Cambodia, Lao PDR, Thailand and Viet Nam, reflecting the impact of higher US tariffs. Cambodia and Lao PDR face some of the steepest tariff increases, while Cambodia and Viet Nam are particularly exposed given their reliance on U.S. markets. In Lao PDR, high debt service will continue to limit fiscal space and crowd out priority spending. In Thailand, growth is projected to remain subdued amid elevated political uncertainty, softer private consumption growth as deleveraging continues, and only a partial recovery in tourism.

Malaysia, and the Philippines are projected to record similar or slightly higher growth in 2026 than in 2025—at 4.1, and 5.4 percent, respectively—driven by domestic demand and a modest global recovery to offset the impact of higher tariffs. In Malaysia, initiatives like the Johor-Singapore Special Economic Zone, investment in data centers, and programs to boost small and medium enterprises (SMEs) are expected to support domestic growth, but uncertainty remains over tariffs on electronic exports to the US. The Philippines will benefit from robust domestic demand, supported by easing inflation, lower interest rates, and strong labor markets. Growth will also be sustained by public infrastructure investment exceeding 5 percent of GDP and private investment spurred by the reforms discussed above.

Outlook in the Pacific Island economies is shaped by remittances, tourism, fisheries, and reconstruction. Moderate growth is expected, supported by tourism, remittances, and public investment, with risks from external factors, climate-related events, and financing challenges. (Box I.B5).

Inflation is expected to remain broadly within target ranges in the near term with easing food and energy prices. Monetary policy is cautiously accommodative. Fiscal policy is expansionary in a few economies (China, Thailand) but consolidating elsewhere to rebuild buffers.

The 2026 forecast is subject to ongoing risks: renewed tariff increases, continued economic policy uncertainty, and weaker partner growth. While policy rates in major economies are expected to decline, recent changes in long term yields in advanced economies raise the possibility of renewed tightening of global financial conditions. Upside potential stems from stronger tourism and the resolution of trade tensions.

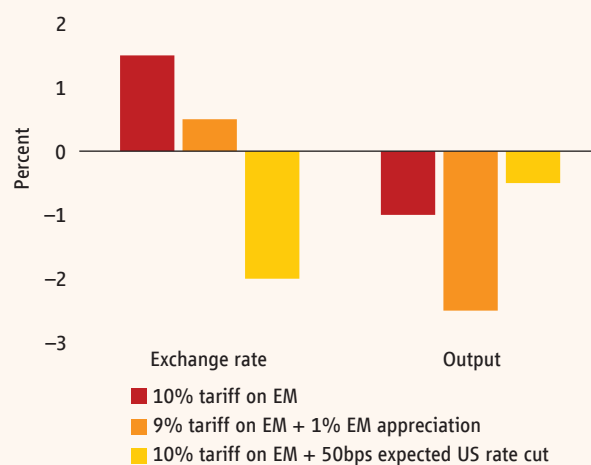
Domestic risks include property market difficulties in China as well as financial fragilities (Box I.B6) and high debt in some economies. Continued political and policy uncertainty in Indonesia and Thailand could adversely affect economic activity. Upside risks are ambitious reforms, such as reducing trade barriers, increased private investment through better regulation, and successful fiscal consolidation that can help EAP economies weather external risks.

Box I.B1. Currency dynamics under rising tariffs

Recent appreciation of several EAP currencies against the US dollar has raised questions, as it coincides with higher US tariffs and runs counter to conventional expectations.^{8 9} The US dollar strengthened vis-à-vis currencies of other countries in earlier episodes of hikes in US tariffs. Moreover, standard international macroeconomic models predict that the currency of a tariff-imposing country should appreciate (Bergin and Corsetti, 2023; Jeanne and Son, 2024).

To examine this apparent paradox, a standard two-country New Keynesian framework is applied, linking the United States with a representative emerging market (EM) economy.¹⁰ In the baseline calibration, a 10 percent anticipated increase in US tariffs leads to a real appreciation of the dollar (figure I.B1.1). The mechanism is straightforward: higher tariffs reduce US demand for imports, improving the US trade balance. As tariffs reduce US imports, US firms and households need to purchase fewer foreign currencies, resulting in fewer dollars being supplied to global exchange markets. With demand for dollars unchanged or rising, the reduced supply leads to an appreciation of the dollar.

Figure I.B1.1. Exchange rate and output effects of tariff rises under different policy scenarios



Source: Canzoneri et al. (2025)

(continued)

⁸ The US dollar has depreciated 12 percent with respect to a basket of currencies in 2025.

⁹ See Hartley and Rebucci (2025)

¹⁰ The model follows Canzoneri et al. (2025). The model embeds structural features common in EAP economies: reliance on foreign-currency borrowing (primarily in dollars) and dollar invoicing of exports. Monetary policy is modeled asymmetrically: US interest rates are held constant for extended periods, while emerging markets follow standard policy rules.

(Box I.B1. continued)

Two extensions are then explored to try reconcile the model with the recent dollar depreciation observed in practice:

1. *Policy coordination scenario.* Emerging market economies collectively agree to appreciate their currencies in exchange for lower US tariffs. In the model, this is represented as a smaller tariff shock (9 percent instead of 10 percent) combined with a 1 percent appreciation of the nominal dollar exchange rate. However, this assumption cannot explain the current appreciation of EM currencies: the EM dollar exchange rate still depreciates, albeit by less than in the baseline, while the EM faces a substantially larger output loss. This makes such an arrangement unlikely from the perspective of emerging market economies.
2. *Monetary policy expectations scenario.* Investors anticipate a 50-basis point reduction in US policy rates in response to trade tensions. Incorporating this shock generates a dollar depreciation, as lower expected US returns trigger capital outflows. This adjustment provides a more coherent explanation within the model's structure, highlighting how shifts in monetary policy expectations can offset the trade-balance channel of tariffs, ultimately leading to an appreciation of EM currencies.

Taken together, the analysis underscores the importance of monetary policy expectations in shaping exchange rate outcomes. While tariffs appreciate the dollar in theory, observed depreciation is more plausibly explained by markets anticipating an accommodative response by the Federal Reserve.

Box I.B2. The durable effects of temporary export restrictions

In June 1973, the United States imposed an export ban on soybeans to curb surging domestic prices. Though the measure was short-lived—lasting only a few weeks before being replaced with licensing controls and fully lifted within months—its consequences were anything but temporary. At the time, Japan sourced about 90 percent of its soybean imports from the US. Confronted with the sudden cutoff, Japan swiftly diversified its suppliers and invested heavily in soybean production in Brazil. This strategic shift permanently eroded US dominance in global soybean trade. The episode underscores a broader lesson: even short-lived export restrictions can inflict lasting damage on trade relationships and reshape global markets.

Export restrictions are among the oldest and most widely used trade policy tools, typically deployed in times of crisis to safeguard domestic supplies of food, medical goods, or raw materials. They take many forms—ranging from outright bans and licensing requirements to quotas and administrative barriers. Their appeal is evident: by keeping more goods at home, governments aim to stabilize domestic markets and shield households from shortages or price spikes. Yet, in recent times, the motivations extend to political, fiscal, and strategic considerations. While such measures may deliver short-term relief, they impose long-term costs—not only on importers who lose access to critical goods, but also on exporters who forfeit market share and credibility, a dimension often overlooked. Export restrictions diminish the global availability of essential commodities, drive up international prices, and compel trading partners to seek alternative sources.

(continued)

(Box I.B2. continued)

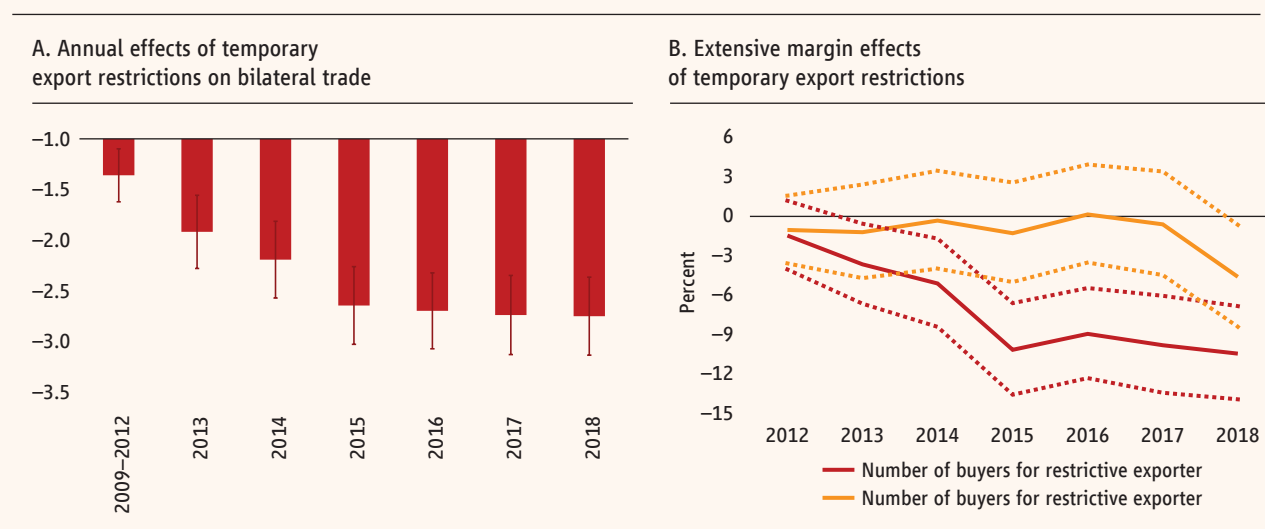
The global food crisis of the 2008–2011 vividly illustrates these dynamics. In response to surging prices, dozens of countries—including several major food exporters—introduced temporary restrictions on agricultural products. Although most measures were lifted once the crisis eased, their effects proved far more enduring than policymakers anticipated. International buyers who suffered supply disruptions often did not return, even years after the restrictions were lifted. Once damaged, trust and reliability in trade relationships proved difficult to restore. Export restrictions—though temporary—left lasting marks on global trade.

A sharp and lasting trade decline

The 2008–2011 export restrictions triggered a sharp contraction in bilateral trade between restricting exporters and their trading partners. On average, bilateral trade flows fell by about 14 percent. More strikingly, the damage proved persistent: even six years after the restrictions were lifted, trade had not returned to pre-crisis levels (figure I.B2.1a).

The effects were not limited to bilateral trade relationships. Exporting countries that resorted to restrictions experienced, on average, a 19 percent decline in their total exports of the affected products. Just as important, they lost trading partners—some of whom permanently switched to alternative suppliers (figure I.B2.1b).

Figure I.B2.1. Export restrictions lead to lasting lower bilateral trade and a switch to alternative suppliers for affected countries



Source: BACI; Islamaj, Khan and Mattoo (2025)

Notes: A. Bars show estimates from a regression of bilateral trade flows on a year fixed effects and export restriction dummies. All regressions include fixed effects as listed. Standard errors are clustered at the importer-exporter-product level. B. Blue line shows the percentage change in suppliers of products that were subject to export restrictions; red line shows the percentage change in number of countries buying from restrictive exporters.

(continued)

(Box I.B2. continued)

How importers adjusted

Importers' responses depended on their degree of exposure to restrictive exporters. Many eventually turned to alternative suppliers that had remained open during the crisis. For those highly dependent on restrictive exporters, however, the adjustment was more disruptive. Over time though, they not only diversified toward new partners but also reduced their overall imports of the affected products, ultimately reducing their participation in international trade for those goods. This dual adjustment—shifting suppliers while also scaling down imports—reshaped trade networks and weakened reliance on restrictive exporters.

Implications for Today

The evidence highlights a critical lesson for policymakers: temporary export restrictions may deliver relief at home in the short-term, but they generate lasting costs. Exporters suffer a loss of credibility and market share, while the global trading system bears the burden of weakened trust and efficiency. Once trade relationships are disrupted, partners often turn elsewhere, and rebuilding those ties can take years—if it happens at all.

The temptation to restrict exports has hardly disappeared. During the COVID-19 pandemic, dozens of countries introduced controls on food and medical supplies. More recently, restrictions have extended to critical minerals, semiconductors, and other strategic goods. The historical record suggests a clear warning: such measures may backfire, leaving long-lived scars on trade.

Box I.B3. Stock market effects of US tariff announcements: Both absolute and relative tariffs matter

On April 2nd, the US government announced the introduction of “reciprocal tariffs” against most countries of the world. The tariffs rates were computed based on a formula aimed at reducing the bilateral trade deficit of the US *vis a vis* each trading partner. One week later, on April 9th, the introduction of “reciprocal tariffs” was delayed by 3-months. Figure I.B3.1 reports the evolution of the daily stock indexes for several economies around these dates. The US announcement led to a synchronized fall of stock market indexes worldwide, with a median decline of about 10 percent between April 2nd and April 9th, following which a generalized recovery is observed.

This episode allows us to identify the effects of absolute and relative tariffs, since the tariffs announced on different countries exports to the US were highly asymmetric, ranging from a maximum announced tariff of 49% for Cambodia and 46% for Viet Nam to announced tariff levels of 10% for several other countries in the EAP region.

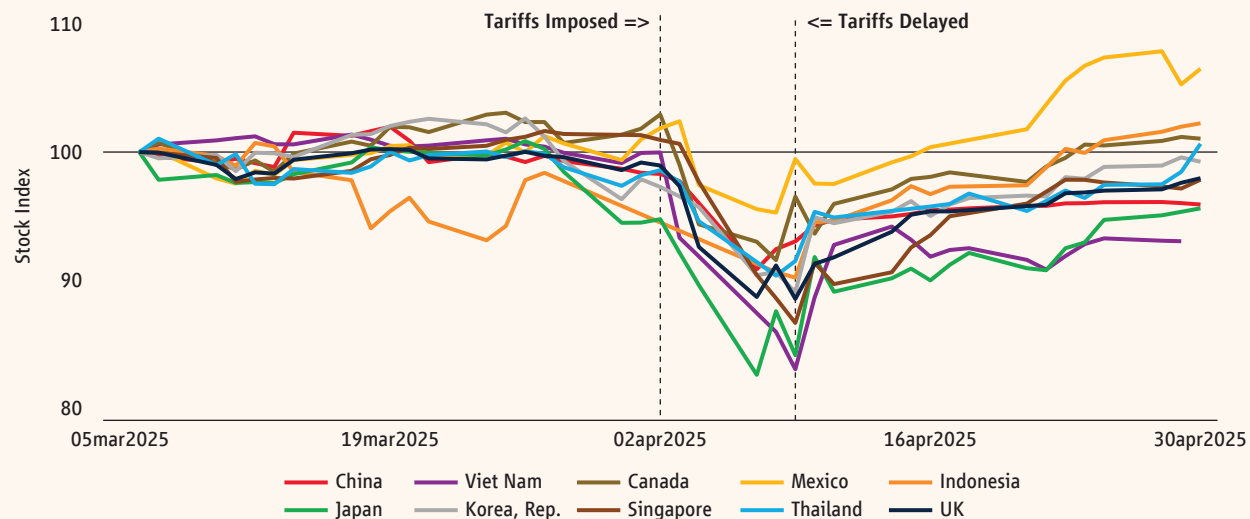
Figure I.B3.2 reports the result of a case study analysis on the evolution of the stock market indexes following the announcement of April 2nd. The stock market reaction is negatively correlated to the extent of exposure to the US, computed as the product between the announced “reciprocal tariff” and the share of US in total export for a given country. However, the exposure of countries with a similar export composition towards the US seems to affect positively the stock index, consistent with expectations.

(continued)

(Box I.B3. continued)

Figure I.B3.1. Stock markets worldwide fell in the days following the US announcement on “reciprocal tariffs”, while they recovered from April 9th, when the tariff were suspended for 90 days

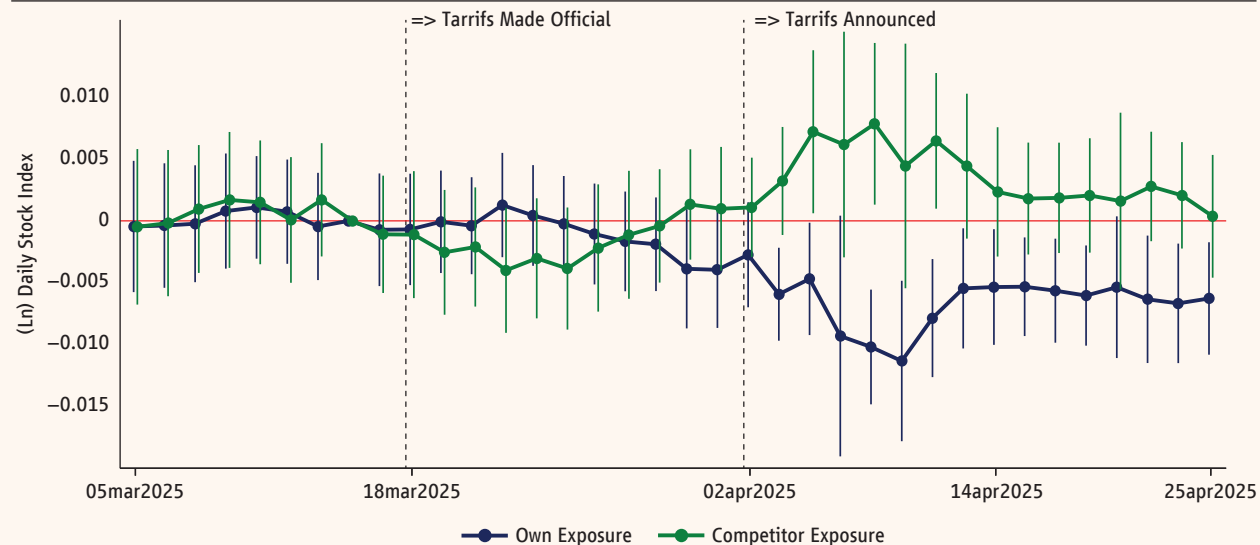
GDP growth across country groups



Source: Haver Analytics

Figure I.B3.2. Conditional on country-specific and global factors, exposure to the US tariff had a negative effect on stock market indexes, while competitors' exposure to the US tariff had a positive impact

GDP growth across country groups



Source: World Bank Staff Estimates

Note: Event study analysis on daily stock market data. 55 countries. Own-exposure is computed as the “reciprocal tariff” announced on April 2nd weighted by the share of US in the country total export. The competitor exposure is defined for each country as a weighted average of the own-exposure of the 20 countries with the highest similarity of exports to the US.

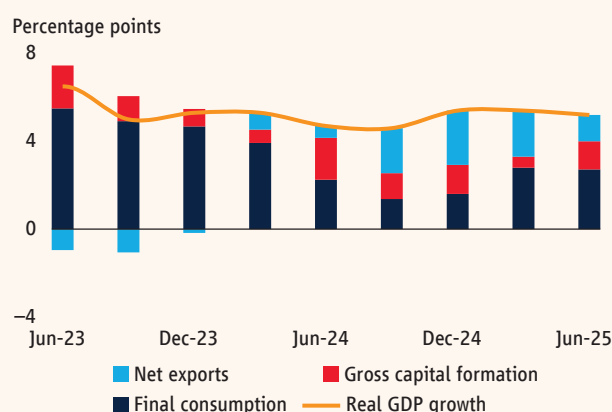
Box I.B4. Recent developments in China's economy

China's economy expanded by 5.3 percent year-on-year (y/y) in the first half of 2025, higher than 5.0 percent in the same period last year. Consumption growth was supported by expanded consumer subsidies, whereas policy stimulus helped investment growth in infrastructure and manufacturing, partly offsetting the continued contraction in real estate investment. Net exports continued to support growth, with exports to non-US markets increasing and US-bound shipments contracting (figure I.B4.1).

But signs of cooling have emerged since July. Retail sales growth slowed to an average of 3.6 percent y/y in July-August, down from 4.8 percent in June, partly due to fading momentum in policy-supported categories (figure I.B4.2). Imports contracted 2.2 percent and consumer prices fell slightly in the first eight months of 2025. On the supply side, industrial production growth eased to 5.5 percent in July-August from 6.8 percent, with strength in autos and electronics partly offset by softness in construction-related output linked to the property slump. Fixed asset investment fell 7.8 percent in July-August, dragged by persistent weakness in the property sector.

Demand-supply imbalances are dampening manufacturing investment in China. A pronounced shift has taken place from real estate to the manufacturing sector. Manufacturing investment has cumulatively increased by 21 percent since July 2021 (Figure I.B4.3), supported in part by bank lending (Figure I.B4.3). However, its sustainability is increasingly challenged by demand-supply imbalances and the resulting pressures on price and profitability. In July, manufacturing investment recorded its first decline since 2021, down by 0.3 percent compared to a year before. The leading indicator—bank lending to the industrial sector—had already weakened since the previous year. China's Producer Price Index (PPI) was down 2.9% year-on-year in August 2025 and has been declining since 2022. Additionally, evidence suggests that China's exports of finished goods to other EAP countries have become relatively cheaper over time.

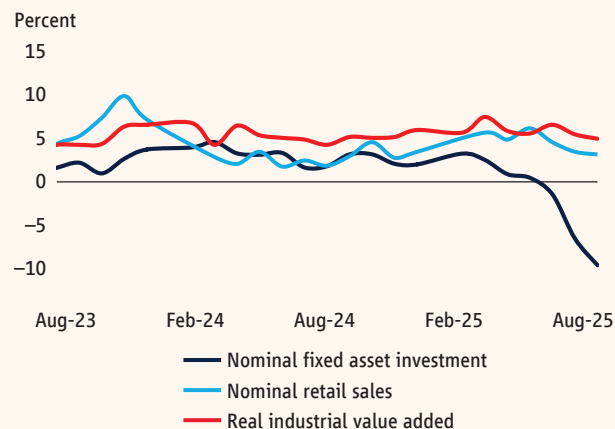
Figure I.B4.1. Real GDP by components (Contribution to y/y growth)



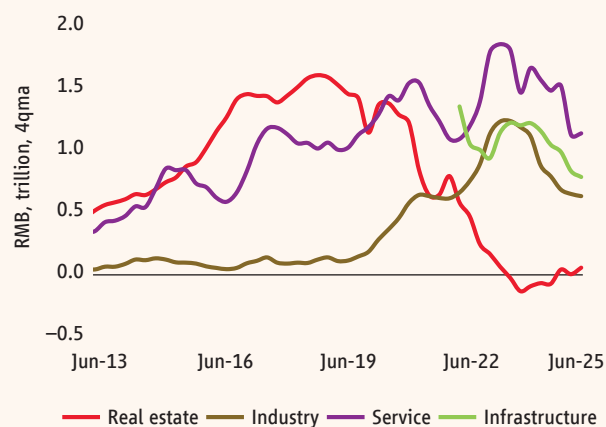
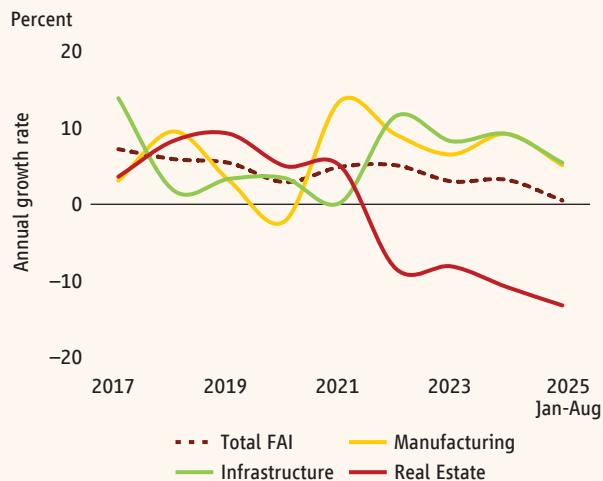
Source: Wind

(continued)

(Box I.B4. continued)

Figure I.B4.2. High-frequency activity indicators

Source: Wind

Figure I.B4.3. China's growth is being dampened by weakness in the property sector and slowing manufacturing investment**A. Change in new bank loans by sector****B. Annual investment growth**

Source: Wind

(continued)

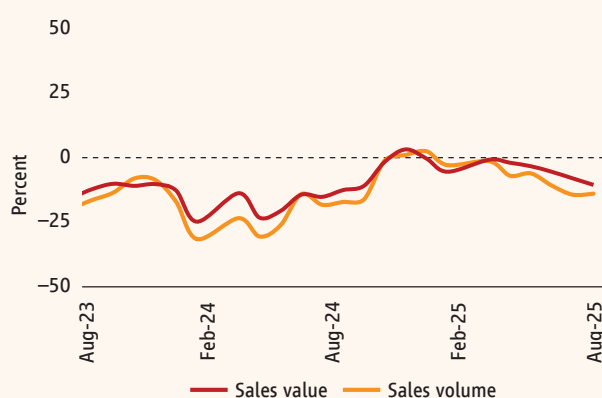
(Box I.B4. continued)

The property sector remained a significant drag to growth. In Q2, new home sales across 70 cities fell 9.1 percent by value and 5.0 percent by volume from a year earlier (figure I.B4.4). Mortgage rates were cut by 25 bps to 2.8 percent in May to stimulate demand, but housing new starts, construction, and completions continued to fall as developers faced tight financing and uncertain market prospects. The persistent declines show the limited impact of current support measures such as local government purchase of unsold housing and idle land amid slow household wage growth, high developer debt, and unfinished housing projects.

China continues to pursue broader trade integration and openness not only within the region but also with partners beyond Asia. Merchandise exports grew 5.9 percent y/y in January-August, up from 4.6 percent in the same period last year, with stronger shipments to emerging markets and advanced economies in Asia and Europe (figure I.B4.5). The recent expansion of zero-tariff policy to 53 African countries reflects efforts to diversify trade partnerships and strengthen South-South cooperation. In addition, China has progressively diversified its agricultural product sourcing to Brazil, Russia and Southeast Asian countries, supported by streamlined import approvals and improved logistics.

Monetary policy has been accommodative, with the People's Bank of China cutting policy rates by 10 bps, reducing the reserve requirement ratio by 50 bps, and expanding structural credit facilities. Liquidity injections totaled 4.1 percent of GDP in Q2. Authorities have introduced targeted interest subsidies for businesses in consumer service sectors and individual consumers with an aim to spur household spending. Even so, credit demand remained weak. Corporate borrowing slowed amid property sector uncertainty, high real borrowing costs, and subdued investment appetite, while household borrowing was constrained by soft income growth, falling home prices, and high debt burdens.

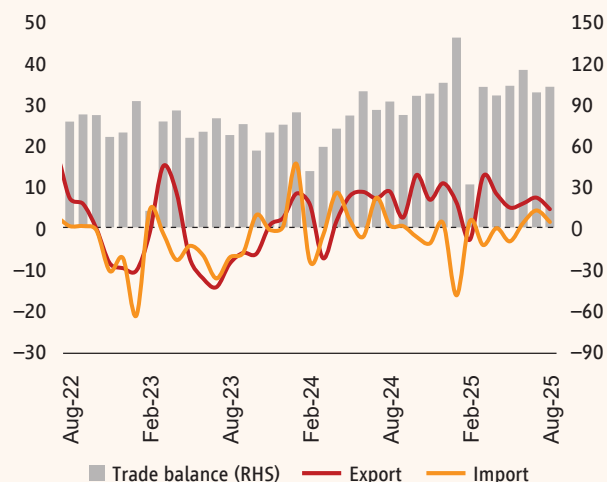
Figure I.B4.4. New housing sales (Percent y/y)



Source: Wind

(continued)

(Box I.B4. continued)

Figure I.B4.5. Goods export and import growth (Percent y/y; Billion USD)

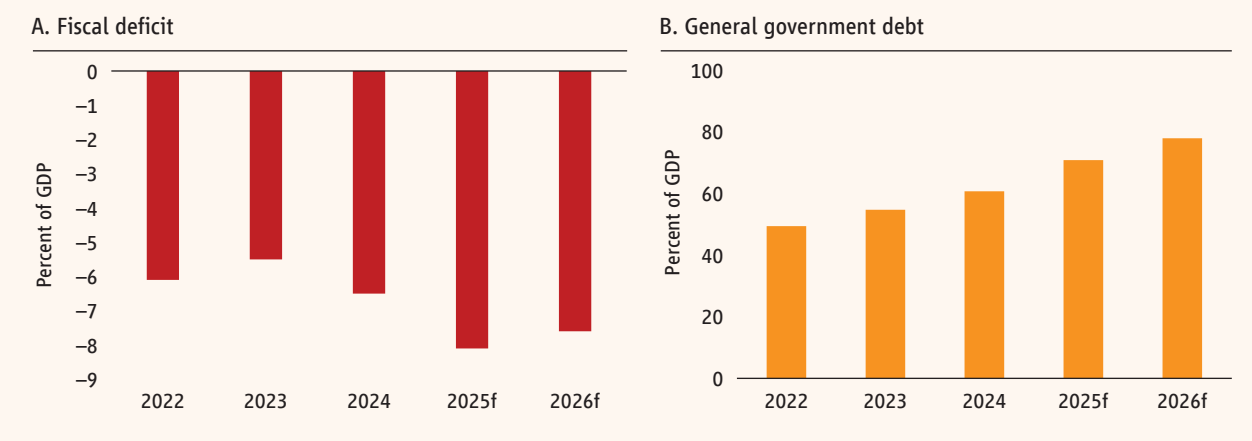
Source: Wind

Fiscal policy support has been strong in 2025. A positive fiscal impulse of 1.6 percent of GDP is expected in 2025, led by higher public investment and targeted household measures. Subsidy programs for consumer goods and equipment upgrades have been expanded, though their growth impact will likely be modest and temporary. Social spending on pensions and health insurance also increased, but benefit levels remain low, limiting their ability to boost consumption. Additional measures to boost household spending included nationwide childcare subsidies and one year of free preschool, jointly funded by central and local governments. Higher spending and weaker revenues, particularly from land lease sales and corporate taxes, widened the fiscal deficit to 4.0 percent of GDP in January–July, compared to 2.8 percent in the same period last year.

Going forward, fiscal stimulus is likely to be limited by rising public debt (figure I.B4.6). This will lower the ability to increase infrastructure investment, which is already facing diminishing returns. Relatively weak consumption is unlikely to absorb excess capacity or anchor growth as consumer confidence remains below pre-Covid-19 levels.

(continued)

(Box I.B4. continued)

Figure I.B4.6. The fiscal stimulus is likely to be limited by rising public debt

Source: World Economic Outlook

Box I.B5. Pacific Island Countries (PIC11)¹¹

After three years of recovery, growth in the PIC11 is slowing as the postpandemic rebound normalizes. The deceleration is led by Fiji, which contributes over half of PIC11 output, as tourism returns to trend (figure I.B6.1). In Solomon Islands growth is holding steady at 2.5 percent supported by infrastructure investments in transport, energy, and telecom, as well as increased mining activity, while logging sector suffers a downturn. Outside these two, momentum has been improving: Palau has enjoyed a strong tourism-led revival as Asian routes reopened; several sovereign rentled economies (Federated States of Micronesia (FSM), Kiribati, Nauru, Republic of the Marshall Islands (RMI), and Tuvalu) have been supported by grants, fishing and other nontax revenues; and Samoa and Tonga benefited from remittances and services. Vanuatu has suffered cascading shocks from the voluntary liquidation of the national airline in 2024 and a major quake later that year disrupting connectivity, tourism, prices, and the fiscal outlook. However, activity is predicted to rebound in 2025 supported by reconstruction investment and tourism.

Fiscal balances and public debt have generally improved post-pandemic, with tourism and remittance economies moving towards surpluses and sovereign rent-led economies relying less on debt (figure I.B5.2). As emergency supports were unwound and revenues recovered, fiscal balances strengthened across several PICs and public debt declined in more than two-thirds of them; tourism and remittances-led economies-excluding Vanuatu, moved

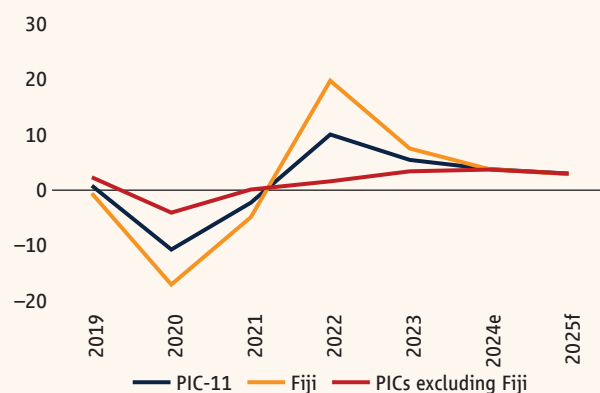
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¹¹ The Pacific Islands comprise 11 countries, with Fiji being the most populous and economically significant, followed by the Solomon Islands. The 9 other economies are categorized into two main groups. The first group relies heavily on tourism and remittances (Palau, Samoa, Tonga, Vanuatu). The second group depends on natural resources, non-tax revenue, and development aid (FSM, Kiribati, Nauru, RMI, Tuvalu).

(Box I.B5. continued)

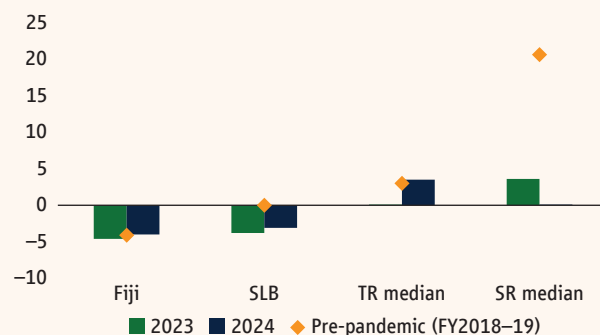
back toward primary surpluses; and sovereign rentled economies relied less on debt financing given access to trust funds and concessional inflows. However, vulnerabilities persist, especially in Fiji with high debt, and low execution rates of public investment in others. Many PICs remain at moderate to high risk of debt distress given low shockabsorption capacity, pointing to the need to rebuild buffers, strengthen domestic revenue mobilization, and raise public investment efficiency.

Figure I.B5.1. GDP growth (Percent change)



Source: Haver Analytics; World Bank.

Figure I.B5.2. Fiscal balance (Percent of GDP)



Source: Haver Analytics; IMF; World Bank.

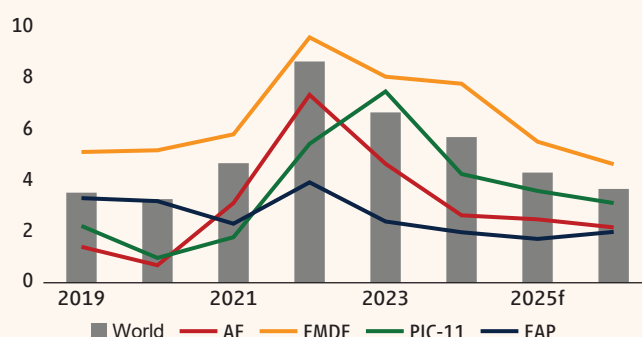
Inflation has eased markedly from its 2022–23 peaks. Median inflation declined from 6.8 percent in 2023 to about 4 percent in 2024, and is projected near 3–3.4 percent in 2025–26, as global food and fuel prices soften and supply frictions ease (figure I.B5.3). Country-specific patterns vary: Fiji saw a temporary VAT-driven spike, but inflation is expected to normalize; Palau has moved from double digits to low single digits with the tourism

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(Box I.B5. continued)

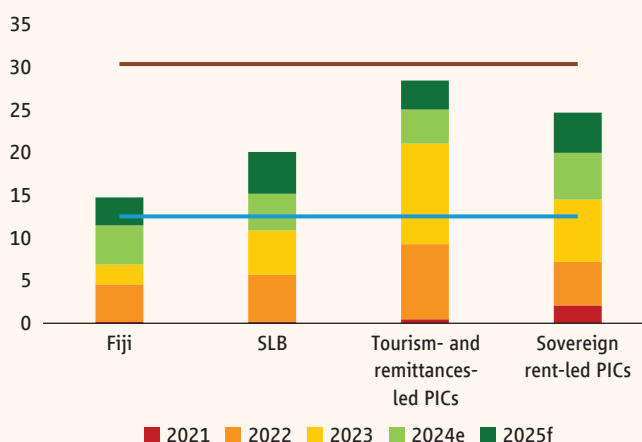
rebound; Vanuatu's disinflation was interrupted by disaster-related disruptions; while Tonga and Samoa are back near reference bands. Still, price levels remain above pre-pandemic norms, straining real incomes of vulnerable households (figure I.B5.4).

Figure I.B5.3. Consumer price inflation (Percent, year-on-year)



Source: IMF; World Bank.

Figure I.B5.4. Cumulative change in consumer price index (Index, 2019=100 percent)



Source: Haver Analytics; IMF; World Bank.

Labor market outcomes are improving where data are available: in Samoa, unemployment fell sharply alongside declines in youth unemployment and informality, supported by the services rebound. Seasonal labor mobility and remittances continue to stabilize incomes in Samoa and Tonga. Connectivity shocks can rapidly reverse job gains: the aviation collapse in Vanuatu hit tourism-linked employment and incomes, particularly for low-wage workers and informal households.

