APRIL 2026

South Asia Economic Update

Working with Industrial Policy

The Office of the Chief Economist of the South Asia Region

WORLD BANK GROUP

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AI Disclosure Statement: Gemini 2.5 Flash-Lite, Google DeepMind, was used from November 2025 through January 2026 to classify whether firms hiring in South Asia were multinational firms. Prompts queried the model with firm names and requested a structured response indicating whether a firm operates in multiple countries. The resulting classification was used to construct a firm-level indicator of international exposure. A random sampling of the AI-generated classifications was reviewed and verified.

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Acknowledgments

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Foreword

Around the world, the consensus on how to grow is shifting. For decades, the formula was straightforward: governments lay the main track—sound macro policy, basic infrastructure, clear regulations—while the private sector acts as the engine pulling the economy forward.

Today, many governments want to take the wheel. And they are using industrial policy—government-led actions directed at changing the structure of economic activity—more directly to steer investment, build capabilities, and shape the composition of growth. If industrial policy can help create good jobs and accelerate growth, shouldn't South Asia jump on board?

In many ways, the region is already on board. South Asian policymakers have long been comfortable with state intervention: state-owned enterprises dominate entire sectors in some countries, for example, and high trade barriers reduce competition from abroad.

But before again taking the wheel, it is worth recognizing a key fact: South Asia is growing faster than any other region, and much of that acceleration is thanks to reforms that reduce the role of the state—opening markets, simplifying regulations, and building infrastructure. The recent trade deal between India and the European Union is a positive signal that, while others are withdrawing from global trade, South Asia is comfortable charting its own course, facing competition with confidence. Throughout the region, countries are supporting the private sector by reducing trade barriers, setting more predictable rules, investing in public infrastructure, and improving macroeconomic frameworks.

This does not mean that industrial policy has no role. The task is not to take the wheel from the market, but to set clear signals, remove bottlenecks, and, when needed, switch tracks to achieve job-rich outcomes faster.

A smart approach to industrial policy starts with first-choice public inputs—practical, pro-competitive policies that fix specific market failures without heavy distortions. For South Asia, these include industrial parks, skill development programs, market access assistance, and quality-assurance infrastructure.

When governments want to take the wheel more directly, using tools like subsidies, tariffs, or local content rules, they should use them cautiously—with conditional support, transparent selection criteria, and a focus on encouraging competition rather than individual competitors. Otherwise, such tools can lead to exemptions, privileges, and detours that slow growth momentum.

South Asia already has the momentum. The question is whether industrial policy will keep things moving. Fortunately, policymakers don't need to make an all-or-nothing choice between markets and industrial policy. They simply need to move the wheel in the right direction.

Indermit Gill

World Bank Group Chief Economist and Senior Vice President

Johannes Zutt

World Bank Regional Vice President for South Asia

Executive Summary

South Asia's growth again surprised on the upside but is expected to slow to 6.3 percent in 2026 amid headwinds from global energy market dislocations. Over the medium-term, trade reforms in South Asian countries could unlock further growth by reducing trade barriers, especially for emerging export sectors. Across South Asia, accelerating job creation is becoming harder as job prospects erode in AI-exposed activities and long-standing subnational labor market disparities persist. To achieve policy goals, South Asian countries make proactive use of industrial policies, at about twice the rate of other emerging market and developing economies (EMDEs). Since 2022, about half of South Asia's industrial policies have been directed at the manufacturing sector, particularly toward activities with larger employment, higher average wages, or larger or more productive firms. More than other EMDEs, South Asia has deployed trade-related industrial policy measures but their track record in South Asia has been mixed, with import restrictions lowering imports significantly but export support not materially raising exports. Given limited fiscal space and administrative capacity, cross-cutting measures to improve infrastructure, skilling opportunities, and the business environment remain a priority to accelerate and spread growth and jobs more evenly. These can be complemented by targeted industrial policies, prioritizing those that address market failures directly.

Chapter 1. Restoring Growth Momentum amid Energy Market Disruptions. South Asia's economic growth is expected to slow to 6.3 percent in 2026 amid dislocations in global energy markets. South Asia remains the fastest-growing EMDE region thanks to the strength of India's economy. The rest of the region is expected to grow at a pace comparable to other EMDEs. South Asia's growth prospects could be dampened by more persistent global energy market dislocations or a bout of global financial turbulence transmitted to the region and magnified by domestic weaknesses; by adverse spillovers from the adoption of artificial intelligence in major export markets; and by reform delays. Accelerating growth and job creation remains a major challenge for South Asian policymakers. Carefully designed industrial policy can turn cities into powerful growth accelerators or promote tourism to spread growth more broadly, especially if these policies are combined with broad-based reforms to promote firms' growth.

Box 1.1. Where Households Gain: Trade Reforms in South Asia. India's free trade agreements with the European Union and the United Kingdom, as well as Sri Lanka's planned phase-out of para-tariffs, are expected to remove trade barriers, especially for emerging export sectors. The reforms are anticipated to result in broad-based consumption and real income gains for households across the entire income distribution. The largest benefits are expected for consumers of manufactured goods, especially among rural households.

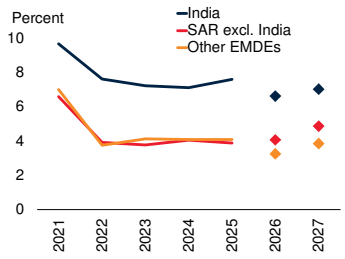
In addition to this assessment of the economic outlook, this edition examines the role of industrial policies in South Asia's policy making, including for two potential use cases: to adapt to labor market disruptions caused by the adoption of artificial intelligence and to narrow regional labor market differentials.

Chapter 2. Where Policy Lands: Industrial Policy and Jobs in South Asia. On average during 2022–25, South Asian countries implemented twice as many industrial policies as the average EMDE. About half of these policies have been aimed at manufacturing. Among the policies targeted at manufacturing, Sri Lanka's focused on high-employment activities, Bangladesh's on large firms, and India's on high-wage activities and on large, more productive firms. While the activities with the most industrial policy measures have been the largest source of manufacturing employment growth, they have not been the main source of non-agricultural employment growth. The main source of non-agricultural employment growth has been the service sector, which has received few industrial policies. Compared with other EMDEs, South Asia has relied less on subsidies and more on procurement measures (India) and trade-related measures (elsewhere in South Asia). The latter have had asymmetric impacts in South Asia: import-restricting policies were followed by

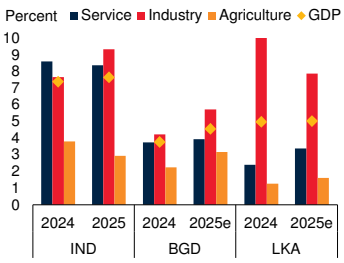
FIGURE O Working with Industrial Policy

South Asia is expected to remain the fastest-growing EMDE region, in part thanks to new trade reforms. The region has proactively used industrial policies, especially for manufacturing, with mixed success. Industrial policies could help narrow regional wage premiums.

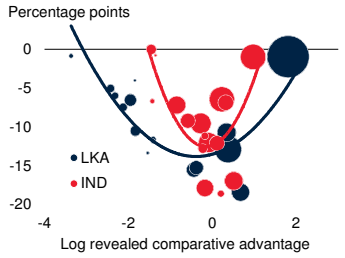
A. Real GDP growth



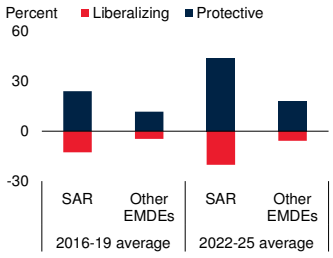
B. Sectoral growth rates in South Asia's three largest economies



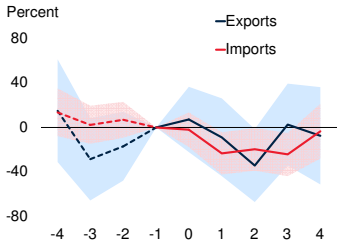
C. India's and Sri Lanka's tariff cuts and revealed comparative advantage



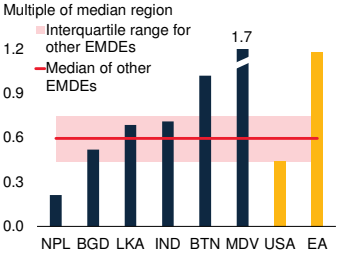
D. Average annual number of new industrial policy measures per country



E. South Asia: Cumulative change in imports and exports after start of trade defense or export incentive



F. Within-country regional wage differentials



Sources: ADB Multiregional Input-Output Tables; Central Bank of Sri Lanka; CEPII BACI; Eurostat; GLD (database); GTA database; Haver Analytics; IPUMS USA: Version 16.0 (dataset); Maldives Household Income and Expenditure Survey 2019; MPO; Sri Lanka Customs National Import Tariff Guide 2025; WTO Analytical Database; World Bank.

A. GDP aggregates calculated using real U.S. dollar GDP weights and market exchange rates. Dots indicate forecasts. For India, fiscal years are used, such that 2025 represents FY2025/26.

B. For Sri Lanka and Bangladesh, the figure reflects the average growth for the first three quarters.

C. "Revealed comparative advantage," as in Balassa (1965), is defined as India's or Sri Lanka's export share relative to global average export shares across 16 goods-producing sectors. Positive log values indicate comparative advantages. Vertical axis reports the change in import-weighted average ad valorem duties applied. Bubble areas reflect sectoral export shares in 2024. Trend lines indicate the (unweighted) quadratic polynomial fit on the underlying data.

D. Bars show annual and country average number of new protective (blue) and liberalizing (red, negative) industrial policies implemented in South Asia and other EMDEs.

E. Impulse response function from a local projection estimation of cumulative changes in log imports or exports on a dummy variable for implementation of new trade defense policies (imports, red) or export incentives (exports, blue). $t = 0$ is first period after policy implementation. Estimation controls for the presence of other active industrial policies in the same country and two-digit ISIC sector. Country-sector, country-year, and sector-year fixed effects are included. Standard errors are clustered at country-sector level. The sample includes protective policies implemented during 2004–23 that were active for more than five years. Shaded regions indicate 90 percent confidence intervals. Trade defense instruments include anti-dumping, anti-subsidy, and other safeguards. Export incentives include export subsidies, export tax incentives, and other export incentives.

F. Red shade represents interquartile range, and red line shows median value for 22 EMDEs, including six EMDEs in South Asia. Bar for euro area shows the cross-country range of country-level average wages in 2024 in 12 euro area countries whose populations aged 15+ years account for more than 1 percent of the euro area population aged 15+ years. Bar for United States shows the cross-state region of state-level average wages in 2024 in 29 U.S. states whose populations aged 15+ years account for more than 1 percent of the U.S. population aged 15+ years.

statistically significant declines in imports, but export-supporting measures did not produce significant gains in exports. Constrained by limited fiscal space and regulatory capacity, South Asia can focus on broad-based development policies such as infrastructure investment, business environment reforms, and stronger institutions. Where more targeted measures are needed, industrial policy can prioritize those that address clear market failures, such as industrial parks, skill development programs, market access assistance, and quality assurance infrastructure.

Box 2.1. Where Firms Hire: AI and the Reshaping of Global Value Chains. Artificial intelligence (AI) is already reshaping firms and jobs in South Asia. AI adoption has proceeded rapidly since the release of ChatGPT in November 2022, particularly among affiliates of multinational companies. At the same time, higher AI exposure has been associated with slower hiring: an interquartile-range increase in AI exposure has been associated with a 1.5 percent decline in job postings on average, and with declines of about twice that size for multinational affiliates. Some of these declines appear to be related to spillovers from AI adoption by foreign firms: South Asian firms supplying goods and services to more AI-exposed foreign firms have experienced slower hiring. Value chain upgrading, underpinned by faster AI adoption and skills development, will be critical for firms to remain competitive in the age of AI.

Box 2.2. Where Jobs Pay: Labor Market Differentials in South Asia. South Asia has some of the largest and some of the smallest within-country wage differentials by the standards of EMDEs. In South Asia's larger countries, worker characteristics account for about one-fifth of these subnational wage differentials. South Asia's remaining wage premiums, after controlling for worker characteristics, are higher in regions with better transport connectivity, more skilled workforces, larger firms, and more services sector activity. Wage premiums appear to be persistent and self-reinforcing. While such regional wage persistence may warrant place-based or industrial policies, South Asia's experience with these policies has been mixed.

Abbreviations

ADB	Asian Development Bank
AE	advanced economy
AI	artificial intelligence
ASEAN	Association of Southeast Asian Nations
avg	average
BACI	Base pour l'Analyse du Commerce International
bbl	barrel
BGD	Bangladesh
BIS	Bank for International Settlements
BLS	Bureau of Labor Statistics
BPO	business processing outsourcing
BRA	Brazil
BSE SENSEX	Bombay Stock Exchange Sensitive Index
BTN	Bhutan
BaTIS	balanced trade in services
CAN	Canada
CAPE	cyclically adjusted price-to-earnings
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
CESS	commodity export subsidy scheme
CETA	comprehensive economic and trade agreement
Chem. & pharma	chemical and pharmaceutical industries
CHN	China
CPIA	Country Policy and Institutional Assessment
DAX 40	German stock index
DEU	Germany
EA	euro area
EAP	East Asia and the Pacific
ECA	Europe and Central Asia
EMDE	emerging market and developing economy
ESP	Spain
EU	European Union
excl	excluding
FDI	foreign direct investment
FRA	France
FTA	free trade agreement
FTSE 100	Financial Times Stock Exchange 100 Index
FY	fiscal year
GBR	United Kingdom
GCC	Gulf Cooperation Council
GDP	gross domestic product
GFS	Government Financial Statistics
GLD	Global Labor Database
GQII	Global Quality Infrastructure Index
GST	goods and services tax
GTA	Global Trade Alert

Abbreviations (continued)

GTED	Global Tax Expenditures Database
GVC	Global Value Chain
HS	Harmonized System code
ICE	Intercontinental Exchange Endex
IDN	Indonesia
IEEFA	Institute for Energy Economics and Financial Analysis
IFRPI	International Food Policy Research Institute
IMF	International Monetary Fund
IND	India
IPUMS	Integrated Public Use Microdata Series
ISIC	International Standard Industrial Classification of All Economic Activities
ITA	Italy
JPN	Japan
KNOMAD	Global Knowledge Partnership on Migration and Development
KPO	knowledge process outsourcing
LAC	Latin America and the Caribbean
LHS	left hand side
LKA	Sri Lanka
LNG	liquefied natural gas
MDV	Maldives
MEX	Mexico
MNA	Middle East and North Africa
MNC	multinational corporation
MONA	Monitoring of Fund Arrangements
MPO	Macro Poverty Outlook
MVR	Maldivian rufiyaa
Mfg	manufacturing
NBFI	non-bank financial institution
nes	not elsewhere specified
NITI Aayog	National Institution for Transforming India
NPL	Nepal
NPLs	nonperforming loans
OECD	Organisation for Economic Co-operation and Development
PAL	Ports and Airport Development Levy
PLI	production linked incentive
PMI	Purchasing Managers' Index
pop	population
PPP	purchasing power parity
RCA	revealed comparative advantages
RHS	right hand side
RMG	ready-made garments
ROW	rest of the world
S&P	Standard & Poor's
SAR	South Asia Region

Abbreviations (continued)

SDR	Special Drawing Rights
srv	professional service
SSA	Sub-Saharan Africa
SSE	Shanghai Stock Exchange
T&T	travel and tourism
TFP	total factor productivity
TTDI	Travel & Tourism Development Index
TTF	Title Transfer Facility
TUR	Türkiye
U.S. EIA	U.S. Energy Information Administration
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
USD	United States dollar
USDA	United States Department of Agriculture
VNM	Viet Nam
WBES	World Bank Enterprise Surveys
WDI	World Development Indicators
WEO	World Economic Forum
WGI	Worldwide Governance Indicators
WTO	World Trade Organization
ZAF	South Africa

CHAPTER 1

Restoring Growth Momentum Amid Energy Market Disruptions

Chapter 1. Restoring Growth Momentum Amid Energy Market Disruptions

South Asia's economic growth is expected to slow to 6.3 percent in 2026 amid dislocations in global energy markets. South Asia remains the fastest-growing EMDE region thanks to the strength of India's economy. The rest of the region is expected to grow at a pace comparable to other EMDEs. South Asia's growth prospects could be dampened by more persistent global energy market dislocations or a bout of global financial turbulence transmitted to the region and magnified by domestic weaknesses; by adverse spillovers from the adoption of artificial intelligence in major export markets; and by reform delays. Accelerating growth and job creation remains a major challenge for South Asian policymakers. Carefully designed industrial policy can turn cities into powerful growth accelerators or promote tourism to spread growth more broadly, especially if these policies are combined with broad-based reforms to promote firms' growth.

