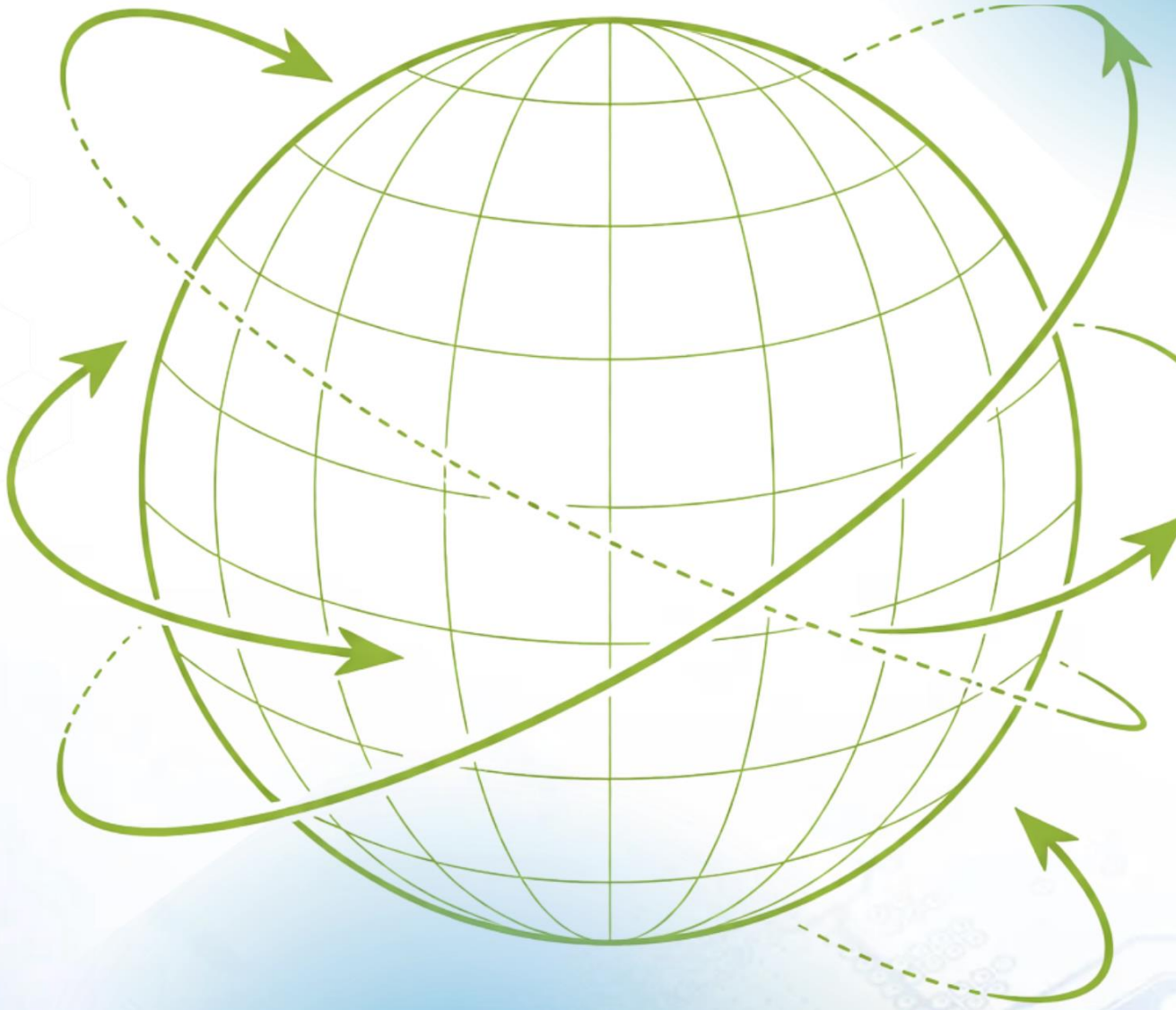
ADB

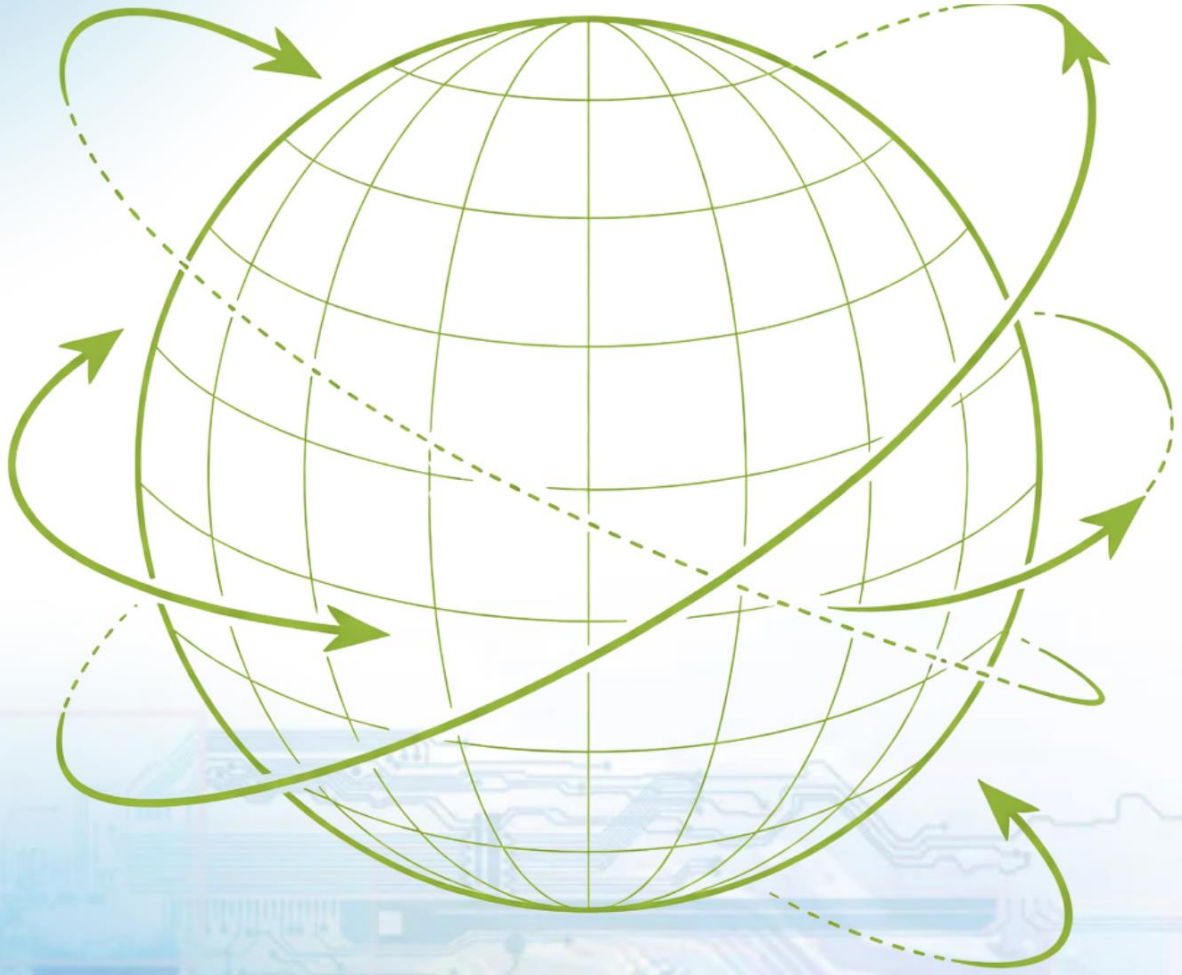
WORLD BANK GROUP

2026 TRADE FORUM

Trade Policy in a Fragmented World: Accessions, Industrial Policy, and the New Multilateralism

12-14 May 2026
Bangkok, Thailand





AI, Trade, and Industrial Policy in East Asia and Pacific

Alessandro Barattieri
Senior Economist
East Asia and Pacific Chief Economist Office
World Bank

ADB

WORLD BANK GROUP

AI, Trade and IP in East Asia and Pacific (EAP)

1) 3 questions and 3 answers:

a) How relevant is AI for the recent patterns of trade and investments?
Very, with some words of caution

b) How much are *developing* EAP countries participating in high end of the AI value chain?
Not much yet, except for China

c) Can Industrial Policies help the EAP region upgrading participation in the AI value chain?
A qualified yes!

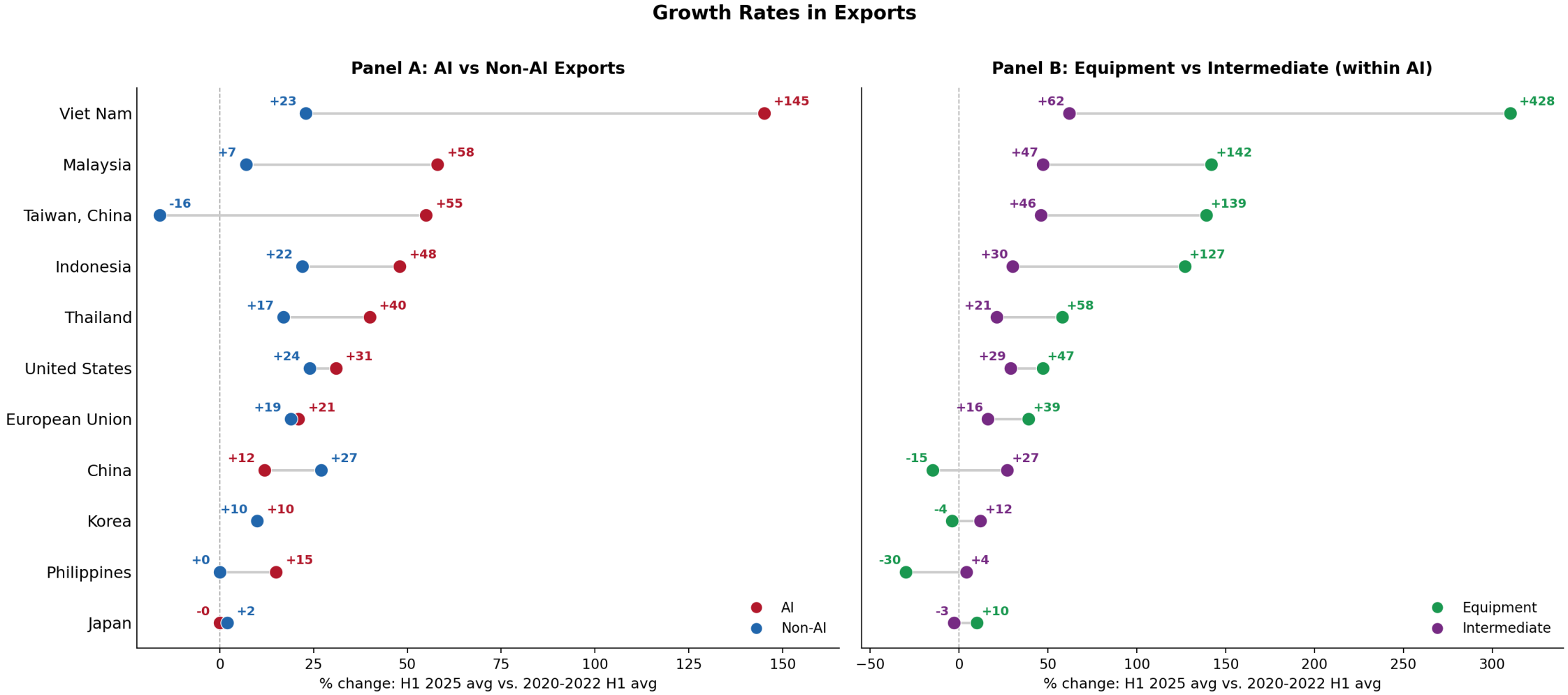
2) Looking at the future: Data!

