

East Asia and Pacific Economic Update  
October 2024

# Jobs and Technology



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 **THE WORLD BANK**  
East Asia & Pacific · Chief Economist Office

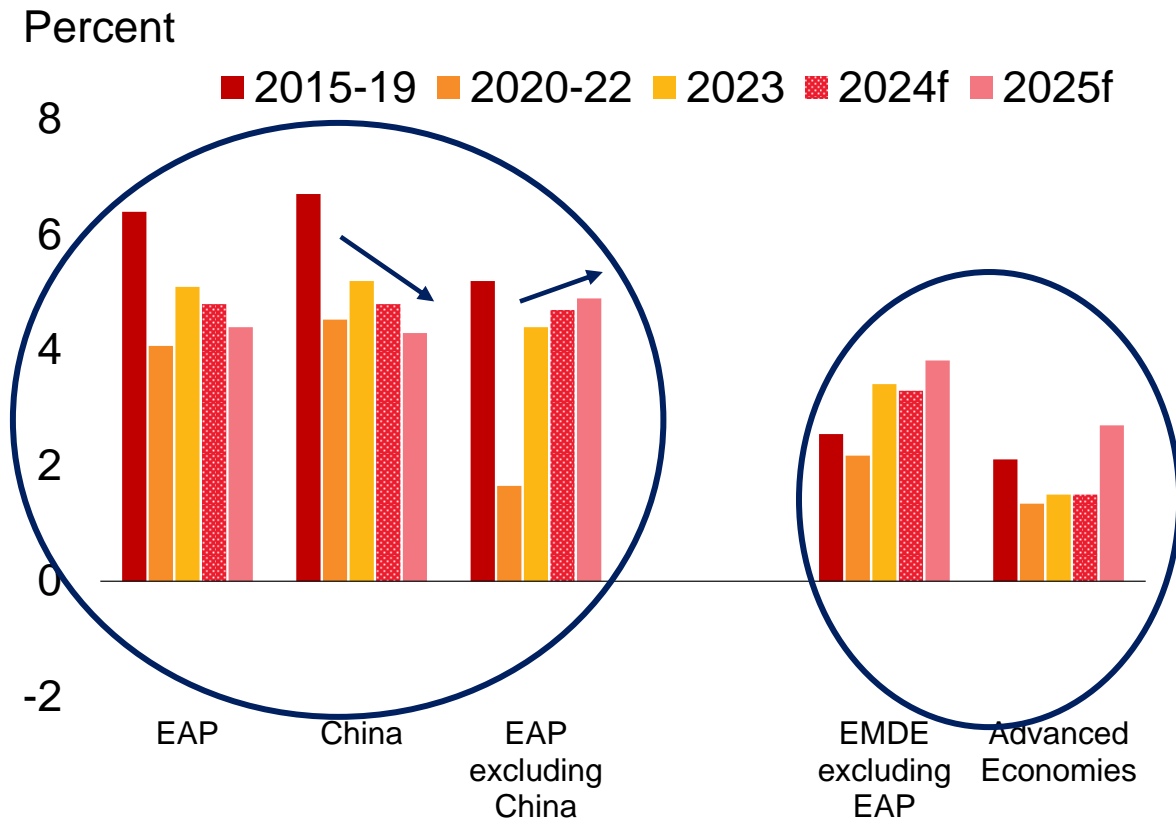
# Outline

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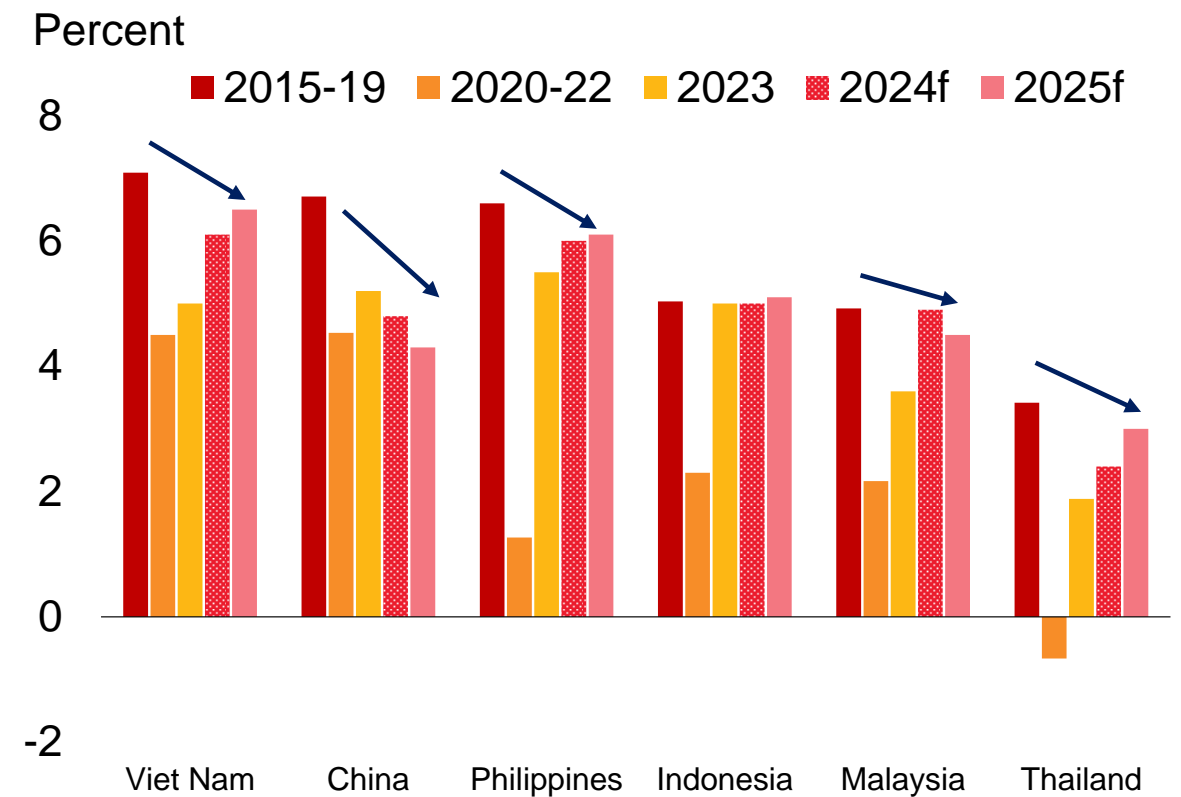
1. Recent developments
2. Special focus: Jobs and technology