Summary

South Asia grew an estimated 7 percent in 2025. Absent recent pressures resulting from conflict in the Middle East, growth would have been expected to remain robust at about this pace in 2026 and 2027. Instead, growth is expected to slow to 6.3 percent in 2026 before regaining momentum in 2027 (figure 1.1). Recent free trade agreements and tariff cuts have improved the region's export prospects, headlined by the free trade agreement between India and the European Union. South Asia's status as the fastest-growing EMDE region is due to India. The rest of the region is expected to grow at a pace comparable to other EMDEs.

Around the world, headline inflation had been easing amid gradually softening demand, but this progress is being threatened by recent increases in energy prices. In South Asia, inflation is generally within central bank targets. Financial conditions remain accommodative even as central banks adjust to the possibility of higher inflation.

South Asia's growth prospects could be dampened in a variety of ways. A sustained period of high energy prices could drive up inflation and borrowing costs, weighing on growth, fiscal positions, and current account balances. A spate of global financial turbulence could be transmitted to the region and magnified by domestic vulnerabilities, such as high levels of non-performing loans or high interest payment obligations in some countries. Climate-related risks were recently illustrated by the damage Cyclone Ditwah inflicted on Sri Lanka. South Asia's successes in services exports could become a weakness if key sectors are negatively affected by the spread of AI or new trade restrictions. Progress on key structural reforms could yield growth dividends, just as failure to implement needed changes could lead to growth disappointments.

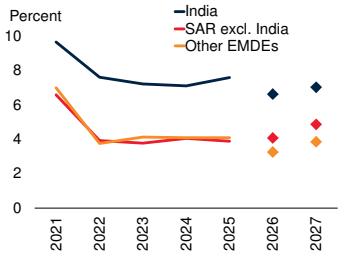
Accelerating growth and job creation remains a major challenge for policymakers. Cities can be a powerful tool for accomplishing this goal. Reforms to empower local governments can improve South Asian cities' ability to drive productivity growth and create large numbers of jobs. Concentrating growth in small areas while other regions lag can, however, be a recipe for social tensions. Efforts to promote tourism can spread growth more broadly, including into rural areas where poverty is often concentrated.

Note: This chapter was prepared by Patrick Kirby.

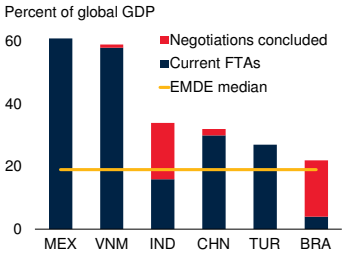
FIGURE 1.1 Summary

Absent recent pressures in global energy markets, growth in South Asia would have been expected to remain robust at about its 2025 pace in 2026 rather than slowing sharply. South Asia's status as the fastest-growing EMDE region is due to India, whose export prospects have been improved by recent trade agreements. Elsewhere in the region growth is comparable to the EMDE average. Growth is at risk from persistently high energy prices, financial turmoil, a slowdown in services exports, or setbacks in structural reforms. Growth could be improved by strengthening cities, channeling the potential of tourism, and measured use of industrial policy.

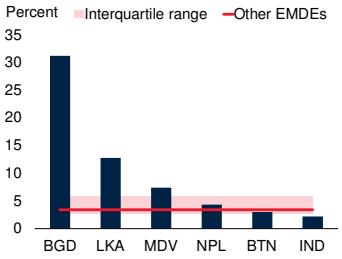
A. GDP growth



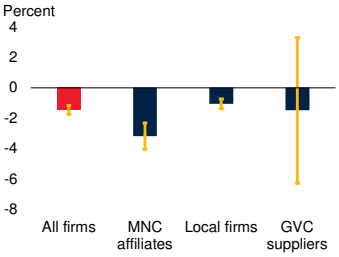
B. Share of global output covered by trade agreements



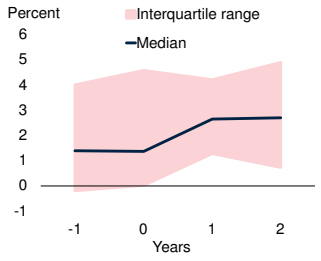
C. Share of nonperforming loans in South Asia



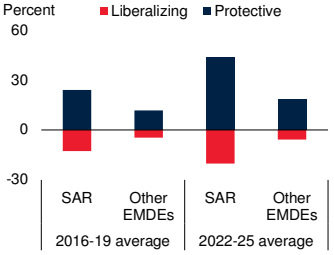
D. Impact of GenAI on hiring



E. Per capita real GDP growth after significant increases in share of tourism activity



F. Number of new industrial policy measures per year



Sources: Deep Trade Agreements Database; FactSet; Felten, Raj, and Seamans (2023); GTA; Haver Analytics; Lightcast; MPO; Pizzinelli et al. (2023); WDI; World Bank.

A. "Other EMDEs" represents 141 EMDEs. GDP aggregates calculated using real U.S. dollar GDP weights and market exchange rates. Dots indicate forecasts. For India, fiscal years are used, such that 2025 represents FY2025/26.

B. Shares of FTAs in global GDP are based on US$ in current prices. "Negotiations concluded" (but not yet in force) for India include agreements with the European Union and the United Kingdom.

C. Data are 2025Q1 for Sri Lanka; 2025Q3 for India and the Maldives; and 2025Q2 for other SAR countries. "Other EMDEs" shows the simple median and interquartile range for 87 EMDEs.

D. MNC affiliates are multinationals headquartered outside South Asia; local firms are South Asia-headquartered with no foreign buyers; GVC suppliers have international buyers pre-ChatGPT. Bars show coefficients and whiskers show 95 percent confidence intervals from a firm-level regression of outcomes on average AI exposure of pre-ChatGPT job postings interacted with a post-ChatGPT indicator. Refer to chapter 2 for more details.

E. $T = 0$ denotes the year in which the tourism share rose by more than 1.67 percentage points in a single year, which is the 90th percentile of increases in tourism share in the sample. Pink area shows the interquartile range. Sample includes 159 EMDEs from 1995 to 2020.

F. Bars show annual and country-average number of new industrial policies implemented in South Asia and other EMDEs. Blue bars show number of protective measures. Red bars show number of liberalizing measures, shown as negative values.

Well-planned and implemented industrial policy can help accelerate and spread growth. South Asia doubled the number of annual new industrial policy measures between 2016–19 and 2022–25. Given limited fiscal space and regulatory capacity, South Asia can focus on broad-based development policies complemented by first-choice industrial policy measures that address market failures. A cross-cutting priority is improving infrastructure in the region.

Global developments and outlook

Conflict in the Middle East is threatening activity around the Strait of Hormuz, which is a critical chokepoint for energy shipping. Roughly 20 percent of global petroleum production and a similar share of liquefied natural gas (LNG) transit through the Strait. This has been interrupted as ships have been attacked, insurance coverage has been withdrawn, and regional production facilities have been damaged. Energy prices have surged. This will increasingly affect inflation and growth if it continues.

The global economy is also in the midst of major shifts in the global trading system. The United States increased its effective tariff rate from 2.4 to 16 percent in 2025 through an array of country-specific increases, before changing to an across-the-board 10 percent increase in February 2026 after a Supreme Court ruling (Budget Lab at Yale 2026). Uncertainty about U.S. tariffs remains elevated: the administration has stated its intention to increase global tariffs to 15 percent in the future using alternative legal authorities. Tariff volatility and policy uncertainty have weighed on some sectors, but this has been offset by surging investment in technologies such as artificial intelligence.

The effect of higher energy prices and tariffs is not yet apparent in global inflation. As of February, global inflation was slowly trending down closer to central bank targets, driven by gradually softening demand and the low energy prices prevalent at the beginning of 2026 (figure 1.2). There were many exceptions to the overall trend. Inflation in the United States remains closer to 3 percent than the country's 2 percent target, with goods prices pushed up by tariffs. Prices in China have been largely flat, restrained by the continuous decline in house prices.

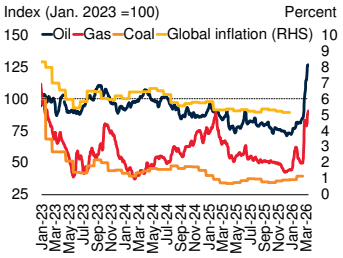
As of early March, consensus forecasts for growth in major economies had been mostly trending up. Global surveys also suggested steady momentum for both manufacturing and services prior to the recent disruptions in global energy markets.

Headline global merchandise trade growth was resilient to tariffs and uncertainty in 2025, helped by strong demand for products related to artificial intelligence and front-loading of shipments prior to tariffs coming into effect (WTO 2025). On an annual basis, the slowdown in merchandise trade has been gradual. Global trade in goods and services grew by an estimated 3.4 percent in 2025—only slightly below its pre-pandemic average of 4.6 percent—and is expected to slow to an average of 2.5 percent in 2026 and 2027 (World Bank 2025a, 2026). Beneath this surface stability, there are more substantial underlying shifts. U.S. imports fell across most categories in 2025 due to increased tariffs. Trade in high-tech capital goods associated with AI-related investment surged, however, bolstering U.S. imports and East Asian exports. China's exports also surged while those from the euro area lagged. Trade in services has been largely unaffected by recent volatility and has continued to grow as a share of global trade—it grew 9 percent in 2025 and now accounts for 27 percent of global trade (UNCTAD 2026).

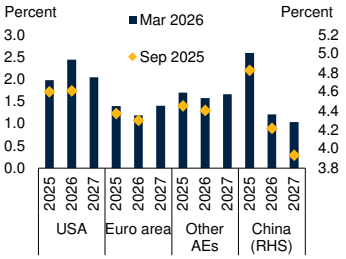
FIGURE 1.2 Global economic activity

Global disinflation continued in 2025, but is being threatened by rising energy prices. Consensus forecasts and surveys pointed to stable growth in major economies prior to recent energy market disruptions. Global trade has been resilient to major shifts in the global trading system, with more substantial shifts at the country level. The expectation that major central banks will lower policy rates has faded as energy prices have increased.

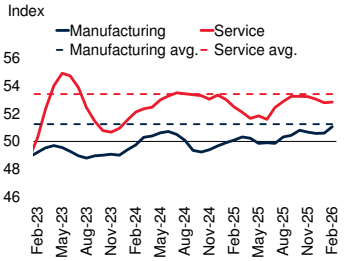
A. Global inflation and energy prices



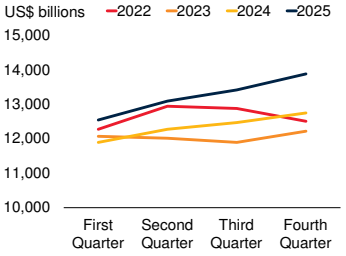
B. Consensus growth forecasts for major economies



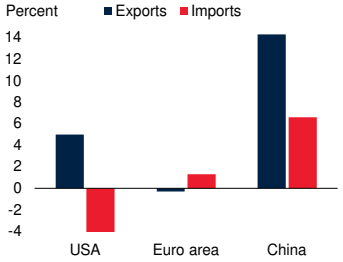
C. Global PMIs



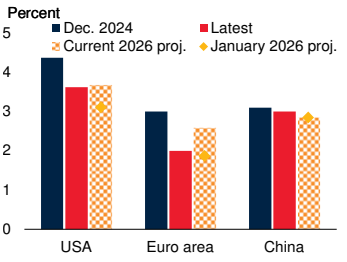
D. Global merchandise trade by year



E. Latest trade growth in major economies



F. Global monetary policy rates



Sources: Consensus Economics; Haver Analytics; MacroMicro; MPO; Trading Economics; WDI; World Bank; World Trade Organization.

A. Global inflation is global composite CPI from Haver Analytics. Coal prices are based on the IMF's monthly coal price index (January 2023 = 100). Oil (Brent crude) and gas (ICE Dutch TTF) prices are daily series, smoothed using a 7-day moving average and indexed to their January 2023 average (=100).

B. "Other AEs" includes 15 economies. China forecasts from MPO.

C. Dotted lines show averages since January 2000.

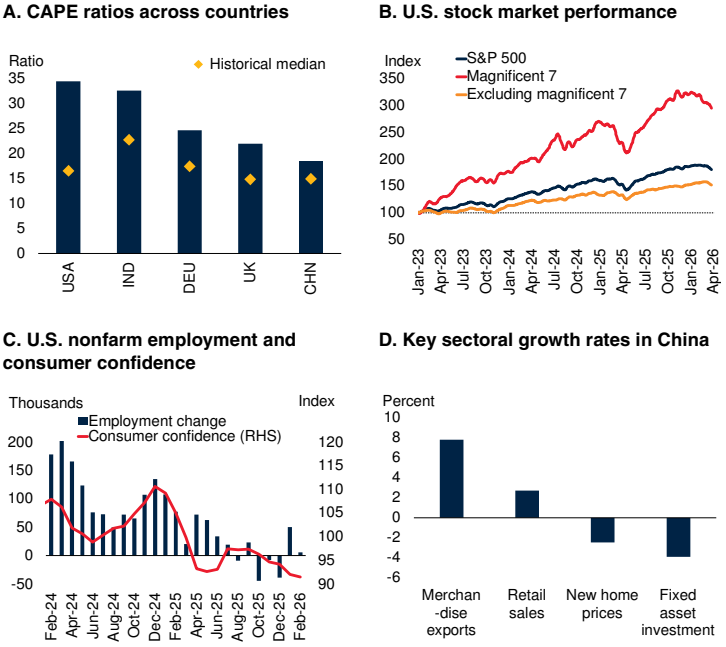
D. Trade includes imports and exports in current U.S. dollars.

E. Bars show 6-month average of year-over-year growth in real trade flows. For the euro area and the United States, the period covered is August 2025 to January 2026; for China, period covered is September 2025 to February 2026.

F. Latest values are for March 2026. All projections are for 2026Q4: United States and euro area are based on MacroMicro futures-implied estimates, and China on Trading Economics.

FIGURE 1.3 Financial markets, inflation, and monetary policy

Financial conditions have tightened. Equity prices have declined as energy prices have increased, but valuations remain high. U.S. consumption growth has mostly held steady despite growing weakness in the labor market and consumer confidence. In China, growth has become increasingly dependent on exports.



Sources: BLS; Conference Board; Haver Analytics; Monevator; Siblis Research; Stock Analysis; World Bank.

Note: CAPE = Cyclically Adjusted Price-to-Earnings.

A. Bars show CAPE ratios as of February 2025 from Siblis Research for the U.S. (S&P 500), IND (Nifty 50), UK (FTSE 100 Index), DEU (DAX 40), and CHN (SSE Composite). Diamonds show historical medians from Monevator.

B. "Magnificent 7" shows market cap-weighted total returns of Alphabet, Amazon, Apple, Meta, Microsoft, NVIDIA, and Tesla. "Excluding Magnificent 7" shows market cap-weighted total returns of the rest of the S&P 500. Figure shows 14-day moving average of index with January 2023 = 100.

C. All values are three-month moving averages. "Employment change" shows monthly change in seasonally adjusted U.S. nonfarm payroll employment. "Consumer confidence" is the Conference Board Consumer Confidence Index (1985 = 100).

D. Bars show latest year-over-year growth rates for key indicators in China.

Financial conditions have tightened. The expectation that major central banks would continue to lower policy rates has faded as energy prices have increased. Equity valuations have declined but remain high and interest rate spreads remain narrow, however (figure 1.3). The importance of AI investment is evident in equity markets, as technology companies account for a large share of stock market capitalization, particularly in the United States.