3) Conclusions: not many answers…but 3 further (and broader) questions!

ADB

WORLD BANK GROUP

AI-enabling products exports boom in EAP



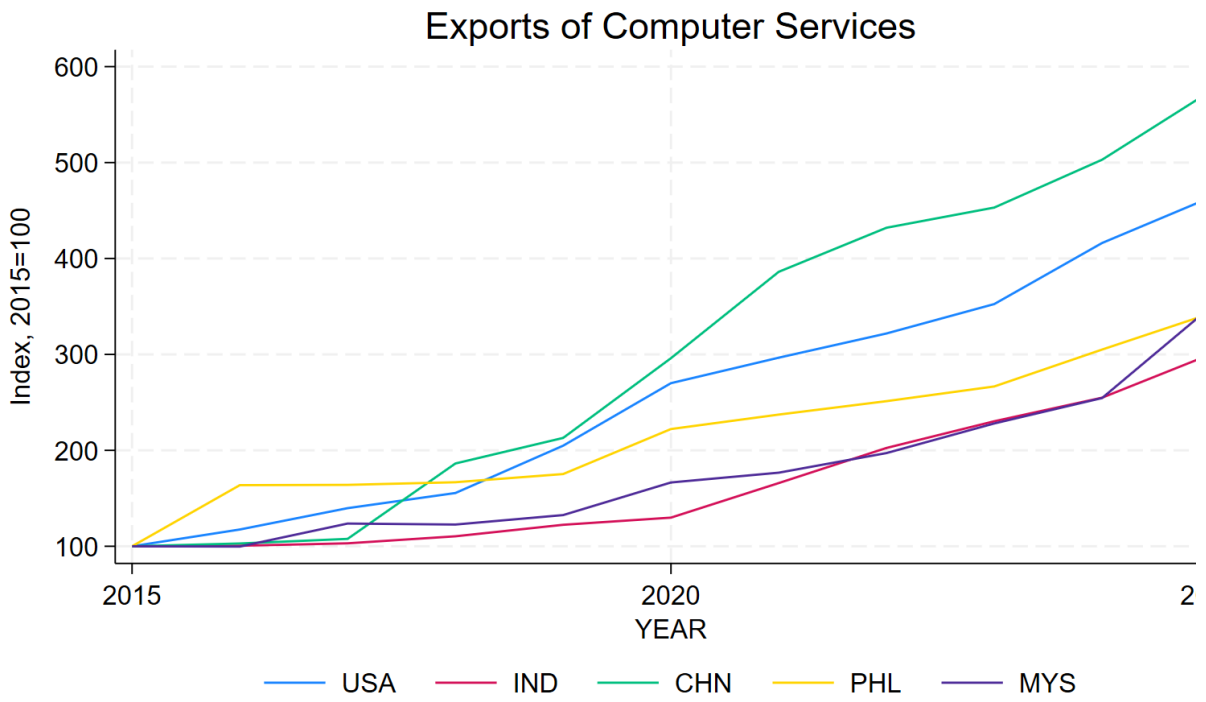
Source: World Bank staff estimates
Note: Ai-enabling goods list follows WTO (2025)

ADB

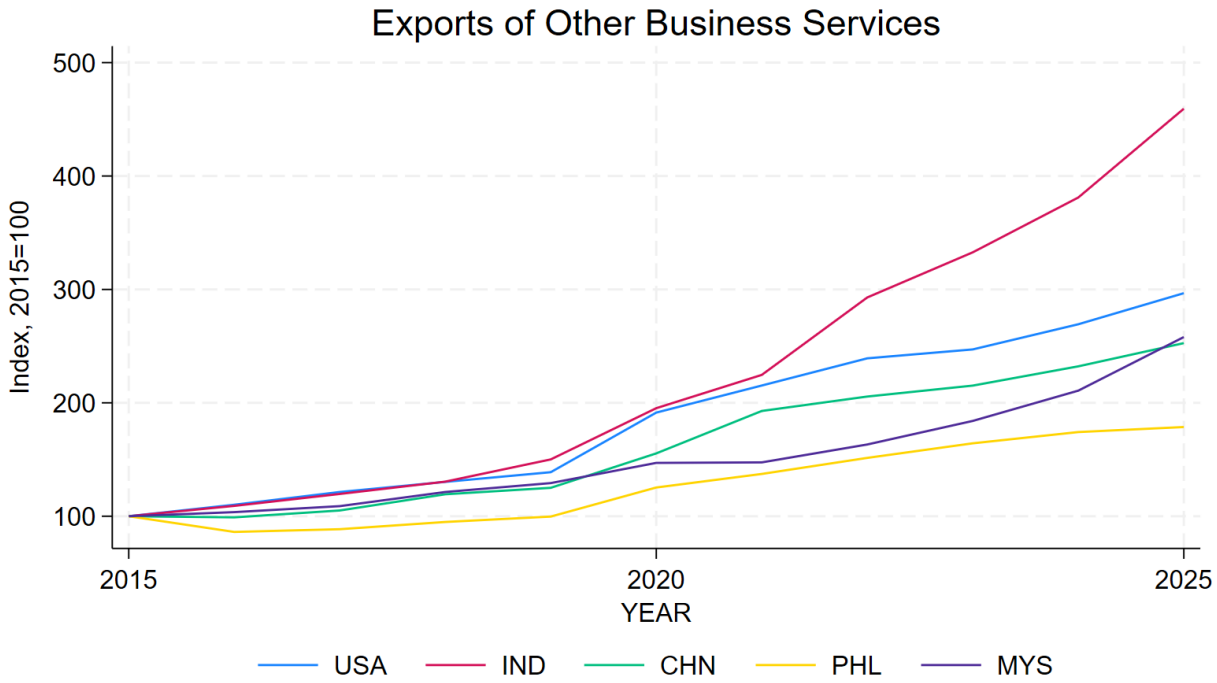
WORLD BANK GROUP

Digitally delivered services export boom

Computer services exports are booming in the US and China, but also in Philippines and Malaysia



"Other Business Services" exports grew more in India than the Philippines starting in 2020.



Source: WTO (2025)

ADB

WORLD BANK GROUP

Largest 2025 investment projects are AI-related

Home economy	Industry segment	Host economy	Parent company	Estimated capital expenditure (millions of dollars)	Estimated jobs created
United Arab Emirates	Data centers	France	MGX Fund Management	43 436	3 000
Taiwan, Province of China	Semiconductors	United States	Taiwan Semiconductor Manufacturing	25 000	3 000
Taiwan, Province of China	Semiconductors	United States	Taiwan Semiconductor Manufacturing	25 000	3 000
Taiwan, Province of China	Semiconductors	United States	Taiwan Semiconductor Manufacturing	25 000	3 000
Spain	Renewable energy	United States	Iberdrola	20 000	1 158
Australia	Coal, oil & gas	United States	Woodside Energy (Woodside Petroleum)	17 500	2 156
Canada	Data centers	France	Brookfield Asset Management	16 263	3 000
China	Metals	Kazakhstan	East Hope	12 000	3 000
Taiwan, Province of China	Semiconductors	United States	Taiwan Semiconductor Manufacturing	11 000	3 000
Taiwan, Province of China	Semiconductors	United States	Taiwan Semiconductor Manufacturing	11 000	3 000

Source: UNCTAD, based on information The Financial Times, fDi Markets (www.fDimarkets.com).

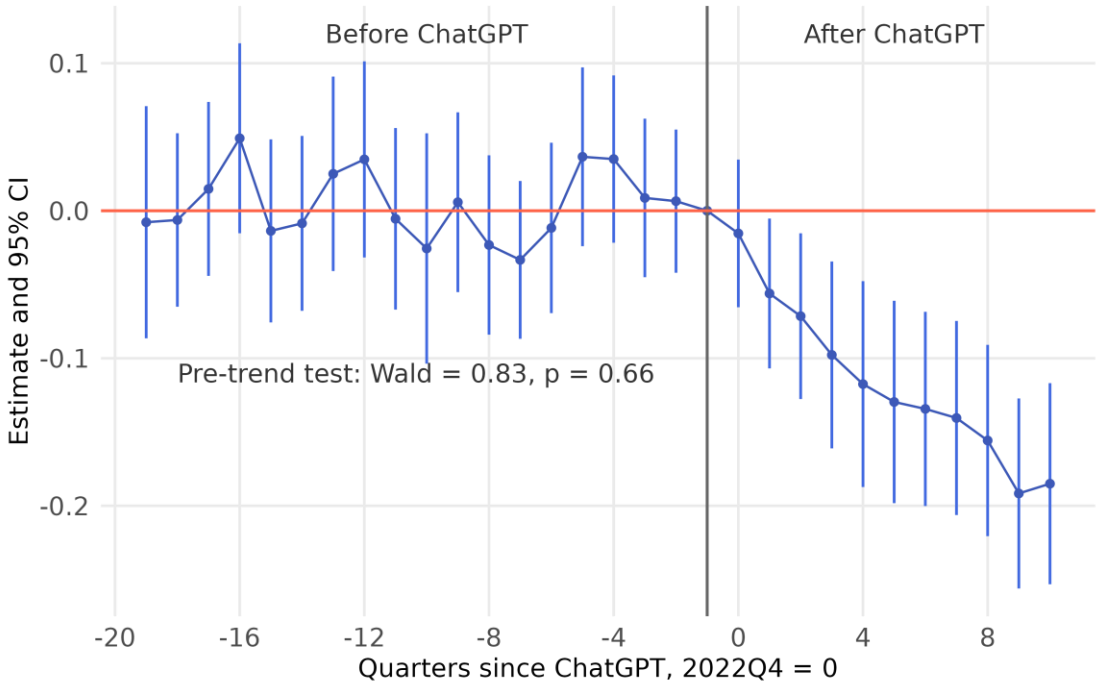
Note: There are five TSMC projects (Taiwan, Province of China) following the announcement that the company will build three new semiconductor fabrication plants and two advanced packaging facilities in Arizona.

ADB

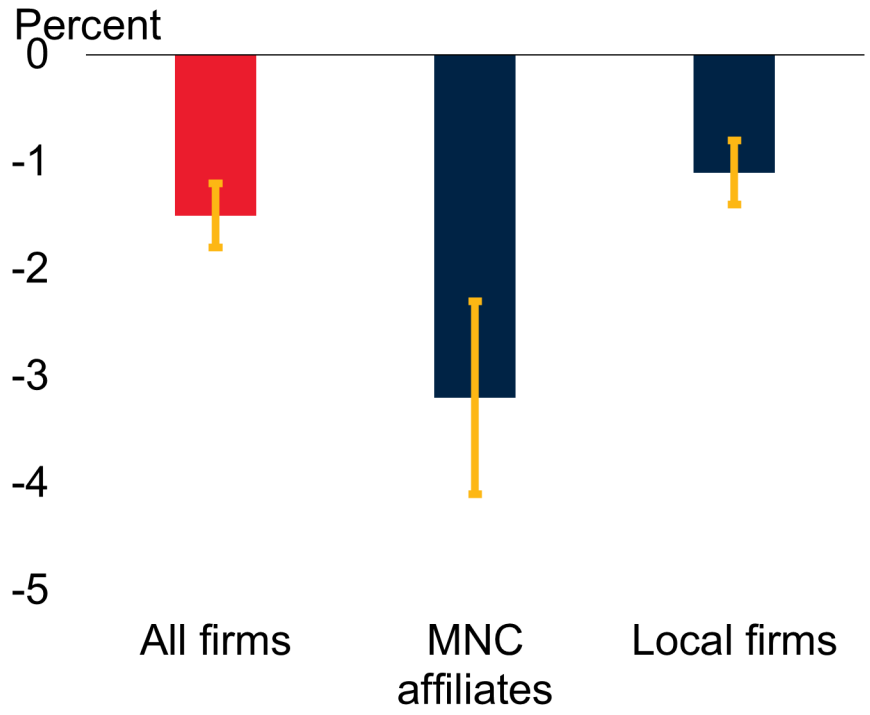
WORLD BANK GROUP

Words of caution (1): Long term gains, short term pain?