# The EAP region continues to grow: faster than the rest of the world, slower than before the pandemic

## GDP growth across country groups



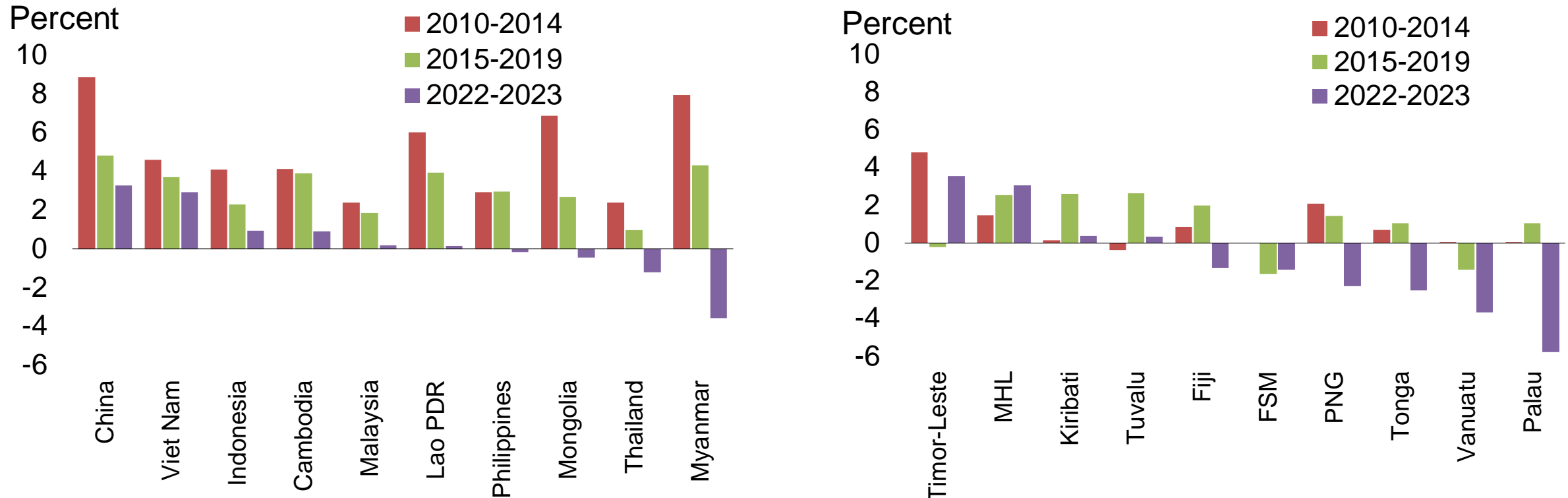
## GDP growth, select economies



Source: World Bank

# Most EAP economies are catching up with per-capita incomes in advanced economies, but convergence has slowed down

Percent change in GDP per capita relative to the EU, UK and US

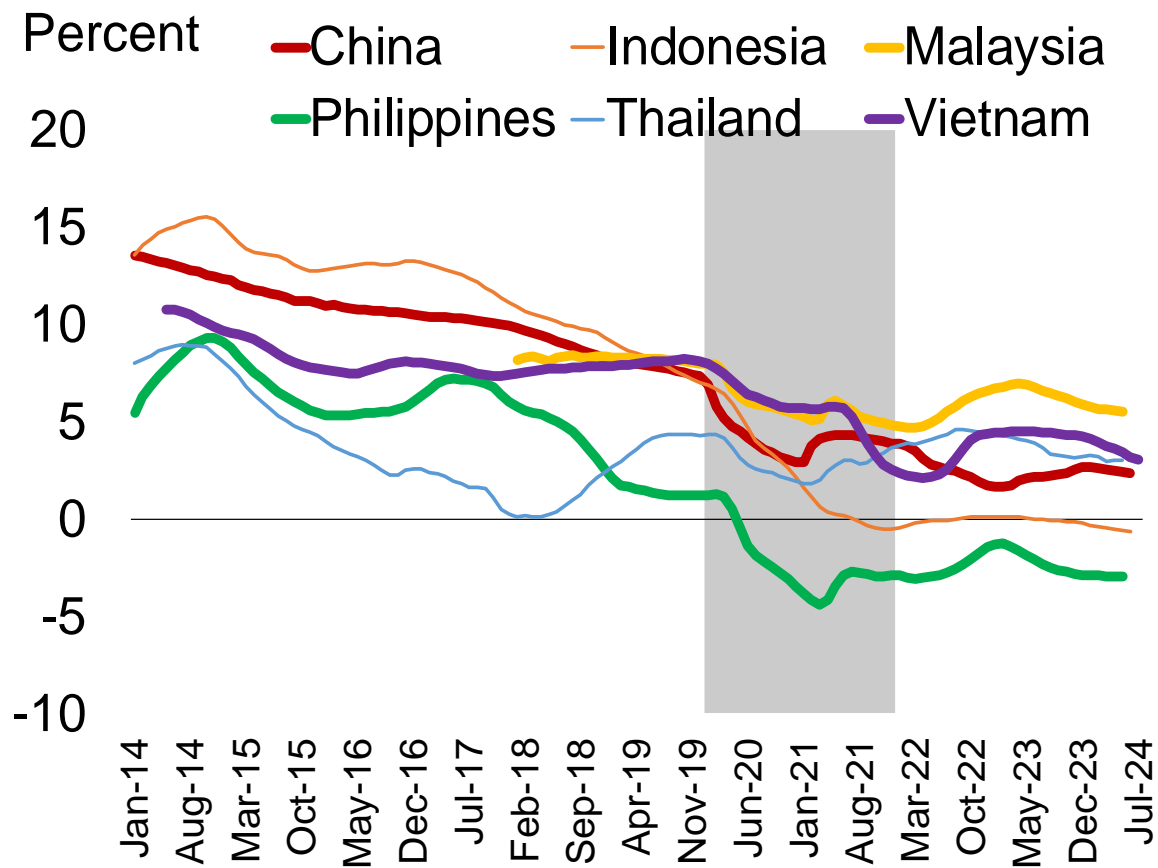


Source: World Development Indicators.

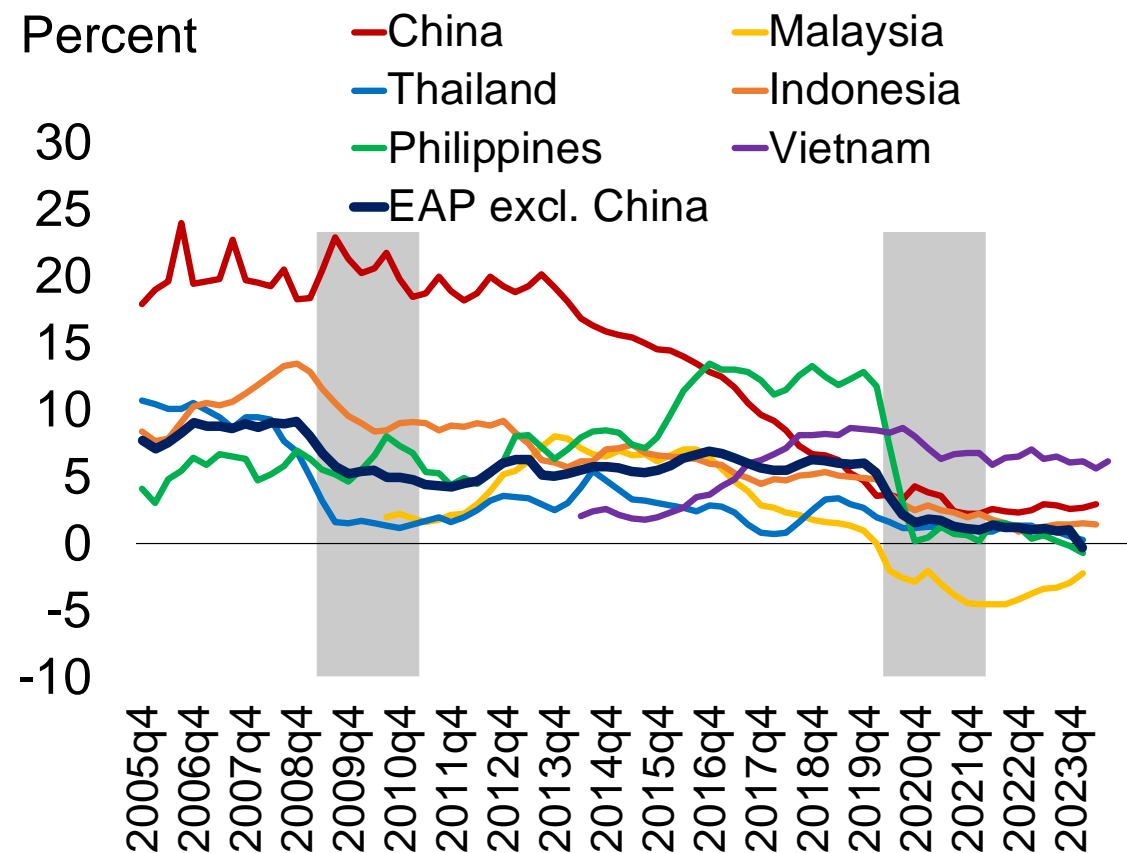
Note: GDP per capita in PPP. Unweighted averages. Lines show 5-year moving averages.