United States. Growth in the United States slowed from 2.8 percent in 2024 to 2.1 percent in 2025. Consumer spending has mostly held steady in the face of low consumer confidence, rising costs, and slowing employment growth, supported by a falling savings rate. Investment has been supported by a boom in AI-related activity, such as construction of data centers and purchases of equipment and software. According to consensus forecasts, output growth is expected to remain around 2 percent in 2026 and 2027 as high energy prices, tariff volatility, slowing labor supply, and policy uncertainty weigh on growth.

Euro area. Growth in the euro area averaged 0.7 percent in 2023 and 2024, constrained by high energy prices resulting from Russia's invasion of Ukraine. It recovered to 1.4 percent in 2025 and is expected to continue around this pace in 2026 and 2027. The labor market has been strong—unemployment is at a record low and real wage growth is high—and will continue to support domestic demand. Export growth was healthy in 2025 despite higher U.S. tariffs and declining exports to China.

China. In China, growth has hovered around 5 percent in recent years. Growth remains highly dependent on exports whereas domestic activity has weakened considerably. Fixed asset investment fell sharply over the course of 2025, while retail sales grew only slightly. New house prices came close to stabilizing in early 2025 but have since resumed declining. Since early 2023, new house prices have declined by 8 percent. Growth is expected to slow below 5 percent in coming years as strong export growth wanes and domestic demand weakness persists.

Growth in **other EMDEs** has been generally robust, as many countries benefited from easing global financial conditions and the rapid rise in metals prices. Growth is expected

to slow in 2026 and 2027 as rising energy prices weigh on activity, except in energy-exporting countries unaffected by supply disruptions in the Middle East.

Developments in South Asia

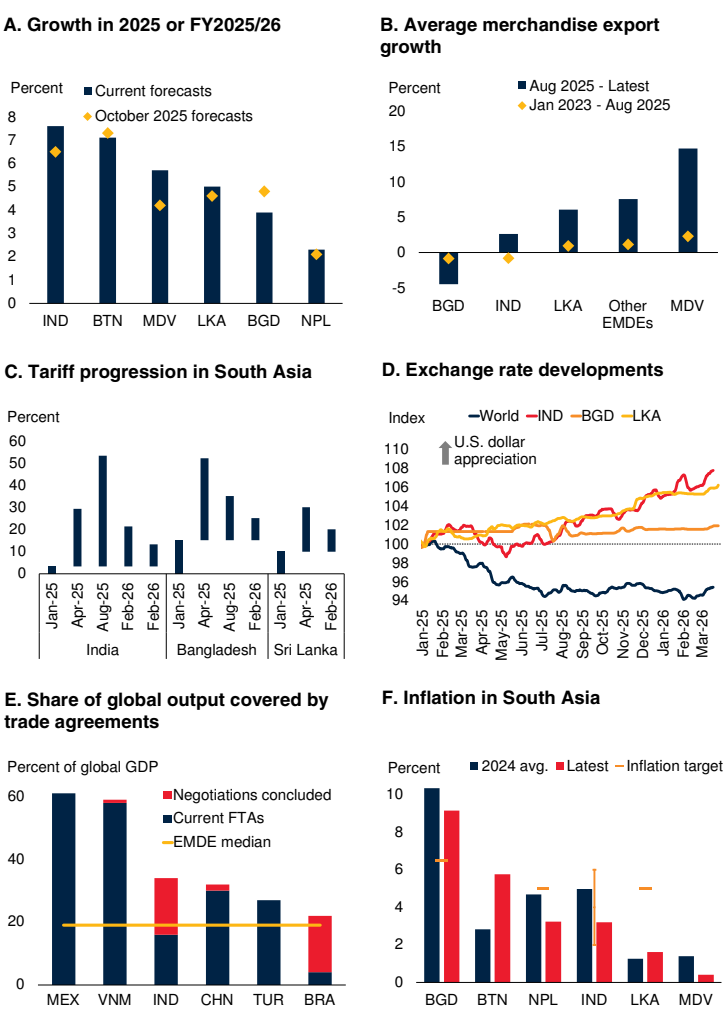
The South Asian economy accelerated to 7 percent in 2025, making it again the fastest-growing EMDE region. The pace of growth was higher than originally forecast, largely fueled by stronger-than-expected domestic demand in India, with a contribution from a stronger-than-expected recovery in Sri Lanka (figure 1.4).

Trade in the region continued to grow even as it was impeded by high and changing tariffs. The region's exports have been supported by the depreciation of many South Asian currencies relative to the U.S. dollar. External positions have strengthened in most economies in the region. Prior to the conflict in the Middle East, solid inflows of remittances and international tourists had contributed to improved current account balances and increased foreign exchange reserves.

Longer-term trade growth will be supported by free trade agreements (box 1.1). India signed comprehensive FTAs with the United Kingdom in July 2025 and the European Union in January 2026. Under these agreements, more than 95 percent of exports on both sides will eventually benefit from reduced tariffs. Prior to these agreements, India had FTAs with a lower share of the global economy than the average EMDE; now it is above average. Furthermore, U.S. tariffs on India were negotiated down from 50 to 18 percent before being replaced by a 10 percent tariff imposed on all countries in February. Sri Lanka is planning to lower para-tariffs,

FIGURE 1.4 Regional economic activity

Growth in 2025 was stronger than expected in India and Sri Lanka. Growth was fueled by domestic demand, while trade was impeded by changing U.S. tariffs but supported by currency depreciation and increasing trade openness. Headline inflation remains far from central bank targets in most South Asian economies, largely due to idiosyncratic factors.



Sources: Atlantic Council; Deep Trade Agreements Database; Haver Analytics; MPO; UNCTAD; White House; World Bank.

A. Bangladesh, Bhutan, India, and Nepal use FY2025/26 data. Maldives and Sri Lanka use 2025 data.

B. Bars show average monthly year-over-year growth rates. "Other EMDEs" shows cumulative export growth in U.S. dollars for 49 economies.

"Jan-25" value refers to the trade-weighted tariffs computed by UNCTAD at the 8-digit HS product code level before January 2025. Floating bars refer to announced headline tariff changes during key events rather than trade-weighted or effectively applied tariffs. "Apr-2025" refers to individual rates announced by the United States on April 2nd; "Feb-2026" refers to country-specific tariffs being replaced by a universal 10 percentage point increase across all countries following a Supreme Court decision that impacted prior trade decisions. Other dates include tariffs negotiated bilaterally by individual countries. Bhutan, Maldives, and Nepal did not face individual rates.

D. Figure shows 7-day moving averages of local currency unit / U.S. dollar, such that an upward movement indicates relative U.S. dollar appreciation, indexed to January 2025 = 100. "World" line shows the IMF's Special Drawing Rights (SDR) against the U.S. dollar.

E. Shares of FTAs in global GDP are based on U.S. dollars in current prices and include the economies along the horizontal axis. "Negotiations concluded" (but not yet in force) for India are with the European Union and the United Kingdom.

F. For Maldives, latest inflation data is for December 2025; for Bhutan, January 2026; for the rest, February 2026. Inflation target (range) for each country is for 2025.

BOX 1.1 Where Households Gain: Trade Reforms in South Asia

India's free trade agreements with the European Union and the United Kingdom, as well as Sri Lanka's planned phase-out of para-tariffs are expected to remove trade barriers, especially for emerging export sectors. The reforms are anticipated to result in broad-based consumption and real income gains for households across the entire income distribution. The largest benefits are expected for consumers of manufactured goods, especially among rural households.

Introduction

Thus far, South Asia has been the least open emerging market and developing economy (EMDE) region to global trade, especially global goods trade (figure B1.1.1). In 2024, exports of goods represented only around 12 percent of GDP in South Asia—about half the share in other EMDEs. In part, this reflects the region's exceptionally high tariffs and non-tariff barriers, with domestic manufacturing firms facing average tariffs on intermediate inputs that are more than double those in other EMDEs (World Bank 2025b).

Major reforms are now underway to open South Asian economies to global trade. In January 2026, *India* and the European Union announced a new free trade agreement (FTA), which both sides have dubbed "the mother of all deals". Six months earlier, the India-UK Comprehensive Economic and Trade Agreement (CETA) was signed. Both deals comprise tariff cuts on more than 95 percent of traded goods, as well as trade facilitation measures for both goods and services (Acharya, Kumar, and Blenkinsop 2026; Hinz et al. 2026). By anchoring domestic reforms in FTAs with major advanced-economy partners, India increases the market size and investment incentives for exporting firms amid a reshaping of global supply chains (Subramanian 2026; World Bank 2024a).

Sri Lanka, too, is planning to gradually eliminate a significant portion of its para-tariffs—the country's sizable border charges and taxes on imported goods that are levied in addition to statutory tariffs—particularly the Ports and Airport Development Levy (PAL) and the Commodity Export Subsidy Scheme (CESS) (EconomyNext 2026).

Questions. This box examines the distributional impacts of these trade reforms, both at the sectoral level and at the household level. Specifically, it addresses the following questions.

- How much would trade reforms in India and Sri Lanka lower average import duties?
- What are the consumption and real income effects of both trade reforms on different households across the income distribution?
- How do the trade reforms relate to India's and Sri Lanka's current trade specializations?

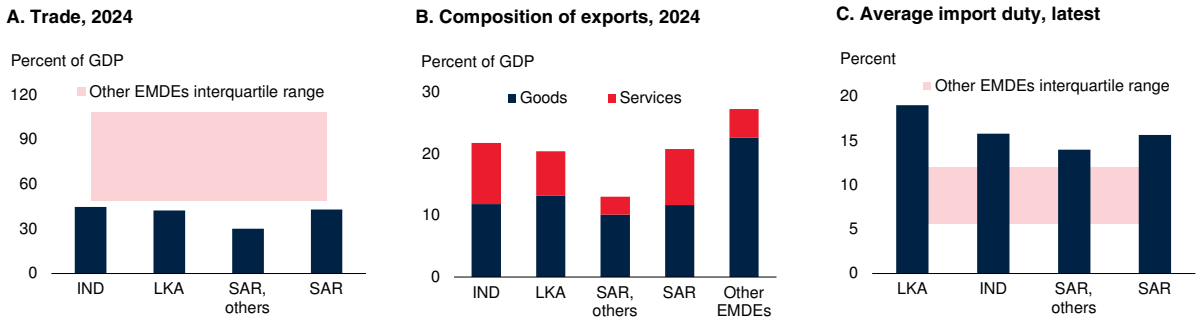
Contribution. This box adds to the existing literature in three ways. *First,* it provides detailed recent evidence on the magnitude of Sri Lanka's planned para-tariff phase-out, as well as India's tariff-cut commitments toward the European Union and the United Kingdom. *Second,* this box explores the consumption and real income effects of the proposed trade reforms for different households across the income distribution. Previous impact assessments are based on general equilibrium models, which largely abstract from distributional implications (for example, Hinz et al. 2026; U.K. Department for Business and Trade 2025). *Third*, for the case of India, this box extends the framework of Artuc, Porto, and Rijkers (2021) to study the effects of specific FTAs.

Note: This box was prepared by Hagen Kruse and Bob Rijkers.

BOX 1.1 Where Households Gain: Trade Reforms in South Asia *(continued)*

FIGURE B1.1.1 South Asia: High tariffs, little trade

South Asian economies are among the least open to international trade. In part, this reflects higher tariffs than in other EMDEs.



Sources: ADB Multiregional Input-Output Tables (database); Sri Lanka Customs National Imports Tariff Guide 2025; World Development Indicators (database); WTO Analytical Database; WTO-OECD Balanced Trade in Services Dataset; World Bank.

Note: "SAR, others" is the GDP-weighted average across Bangladesh, Bhutan, Maldives, and Nepal.

A. Trade is defined as the sum of goods and services exports and imports. Pink-shaded area represents the interquartile range across 119 other EMDEs.

B. "Other EMDEs" is the GDP-weighted average across 151 other EMDEs.

C. Figure reports the latest simple average of the ad valorem most-favored-nation duties applied. For Sri Lanka, data include para-tariffs. Pink-shaded area represents the interquartile range across 118 other EMDEs.

Methodology. The consumption and real income effects of the proposed tariff reforms on different households are estimated following Artuc, Porto, and Rijkers (2021). Within this framework, households experience real income gains if tariff reductions are concentrated in sectors where they are net-consumers, such that expenditure shares exceed income shares. The main channel is through real consumption gains as a result of lower prices, which far outweigh income losses due to lower prices. The data for this exercise are from IFPRI's 2023 Social Accounting Matrices for household expenditure and income shares, by household per capita consumption expenditure quintile, and from Indian, Sri Lankan, EU, and UK customs schedules and press releases for 6-digit HS product-level tariffs. Countries' trade specializations are proxied using *revealed comparative advantages* as introduced in Balassa (1965). This measure represents the ratio of a country's sectoral export shares relative to the global average, with log values above zero indicating a country's revealed comparative advantages. The underlying export data are from the ADB Multiregional Input-Output Tables for 2024 (annex B1.1).

Caveats. This box derives estimates for the first-order, short-run consumption and real income effects of import duty reductions on households. This conceptualization, which is based on Deaton (1989), assumes perfect pass-through elasticities from changes in import duties to producer and consumer prices. In practice, these may be smaller, especially in rural areas (Ural Machand 2012). Yet, this box also abstracts from second-order long-run gains, such as sectoral shifts in production and consumption, export expansion, foreign direct investment, and trade diversion. Since tariff reductions are gradually phased in over multiple years in both reforms, the estimated short-run effects might be delayed and coincide with second-order gains. It also abstracts from changes in government revenue. In past episodes of major tariff cuts, trade tax

BOX 1.1 Where Households Gain: Trade Reforms in South Asia *(continued)*

revenue losses were, on average, more than offset by gains in other tax revenues (World Bank 2025b).

Main findings. This box reports the following findings.

First, India's and Sri Lanka's trade reforms are of considerable magnitude, but India's apply only to about one-tenth of its imports, whereas Sri Lanka's apply to virtually all of its import destinations. India's tariff-cut commitments toward the European Union and the United Kingdom, as well as Sri Lanka's planned para-tariff phase-out, would each represent a 9-percentage-point reduction in the simple average ad valorem import duties applied. India's new FTAs are doubling the scope for international market access for domestic firms from currently one-sixth to one-third of global GDP, exceeding the global market access of emerging markets such as Brazil, China, and Türkiye.

Second, both trade reforms are expected to result in broad-based consumption and real income gains for households across the entire income distribution. This impact is driven by benefits for consumers of manufactured goods, especially among rural households. The expected magnitude is exceptionally strong in Sri Lanka, where the removal of para-tariffs could raise consumption by 3.1 percent on average, with larger increases for the poorest households.

Third, both India's and Sri Lanka's trade reforms disproportionately reduce import barriers for emerging export industries with modest revealed comparative advantage and currently high tariffs. In contrast, both countries' export industries with the strongest comparative advantage were already operating in sectors with low tariffs before the recent reforms. In *India*, tariff cuts among industries with comparative advantages are largest for textiles and leather products. In *Sri Lanka*, planned import duty cuts would be steepest among the emerging export industries of food and beverage manufacturing, as well as rubber and plastic products.

India's new free trade agreements with the EU and the UK

Reform. India's new FTAs with the European Union and the United Kingdom comprise tariff cuts on more than 95 percent of traded goods, along with trade facilitation measures for both goods and services (Acharya, Kumar, and Blenkinsop 2026; Hinz et al. 2026). The two FTAs provide Indian consumers and firms with easier access to cheaper imported final goods and intermediate inputs, as well as greater foreign market access for exporters. Once they enter into force, India will double its preferential global market access for domestic firms to one-third of global GDP, exceeding the global market access of most other EMDEs, including Brazil, China, and Türkiye (figure B1.1.2). FTAs also contain reductions in non-tariff barriers, such as trade facilitation for services. In line with the scenario assumptions by Hinz et al. (2026), this box assumes symmetric reductions in non-tariff barriers.