Models predict important gains from AI. Preliminary evidence from the US suggests that short term costs might not be trivial, especially in some sectors



In South Asian countries, firms' exposure to gen AI pre-chatgpt resulted in lower hiring after 2022, especially in affiliates of multinationals.

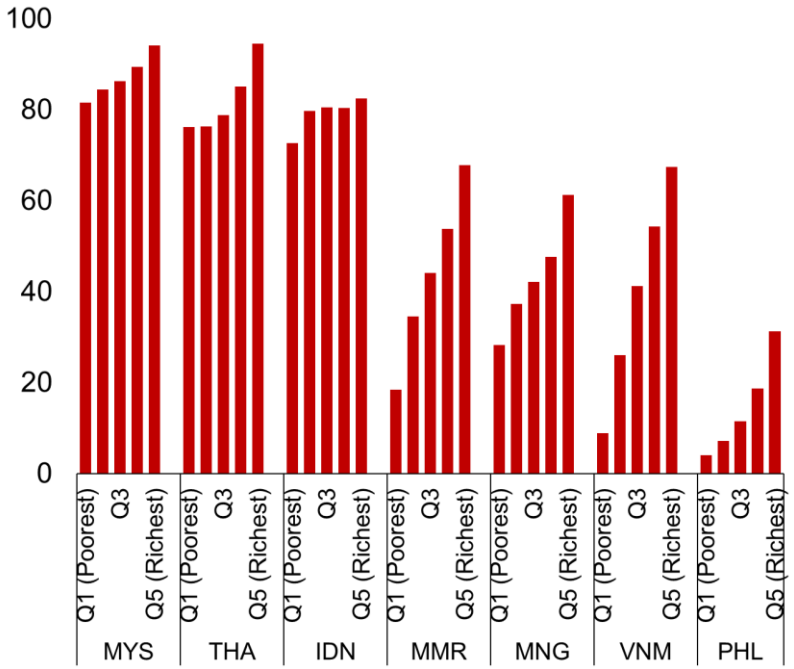


Source: A: Liu, Yan; Wang, He; Yu, Shu. (2026), Background paper to the 2026 WDR. B: South Asia Economic Update April 2026

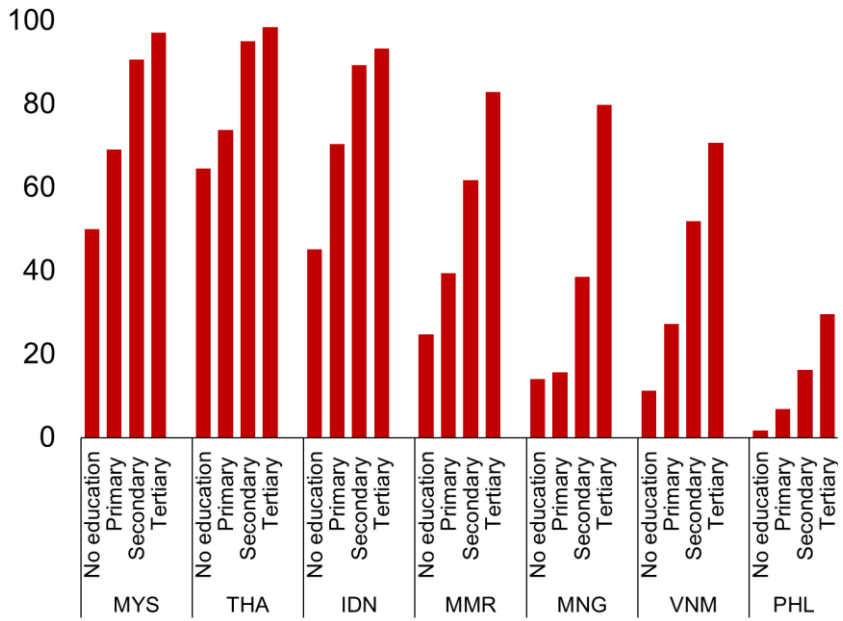
Words of caution (2): Will AI increase within countries inequalities?

Connectivity is an obvious pre-requisite to harness the potential of AI…but connectivity Is highly unequal…

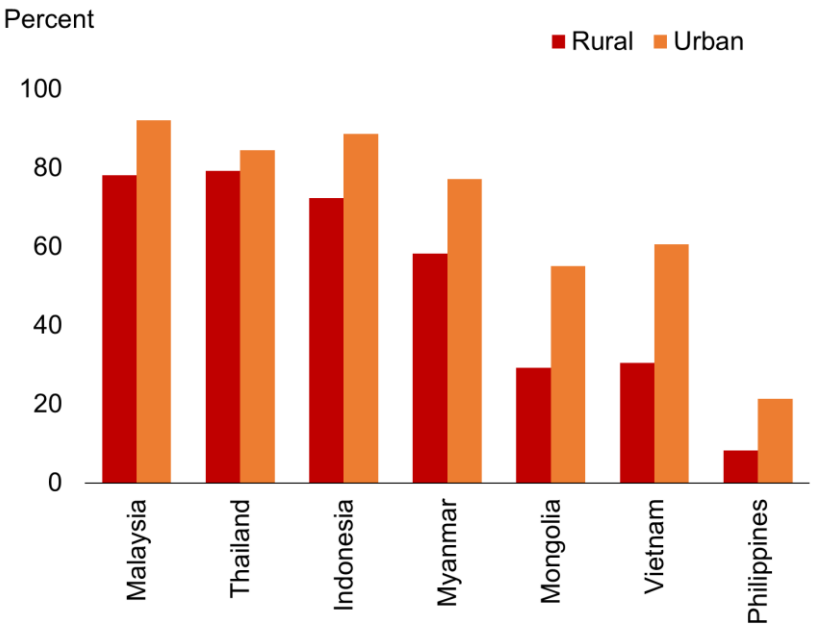
…by income…



…by education…



…across regions…

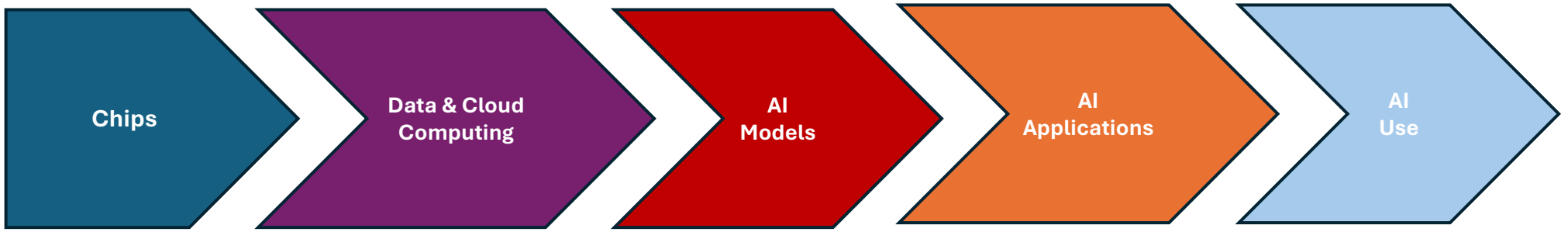


Source: Services Unbound. World Bank, 2024

ADB

WORLD BANK GROUP

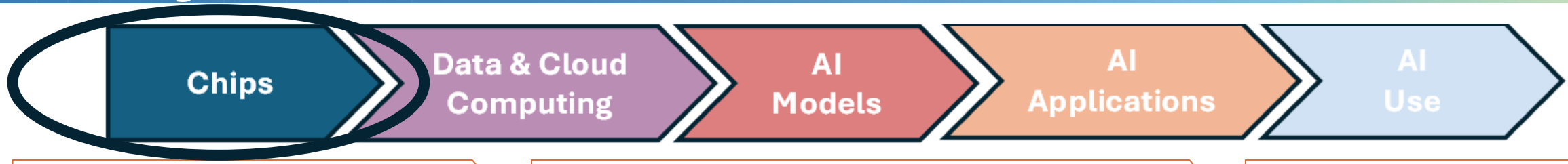
A simplified AI value chain



Semiconductors (e.g. GPUs)	Cloud data centers to process training data (e.g. AWS, Alibaba)	Large language model development (e.g. OpenAI GPT, DeepSeek, Google Gemini)	AI software development & customization (e.g. ChatGPT, Copilot, DeepL)	Use of AI applications governments

Source: Adapted from Gambacorta and Shreeti (2025)

Companies from developing EAP (ex China) mostly in ATP



Inputs

Semiconductor Manufacturing Equipment
Specialized tools required to manufacture wafers

Asia	Non-Asia
Tokyo Electron Disco (JP) NAURA (CN) SEMES (KR)	ASML (NL) Lam Research, Applied Materials (US)

Electronic Design Automation(EDA) Software
Software tools for creating integrated circuits

Asia	Non-Asia
Empyrean (CN) Zuken (JP)	Cadence (US) Siemens (DE)

Core Intellectual Property
Architecture for semiconductor software developers

Asia	Non-Asia
Andes (TW,CN)	ARM (UK/JP)

Design and Fabbricaton

Integrated Device Manufacturers (IDMs)
Design and manufacture using their own intellectual property

Asia	Non-Asia
Samsung, SK Hynix (KR) Renesas, Kioxia (JP)	Intel, Micron, Texas Instruments (US)

Semiconductor Designers
Design semiconductors but do not manufacture them

Asia	Non-Asia
Mediatek, Novatek, Realtek (TW,CN) Will Semi, HiSilicon (CN)	Nvidia, Broadcom, Qualcomm, AMD, Apple (US)

Foundries
Manufacture semiconductors but do not design them

Asia	Non-Asia
TSMC, UMC, PSMC (TW,CN) SMIC, HuaHong (CN)	Global Foundries (US) Tower Semiconductor (IL)

Assemble, Test and Package

Assemble, Test, and Package
Cut finished wafer into separate chips for final integration into electronic devices

Asia	Non-Asia
ASE, Powertech (TW,CN) JCET, TFME, Huatian (CN) UTAC, AEM (SG) Inari Amertron, Unisem, MPI (MY) Intel Products Vietnam, Hana Micron Vina, FPT Semiconductor (VN) Amkor Technology (PH)	Amkor (US)

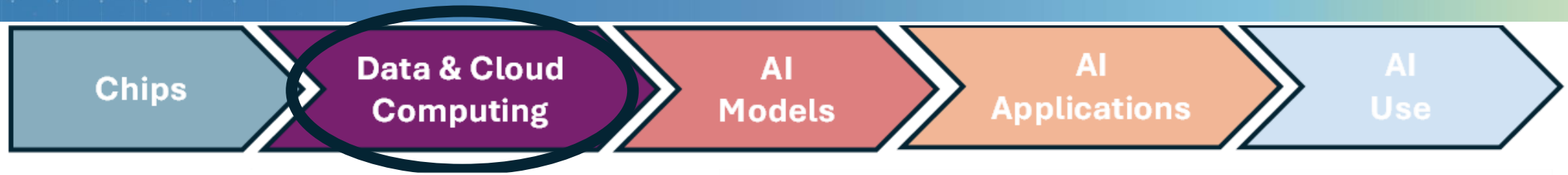
residual share of VA: 2%!!