# Growth in consumer spending supported growth but is slowing down as is growth in investment

## Growth in retail sales



## Gross fixed capital formation growth

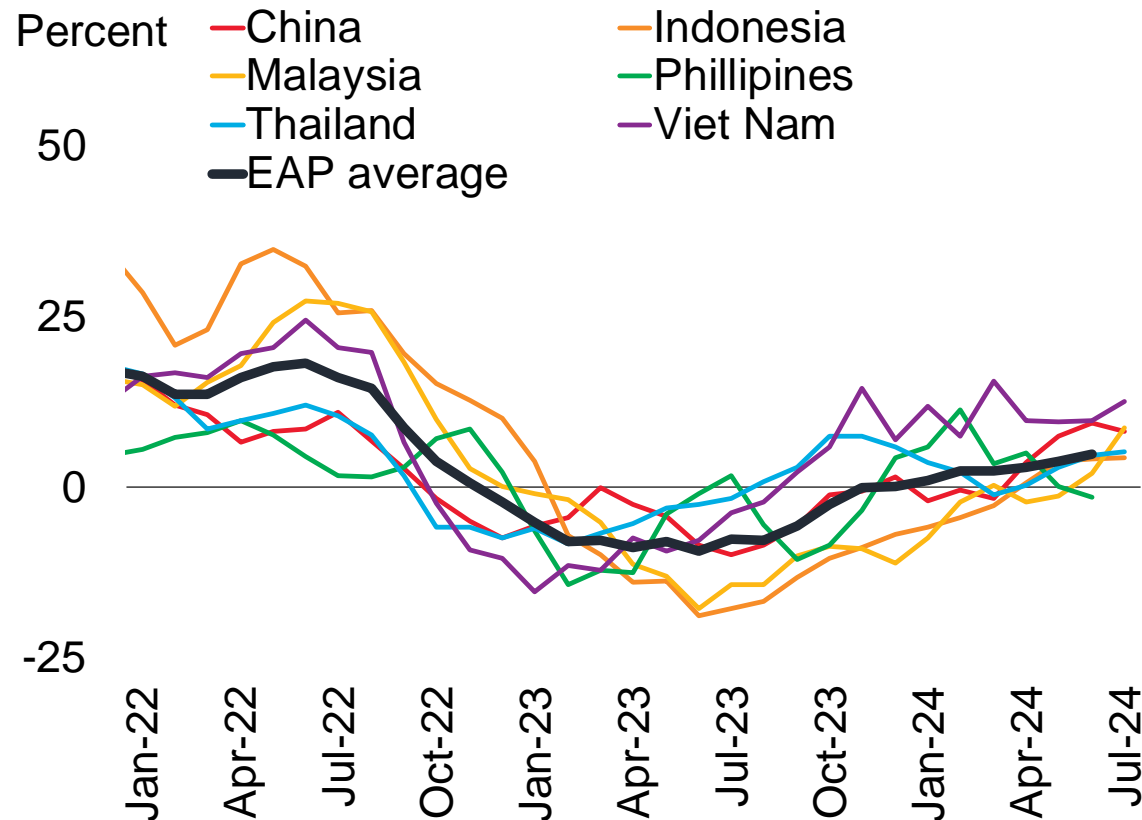


Source: Haver Analytics, World Bank

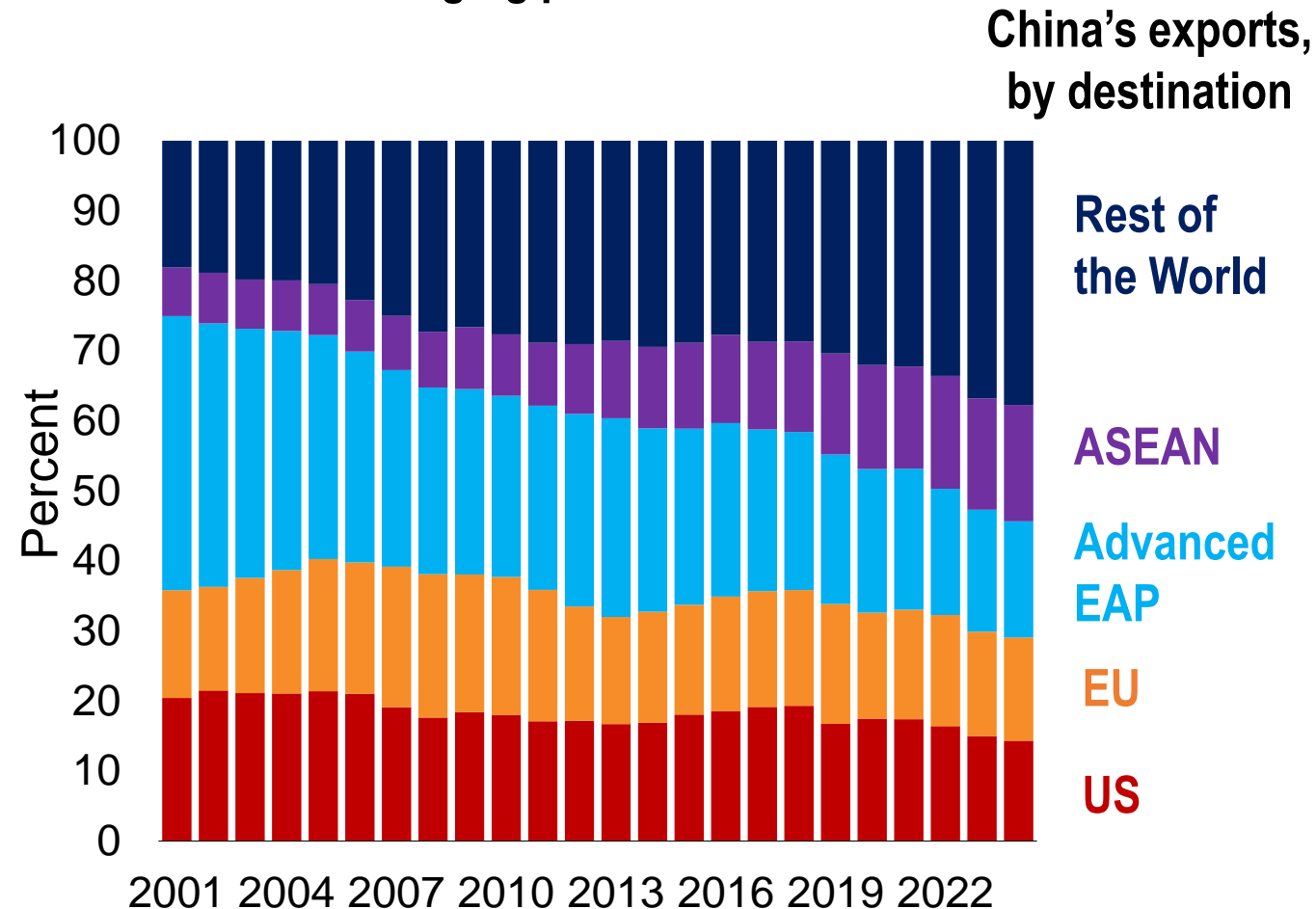
Note: Seasonally adjusted series. Right: 100=2019 average.