(continued)

(Box I.B5. continued)

The region is projected to grow within a 2.7–2.8 percent range in 2025–26, slower than in 2023–24 as Fiji’s post-reopening surge fades and private investment stays subdued. Growth will remain supported by tourism, remittances, public investment, and grants, including COFA inflows in the North Pacific. Solomon Islands will expand modestly on mining and infrastructure despite logging declines, while Palau stands out with strong tourism-led growth. Samoa and Tonga will continue to benefit from services and remittances, and sovereign rent-led economies should remain broadly stable despite volatile fishing and non-tax revenues. Inflation is expected to ease toward 3 percent on average, barring new global commodity shocks.

Risks are skewed to the downside and reflect external, climate, and financing channels. Escalating trade tensions could weigh on tourism, exports, and remittances, while raising the cost of capital goods and dampening growth in open PICs. Climate change and natural disasters remain pervasive threats, amplifying cycles, eroding fiscal buffers, and heightening poverty risks—particularly for atoll nations. Financing pressures are compounded by grant normalization, volatile fishing and non-tax revenues, and narrow domestic tax bases, with thin capacity limiting effective investment execution.

Policy priorities are twofold: building resilience and lifting potential growth. Building disaster and climate resilience remains foundational: scaling resilient infrastructure, strengthening financial protection, and safeguarding connectivity can limit scarring and protect jobs. Pro-growth reforms to crowd in private investment—better project execution, deeper competition, and stronger access to finance—are critical in tourism-intensive economies (Fiji, Palau, Samoa, Tonga) and for diversification into resilient sectors such as renewable energy, climate-smart agriculture, and the blue economy. Calibrated fiscal consolidation—through stronger revenue mobilization, spending efficiency, and improved public investment management—can restore buffers without undermining growth. Economies with high debt (e.g., Fiji) need credible medium-term frameworks, while sovereign rent economies should safeguard trust funds and smooth volatility. Targeted social assistance and investing in adaptive social protection systems can help cushion the poor as prices and disasters bite.

Box I.B6. Financial sector risks and policies in EAP

Financial systems across East Asia and the Pacific (EAP) remain broadly stable. Banks are generally well-capitalized, asset quality is healthy (Table I.B6.1). Liquidity conditions are supportive, with interest rates in advanced countries declining.¹² Sovereign spreads have fallen in recent months, and international bond issuance in 2025 exceeded the levels of the same period in the past two years, signaling favorable financing conditions (figure I.B6.1).

But pockets of vulnerabilities remain. Several economies—including Cambodia, China, Myanmar, Thailand, and Viet Nam—have reintroduced forbearance measures to ease near-term credit stress, which risks delaying the recognition of problem loans. In China, credit growth has been increasingly driven by government borrowing,

(continued)

¹² Around 60% of advanced economies cut their policy rates between March and August 2025.

(Box I.B6. continued)

while commercial bank lending has slowed (figure I.B6.2). High household and corporate debt in Malaysia and Thailand can increase risks in the banking sector.¹³ Meanwhile, Cambodia and Lao PDR face mounting asset quality issues, though for different reasons: Cambodia's NPL have risen from overextended pre-pandemic lending to tourism and real estate and weak provisioning, and Lao PDR from systemic financial vulnerabilities, including rising interest payments, and prolonged forbearance during the pandemic that delayed recognition of distressed assets (figure I.B6.3).

Table I.B6.1. Financial sector vulnerabilities in EAP

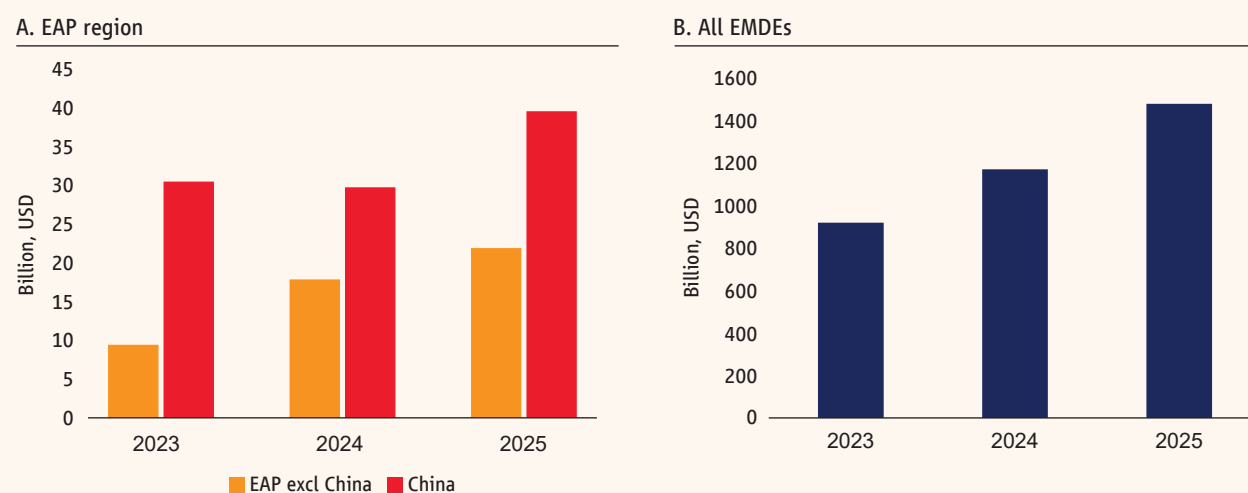
	Financial											
	Credit Expansion		Capital Adequacy		Asset Quality		Profitability		Solvency		Liquidity	
	Domestic credit to private sector (% of GDP)		Regulatory Capital to Risk-Weighted Assets (%)		NPLs to Total Gross Loans (%)		Return on equity (%)		Deposit to loan ratio (%)		Liquid asset (% short-term liability)	
	2024	change	2025	change	2025	change	2025	change	2025	change	2025	change
China	200	7	15	0	2	0	8.8	0	125	-3	76	11
Indonesia	39	-1	24	-1	2	0	15.2	2	104	-4	27	2
Malaysia	156	-1	18	-1	1	0	11.7	2	109	-3	21	0
Philippines	47	-1	16	0	3	0	12.6	-2	122	-11	39	-5
Thailand	172	-6	20	1	3	0	9.0	0	95	3	36	2
Viet Nam	126	0	12	1	5	1	18.4	-21	97	-7	23	0
Cambodia	120	-5	22	0	7	5	0.6	-7	99	17	24	2
Lao PDR	57	1	18	-1	1	0	16.1	0	154	11	36	0
Mongolia	41	2			8	0	13.5	-1	130	7	50	0
Myanmar							3.0	0	203	3	64	0
Timor-Leste	31	13			2	0	11.1	0	224	-49	94	0
Fiji	76	-1	21	0	8	0	17.5	0	111	0	206	0
Solomon Islands	30	-2	35	3	9	-1	5.7	-21	158	5	70	2
Papua New Guinea	14	0	40	5	5	0	24.3	-2	180	0	25	-2
Samoa	41	-8	28	-3	5	-1	20.3	10	137	12	53	9
Vanuatu	54	-1	24	0	20	3			149	7		
Tonga	42	2	32	1	11	1	9.5	-2	147	4	60	-9

The region's financial sectors have so far withstood external shocks, but trade restrictions, global uncertainty, and slower growth could weigh on outlooks and can negatively affect financial sectors. Banks remain exposed through several channels: weaker external demand could erode profitability and capital buffers; tighter global financial conditions may reduce external financing, raise refinancing costs, and amplify currency risks, particularly for firms with unhedged foreign-currency debt; commodity exporters such as Indonesia and Mongolia face added vulnerabilities from lower prices and reduced FX inflows; and countries with weaker external positions, including the Philippines and Papua New Guinea, risk intensifying sovereign-bank linkages under strained market access.

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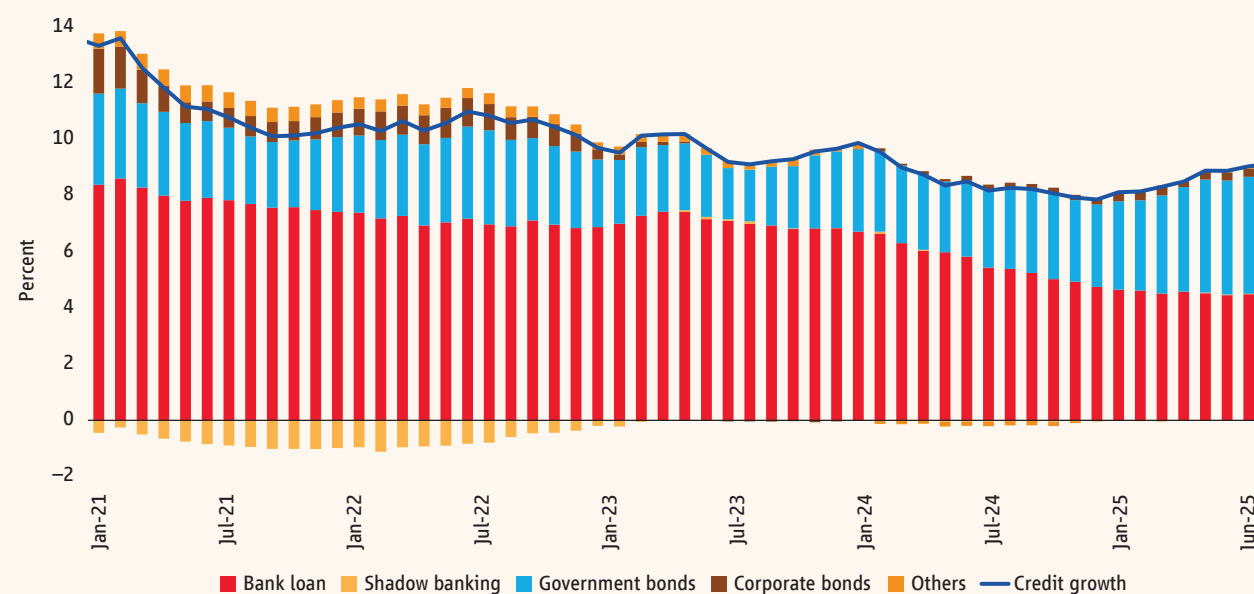
13 For instance, as of 2015-Q1 household and non-financial corporate debt stood at 153 percent of GDP in Malaysia and 169 percent of GDP in Thailand

(Box I.B6. continued)

Figure I.B6.1. International bond issuance increased in 2025

Source: Dealogic

Note: Bars show total international bond issuance for the January-August period.

Figure I.B6.2. Credit growth in China is increasing supported by government borrowing

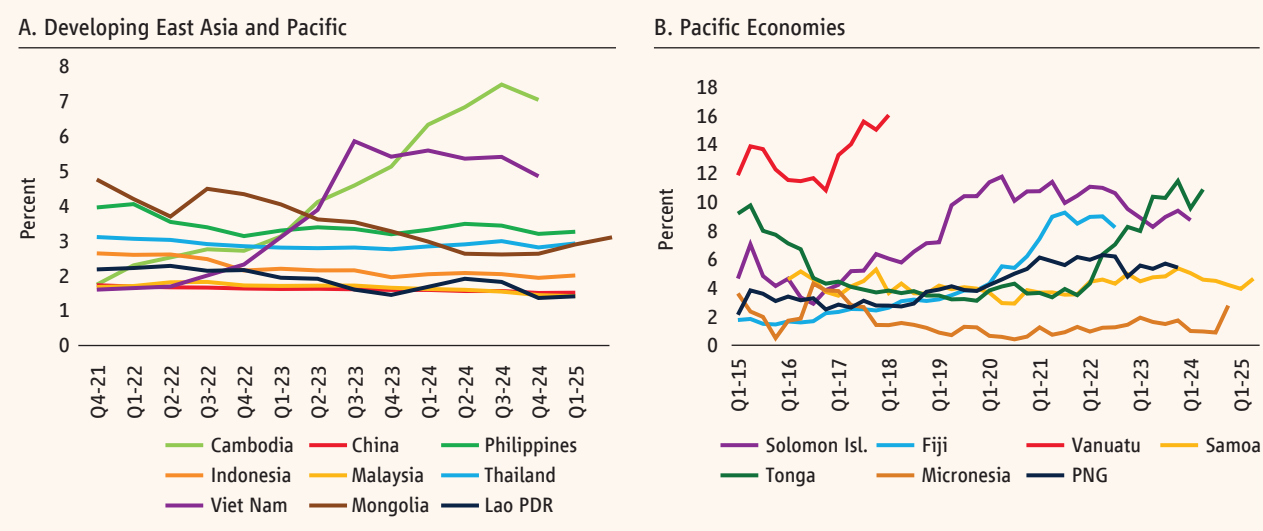
Sources: PBC, World Bank staff's calculations

(continued)

(Box I.B6. continued)

So far, trade-related developments have had only a limited impact on financial stability and funding conditions in EAP. Several factors have helped cushion the region, including expectations of progress in US trade negotiations, strong policy and fiscal support in China, a weaker dollar against emerging-market currencies, strengthened regulatory frameworks, and robust bank capital buffers.

Figure I.B6.3. NPL loans are relatively high in Cambodia and Viet Nam



Sources: Haver Analytics

Some country-specific measures have also helped financial sectors. In China, recent policy support has, among other things, focused on mitigating and resolving financial sector risks by consolidating a few hundred weak small banks and injecting capital into large state-owned banks.¹⁴ Vietnamese banks are issuing bonds to increase capital adequacy given high credit demand, with capital markets yet to take on a larger role. Credit growth rates in Indonesia, the Philippines, and Malaysia have been positive, while they have been somewhat lackluster in Thailand, dipping into the negative territory recently.

Indonesia's financial markets have so far weathered recent protests, with equity valuations, the exchange rate, interbank liquidity, and borrowing costs largely stable through late August–early September. Portfolio outflows were modest and within historical norms, while banking system asset quality remains strong. Still, prolonged political turmoil could strain financing conditions, heighten sovereign risk through weaker growth and fiscal slippage, and increase reliance on volatile portfolio flows.

(continued)

¹⁴ The recent RMB 520 billion equity injection into four large state-owned banks boosted their average capital ratios by one percentage point to 18.3 percent,

(Box I.B6. continued)

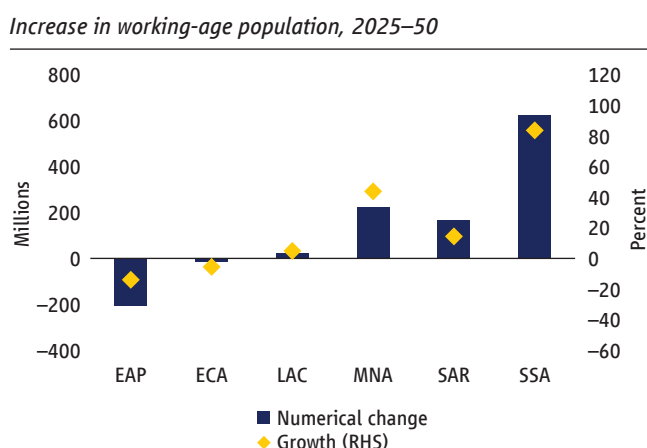
Looking ahead, financial sector policy in EAP should focus on strengthening resilience and addressing emerging risks. Regulatory and supervisory frameworks need to be reinforced, with prudential standards applied rigorously and crisis management tools and financial safety nets enhanced. Banks should improve risk management and governance and ensure transparent recognition of asset quality issues. Forbearance measures, where used, should remain temporary and narrowly targeted to avoid undermining regulatory discipline. At the regional level, closer cooperation—including sharing information, best practices, and supervisory insights—would help manage cross-border risks and bolster financial stability.

II. Jobs

Jobs are more than a source of income. They provide dignity, purpose and a pathway to better lives for individuals and their families. Jobs also matter for trust and social cohesion (World Bank 2012). While recognizing these broader dimensions, we examine jobs in this report through the lens of their economic impact on individuals and economies.

Demographic trends set the overall EAP region apart from other developing regions. Sub-Saharan Africa, the Middle East and South Asia will add more than 1 billion people to the working-age population between 2025 and 2050 (Figure II.1), most of whom will need jobs. For most countries in EAP, working-age population growth is not the primary jobs-related challenge. Indeed, between 2025 and 2050, the working-age population in EAP is projected to fall by around 200 million. However, there are differences within the region: China and Thailand have aging populations while Indonesia and Cambodia face youth bulges. The former, with stagnant or falling working-age populations, will have to manage growing dependency ratios and look beyond population growth to other ways of driving growth. But for all countries in the region, the challenge will be to make jobs more productive.¹

Figure II.1. EAP overall differs from other regions as the working-age population is projected to decrease



Note: EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East, North Africa, Afghanistan and Pakistan; SAR = South Asia; SSA = Sub-Saharan Africa. Panel shows the change in the working-age population, using the benchmark method over 2025–50 by EMDE region, in absolute magnitude and as a percentage change on the right-hand side.

Meanwhile, job creation in the years ahead may be harder than in the past. Changes in technology and trade are challenging the traditional model of export-led, labor-intensive growth in EAP (World Bank 2025a). The spread of industrial robots, artificial intelligence (AI), and digitalization is boosting productivity and creating new jobs while displacing others. Increasing trade protection is inducing a change in countries' patterns of trade, and hence structure of economies and employment. Contrasting demographic trends – aging populations in China and Malaysia and youth bulges in Indonesia and Cambodia – are shaping labor endowments. At the same time, climate change is exposing EAP countries to serious shocks and economic disruption.

II.1 The jobs status

To understand the nature of the jobs-related issues facing countries, we need to consider both the structure of employment and the pattern of productivity and wages. First, consider three key variables, the product of which is the share of the population that has jobs:

$$\frac{\text{Employed}}{\text{Total population}} = \frac{\text{Employed}}{\text{People seeking work}} \times \frac{\text{People seeking work}}{\text{Working age population}} \times \frac{\text{Working age population}}{\text{Total population}}$$

¹ More productive jobs are defined here as jobs where a worker's contribution to output would be higher. In technical terms, a more productive job is one in which the value of the marginal product of labor is higher. In competitive markets, a higher value of the marginal product of labor would result in a higher wage and/or higher benefits.

- *The employed as a share of people seeking work.* “The employment rates” in each country are more than 95 percent but are lower among the young, especially in China, Indonesia, Malaysia and Mongolia (Figure II.2).
- *People seeking work as a proportion of the working age population.* Labor force participation differs significantly across countries, ranging from around 80 percent in Cambodia and Viet Nam to less than 65 percent in Myanmar, the Philippines, and Mongolia, with much lower levels in several Pacific Island Countries. In most of the region, labor force participation is particularly low among women, with around 15 percentage point gaps relative to men in Indonesia, Malaysia and the Philippines; and among the elderly (ages 55–64), with a more than 25 percentage point gap relative to younger workers (25–54) in Malaysia and Mongolia (Figure II.3).
- *The working population as a share of the total population.* Demographic change is affecting the share of the working age population (age 15–64) in total population: reducing it in aging China and Thailand, and increasing it in the still youthful Philippines, Indonesia, and Cambodia (Figure II.4).

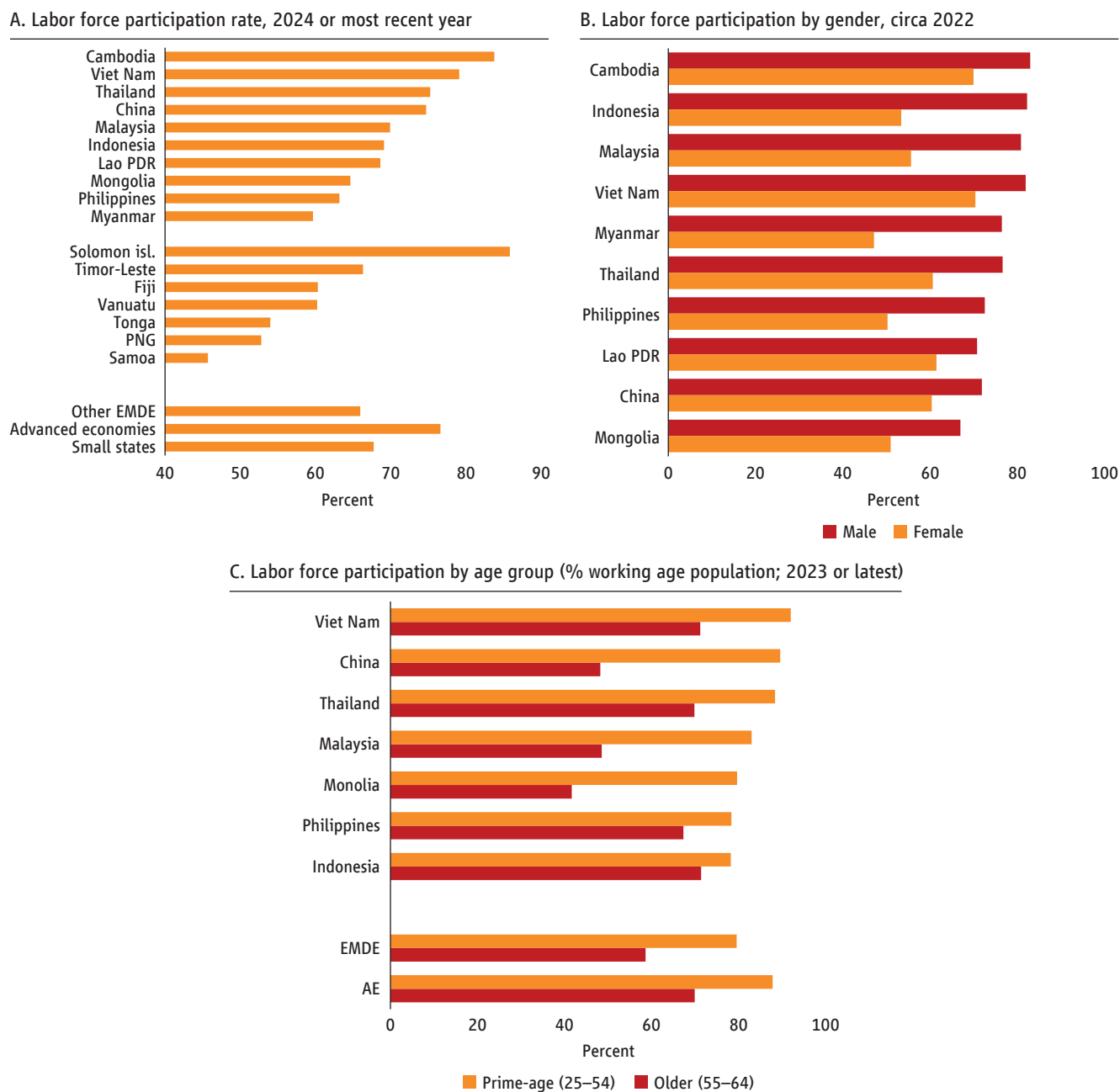
Figure II.2. The employment rate is generally high in EAP, but the young are struggling to find jobs, especially in countries like China and Indonesia



Source: Based on WDI, ILO.

Note: In Panel A, both employment and labor force are defined for the age 15+ population. In Panel B, China's prime-age refers age 25+.

Figure II.3. Labor force participation is low in some countries, especially in the Pacific, among women and among the older members of the working age population

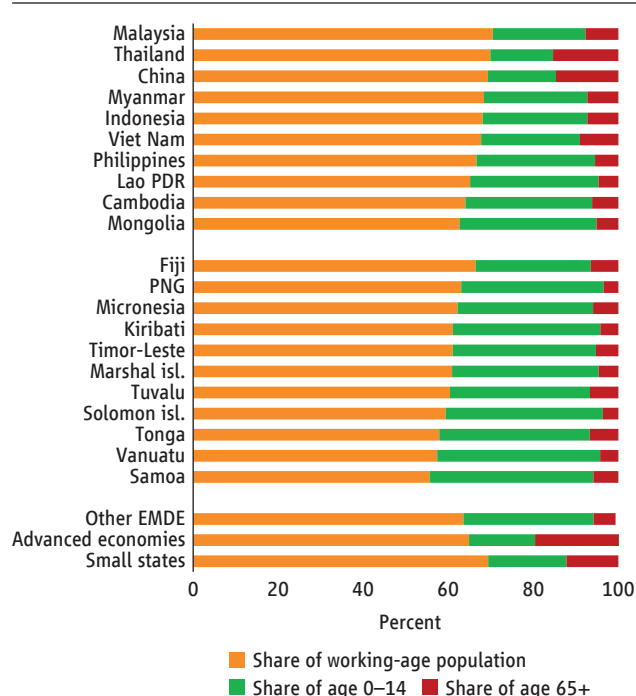


Source: WDI, ILO

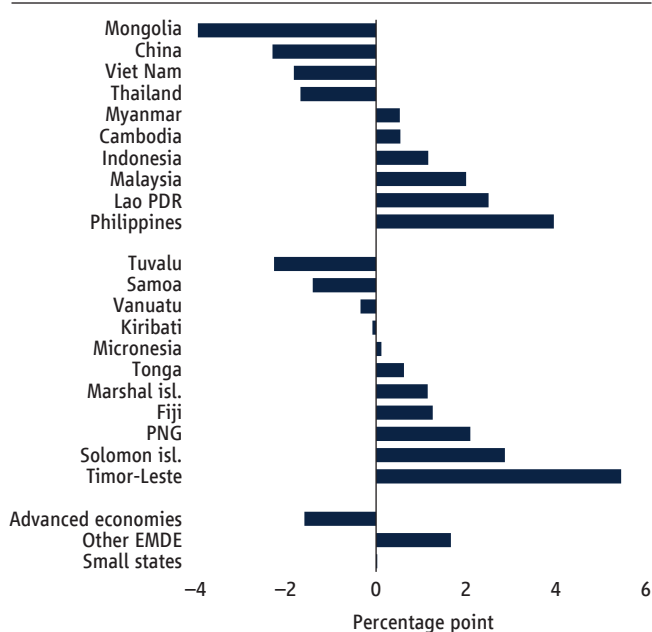
Note: C. Labor force participation for the young is not shown as many can still be in education or training.

Figure II.4. The share of working age population is decreasing in aging countries such as China, Mongolia, Thailand and Viet Nam

A. Share of working-age population and other age groups in total population, 2024



B. Change in the share of the working age population (2015–2024)



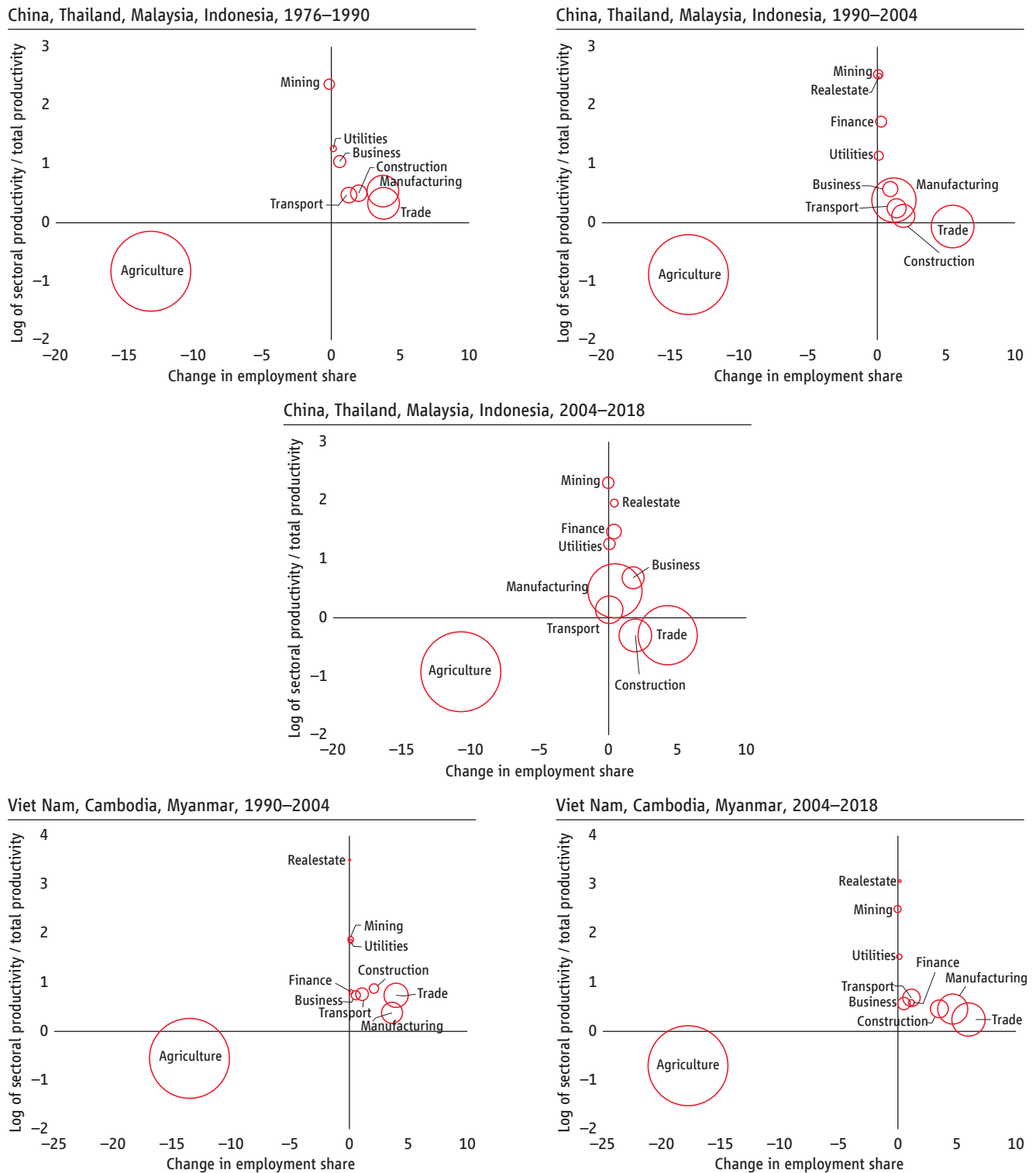
Source: WDI

Creating job opportunities is important for the young who are unemployed (Figure II.2), and for those who do not participate in the labor force, i.e. women (Figure II.3) and a large share of the working-age population in the PICs (Figure II.5). In general, employing a person is desirable from an economic perspective if that increases their productivity relative to their alternative activity. That is necessarily the case for people who are idle but may not be the case of people in domestic work or education.

Making jobs more productive is vital for most EAP economies. As Figure II.5 shows, labor productivity remains below the global average in most EAP economies. The exceptions are China and Malaysia, but even in these economies low labor productivity characterizes significant parts of the labor force.

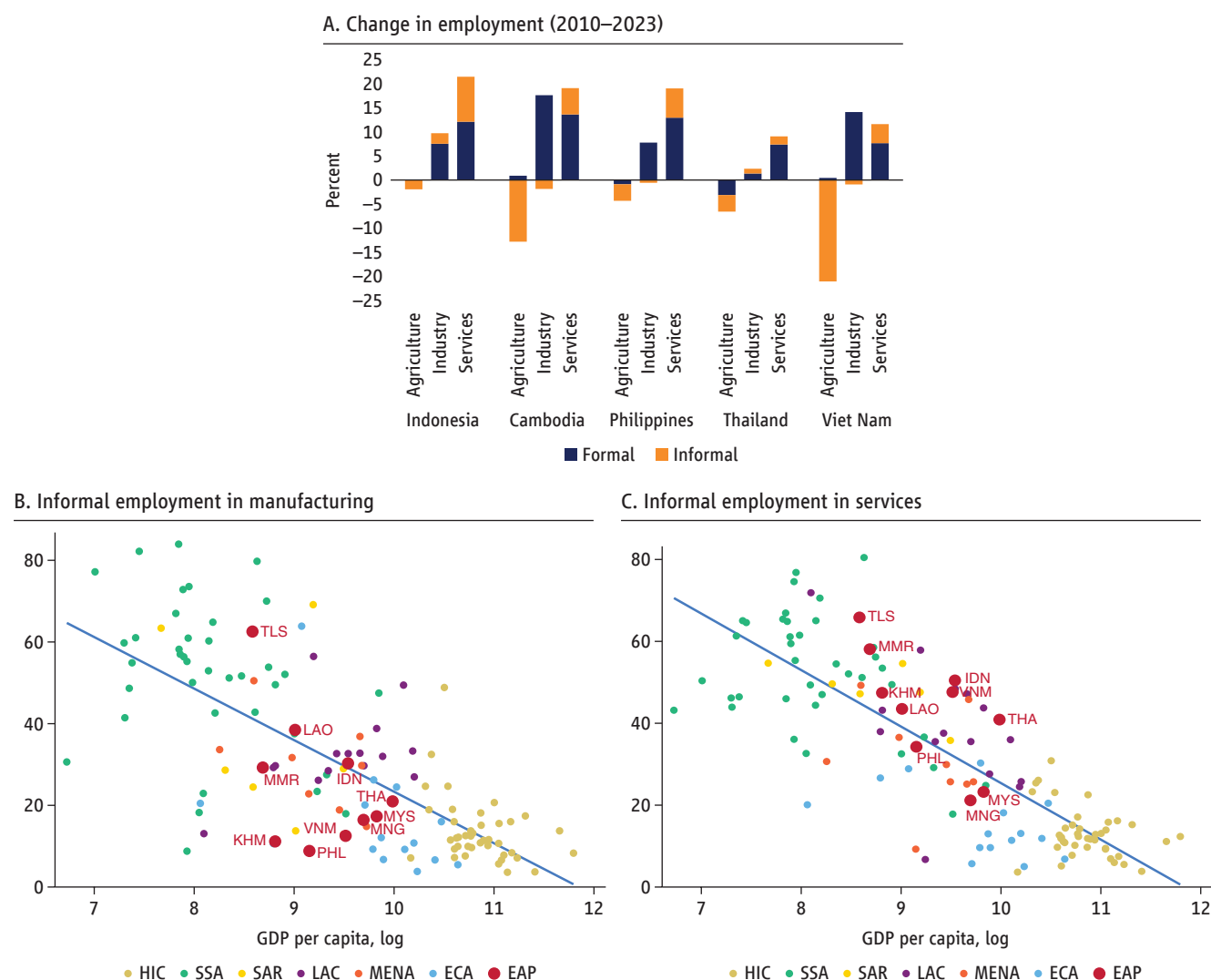
Sectoral employment patterns in the region have also undergone significant transformation. During the 1970s through 1990, employment shifted from agriculture to more productive jobs in manufacturing and services, stemming from the success of dynamic export-oriented and labor-intensive manufacturing sectors. This dynamic shift started to decelerate in the 1990s and through the early 2000s. In the most recent period, employment has moved primarily from low-productivity

Figure II.6. Workers are moving from low-skilled agriculture to low-wage services sectors, rather than to higher-skilled manufacturing as in the past



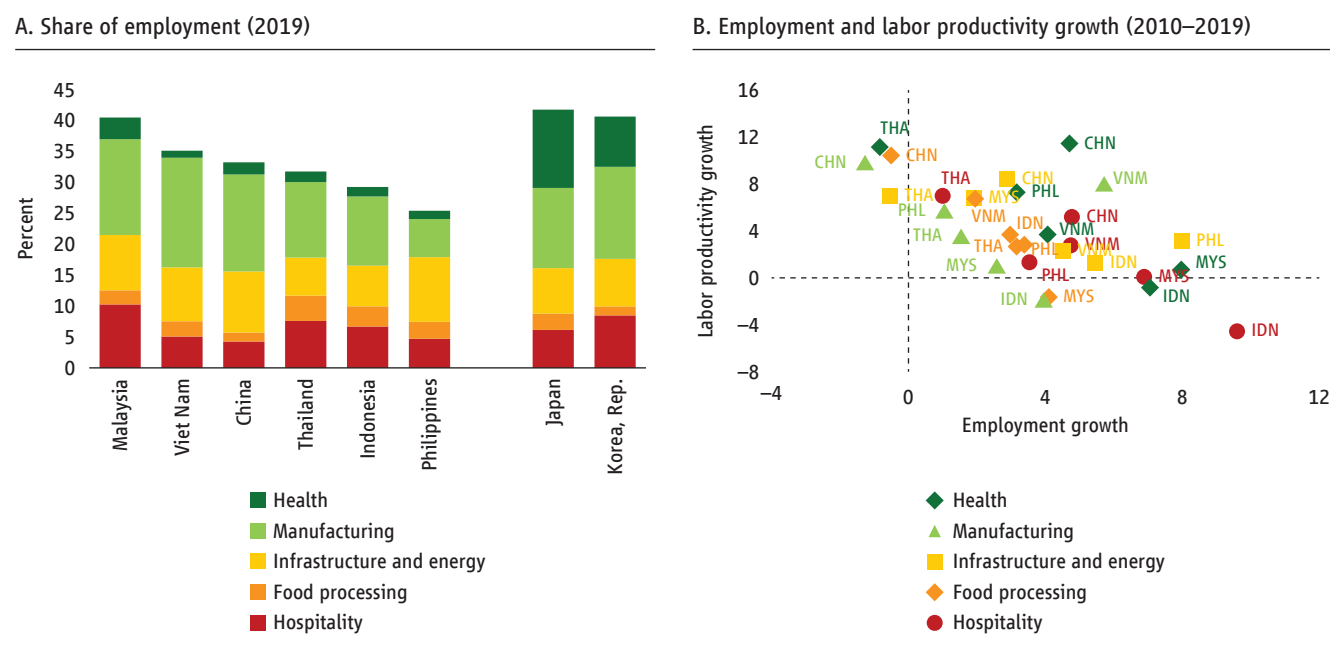
Source: GGDC/UNU-WIDER Economic Transformation Database

Note: Figure shows simple average of respective countries. Bubble size denotes relative employment size in the initial year.