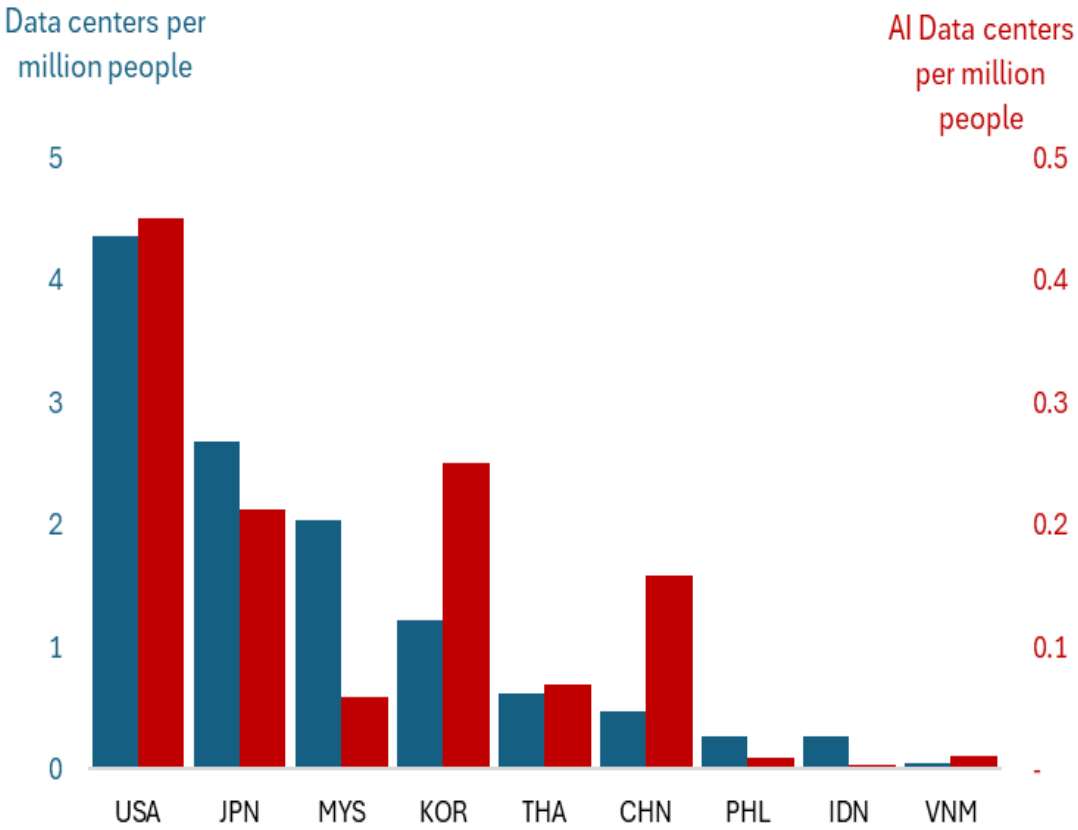
Adapted from Bown and Wang, 2024

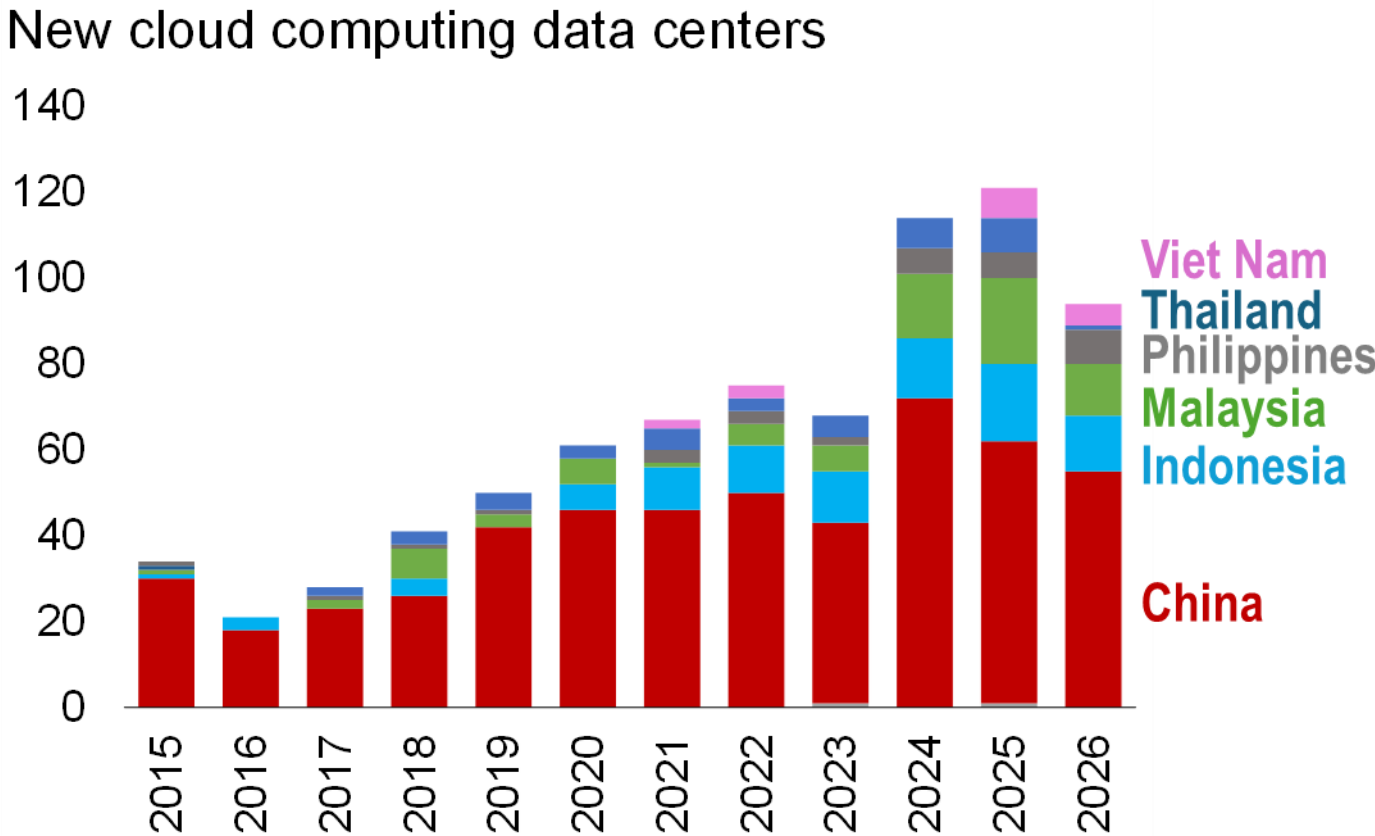
ADB

WORLD BANK GROUP

Data center are concentrated in few countries





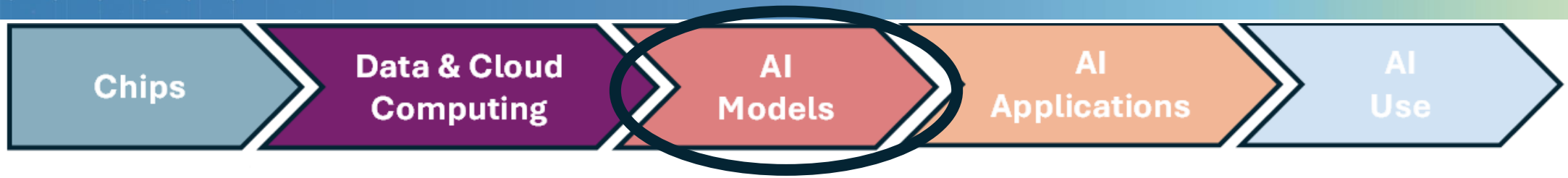


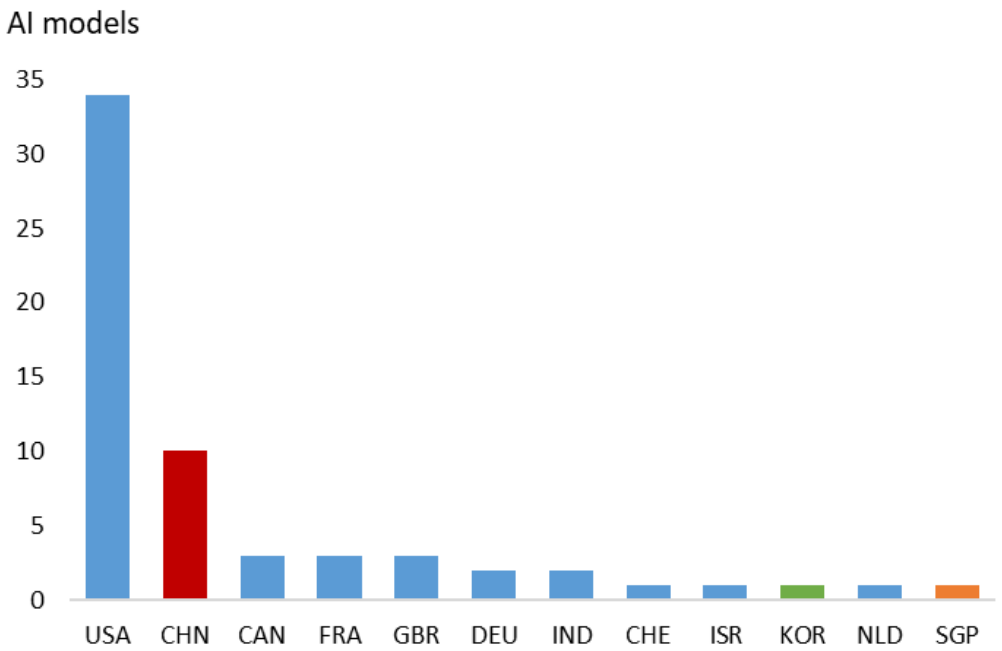
Source. Data Centers: "Infrastructure foundations: from current assets to future growth" (Straub et al., 2026). AI Data Centers (those with GPU chips) from Epoch.AI.