# The region is seeing a gradual recovery in exports, and is attracting a larger share of China's exports

## Goods exports



## Changing patterns of trade

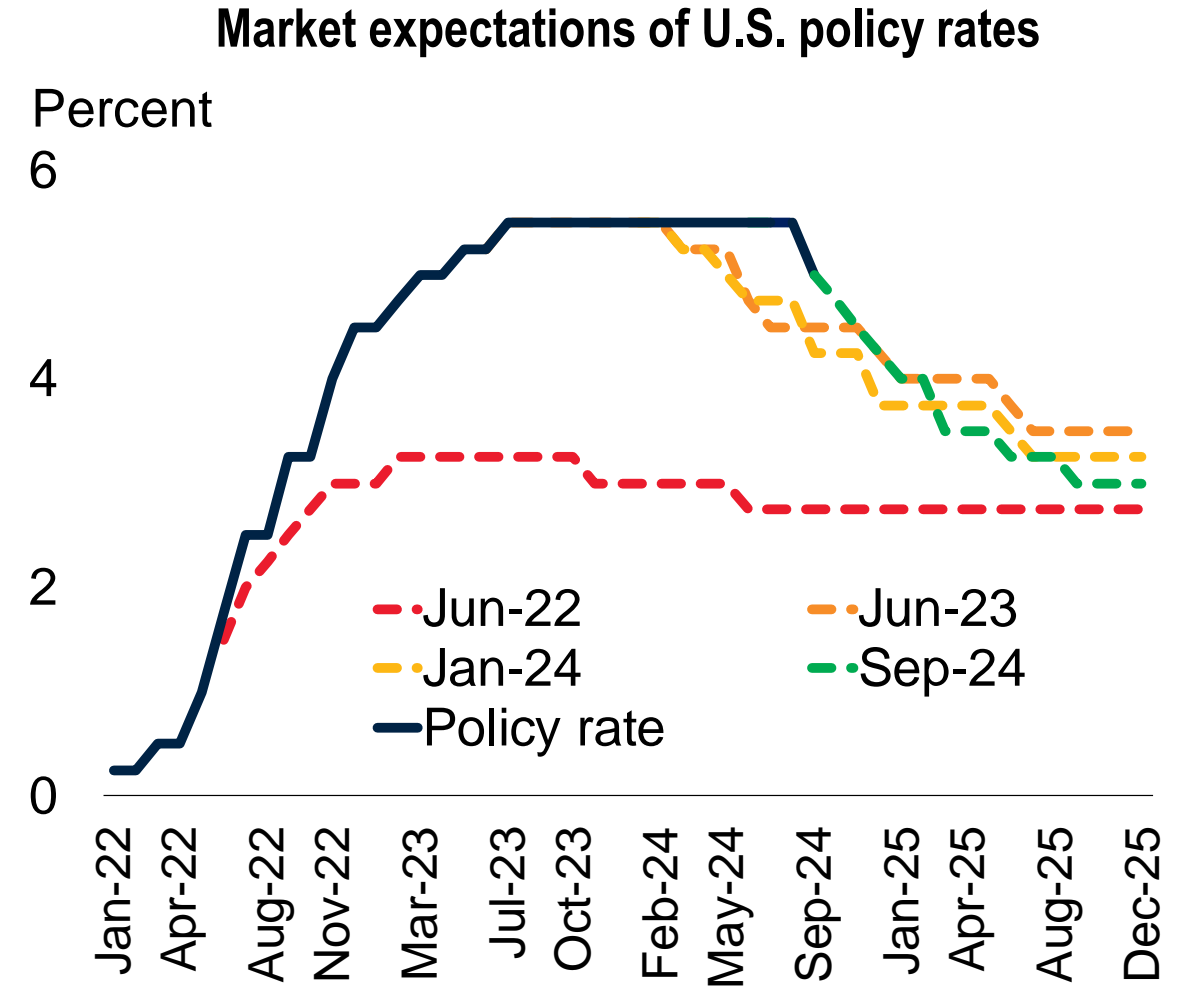
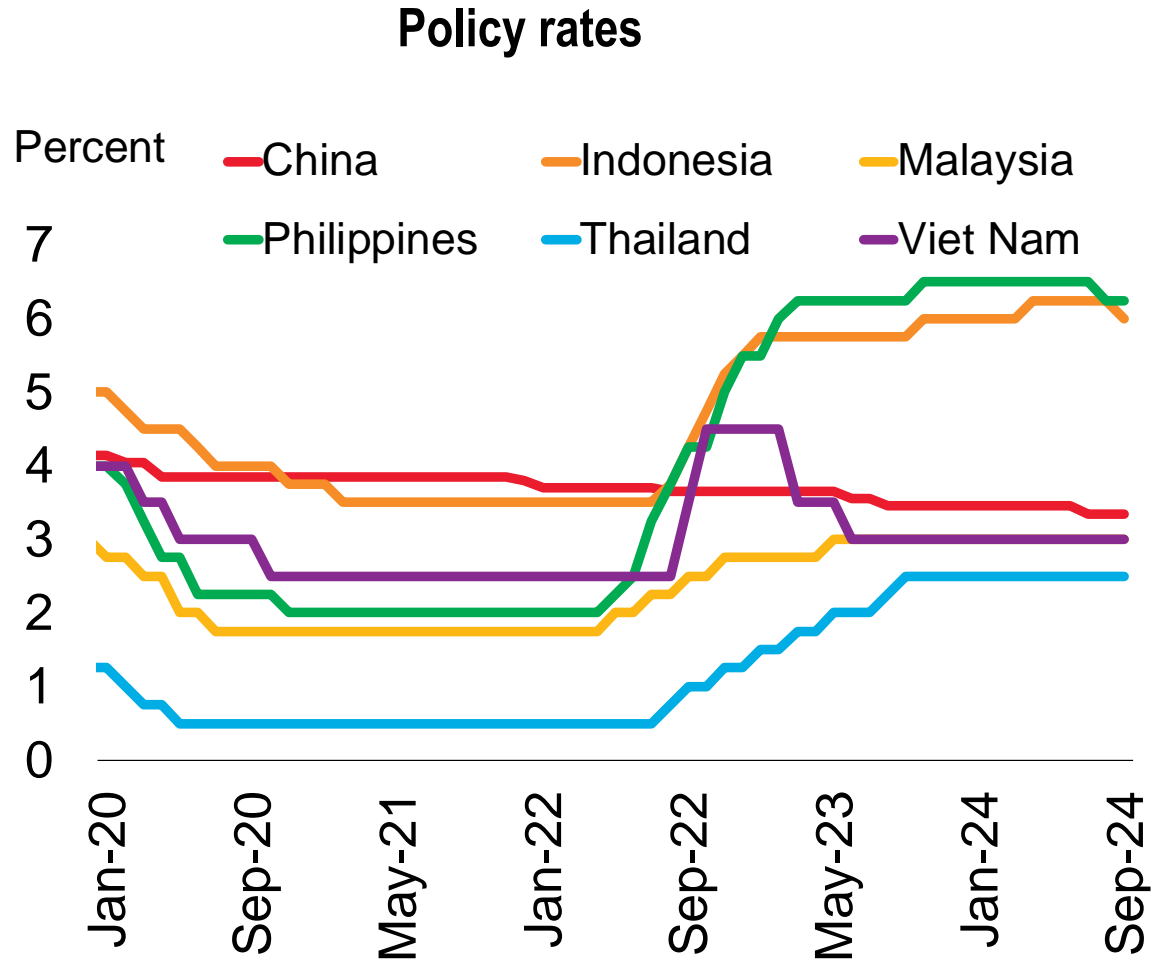


Source: Haver Analytics, World Bank

Note: Seasonally adjusted series. Right: 100=2019 average.



# Monetary policy is starting to ease in some countries as the US policy rate is declining



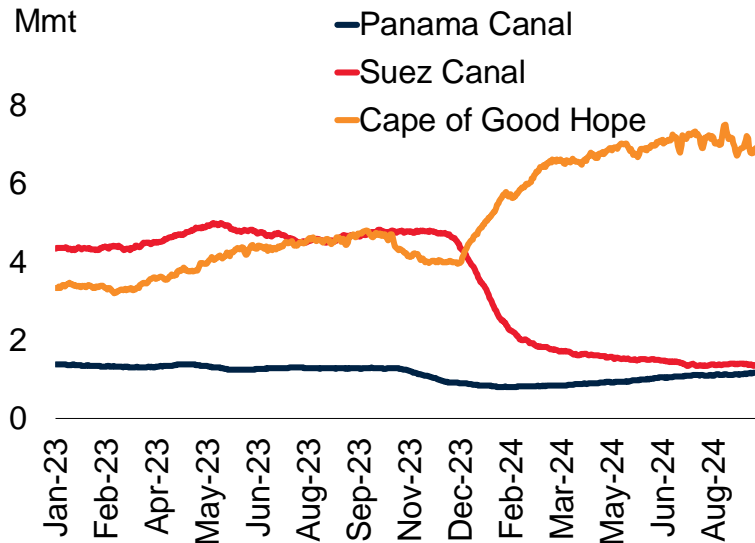
Sources: Bloomberg; CME Group Fed Watch; Citigroup, Federal Reserve Bank of St. Louis; Haver Analytics; World Bank.

Note: A. Solid blue line is the upper bound of the target range for the U.S. federal funds rate. Dotted lines are vintages of market-based policy rate expectations, derived from derivatives markets. B.