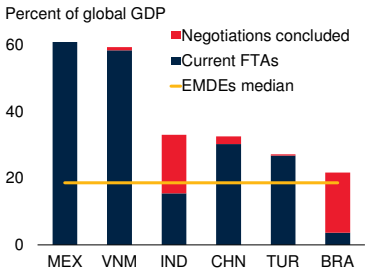
India's export composition. In 2024, about half of India's total exports were shipped to advanced economies (figure B1.1.2). At about 23 percent of total exports, India not only exported more goods and services into the European Union and the United Kingdom than into any other advanced-economy region, it also exported a larger share into European markets than many other major EMDEs. The vast majority of these Indian exports to Europe comprised business services and heavy manufacturing, such as fuels, chemical products, and electronics. Yet, India's overall manufacturing export share to Europe

BOX 1.1 Where Households Gain: Trade Reforms in South Asia *(continued)*

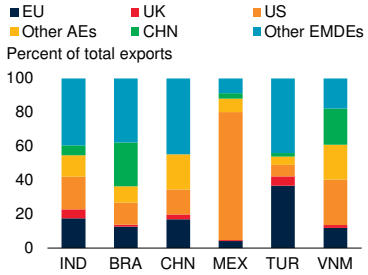
FIGURE B1.1.2 India's new free trade agreements with the EU and the UK

India's new free trade agreements are doubling the preferential global market access for domestic firms, exceeding the global market share of many of its peers. Tariff cuts are expected to result in consumption and real income gains for households across the entire income distribution, but consumers in rural areas would particularly benefit from tariff cuts on manufactured goods.

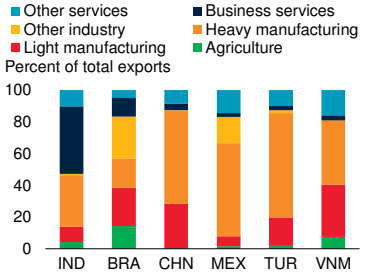
A. Share of global output covered by free trade agreements



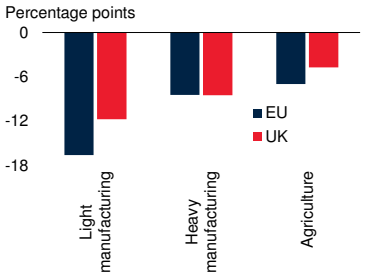
B. Export market composition by region, 2024



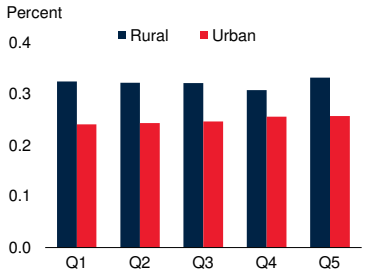
C. Exports to Europe, by sector in 2024



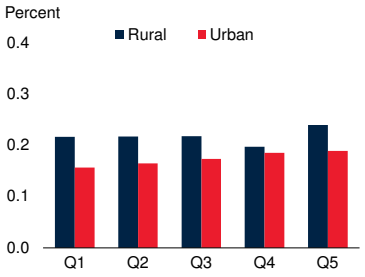
D. India's tariff-cut commitments toward the EU and UK, by sector



E. Consumption effects of the proposed tariff cuts with the EU and UK on Indian households



F. Real income effects of the proposed tariff cuts with the EU and UK on Indian households



Sources: ADB Multiregional Input-Output Tables (database); Deep Trade Agreements Database; European Commission; Hinz et al. (2026); IFPRI 2023 Social Accounting Matrix; India-UK CETA, annex 2A; World Development Indicators (database); WTO Analytical Database; World Bank.

A. Shares of FTAs in global GDP are based on US$ in current prices and include the economies along the horizontal axis. "Current FTAs" for India are with Afghanistan, ASEAN, Australia, Bangladesh, Bhutan, Japan, Maldives, Mauritius, Nepal, Pakistan, the Republic of Korea, Sri Lanka, and the United Arab Emirates. "Negotiations concluded" (but not yet in force) for India are with the European Union and the United Kingdom.

B. Exports comprise goods and services. "Other EMDEs" comprise 35 economies and a rest-of-world aggregate.

C.D. Broad sectors are disaggregated following ISIC, revision 4, with "Agriculture" comprising section A; "Other industry" comprising sections B, D, and E (that is, mining; electricity, gas, and water supply; and construction); "Light manufacturing" comprising divisions 10–18 and 31–33 (for example, manufacture of food products, textiles, or furniture); "Heavy manufacturing" comprising divisions 19–30 (for example, manufacture of refined petroleum, electronics, or transport equipment); "Business services" comprising divisions 58–83 (for example, technical and administrative support, including IT services); and "Other services" comprising all other divisions.

D. Vertical axis reports the cut in India's import-weighted average ad valorem tariffs applied.

E.F. First-order consumption and real income effects of joint tariff cuts agreed to in the India-EU FTA and the India-UK CETA are estimated following Artuc, Porto, and Rijkers (2021). Q1 (Q5) refers to the household quintile with the lowest (highest) national consumption expenditure.

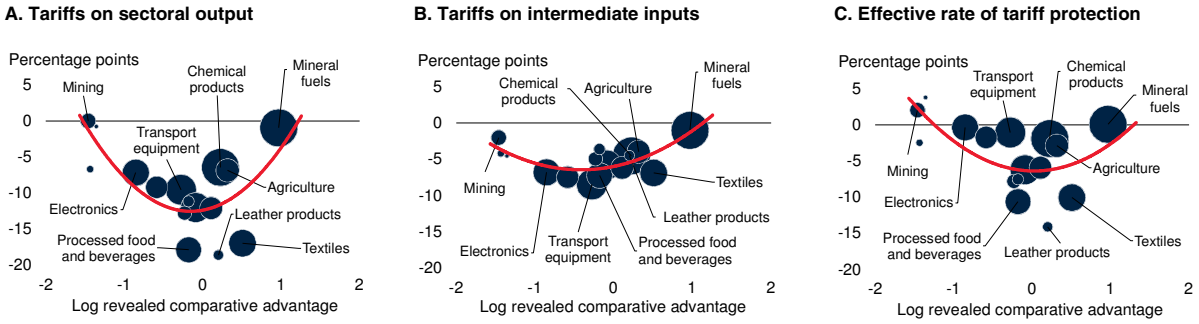
was lower than that in most other major EMDEs, especially China and Viet Nam.

Impact across households. India's FTAs with the European Union and the United Kingdom are expected to result in consumption and real income gains for households across the entire income distribution (figure B1.1.2). Consumers in rural areas would particularly benefit from tariff cuts on manufactured goods, which represent a 6-percentage-point larger share in rural households' expenditures than in urban households. With an average gain of around 0.3 percent, the magnitude of these short-run consumption effects is small but broadly in line with other impact assessments (Hinz et al. 2026;

BOX 1.1 Where Households Gain: Trade Reforms in South Asia *(continued)*

FIGURE B1.1.3 India: Tariff cuts and revealed comparative advantage

India's new free trade agreements are expected to reduce tariff barriers, especially for emerging export sectors, such as textile and leather product industries. India's main export specializations are in sectors with already low tariffs, while sectors without revealed comparative advantage remain protected.



Sources: ADB Multiregional Input-Output Tables (database); CEPII BACI (database); European Commission; Hinz et al. (2026); India-UK CETA, annex 2A; WTO Analytical Database; World Bank.

Note: A.-C. "Revealed comparative advantage" is calculated as introduced in Balassa (1965) and indicates India's export specialization across 16 goods-producing sectors relative to global average export shares, with log values larger than zero indicating comparative advantages. Bubble areas reflect sectoral export shares in 2024. Refer to annex table B1.1 for the full list of sectors. Trend lines indicate the (unweighted) quadratic polynomial fit on the underlying data.

A. Vertical axis reports India's FTA-implied reduction in the import-weighted average ad valorem tariffs applied toward the European Union and the United Kingdom.

B. Tariff cuts for intermediate inputs are calculated as the weighted average across inputs (split from HS 6-digit product codes using the Classification of Broad Economic Categories) used in the respective sectors.

C. Changes in the "effective rate of tariff protection" refer to the difference between tariff cuts for sectoral outputs (A) and tariff cuts for intermediate inputs (B).

U.K. Department for Business and Trade 2025). Long-run consumption and real income gains could be significantly larger due to increased trade diversion toward low-tariff partner economies, as well as positive incentives for foreign direct investment and productivity spillovers through global value chains (World Bank 2020).

Distribution of tariff cuts by export specialization. India's tariff-cut commitments toward the European Union and the United Kingdom especially target the manufacturing sector, while many agricultural goods have been exempted. The publicly announced provisions imply complementary tariff cuts in both light and heavy manufacturing. India's textile and leather products industries—which are characterized by a modest revealed comparative advantage—face output tariff cuts of 17–19 percentage points, but also 5–7 percentage-point cuts in input tariffs (figure B1.1.3). India's biggest revealed comparative advantage is in sectors with already low tariffs (such as fuels and business services). Sectors without revealed comparative advantages—with those in manufacturing accounting for 7 percent of total employment—remain more protected and face less steep tariff cuts.

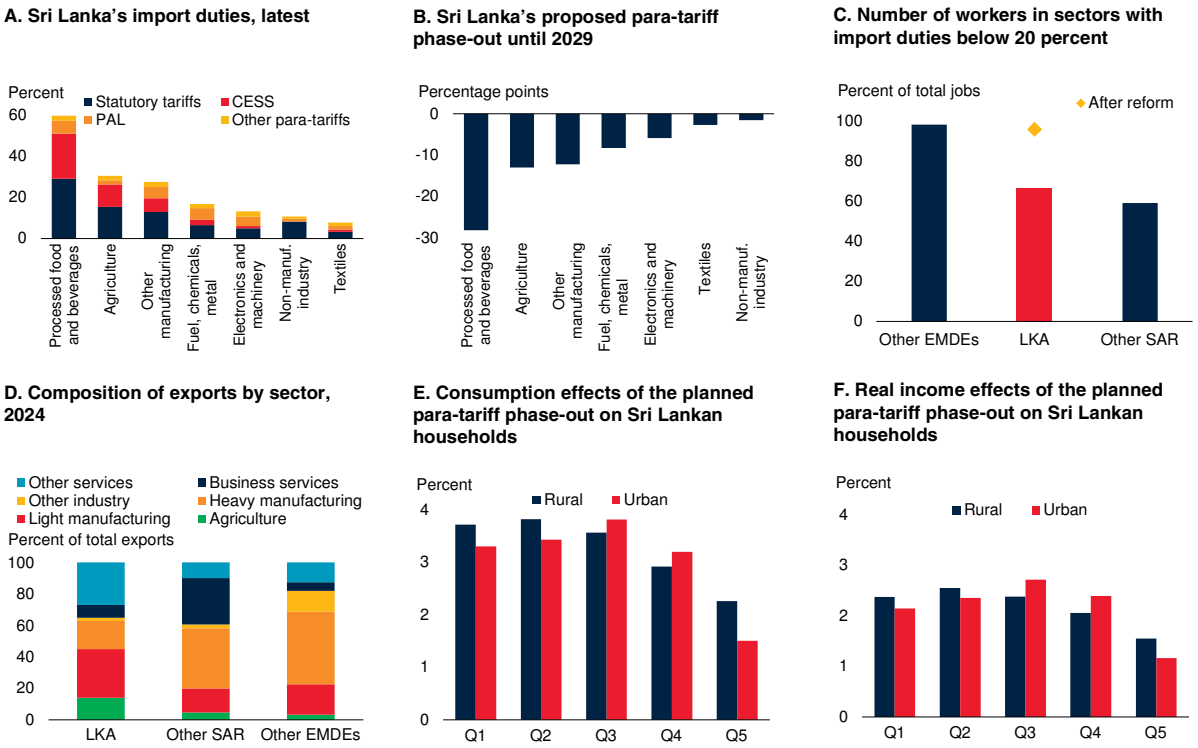
Sri Lanka's para-tariff reform

Reform. The simple average of Sri Lanka's total import duties is 19 percent. Yet, less than half of these import duties are statutory tariffs (figure B1.1.4). Of the 19 percent, 11 percentage points are accounted for by para-tariffs. In line with the new National Tariff Policy, the Government of Sri Lanka is planning a four-year reform to fully eliminate its PAL and CESS para-tariffs by 2029. This phase-out of Sri Lanka's two largest para-tariffs would represent a 9-percentage-point cut

BOX 1.1 Where Households Gain: Trade Reforms in South Asia *(continued)*

FIGURE B1.1.4 Sri Lanka's proposed para-tariff reform

Sri Lanka's proposed para-tariff reform is expected to result in broad-based consumption and real income gains for households across the entire income distribution, but especially large gains among poorer rural households.



Sources: ADB Multiregional Input-Output Tables (database); Global Labor Database; Central Bank of Sri Lanka; IFPRI 2023 Social Accounting Matrix; Sri Lanka Customs National Import Tariff Guide 2025; WTO Analytical Database; World Bank.

Note: CESS = Commodity Export Subsidy Scheme; PAL = Ports and Airport Development Levy.

A. Sri Lanka's simple average import duties, mapped from 6-digit HS product codes into 7 goods-producing sectors. Other para-tariffs comprise the Social Security Contribution Levy or the Special Commodity Levy.

B. Sri Lanka's National Tariff Policy proposed full CESS and PAL phase-out on all imports until 2029. Unweighted averages of the ad valorem equivalent rates.

C. Latest tariff and employment data for all six South Asian economies and six other EMDEs (Brazil, Georgia, Mexico, Mongolia, Philippines, and Thailand).

D. Broad sectors are disaggregated following ISIC, revision 4, with "Agriculture" comprising section A; "Other industry" comprising sections B, D, and E (that is, mining; electricity, gas, and water supply; and construction); "Light manufacturing" comprising divisions 10–18 and 31–33 (for example, manufacture of food products, textiles, or furniture); "Heavy manufacturing" comprising divisions 19–30 (for example, manufacture of refined petroleum, electronics, or transport equipment); "Business services" comprising divisions 58–83 (for example, technical and administrative support, including IT services); and "Other services" comprising all other divisions.

E.F. First-order consumption and real income effects of the planned full CESS and PAL phase-out are estimated following Artuc, Porto, and Rijkers (2021). Q1 (Q5) refers to the household quintile with the lowest (highest) national consumption expenditure.

in the simple average ad valorem import duties applied.

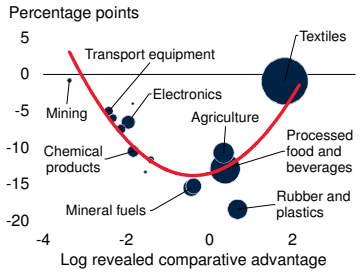
Distribution of tariff cuts by sector. Sri Lanka's para-tariffs exceed statutory tariffs across all manufacturing sectors, whereas statutory tariffs are larger in non-manufacturing sectors such as mining. The proposed reform would introduce the steepest para-tariff cuts for processed food and beverages (28 percentage points) and the smallest cuts for textiles and mining (below 5 percentage points). The labor market exposure could be sizable: assuming the 2023 employment distribution, the reforms would lower tariffs from above to below 20 percent in sectors that employ one-third of all

BOX 1.1 Where Households Gain: Trade Reforms in South Asia *(continued)*

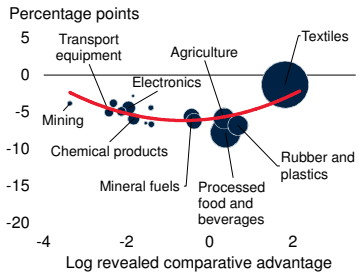
FIGURE B1.1.5 Sri Lanka: Para-tariff cuts and revealed comparative advantages

Sri Lanka's planned para-tariff phase-out would reduce import duties especially for emerging export sectors, such as rubber and plastics, as well as food manufacturing. Sri Lanka's main export specializations are in sectors with already low import duties, while sectors without revealed comparative advantage remain protected.

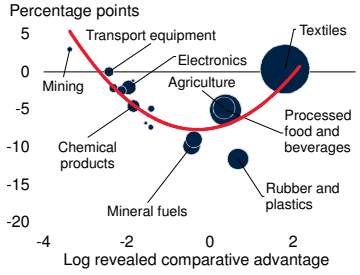
A. Import duties on sectoral output



B. Import duties on intermediate inputs



C. Effective rate of import-duty protection



Sources: ADB Multiregional Input-Output Tables (database); Central Bank of Sri Lanka; CEPII BACI (database); IFPRI 2023 Social Accounting Matrix; Sri Lanka Customs National Import Tariff Guide 2025; WTO Analytical Database; World Bank.