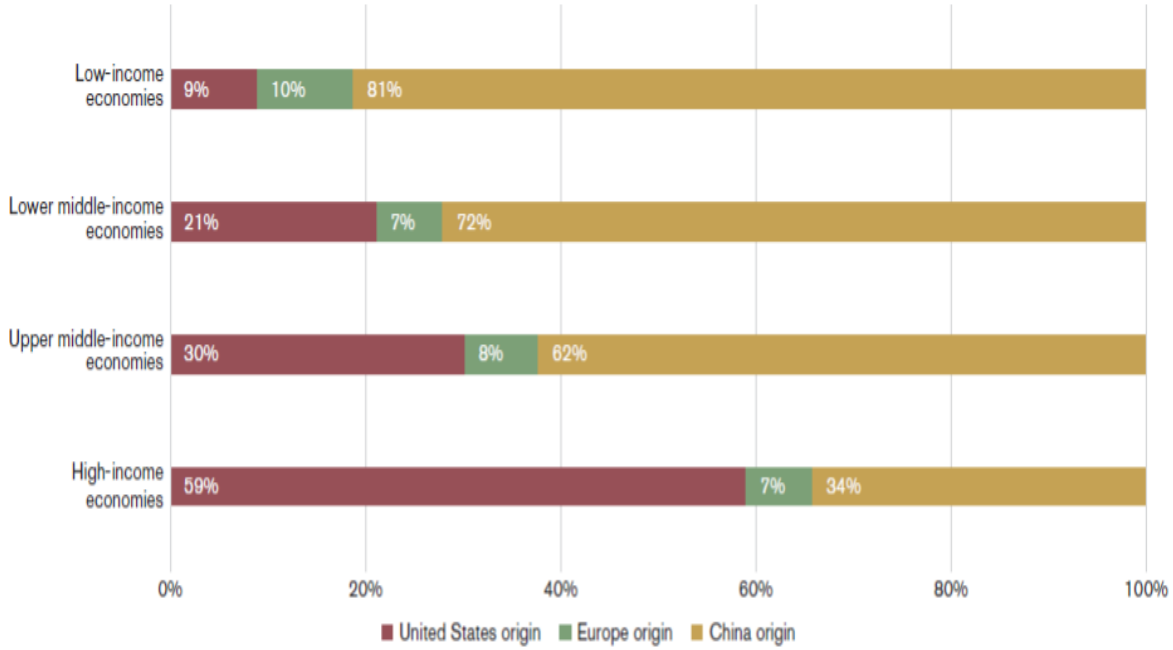
ADB

WORLD BANK GROUP

Different “models” about sharing AI models…





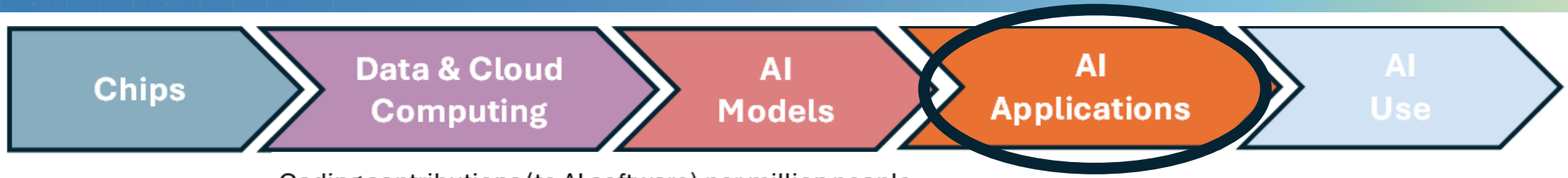


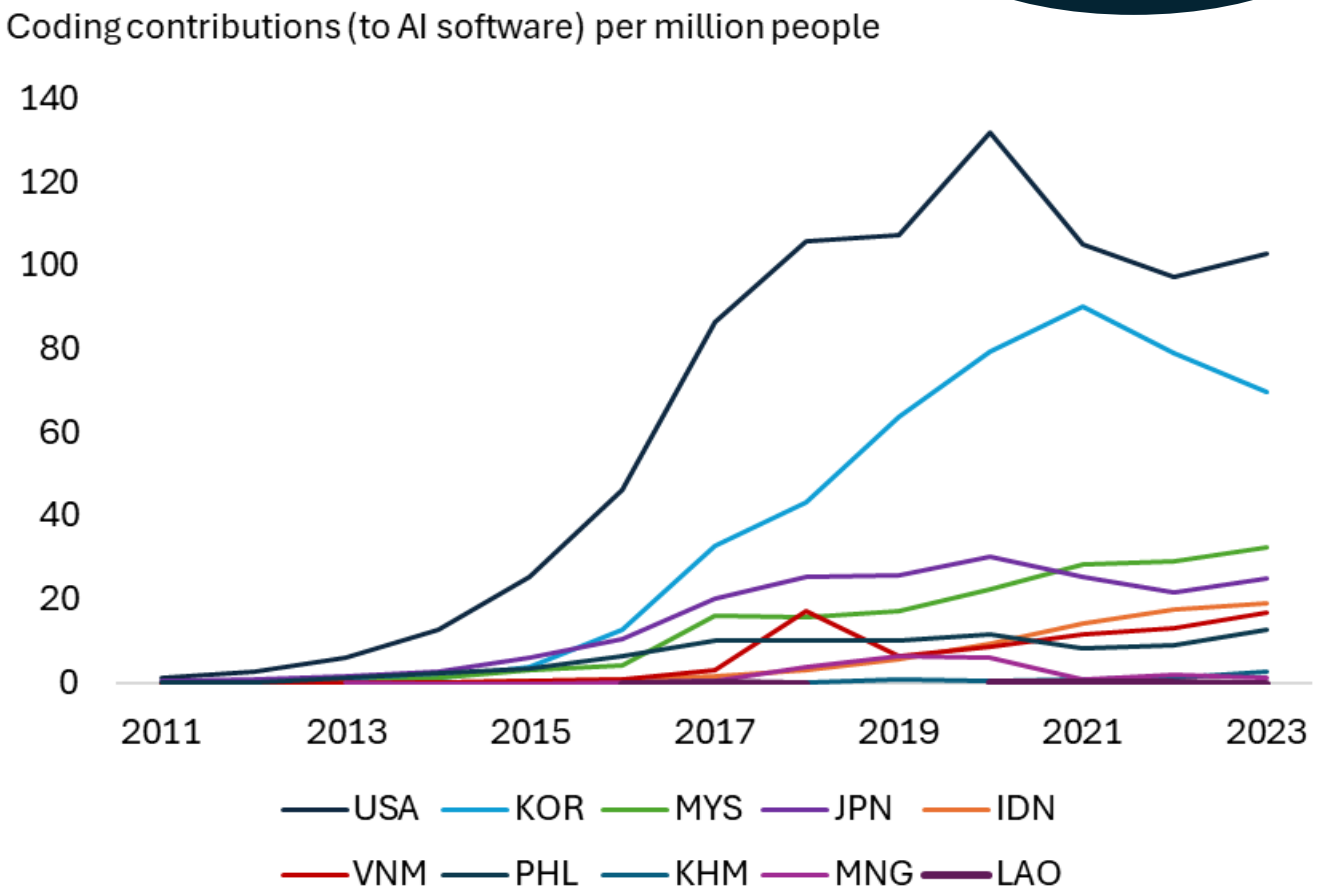
Source. OECD, AI 2026, WTO 2025

ADB

WORLD BANK GROUP

Limited contribution to development of AI applications



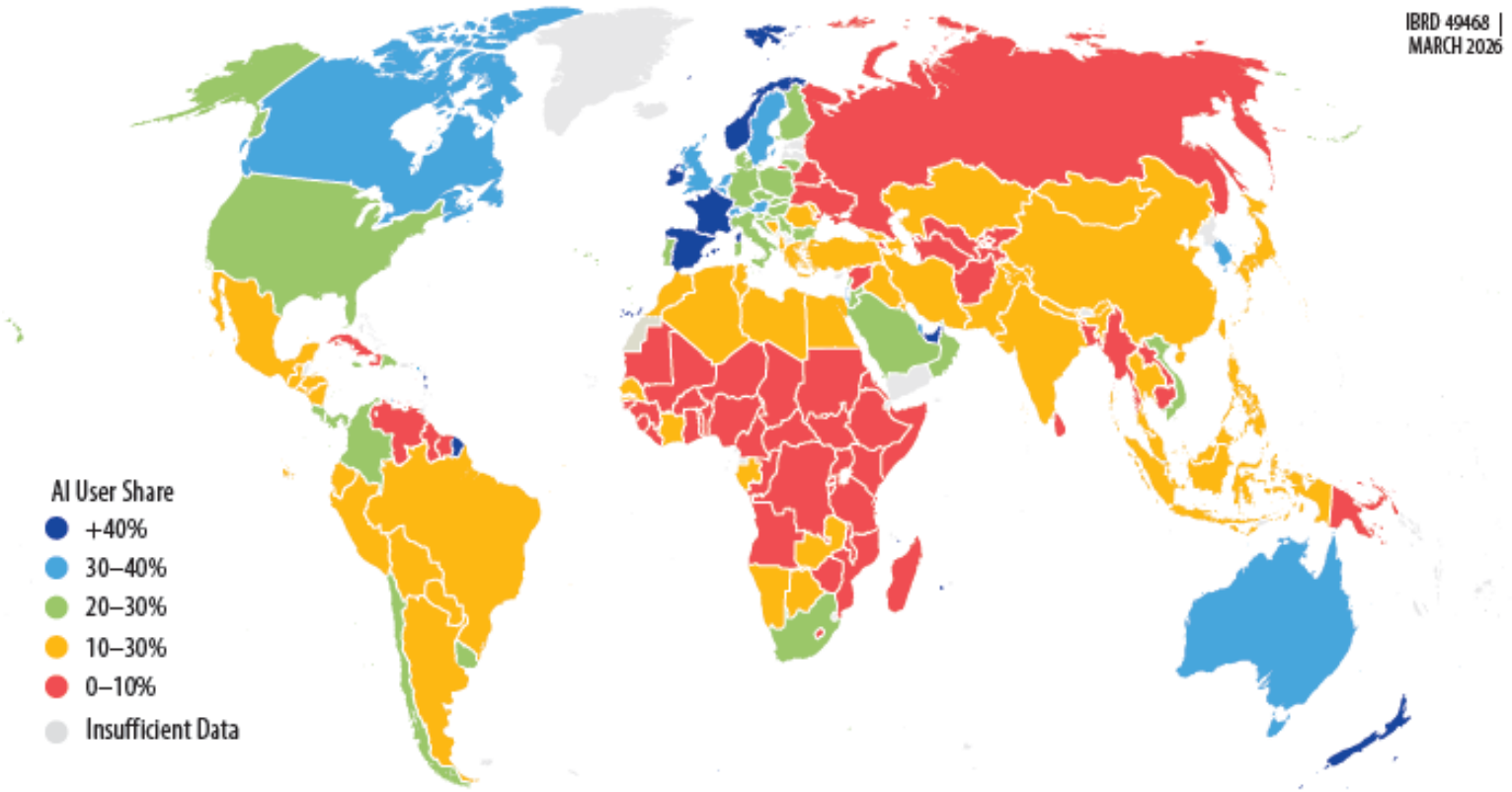


Source: OECD.AI (2026), using data from GitHub

ADB

WORLD BANK GROUP

Limited use of AI compared to developed economies



Source: Microsoft (2026)