Figure II.7. And from agriculture to informal services jobs

Source: ILOSTAT

Note: Panel A. Figure shows changes of employment compared to total employment in 2010 (2012–2022 for Philippines). Panels B and C show the share of self-employment in total employment of the sector. Data correspond to the latest available year for each country.

Figure II.8. Strategic sectors that comprise a high share of employment and experience both employment and productivity gains

Sources: Trade in employment dataset, OECD; China economic census; Haver Analytics

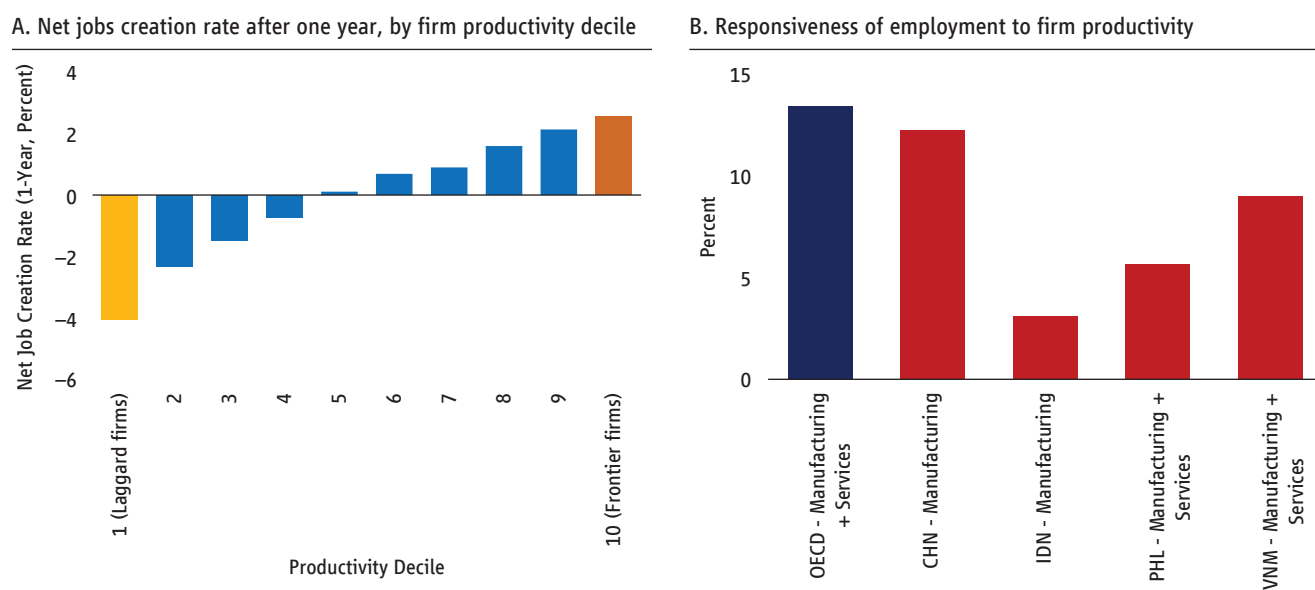
Notes: Sectors are proxied by 2 digits ISIC codes: Food processing (proxy for agribusiness): Food products, beverages and tobacco (ISIC 10,11,12). Health: Human health and social work activities (ISIC 86–88). Infrastructure and energy: construction, electricity, and utility (ISIC 35,41,42,43). Manufacturing (ISIC 15–34). Hospitality (proxy for tourism): accommodation and restaurants (ISIC 55,56). B. China's health sector shows 2008–2018 average from economic census employment data.

Figure II.8 compares employment and productivity patterns in five sectors identified by the World Bank as having high potential for job creation and a degree of resilience to adverse global developments (Development Committee 2025). These sectors include agribusiness (proxied here by food processing), health, infrastructure and energy, manufacturing, and tourism (proxied here by hospitality). These sectors already comprise a significant share of employment in developing EAP. The fact that they account for a much larger 40 percent of employment in high-income economies in the region, Japan and the Republic of Korea, suggests scope for greater employment expansion, for instance, health care in China and other aging economies. Moreover, across countries in the region, most of these sectors have seen positive growth in both employment and in labor productivity over the past decade.

Apart from employment reallocation between sectors, EAP countries also do not seem to fully benefit from the reallocation of labor from less to more productive firms. On the positive side, less-productive firms within an industry do shed employment and the more-productive firms do increase employment (figure II.9A). And the relationship appears to strengthen toward the extremes of the productivity distribution—the laggard and frontier firms. However, the responsiveness of employment flows to productivity appears to be low relative to benchmarks in more-flexible labor markets. A doubling of productivity leads to a 3–8 percent increase in employment in Indonesia, the Philippines and Viet Nam, compared to a 13 percent increase for the OECD (figure II.9B).

Young firms play an outsized role in job creation and destruction. A common perception is that small firms are the main drivers of employment growth. In fact, it is firm age rather than size that matters most. In Malaysia and Viet Nam, young firms account for 57 percent of total employment but contribute 79 percent of job creation and only 52 percent of job destruction (through exit or downsizing) (figure II.10A). However, in the EAP countries for which we have firm-level data, the shares of firms 5 years old or less have fallen in all except Malaysia, reflecting the decline in firm entry rates (Figure II.10B). Furthermore, post-entry growth of startups is slow in EAP. In flexible labor markets such as the United States, young firms follow “up-or-out” dynamics: the most productive expand rapidly, while the least productive quickly exit. In the US, surviving startups increase their employment sevenfold by age 30 (Figure II.10C). In contrast, startups in China increase employment only fourfold, and in Viet Nam less than twofold by age 30.

Figure II.9. Jobs are reallocated towards more productive firms in EAP, but the process creates fewer jobs than in the OECD

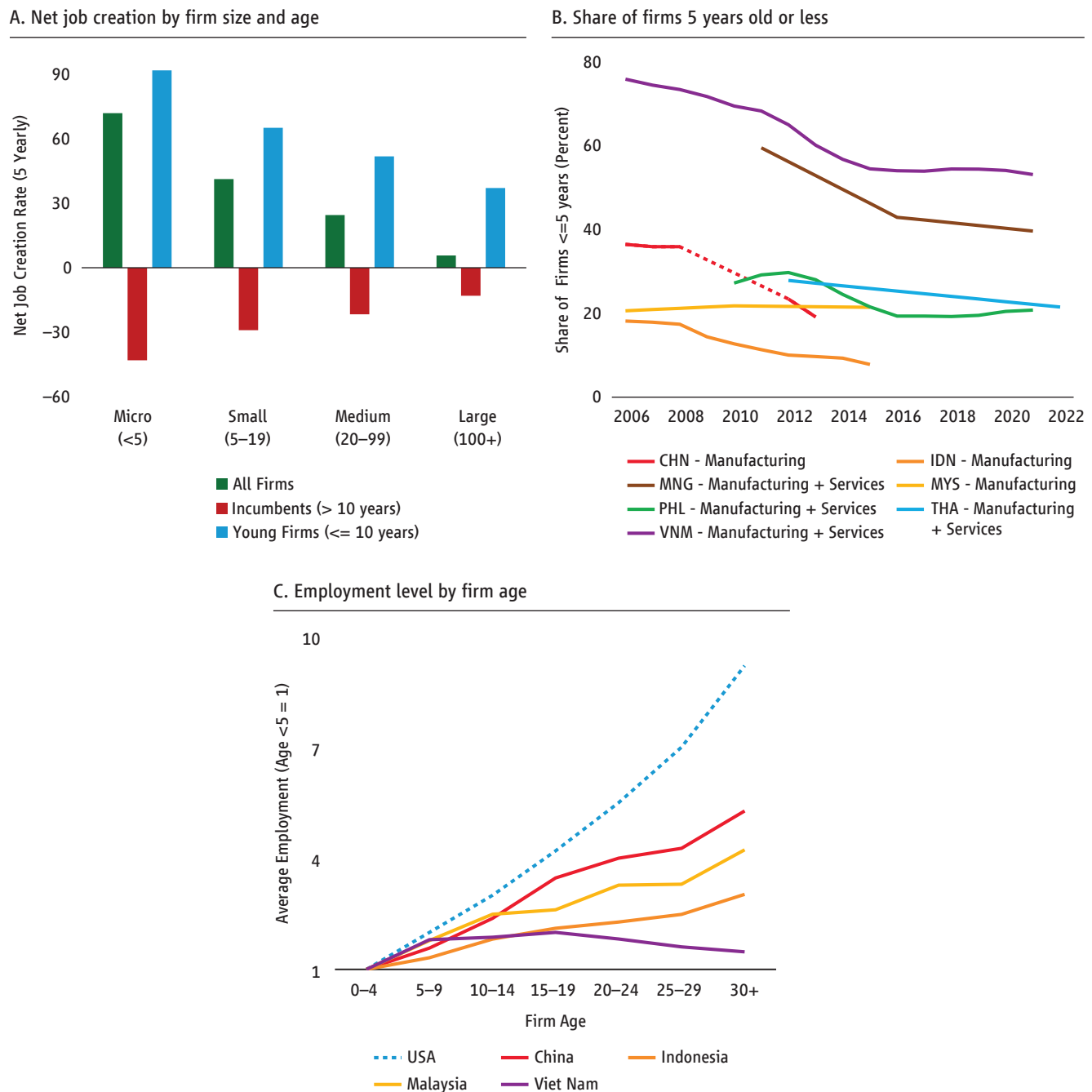


Sources: Based on statistical office data for EAP, OECD is from Calligaris et al. (2023)

Notes: A. Reflects the average 1-year employment growth for firms within different productivity (TFP) deciles within a given country, two-digit industry, and year. The figure depicts an unweighted average of country industries. Data are from 1998–2007 for China, 1996–2015 for Indonesia, 2000–15 for Malaysia, 2006–18 for the Philippines, and 2001–21 for Viet Nam.

B. Reflects firm regressions of 5-year changes in employment on 1-year change in total factor productivity, following the methodology of Calligaris et al. (2023). Regressions control for country-2-digit industry-year fixed effects, initial productivity groups, initial employment and 1-year change in employment. OECD estimates reflect the unweighted average of 9 OECD economies.

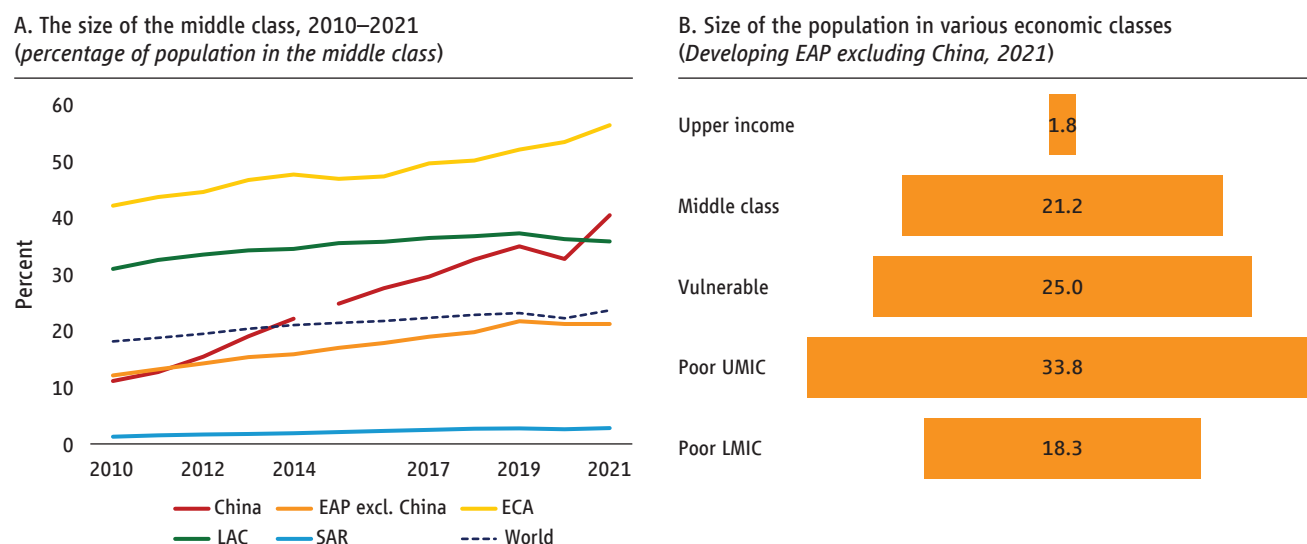
Figure II.10. Most jobs are created by young firms regardless of their size, but the share of young firms have been falling and post-entry employment growth is relatively slow



Note: A. Unweighted average of MYS manufacturing (2000-15), VNM manufacturing (2001-21), VNM services (2001-21). Regressions control for 2-digit industry and year fixed effects, with firm employment weights. Net job creation rate calculated following Davis, Haltiwanger and Schuh (1996), and over 5-year intervals. Micro <5 employees, small 5-19, medium 20-99 and large 100+ employees. Takes into account firm entry and exit. B. Calculations based on statistical office micro data. Vertical axis shows the unweighted average of the share of young firms (5 years old or less) within each two-digit industry. Malaysia data are only available for 2005, 2010 and 2015, Mongolia data for 2011, 2016, and 2021 and Thailand data for the years 2012 and 2022. All other data is available annually. Dotted lines for China reflect a linear interpolation between time periods observed in the data. C. The figure shows the evolution of average employment along the firm lifecycle, with the employment of the youngest age group is normalized to one. Following Hsieh and Klenow (2014), employment growth is estimated over 5 year periods for each age cohort, 2-digit industry and year, using value-added weights in each industry.

Finally, the process of structural transformation and job creation is linked to the evolution and size of the middle class in the EAP region. First in Malaysia and Thailand, and more recently in China and Viet Nam, the movement of people from agriculture to more productive jobs in manufacturing and services, has led to the emergence of a middle class which includes more than 40 percent of the population. In most other countries in the region, where structural change has been slower or involved movement to lower productivity services jobs, more people inhabit the vulnerable class, in which people risk falling into poverty, than the middle class (Figure II.11: Box II.1).

Figure II.11. The size of the middle class has grown in EAP over the last decade primarily due to progress in China; in much of the rest of the region, more people live in a state of vulnerability than in the middle class



Source: Krah, Montalva and Tiwari (2025)

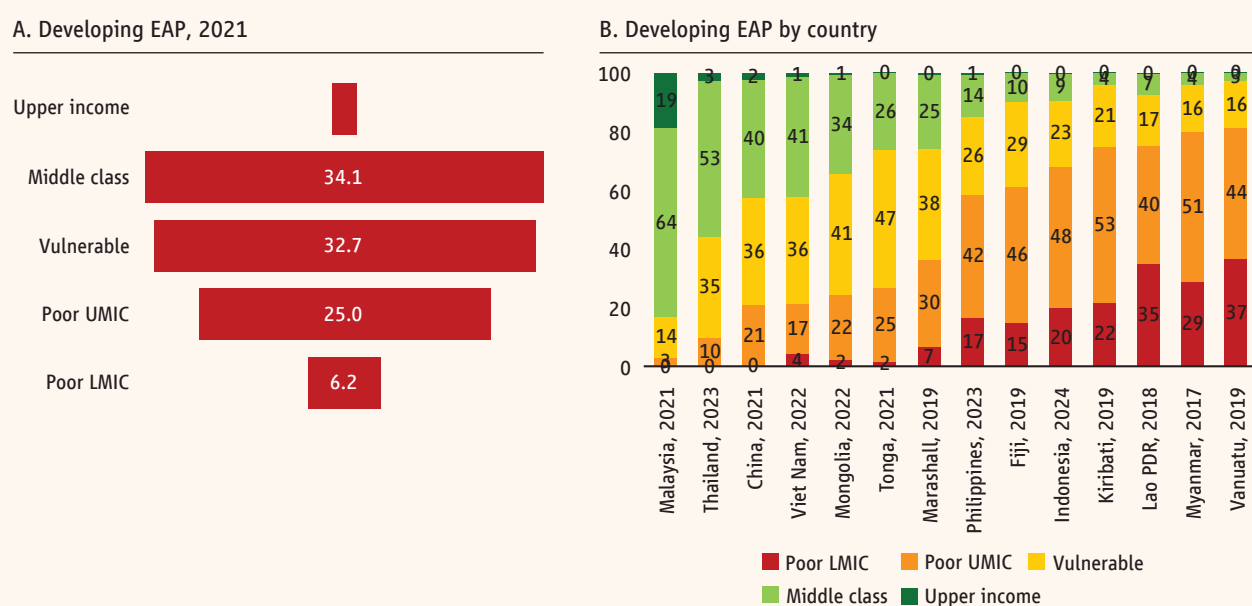
Note: 1/ Individuals living below \$4.20/day are classified as "Poor LMIC." Individuals at or above \$4.20/day but below \$8.30/day are "Poor UMIC." Those who are not currently "Poor UMIC" but have a greater than 10 percent risk of becoming "Poor UMIC" are classified as "vulnerable," with per-capita income/consumption between \$8.30 and less than \$15/day. Individuals with per-capita income/consumption at or above \$15/day and below \$56/day are classified as the "middle class," and those with \$56/day or more as "upper income." 2 / The estimates are based on household living standards surveys in each country; where data are unavailable for specific years, values are obtained via interpolation or projections.

Box II.1. The emerging middle class in Developing East Asia and Pacific

Developing EAP has made significant strides in reducing poverty and generating prosperity, but the economic security of the middle class still eludes many. Extreme poverty, defined as living on less than \$3 per day (in 2021 PPP), has been virtually eliminated. Additionally, the proportion of the region's population living below the LMIC poverty line of \$4.2 per day stands at a low 6.2 percent. An estimated 34.1 percent of the region's population is now the middle class, a status that affords greater stability and resilience (Figure II.B1.1A). However, almost half of the population is still either below the UMIC poverty line (25 percent) or vulnerable (33 percent).

China accounts for much of the region's gains in both poverty reduction and the expansion of the middle class. Excluding China, East Asia and the Pacific would appear markedly poorer: roughly 52 percent of the population would be poor, compared with 32 percent for the region as a whole. It would also appear less prosperous, with only 21 percent in the middle class versus 34 percent. This reflects both China's large population—about 68 percent of the regional total—and the prosperity generated by its economic dynamism over this period.

Figure II.B1.1. Size of the EAP population in various economic classes (percentage of total population)



Source: Krah, Montalva and Tiwari (2025)

Note: 1/ Individuals living below \$4.20/day are classified as "Poor LMIC". Individuals at or above \$4.20/day but below \$8.30/day are "Poor UMIC". Those who are not currently "Poor UMIC" but have a greater than 10 percent risk of becoming "Poor UMIC" are classified as "vulnerable," with per-capita income/consumption between \$8.30 and less than \$15/day. Individuals with per-capita income/consumption at or above \$15/day and below \$56/day are classified as the "middle class," and those with \$56/day or more as "upper income." 2/ The estimates are based on household living standards surveys in each country; where data are unavailable for specific years, values are obtained via interpolation or projections. B. Malaysia and Philippines use income as the primary welfare aggregate while the rest of the region uses consumption. 3/ Numbers for China are based on the synthetic distribution datasets derived from grouped (ventile) data from the National Bureau of Statistics of China for urban and rural areas separately (for methodological details, see www.pip.worldbank.org). For other EAP countries, data is from the EAPPOV database, a harmonized database using microdata from official household surveys.

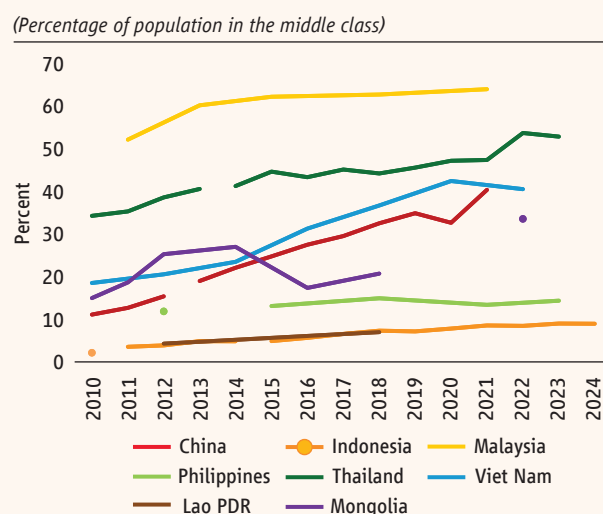
(continued)

(Box II.1. continued)

Economic class composition varies widely across the region reflecting different levels of development. Malaysia and Thailand have the lowest poverty and vulnerability rates, with more than half of their populations in the secure middle class (Figure II.B1.1B). The middle class is also the largest segment in China (41 percent) and Viet Nam (40 percent). By contrast, Kiribati, Lao PDR, Myanmar, and Vanuatu face high poverty and have very small secure middle classes. These differences reflect the varying stages of development among countries across the region.

The pace of middle-class growth too has varied widely across the region. China's middle class has expanded far more rapidly than in other regions, including ECA and LAC (Figure II.B1.2). Although momentum faltered in 2020 amid the pandemic, it rebounded in 2021. Notably, despite a pandemic-related dip in 2022, Viet Nam's middle class grew even faster than China's over this period. In sharp contrast, Malaysia, Indonesia, the Philippines, and Lao PDR (through 2018) have experienced stalled middle-class growth, particularly since 2016. Breaks in the trajectory in China, Viet Nam and Mongolia's middle-class growth coincide with episodes of sharp growth deceleration or contraction of economic activity in these countries. In contrast, the stalled expansion of the middle-class in Indonesia, Philippines, Malaysia and Lao PDR over the period suggests the possibility of structural deterrents slowing inclusive productivity growth.

Figure II.B1.2. Evolution of the size of the middle class in the EAP, 2010-2024



Source: Krah, Montalva and Tiwari (2025)

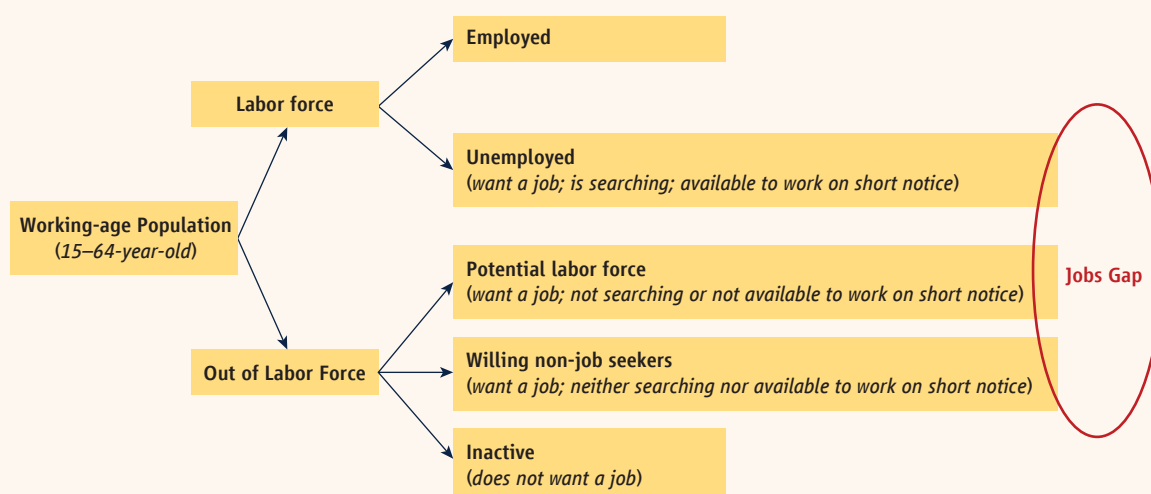
Note: 1/See note to Figure II.B1.1 for definition of economic classes. 2/Malaysia and Philippines use income as the primary welfare aggregate while the rest of the region uses consumption.

Box II.2. Beyond unemployment: Measuring labor underutilization in EAP

Unemployment is the most recognized and commonly used indicator of labor underutilization, yet it is also the narrowest. To be classified as unemployed, individuals must not only be without work but also actively seeking employment and ready to start within a short timeframe—typically within a week (ILO, 2024). While this popular definition is essential for policy analysis, it excludes many individuals who still have an unmet need for work but do not meet these stringent criteria. To capture broader dimensions of labor underutilization, the ILO have introduced two additional categories for those wanting but without jobs (figure II.B2.1):

- *“potential labor force”*: includes individuals who either have been actively looking for work but are not immediately available, or those who are available but have not recently searched—each missing just one of the criteria for unemployment;
- *“willing non-job seekers”*: consists of people who desire employment but have neither searched recently nor are available to start work at short notice, thus failing both conditions.

Figure II.B2.1. Components of the jobs gap

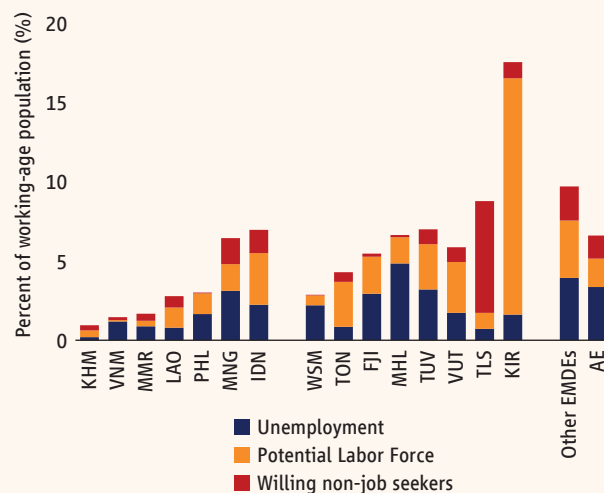


Source: World Bank staff's illustration, based on ILO (2024).

Adopting this broader definition of labor underutilization, the current jobs gap in most EAP countries can be seen driven more by non-labor force participants—those who want a job but are either not searching or available to work on a short timeframe. This pattern is in contrast with advanced economies, where a larger share of the jobs gaps are usually unemployed individuals (figure II.B2.2). At the aggregate, the total jobs gap as a share of countries' working-age population in most EAP countries is below other EMDE average.

(continued)

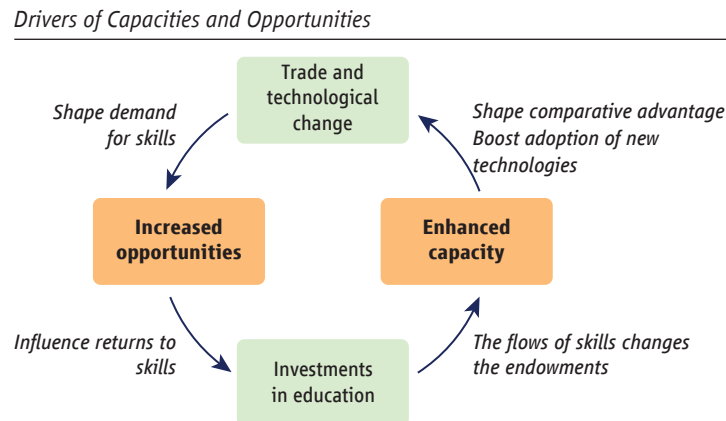
(Box II.2. continued)

Figure II.B2.2. The jobs gap in EAP is driven more by non-labor force participants

Source: ILOSTAT.

II.2 Understanding key jobs-related issues in EAP

Economic opportunities and human capacities are interdependent and jobs are the outcome of their dynamic interplay (Figure II.12). Today's opportunities depend on the existing stock of skills, which shape a country's comparative advantage (and hence trade patterns) and technology adoption. Future opportunities depend on current skill investments that determine how a country's skills stock evolves. Opportunities today and in the future are influenced by global developments in trade and technology and a country's trade, industrial and other policies. On the supply side, the ability to acquire skills depends on access to and the quality of education and training services. These demand and supply factors create a complex dynamic in which skills investment is shaped by present and anticipated opportunities as well as by the capacity of skill creating institutions.

Figure II.12. The dynamic interplay between capacities (skills supply) and opportunities (skills demand)

Source: World Bank staff's illustration.

Development is fundamentally about enhancing a country's human capacities and increasing the sophistication of its economic activities. Figure II.13 illustrates this in three EAP countries, Cambodia, Viet Nam, and Malaysia. Each country demonstrates unique profiles of capacities and opportunities shaped by differences in endowments, trade integration, and technological sophistication. Cambodia primarily exports apparel, involving low-skilled tasks performed by its workforce which has largely received a weak basic education. Viet Nam assembles and exports sophisticated electronic and automotive products, supported by a workforce with strong foundational skills, though limited tertiary education. Malaysia tests, assembles and packages integrated circuits, relying on a tertiary-educated workforce capable of performing more technically demanding tasks.

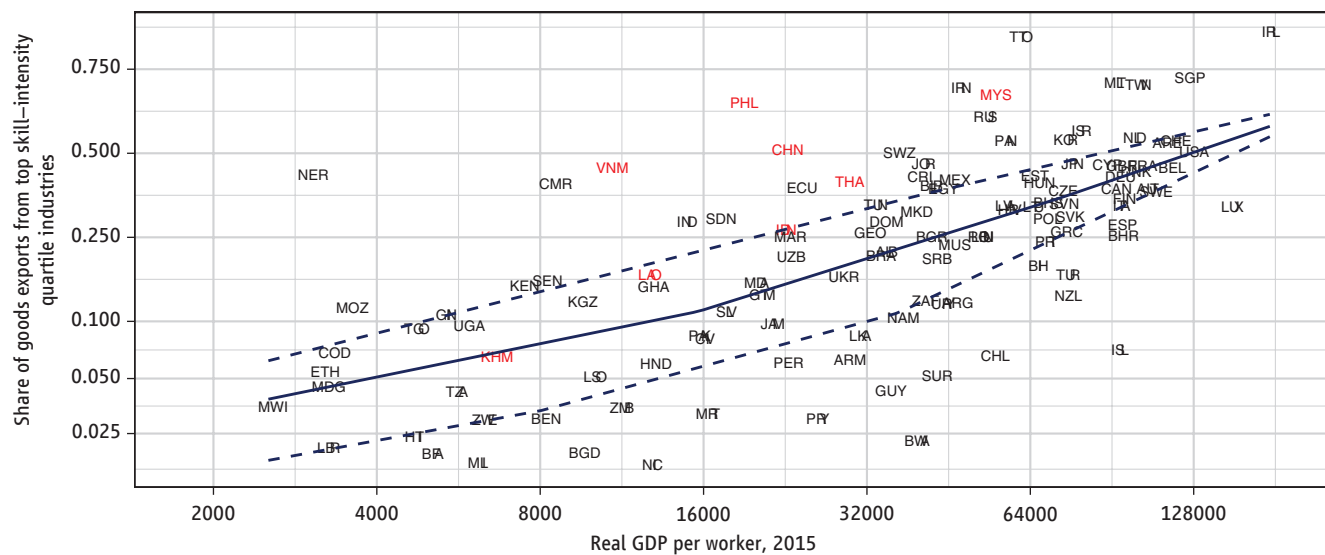
Figure II.13. The interplay between capacities (skills supply) and opportunities (skills demand)

Source: Illustration based on World Bank (2024a).

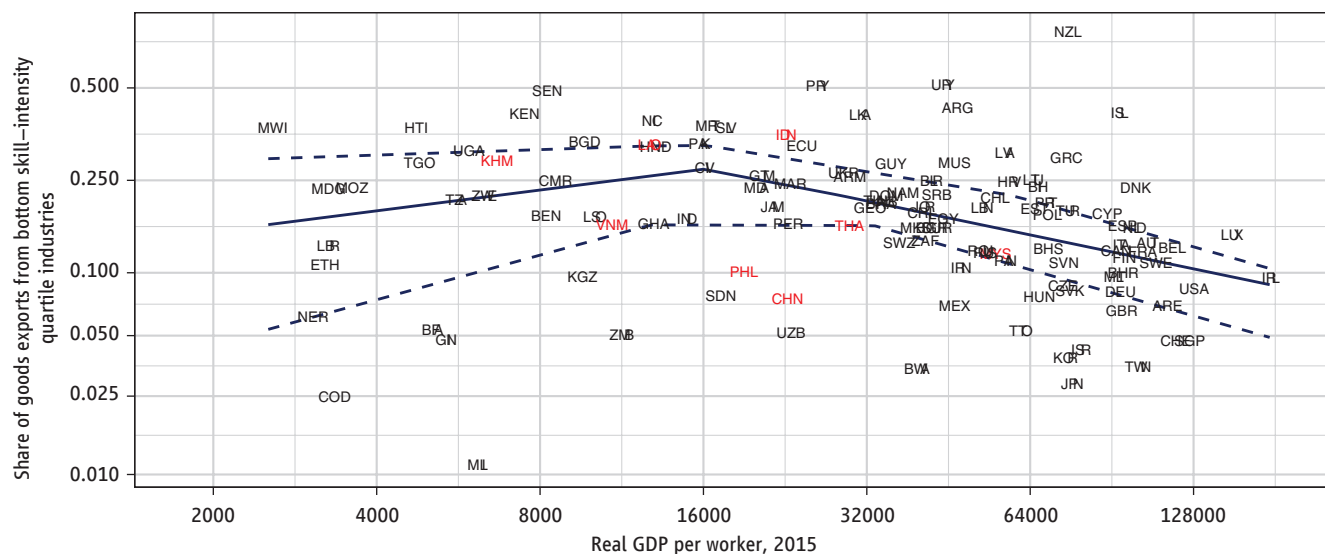
As economies develop, they engage in trade of products and services involving more complex tasks and requiring higher skills (Figure II.14). While low-income economies specialize in low-skill exports, most high-income economies have export shares in skill-intensive sectors ranging from about 25 to 50 percent of exports. As economies move from middle income to high-income, the share of less skill-intensive imports falls from an average of 25 percent to below 10 percent.

Figure II.14. As countries develop, they engage in trade involving more complex tasks and requiring higher skills

A. Share of exports in highest quartile of skill intensity



B. Share of exports in lowest quartile of skill intensity



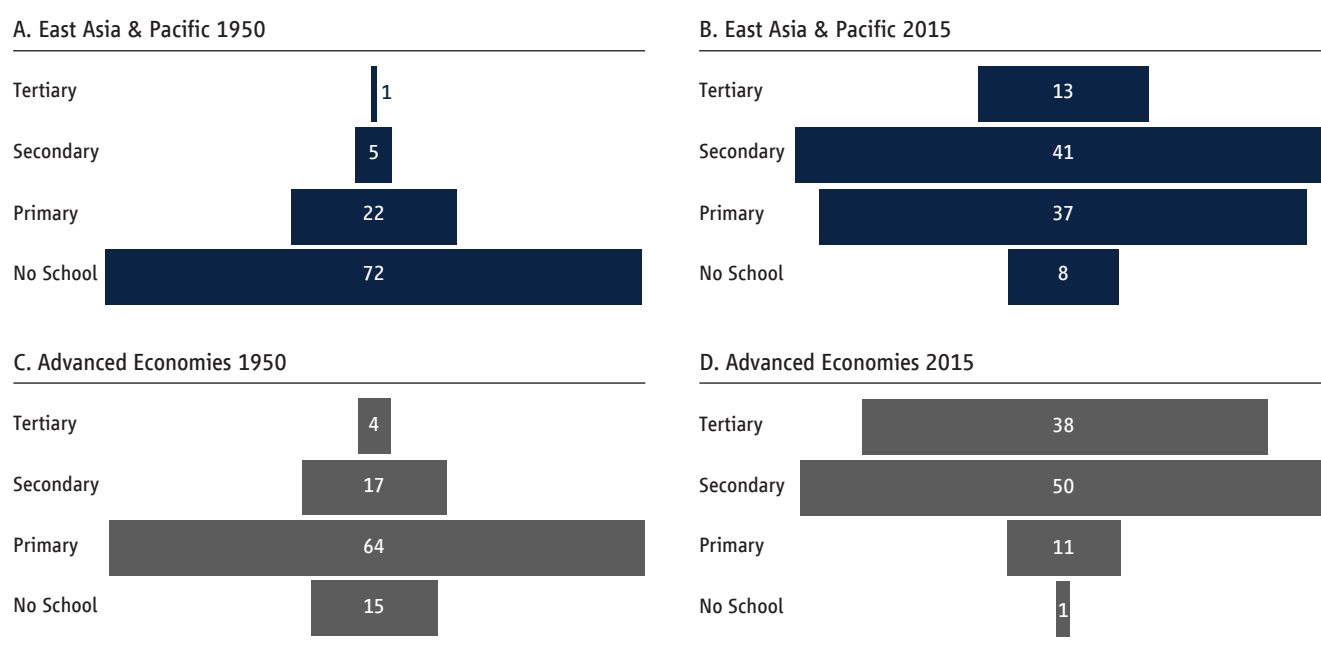
Source: Malmberg (2020). The skill quartiles are based on white-collar payroll share, calculated using the US 2015 Occupational Employment Survey's information about number and average pay of workers by industry and occupation, according to ISIC rev 4 industry code from NAICS 2012 and to ISCO-08 from SOC-10 occupational codes.