Note: A.-C. "Revealed comparative advantage" is calculated as introduced in Balassa (1965) and indicates Sri Lanka's export specialization across 16 goods-producing sectors relative to global average export shares, with log values larger than zero indicating comparative advantages. Bubble areas reflect sectoral export shares in 2024. Refer to annex table B1.1 for the full list of sectors. Trend lines indicate the (unweighted) quadratic polynomial fit on the underlying data.

A. Vertical axis reports the reduction in the import-weighted average ad valorem import duty applied due to Sri Lanka's planned full CESS and PAL phase-out on all imports until 2029.

B. Import-duty reductions for intermediate inputs are calculated as the weighted average across inputs (split from HS 6-digit product codes using the Classification of Broad Economic Categories) used in the respective sectors.

C. Changes in the "effective rate of import-duty protection" refer to the difference between import-duty cuts for sectoral outputs (A) and import-duty cuts for intermediate inputs (B).

workers (figure B1.1.4). This exposure is most likely to translate into aggregate employment and wage gains if workers can easily switch between jobs (Hakobyan and McLaren 2016; World Bank 2025b).

Impact across households. As is the case for India, Sri Lanka's planned para-tariff phase-out is expected to result in strong and broad-based gains for households across the entire income distribution (figure B1.1.4). Yet, at around 3.1 percent, the magnitude of these short-run consumption effects is considerably larger because the para-tariff cuts apply to all import destinations. In Sri Lanka, the trade reform could be particularly pro-poor among rural households. For example, the poorest rural household quintile spends about 31 percent of its expenditure on the output of the food manufacturing sector. This compares with food expenditure shares of the richest urban and rural household quintiles of around 10 and 12 percent, respectively. This confirms previous findings on trade disproportionately favoring the consumption baskets of poor households (Fajgelbaum and Khandelwal 2016; Ural Marchand 2012).

Differences between India's and Sri Lanka's reforms. The magnitude of household impacts from India's FTAs differs from Sri Lanka's para-tariff cuts for multiple reasons. *First,* unlike Sri Lanka, India is reducing import duties for economies that account for only 9 percent of all imported goods. Price effects of tariff cuts are therefore scaled by the import or export share of the partner economy in each respective sector. *Second*, Sri Lanka's proposed cuts are unilateral cuts, whereas the European Union and the United Kingdom have committed to average

BOX 1.1 Where Households Gain: Trade Reforms in South Asia *(continued)*

tariff cuts of about 4 percentage points for Indian exporters. Domestic price effects therefore depend on net tariff cuts, that is, India's tariff cuts minus the weighted average cuts of the European Union and United Kingdom. *Third,* India's trade reform benefits could be slightly larger for richer households, because of strong net tariff cuts on machinery and equipment, which account for a four-times larger expenditure share among the richest household quintile than among the poorest.

Distribution of tariff cuts by export specializations. Sri Lanka's main export sectors are in light manufacturing, with high revealed comparative advantages in textiles and in food and beverages, most notably tea. For textiles, the combination of the largest revealed comparative advantage with already-low import duties indicates a successful integration into global value chains (Wijesinghe and Yogarajah 2022). The planned para-tariff cuts are largest for export sectors with modest revealed comparative advantages and currently high tariffs, especially in food and beverage manufacturing, and in rubber and plastic products (figure B1.1.5). The proposed tariff reform would lower input tariffs in these industries by 7–8 percentage points, improving their competitiveness, especially if combined with productivity gains in response to greater import competition (De Loecker et al. 2016). Sectors without revealed comparative advantages remain more protected; as in India, these sectors account for 7 percent of Sri Lanka's total employment.

Bhutan has eased restrictions on capital flows, and Bangladesh has signed an Economic Partnership Agreement with Japan that provides duty-free access for most of Bangladesh's exports, especially garments.

Headline inflation declined in 2025 in most economies. In many cases, this was driven by idiosyncratic factors: Indian food prices fell sharply due to good harvests of several crops, Sri Lanka was in deflation for most of the year due to sharp reductions in administered energy prices and a favorable base effect, while inflation in Nepal dropped due to weak growth. Bangladesh stands out for its persistently high inflation, which was pushed up by currency depreciation, social unrest, supply chain disruptions, and floods that increased food prices.

Monetary policy rates were gradually reduced across the region, with the exception of Bangladesh. Government bond yield spreads were largely stable. Despite easier global financial conditions into early 2026, private sector credit growth has generally been slow. In some cases, this has been due to macroprudential measures to contain banking sector risks (India); in others, it has been due to high costs of doing business and weaknesses in the banking system (Bangladesh, Maldives).

Sectoral developments

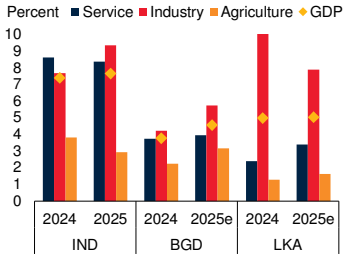
In most of South Asia, manufacturing/industrial activity has been the fastest-growing sector of the economy (figure 1.5). Services sector growth has also generally been robust, with agriculture lagging.

Industrial activity in South Asia grew 8.9 percent in 2025 and appears to be on track for further strong growth in 2026. This

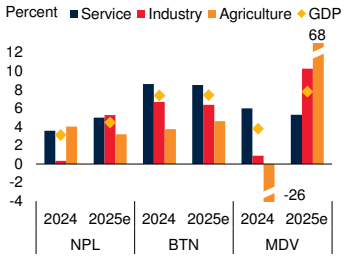
FIGURE 1.5 Activity by sector across South Asia

Industrial activity has been the fastest-growing sector in most of South Asia, with agriculture typically lagging. The dominant manufacturing sub-sector varies in the region's three largest countries, while manufacturing activity is largely absent in the three smallest.

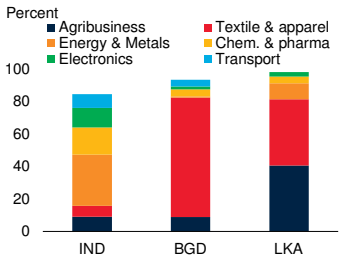
A. Sectoral growth rates in India, Bangladesh, and Sri Lanka



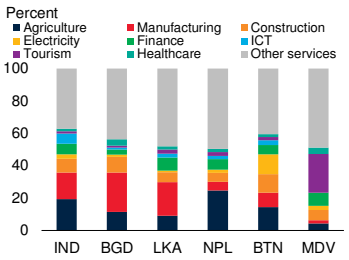
B. Sectoral growth rates in Nepal, Bhutan, and Maldives



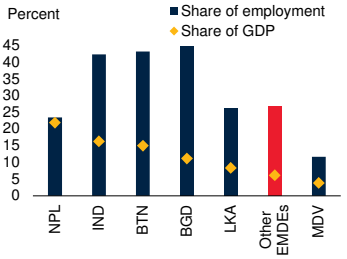
C. Decomposition of manufacturing production index



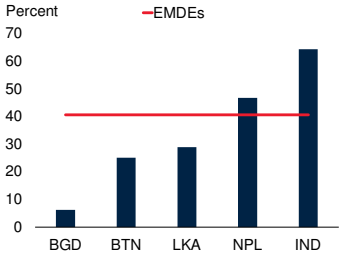
D. GDP composition by sector in South Asia



E. Share of agriculture in GDP and employment



F. Increase in agricultural total factor productivity (TFP), 2000–23



Sources: Haver Analytics; NITI Aayog (2025); USDA Economic Research Service; WDI; World Bank.

A.B. GDP growth for a given calendar year is calculated as the average of year-on-year quarterly GDP growth at basic prices from national accounts. For Bangladesh, Bhutan, and Maldives, 2025 value reflects average growth for the first three quarters; for Nepal, first two quarters.

C. Bars show weights of selected industries in the manufacturing industrial production index. Remaining weights represent other industries.

D. Bars show sectoral value added as a share of GDP in 2024. Electricity includes electricity, gas, and other utility services. Finance includes financial and insurance activities. Tourism is measured using accommodation and food service activities for all countries except Maldives (which directly reports value added of tourism).

E. Figure shows agricultural value added as a share of GDP. Share of employment based on estimates from the International Labour Organization. Other EMDEs represent the weighted average of 126 EMDEs, using GDP weights for the share of GDP and employment weights for the share of employment.

F. Total factor productivity (TFP) measures the amount of agricultural output produced from the combined set of land, labor, capital, and material resources employed in farm production. Estimates are from the USDA Economic Research Service.

mostly reflected strong growth in India and Sri Lanka, whereas industrial activity growth elsewhere in South Asia was sluggish.

India's manufacturing sector grew by more than 10 percent per year between 2023 and 2025, and the manufacturing PMI reading of around 57 in February indicated only a modest deceleration in 2026. The country's export basket has become increasingly sophisticated, and the country rose from 51 to 41 in international rankings of economic complexity from 2012 to 2024 (Growth Lab at Harvard University 2026). The electronics sector has been a key driver of growth for many years, with more recent support from the government's Production Linked Incentive (PLI) program and significant investment inflows. Mobile phone production, for example, has increased nearly 28-fold over the past decade (World Bank 2025c).

In Bangladesh, manufacturing grew 5.8 percent in 2025 and remains heavily concentrated in the ready-made garment (RMG) sector, which accounts for around 60 percent of the country's manufacturing activity and 85 percent of its merchandise exports (World Bank 2025d). Manufacturing was weak at the end of 2025, with a particularly acute slowdown in RMG activity. Construction activity has also been slowing, with the PMI sub-index falling below 50 in February.

In Sri Lanka, industrial production has been growing steadily at a pace of about 7 percent since 2023. This was largely driven by strong growth in manufacturing (particularly of pharmaceuticals) and construction.

Industrial activity in Nepal and Bhutan is dominated by electricity generation, which grew 16 and 36 percent in 2025, respectively,

and by large construction projects in Maldives. Manufacturing activity in the region's smaller countries is limited. Compared to the EMDE average of 14 percent of gross value added, manufacturing makes up 8 percent of value added in Bhutan, 4 percent in Nepal, and 2 percent in Maldives. This reflects structural constraints, including capital flow restrictions, infrastructure and logistics gaps, and real exchange rate appreciation partly driven by large remittance inflows (World Bank 2024a).

Services activity is the largest and most varied segment of the economy. On the low end among countries in the region, services account for 50 percent of GDP and 33 percent of employment in India. On the high end, services account for 72 percent of both GDP and employment in Maldives. The sector has been growing at a robust pace in most of South Asia. India's services PMI has been close to 60 since 2023, with broad-based strength across sub-sectors.

Elsewhere, services strength is more concentrated. Tourism is a major driver of activity in many of the region's smaller countries—tourist arrivals collapsed during the pandemic but have since rebounded, with particularly strong rebounds in Sri Lanka and Maldives.

The information and communications technology (ICT) sector has grown substantially in recent years, such that it makes up more than 22 percent of total exports and 6.5 percent of GDP in India, 5.3 percent of exports and 2.2 percent of GDP in Sri Lanka, and 3 percent of exports and 1.8 percent of GDP in Nepal. Concern that these activities may be threatened by AI has led to slower growth and stock market underperformance more recently (box 2.1).

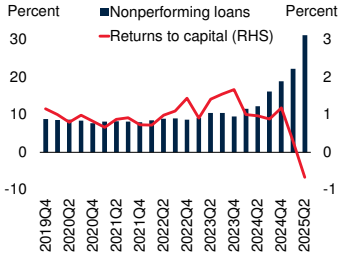
Financial sector activity has diverged across the region, with strength in India and Sri Lanka and weakness in Bangladesh and Nepal. India's banking system is well capitalized and profitable, and its capital markets have grown rapidly in recent years, driven by small retail investors and enabled by regulatory simplification and innovation (RBI 2025). In Sri Lanka, financial institutions have recovered significantly since the country's financial crisis in 2023, with improvements to liquidity, profitability, credit issuance, and capital adequacy (Central Bank of Sri Lanka 2025). By contrast, the banking sector in Bangladesh is struggling with high levels of loan defaults, while the insurance sector in Nepal suffered significant losses from recent social unrest.

Agriculture remains the least productive and slowest-growing segment of the economy, making up 14 percent of regional GDP but 42 percent of employment. In India and Nepal, sectoral productivity has grown more quickly than in other EMDEs in recent decades, allowing the sector to shed workers. Agriculture in Bangladesh is a partial exception, as the sector has struggled with frequent natural disasters (primarily flooding) and a lack of access to credit and technology for farmers, who are predominantly small and informal (World Bank 2021). In India, sectoral growth has been supported by an increasing contribution from higher-value activities such as horticulture, livestock, and fisheries. For traditional crops, record kharif (monsoon-dependent crops sown in the summer) and rabi (sown in winter) sowings in the 2024–25 crop year supported rural incomes and kept food price inflation low in late 2025 and early 2026.

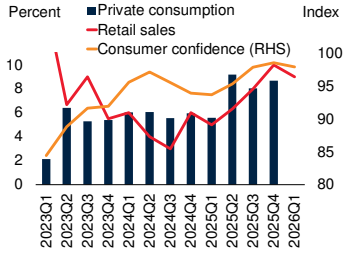
FIGURE 1.6 Country developments

A high share of nonperforming loans has been identified in Bangladesh's banking sector. Domestic demand in India has been strong, outweighing some weakness in exports. Fiscal and current account balances have improved in Maldives, but this may not account for rising unpaid arrears. Tourist arrivals in Nepal have started to rebound after dropping during social unrest. Sri Lanka's fiscal balance continues to improve.

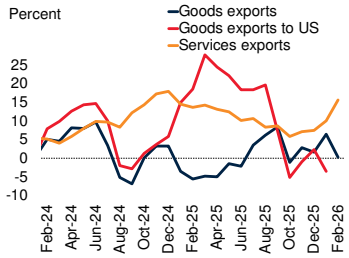
A. Nonperforming loans and returns to capital in banking sector in Bangladesh



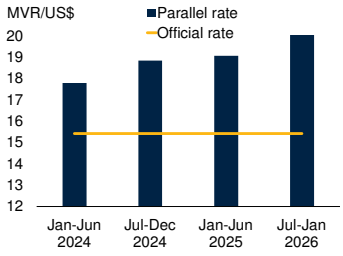
B. Private consumption, retail sales and consumer confidence in India



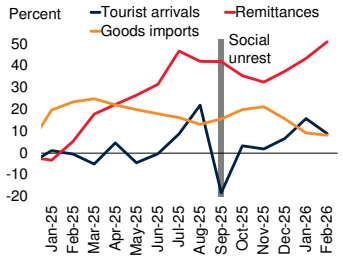
C. Trade growth in India



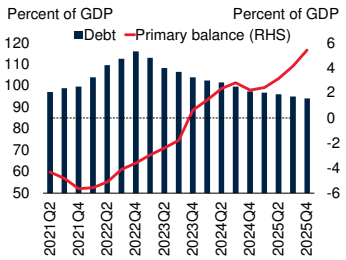
D. Maldives exchange rate



E. Tourist arrivals, workers' remittances, and import growth in Nepal



F. Government debt and primary balance in Sri Lanka



Sources: Haver Analytics; IMF Financial Soundness Indicators; Retailers Association of India; World Bank.

Note: MVR = Maldivian rufiyaa.

A. Return on capital represents the banking sector's total net income before taxes divided by total assets, based on IMF data.

B. Private consumption represents growth in private consumption from quarterly national accounts. Retail sales growth and the consumer confidence index are quarterly averages.

C. Lines show year-over-year growth in the 3-month moving average of exports.

D. Parallel market rate is not officially published and is based on local news and anecdotal market information.

E. Remittances and import growth shown as 3-month moving averages.

F. All values are 4-quarter moving averages.

Country developments

In **Bangladesh**, economic activity is still being affected by reverberations from the political turmoil in late 2024. GDP growth of 4.5 percent was below expectations for the first quarter of the 2025/26 fiscal year. The United States—Bangladesh's largest export market—increased import tariffs by 20 percent in August before replacing this with a 10 percent tariff increase for all countries in February. The combination of higher tariffs and increased competition from other countries' diverted exports has weighed on trade: ready-made garment exports contracted sharply between September and December following front-loading by exporters earlier in the year.