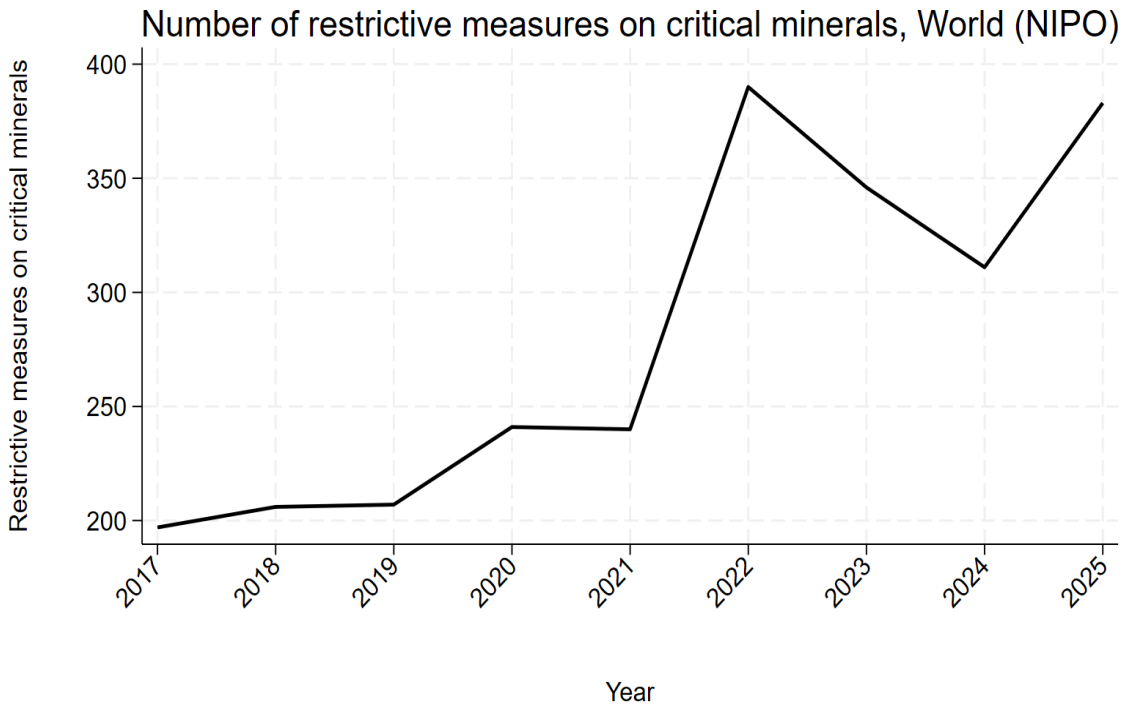
ADB

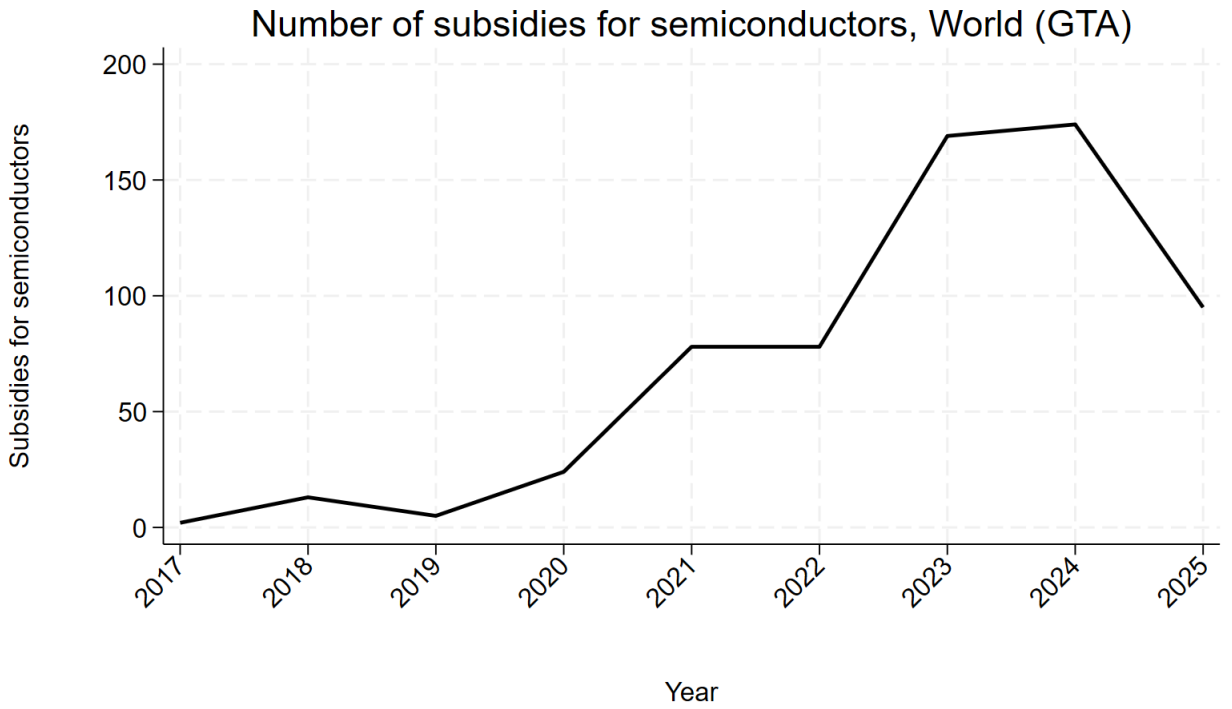
WORLD BANK GROUP

Official Use Only

Industrial Policy along the AI value chain

Data from NIPO reveals a substantial global increase in the number of new restrictive measures on critical minerals and semiconductors





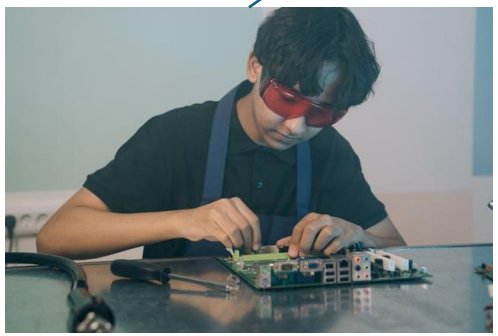
Source: NIPO and Global Trare Alert, See also Evenett, S., Jakubik, A., Martín, F., & Ruta, M. (2024).

ADB

WORLD BANK GROUP

Industrial Policy along the AI value chain

Examples:



1. Vietnam "Semiconductor Development Strategy 2030"

2. China "Eastern Data Western Computing" policy

Sahabat-AI

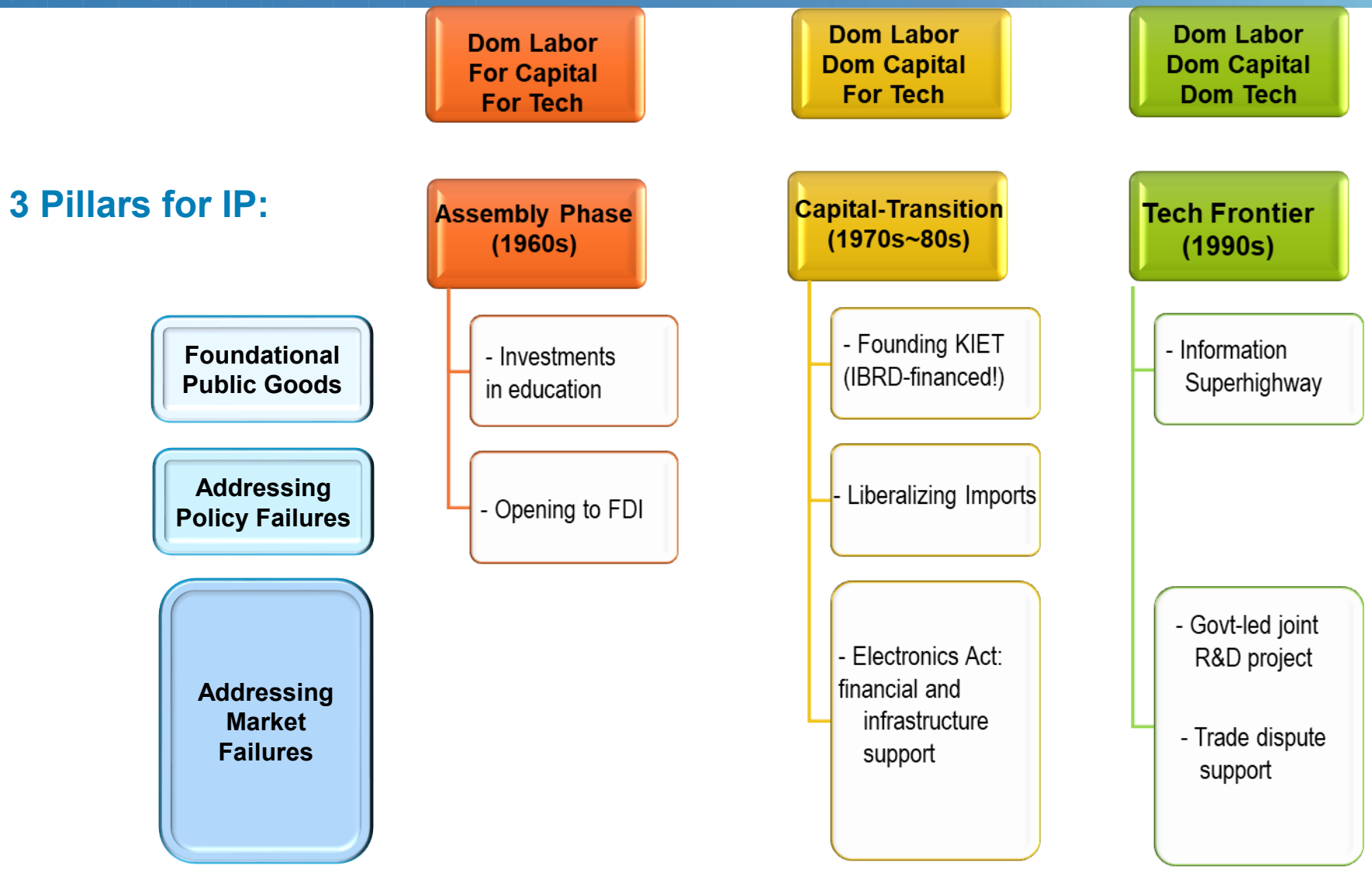
3. Indonesia Sahabat-AI LLM

4. Philippines National AI Strategy Roadmap 2.0

ADB

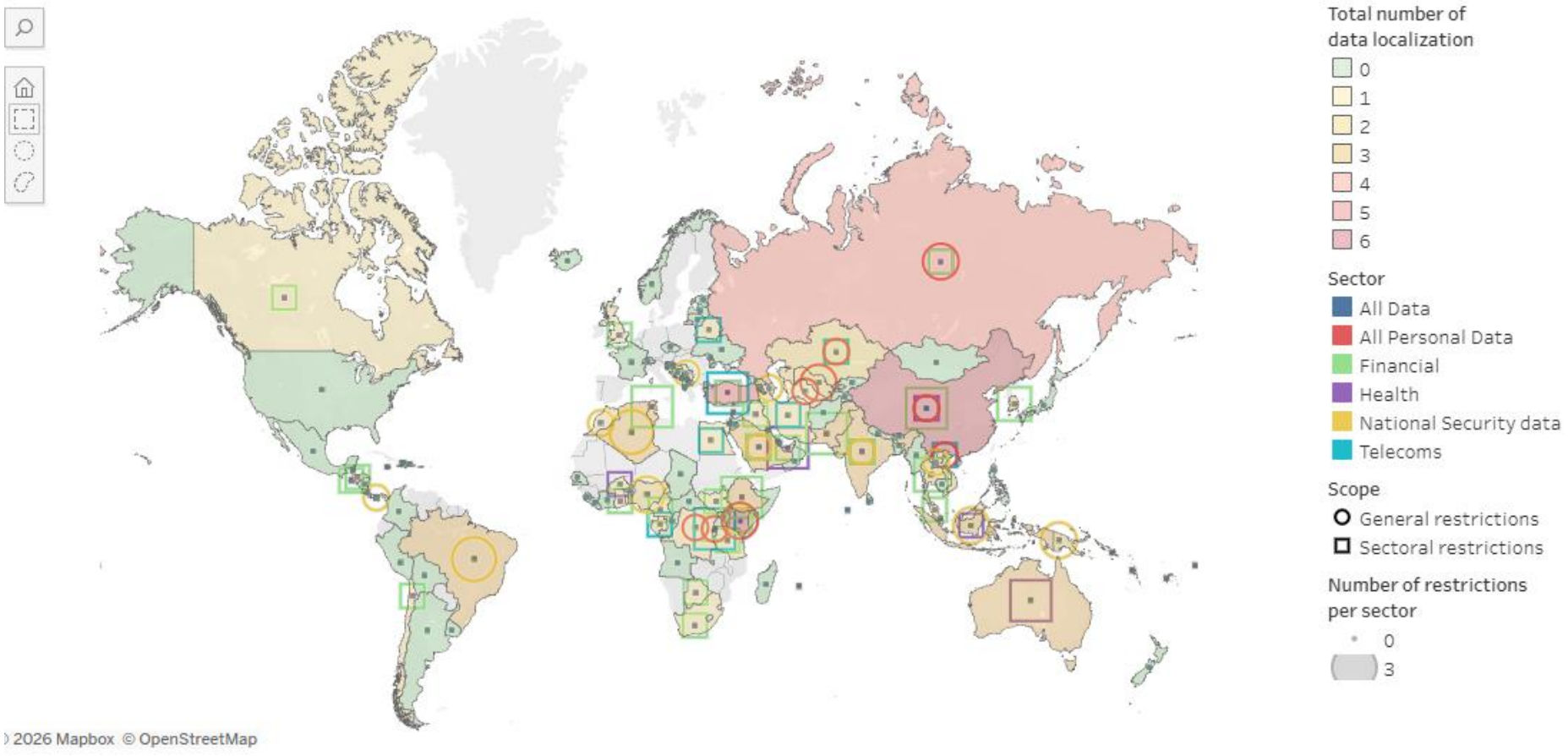
WORLD BANK GROUP

What can be learned from the Rep. of Korea?