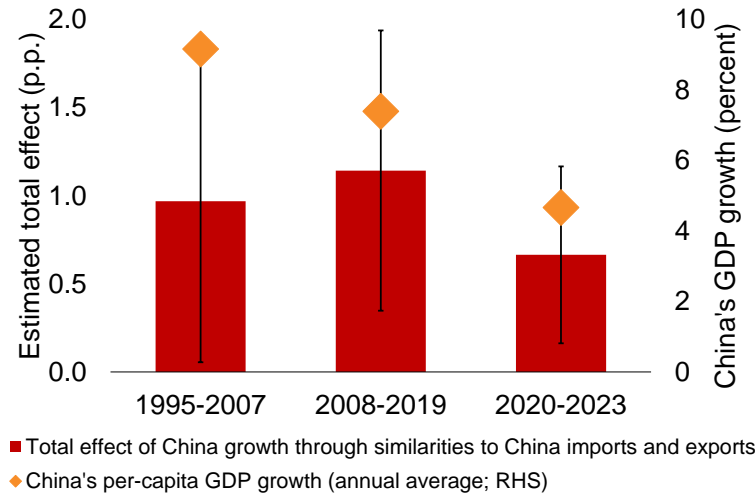
Probabilities refer to the likelihood, as implied by 30-Day Fed Funds futures prices of changes in the U.S. Federal Funds rate by 12/18/2024 of: at least 50 basis points; at least 25 basis points; and, no change or an increase. Last data point: 9/27/2024

# Growth in the region faces three risks: geopolitical, economic, and policy

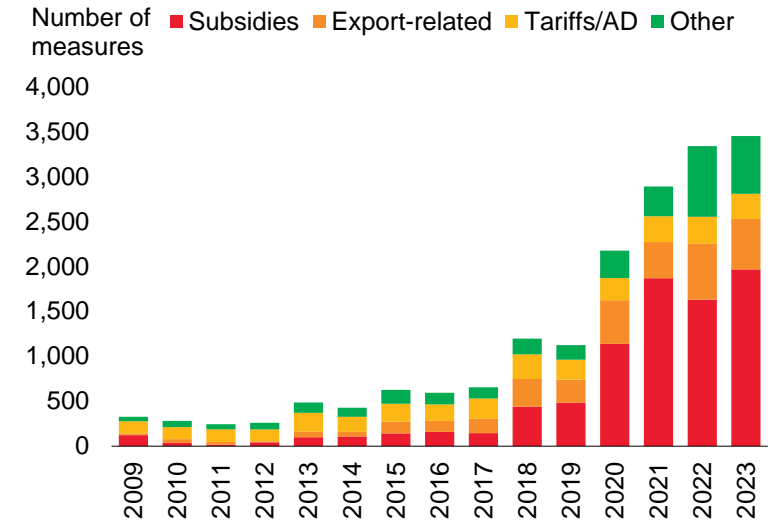
## Shipping transit routes—trade volume



## Impact of China's growth on EMDE growth



## New trade-distorting measures



## The best response: greater domestic reform and deeper trade agreements

Sources: Bloomberg, Caldara and Iacoviello (2022); Comtrade (database); Haver Analytics; UN Global Platform, UNCTAD, International Energy Agency; IMF PortWatch; World Bank.