Inflation remains significantly above the central bank's target of 6–7 percent. After peaking above 10 percent at the end of 2024, inflation declined steadily through the first half of 2025. This disinflation has since stalled, and inflation stood at 9.1 percent in February. As a result, the policy rate has been at a 15-year high of 10 percent since late 2024.

The financial sector remains under strain. The official nonperforming loan ratio stood above 30 percent in the latest data, and the banking sector recorded losses for the first time since the pandemic (figure 1.6). Together with the elevated policy rate, these pressures are constraining credit availability and limiting investment prospects. There has been some progress in containing the fiscal deficit, but tax revenues below 9 percent of GDP continue to limit the country's fiscal space.

In **Bhutan**, strong hydropower production and continued public spending on hydropower projects are supporting solid economic activity, with GDP growing by 8.1 percent in the 2024/25 fiscal year.

India's economy performed better than anticipated last year, with GDP growth

reaching 7.8 percent in the October–December quarter of fiscal year 2025/26. Recent updates to GDP data and calculation methods revealed that the economy was slightly smaller than previously thought, but that recent growth has been faster. Domestic demand has been strong, with robust retail sales and consumer confidence reaching its highest post-pandemic level in November 2025. Recent reforms to simplify and reduce taxes have also supported private consumption.

Domestic strength outweighed goods export weakness. Goods exports grew by only 0.1 percent in 2025, held back by the United States' brief imposition of 50 percent tariffs starting in August. Services exports remained strong, growing by about 16 percent from December to February. This, alongside strong remittances, helped contain the current account deficit.

Falling food prices kept inflation below the central bank's 2–6 percent target from September to December, before it rose to 3.2 percent in February 2026. The Reserve Bank of India reduced its policy rate four times in 2025, from 6.5 percent in January to 5.25 percent in December, contributing to persistent depreciation of the Indian rupee.

In **Maldives**, GDP grew by 8.6 percent in 2025Q3, the fastest pace in four years, primarily driven by strong tourist arrivals. The primary fiscal balance appears to have improved rapidly, but this may not account for the accumulation of unpaid arrears to suppliers and state-owned enterprises (World Bank 2025e). Inflation increased to 4 percent in 2025, partly contained by widespread subsidies, though these are becoming less effective due to foreign exchange constraints. Shortages of U.S. dollars are apparent in the rising gap between the official exchange rate and the parallel market rate, and are contributing to rising costs and shortages of some essential categories of imports such as medicine.

In **Nepal**, following the prime minister's resignation in September, an interim government was appointed to oversee parliamentary elections that were held in March. The winning party campaigned on a platform of anti-corruption, structural reforms, and increased openness to neighboring countries. After the initial 18 percent decline in September, tourist arrivals recovered gradually thereafter. Strong remittance inflows—equivalent to more than one-quarter of GDP and growing by 26 percent in 2025—have helped sustain consumption.

Inflation in Nepal declined throughout the year and fell below 2 percent in August for the first time in more than a decade due to a combination of weak growth and falling vegetable prices. This allowed the central bank to reduce the policy rate from 5 to 4.25 percent over the course of 2025.

In **Sri Lanka**, GDP expanded 5 percent in 2025, similar to its pace in 2024. Activity was driven by a 9.1 percent increase in private consumption. This was bolstered by workers' remittances increasing by more than 20 percent in 2025. Inflation stabilized between 2.1 and 2.3 percent between October and January. Cyclone Ditwah hit the country in November 2025, causing more than 600 fatalities and an estimated $3.3 billion in damages, equivalent to about 3 percent of GDP. In response, Sri Lanka secured emergency financial support from the IMF of over $200 million.

The fiscal outlook has steadily improved since the sovereign debt crisis. The debt-to-GDP ratio has declined gradually from a peak above 120 to 93 percent as of 2025Q3, and the primary balance has continued to rise. The banking sector has also strengthened, with improved liquidity and rising profitability.

Outlook for South Asia

TABLE 1.1 Growth in South Asia

	Country fiscal year	Real GDP growth at constant market prices (Percent)			Revision to forecast from October 2025 (Percentage points)		
Calendar year basis		**2025(e)**	**2026(f)**	**2027(f)**	**2025(e)**	**2026(f)**	**2027(f)**
South Asia region		**7.0**	**6.3**	**6.9**	**0.4**	**0.5**	**0.4**
South Asia region, excluding India		**3.9**	**4.1**	**4.9**	**-0.5**	**-1.0**	**-0.8**
Maldives	January to December	5.7	0.7	7.2	1.5	-3.2	3.2
Sri Lanka	January to December	5.0	3.6	3.8	0.4	0.1	0.7
Fiscal year basis		**24/25**	**25/26(f)**	**26/27(f)**	**24/25**	**25/26(f)**	**26/27(f)**
Bangladesh	July to June	3.5	3.9	4.6	-0.5	-0.9	-1.7
Bhutan	July to June	8.1	7.1	6.4	1.1	-0.2	0.3
India	April to March	7.1	7.6	6.6	0.6	1.1	0.3
Nepal	July to June	4.6	2.3	4.2	0.0	0.2	-0.5

Sources: World Bank, MPO, and staff calculations.

Note: (e) = estimate; (f) = forecast. As of July 1, 2025, Afghanistan and Pakistan have been made part of the Middle East and North Africa (MENAAP) region and are no longer grouped in the World Bank's South Asia region. GDP is measured in average 2010–19 prices and market exchange rates. Because quarterly GDP forecasts for Bangladesh, Bhutan, and Nepal are unavailable, the average of two consecutive fiscal years is used for regional aggregates.

South Asia grew an estimated 7.0 percent in 2025. Absent the recent disruptions in global energy markets, growth would have been expected to remain robust at about this pace in 2026 and 2027. Given the region's dependence on imported energy, the forecast instead is for the region to decelerate to 6.3 percent growth in 2026 and recover to 6.9 percent in 2027 (table 1.1). Uncertainty around this forecast is unusually elevated. The baseline incorporates the assumption that the acute disruption to energy supplies largely dissipates after a few months. This headwind is concealing the region's stronger-than-expected growth momentum, and better prospects for Indian exports following the reduction of U.S. import tariffs and the signing of a free trade agreement with the European Union (figure 1.7). Even with improved prospects for trade, strength in the region is largely based on robust domestic activity.

South Asia continues to be the fastest-growing EMDE region. This outperformance is entirely due to India. The rest of the region is expected to grow 4.1 percent in 2026, more in line with other EMDEs. In 2027, growth in South Asia excluding India is expected to surpass that of other EMDEs. This acceleration is largely dependent on the performance of countries recovering from social unrest. Bangladesh and Nepal both had smaller economic contractions than the average EMDE experiencing large-scale protests, but Bangladesh's recovery is expected to be more gradual than is typical.

In most of the region, inflation was low in early 2026. Even before the recent rise in energy prices, it was projected to rise modestly while remaining close to central bank targets in most countries. This rise will be accelerated by higher energy prices and continued currency depreciation, especially if these prove

more persistent than currently anticipated. In India, strong demand, normalizing food prices, and higher energy prices are expected to push inflation up in FY26/27. In Bangladesh, inflation is expected to ease under tight monetary policy, but remain elevated above the 6-7 percent target, reflecting continued pressures from energy and food supply and exchange rate instability. Following a prolonged period of deflation through early 2025, Sri Lanka's inflation is expected to rise above its 5 percent target in 2026 due to stronger demand and higher energy prices.

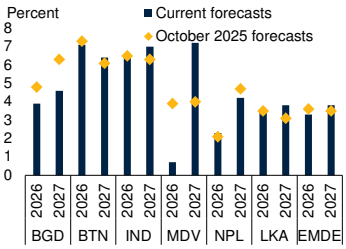
Current account balances in the region are likely to worsen as a result of higher energy prices. In India, surpluses in services trade will help partly offset merchandise trade deficits. In Maldives, high external financing needs, costly energy imports, and disruptions to international travel will further strain the balance of payments and official reserves.

Fiscal policy is anticipated to diverge across the region. In India, the deficit had been shrinking in recent years, but this trend is expected to stall or reverse as a result of increased subsidy outlays resulting from efforts to limit inflation passthrough to consumers. In Bangladesh, the deficit is expected to widen despite improvements in revenue, as expenditures rise due to more costly fuel subsidies, the recapitalization of the banking sector, and the new government's promised increased social spending. Strong revenue performance and prudent expenditures in Sri Lanka should contribute to continued reductions in fiscal deficits and public debt (World Bank 2025f). In contrast, Bhutan's fiscal deficit is anticipated to widen due to infrastructure spending and costly diesel subsidies. If more governments respond to rising energy prices with fuel subsidies, fiscal deficits could widen across the region.

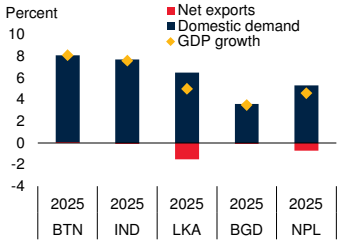
FIGURE 1.7 Outlook

South Asia is expected to decelerate significantly in 2026 due to recent disruptions in global energy markets. Absent this shock, the forecast for South Asia would have been revised up substantially due to stronger-than-expected momentum and better prospects for trade. Growth is primarily reliant on domestic demand. Excluding India, South Asia is growing at about the same pace as other EMDEs, with the expected acceleration in 2026–27 based on recovery from recent social unrest in Bangladesh and Nepal. Current account and fiscal balances are being impacted by rising energy prices.

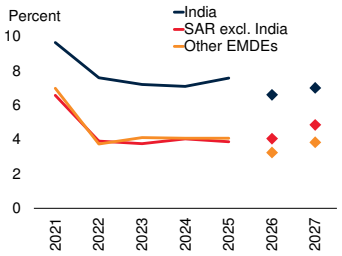
A. Growth in South Asian countries



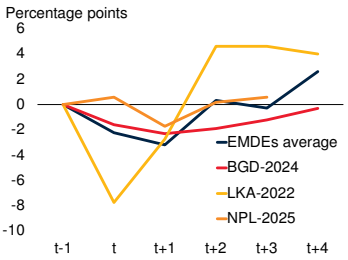
B. Contribution of domestic and net exports to growth



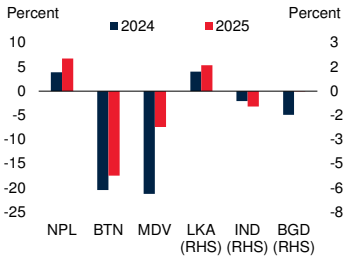
C. GDP growth



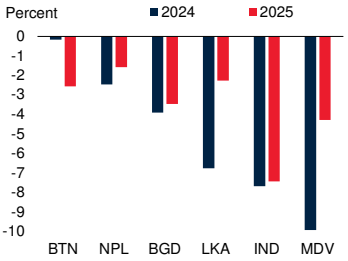
D. Change in GDP growth around social unrest events



E. Current account balances



F. Fiscal balances



Sources: Global Protest Tracker; MPO; WDI; World Bank.

A. For India, "2026" refers to FY26/27. For other countries that use fiscal rather than calendar years, "2026" and "2027" represent FY25/26 and FY26/27. "EMDE" includes 141 economies.

B. Contribution from domestic demand defined as contribution from consumption and gross capital formation and includes the statistical discrepancy. Net exports represent the difference in contribution between exports and imports of goods and services. For India, 2025 refers to FY2025/26, and for Bangladesh, Bhutan, and Nepal, refers to FY2024/25.

C. "Other EMDEs" represents 141 emerging market and developing economies. GDP aggregates calculated using real U.S. dollar GDP weights and market exchange rates. Dots indicate forecasts. For India, fiscal years are used, such that 2025 represents estimation for FY2025/26.

D. Figure shows change in GDP growth around social unrest occurring in year *t*. The pre-event benchmark (*t*-1) is defined as the average GDP growth over the four years preceding the event (*t*-4 to *t*-1). Social unrest data from Global Protest Tracker, and defined as having a peak crowd size of above 50,000 people. Sample includes 34 events in 26 countries between 2017 and 2020.

E.F. Estimates from *Macro Poverty Outlook*.

Outlook for South Asian countries

In **Bangladesh**, growth is expected to accelerate to 3.9 percent in 2025/26 as the country recovers from the political unrest that started in mid-2024. The elevated uncertainty of this forecast is reflected in the wide range of projections by various forecasters, which range from 3.8 to 5.0 percent. The acceleration will be primarily driven by stronger private consumption. The pace of the recovery has been revised down, however, due to higher energy prices, and because the recovery of investment growth following persistent political uncertainty and weakness in the banking sector has been slower than expected.

Exports are expected to contribute to growth without being a major driver of the economy. The forthcoming graduation from Least Developed Country (LDC) status in November 2026 is not expected to have a severe impact on export growth as many countries—including the most important market, the European Union—have indicated they will maintain preferential tariff rates until 2029.

The outlook is predicated on the assumption of a period of political and social stability following the elections held in February. It also depends on continued progress on a number of structural reforms, including recapitalizing the banking sector and improving government revenues.

In **Bhutan**, the forecast is underpinned by the construction and opening of new hydropower projects. The economy is projected to grow 7.1 percent in FY25/26, benefiting from positive spillovers from the recently completed Puna II hydropower plant and ongoing construction of two other major hydropower plants (Dorjilung and Khorlochhu). The forecast for FY26/27 has been revised up due to greater expenditure on hydropower construction.

In **India**, growth is estimated to have accelerated from 7.1 percent in FY25 to 7.6 percent in FY26 (April 2025–March 2026), owing to strong domestic demand and export resilience. Private consumption growth was particularly robust, supported by low inflation and rationalization of the Goods and Services Tax (GST).

Growth is projected to decelerate to 6.6 percent in FY27, reflecting headwinds from the Middle East conflict. The impact of these is highly uncertain: other forecasters have revised down their growth projections to a range between 5.9 and 6.7 percent.

Although the reduction in GST rates should continue to support consumer demand in the first half of FY27, elevated global energy prices are expected to put upward pressure on prices and constrain households' disposable income. Government consumption growth is expected to soften to offset higher subsidy outlays for cooking fuel and fertilizers. Investment growth is likely to moderate amid elevated uncertainty and rising input costs. Improved access to the United States and the European Union for India's exports will be undermined by slower growth in major trading partners.

In **Maldives**, conflict in the Middle East is expected to weigh heavily on the outlook through tourism disruptions, higher fuel prices, and tighter financing. Tourism revenue is projected to fall in 2026 amid fewer arrivals and shorter stays, limiting real GDP growth to 0.7 percent before a rebound in 2027–28. Inflation is expected to rise to 6 percent in 2026, reflecting higher global commodity prices, and remain above 4 percent through 2028 due to intensified foreign exchange constraints and demand pressures for food

and essential goods. The country is expected to maintain persistent and large current account and fiscal deficits in coming years, and may struggle with foreign exchange pressures.

In **Nepal**, activity is expected to rebound to 4.2 percent in 2026/27 as the effects of the unrest in late 2025 wane. Sectors that suffered from the unrest—notably tourism and insurance—are expected to lead the acceleration, supported by reconstruction activities and continued strength in hydropower-related activities. The recovery in investor confidence is expected to be slower, however, resulting in persistent weakness in non-hydropower private investment. Public capital expenditure is expected to be low. The forecast is predicated on the assumption of a smooth political transition and the absence of further significant social unrest.

In **Sri Lanka**, growth is expected to moderate to 3.6 percent in 2026, with the size of the economy thereby regaining its 2018 level. Growth is expected to rebound slightly to 3.8 percent in 2027. The slowdown in activity relative to 2025 is due to higher energy prices as well as a shift from recovery to a pace consistent with its potential. Growth will be primarily driven by consumption and investment, supported by post-cyclone reconstruction activity. The economy continues to grapple with the lingering effects of the crisis, shortages of skilled workers exacerbated by outward migration, and continued under-execution of the capital budget. Nevertheless, once recent disruptions to flights from the Middle East ease, strong tourism, progress on structural reforms, and improved credit conditions are expected to support growth.