A. Capacity

EAP's nominal improvements in human capital are significant but can be deceptive because of weak foundations and poor quality

EAP countries emulated today's high-income economies moving from a pyramid to a diamond structure (Figure II.15): first, universalizing basic education, then expanding secondary education, and finally increasing tertiary access. This pattern has been followed by the region's high-income economies like the Republic of Korea and Singapore, and thereafter by Thailand, Malaysia and Viet Nam. The least developed economies of Cambodia, Lao PDR and the Pacific have lagged in achieving universal basic education.

Figure II.15. Educational population structures in EAP and HICs, circa 1950-2015



Source: Based on Barro and Lee (2013) dataset (online update 2021).

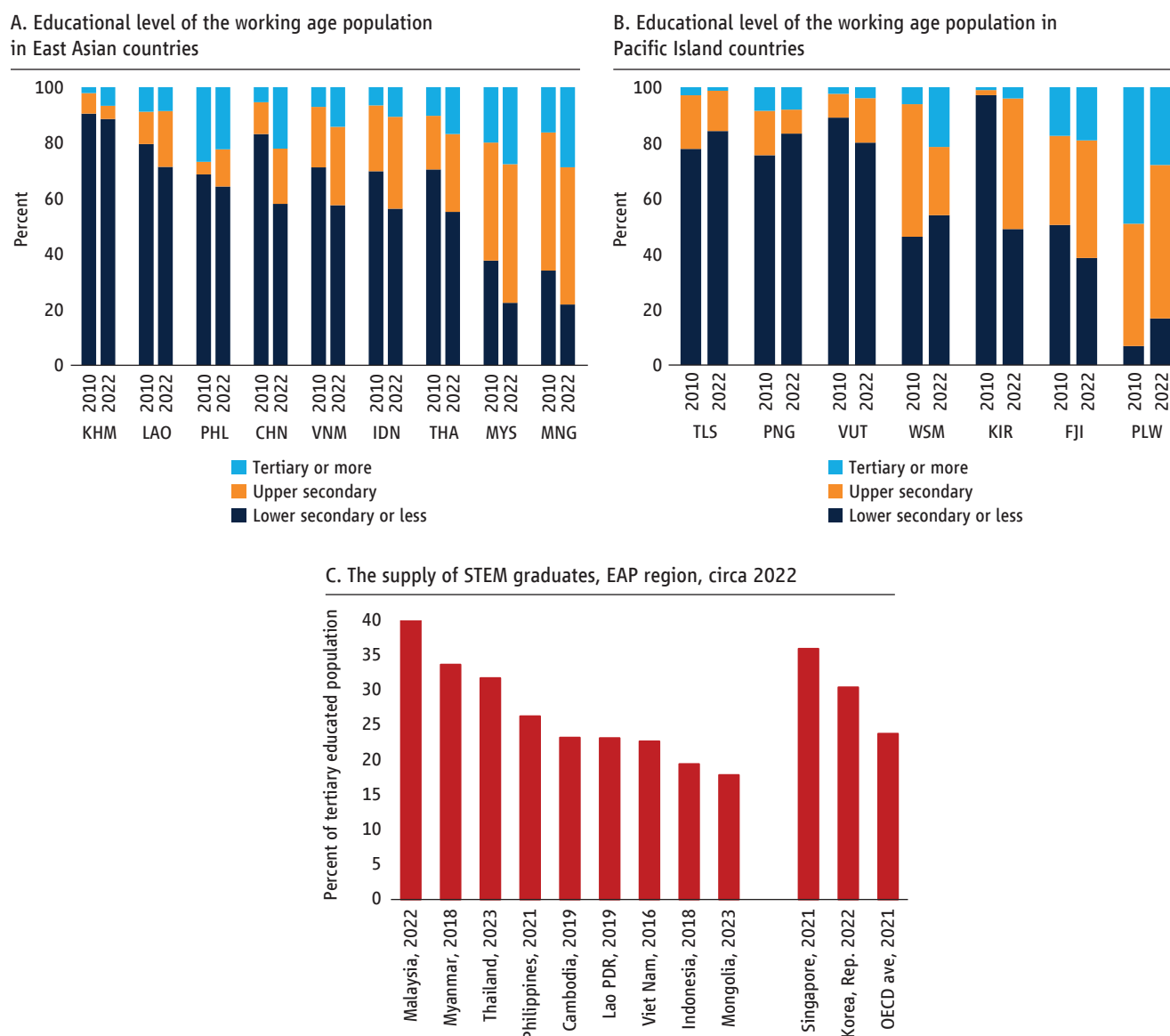
Notes: Figures show simple average across 8 EAP countries, and 23 advanced economies with more than 1 million population. Numbers are in the share of population aged 25 and 64.

Beyond foundational skills, EAP countries have a growing need to equip their workforces with technical, digital and other job-specific skills needed in advanced manufacturing and services. Most EAP countries stepped up their efforts to expand tertiary education over the last two decades. For instance, China, Malaysia and Thailand saw rapid enrollment growth in tertiary education. However, the college-educated workforce shares remain below one third, and except for China and Malaysia the share of graduates in STEM fields is lower than in more advanced economies (Figures II.16). Many youths and adults are lacking in both basic and advanced digital skills (World Bank 2024a; 2024b).

EAP's nominal educational upgrading can be deceptive, as more schooling does not always mean better skills. As examined in Afkar et al. (2023), gaps in education quality across EAP countries result in many children and youth missing out on the acquisition of foundational skills (e.g., literacy, numeracy, and socio-emotional). In 14 of the

region's 22 middle-income countries, more than half of 10-year-olds are unable to read and understand age-appropriate reading material – they experience learning poverty (Figure II.17). Even in countries like the Philippines and Malaysia, only 16 percent and 24 percent of 15-year-olds, respectively, leave high school with basic literacy and numeracy skills (OECD 2024). Available data on adult skills suggests that gaps in foundational skills are carried over to the workforce (OECD 2016; Bodewig et al. 2014; Miyamoto et al. 2023).

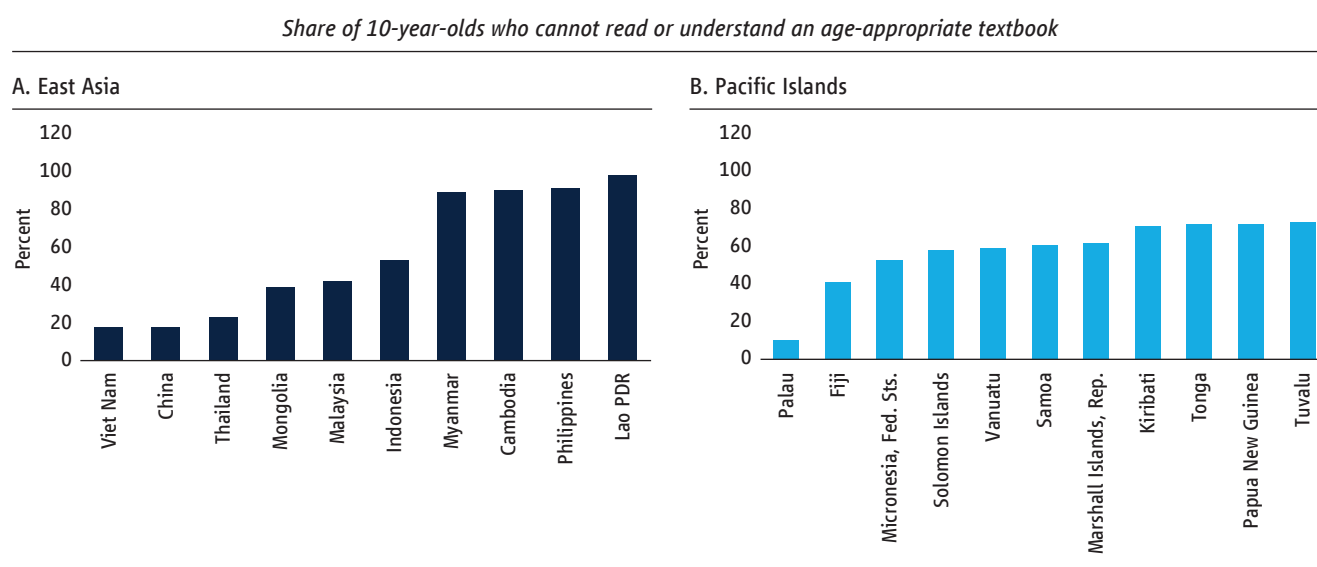
Figure II.16. The educational levels of the workforce have risen but only a small fraction have tertiary education, except in Mongolia, and few of those are STEM graduates



Source: ILOSTAT

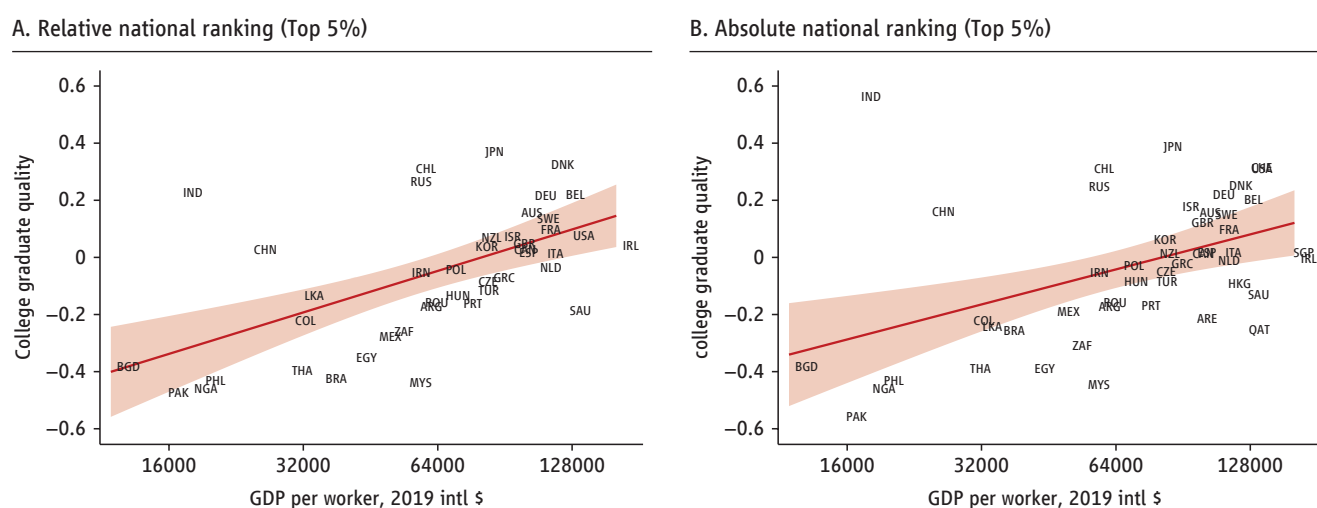
Note: China's data for circa 2010 corresponds to the year 2000; Philippines data for circa2010 corresponds to the year 2014. Fiji data for circa2022 corresponds to year 2016, Palau data for circa2010 corresponds to year 2014.

Note: Working age population corresponds to ages 15-64.

Figure II.17. EAP's nominal educational upgrading can be deceptive, as schooling is an imperfect measure of skills

Source: World Bank Learning Poverty Database

The quality of college education too is lagging in many EAP economies. A recent study shows that economies like Philippines, Thailand and Malaysia have a quality of college graduates far below what is expected from their development level (Figure II.18). China stands out as an exception with a level of college quality above other economies of similar income level. High income economies in the region like Japan and the Republic of Korea, of course, produce college graduates of high quality.

Figure II.18. The quality of higher education is also lagging in most EAP economies

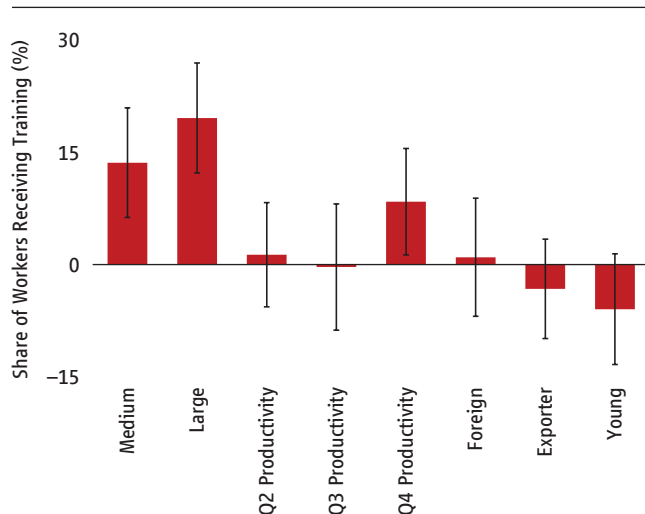
Source: Martellini, Schoellman, and Sockin (2024).

The skills acquired through work are also important. There is evidence that the wage gains from work experience are twice as high in developed economies than in developing countries and differences in on-the-job learning account for one-third of cross-country differences in per capita income (Jedwab et al. 2023). One mechanism of how skills are gained through work is firms' investment in on-the-job training.

However, several deterrents exist. Firms often under-invest in worker training because they face the risk that workers leave, taking their new skills to another firm. In addition, fixed training expenses can be difficult for smaller and more financially constrained firms to afford. In EAP, less than half of firms provide their workers with any formal training. Those that do so, provide training extensively, on average to more than three quarters of their workers. However, there are large heterogeneities in the types of firm that offer training. Larger firms provide training to almost twice as many firms as small ones, and the most productive quartile of firms (conditional on size) provide training to around a third more than the least productive (see Figure II.19). In contrast, age, ownership and export status do not seem to strongly predict training provision.

The specter of non-communicable diseases (NCD) is lowering the number of days worked and productivity in East Asia and the Pacific. The growing incidence of hypertension, diabetes and cardiovascular disease is impacting workers in all countries, though countries like Mongolia and some Pacific Island Countries (like Fiji and Tonga) are more severely affected than others like China and Thailand. The prevalence of NCDs has grown among adults age 45 and above, inflicting a significant economic cost due to lost productivity. Disability-adjusted life years (DALYs) estimates the number of "person-years" lost due to premature death or disability (either permanent or temporary, including time lost due to sickness). DALYs lost per 100 person-years have increased sharply among those in their later working years (figure II.20). The increase is nearly 50 percent for the age group 50-54.

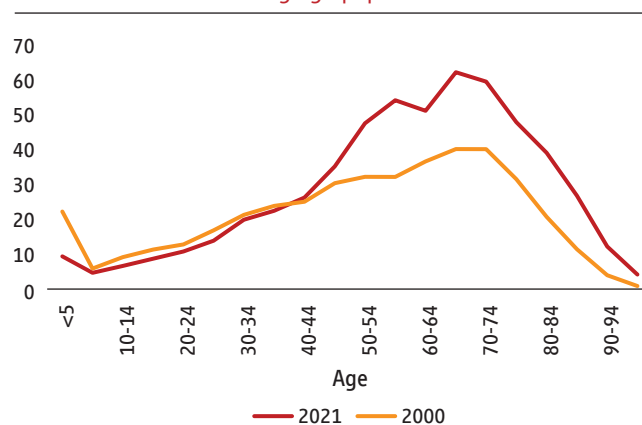
Figure II.19. Large and productive firms provide more on-the-job training to their workers



Source: Based on World Bank Enterprise Surveys for manufacturing firms in 11 EAP countries.

Notes: Regressions of the share of permanent workers receiving formal training in the last year on firm characteristics, including country and year fixed effects. Medium denotes 20-99 employees, large reflects 100+. Q2, Q3 and Q4 denote labor productivity quartiles. Young reflects firms 5 years or younger. Small firms 5-19, and Q1 productivity quartiles are part of the omitted reference category. The omitted reference category firms provided training to 23% of permanent workers. Whiskers depict 95 percent confidence intervals.

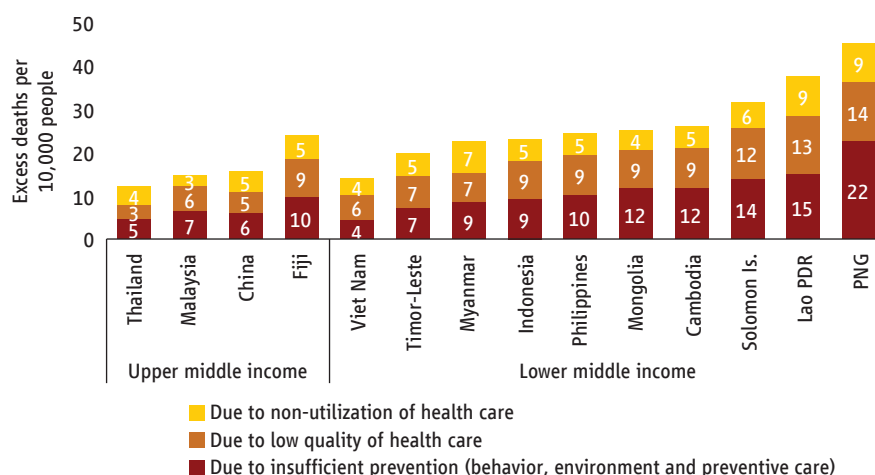
Figure II.20. Person-years lost due to premature NCD death or morbidity increased sharply among the later working age population in EAP countries



Notes: The figure plots the DALYs lost due to NCDs per 100 person years in 2000 and 2021 by age groups. Between 2000 and 2021, there is a marked increase in DALYs lost to due to NCDs in age groups 40-44 and higher, implying that NCDs are affecting people at younger ages over time.

Poor quality of care accounts for one-third of avoidable mortality in EAP, significantly higher than excess mortality due to not receiving care at all (Kruk et al., 2018). The contribution of poor quality of care to excess deaths ranges from 27 percent in Thailand to 41 percent in Viet Nam (figure II.21). Poor quality of primary care also leads to high rates of preventable hospitalization, straining health systems. For example, Viet Nam has a much higher hospital admission rate than its level of diabetes and COPD burden indicates, suggesting poor management of these conditions at the PHC level. In fact, according to a recent study, one-third of all hospital admissions in the country could have been prevented with effective PHC (Bales et al., 2022).

Figure II.21. Poor quality of care contributes to one-fourth to two-fifths of total avoidable mortality across countries in EAP



Source: Kruk, et al (2018)

B. Opportunity

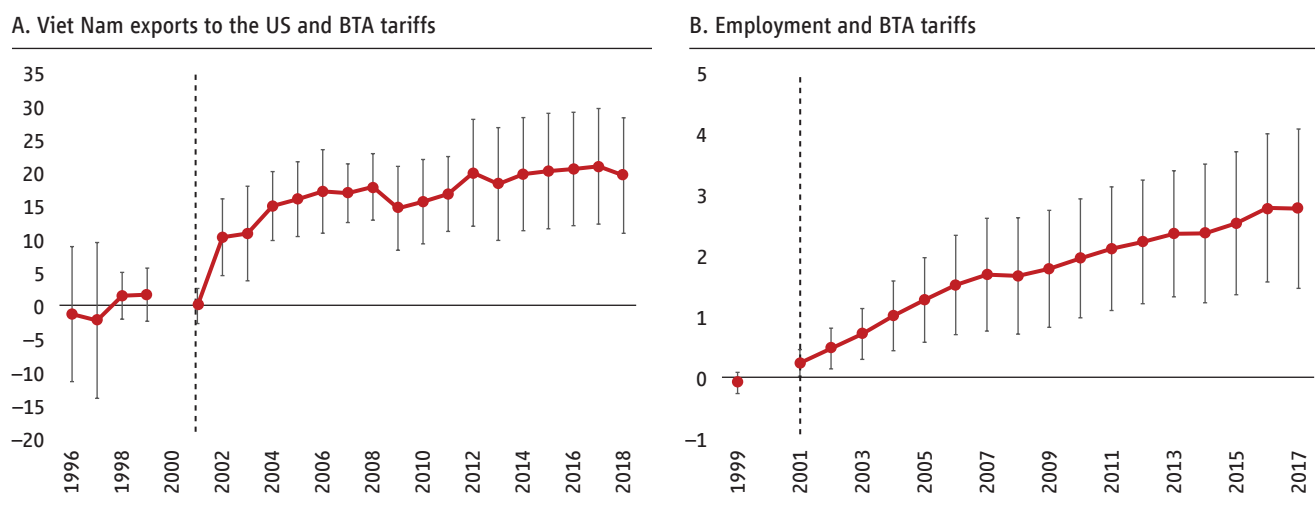
Economic opportunities for workers are derived from what is produced and how it is produced. What is produced depends on the structure of an economy and its pattern of trade, both of which are shaped by an economy's endowments, including of human capital. How goods and services are produced depends on the technology used, which is linked to the existing capacity to adopt and innovate of workers and firms - small or large, young or old, informal, or formal.

► 1. Trade

The EAP region has been a paragon of labor-intensive development based on export-oriented manufacturing. Trade has been a powerful driver of the shift of employment from low-productivity agriculture to manufacturing (Maliszewska and Winkler 2024). The ability to exploit and engineer a comparative advantage from low to more skilled-intensive manufacturing has driven the successful transformation of today's high-income and upper- middle income EAP economies, and more recently of China and Viet Nam (Romalis 2004). Following the China's accession to WTO, net manufacturing employment increased both through the channels of increasing job creation and reducing job destruction (Mao and Xu. 2024). Job creation was stronger for more productive firms while job destruction was stronger for less productive firms, accelerating the productive reallocation. In Viet Nam, a recent study examines the long run employment effects of a large reduction in U.S. tariffs on exports to the U.S. in 2001, from 31.9% to 2.9% on average. The tariffs reduction led to a surge in manufacturing exports. In the first 6 years after U.S. tariff reductions, total manufacturing employment

grew 50 percent more in industries more exposed to the reduction, and twice as fast after 16 years (Figure II.22). The tariff-induced job growth was due in large part to foreign-owned firms investing in Viet Nam and their expansion of employment thereafter. The foreign entrants sustained rapid employment growth by exporting not only to the U.S., but to other countries as well, presumably reaping economies of scale. Workers employed in these foreign firms are more likely to be women (nearly 70 percent), younger (average age 25 years), and with basic education (average 9 years of schooling), and about 20 percent are internal migrants.

Figure II.22. Improved access to the US market, boosted exports and jobs in affected industries



Source: McCaig, Pavnick, Wong (2022).

Evidence from other South East Asian economies also illustrates how trade exposure has generally supported employment and wage growth, particularly in manufacturing, although with distributional effects across population groups. In Cambodia, positive export shocks in the garment sector—driven by EU reforms to rules of origin—resulted in a 21 percent increase in employment at formal garment establishments, with disproportionately positive effects for female workers (Tanaka and Greaney, 2024). In Indonesia, trade liberalization between 1991 and 2000 led to divergent wage outcomes: tariff reductions raised wages in exporting firms but lowered them in import-competing firms, reflecting firm-level heterogeneity in globalization benefits (Amiti and Davis, 2012). In the Philippines, expansion in electronics and business process outsourcing (BPO) exports has boosted urban employment and wage premiums for college-educated workers, although rural and low-skilled labor markets have seen limited gains (Britt-Fermo et al., 2021). This evidence of aggregate and distributional effects are generally in line with what is found in other developing countries (Box II.3).

The increasing GVC exposure of EAP employment also creates vulnerability to external shocks—such as supply chain disruptions, as well as demand fluctuations or increased import barriers in major markets—which can affect jobs, especially among low-skilled and informal workers. Evidence from the ASEAN region highlights gendered impacts, with women disproportionately represented in labor-intensive export sectors like garments and electronics, often under precarious contracts or informal arrangements (ADB 2023). Moreover, while trade integration has boosted productivity and employment in core sectors, rural and lagging regions often remain excluded from these gains. The uneven distribution of benefits is reflected in the wage polarization between workers in GVC-linked firms and those in domestic-oriented or informal enterprises, and in the limited participation of SMEs in higher-value segments of the chain.

Box II.3. Trade exposure and labor market outcomes in developing countries

Trade exposure in developing countries tends to yield positive aggregate employment effects, but the distribution of these gains varies depending on the channel through which trade integration occurs. Two distinct pathways are particularly salient: exposure to external demand through export expansion and globalization, and internal trade liberalization via domestic policy reforms such as tariff reductions.

Exposure to rising external demand—especially through export-oriented sectors—can facilitate labor reallocation from informal and subsistence activities into more stable, formal employment. Empirical evidence shows that globalization and export growth are associated with increased formal sector participation and reduced informality (McCaig and Pavcnik 2018). However, these transitions are not costless. Trade shocks can widen the skill premium and induce transitional unemployment, particularly among less-skilled workers who face barriers to entering globally competitive sectors (Goldberg and Pavcnik 2007; Kumar and Mishra, 2008). Moreover, the effects of export-driven opportunities could be uneven, with benefits often concentrating among the more-educated, younger, urban, and male workers, leaving the respective counterparts with less access to new opportunities. Workers with higher education are often better positioned to benefit from export-led growth, while less-educated individuals face greater risks of displacement and limited access to formal employment due to skill mismatches (Munro 2011). Younger workers tend to benefit more from external trade opportunities due to greater mobility, adaptability, and proximity to emerging sectors, while older workers face higher risks of displacement and lower reemployment prospects (Ahn et al. 2019; McCaig and Pavcnik 2015). Relatedly, urban workers gain disproportionately from trade integration due to proximity to industrial hubs and infrastructure, whereas rural workers often absorb trade shocks through informality and self-employment, reflecting structural disadvantages (Ananian and Dellaferrera 2024). Finally, foreign demand often favors male-intensive sectors, such as heavy manufacturing, while gains in female employment from export-driven light manufacturing often risk reversal due to shifts toward mechanization (UNCTAD 2020; Bahri et al. 2023).

The second channel—internal liberalization, often through tariff reductions—produces more heterogeneous labor market effects. In Indonesia, tariff cuts between 1991 and 2000 raised wages in export-oriented and import-using firms, as globally engaged firms benefited from improved price competitiveness (Amiti and Davis 2012). In contrast, India’s tariff liberalization was associated with declining industry wage premiums, particularly in sectors with high shares of unskilled labor, suggesting that firm-level productivity gains were passed on to workers and helped narrow wage inequality (Kumar and Mishra 2008). Domestic liberalization also does not always translate into higher average earnings. In Botswana, McMillan and McCaig (2019) find insignificant effects of tariff reductions on average worker earnings, despite the increase in aggregate income.

What you export and where matters. The quality, diversification, and type of exports significantly influence labor market outcomes. Countries exporting less connected, low-complexity goods often face limited labor market benefits, whereas upgrading to complex, diversified exports can lead to wage gains, reduced inequality, and broader employment opportunities, especially for lower-skilled workers (Hidalgo et al. 2007; Verhoogen 2008). Moreover, the structure of exports matters as much as their volume, as the benefits of trade liberalization can be uneven unless export upgrades and diversification are part of the strategy (Amiti and Davis 2012). Finally, export destinations, rather than exporting alone, also play a fundamental role in determining the skill composition of jobs and wage levels. Brambilla et al. (2012) showed that firms exporting to high-income countries tend to employ more skilled workers and offer higher wages due to greater quality requirements and the skill-intensive nature of export-related activities.

(continued)

(Box II.3. continued)

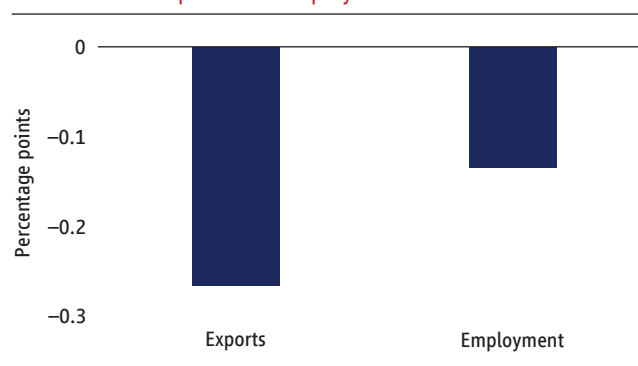
Trade reversal and trade uncertainty are detrimental. Trade reversal and trade policy uncertainty have increasingly challenged labor markets in developing countries, where structural vulnerabilities intensify the adverse effects of such disruptions. Trade policy uncertainty further dampens foreign direct investment (FDI)—a critical source of job creation and productivity growth—leading to delayed investment and hiring decisions that particularly impact manufacturing sectors (Firooz et al. 2025).

Empirical research reveals that trade shocks in developing countries result not only in formal labor market disruptions but also in expanded informal employment characterized by low wages, job insecurity, and inadequate social protections. These outcomes exacerbate inequality and diminish the developmental benefits of trade openness (Fajnzylber et al. 2001; Chiquiar et al. 2017). Unlike many developed economies that possess relatively robust institutions to manage labor market adjustment, developing countries often lack the capacity to effectively support workers displaced by trade-induced shocks, leading to prolonged unemployment and underemployment (Artuç et al. 2007; McLaren 2022; Firooz et al. 2025).

Within developing countries, negative trade shocks are shown to have more detrimental effect on employment and earnings in export-oriented manufacturing sectors and less diversified regions (Fajnzylber et al. 2001; Artuç et al. 2007). Workers with lower skill levels disproportionately bear the costs of adjustment. The migration of affected workers toward informal employment could further entrench socio-economic disparities and limits long-term labor market improvements (Chiquiar et al. 2017; Bacchetta 2009).

The opportunities offered by trade are limited not just by protection abroad but also by protection in EAP countries. While manufacturing tariffs are relatively low in EAP countries, non-tariff measures in manufacturing and restrictions on services trade limit competition (World Bank 2024a). Services trade restrictions are higher in most EAP countries than in countries of a similar level of development. Moreover, the recent increase in protection measures could also result in lower exports and employment, as suggested by evidence from 24 developed and developing small open economies over the period 2000-2022 (Figure II.23).

Figure II.23. Foreign protection could negatively impact exports and employment



Source: Staff estimates based on WDI and TRAINS data.

Note: The columns report the results from a panel VAR for the period 2000-2022 on a sample of 24 small open economies (including Cambodia, Indonesia, Malaysia, the Philippines, Thailand and Viet Nam). The panel var includes country and time fixed effects, as well as four variables: foreign tariffs, the employment to population ratio, domestic tariffs, and the real exports. All variables are detrended. The foreign tariffs are ordered first, and they are measured as the weighted average of the tariffs imposed by the US, the EU, India, China and Brazil on each country in the sample. The coefficients reported are the impulse response coefficients one year after the shock and they are rescaled to represent a shock corresponding to an increase of foreign tariffs on total exports by 1 percentage point.

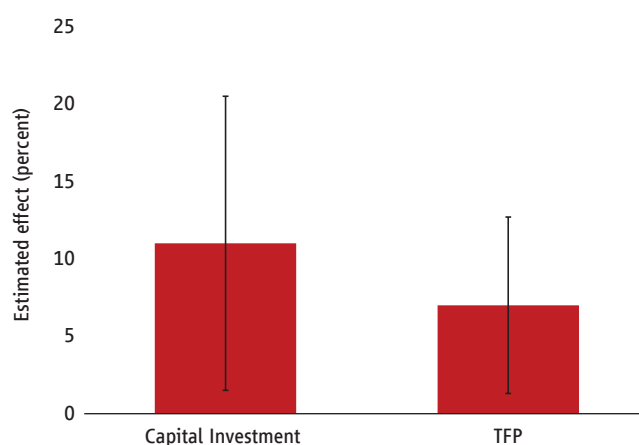
▸ 2. Technology

How things are made affects the demand for labor and hence economic opportunity. An assessment of the impacts of technology on jobs needs to consider two dimensions: *technical feasibility*—whether the tasks associated with a job can be performed using new technology— and *economic viability*—whether it is profitable for firms to adopt the technology, given its costs and benefits (Arias et al. 2025).

Since Solow (1957)'s seminal work, there is a wide literature showing the strong contribution of technological progress to productivity growth, including for EAP economies². Focusing on automation technology, the adoption of industrial robots in advanced economies has been shown to increase TFP and value-added per worker, lowers output prices, augment product quality, raise the demand for skilled labor, and increase production, exports and imports of intermediate inputs.³ Limited studies in EAP, for instance in Indonesia, have offered similar evidence on the capital investment and productivity-enhancing effects of robot exposure at the firm level (Cali and Presidente 2025; Figure II.24).

Whether an adopted technology leads to net job losses or gains depends on the balance between its displacement and productivity effects. The labor displacement arises from the automation of tasks. The productivity effect originates from the lower production costs and prices from automation, which leads to higher product demand, greater output and therefore more jobs. If displacement outpaces the creation of productivity-driven job creation, overall employment declines. Conversely, if productivity gains and new job creation exceed displacement, employment can rise.

Figure II.24. Estimated effects of robot exposure on firm-level capital investment and total factor productivity in Indonesia (2008-2015)



Source: Adapted from Cali and Presidente (2025).

Note: Bars show estimated effects on firm's capital investment (machinery and equipment) and total factor productivity from an additional one robot-per-thousand workers exposure, for initial high-penetration firms (with a baseline share of workers with secondary-level education one-SD above the median).

² See World Bank (2024c), Cirera and Maloney 2017, Comin and Hobijn 2010, Griliches 1998; Hall 2011; Mohnen and Hall 2013.

³ See, for example, Graetz and Michales, 2018; Klenert et al., 2023; Dekle, 2020; Dottori, 2021; Aghion et al., 2020; Dauth et al., 2021; Acemoglu and Restrepo, 2021; Koch et al., 2021; Stapleton and Webb, 2020; Acemoglu et al., 2022; Ing and Zhang, 2022; Alguacil et al., 2022; Artuc et al., 2023; De Stefano and Timmis, 2024.

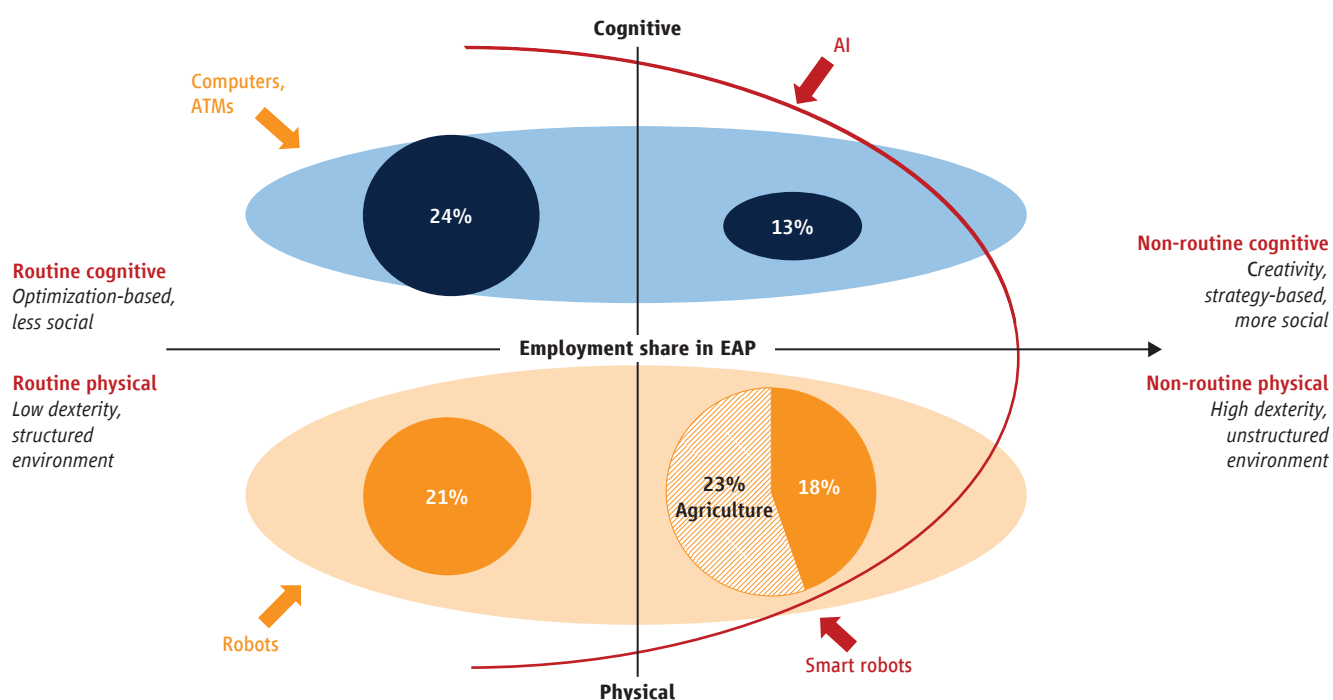
New technologies have expanded the breadth of tasks that machines perform. The scope of labor displacement and enhancement has extended from routine manual tasks (e.g., assembly line workers displaced by robots) to cognitive and nonroutine tasks (e.g., financial analysts and translators impacted by AI). These technologies have also created entirely new tasks and roles such as the jobs of drone operators and AI prompt engineers.

Based on technical feasibility, jobs in most EAP countries could be affected by robots and AI, although in ways that differ from the effects in advanced economies. EAP countries employ more people in agriculture and routine manual occupations and fewer people in cognitive task occupations (Figure II.25). This occupational structure reflects successful industrialization in countries such as China, Malaysia, Thailand, and Viet Nam and the relatively weaker condition of services in the region.