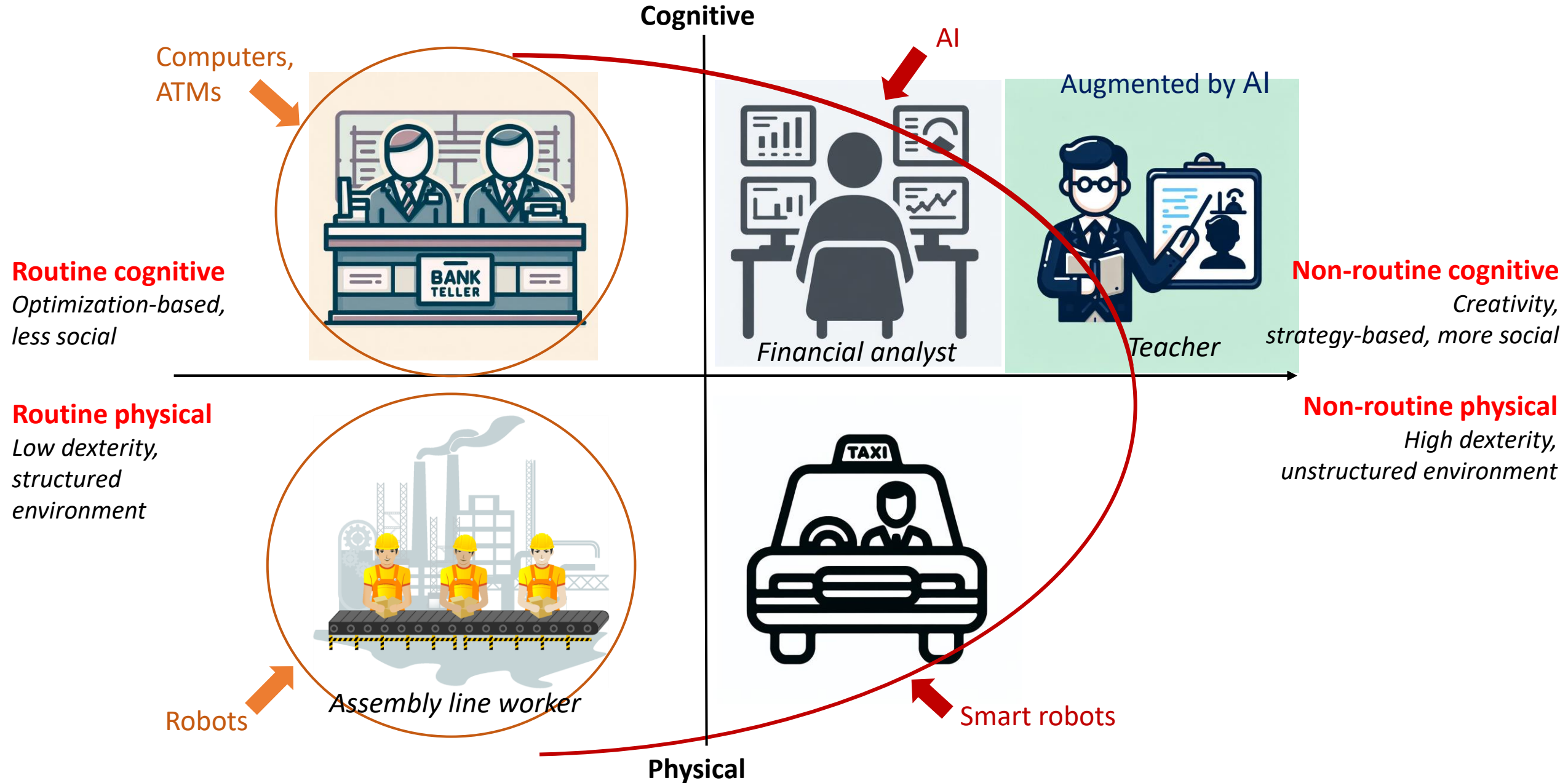


## 2. Technology and the labor market

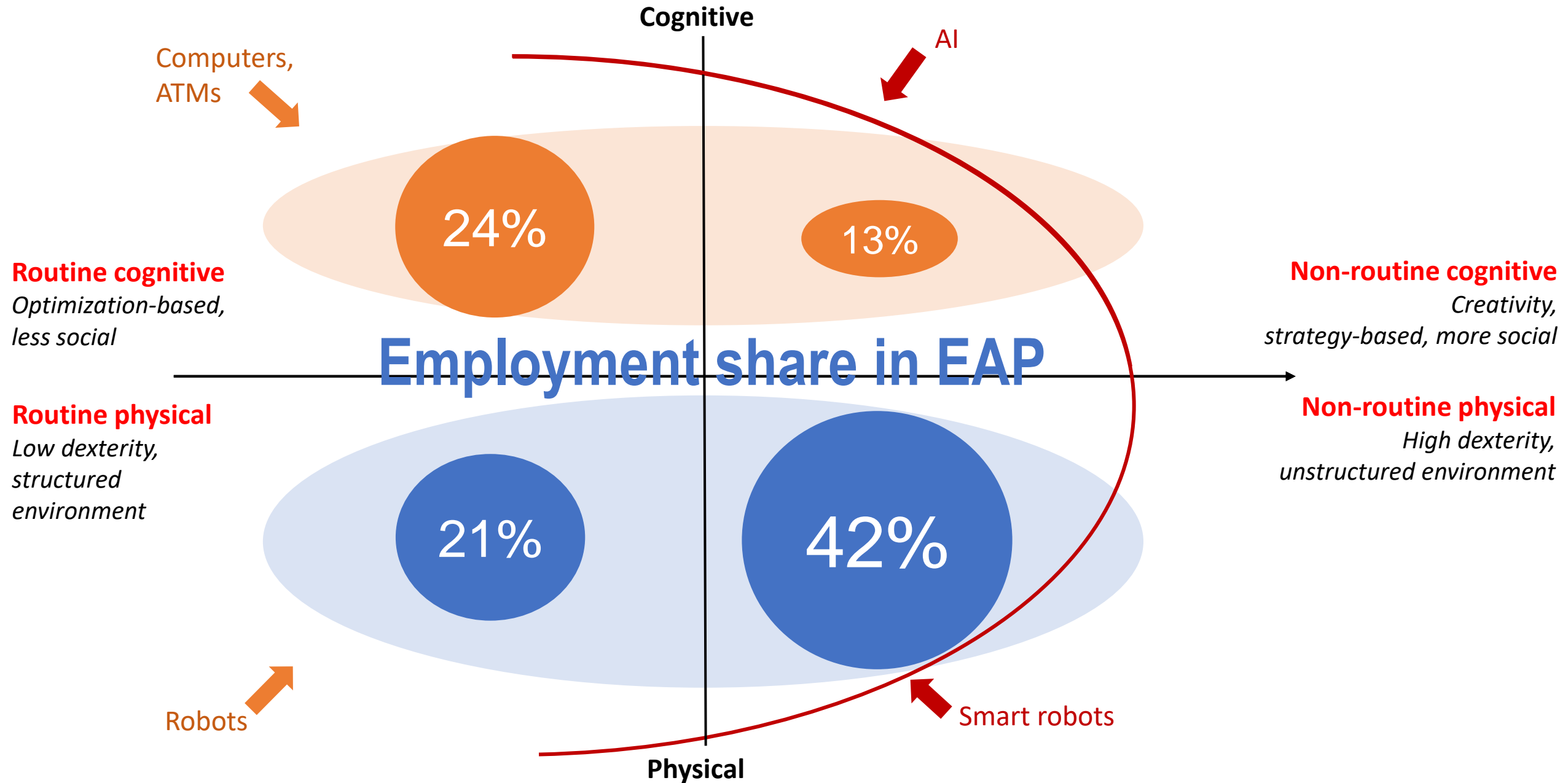
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- Industrial robots
- Artificial intelligence
- Digital platforms
- Aging and technology
- General digitization

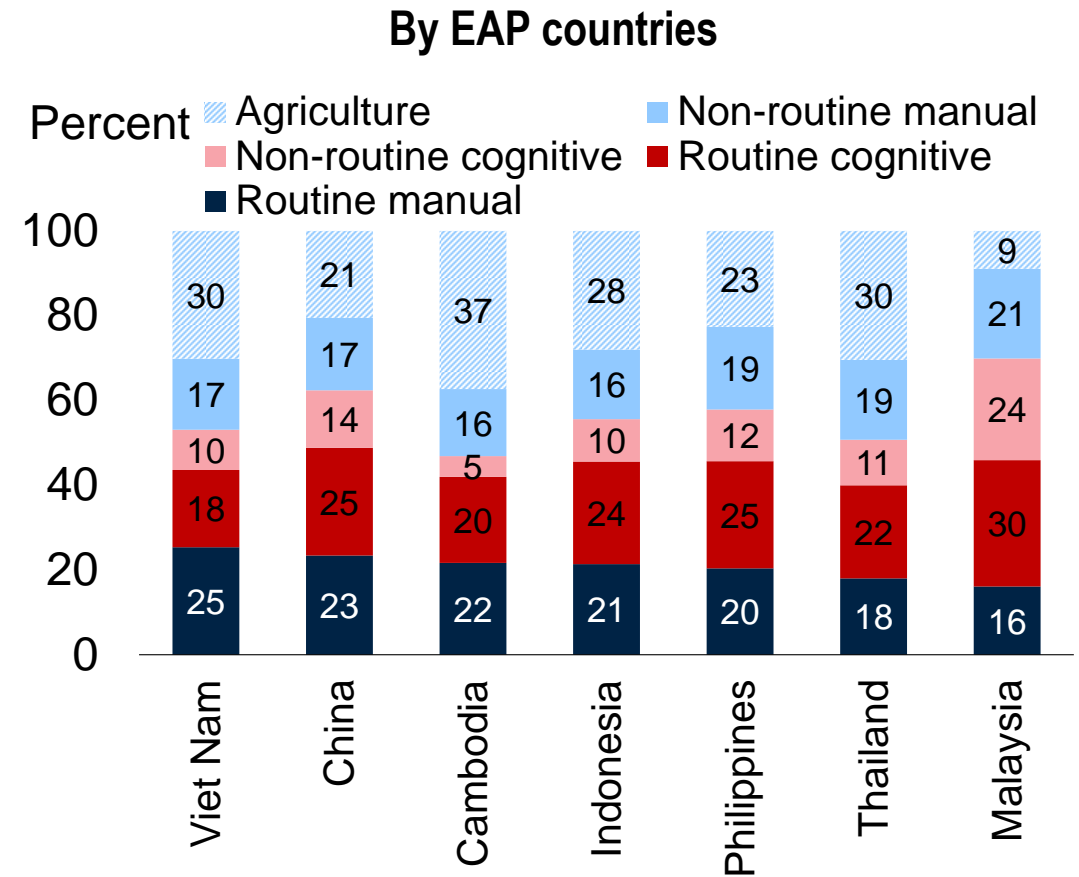
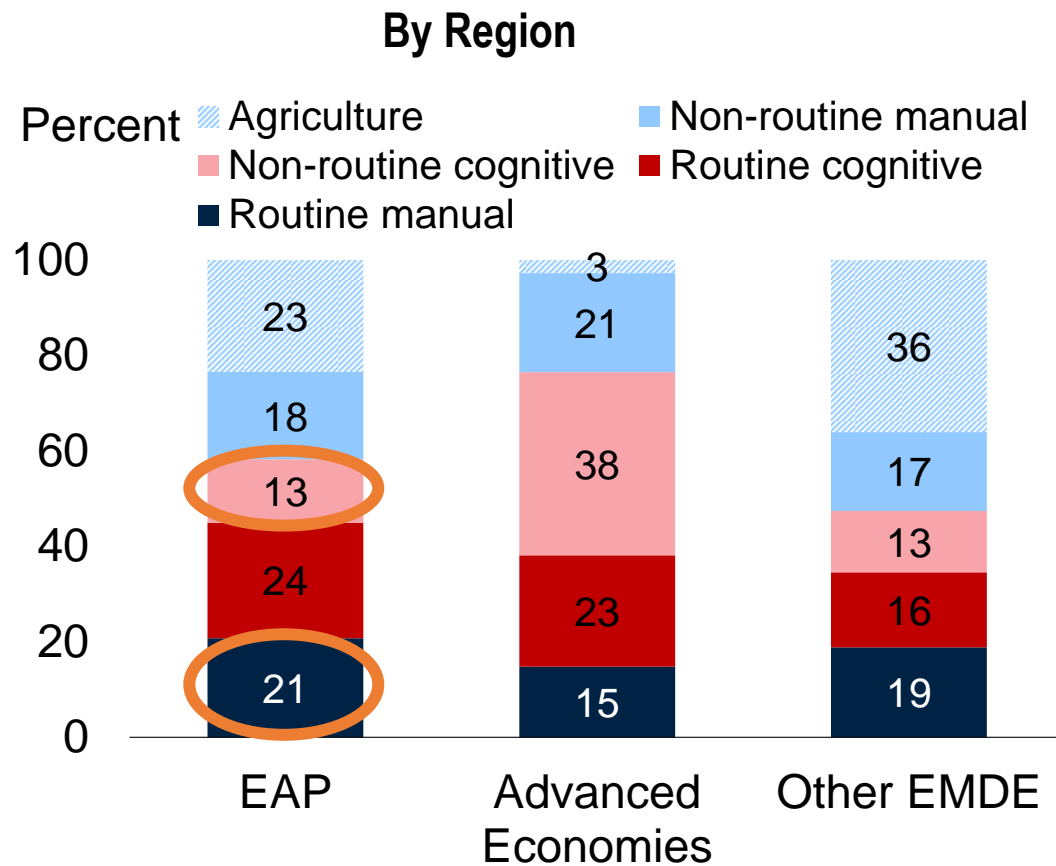
# New technologies will affect different jobs in different ways