The future of trade and IP policies: Data!

Digital Trade Regulatory Readiness (DTRR) Database



A new tool from the World Bank

DIGITAL TRADE REGULATORY READINESS (DTRR) database

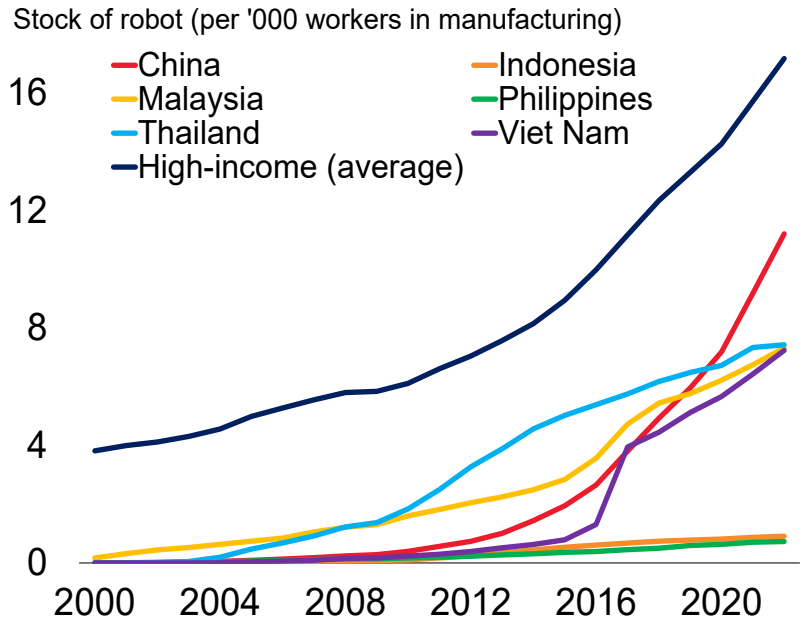
WORLD BANK GROUP

ADB

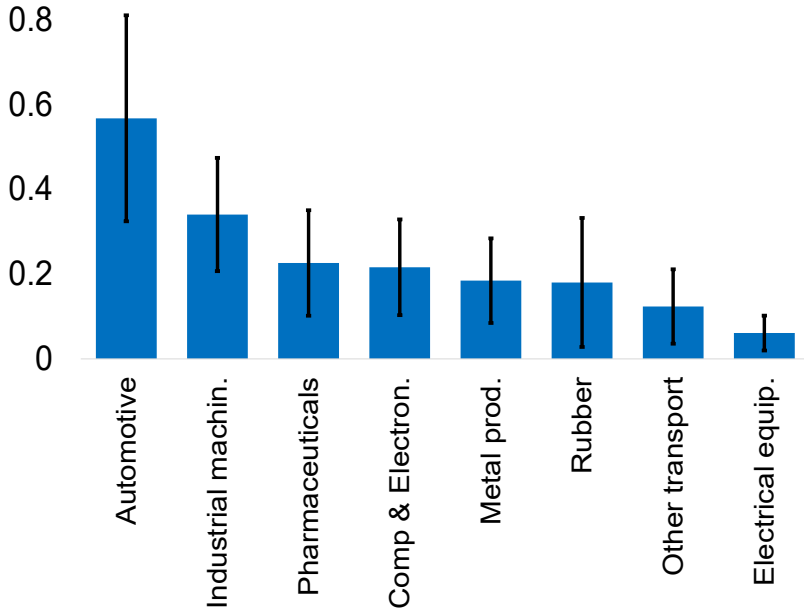
WORLD BANK GROUP

Conclusions Q#1:
What about automation? and physical AI?

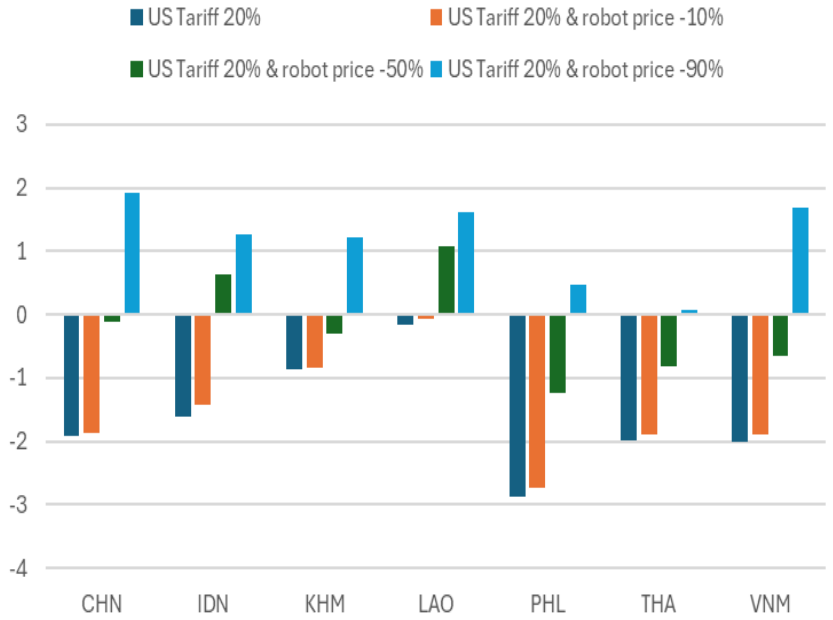
Robots' adoption increased significantly in EAP countries in the last decade



Automation can increase exports (higher productivity and quality)…



…and represent a potential response to protectionism…



Source: A, B: World Bank (2024a), using International Federation of Robotics (IFR) and OECD Employment Statistics. C: Artuc, Barattieri, Leunga, Mattoo, in progress

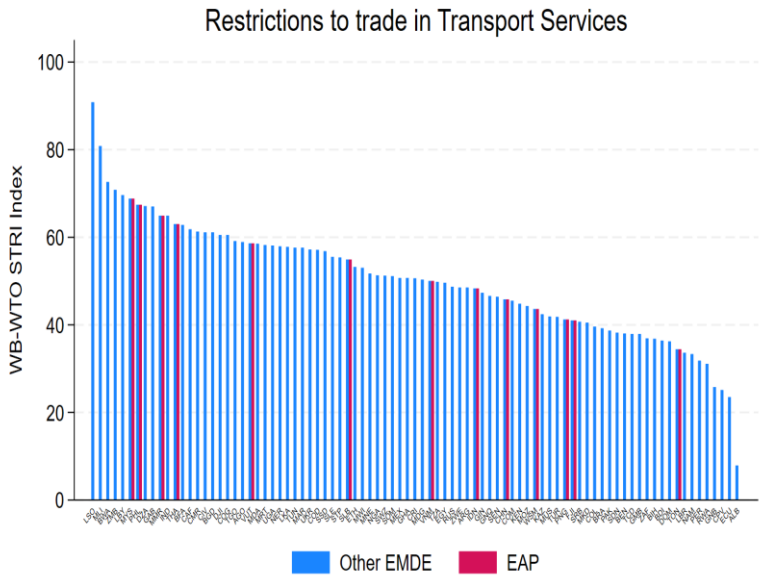
Note: A. Evolution of the stock of robots per thousand workers in manufacturing in China, Malaysia, Thailand, Viet Nam, Indonesia, Philippines, and the average across high-income countries (HIC), all countries with complete information in the IFR and OECD datasets (World), between 2000 and 2022. The number of workers is fixed in a baseline year (2000). B: Marginal effects from regressions at country-sector-year level including country, sector and year fixed effects. Sample: 52 developed and developing countries, over 2012-2020, for 19 industrial sectors. Panel C: A model with multistage production, tasks and international trade that allows robotization on the nature of performed tasks.

ADB

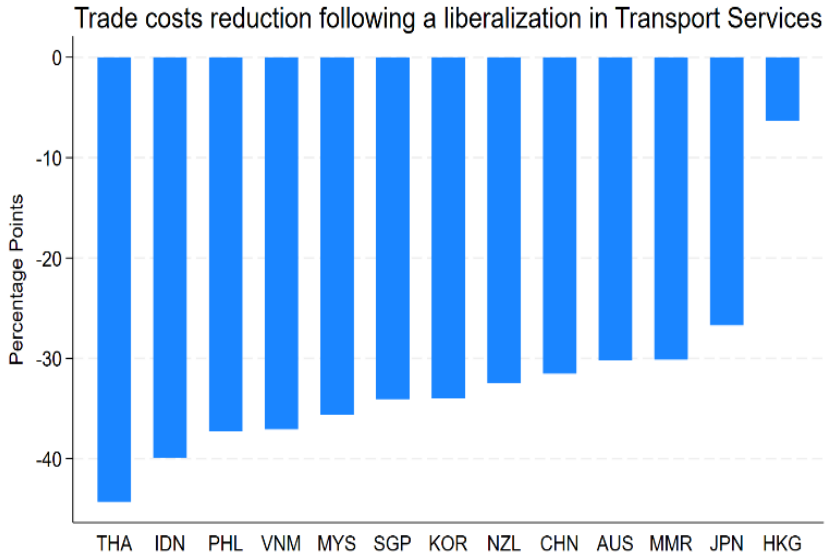
WORLD BANK GROUP

Conclusions Q#2: What about liberating services? Transport!

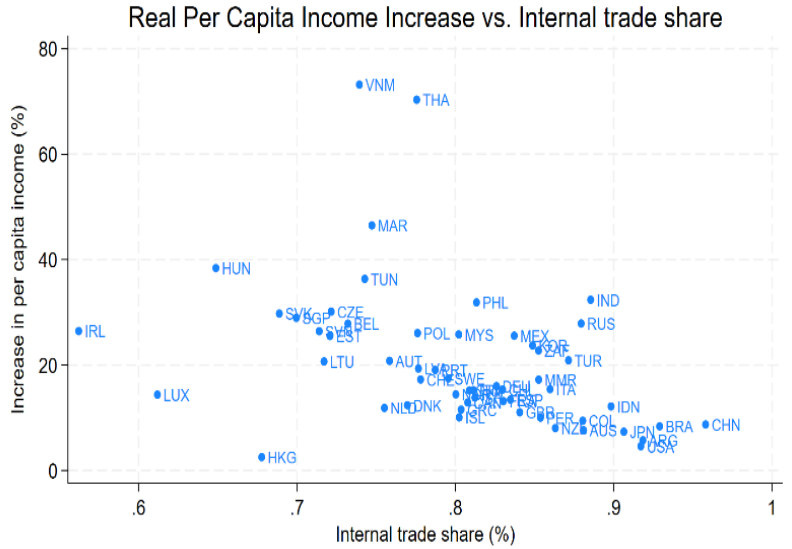
EAP countries are still very restrictive regime in transport



A full liberalization of transport services trade could reduce the trade costs for goods (median: 30%)



Model simulations show that liberating transport might increase per capital income by 20% in the long-run