While many routine tasks are ripe for automation from the technical feasibility standpoint, the economic incentive to automate depends on robot prices and labor costs. If robots are too expensive or labor is very cheap, firms will not adopt robots. Robots have become increasingly economically viable in East Asian economies, though their cost and viability vary across industries and countries. Malaysia and Thailand were pioneers in the adoption of robots starting in the early 2000s. Over the last decade, China and Viet Nam rapidly increased and surpassed other EAP countries in their use of robots. By 2022, China had about 12 robots per 1,000 manufacturing workers and Viet Nam 8, compared to an average of 17 in high-income economies. Robots are most economically viable in high wage sectors. Robots used in the automotive sector are about 10 times more expensive than those used in lower-wage sectors like rubber and plastics. Thus, in Indonesia and the Philippines, robots are largely utilized in rubber and plastics, while in China, Malaysia, and Thailand, robot adoption extends to electronics and automotive sectors.

Figure II.25. Jobs in EAP are more exposed to robots and other automation technology than AI

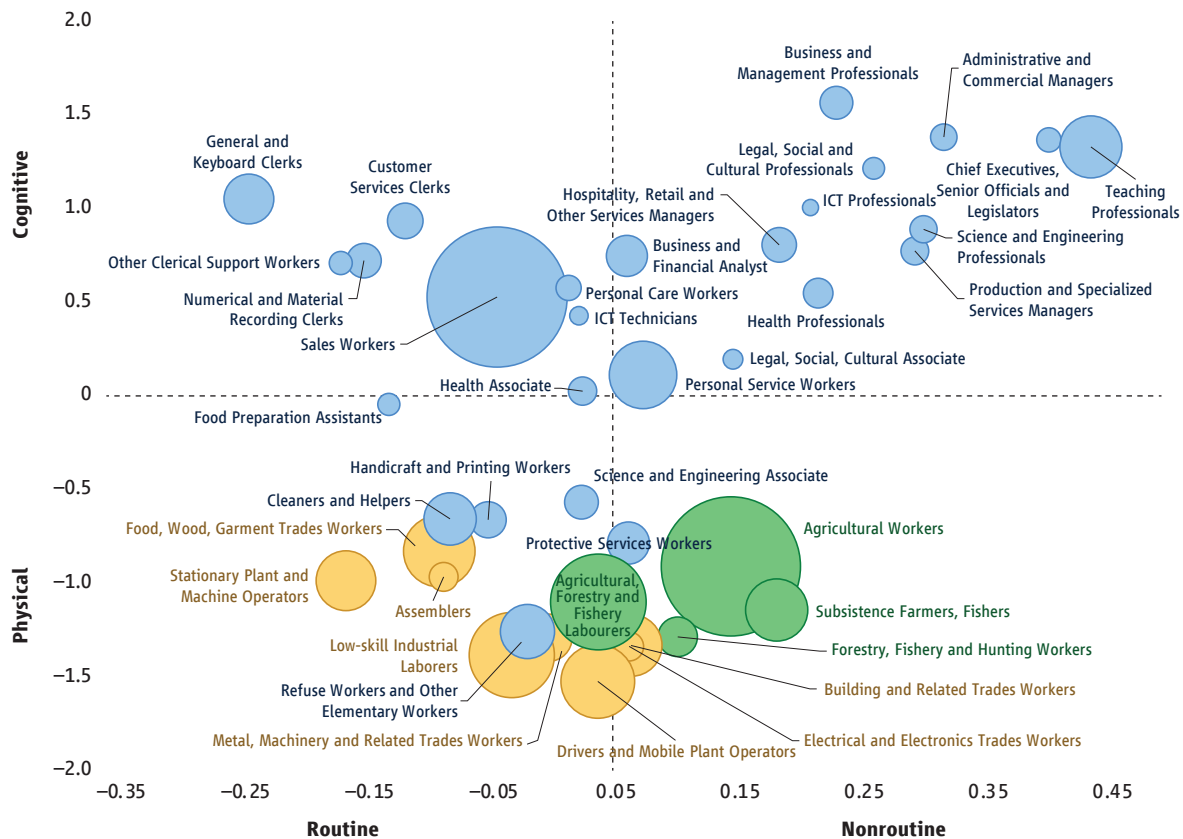
A. Exposure of jobs to different types of technology



(continued)

Figure II.25. (continued)

B. Occupational composition in EAP by task content



Sources: Arias et. al. (2025).

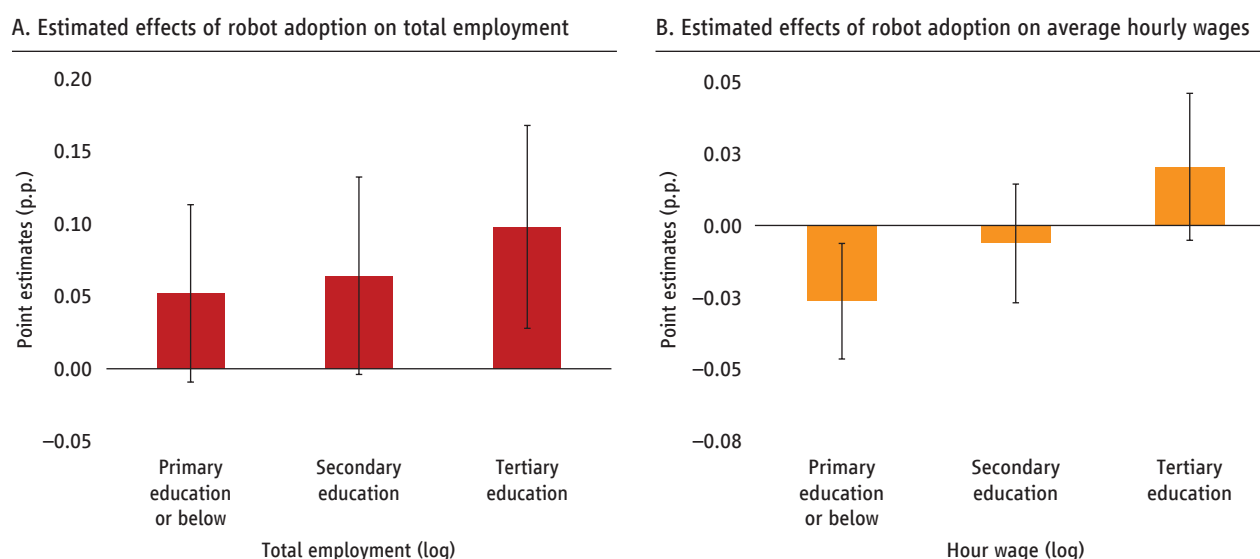
Note: X axis shows reversed Routine task intensity (RTI) index; y-axis shows reversed nonroutine physical task content. Bubble size represents employment share in each industry across 6 EAP economies.

Contrary to the evidence from advanced economies, the analysis in Arias et al (2025) for five Southeast Asian economies (Indonesia, Malaysia, the Philippines, Thailand and Viet Nam) finds that robot adoption has boosted employment and labor earnings. In Viet Nam, for instance, an additional robot adopted per thousand workers raises the exposed district's total employment and average labor wages by approximately 6–9 percent and 2-4 percent, respectively.

However, the benefits have not been evenly shared. ASEAN-5 locations experiencing greater robot adoption have seen increases in employment and earnings of the higher-educated, but lower average wages of the least-educated workers (Figure II.26). Between 2018 and 2022, industrial robot adoption created around 2 million jobs for skilled formal workers, but it also displaced 1.4 million low-skilled formal workers, in routine and manual jobs, across the five ASEAN countries studied. The chief beneficiaries have been younger workers, like engineers, equipped with skills that enable them to work with robots. Many of the displaced are older assembly line workers, who have found refuge in the informal sector.

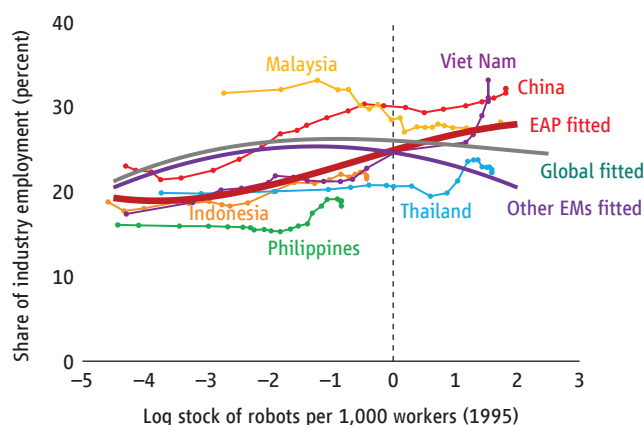
The reason for the overall positive impacts of robot adoption in these five Southeast Asian economies may be their comparative advantage in manufacturing and relatively small size, because of which firms face a high price elasticity of demand in global markets. This high elasticity means the productivity-driven reductions in costs and prices translate into big export-driven increases in the scale of production which offset the labor-saving effects of robots. China and Viet Nam, which have seen the most rapid growth in robot penetration, have also seen a faster rise in the share of exports and industrial employment (Figure II.27).

Figure II.26. ASEAN-5 locations experiencing greater robot adoption have seen increases in the employment and earnings of the higher-educated, but lower average wages of the least-educated group of workers



Source: Arias et. al. (2025). The figure shows 2SLS estimates of the effects of exposure to robots on local labor market outcomes in ASEAN-5 countries. Exposure to robots is measured as the interaction between the baseline employment composition by industry in each administrative divisions and robot adoption by industry-year in each country, and instrumented with global exposure to robots, following Acemoglu and Restrepo, (2020). See Arias et. al. (2025) for further details.

Figure II.27. The share of manufacturing employment has continued to rise with industrial robot adoption – because of increases in the scale of production possibly driven by exports

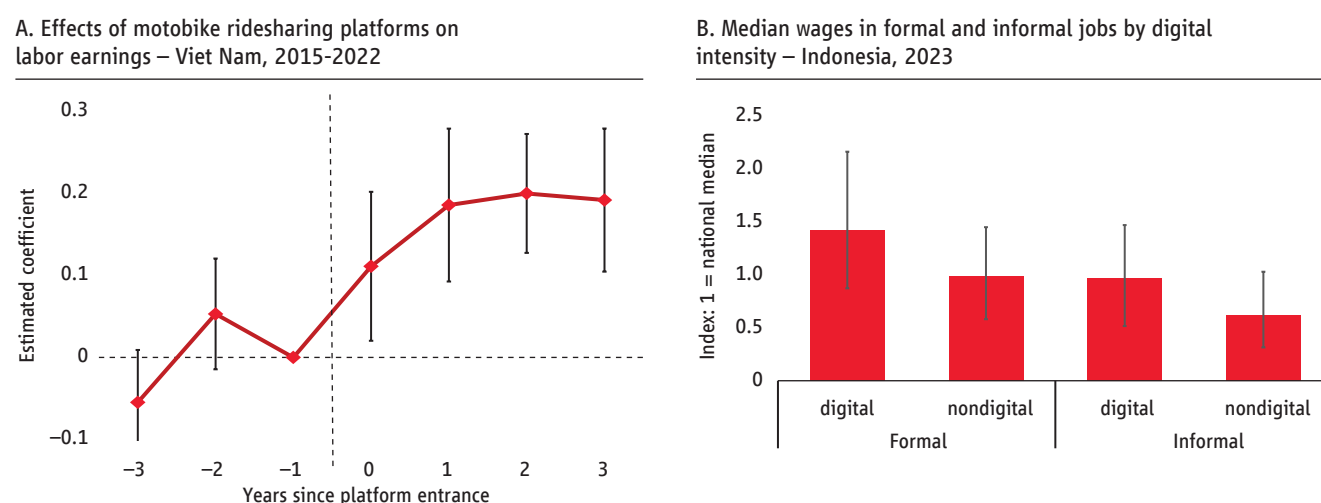


Source: Arias et. al. (2025).

Digital platforms and broader digitalization are also impacting jobs in EAP. Evidence from Viet Nam shows that the rollout of ride-hailing platforms had a durable impact on the labor earnings of informal motorbike drivers, who previously faced higher labor-market entry barriers (Figure II.28A). In Indonesia, workers in more digital intensive informal jobs earn almost the same as workers in non-digital intensive formal jobs, suggesting that digitalization could shrink the earnings gap between the formal and informal sectors (Figure II.28B).

It is too early to assess the economic viability and actual rates of AI adoption. Therefore, the analysis in Arias et al (2025) is limited to the technical feasibility of AI to displace or augment workers, particularly in jobs in services. The findings suggest that the still nascent AI technology has not yet produced noticeable labor market impacts in developing Southeast Asian economies.

Figure II.28. Digital platforms and digital skills can provide new job opportunities and earnings buffers for workers in the informal sector



Source: World Bank estimates, based on data from Indonesia and Viet Nam labor force surveys.

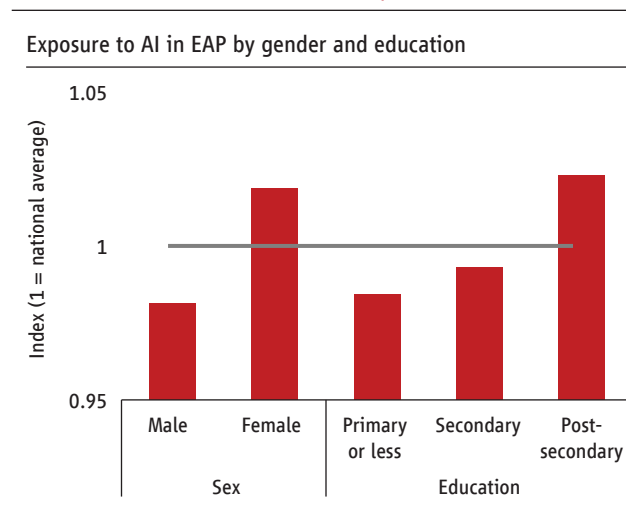
Note: A. Scattered points and whiskers present the estimated coefficients and 90-percent confidence intervals from a difference-in-difference regression analysis utilizing staggered ride-sharing platform rollouts across Vietnamese provinces between 2015 and 2022. The outcome variable is average hourly wages. Sample is restricted to people aged 16 and above. The regression model controls for year and province fixed effects, individuals' age, gender, marital status, educational attainment, and provinces' population density, income per capita, and immigration rate. B. 2023 real wages statistics. Whiskers show 25 – 75 percentile range.

AI can augment humans in jobs in education, healthcare, and involving strategy and decision making. However, only about 13 percent of jobs in Southeast Asian economies involve non-routine cognitive occupations, which can be complemented by AI, compared to the 39 percent share in advanced economies (Figure II.25). These countries, thus, face a lower risk of job displacement by AI, but also stand to benefit less from this emerging technology. China and Malaysia stand out as countries with a relatively high share of people employed in nonroutine cognitive tasks who may be equipped to benefit from complementarities with AI. Moreover, AI exposure is not uniform across workers. In the EAP region, women are more exposed than men to AI. Workers with tertiary education are more exposed to AI than workers with secondary education or less (Figure II.29)

Looking ahead, however, AI is likely to transform production processes while digitalization is enhancing the tradability of services. As occupational structures shift toward cognitive-intensive jobs in services and wages rise, EAP economies will not be immune. Indeed, many of today's "safe" jobs could become tomorrow's prime targets for AI-displacement. Just as export-oriented manufacturing helped shift employment from agriculture to industry in developing EAP countries, these and other emerging economies need to harness the potential of AI to ensure that a dynamic services sector is a source of better job opportunities in the future.

To reap the benefits of new technologies, EAP countries need to address the impediments to their adoption. The relative inertia of frontier firms in EAP (de Nicola et. al., 2025) may be because firms do not have adequate incentives, such as the spur of international competition, and because they lack the relevant capabilities, such as access to high quality skills and infrastructure.

Figure II.29. Women and tertiary educated are more exposed to AI due to their occupational nature



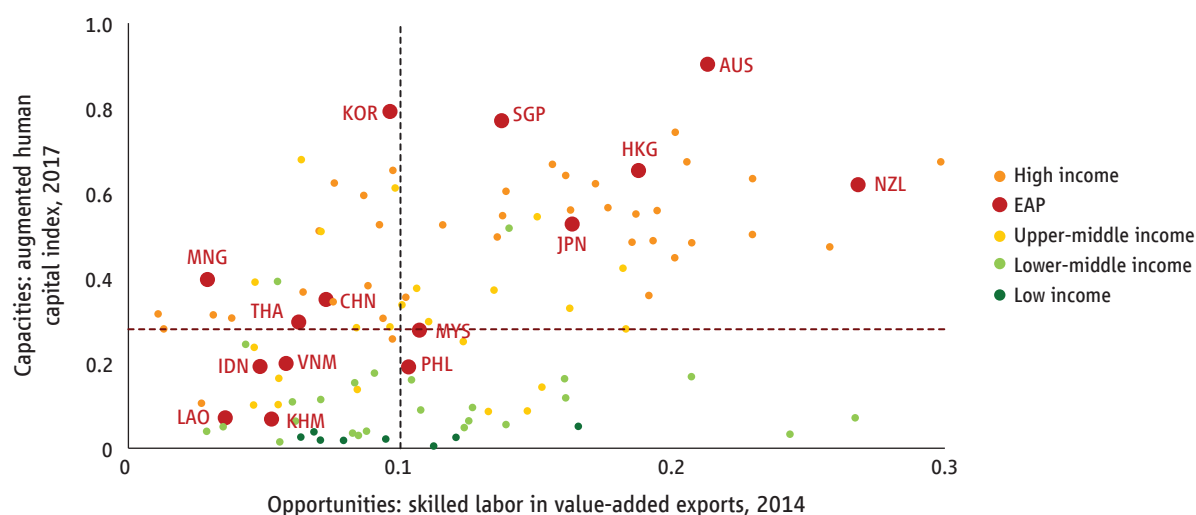
Source: Arias et. al. (2025).

Note: Occupational AI exposure is based on Pizzinelli et al. 2023. EAP includes ASEAN-5 economies.

C. Coordination: Interplay between opportunity and capacity

Figure II.30 illustrates the relationship between capacities and opportunities across a wide set of economies in the development spectrum. The human capital index augmented by tertiary enrollment rates is used as an indicator of capacities or skills, while the skilled labor content of exports is a measure of opportunities or skills demand. Economies can be positioned in four quadrants: low opportunities and low capacities, which can reflect underdevelopment traps; high capacities without matching opportunities, which lead to skill underutilization; high opportunities without sufficient capacities, which manifest in skill shortages; high opportunities and high capacities, which are the result of a virtuous cycle of development.

Trade and technological change have been powerful drivers of development and higher productivity jobs, especially in the EAP region. But at least two types of problems can arise as a country seeks to develop: (i) an underdevelopment trap and (ii) the creation of excessive or persistent skills surpluses or shortages.

Figure II.30. The interplay between capacities and opportunities across the development spectrum

Source: WDI, Labor Content of Exports Database (Cali et al. 2016).

▸ 3. Trade trap and innovation inertia

The most basic problem is the pure underdevelopment trap, where a country is relatively well-endowed with low-skilled workers and hence specialized in producing relatively low-skilled products. Individuals may have little incentive to acquire more sophisticated skills because returns are relatively high for low skilled activities. Trade may dampen the incentives to invest in skills. If trade creates more opportunities for unskilled workers than for skilled workers, it can reduce the skill wage premium. The result may be to lock low-income countries in a low-skills underdevelopment trap, as may be the case in Cambodia and Lao PDR.

There is empirical evidence of countries being locked into specific skills-based trade specialization. A panel analysis of data spanning over 100 countries and 50 years finds that growth in less skill-intensive exports depresses average educational attainment while growth in skill-intensive exports increases schooling (Blanchard and Olney 2017). Atkin (2016) finds that in Mexico, for every 20 new jobs created in the relatively less skill-intensive Mexican export sectors –following the establishment of the North American Free Trade Area, one student dropped out of high school. In India, by contrast, the expansion of tradable services (finance, ICT, and business services) increased the demand for skilled workers and incentivized individuals (including women) to seek more schooling or post-school training (Jensen 2012; Eichengreen and Gupta 2013; Nano et al. 2021).

In the EAP region, Li (2018) shows that China's tariff cuts triggered export shocks whose effects on skill returns and education investment varied with local skill intensity (Figure II.31). Prefectures specialized in low-skill sectors experienced positive low-skill export shocks, while those specialized in high-skill activities faced positive high-skill shocks. High-skill shocks increased the college wage premium and boosted both high school and college enrollments. In contrast, low-skill shocks reduced the college premium and lowered enrollments at both levels, leading to deskilling and deeper low-skill specialization. These widening differences in local skill abundance reinforced initial industry specialization patterns across locations.

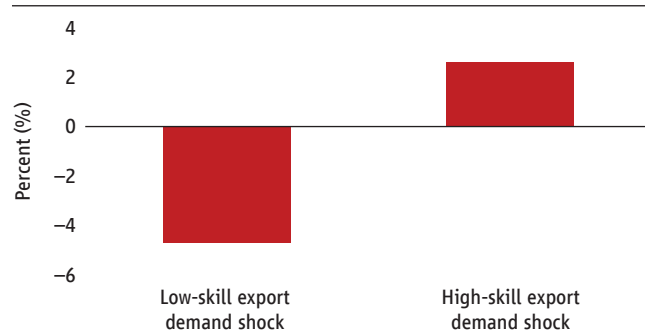
This *trade trap* may be reinforced by *innovation inertia*: credit constraints, ignorance and uncertainty about technological developments can prevent individuals from anticipating and preparing for them. And because people do not invest in the necessary skills, firms cannot adopt the new technologies.

Although the EAP region has experienced technology advances, most countries, except for China, underperform on several key indicators of innovation (Cirera et al 2021). Most firms remain far from the technological frontier, and only a small share of firms engage in sophisticated innovation activities. Recent evidence shows that the region's most-sophisticated firms are particularly far behind the most sophisticated firms globally. Nicola, Mattoo, and Timmis compare the gaps in technology use between firms in selected EAP economies and firms in the Republic of Korea, according to their level of technological sophistication. While the gap is smaller among the least sophisticated firms (those with low quantile scores), it widens among the most-sophisticated firms. For instance, in Cambodia, the Philippines, and Viet Nam, the gap with Korean firms is around twice as large for the most sophisticated 5 percent of firms than for the bottom 5 percent, with a smaller difference for Indonesia.

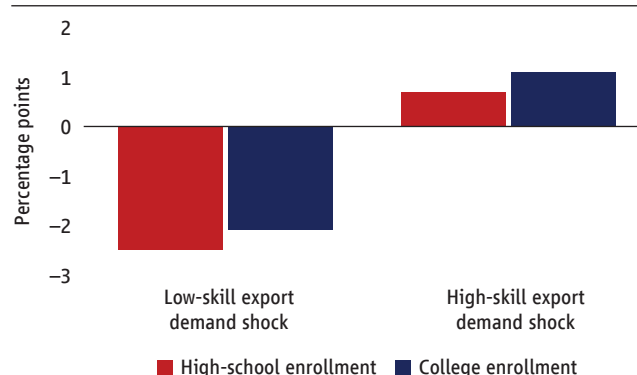
Figure II.31. Skills and opportunities in China: Trade and school enrollment, circa 1990-2005

Impacts of export-shocks on college returns, high school and college enrollment (1990-2005)

A. Estimated impacts of low-skill and high-skill export shocks on the college wage premium in China, 1992-2005



B. Estimated impacts of export shocks on high-school and college enrollment, between 1990-2000 and 2000-2005



Source: Based on Li (2018) and Che and Zhang (2017).

Note: Estimates are statistically significant at 1%.

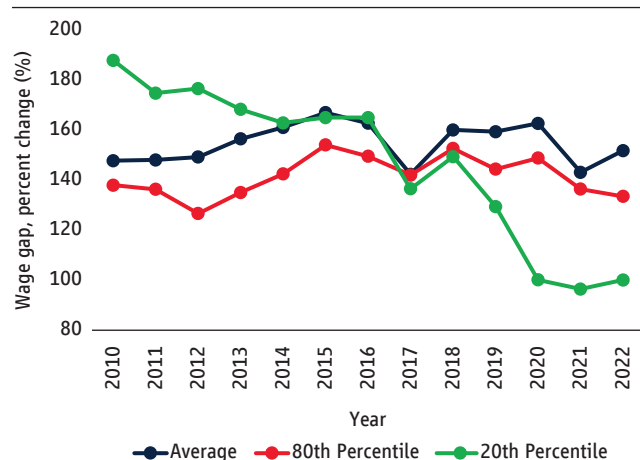
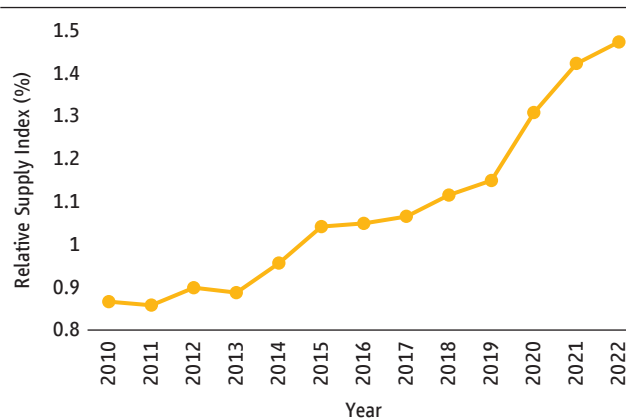
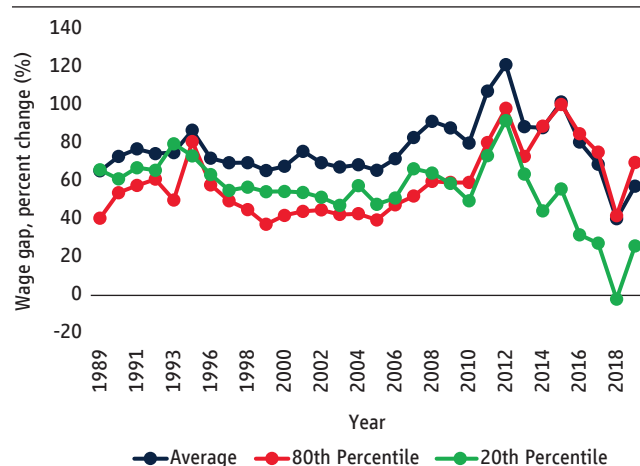
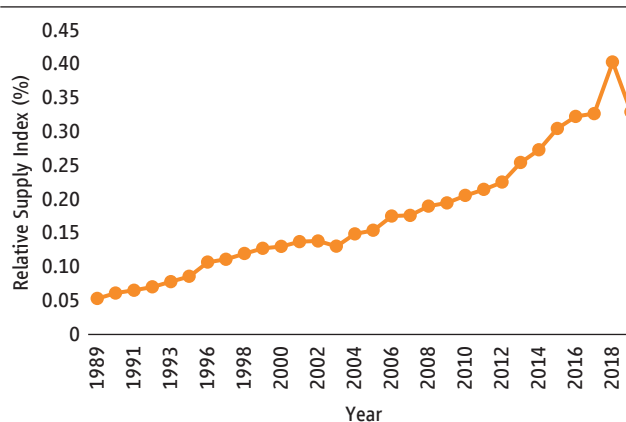
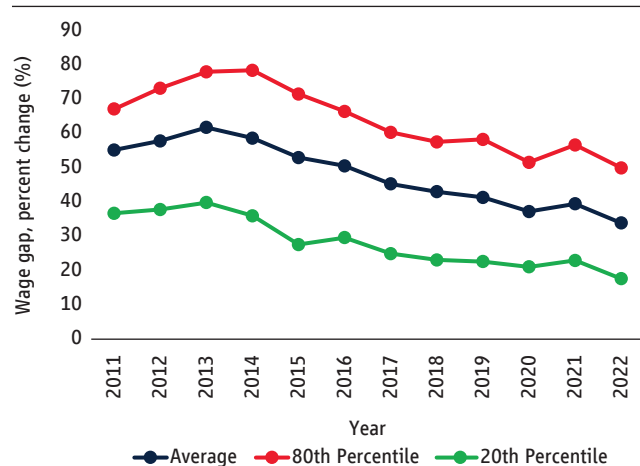
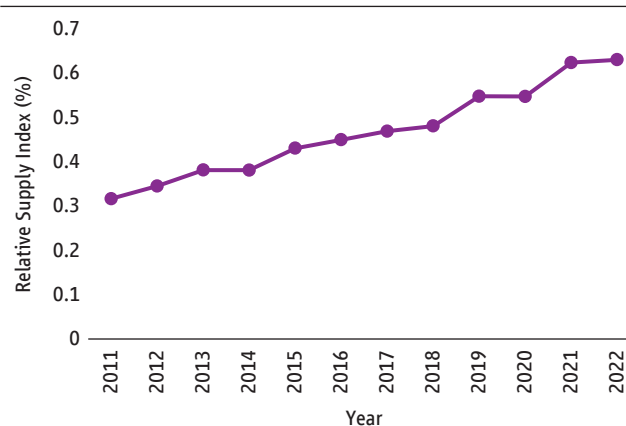
As a result, the national frontier firms (that is, a country's most-productive firms) in EAP are no longer leading productivity growth and are falling behind the best firms globally. The lag in productivity growth of the national frontier firms with respect to the global frontier is larger in digital-intensive sectors such as electronics. For example, in digital-intensive manufacturing sectors between 2005 and 2015, the productivity of the global frontier increased by 76 percent, whereas the national frontier firms in Indonesia, Malaysia, the Philippines, and Viet Nam increased their productivity by only 31 percent on average. The sluggishness of the national frontier firms raises concerns about innovation inertia and the prospects for overall productivity growth given their role in leading the adoption and later diffusion of new technologies.

▸ 4. Breaking out of traps: skills surpluses or shortages

The second problem is that breaking out of the underdevelopment trap without creating skills surpluses or shortages is inherently difficult. Poorly synchronized policies can make it worse. On the trade front, changes in comparative advantage require an accumulation of skills by a critical share of the population, but this takes time. Since a period of skills development must precede the emergence of new opportunities, transitory surpluses are inevitable. On the technology front, changes in demand for skills can be abrupt and, where they have not been anticipated, transitory shortages are unavoidable. These problems are not novel but have become more urgent amid shifts in trade policy and rapid technological change.

The evolution of the college premium in EAP countries over the last two decades indicates the emergence of imbalances between the supply and demand for skills. Figure II.32 illustrates this for Indonesia, Malaysia and Viet Nam.⁴ The college premium remained largely unchanged or even increased during the 2000s and early 2010s and started falling thereafter. The trends suggest that demand for tertiary education graduates kept pace with the supply expansion in these countries until the early-mid 2010s, as supported, for example, by additional evidence for Indonesia (refer to Box II.B4). As enrollment expanded from a low base, it took time for new graduates to drive up significantly the share of tertiary-educated workers on the labor force, which in most countries remains between 15 to 25 percent. Since the mid-2000s, the expansion of the supply seems to have outpaced the demand, putting a downward pressure on the college earnings premium particularly for graduates that get the relatively less well-paid college jobs.

⁴ For evidence for other countries, see Arias et al (2025), Belghith et al. (2023); Belghith et al. (2022), Hanushek et al. (2024) Banh et al. (2024).

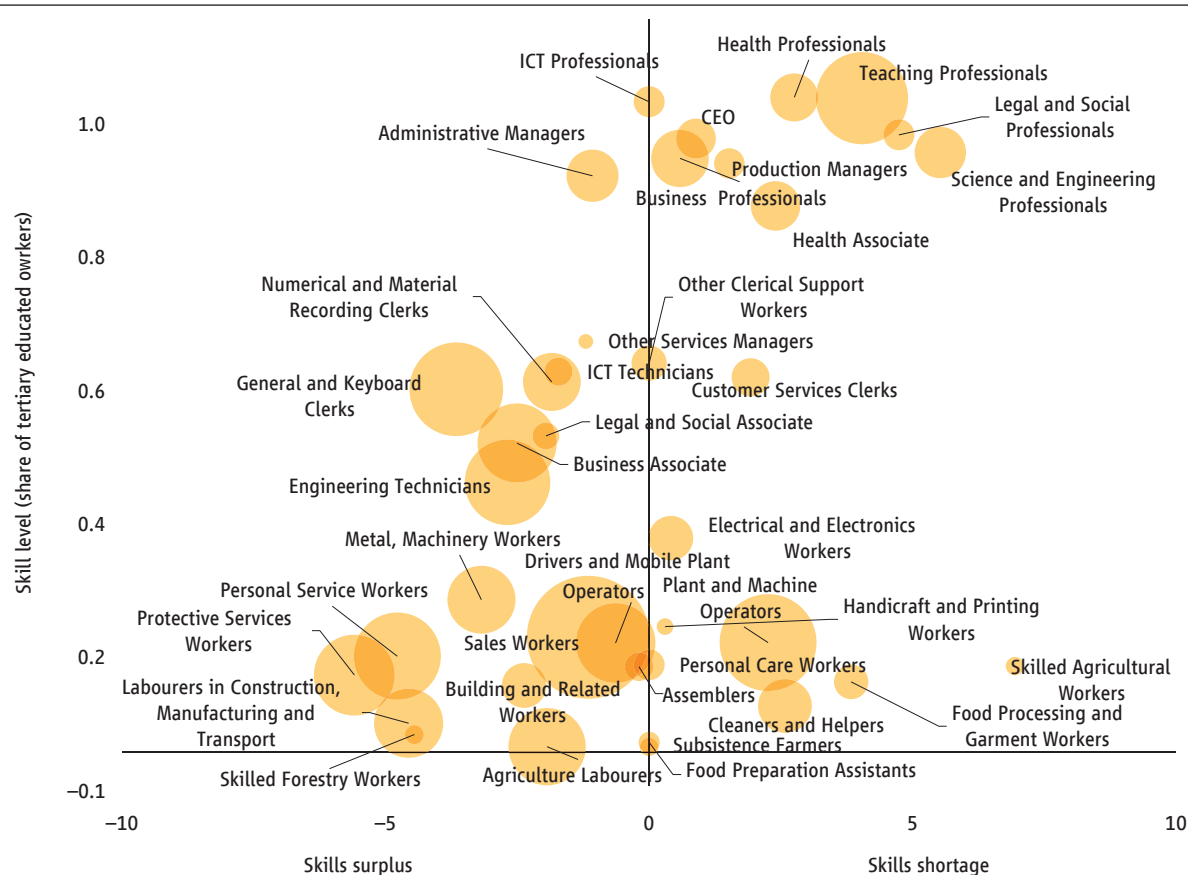
Figure II.32. Evolution of the relative supply of college-educated workers and tertiary skills premium in selected EAP countries**A. Malaysia – college wage premium****B. Malaysia – relative supply of college educated****C. Indonesia – college wage premium****D. Indonesia – relative supply of college educated****E. Viet Nam – college wage premium****F. Viet Nam – relative supply of college educated**

Source: World Bank staff's using LFS microdata and the methodology of Katz and Murphy (1992).

One factor that may be behind the fall in the college premium in recent years is the expansion of skills in some areas faster than the demand for them. Figure II.33 shows this pattern for Malaysia and Viet Nam, using data on wage growth by occupation relative to each occupation's share of college-educated workers and its share of total employment. There appears to be a surplus of workers in relatively low-skill jobs, such as clerks, business associates and sales workers, and a shortage of workers for high-skill jobs in science and engineering and business professionals (especially in Viet Nam). Low-skill jobs in agriculture and manufacturing plant operators are also showing a worker surplus, especially in Malaysia, likely reflecting the influence of automation on routine jobs.