Risks and vulnerabilities

South Asia's growth could be dampened in a variety of ways. Persistently high energy prices could further increase production costs, erode real incomes, tighten financial conditions, and worsen current account imbalances. A spate of global financial turbulence could be transmitted to the region and magnified by domestic vulnerabilities, such as high levels of nonperforming loans in some countries, high interest payment obligations, or elevated stock price valuations. The damage Cyclone Ditwah inflicted on Sri Lanka is a reminder of the region's longstanding vulnerability to climate risks (Lang et al. 2025). South Asia's successes in services exports could become a weakness if key sectors are negatively affected by the spread of AI or new trade restrictions. Progress on key structural reforms could yield growth dividends, just as failure to implement needed changes could lead to growth disappointments.

Conflict in the Middle East

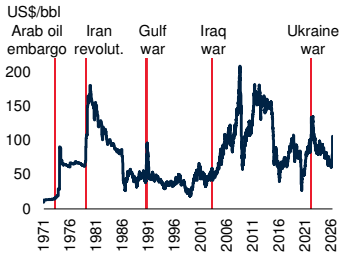
The outlook for energy commodity prices is highly uncertain and contingent on 1) the intensity and duration of conflict in the Middle East, 2) the degree of damage to the region's energy production capacity, and 3) the duration and extent to which the Strait of Hormuz remains closed to shipping. Previous conflicts in the Middle East have resulted in significant increases in oil prices, with some spikes proving temporary while others remained above trend for years (figure 1.8).

The baseline forecast includes the underlying assumption that acute trade disruptions largely dissipate after a few months, while damage to energy infrastructure persists into the medium term. This overlaps with market expectations: oil futures point to the price of Brent oil declining steadily over the remainder

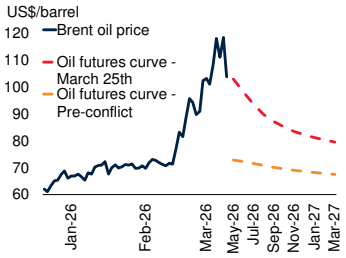
FIGURE 1.8 Conflict in the Middle East

As has been the case before, conflict in the Middle East has led to a sharp increase in energy prices. This increase is expected to fade over time, but if it proves more sustained the impacts on inflation and growth could be considerable. South Asia is particularly vulnerable as a region that depends heavily on energy imports and remittances from countries in the region.

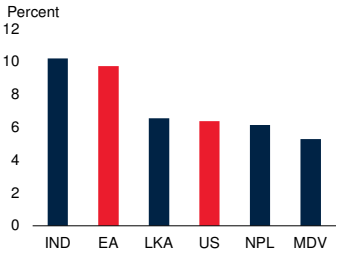
A. Real oil prices in 2025 U.S. dollars



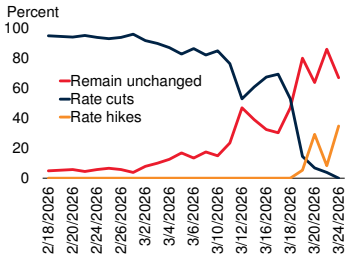
B. Brent oil price and futures



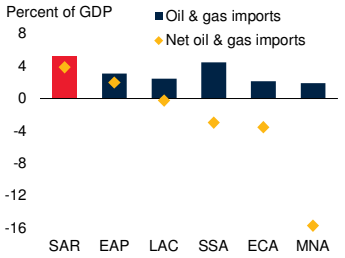
C. Energy share in the consumer price index basket



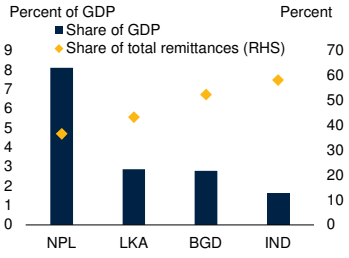
D. Expectations for change of Federal Reserve policy rate by end-2026



E. Oil and gas imports, 2024



F. Remittances in South Asia from GCC countries



Sources: Bureau of Labor Statistics; Central Bank of Sri Lanka; CEPII BACI; CME Group FedWatch; Department of Census and Statistics Sri Lanka; Eurostat; Haver Analytics; IMF Fossil Fuel Subsidies (database); Intercontinental Exchange (ICE); KNOMAD/World Bank Bilateral Remittance Matrix 2021; MPO; Nepal Rastra Bank; U.S. EIA; WDI; World Bank.

A. Line shows 7-day moving average of Brent crude oil prices deflated by U.S. Consumer Price Index.

B. Blue line shows nominal brent oil price. Last observation is March 25.

C. Bars show share of direct energy expenditure from housing and transport from country-level consumer price indices.

D. Chart shows market-implied probabilities of Federal Reserve policy rate outcomes for the December 9, 2026 FOMC meeting, derived from 30-day Fed funds futures prices. Last observation is March 25.

E. Chart shows energy imports and net energy imports as a share of GDP.

F. Data from KNOMAD/World Bank Bilateral Remittance Matrix 2021.

of the year, averaging about $90/bbl for the year. Two other scenarios are also considered.

In a swift resolution scenario, threats to energy infrastructure dissipate rapidly. Severe disruptions to shipping are resolved promptly, after which the full re-opening of the Strait of Hormuz proceeds more quickly than in the baseline. There is minimal medium-term damage to oil infrastructure in the Middle East and no further damage to natural gas facilities. The reductions in the Middle East's oil supply are partially offset by releases of emergency oil stocks and increased production elsewhere. In this scenario, the average Brent oil price for 2026 would be well below $90/bbl. Increases in the prices of other important commodities, such as natural gas and fertilizer, would increase only modestly relative to their pre-conflict levels.

In a protracted severe disruption scenario, trade through the Strait of Hormuz is interrupted for about half of a year, with shipping flows then resuming more gradually than in the baseline scenario. Furthermore, there is substantial lasting damage to oil and natural gas production facilities in the Middle East. Over time, sustained elevated energy prices constrain energy intensive economic activity, resulting in extensive demand destruction. In this scenario, the Brent oil price averages well above $100/bbl in 2026, with large increases in the prices of other affected commodities.

For businesses, higher energy costs raise production costs across virtually all sectors, compressing margins and reducing investment. For households, higher fuel prices erode households' real incomes. Oil price shocks feed directly into headline inflation through energy prices and indirectly through fertilizer, transport, and production costs. A 10 percent increase in oil prices has been shown to raise inflation by about 0.4 percent in both advanced economies and EMDEs

(Choi et al. 2018; Känzig 2021). The direct share of energy in the consumer basket exceeds 5 percent in South Asia and is particularly high in India.

Higher inflation often necessitates monetary policy tightening, even if central bank credibility can help avoid second-round effects. Already, the latest rise in oil prices has lowered market expectations for monetary easing by the Federal Reserve—the probability that the policy rate is unchanged from its current level by the end of the year (rather than being cut) has risen sharply since the end of February. Central banks around the world will likely have similar responses, tightening global financial conditions even as demand suffers.

South Asia is particularly vulnerable to rising energy prices because of its dependence on imported energy. Higher oil import bills would widen current account deficits and, where fuel subsidies are in place, do the same to fiscal deficits, which are generally already above the EMDE median. Countries with wide deficits, elevated external debt, expensive energy subsidies, and limited reserve buffers, such as Maldives, would be especially vulnerable. Where inflation is already above-target, such as in Bangladesh, central banks may find themselves with limited options to support demand when energy prices push up inflation. Annex table A1 provides metrics reflecting countries' exposure, vulnerability, and ability to respond to energy price shocks.

In addition to accounting for about 13 percent of South Asia's exports, Gulf Cooperation Council (GCC) countries—Saudi Arabia, the UAE, Kuwait, Qatar, Bahrain, and Oman—host an estimated 9 million South Asians. Turmoil in the region could interrupt the flow of remittances from these workers if it causes job losses or disrupts migrant flows. These flows provide significant support to incomes and current accounts in the region, making up nearly 10 percent of GDP in Nepal, 3 percent in Bangladesh and Sri Lanka, and around 2 percent in India. The poverty impact of migrant workers returning home or no longer sending remittances would likely outweigh the GDP impact, given that 90 percent of the South Asian migrant workers in the GCC are low-skilled and lower -paid than migrants in other host countries (World Bank 2025g).

While the conflict in the Middle East is expected to lower growth in the short term, it may revitalize several long-standing reform agendas. Efforts toward increasing the use of renewable energy and regional energy grid integration could reduce dependence on imported energy and build resilience to future energy supply shortages (World Bank 2023). High energy prices may prompt lasting fuel subsidy reforms and efficiency improvements among state-owned enterprises that intensively use energy inputs, such as those that produce fertilizers. The need to protect vulnerable households against fuel price spikes may spur reforms to strengthen adaptive social protection. Efforts to diversify global shipping and event hubs might benefit South Asian ports, logistics hubs, and tourism.

Financial stress

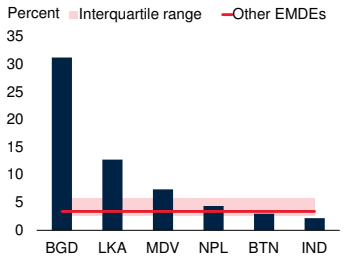
Global financial conditions have tightened as market expectations that major central banks will continue to lower policy rates have faded. All major equity index valuations have declined substantially since late February. Nonetheless, the global financial system has weathered multiple episodes of recent uncertainty with few signs of systemic stress. Most countries' banking sectors are well capitalized and interest spreads for all but the riskiest borrowers are contained.

Beneath the surface, however, some vulnerabilities may be worsening. High equity valuations are predicated on assumptions about growth, financial conditions, and profits that may prove optimistic, particularly for

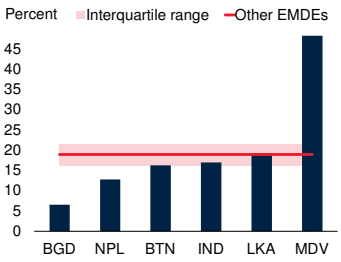
FIGURE 1.9 Financial stress

Some vulnerabilities in global and domestic financial systems may be growing. High levels of nonperforming loans could put pressure on solvency and confidence. High equity market valuations are vulnerable to a correction that could have significant impacts on activity.

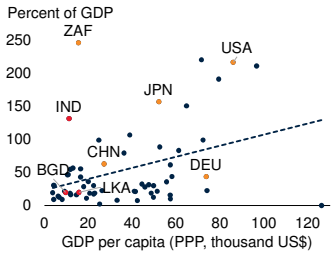
A. Nonperforming loans in South Asia



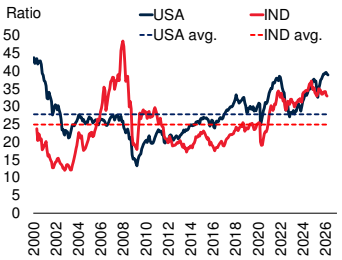
B. Capital adequacy ratio



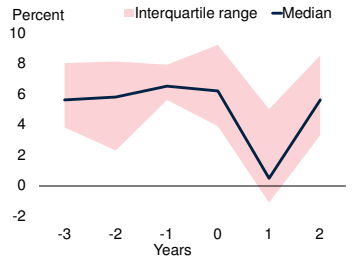
C. Stock market capitalization



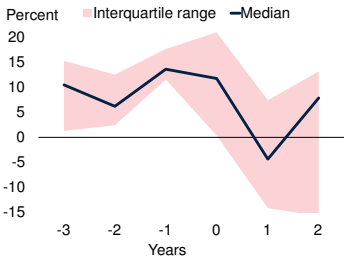
D. CAPE ratios in India and the United States



E. GDP growth for EMDEs during large equity price falls



F. Investment growth for EMDEs during large equity price falls



Sources: Haver Analytics; IMF Financial Soundness Indicators; Jacob and Raju (2024); Schiller Data; WDI; World Bank.

A. NPLs expressed as a percent of total loans. Data are for 2025Q1 for Sri Lanka, 2025Q3 for the Maldives, and 2025Q2 for other SAR countries. "Other EMDEs" shows the simple median and interquartile range of the latest observations for 87 EMDEs.

B. Capital adequacy ratio is defined as total regulatory capital divided by on- and off-balance-sheet assets weighted by risk. Data refer to 2025Q1 for Sri Lanka, 2025Q3 for India and Maldives, and 2025Q2 for other SAR countries. "Other EMDEs" shows the simple median and interquartile range for 87 EMDEs.

C. Scatter plot shows GDP per capita against market capitalization as a share of GDP for 62 countries in 2024. Blue dotted line shows simple trend.

D. The CAPE ratio (Cyclically Adjusted Price-to-Earnings) is a stock market valuation metric that divides a stock's current price by its average inflation-adjusted earnings from the past 10 years, smoothing out business cycles to gauge long-term market valuation, with higher ratios often signaling overvaluation. For the United States, the CAPE for the S&P 500 index is used; for India, the BSE SENSEX. Averages are calculated using values since 2000.

E. Figure shows GDP growth across 18 episodes in 13 EMDEs from the 1990s to 2022, where domestic market capitalization fell by more than 50 percent of GDP. $T = 0$ marks the point of the market cap decline.

F. Figure shows real private investment growth across 15 episodes in 10 EMDEs from the 1990s to 2022, where domestic market capitalization fell by more than 50 percent of GDP. $T = 0$ marks the point of the market cap decline.

tech stocks. Non-bank financial institutions (NBFIs) are generally not monitored or regulated in the same way as banks and have grown in size and increased their linkages with banks (IMF 2025). Private credit to firms has also surged, sometimes in complex and opaque forms (Aldasoro, Doerr, and Todorov 2025). In bond markets, tighter-than-expected monetary policy in major central banks, concerns about monetary policy credibility, or weaker demand for government debt could push up term premia and lead to disorderly market conditions. Stresses in any of these market segments could spread to others, resulting in widespread financial turmoil characterized by equity price corrections, rising risk premia, and foreign exchange shortages.

Global financial turbulence could transmit to South Asia through a sudden drop in risk appetite that causes capital outflows, currency depreciation, higher borrowing costs, and tighter domestic liquidity. These spillovers would be amplified by each South Asian country's domestic vulnerabilities.

In Bangladesh and Nepal, risks are concentrated in the domestic banking system. In Bangladesh, nonperforming loans have been high and underreported (until recently) due to forbearance and permissive classifications, and many banks have insufficient capital buffers (figure 1.9; World Bank 2025h). Nonperforming loan ratios are also rising in Nepal's banking system, although from a lower level. And nonperforming loan ratios remain high in Sri Lanka and Maldives, notwithstanding declines from the 2023 peak caused by the sovereign debt crisis in Sri Lanka and the 2021 peak caused by the pandemic-related tourism collapse in Maldives.

In Sri Lanka and Maldives, sovereign debt burdens present risks. In Sri Lanka, interest payments continue to absorb a high share of

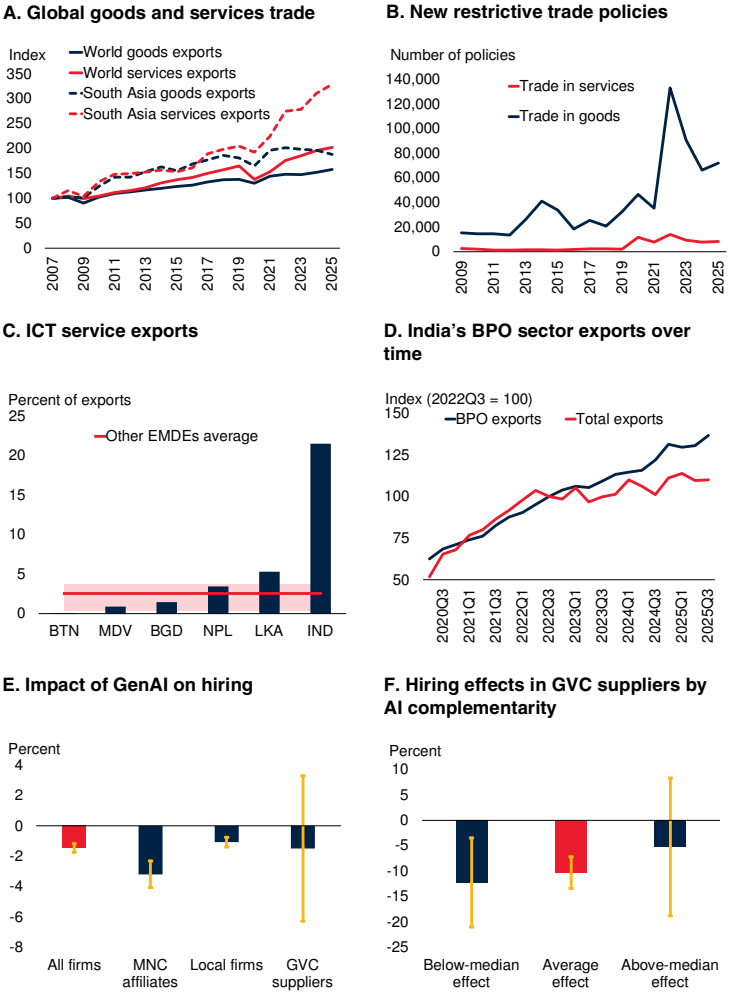
government revenues, increasing vulnerability to changes in borrowing costs and leaving limited scope for fiscal policy support (World Bank 2025f). Maldives has limited foreign exchange reserves and is at high risk of sovereign debt distress, as assessed by credit rating agencies and recent debt sustainability assessments.