Source: Barattieri, Cosar, Osotimehin, Popov, in progress

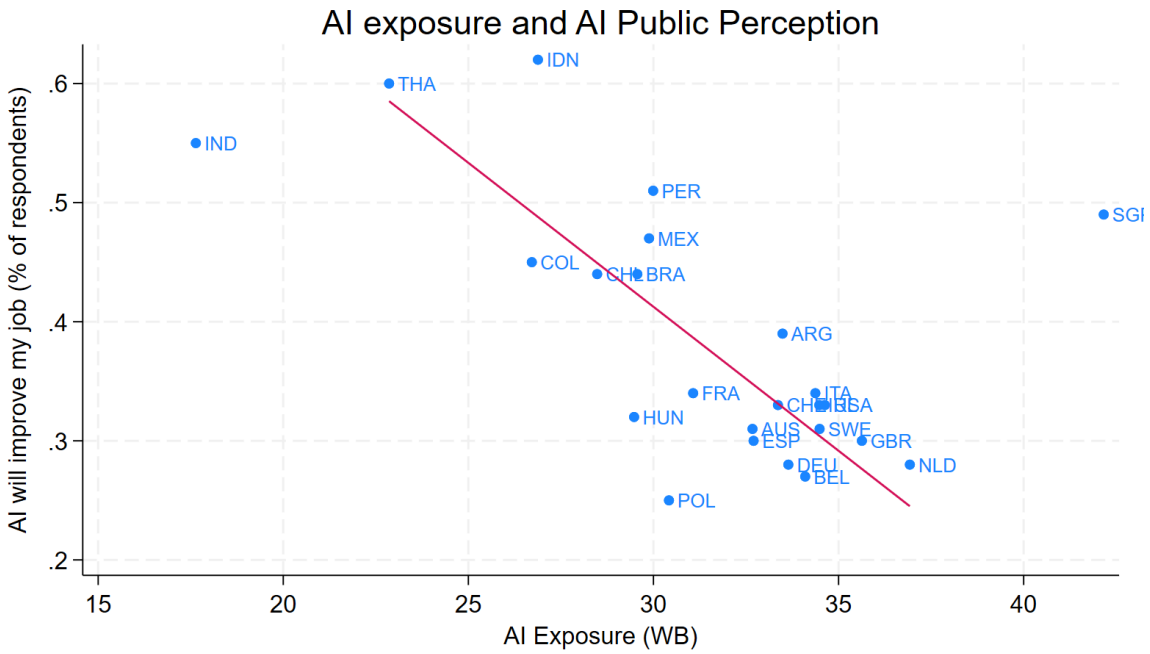
Note: Panel A: WTO-WB STRI in Transport. Panel B: The elasticity of trade costs to transport liberalization is estimated using sector-specific gravity regressions using data from OECD ICIO tables, including both internal and international trade and measuring the restrictions to trade in transports using the WTO-WB STRI indicator. Panel C: The picture reports results from a multi-country multi-sector model of trade featuring IO linkages. The model is used to simulate the impact of a reduction to zero of the STRI. The model's horizon is the long-run.

ADB

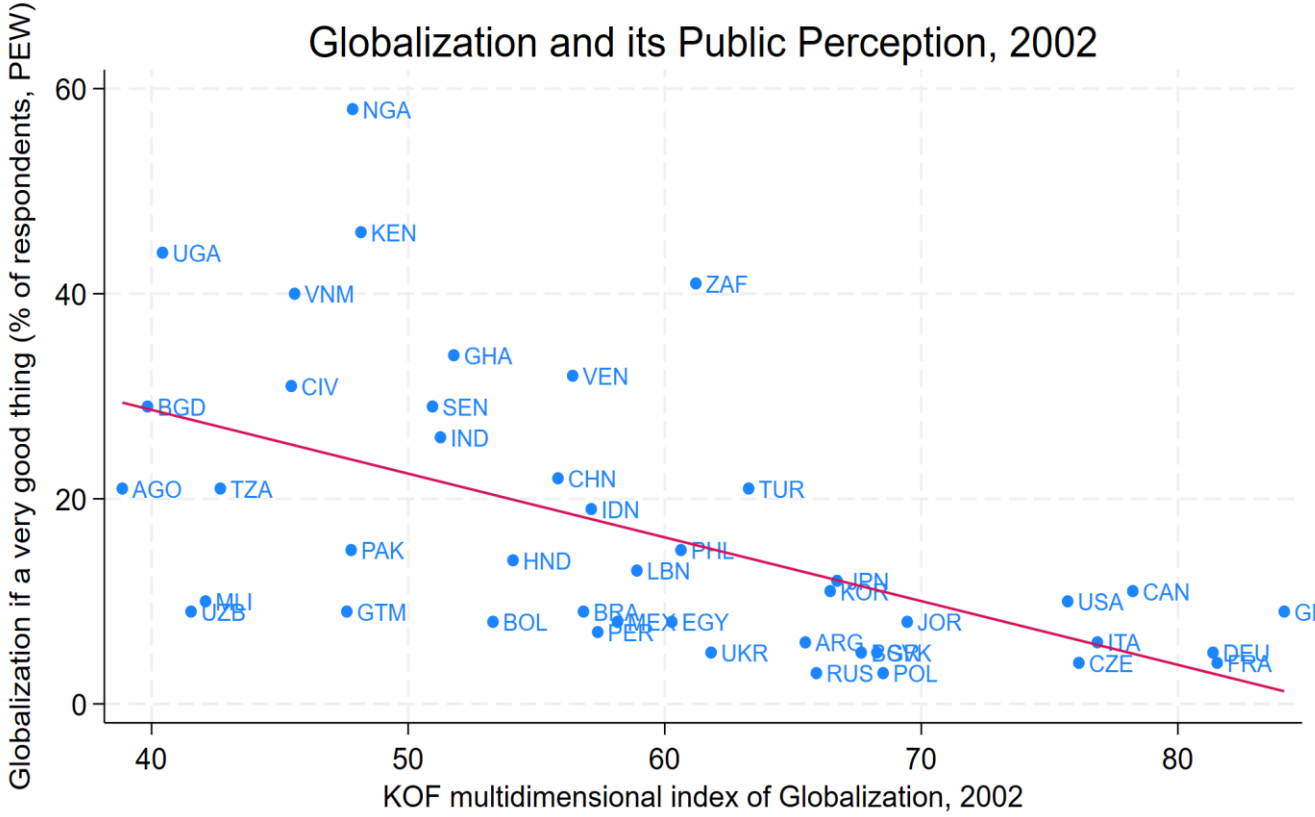
WORLD BANK GROUP

Conclusions Q#3:
AI and public opinion: a tale of two backlashes?

In countries where jobs are more exposed to AI people are less optimistic about AI…



…as people were less optimistic about globalization in 2002 in countries which were more globalized



…a "second chance" for policymakers?

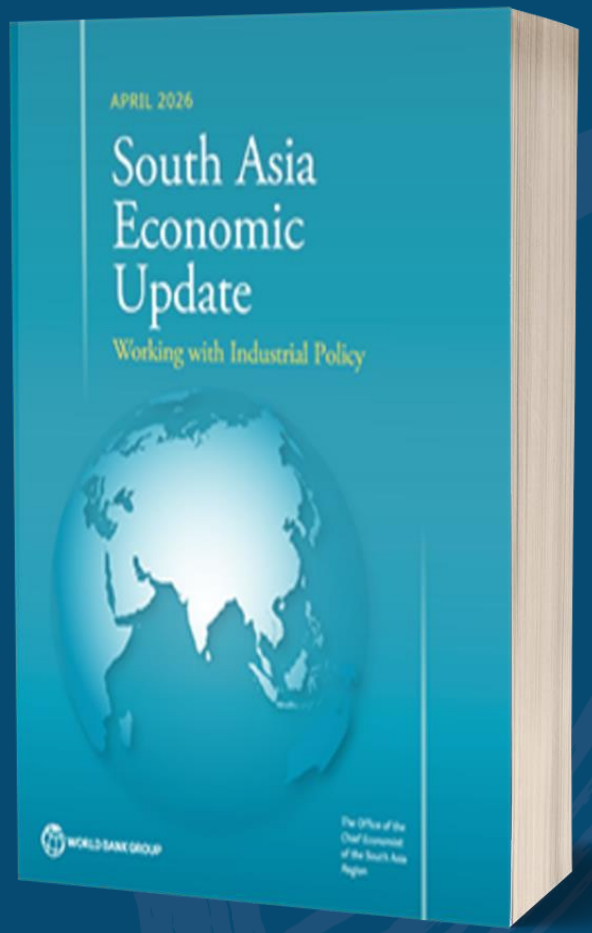
Source: World Bank staff estimates
Note: Public perception on AI from question 9.1.9 of HAI (2026), AI exposure from Gmyrek et al (2026). Public perception on Globalization from PEW Institute (2002) and KOF multidimensional index of Globalization.

ADB

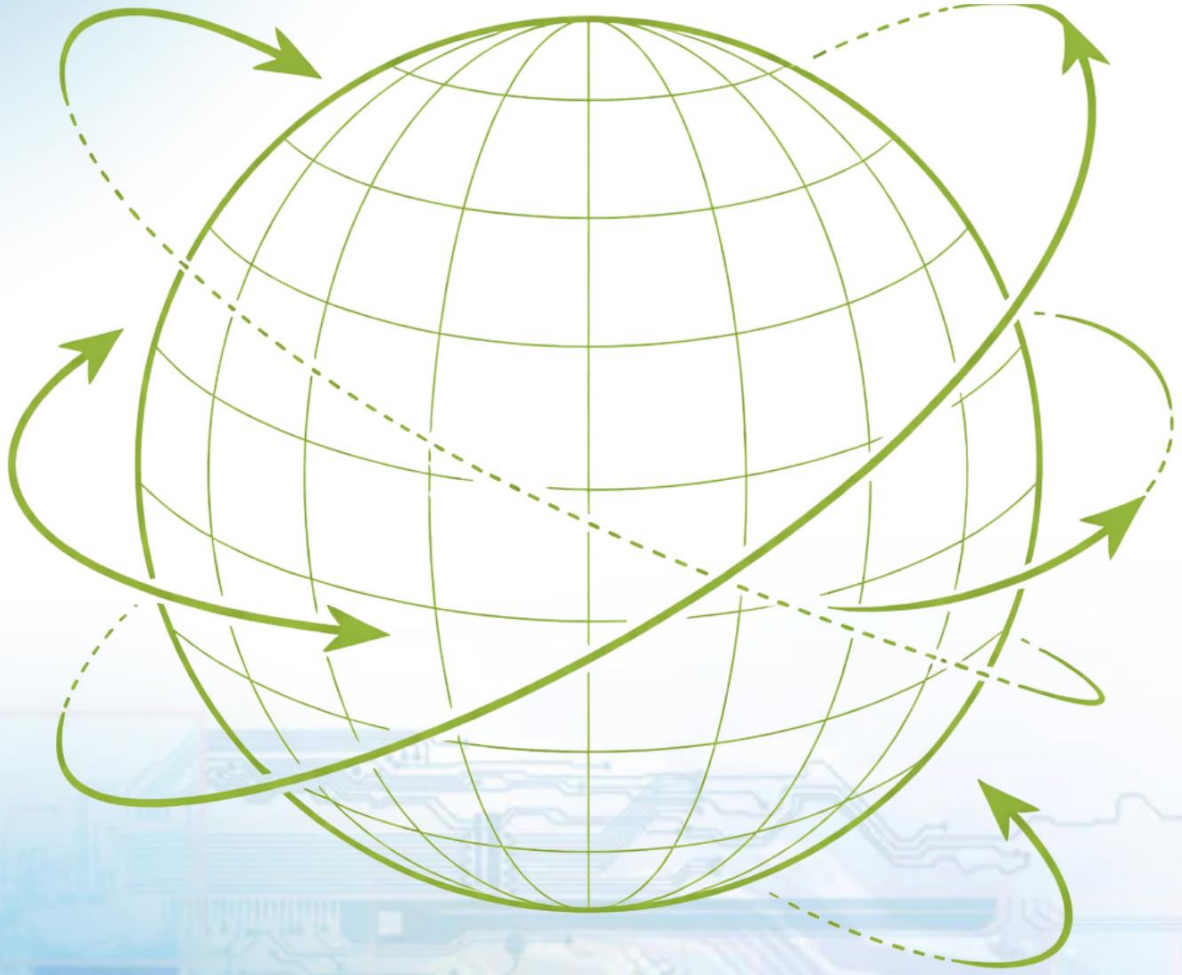
WORLD BANK GROUP

Download the reports

bitly



bitly



THANK YOU!

ADB

WORLD BANK GROUP