# New technologies will affect different jobs in different ways



# EAP countries employ more people in routine manual occupations and fewer people in cognitive occupations than advanced countries

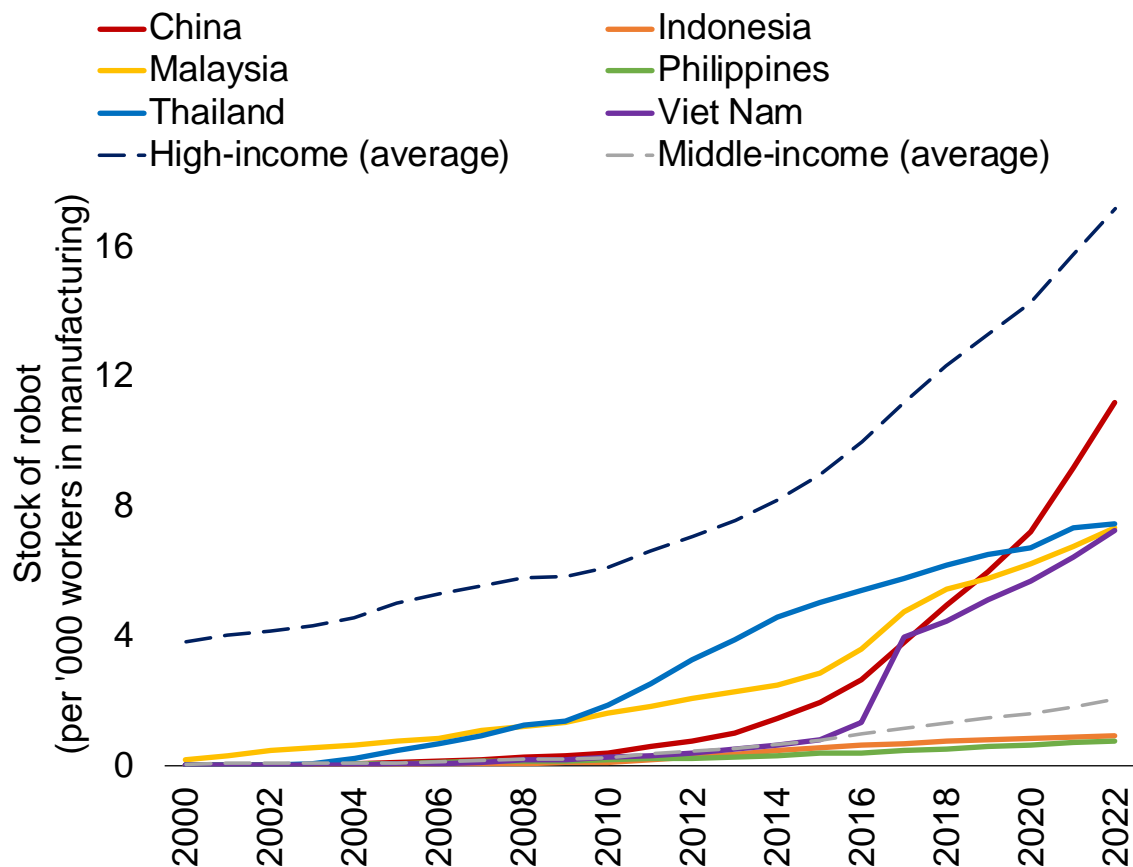


Source: Microdata, ILOSTAT, China Census 2020

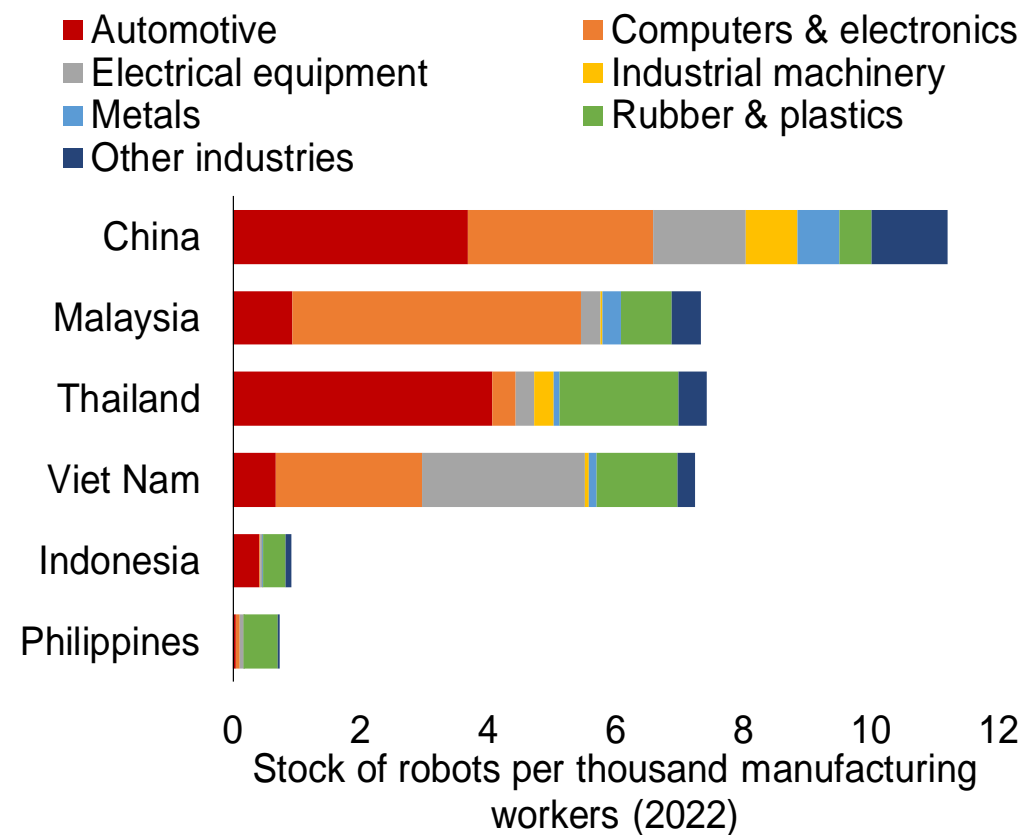
Note: Latest year data. A. EAP shows simple average of the share of employment classified by the task intensity of occupations in China, Indonesia, Malaysia, the Philippines, Thailand and Viet Nam. Advanced Economies and other EMDE show the population weighted averages for advanced economies and emerging economies, respectively. See notes in the main document for detailed explanation.

# Robot adoption has increased not only in automotive and computer and electronics sectors but also in others such as rubber and plastics