Figure II.33. Occupational wage growth suggests a shortage of workers for high-skill jobs and a surplus of workers for low-skill jobs, particularly in services, circa 2022

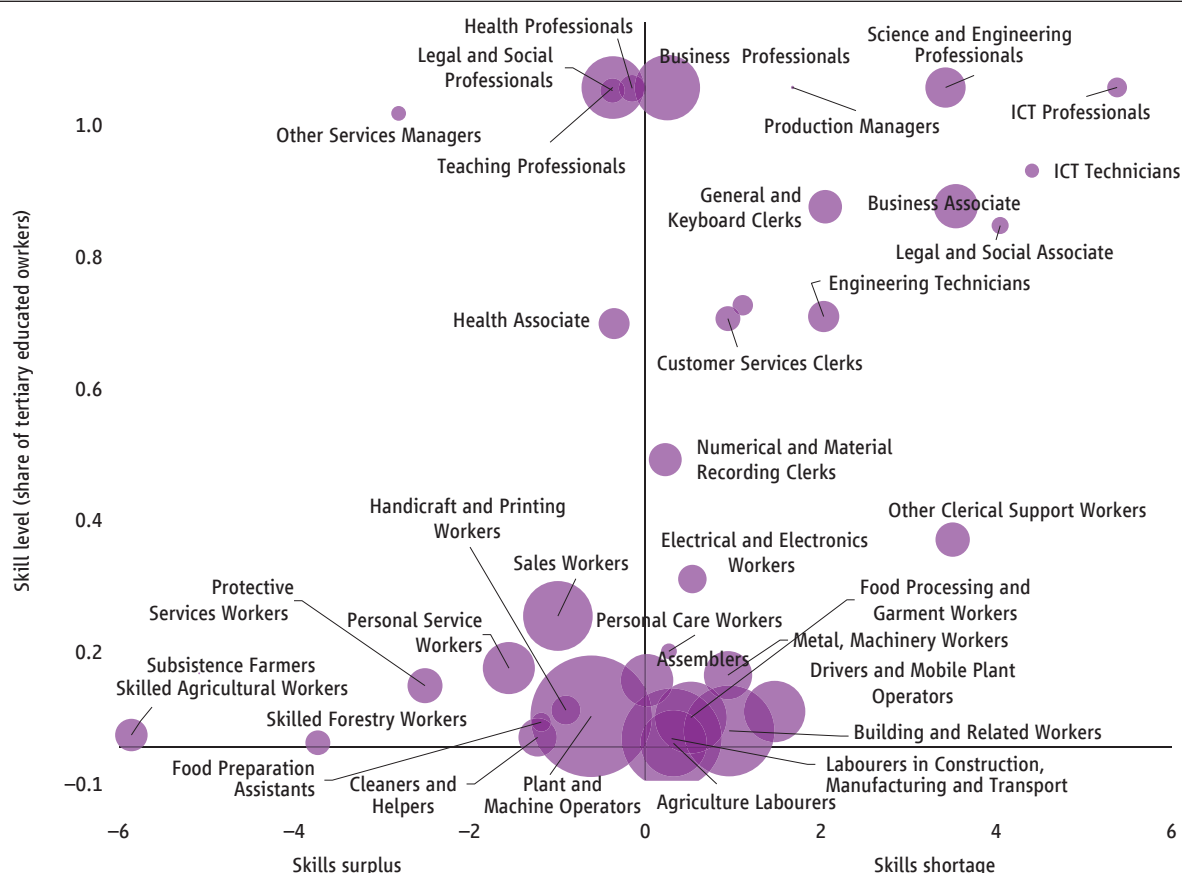
A. Malaysia



(continued)

Figure II.33. (continued)

B. Viet Nam



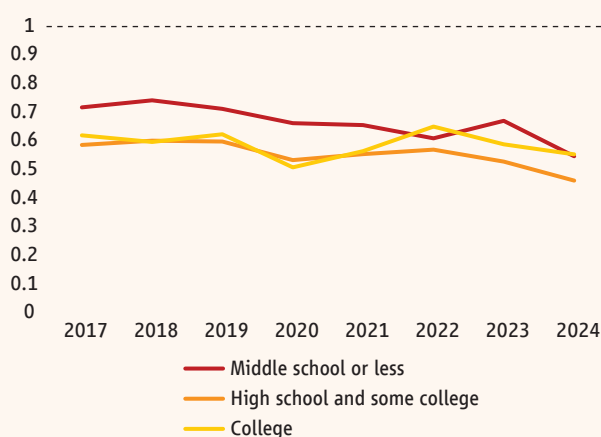
Source: Based on Labor Force Surveys of Malaysia and Viet Nam.

Note: The x-axis measures skills shortage and surplus based on the (percentage point) difference between the observed average wage growth of wage employees (2010-2021 for Malaysia and 2012-2023 for Viet Nam) in an occupation and the predicted wage growth given the occupation's initial wage level. Occupations with a skills shortage (RHS) are those for which the wage growth is higher than is expected from the average wage growth of jobs with similar initial average wages. Skills surplus (LHS) means the opposite. Bubble size reflects the share of the occupation in total employment.

Box II.4. Measuring labor market tightness index in Indonesia

A recent study—modeling labor and demand shocks, job search, and job creation—suggests that the type of policies to improve job creation depend on the ‘tightness’ of the labor market (Forsythe et al. 2020). The labor market tightness indicator, which has grown in popularity since the COVID-19 pandemic, measures the ratio of job vacancies to unemployment. The labor market is “tight” when there are more job vacancies than the number of unemployed. In contrast, it is “slack” when there are fewer jobs available for the pool of unemployed. When the labor market is losing tightness, like in the case of Indonesia, policies targeted at boosting aggregate demand and capitalizing on opportunity will matter more for job creation.

Figure II.B4. Labor market tightness indicator helps formulate targeted policies to address the bottleneck of job creation



Source: Adapted from Halim, Hasanbasri, and Purnamasari (Forthcoming).

▸ 5. Breaking out of traps: virtuous circles

EAP countries must address the “chicken and egg” problem inherent to attempts to avoid the underdevelopment trap. There is evidence that a momentous boost to the supply of skills can mitigate the risk of a trade trap and innovation inertia, enabling a transition to higher value-added manufacturing and services and increasing the demand for and returns to skills. For instance, Carneiro et al. (2023) provide evidence that an exogenous expansion of higher education in Norway encouraged firms to adopt skill-complementary technologies and invest in R&D. The result was an increase in the demand and the returns to skills.

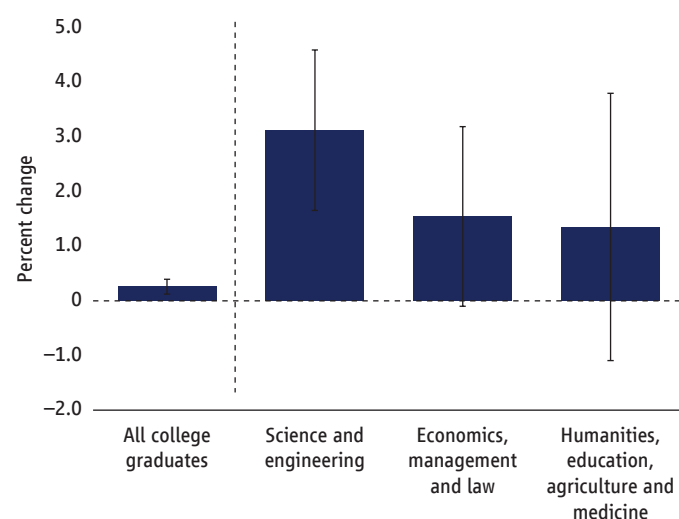
In China, the massive expansion of tertiary education since the early 2000s boosted the productivity, exports, and innovation of firms engaged in skill-intensive manufacturing. The Chinese government increased the yearly quota on newly admitted college students from 1 million in 1998 to close to 8 million in the 2010s. Tertiary education enrollment more than tripled and the share of college-educated workers in overall employment increased from 4.7% in 2000 to 14.6% in 2015. While the enrollment expansion was nation-wide, there was variation in the size, pace and composition of graduates. Che and Zhang (2017) exploits this variation to analyze the impacts on the performance of manufacturing firms between 1998 and 2007. They find that the college expansion led to higher productivity (TFP) growth of firms in more skill-intensive industries (Figure II.34). The productivity gains were much larger for firms located in provinces which experienced a larger increase in the share of college graduates in STEM fields. Firms in more skill-intensive sectors also adopted more advanced technologies and invested more in R&D and worker training.

Ma (2024) provides complementary evidence that China's college expansion boosted manufacturing firms' investments in technology, especially among exporting firms (Figure II.35B). The expansion also led to a sizable skill upgrading in exports (Figure II.35A). The study estimates that the college expansion explains 72% of the increase in China's manufacturing R&D intensity during this period, and that without trade openness the impact of the college expansion on firm innovation would have been about 31% lower.

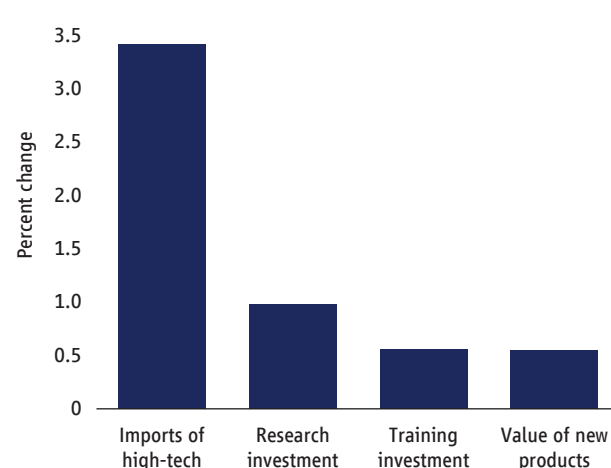
Figure II.34. The expansion of tertiary education in China boosted firm productivity and innovation

Impacts of an increase in the share of tertiary-educated workers, between 1998–2002 and 2003–2007

A. Productivity (TFP) impacts by college graduates field of study



B. Firms' technology adoption and innovation



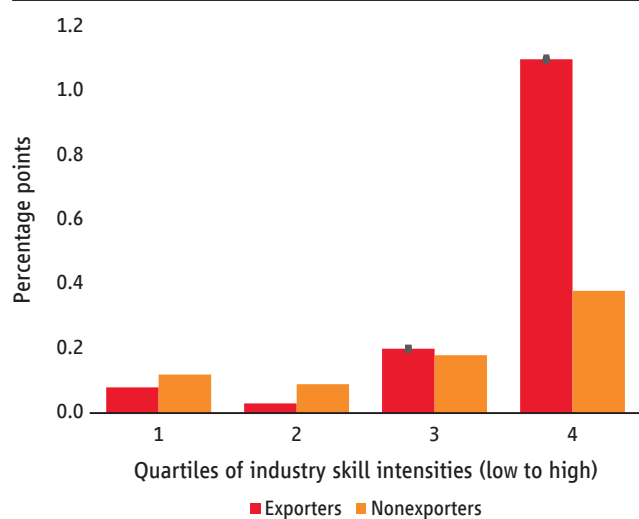
Source: Based on Che and Zhang (2017).

Note: For panel A, all college graduates, science and engineering estimates are significant at 1%, while economics, management and law are at 5%. Confidence intervals are at 95%. For Panel B, estimates are significant at 1%.

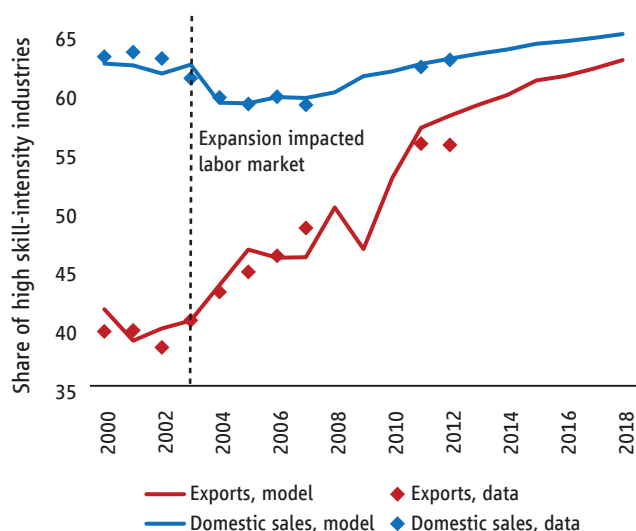
Figure II.35. The expansion of tertiary education in China led to increases in R&D intensity, especially of exporters in high skill-intensity industries, and to export skill upgrading

Impacts of expansion of the supply of tertiary-educated workers, between 2005 and 2010

A. R&D intensity by industry skill intensity level in China, 2018



B. Export skill upgrading (% share of high-skill industries in domestic sales and exports)



Source: Based on Ma (2024).

Note: R&D intensities are R&D/sales.

The resulting increase in skills demand in China preserved the returns to skills as the supply expanded. The college wage premium almost tripled from the early 1990s to the late 2000s, as the supply expansion lagged the increased demand (Ma and Iwasaki 2021). The share of employed workers with college education rose gradually from 11 percent in 2001 to 15 percent in 2009, and then surged to reach around 30 percent in 2018 as a large inflow of college graduates entered the labor market. The college wage premium fell from 68 percent in 2007 to 49 percent by 2018 (Hanushek, Wang, and Zhang 2023).

Altogether the evidence from China suggests that increases in the supply of college graduates boosted firms' productivity mainly through a technology-diffusion channel and a shift toward more innovative, skill-intensive and export-oriented activities. This pattern has been followed by today's high-income economies in the region like the Republic of Korea and Singapore.

The experience from these countries underscores that supply-side shifts alone are not a silver bullet and offers some lessons for developing EAP countries. First, both in EAP high-income economies and in China, the large expansion of tertiary education was possible because these countries had ensured strong foundational skills of their populations. Without a wide pool of youth with strong numeracy and literacy skills, it will be very difficult to build a workforce with more advanced technical skills.

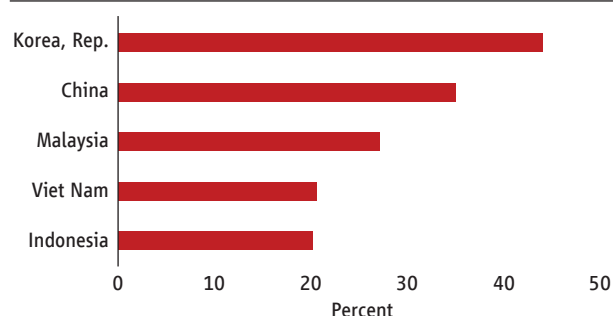
Second, and most importantly, it is imperative to implement policies to sustain the creation of opportunities and a strong demand for skills. This requires addressing the institutional weaknesses, policy distortions or market failures that constrain economic opportunities.

Finally, government need to steer the expansion of skills to align with the emerging needs of the economy, for example with strong participation of industry as in the Republic of Korea (Box 5 in the Policy section). For instance, China and Korea, Rep. have put a strong focus on STEM education. The share of the workforce with STEM education reaches 35 and 45 percent, respectively. In contrast, the share of college-educated workers in STEM fields remains at 25 percent in Malaysia and 19 percent in Indonesia and Viet Nam (Figure II.36). One important area with a shortage of talent is the supply of engineers, which play a crucial role in driving adoption and innovations of new technology (Maloney and Caicedo 2022). Countries like Viet Nam are stepping up their efforts to expand the supply of engineers and other technical and managerial skills required to achieve their ambition to move up in the value of chain of semi-conductors (Box II.A1).

EAP countries will need to reckon with several questions: What is the appropriate role, across countries at different stages of development, of the state and the private sector in generating more and better jobs? How far can choices on investment in skills and in skill-creating capacity be left to decentralize decision-making in unregulated markets? What role should the state play in influencing or informing private choices? Can the state ensure that institutional support, policy reform and efficient regulations are synchronized to ensure as far as possible the balanced evolution of endowments and economic opportunities?

Figure II.36. The supply of workers in STEM fields remains limited in EAP countries

Distribution of workers (age 23–60) with a college education in STEM fields in selected EAP countries, 4+ years by fields of study



Source: World Bank staff's estimates based on micro-data from National Labor Force Surveys and data from OECD (2024) for China and the Republic of Korea. Fields of study are based on UNESCO's ISCED 2013 international classification.

II.3 Policy

While a broad range of policies affects jobs, this report follows the earlier analysis in focusing on reforms affecting opportunities, capacity and coordination. Reforms should focus first on eliminating impediments to entry and competition, which would allow dynamic and productive firms to flourish and create new job opportunities. Second, reforms should seek to support the common good by facilitating the building of human capital and infrastructure: equipping people to engage productively in the economy. Third, in some cases, policy may seek to do good by helping individuals and firms to anticipate future developments and coordinate their actions, to ensure a match between job opportunities and people's skills.⁵

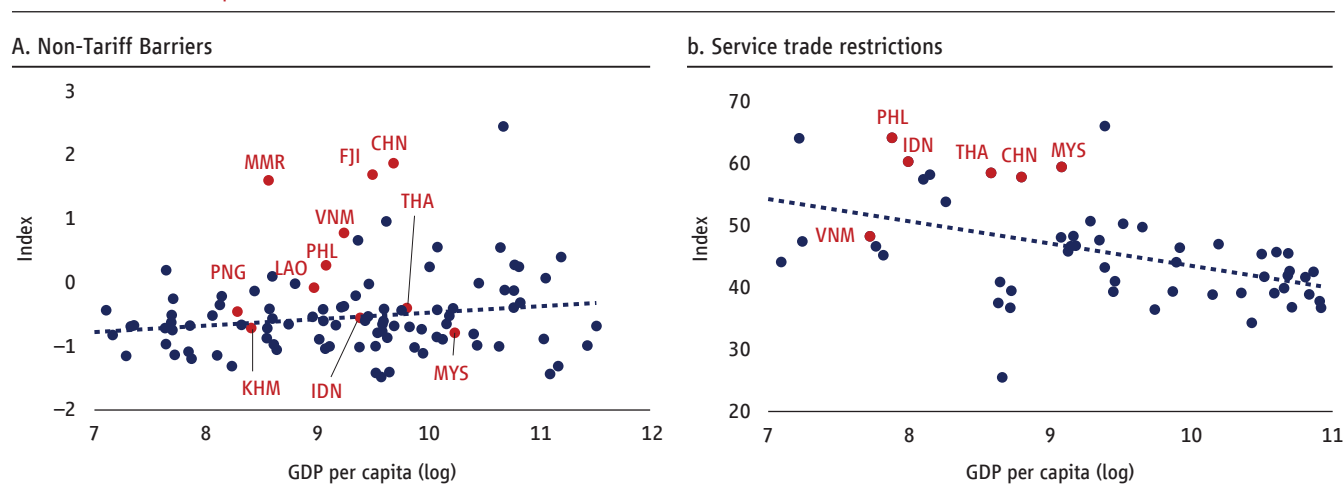
Opportunities

Workers' opportunities are affected by policies at the national, industrial and individual level. As demonstrated above, both domestic and foreign trade policies can lead to structural change that influences the sectoral allocation of workers and hence their productivity. Industry-level policies can affect the entry and exit of firms, the extent of competition between them, as well as the technologies they choose, and hence the derived demand for labor. As the evidence in this report shows, barriers to firm entry can dampen options for workers by inhibiting the emergence of the most dynamic job-generating young firms. Barriers to exit can conversely lock workers (and capital) into less productive firms. Finally, barriers to worker mobility across space, sectors and firms, within and across countries, directly hurt their opportunities.

While EAP goods markets are relatively open, liberalization of remaining tariffs and the relatively opaque nontariff measures in goods and services markets could encourage workers and capital to move where they are most productive. Services trade restrictions are higher in most EAP countries than in countries of a similar level of development (Figure II.37). Non-tariff measures in manufacturing and restrictions on services trade limit competition. Liberalization could also expose firms to competition, leading to improvements in their performance, which would also benefit their employees. Goods tariff liberalization in Viet Nam around the time of its WTO accession raised the productivity of frontier and other firms, especially in downstream sectors that use imported inputs. Services reforms in Viet Nam are associated both with more than 5 percent growth in the productivity of frontier firms in these same sectors and with more than 10 percent productivity growth in the frontier downstream manufacturing firms.

⁵ This framework captures the key pillars of the Development Committee 2025 paper on jobs. That paper identifies education, training and health as the means to build human capacity, and energy, transport, and water as the foundational infrastructure. Improving governance and creating a better business environment are seen as key elements of improving opportunities and unlocking private capital. The paper also recognizes macroeconomic stability as an important underpinning factor.

Figure II.37. Most EAP countries restrict goods and services trade more than other economies at comparable levels of development

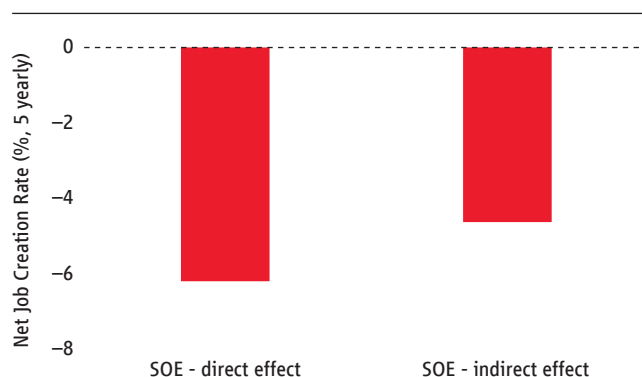


Source: Panel A: UNCTAD (2023), Panel B: World Bank (2024a)

Note: Panel A shows the average difference between the number of border NTMs applied by an economy in each product and the average number of measures applied to that product based on TRAINS NTM data in 2021. Averages are computed by weighing each product by its importance in world trade.

Given the key role of new entrants in job creation and productivity-enhancing resource reallocation, significant benefits could arise from the elimination of domestic impediments to firm entry and exit. Some EAP markets also feature a significant presence of state-owned enterprises (SOEs), for example in China, Indonesia and Viet Nam. Evidence from multiple countries, including Viet Nam, suggests that the presence of SOEs in a sector is associated with lower entry, job creation and productivity-enhancing resource reallocation (de Nicola et al 2025). In Indonesia, SOEs tend to exhibit lower productivity than private firms within the same manufacturing sector (de Nicola et al 2025; Asian Development Bank 2022). In China, Indonesia and Viet Nam, the net job creation of SOEs is on average 6 percentage points lower than of private firms and their presence is associated with reduced job creation among other firms in the sector (refer to Figure II.38). Preferential treatment of state-owned enterprises (SOEs)—in regulation and in public procurement—can limit entry, distort competition and lead to inefficient allocation of capital and labor. That will allow start-ups to attract the resources needed to enter the market and productive incumbents to scale up and grow to their optimal scale.

Figure II.38. The presence of SOEs dampens net job creation and productivity of other firms in the same sector



Source: Calculations based on statistical office microdata for China, Indonesia, and Viet Nam.

Note: “Direct” of state ownership reflects the difference in net job creation between state-owned and privately-owned firms. “Indirect” represents the differential in net job creation for privately-owned firms in industries where there is a higher share of state-owned firms, measured in terms of one standard deviation difference. All estimated effects are statistically significant at the 99 percent level. Regressions control for lagged firm productivity and age, as well as country * 2 digit industry and year fixed effects. Regressions apply firm employment weights, and the figure reflects an unweighted average across countries. Net job creation rate (=gross job creation rate - gross job destruction rate) calculated following Davis, Haltiwanger and Schuh (1996), and over 5 year intervals. SOE = state-owned enterprise.

There is also a need to address the constraints that hinder access to job opportunities for individuals. Labor mobility is impeded by market failures and policy distortions. The former include poor information about job opportunities, underdeveloped land and housing markets, and inadequate connectivity. The latter comprise rigid labor market institutions and the inadequate portability of benefits. For example, in China and Viet Nam, the household registration systems that regulate access to housing and public social services have curtailed rural-urban migration, trapping many farmers in low-productivity agricultural jobs. In Indonesia, reducing barriers to internal mobility could lead to productivity and labor income gains of around 20 percent. Labor also requires capital to be mobile. Impediments to capital mobility, such as restrictions on firm entry and exit in the form of burdensome licensing requirements and bankruptcy procedures, also need to be addressed (de Nicola et al 2025). Finally, specific interventions to tackle the supply and demand side constraints to female labor force participation can have a significant economic payoff (refer to Box II.5).

Policy efforts could focus on specific sectors in which there is potential for generating productive employment (see, for example, Figure II.7 and the related discussion). Box II.5 illustrates recent efforts and pending policy reforms in EAP countries to tackle impediments to economic opportunity and job creation broadly and in specific sectors.

Box II.5. Policy reforms to enhance opportunities in selected EAP economies

Indonesia and the Philippines illustrate efforts and gaps in policy reforms that can expand economic opportunities, including in those sectors which the World Bank has identified as having high potential to generate jobs at scale (Development Committee 2025).

In infrastructure, the Philippines has opened key sectors to greater competition—including logistics, telecoms and renewable energy and launched initiatives to increase infrastructure spending (such as *Build, Build, Build and Build Better More*). To sustain infrastructure needs within fiscal constraints, the country would benefit from deepening public-private partnership reforms by streamlining approvals, increasing transparency, ensuring fair risk-sharing, and hence crowding-in private capital.

In tourism, the potential of the sector in Indonesia to create jobs is constrained by poor infrastructure, limited policy coordination, and low private investment. The Indonesia's *Integrated Tourism Master Plans* aim to steer public investment in infrastructure and crowd in private capital. The Philippines is implementing reforms to develop downstream small and medium enterprises in the sector, which already employs about 6.2 million people (12.9% of employment). The tourism sector, however, is vulnerable to natural disasters and climate change. Tourism jobs can be protected through investments in climate adaptation, such as in climate-resilient infrastructure, and the provision of targeted financial support and training to SMEs.

In manufacturing, the Philippines has seen manufacturing productivity gains but modest net wage-job creation (around 1 million), with job losses in labor-intensive segments like textiles and apparel. Recent reforms aim to expedite registration of foreign and domestic corporations and provide fiscal incentives for investments in technology and R&D. Persistently high electricity prices and burdensome rules to obtain licenses and permits deter new firms' entry and incumbents' growth. Indonesia's downstreaming push and local content rules have attracted investments in metals and EV-adjacent production (e.g., nickel smelters). However, spillovers to other manufacturing employment and export sophistication are prevented by high input costs and regulatory restrictions. In both contexts, service reforms would enhance competition and lower input costs, thus enabling the creation of more productive jobs across value chains.

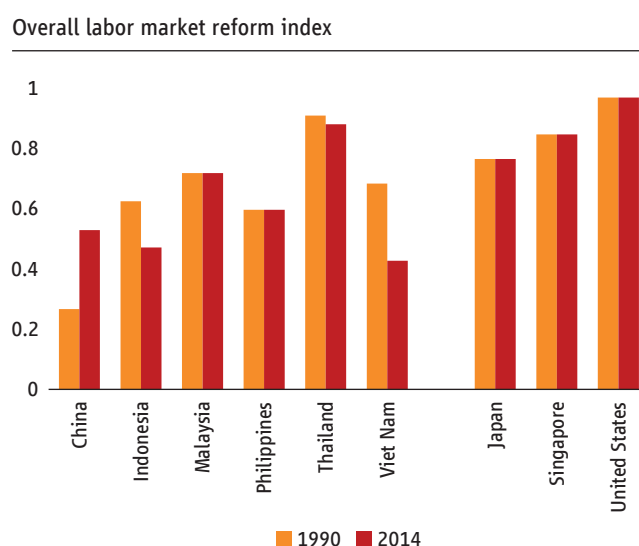
Agribusiness has the potential to create more productive jobs in both countries. For instance, Indonesia's food processing system already employs over 60 million people. The sector remains skewed toward low value-added activities. Reforms to improve rural infrastructure, R&D investment, and MSME finance could boost opportunities. In the Philippines, reforms are needed to improve tenure security, connecting farmers to markets, and product standardization.

Health-sector reforms can also contribute to creating productive jobs. The Philippines' expansion of telemedicine and health information management has created exportable Information Technology-Business Process Management (IT-BPM) roles, thus expanding opportunities for clinicians and allied professionals to deliver services domestically and overseas. However, broadband gaps and weak digital skills constrain net job creation. Indonesia's Health Omnibus Law seeks to alleviate specialist shortages by allowing qualified foreign practitioners, aiming to expand service capacity, improve quality, and curb outbound medical tourism. Impacts in services and jobs will depend on skills accreditation, even deployment across locations, and integration with the national insurance program.

Source: World Bank (2025). Country Growth and Jobs Reports (CGJRs) for Philippines and Indonesia.

Sometimes policies designed to support workers can become impediments to hiring, and therefore limit opportunities for new workers and for productive reallocation. Labor market regulations are relatively more rigid in some EAP countries, compared to advanced economies (Figure II.39). For instance, the average notice period and severance pay for redundancy dismissals are higher in many EAP countries relative to advanced economies (Figure II.40). Excessive firing costs or worker dismissal requirements can distort the job creation and destruction process and reduce productivity (Blanchard 2005; Kuddo et al. 2015). At the same time, workers need adequate income protection to mitigate income shocks and facilitate labor market transitions. Effective labor market policy should avoid “two cliffs”: leaving workers with inadequate protection and inducing high labor costs that discourage hiring and hinder efficient labor reallocation (World Bank 2013). Some EAP countries are introducing new reforms to extend protections for workers in the gig economy (Box II.6).

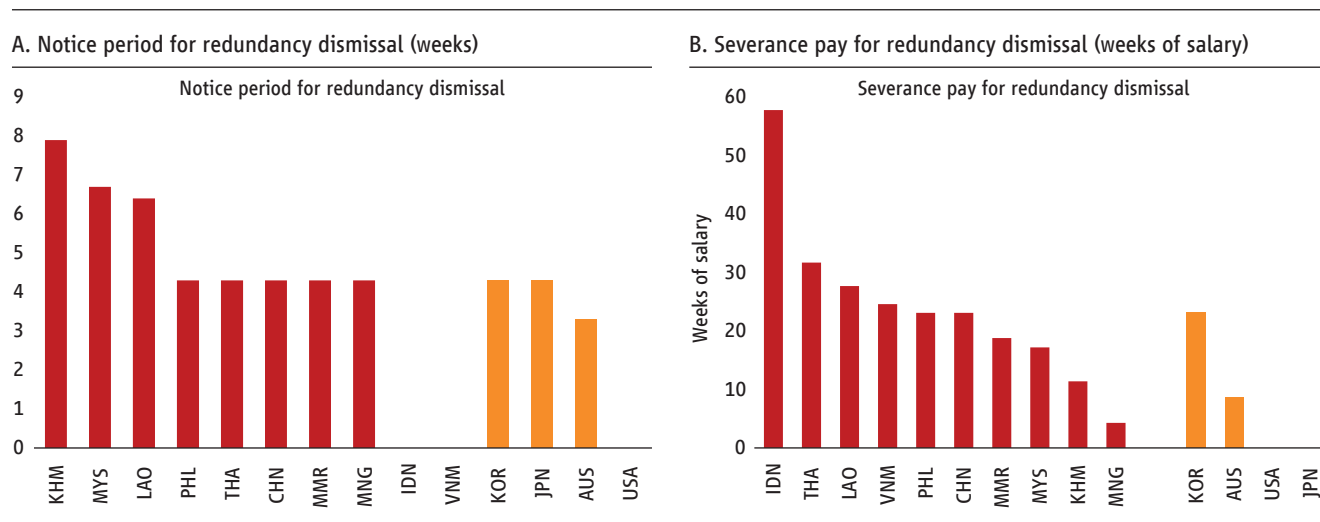
Figure II.39. Labor market regulations are less liberalized in EAP countries compared to advanced economies



Source: Alesina et al. (2020).

Note: The overall labor market reform index is constructed by taking the simple average of five sub-indices and is normalized to range from 0 (most regulated) to 1 (most liberalized). The sub-indices include *Valid grounds* (captures the freedom of the employer in deciding when to dismiss workers and which workers to dismiss), *Procedural inconvenience* (includes provisions such as consultation with workers' representatives and third-party approval), *Firing costs* consists of minimum notice periods and severance payments), *Redress measures* (in case of unfair dismissal, concerns provisions such as the possibility for the worker to be reinstated in employment or to receive a compensation following an unfair dismissal), and *Collective dismissal requirements* (accounts for additional restrictions imposed to the employer when dismissing a large number of workers for economic reasons).

Figure II.40. The average notice period and severance pay for redundancy dismissals are higher in many EAP countries relative to advanced economies



Source: World Bank Employing Workers

Note: Figure shows data in 2019. A. The length of the notice period that an employer must provide before making an employee redundancy. Redundancy termination refers to dismissal allowed by law that is justified by economic, operational or structural reasons. B. The amount of severance pay that an employer must provide when making an employee redundancy. Redundancy termination refers to dismissal allowed by law that is justified by economic, operational or structural reasons.

Box II.6. Formalizing the gig economy: Reforms of labor regulations in EAP

Several Southeast Asian countries have recently introduced or updated regulations in 2025 to better recognize and protect the fast-growing body of gig and platform workers within the economies. Source: Malaysia Digital Economy Corporation; World Bank - Informal Employment in Malaysia 2024.

In Malaysia, the *Gig Workers Bill 2025* formally recognizes gig workers and mandates written contracts, protects against unilateral rate cuts, and guarantees social security coverage and access to a new tribunal for dispute resolution. Singapore's *Platform Workers Act 2025* introduces Central Provident Fund contributions from platform operators, ensures work injury compensation, and grants collective bargaining rights, aiming to align gig workers' protections with those of traditional employees. Thailand is also deliberating the *Independent Workers Protection Act*, which would register gig workers as "semi-independent," enable collective organization, and establish a welfare fund to support fair compensation and working conditions.

Together, these initiatives signal a growing recognition across the region of the need to modernize labor laws to reflect the realities of platform-based work. While the scope and enforcement mechanisms vary, common themes include formal recognition of gig workers, access to social protection, and the right to collective representation—laying the groundwork for more inclusive and equitable labor standards in the digital economy.

Apart from barriers to entry and competition, opportunities can also be distorted through misplaced taxes and subsidies. Across a range of developed and developing economies, the stock of industrial robots (per 1,000 workers) is negatively associated with the relative taxation of capital and labor. Empirical evidence from the United States and other advanced economies shows that exemptions and allowances (for example, for depreciation) lead to higher effective tax rates on labor than on capital complementary to automation technologies and thus favor excessive automation and sub-optimally lower employment. Removing these distortions would shift the adoption of automation technologies closer to what is socially optimal and raise employment levels.

Looking ahead, AI is likely to transform production processes while digitalization is enhancing the tradability of services. As occupational structures shift toward cognitive-intensive jobs in services and wages rise, EAP economies will not be immune. Indeed, many of today's "safe" jobs could become tomorrow's prime targets for AI-displacement. Just as export-oriented manufacturing helped shift employment from agriculture to industry in developing EAP countries, these and other emerging economies need to harness the potential of AI to ensure that a dynamic services sector is a source of better job opportunities in the future. Reforming policies affecting data flows and services trade could open new opportunities for workers in the EAP region.

Capacity

In pursuing their human capital development goals, EAP countries need to strike a balance: between improving the skills of the flow of future workers by focusing on young learners, and on improving the existing stock of workers by targeting also adult workers; developing more advanced skills and ensuring foundational skills for the population. They also need to determine appropriate roles for markets and government in education and training with regards to provision, financing, regulation, and information.

Policies must address specific market distortions while avoiding government failures. A preliminary assessment highlights the varied policy approaches currently used by EAP countries to address market failures. Credit constraints are dealt with through a mix of tuition subsidies, student loans, and scholarships. Information asymmetries are tackled by providing information on labor market returns and program characteristics through graduate tracer surveys or administrative data. Uncertainty can be partially addressed through better skill forecast systems and increasingly through the introduction of income contingent student loans.

Improving human capital has at least four dimensions. First is fixing the foundation of basic skills on which more-advanced skills can be built (World Bank 2023). Investing in teacher training is estimated to produce benefits in terms of discounted lifetime earnings that are 10 times larger than the costs.

Second is equipping future workers with the skills that complement new technologies as well as the ability to innovate. Technology tends to displace workers who cannot take advantage of the technology in their jobs. Investments in tertiary education, therefore, need to emphasize the development of workers' advanced cognitive, technical, and socioemotional skills. Data from advanced economies provides insights into emerging skills requirements (Figure II.41).

- Digital skills would equip people to engage with an increasingly digitalized workplace, using digital devices, applications, and digital platforms. In Japan, the Republic of Korea, and Singapore, teachers receive continuous professional development to enhance their digital pedagogic competencies. There is an emphasis on digital skills in the curriculum and on the use of digital textbooks, online learning platforms, and coding classes.

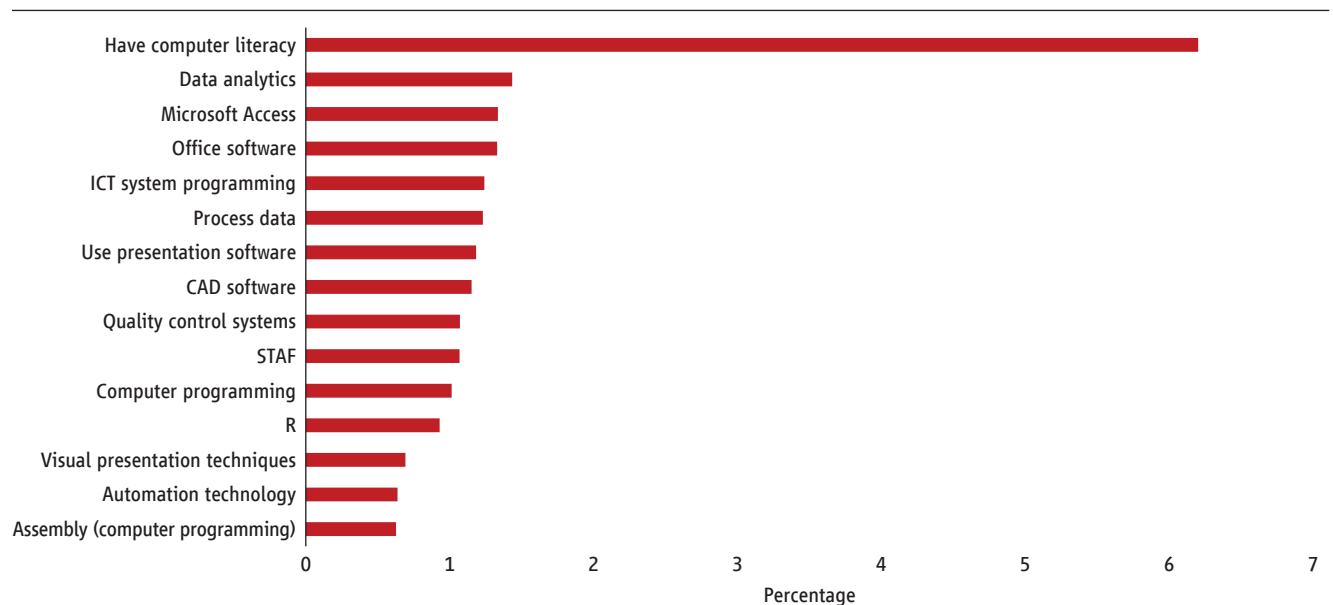
- Social and emotional skills would give people a comparative advantage over machines in tasks that involve social interactions, from education to health care. Research supports the notion that social and emotional skills are malleable and teachable through school interventions. In Indonesia, a large-scale intervention to develop a “growth mindset”—beliefs that intelligence and other socioemotional qualities are not fixed but develop with effort—through structured lessons had positive impacts on attitudes and test scores.
- Advanced technical skills would enable people to work in the use and creation of these new technologies. The supply of such skills is relatively scarce in developing EAP. In the Republic of Korea, the Meister high schools address critical technical skill needs in priority sectors, including ICT, semiconductor manufacturing, and biotechnology, and offer a customized vocational training curriculum developed in collaboration with companies such as Hyundai Motor Company and Samsung Electronics.