## A. Industrial robot adoption trend



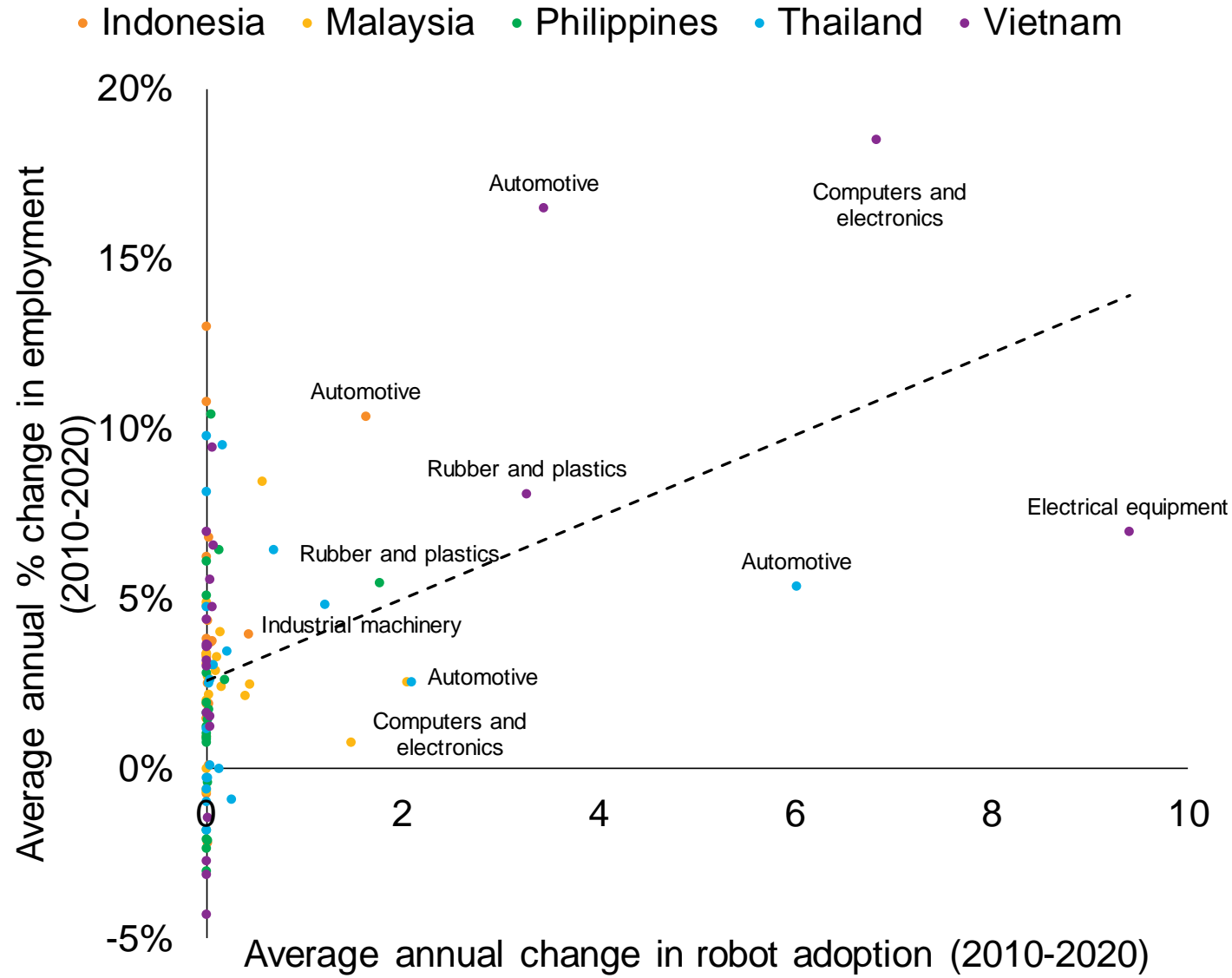
## B. Industry composition of the stock of robots (2022)



Note: A. Evolution of the stock of robots per thousand workers in manufacturing in China, Malaysia, Thailand, Vietnam, Indonesia, Philippines, and the average across high-income countries (HIC), middle-income countries (MIC), and all countries with complete information in the IFR and OECD datasets (World), between 2000 and 2022. The number of workers is fixed in a baseline year (2000). B. Industry composition of the stock of robots in the most recent year (2022)  
 Source: International Federation of Robotics (IFR) and OECD Employment Statistics.

# Among high robot-adoption industries in EAP, robot penetration is positively correlated with overall employment growth

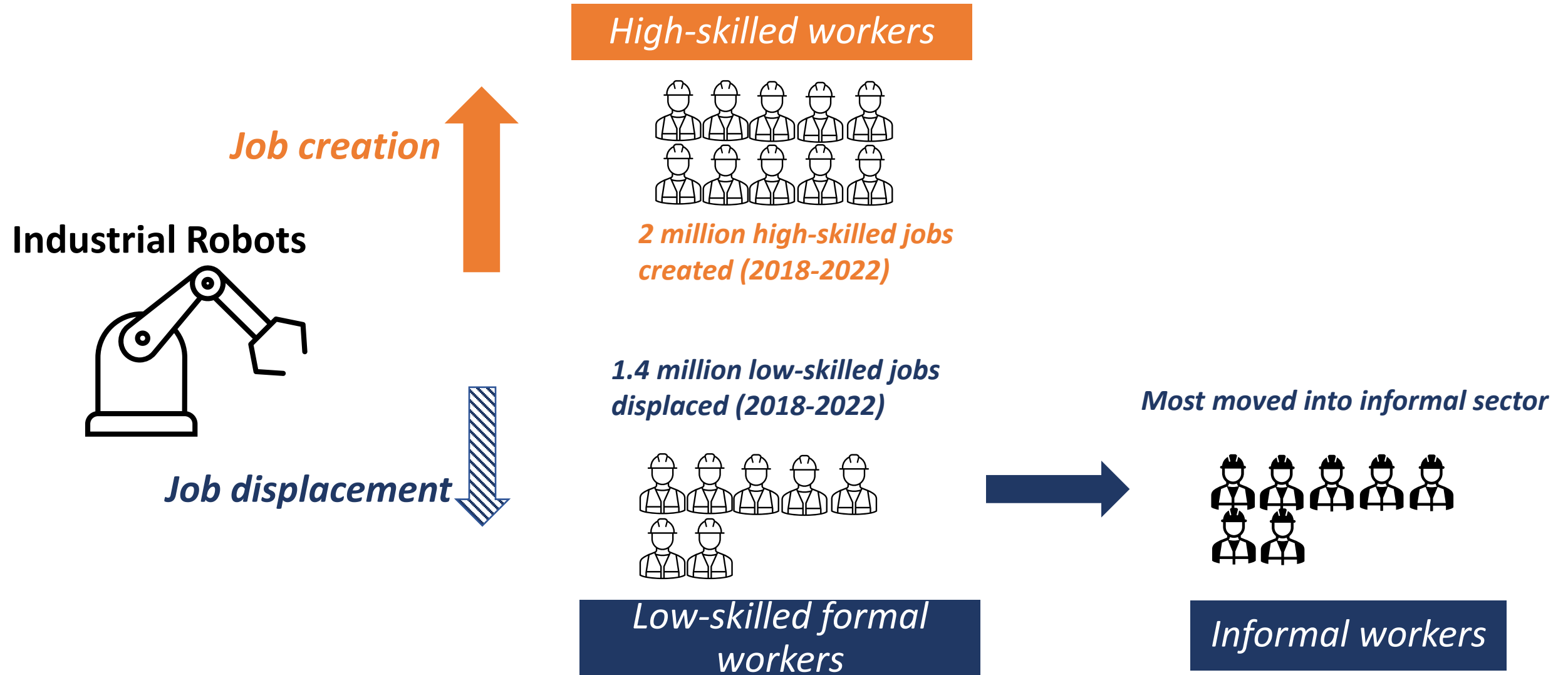
## Robot adoption and employment growth across industries in EAP countries



Source: International Federation of Robotics (IFR), OECD.  
Note: graph shows manufacturing industries where robot adoption data is available



# Industrial robot adoption increases employment of more skilled workers, but displaces lower skilled, routine physical jobs into the informal sector



**In EAP, higher exposure to AI is associated with lower earnings but not job growth;  
the higher-educated and women are more engaged in AI-exposed occupations**

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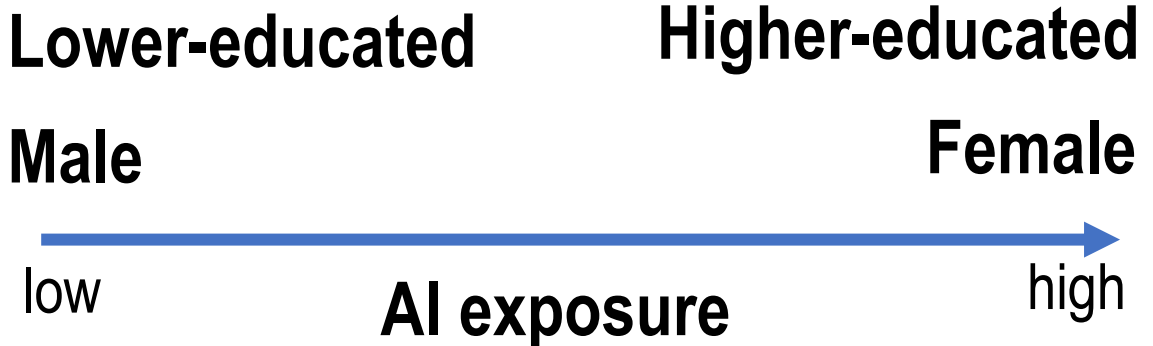
**Higher AI exposure  
occupations**



Lower earnings



No impact (yet) on  
employment growth



# Policy recommendations

## Strengthen skills

- Digital skills
- Social and emotional skills
- Advanced technical skills

## Enhance capital and labor mobility

## Remove factor price distortions

## Expand social protection for the new informal

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