Third, is to invest in upskilling and reskilling to support lifelong learning and help workers manage labor market transitions. Firm-led on-the-job training is often effective, but companies—especially small ones—tend to underinvest because they may lose trained workers or lack resources. Public training programs show mixed results, with at best modest short-term gains (Carranza and McKenzie 2024; Ernst et al. 2022). These programs work best when they build transferable, tech-complementary skills—such as basic digital literacy and socioemotional skills—that align with new technologies like AI. Evidence from a recent U.S. program shows sizable earnings gains for workers from AI-exposed occupations who retrain, with larger returns for those who target less AI-intensive roles (Box II.7).

Fourth, is enhancing the abilities of managers. Differences in management quality are an important contributor to productivity differences across countries, and recent research suggests that management quality can be improved. For example, firms provided with management consulting in Colombia improved their management practices and increased employment (Iacovone, Maloney, and McKenzie 2022). Both intensive 1:1 consulting and cheaper consulting in small groups of firms led to improvements in management practices of a similar magnitude (8–10 percentage points) and in firm sales, profits, and labor productivity.

Figure II.41. EAP countries can assess and anticipate the need for emerging skills, as revealed by job vacancies in the Republic of Korea

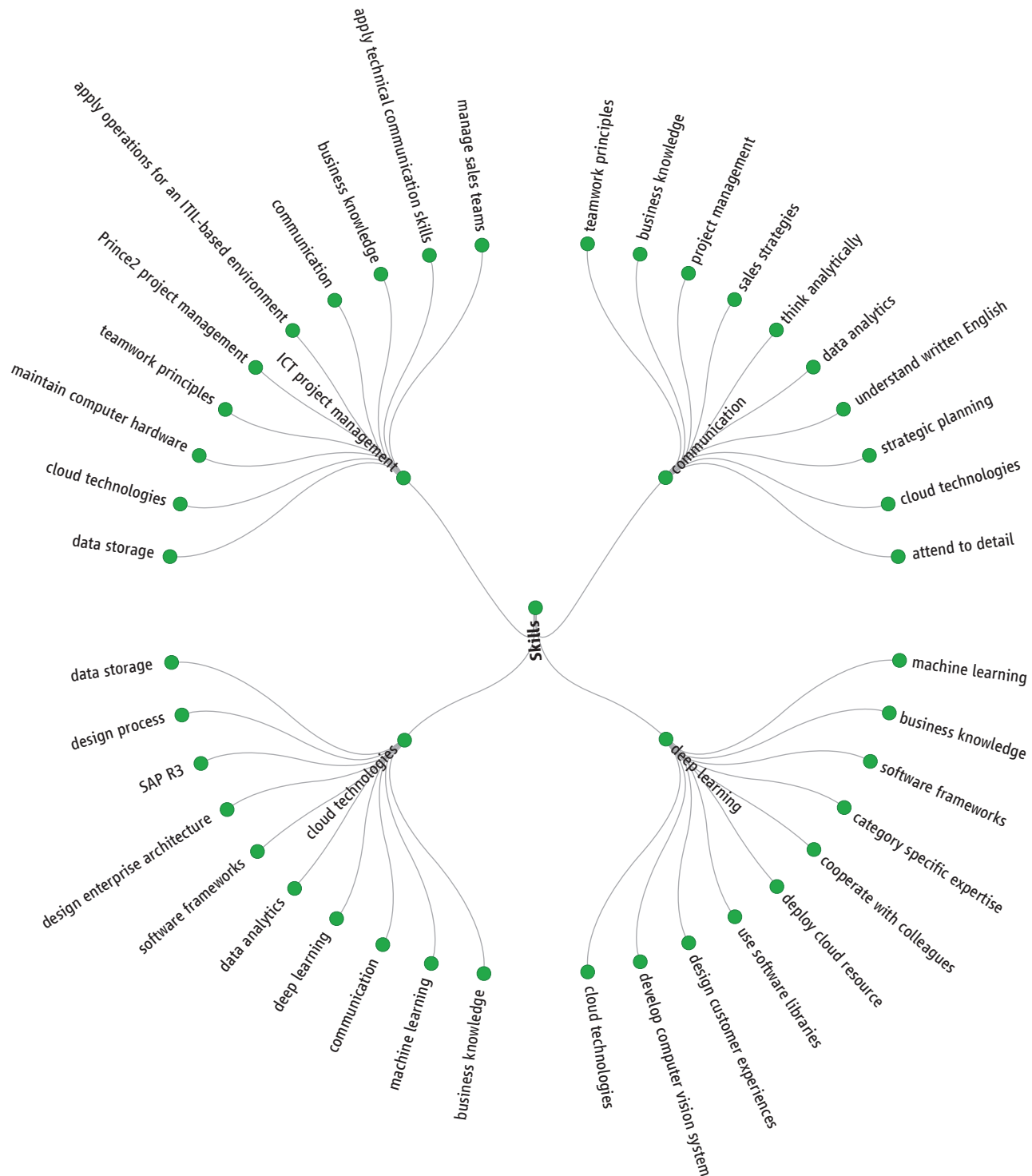
A. Top digital skills required (% job ads)



(continued)

Figure II.41. (continued)

B. Skills bundles for advanced digital skills



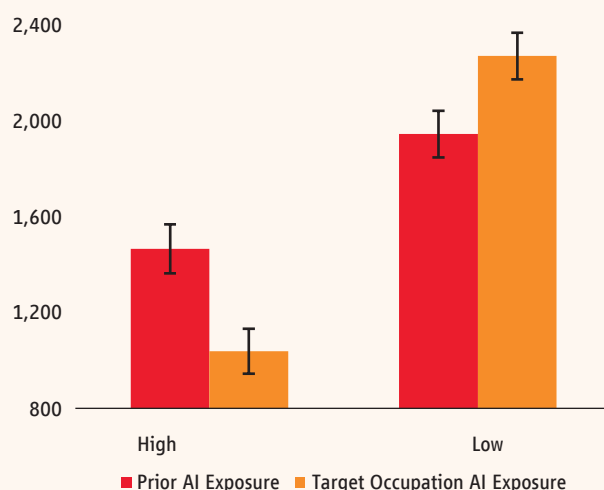
Source: Initial analysis of job vacancies data from the Republic of Korea for this report.

Note: Panels B is based on similarity indexes constructed using cluster analysis of embedded text data.

Box II.7. Retraining for AI-exposed workers in the United States

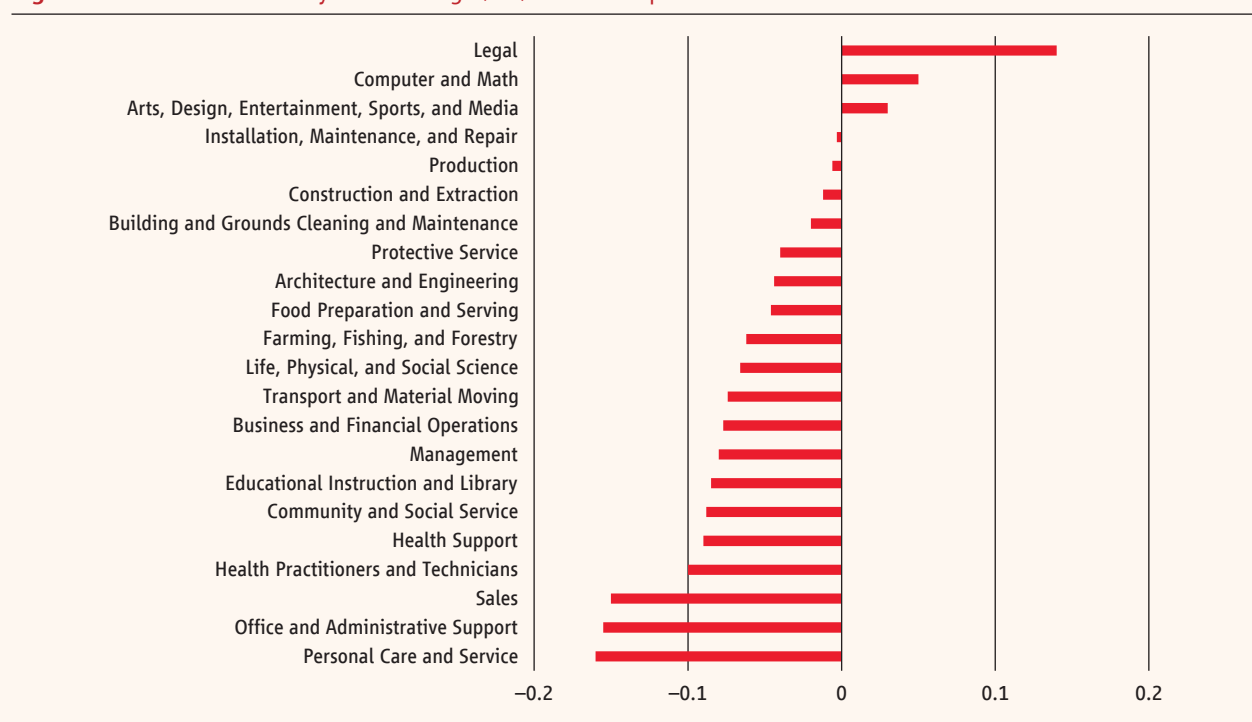
Despite the rapid diffusion of artificial intelligence (AI) technologies and their impact on labor markets, there remains limited discussion on the effectiveness of retraining programs in supporting job transitions. Hyman et al. (2025) examine the effectiveness of retraining programs under the U.S. Workforce Innovation and Opportunity Act (WIOA) in the context of rising AI exposure across occupations. Comparing retrained workers with matched peers who only received job search assistance from over 1.6 million training spells from 2012 to 2023, the study finds that retraining yields substantial earnings gains, especially for workers from AI-exposed occupations. However, those targeting highly AI-intensive jobs see lower returns than peers pursuing general or less AI-intensive roles, suggesting that retraining is more effective when it facilitates transitions into moderately AI-exposed jobs (figure II.B7.1). Estimating the likelihood of successful transitions into better-paid, AI-related roles, the study finds that 25–40% of occupations are “AI-retrainable,” with legal, computing, and creative fields showing the highest potential. In contrast, occupations such as customer service and office support roles exhibit low retrainability, often leading workers toward less AI-exposed jobs (figure II.B7.2). Importantly, retraining benefits are amplified in tight labor markets, where firms are more receptive to hiring broadly.

Figure II.B7.1. Quarterly Earnings Returns to WIOA/WIA Training



(continued)

(Box II.7. continued)

Figure II.B7.2. AI Retainability Index Ratings (AIR) across occupations

Source: Hyman et al (2025).

Note: A. Figure illustrates regression estimates. Prior AI exposure is measured prior to program enrollment, while target AI exposure is the occupation targeted or desired after training. B. Figure ranks 2-digit SOC occupations based on the extent to which displaced workers from these occupations are subsequently retrained into higher AI-intensity occupations.

Reforms and investments to improve capacity can also generate more productive jobs. Jobs are directly created through the expansion of the teaching and healthcare workforce. Projections suggest that 16 out of 22 countries in the EAP region will need to recruit more teachers by 2030 (Afkar et al. 2023). Unleashing a virtuous cycle in the health sector between economic opportunity (e.g. by creating stronger incentives to utilize primary care services) and human capacity (by providing relevant training) could help create an estimated 8.3 million jobs to meet the health care needs of EAP populations by 2030. Indirect job opportunities are generated by the construction and maintenance of facilities—schools, universities, clinics and hospitals—as well as by sectoral value chains such as pharmaceuticals, learning materials, labs, and medical and education technology.

Coordination

Coordination failures can inhibit the synchronized evolution of skills and opportunities. Without coordinated skill investments that expand skills in the workforce, firms cannot adopt skill-complementary technologies (Acemoglu 1998; Beaudry and Green 2003). Insufficient opportunities discourage skills investments, and the low skills stock deters business investment, creating a self-reinforcing cycle of underdevelopment. Five types of coordination would help workers.

First, coordination failures may require more direct intervention for skills with positive externalities or nascent demand. Countries like the Republic of Korea have used public-private partnerships to synchronize the skills supply and demand through long-term strategic planning, coordination mechanisms like skills sector councils, and targeted subsidies – creating high-skilled labor that subsequently drove technology-intensive growth (Box II.8). Such policies are being used in countries like China and Viet Nam but remain nascent in most EAP countries.

Box II.8. Coordinating capacity and opportunity: The development path of the Republic of Korea

The Republic of Korea, a poor country with few natural resources in the 1960s, has been able to achieve a virtuous circle between skills and opportunities to spur its economic development. To build capacities, the country pursued a sequential education push strategy - aggressively expanding basic education in the 1950s, followed by a rapid expansion of secondary education with a strong emphasis on vocational training in the 1970s and improving education quality and access to tertiary education in the 1980s. Korea, Rep. expanded higher education to enable the development of high-technology sectors. Korea, Rep.'s tertiary education enrollment increased progressively between 1990s and 2000s and is among the highest in the world. Nearly half of college graduates pursue a degree in science, technology, engineering, and mathematics (STEM). The expansion of tertiary education has enabled innovation- and technology-led manufacturing and modern services (World Bank 2019).

On the opportunities side, the Republic of Korea initially promoted light labor-intensive manufacturing industries and was able to adapt its strategy towards more sophisticated manufacturing through enabling government policies and active private sector participation. After the Asian Financial Crisis in the late 1990s, Korea, Rep. undertook reforms increase competition, overhaul its financial sector, and support technology innovation to deepen its integration into global value chains. Korea, Rep. saw a restructuring of the economy with a steady rise in the share of employment in in skills-intensive services, which absorbed a large share of the increased supply of college graduates. Korea, Rep. succeeded in becoming a global technology and ICT manufacturing leader, with the second highest spending on R&D as a percentage of GDP globally, world-class digital infrastructure, and among the highest digital adoption.

To ensure inter-temporal alignment between the supply and demands of skills, Korea, Rep. has embedded human capital development in national planning and forges public-private partnerships, including with global players like Samsung Electronics and Hyundai Motor Company. Industry works with universities and the Meister Vocational Schools in curriculum development, create industry-educational adjunct teachers, and provide students with workplace training and employment opportunities after graduation.

The synchronized support to enhance capacity and opportunities have preserved the incentives to invest in skills. The returns to tertiary education have shifted together with the expansion of the supply, but have remained strong: the returns rose in the 1980s, fell in the 1990s, rose again through the early to mid-2000s, and declined over the last years of the 2010s (Choi 1996; Park, Baek, and Lee 2024).

(continued)

(Box II.8. continued)

Some concerns have recently arisen in Korea, Rep. about overinvestment in tertiary education and skill mismatches, because tertiary graduates are taking on jobs that may not require a four-year (or more) college degree (OECD 2019). The government has implemented measures to tie technical education and shorter cycle tertiary programs to the economy's needs in skilled trade jobs. These measures include the creation of the Meister Schools, which offer apprenticeship workplace-based training in vocational high schools and community and junior colleges. These programs are attractive because of strong links to industry and can facilitate the transition to university for those who choose to pursue a college degree.

Korea, Rep. illustrates how investments and policies to simultaneously enhance capacity and opportunities can enable a transition to higher-value-added manufacturing and services. It shows this can be achieved with a balanced approach to skills investments and public-private partnerships to avoid coordination failures.

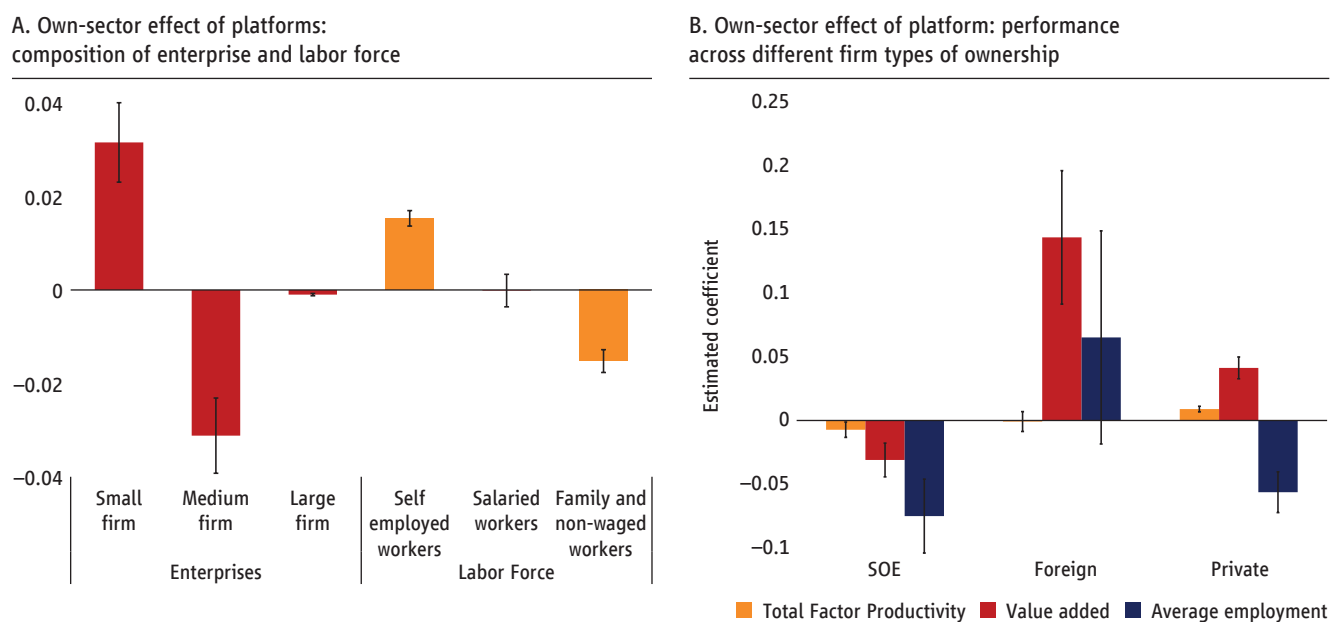
Source: Based on World Bank (2023) "Innovative Korea".

Second, digital job intermediation platforms, such as online job boards and freelance marketplaces, can facilitate matches and mobility. Digital platforms also offer new entrepreneurial opportunities for small businesses and self-employed workers. The existence of digital platforms has led to more efficient and lower cost of matching between buyers and sellers of products (e-commerce) and services (logistics, transportation, finance). Such technological disruption offers new business opportunities for those who previously could not have afforded them. Empirical analysis suggests that platform diffusion in Viet Nam increases the shares of small enterprises and self-employed workers in the economy, with many salaried workers transitioning from formal blue-collar jobs to informal platform-based work (Figure II.42).

Third, since the best opportunities for some may be available abroad rather than at home, coordination between countries may facilitate well-managed legal cross-border migration that addresses specific skills needs. In the EAP region, such coordinated migration could help with the demographic-induced labor imbalances and yield mutual economic benefits for people in both the origin and receiving countries (World Bank 2025a, World Bank 2025b). Aging and shrinking working-age populations in high-income economies like Japan and the Republic of Korea as well as in China, Thailand and Malaysia—contrast with surging labor forces elsewhere, such as in Cambodia, Indonesia, and the Philippines. For younger economies, sending workers abroad can boost incomes, and encourage individuals to acquire skills for which the domestic returns are low, for example, in nursing. For aging economies, opening borders to international workers can mitigate the negative growth effects of aging and meet their crucial need for old-age care workers.

Fourth, there are gains from coordination in developing social protection schemes for workers outside of mandatory social insurance systems given the growing prevalence of gig work. Self-employed workers in Malaysia are willing to accept a slight reduction in their incomes in exchange for regular contributions to social insurance schemes, such as unemployment insurance and pensions. A range of schemes across the world, from public initiatives (in Colombia and India), public-private partnerships (in Malaysia), and purely private initiatives (in Denmark), have successfully applied relevant approaches, including informing workers about the existence and benefits of schemes (as in India), financial incentives (as in Colombia and Malaysia), and behavioral nudges to offer social insurance to informal workers.

Figure II.42. Within the specific service sectors where digital platforms operate in Viet Nam, platforms generate both business-creation and competition effects



Note: Bars and whiskers present the estimated coefficients and 90-percent confidence intervals from regressions of firm and labor force compositions (Panel A) and firm performance metrics (Panel B) on measures of platform diffusion, including firm and year fixed effects. Own-sector results reflect the correlations between firm performance and platform diffusion in accommodation and Travel, Food Services, Transport and Wholesale and Retail. A. All variables expressed as shares of total enterprises or the labor force.

Source: World Bank estimation using Viet Nam Enterprise Surveys (2011-2021).

Finally, there is scope for coordination in the development of infrastructure that is needed for successful engagement in the digital economy. Digital infrastructure—such as broadband networks, data centers, digital identity systems, payment platforms, and data exchange frameworks—requires coordination and has a public goods aspect for several interrelated reasons (Clark et al 2025). These stem from the foundational, cross-cutting nature of digital infrastructure, its network effects, the need for interoperability, and the societal benefits it delivers. The adoption of new technologies, including AI and other data technologies (such as data analytics or cloud computing), require high-speed fiber broadband. Whereas access to mobile broadband is widespread in EAP, high-speed fiber is unevenly available across and within countries (Figure II.43; World Bank 2024a). The download speed in EAP averages only 40 percent of the average in high-income economies, again with stark differences within and across countries. A prudent regulatory environment could help encourage private firms to collaborate into expanding high-speed network infrastructure.

Figure II.43. Access to mobile broadband is widespread in EAP, but high-speed fiber is unevenly available

	Fixed Broadband			Mobile Broadband		
	Access Fixed broadband household penetration (%)	Quality Median download speed (Mbps)	Cost Fixed broadband basket as % of GNI per capita	Access Active mobile-broadband subscribers per 100 habitats	Quality Median download speed (Mbps)	Cost Mobile broadband basket as % of GNI per capita
China	113	194	0.5	102	95	0.5
Viet Nam	76	94	3.5	88	48	0.5
Thailand	58	211	3.5	112	41	1.4
Mongolia	52	57	1.9	116	15	1.9
Malaysia	50	96	2.3	125	49	1.0
Fiji	44	15	4.7	76	22	3.0
Philippines	33	92	11.6	62	26	2.0
Indonesia	18	27	7.6	115	24	0.9
Lao PDR	12	32	9.0	56	30	2.7
Cambodia	10	22	12.1	106	24	2.4
Myanmar	8	19	12.4	110	23	1.7
Solomon Islands	1	N/A	47.4	18	N/A	8.9
PNG	1	16	13.4	11	20	18.8
Timore-Leste	1	6	32.1	30	N/A	4.6
PIC-9 average	25		13.8	21		4.4

Source: ITU, TeleGeography, Ookla

Note: PIC-9 shows simple average of Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Samoa, Tonga, Tuvalu, and Vanuatu

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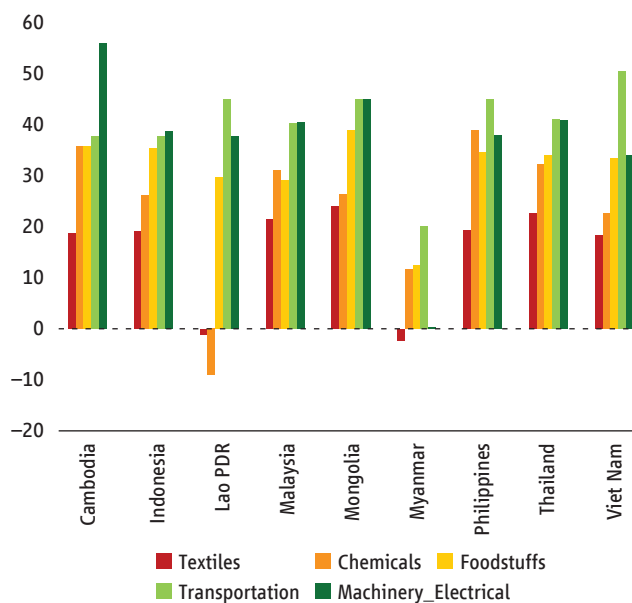
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Appendices

Appendix for part I

▸ Appendix A1

Figure A.1. The tariff gaps relative to China are larger in transport equipment, food and electronics than in textile and chemicals



Source: World Bank staff estimates based on data from Global Trade Alert and US Census.

Note: The vertical bars for each country and sector represent the weighted difference of the US tariff rate on China and the US tariff rate against each EAP country for each HS 8-digits product. The weights are the sectoral export shares to total exports to the US 2024.

Table A.1. Reactions of EAP countries to US tariff rates

Exporter	April rate	Agreement Date	August rate	Direct concessions to the US	Initiatives with other trading partners and other policies aimed at fostering diversification	Recent domestic reforms (potentially induced by trade-tensions)
Lao PDR	48	None	40	None so far (discussions in progress)	Deepening trade flows with trading partners through existing FTAs (i.e., ASEAN intra-trade, ASEAN+1, BTAs, RCEP) and its LDC status' GSP eligibility (expiring in 2026). Strengthening authorities' capacity of Rules of Origin enforcement to utilize GSP under its LDC status eligibility and FTAs	Key domestic policy directions: (1) Increase processing of agricultural commodities and minerals (i.e., manufacturing goods, solar cells, agri-food processing) within the country. (2) Promoting investments (i.e., adopting new technologies) in Special Economic Zones (SEZs).
Myanmar	44	None	40	None so far (discussions in progress)	On May 7 th , Myanmar launched the Tariff Reduction Schedule under the Regional Comprehensive Economic Partnership ("RCEP") Agreement, which was signed on 15 November 2020 and came into force in Myanmar on 1 January 2022.	Import and exports licenses requirements introduced since 2022. Foreign currency surrender requirements.
China*	34	12-Nov (exp)	30	China-US trade talks are still in progress, and a final agreement has not yet been reached. The Geneva talk initiated partial de-escalation, with U.S. tariffs reduced to 30 percent (10 percent base plus 20 percent fentanyl-related) and China scaling back its tariffs to 10 percent. The London talks focused on China's rare-earth export restrictions, with China pledging to expedite license approvals for rare-earth exports to US, while in return US agreed to ease certain export restrictions on aviation engine and chip-design software (EDA) to China. Most recently, the Stockholm talks extended the Geneva framework for an additional 90 days, maintaining tariffs at the reduced levels of 30 percent and 10 percent, respectively.	China-ASEAN FTA: The ACFTA 3.0 negotiations were concluded in May, and the upgraded protocol is scheduled to be formally signed before the end of 2025. The upgrade is expected to align trade rules more closely with high-standard agreements such as the Regional Comprehensive Economic Partnership (RCEP), with new provisions on the digital economy and enhanced regulatory transparency. It also aims to expand market access and further streamline rules of origin and customs procedures to support supply chain integration. China-Africa tariff policy: China announced the elimination of all tariffs on imports from all 53 African countries that have diplomatic ties with China. This action builds on an earlier policy action that granted zero-tariff access to 33 least-developed African countries. China-EU trade talks: The China-EU summit in July reached agreement only on enhancing climate cooperation, while unresolved concerns over trade, electric vehicles, and other issues remain subject to further discussion. Trade diversification in agricultural products: China has progressively switched its agricultural product sourcing to non-US suppliers such as Brazil for soybeans, Russia for wheat and meat, and Southeast Asia for fruits. The government has facilitated this development by authorizing imports that comply with inspection and quarantine requirements, as well as enhancing infrastructure and logistics systems.	Opening-up: China has progressively opened its domestic market to foreign investment, including its financial services and automobile sectors since 2017, and more recently, introducing pilot trade zones for certain segments of healthcare and telecommunications.

(continued)

Table A.1 (Continued)

Exporter	April rate	Agreement Date	August rate	Direct concessions to the US	Initiatives with other trading partners and other policies aimed at fostering diversification	Recent domestic reforms (potentially induced by trade-tensions)
Viet Nam	46	2-Jul	20	U.S. goods enter duty-free; Committed to large purchases—including LNG, Boeing jets, F-16 fighters; Agriculture trade (remove barriers for the import of US agricultural products into Viet Nam)	Trade promotion campaigns will expand to flagship industries under the National Brand program, targeting Free Trade Agreement (FTA) and Comprehensive Economic Partnership Agreement (CEPA) partners as well as niche markets such as Halal economies, Saudi Arabia, Egypt, UAE, Brazil, and North Africa Official Telegram 133/CD-TTg). Agro-forestry-fishery exports: deeper market access in China, the Middle East, South America, Africa, and ASEAN. Viet Nam – EU: aims to lift the EU's "yellow card" on Illegal, Unreported, and Unregulated (IUU) fishing through full compliance with European inspection requirements	The Customs Department announced the Decision No. 467/QĐ-CHQ dated 29 April 2025 on the promulgation of the process of inspection and determination of origin of exports and imports. Ministry of Trade and Industry promulgated a Directive No. 09/CT – BCT to strengthen the management and supervision of goods' origin to effectively curb origin fraud. The directive seeks to improve certificate of origine (C/O) issuance and tighten the management of input materials for exports. It especially calls for stronger assessment and inspection of imported goods' origins during customs procedures. Beyond that, it plans to upgrade eCoSys (Electronic Certificate of Origin System) to support monitoring C/O application.
Cambodia	49	31-Jul	19	Removed all duties on US-imported (new and directly shipped) goods and committed to buying 10 Boeing 737 Max 8 aircraft (in 2031).	None	None
Thailand	36	31-Jul	19	Near-Total Tariff Exemption for US Imports: Thailand has offered to implement zero tariffs on over 10,000 import items from the US (out of approximately 11,000 total items, pledged to reduce various obstacles, including sanitary regulations, customs procedures, and certification processes for US goods. Public and private sectors are collectively preparing to purchase Liquefied Natural Gas (LNG) from US companies and new Boeing aircraft models. Agreed to implement less flexible product origin verification systems.	EU-FTA: Negotiations for a comprehensive and ambitious FTA with the European Union were formally relaunched in March 2023. Multiple rounds of negotiations have taken place through 2024 and 2025. Thai Commerce Minister Pichai Nariphaphan announced a year-end deadline. Thailand–EFTA FTA finalized January 2025.	Acceleration of the Eastern Economic Corridor (EEC): The EEC remains the flagship infrastructure project. Recent efforts have focused on streamlining regulations, completing critical infrastructure links (ports, airports, high-speed rail), and attracting anchor investments in target sectors (e.g. EV battery production, data centers and semi-conductors).

(continued)

Table A.1 (Continued)

Exporter	April rate	Agreement Date	August rate	Direct concessions to the US	Initiatives with other trading partners and other policies aimed at fostering diversification	Recent domestic reforms (potentially induced by trade-tensions)
Indonesia	32	22-Jul	19	Eliminated tariffs on over 99% of U.S. goods; removed non-tariff barriers (e.g., local content, digital trade liberalization; lifted export restrictions on critical minerals; improved labor standards; committed to purchases of U.S. energy, agriculture, Boeing aircrafts.	Indonesia-EU reached a political agreement to conclude the Indonesia-EU Comprehensive Partnership Agreement (CEPA) by September 2025, expediting the conclusion of a 10-year negotiation process Indonesia-Peru signed Comprehensive Economic Partnership Agreement (CEPA) on August 11, 2025. Concluding the negotiation process that began in 2023	Ten new regulations on imports have been issued with the objective of streamlining import procedures . These cover textiles and textile products, agriculture, salt and fisheries, chemicals and mining products, electronics, industrial goods, consumer goods, and used goods. The issuance of these regulations was driven by both domestic pressures and ongoing trade tensions.
Malaysia	24	4-Aug	19	Reducing or abolishing duties on 98.4% of U.S. imports, the easing of some non-tariff barriers. Malaysia will commit to \$70 billion in cross-border investments in the United States over the next five years. Promised purchases (examples): US\$150 billion in purchases by multinationals in Malaysia's semiconductor, aerospace, and data center sectors over five years. US\$19 billion Boeing aircraft purchase by Malaysia Aviation Group (MAG) for fleet renewal. US\$3.4 billion/year LNG purchases by Petronas.	Accelerating efforts to diversify export markets by deepening engagement with Europe, the Middle East, Central Asia, and South America, while also strengthening integration within ASEAN. Malaysia has also been a BRICS partner country since October 2024	Subsidy rationalization, tax base expansion, and stronger public finance governance.
Philippines	17	22-Jul	19	Zero tariffs on U.S. goods	The government is accelerating the pursuit of bilateral trade agreements with 13 deals currently lined up until 2028; it is also set to formally apply for CPTPP membership by the end of the year.	The Philippine government revised its deficit targets downwards between 2025-2028 alongside a downgrade in its growth targets. Its willingness to undertake a more gradual fiscal consolidation in part due to the expected impact of increased trade policy uncertainty on both global and domestic growth. The Department of Trade and Industry is setting up assistance to exporters affected by the tariffs, by helping them find alternative markets both globally and locally.

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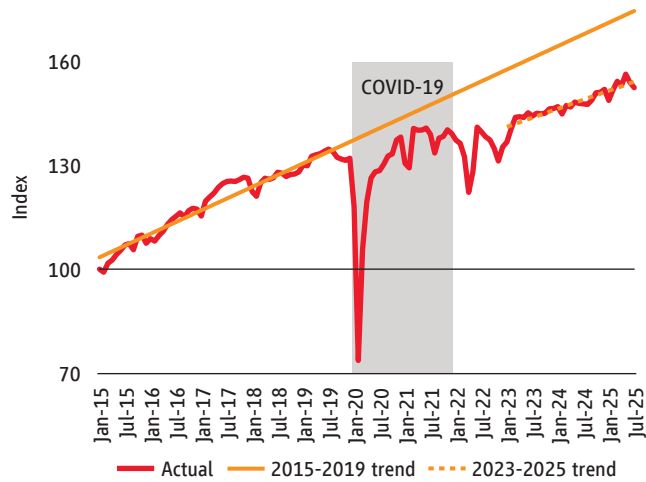
Table A.1 (Continued)

Exporter	April rate	Agreement Date	August rate	Direct concessions to the US	Initiatives with other trading partners and other policies aimed at fostering diversification	Recent domestic reforms (potentially induced by trade-tensions)
Mongolia	10	None	10	None.	Diversifying trade partners. Mongolia signed an interim trade agreement with the Eurasian Economic Union in June 2025, which covers 367 types of products for tariff-free trade to Russia, Belarus, Kazakhstan, Kyrgyzstan, and Armenia. Under this agreement, Mongolia can export meat, leather, wool, cashmere, and dairy products, while EAEU countries will export fruits, cosmetics, chemical products, and manufacturing components. The agreement is currently under ratification, and once finalized, it will be effective for three years. The agreement is pending the Parliament's ratification.	None

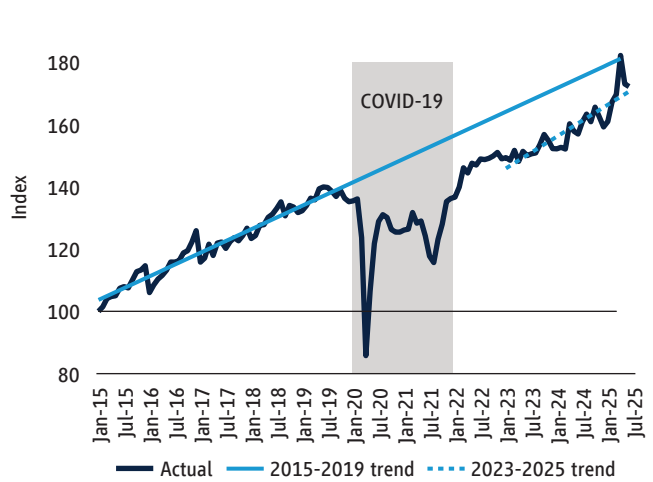
Appendix A2

Figure A2.1. Retail Sales Index

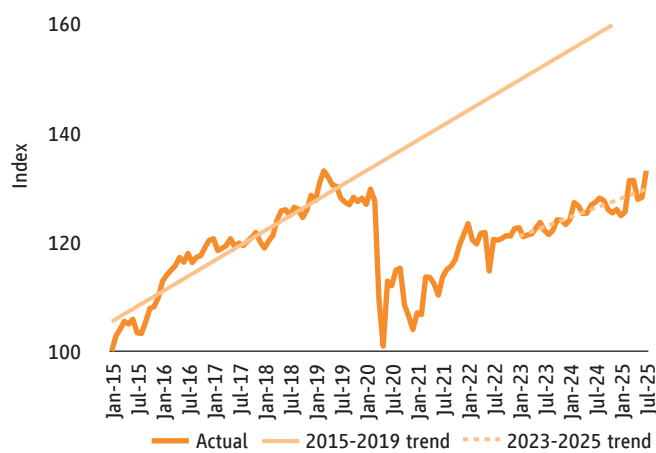
A. Retail sales in China



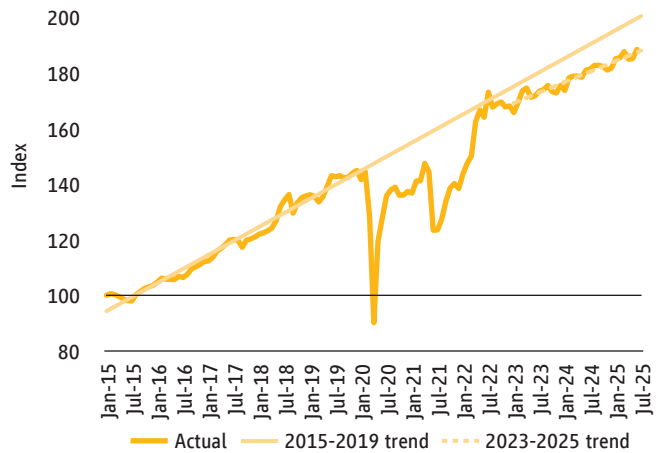
b. Retail sales in Asean-5



c. Retail sales in Indonesia



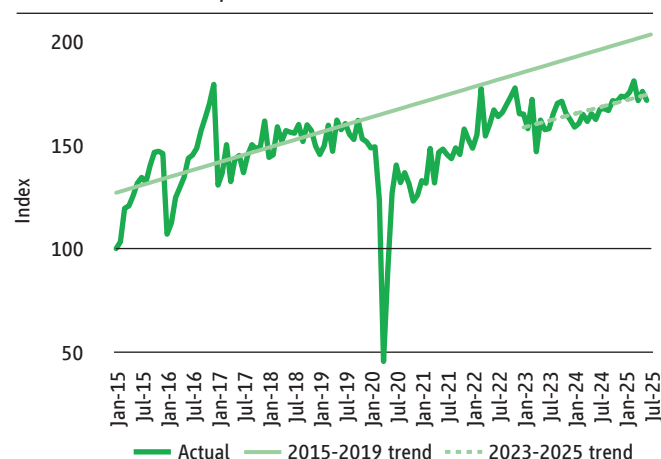
d. Retail sales in Malaysia



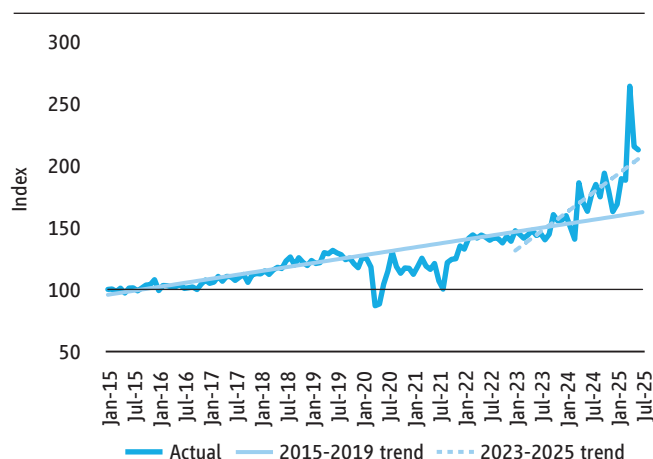
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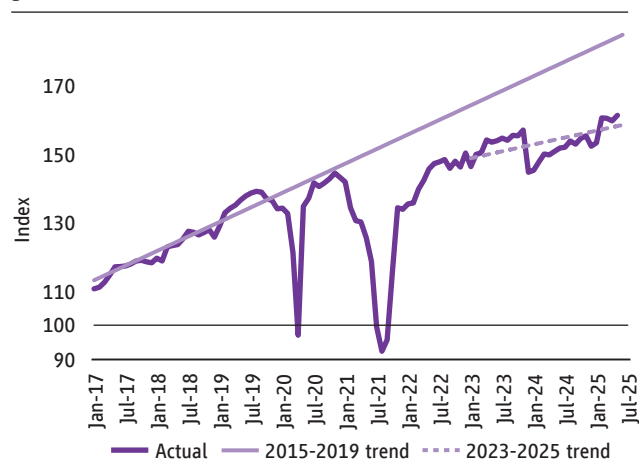
e. Retail sales in Philippines



f. Retail sales in Thailand



g. Retail sales in Viet Nam



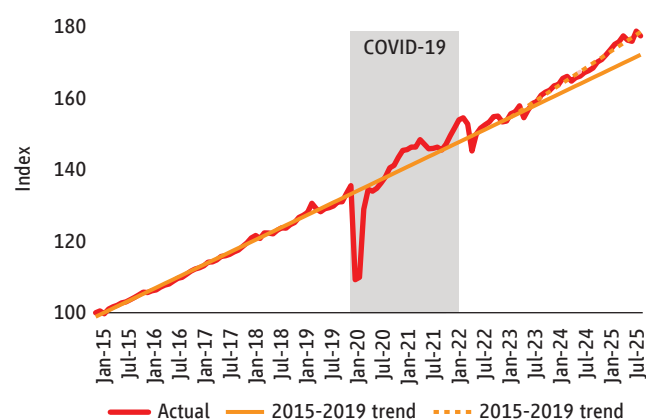
► Industrial Production Index (pre – post Covid)

Taking a longer view, industrial production growth in China has remained above its pre-pandemic trend, supported by manufacturing activity, while growth in the rest of the region has been more subdued. In China, expansion has been supported by strong external demand, a shift in credit toward the manufacturing sector, and targeted government measures such as subsidies for equipment upgrades. By contrast, industrial production in other economies in the region has generally grown at a slower pace than before the pandemic, reflecting more moderate domestic and external demand conditions.

Figure A2.2. Industrial production growth has been strong in China; in the rest of the region, it remains below pre-Covid-19 trends

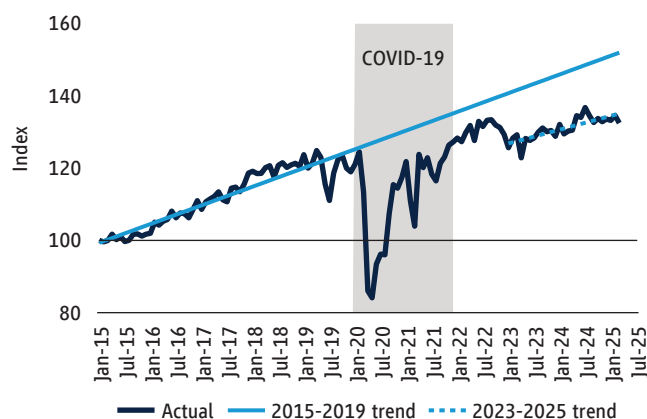
A. China

Industrial production in China



B. ASEAN-5

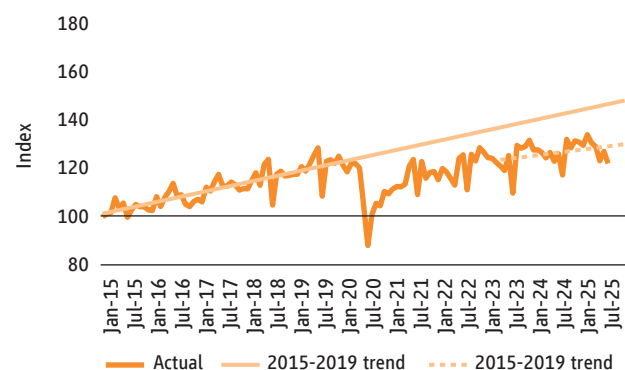
Industrial production in ASEAN-5



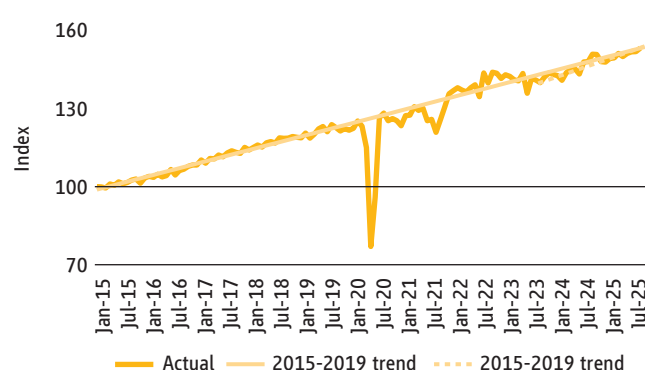
Source: Haver Analytics; World Bank staff estimates.

Notes: A. B. Country-specific trends are shown in the Appendix. For China, Malaysia, and Viet Nam, we use Industrial Production Indexes excluding construction. For Indonesia, Thailand, and the Philippines, we use manufacturing indexes.

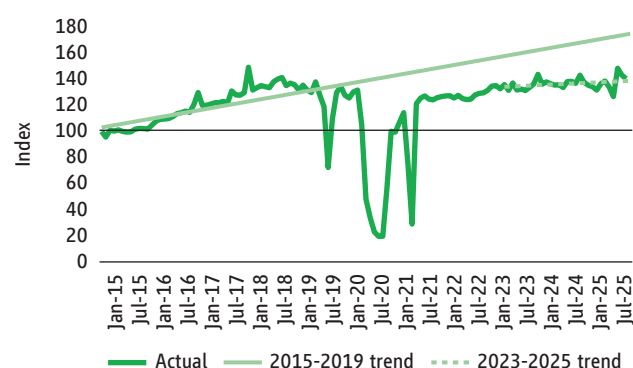
Industrial production in Indonesia



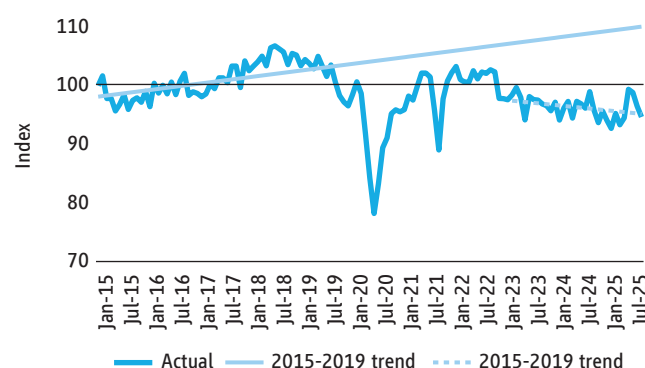
Industrial production in Malaysia



Industrial production in Philippines

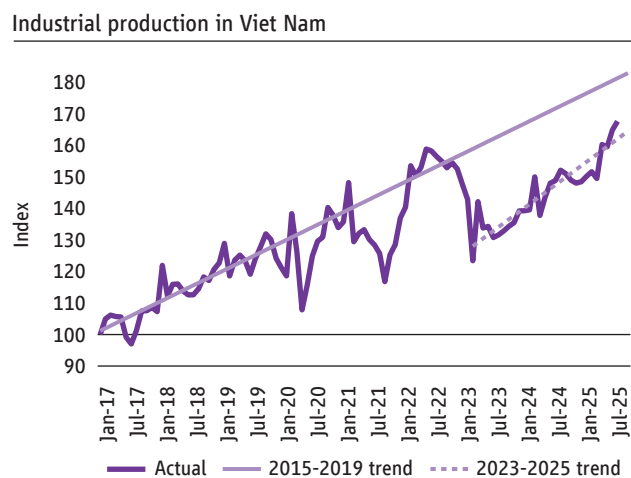
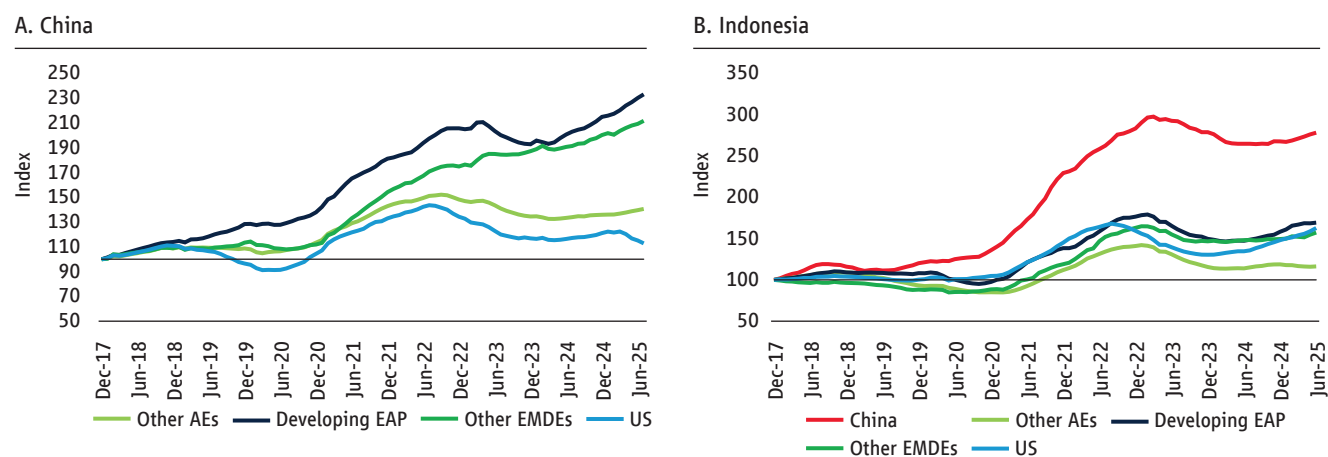


Industrial production in Thailand



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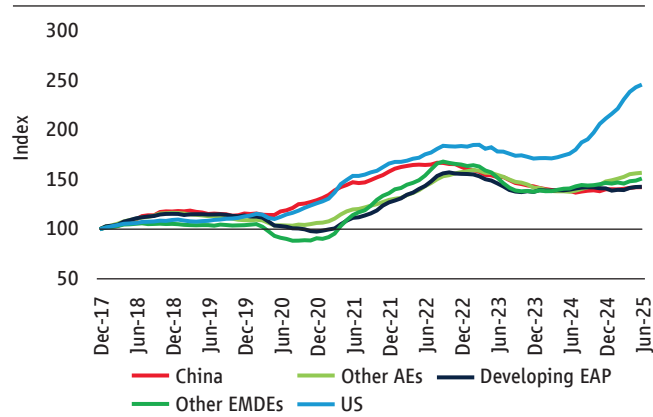
(Figure A2.2. continued)

**Figure A2.3. Export development by destination (individual country)**

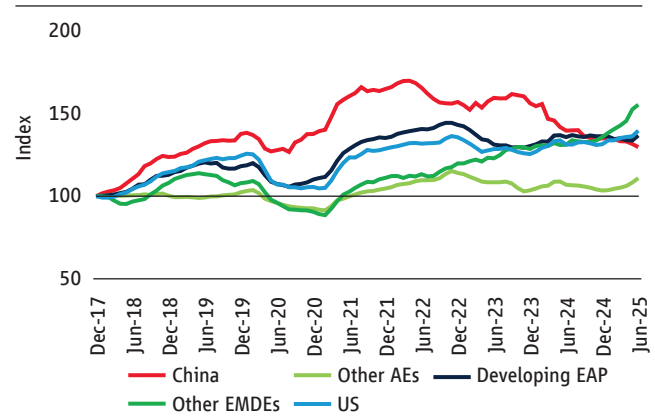
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(Figure A2.3. continued)

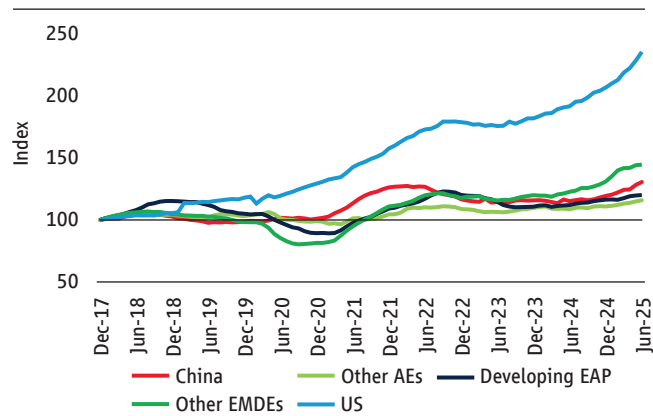
C. Malaysia



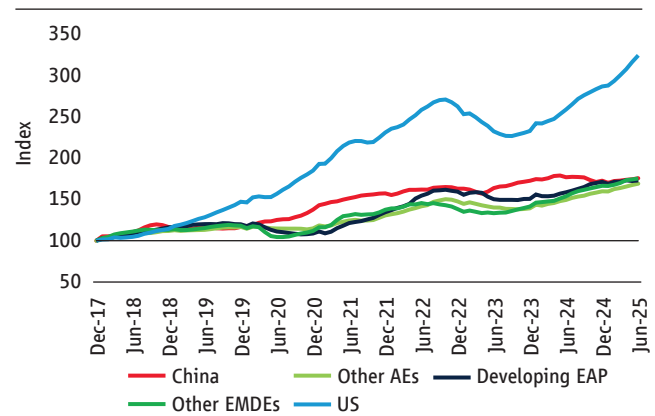
D. Philippines



E. Thailand



F. Viet Nam



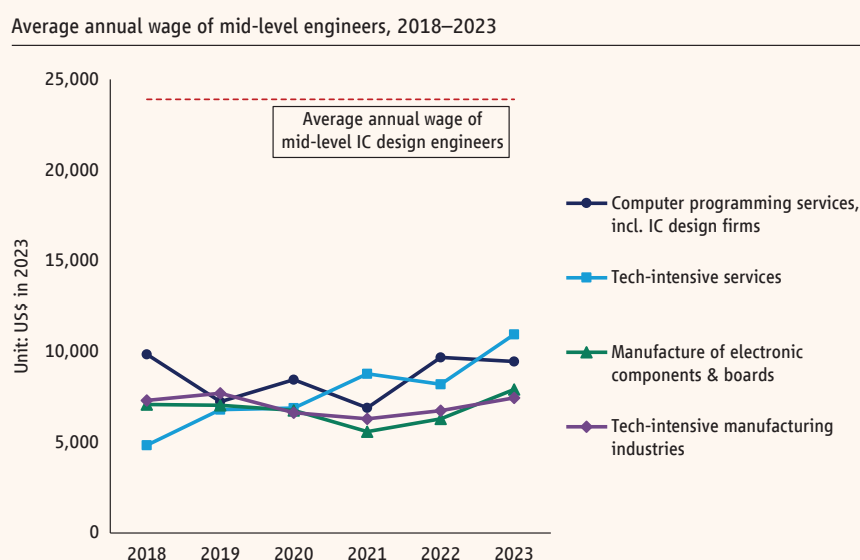
Appendix for part II

Box II.A1. Talent gaps when Viet Nam moves up the semiconductor value chain

Semiconductor firms worldwide are grappling with talent shortages: scientists, engineers, technicians, and business and professionals, entrepreneurs, and managers. In recent years, Viet Nam has outlined its ambition to expand its participation in the semiconductor value chain, building on its young and technically skilled workforce, its strong base of back-end chip manufacturing, government support and mounting interest from global tech firms.

Jobs in high value-added segment of the semiconductor value chain, especially in semiconductor design, are knowledge- and skill-intensive, translating into a significant wage premium. Viet Nam's workforce underscores this point: 85 percent of workers in computer programming services, which include nearly all semiconductor design firms, hold a university degree or higher, and nearly 90 percent of them have skilled jobs as managers, scientists and engineers, as well as high-skilled technicians. Engineers and specialists in this industry are also among the best-paid tech professionals in Viet Nam. For instance, a mid-level engineer in semiconductor design firms earns more than double the average wages of their peers in the computer programming services sector and manufacturing firms in electronics and electrical equipment.

Figure II.A1. Average annual wage of mid-level engineers in Viet Nam by sectors, 2018–2023



Sources: World Bank staff calculations based on LFS 2018–2023, ERI Salary Expert.

Note: Tech intensity is based on OECD taxonomy. Mid-level engineers are aged 27–35 with minimum 04 years of experience.

World Bank analysis identified three strategic upgrade pathways for Viet Nam's semiconductor industry, building on its existing strengths in ATP and growing capacity in back-end design services (World Bank 2025b). They include: (i) expansion of back-end design (microchip physical layout), (ii) moving into front-end design,

(continued)

(Box II.A1. continued)

developing indigenous chip intellectual property (IP) and full system, on-chip products with high-value design jobs and royalty streams, and (iii) leapfrogging to advanced packaging.

Table II.A1. Readiness and intensity of potential gaps for Viet Nam's semiconductor upgrade pathways

Industry window	Viet Nam readiness 2024*	Knowledge / Talent intensity	Technology intensity	Capital intensity
Consolidate assembly, testing & packaging (ATP)	●●●●○ (4/5)	●○○○○ (1/5)	●○○○○ (1/5)	●●●○○ (3/5)
Expand back-end design	●●○○○ (2/5)	●●●○○ (3/5)	●●●○○ (3/5)	●○○○○ (1/5)
Move into front-end design	●○○○○ (1/5)	●●●●● (5/5)*	●●●●● (5/5)*	●●●●○ (4/5)*
Leapfrog to advanced packaging	●○○○○ (1/5)	●●●○○ (4/5)	●●●○○ (4/5)	●●●●● (5/5)*

* Viet Nam readiness 2024: composite score for current workforce, R&D capability and industrial base.

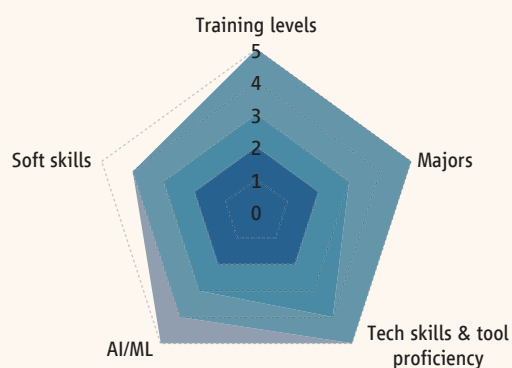
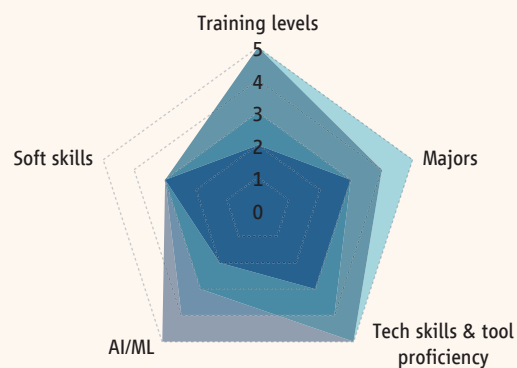
★ High fiscal-risk cells – large public funding requirement; PPPs or risk-sharing mechanisms recommended.

Source: World Bank (2025)

If Viet Nam's semiconductor upgrading opportunities are to materialize, the need for the following talent improvements will increase substantially:

- quantity of skilled workers and frontier tech talent
- quality, depth, and interdisciplinarity, with future-proof skill sets
- integration of training-to-work, lab-to-fab, and R&D-integrated training.

Talent gaps in various upgrading scenarios are summarized in Figure II.A2.

Figure II.A2. Extensive and intensive margins of the talent gaps**A. Extensive margins of the talent gaps (quantity)****B. Intensive margins of the talent gaps (quantity and depth)**

■ Status quo ■ Scaling up back-end design ■ Leaping to front-end design ■ Towards advances packaging

Source: World Bank (2025)

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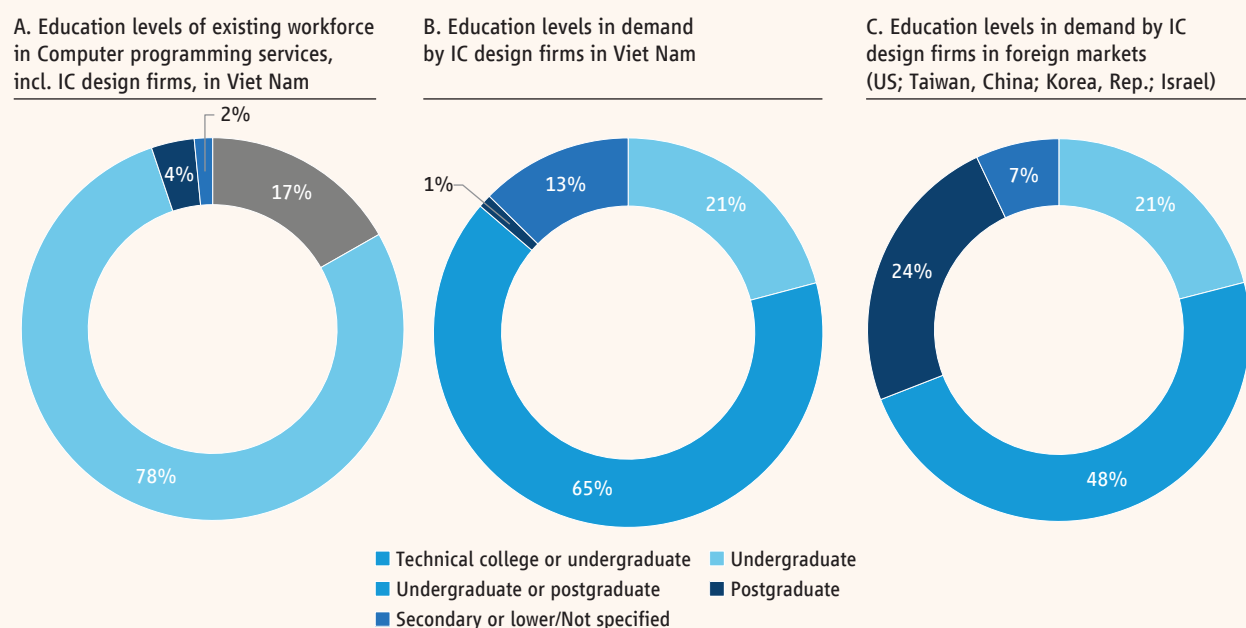
(Box II.A1. continued)

Viet Nam aspires to grow and attract semiconductor *fabless* firms – a critical target of the national semiconductor strategy. Viet Nam has built up its strength in back-end design, which consists of physical implementation and verification tasks. However, this segment is increasingly prone to AI automation. Moving up the value ladder will necessitate a move into front-end design – the segment that offers highest value added, is largely human-driven, and is the most research-intensive part of the semiconductor value chain – from its existing base in back-end design.

As it moves up, Viet Nam will face deep and broad quantitative and qualitative talent gaps as follows:

- Front-end design is not about *more*, it is about a *different caliber* of talent. The educational level requirement would rise substantially, with about one-third of entry roles in front-end design firms in leading markets requiring postgraduate degrees (Figure II.A3).
- Sought-after majors and fields would also *broaden*. While electronics and computer engineering remain core, front-end design pushes into areas like material science, applied physics, and mathematics, which are increasingly relevant for chip architecture, new materials and processes, and new device research (Figure II.A4)].
- On the technical skills front, this case exposes a *wide gulf* even for fresh graduates. Entry roles in fabless design firms are expected to have hands-on experience with complete chip design flows and specialized methodologies that Vietnamese graduates typically lack.
- Crucially, demand for AI and ML proficiency emerges as a *new frontier* in this scenario. In leading chip design firms, AI/ML capabilities are increasingly expected even of hardware engineers, whereas Vietnamese universities have yet to equip their graduates with this technical expertise.

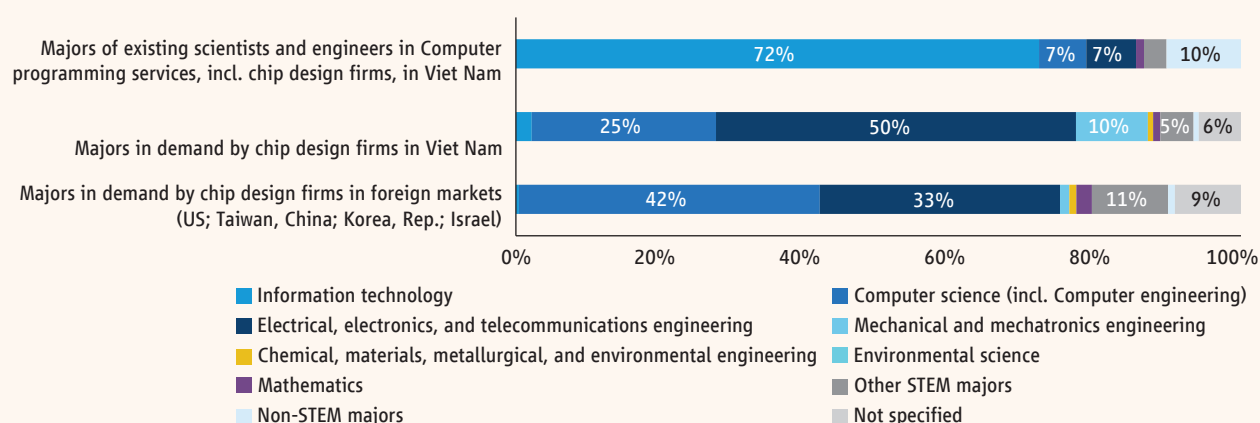
Figure II.A3. Education levels of existing workforce vs. demand by design firms in Viet Nam and foreign markets



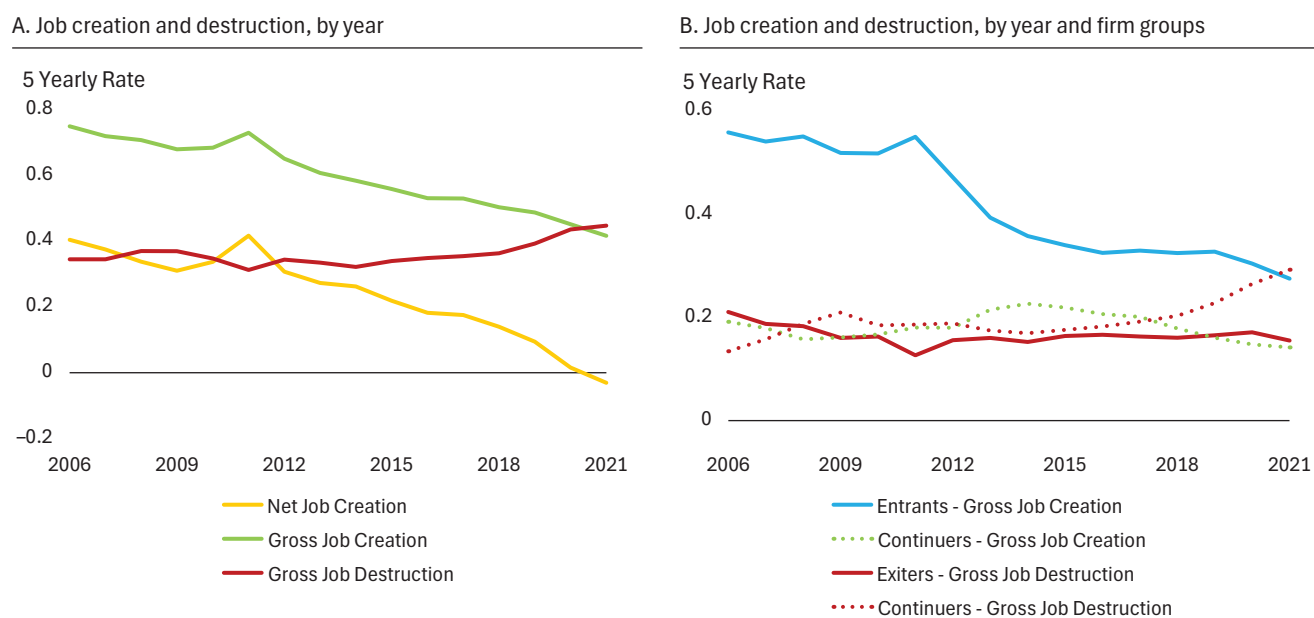
Source: World Bank (2025)

(continued)

(Box II.A1. continued)

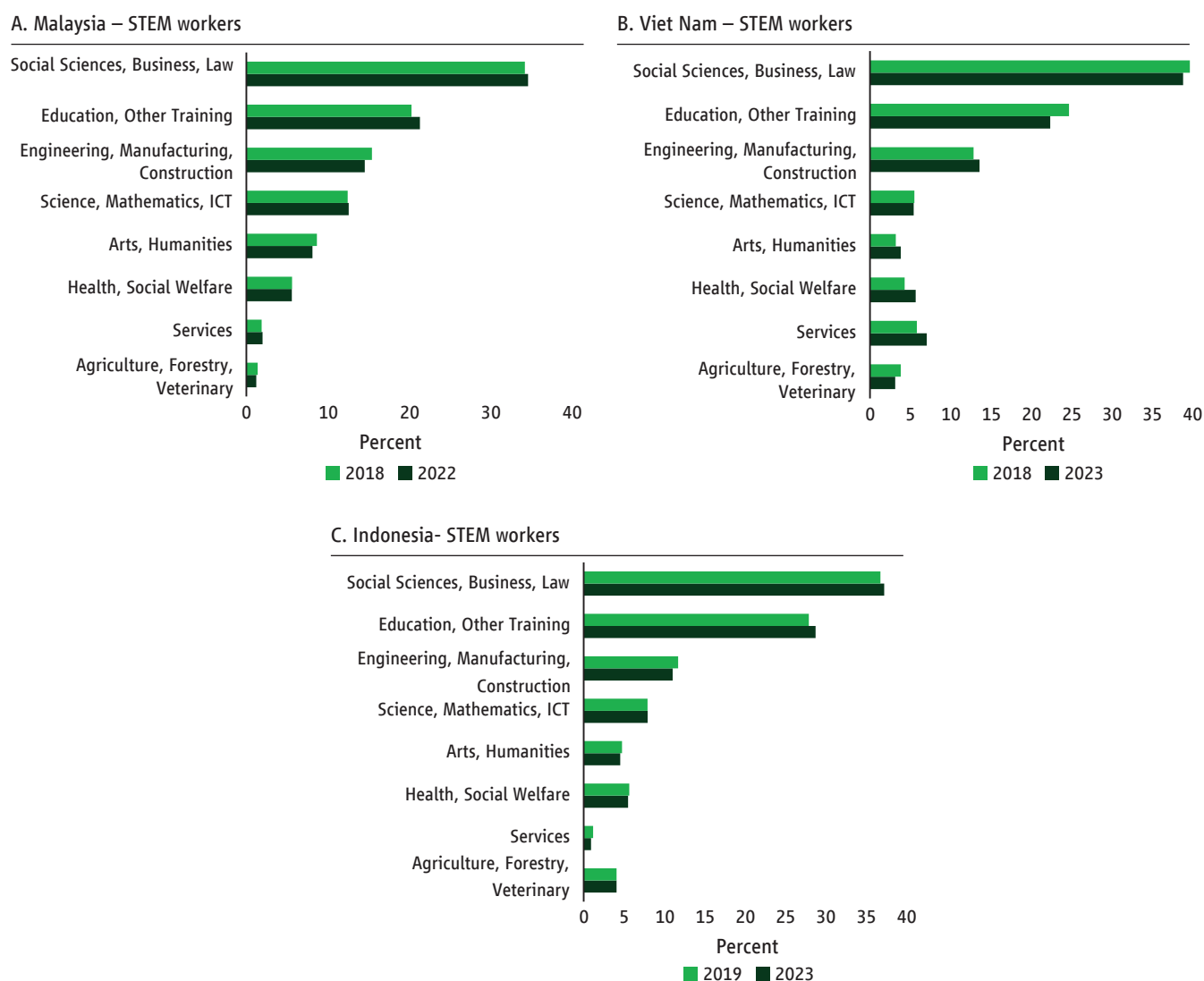
Figure II.A4. Majors of existing scientists and engineers in semiconductor firms in Viet Nam vs. demand by design firms in Viet Nam and foreign markets

Source: World Bank (2025)

Figure II.A5. Job creation has slowed substantially in Viet Nam, primarily because entrants are creating fewer jobs than in earlier decades

Source. Based on statistical office census data of manufacturing and services firms in Viet Nam (2001-2021).

Notes. Job creation and destruction rates calculated over 5-year intervals. Estimated for all firms, considering firm entry and exit.

Figure II.A6. Evolution of the relative supply of college-educated workers in STEM fields in selected EAP countries

Source: World Bank staff using LFS microdata.

Table II.A2. Policy responses to address market and governance failures across EAP countries

Country Name	Mechanisms to address Constraints			Mechanisms to address Information Asymmetries and Uncertainty			Mechanisms to address Imperfect Competition			Mechanisms to address Failures					
				Uncertainty of future skills demand											
	Grants and Scholarships	Income Contingent Loans	Credit guarantee schemes	University rankings	Tracer Studies	ICT platforms	Independent Accreditation	Skills demand forecasting	Flexible pathways/ Modular skilling programs	Performance based financing	Internationalization	Transparency and information disclosure	Industry academia collaborative platforms	Standardized qualification frameworks	ICT based collaboration systems
Australia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fiji	✓			✓		✓	✓								
Japan	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Korea, Rep.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
China	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Indonesia	✓			✓	✓	✓	✓		✓		✓		✓	✓	✓
Tonga	✓														
Viet Nam	✓			✓	✓	✓	✓	✓	✓		✓	✓			
Cambodia	✓			✓		✓	✓							✓	
Papua New Guinea	✓														
Timor-Leste	✓					✓								✓	



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