India's banking system is well capitalized, its fiscal position is solid, and authorities are providing proactive oversight. In other countries, risks have arisen from the rapid development of domestic equity markets. The value of Indian equities rose from 76 percent of GDP in 2019 to 124 percent in 2025, well above the level of other countries at a comparable level of development. Indian equities have lagged other markets recently, but the stock index's cyclically adjusted price-to-earnings ratio nonetheless stood at 33 in January—well above its long-run average of 25 and nearly double the EMDE average. Much of this is attributable to strong prospects for growth and profitability, but it may also signal some potential vulnerability to a sudden correction.

In a sample of 69 EMDEs from 1984 to 2024, there have been 18 episodes of stock market valuations falling by the equivalent of at least 50 percent of GDP in a year. In these episodes, the median country experienced GDP growth of just 0.5 percent—5.5 percentage points below its prior four-year average—in the year after the stock market drop. Investment fell even more drastically, slowing by around 15 percentage points to -4.3 percent, on average. Half of these episodes occurred around the 2008 global financial crisis, which featured many shocks beyond equity market corrections. Even when excluding episodes around 2008, large equity falls were associated with GDP and investment growth declining by 4.7 and 8.2 percentage points, respectively.

FIGURE 1.10 Slowdown in services trade due to restrictions or AI

Global trade has been weak for many years, and this trend was worsened by recent tariff increases. Services trade, however, has grown steadily. This is a source of strength for South Asia, which exports business and financial services, ICT, and tourism. This could become a weakness if new restrictive trade policies are introduced or if AI threatens business models. Greater AI exposure leads firms to reduce hiring, particularly among multinational affiliates. South Asian firms selling to foreign companies that are highly exposed to AI tend to have shrunk their networks of international buyers since the introduction of ChatGPT.



Sources: FactSet; Felten, Raj, and Seamans (2023); Global Trade Alert; IMF WEO; Lightcast; Pizzinelli et al. (2023); Reserve Bank of India; WDI; WTO; World Bank.

A. 2007 = 100. Index shows real growth of exports of goods and services. "South Asia" shows total exports from Bangladesh, Bhutan, India, Maldives, and Sri Lanka. 2025 uses IMF WEO estimation.

B. Newly introduced policies each year. Services sectors are defined as sections 5–9 in CPC coding system.

C. Bars show ICT sector exports relative to total exports. Pink areas indicate the interquartile range for other EMDEs, weighted by population.

D. Lines show indexed values of technology services exports and total exports (2022Q3 = 100) in India from 2020Q2 to 2025Q3, with 2022Q3 marking the quarter before the release of ChatGPT.

E. MNC affiliates are multinationals headquartered outside South Asia; local firms are South Asia-headquartered with no foreign buyers; GVC suppliers have international buyers pre-ChatGPT. Bars show coefficients and whiskers show 95 percent confidence intervals from a firm-level regression of outcomes on average AI exposure of pre-ChatGPT job postings interacted with a post-ChatGPT indicator. Refer to chapter 2 for more details.

F. Bars show coefficients and whiskers show 95 percent confidence intervals from a firm-level regression of log job postings on the average AI exposure of firms' international buyers before the introduction ChatGPT, interacted with a post-ChatGPT indicator. Refer to chapter 2 for more details.

Slowdown in services trade due to restrictions or AI

Global trade in goods has stagnated as a share of activity since 2007 and has been encumbered more recently by tariff volatility and uncertainty (figure 1.10). Global trade in services has grown robustly in recent decades even as goods trade has slowed. This has been a source of strength for South Asia. Services make up a large share of South Asia's exports, accounting for 44 percent of total exports, compared to the global average of 27 percent in 2024. They are concentrated in ICT, business services, tourism, and financial services. The region's real services exports have grown at an average rate of 15 percent per year since the pandemic.

This source of strength could become a weakness under certain conditions. Services exports are not subject to tariffs, but trade policy could still become more restrictive through new rules and regulations. New restrictions on services have picked up in recent years, even if they remain less common than new restrictions on goods. Data localization rules could interrupt the flow of data moving across borders, reducing the ability of South Asian firms to service distant clients. Widening differences in approaches to privacy, consumer protection, financial compliance, or cybersecurity could hinder cross-border services trade. Geopolitical tensions or spreading diseases could lead to visa restrictions or other mobility constraints, sharply reducing tourism and any face-to-face contact required to expand or sustain business process outsourcing, for example.

The rapid adoption of AI-related technologies could similarly reshape services exports, specifically business process outsourcing (BPO). Many firms in India, Sri Lanka, and Nepal have grown rapidly by taking on the back-office functions of corporations situated abroad, such as information and communication technology (ICT) and BPO services. Increasingly, many of these services can also be performed by AI at much lower cost. AI allows foreign buyers of South Asian services to reshore business functions that were previously sourced through imports but it may also generate demand for new, higher-value services by increasing productivity and investment among foreign buyers.

There is evidence that AI is already reshaping firms and jobs in South Asia since the release of ChatGPT in November 2022 (chapter 2 box 2.1). Companies that are more exposed to AI have seen reductions in overall hiring. An interquartile-range increase in AI exposure is associated with a 1.5 percent decline in job postings, a proxy for labor demand, compared to the aggregate trend in job postings. These (relative) job losses are particularly large among South Asian firms that are multinational affiliates or GVC suppliers, compared to purely local firms. The nature of the overseas buyer also matters: South Asian suppliers exporting to highly exposed buyers (that are not part of a multinational) reduce employment most. An interquartile-range increase in buyers' AI exposure is associated with a 10 percent reduction in hiring among these South Asian suppliers.

However, AI exposure among foreign buyers may also create opportunities. As AI-driven productivity gains fuel growth and investment in advanced economies, demand may expand for higher-value activities that complement rather than compete with AI. South Asian firms that move up the value chain or diversify into these complementary services—such as those that have transitioned from BPO services to more advanced knowledge process outsourcing (KPO) services—may benefit from this shift.

While South Asia's services export industries are under pressure from AI adoption abroad, South Asian economies' opportunities from AI adoption at home are hindered by digital penetration, which is still limited despite rapid recent development. Only about 60 percent of people in the region have access to the internet, for example, and half of South Asian adults without a financial account also do not own a mobile phone (Klapper et al. 2025). This limits opportunities for digital transactions.

Structural reforms unlock new dynamism… or falter

Successful structural reforms create the conditions for higher productivity, investment, and growth. Setbacks to reforms—whether through outright policy reversals or simply weak implementation—can undermine confidence, deter investment, and lead to economic stagnation.

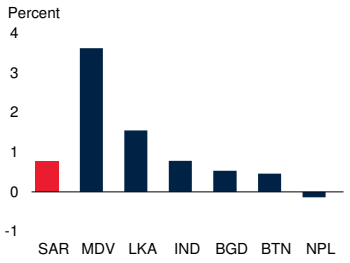
South Asia's growth has been substantially stronger than expected since the pandemic. Between 2021 and 2025, growth in the region has been higher than originally forecast by an average of 0.8 percentage points each year (figure 1.11). India has largely driven this outperformance. The country has pursued a multitude of structural reforms that seem to be bearing fruit. Financial sector reforms improved the balance sheets of banks by resolving nonperforming loans. Public investment has improved transport and digital connectivity, as well as sanitation. GST reform helped unify the domestic market. More recently, labor law regulations were consolidated, simplified, and modernized. Recent free trade agreements with the European Union and the United Kingdom will expand export opportunities.

In other South Asian countries, growth has

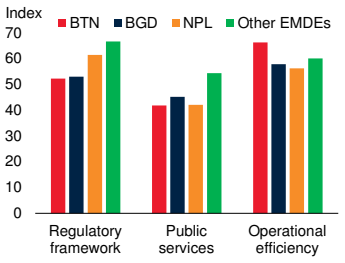
FIGURE 1.11 Structural reforms unlock new dynamism… or falter

South Asia's growth has been stronger than expected since the pandemic, largely driven by India. Elsewhere, business climates tend to be challenging, but years of deterioration in policy reforms have recently reversed in many countries as economies emerge from crisis with IMF support. If reforms lead to a virtuous cycle of growth, countries in the region could reach high-income status more quickly than expected.

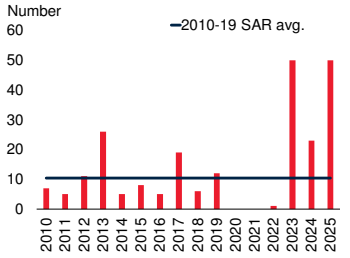
A. Average growth forecast errors in South Asia, 2021–25



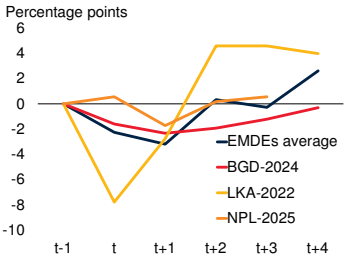
B. Business Ready scores in South Asia



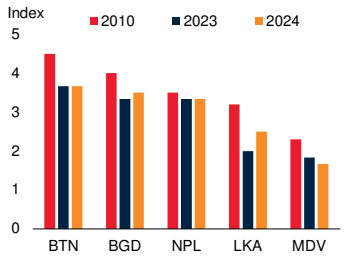
C. Number of structural reforms under IMF programs in South Asia



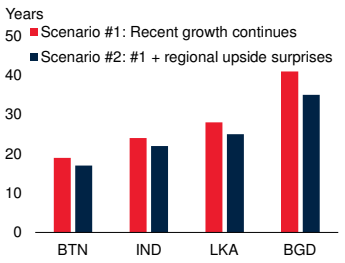
D. Change in GDP growth around social unrest events



E. CPIA economic management cluster



F. Years to reach high-income status under alternative scenarios



Sources: Business Ready 2025; Global Protest Tracker; IMF Monitoring of Fund Arrangements (MONA); MPO; WDI; World Bank.

A. Chart shows the 2021–25 average growth forecast errors across countries. For year *t*, forecast errors are defined as the difference between GDP growth estimates from the latest data and the April vintage of year *t*. Country GDP growth rates are reported on countries' reference periods and converted to calendar years to calculate regional growth.

B. Figure shows countries' Business Ready scores. "Other EMDEs" is median of 73 economies.

C. Figure shows the number of reforms for South Asian countries under IMF-supported programs, including Assessment Criteria, Performance Criteria, Prior Actions, and Structural Benchmarks.

D. Figure shows change in GDP growth around social unrest occurring in year *t*. The pre-event benchmark (*t*-1) is defined as the average GDP growth over the four years preceding the event (*t*-4 to *t*-1). Social unrest data from Global Protest Tracker, defined as having a peak crowd size of above 50,000 people. Sample includes 34 events in 26 countries between 2017 and 2020.

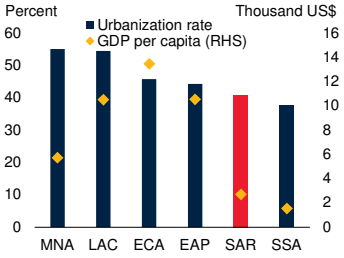
E. Chart presents the economic management cluster scores in the Country Policy Institutional Assessment (CPIA) for South Asian countries, which include assessments of Monetary and Exchange Rate Policies, Fiscal Policy, and Debt Policy.

F. Bars show number of years required to exceed the World Bank high-income threshold. Projections based on continuation of 2023–25 GDP growth rates and population trends (except Sri Lanka, which uses 2016–18 average to avoid recession). High-income threshold projected using its historical growth rate. Upside scenario incorporates recent regional forecast errors into post-2026 growth.

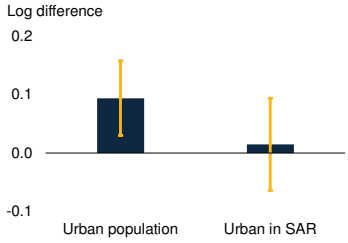
FIGURE 1.12 Urban development

South Asia is less urban than other regions. It is not clear that South Asian cities are yielding the same benefits to productivity and wages as elsewhere. The benefits of agglomeration may be lessened by unplanned development, lack of infrastructure, and the limited capacity of municipal governments.

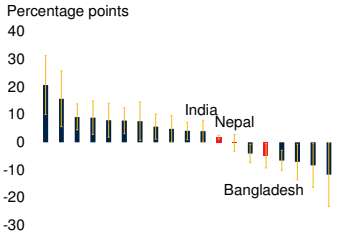
A. Urban population share of EMDE regions



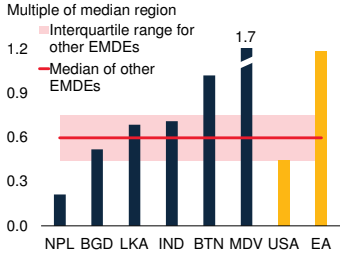
B. Difference in regional wage premium by urban agglomerations



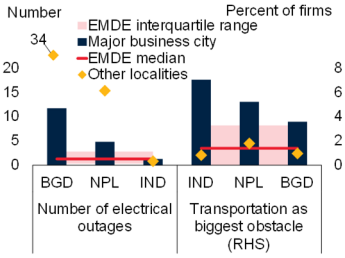
C. Labor productivity premium among urban formal firms



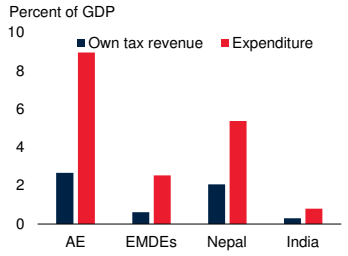
D. Range of regional average wages



E. Firms reporting infrastructure challenges



F. Local government revenues and expenditures



Sources: Global Labor Database; Maldives Household Income and Expenditure Survey 2019; Kapur and Subramanian (2025); World Urbanization Prospects 2025; WDI; World Bank Enterprise Survey; World Bank.

A. Definition from United Nations World Urbanization Prospects 2025, using the Degree of Urbanization methodology. A "city" is a contiguous agglomeration of 1-km² grid cells with a density of at least 1,500 inhabitants per km² and a total population of at least 50,000.

B. Predicted difference in log regional wage premium between the highest (90th percentile) and lowest (10th percentile) value for share of urban population. Refer to chapter 2 for more details.

C. Figure shows estimated coefficients of firm labor productivity growth premium on location in city with 250,000 or more people. Only statistically significant results are presented, except for Nepal. Sample includes 19 EMDEs between 2022 and 2025.

D. Charts show minimum-maximum range of average wages in admin-1-level subnational units relative to the average wage of the median subnational unit. Red shading represents the interquartile range and the red line shows the median value for 22 EMDEs. Bar for euro area shows the range of country-level average wages in 2024 in 12 euro area countries. Bar for United States shows the range of state-level average wages in 2024 in 29 U.S. states. Refer to chapter 2 for more details.

E. Responses of firms in major business cities to questions of how often they experienced electrical outages in the past month and perceive transportation as biggest obstacle to business operation. Sample for "Other EMDEs" includes 73 economies.

F. Latest data are for 2019 in India and 2023 in Nepal. AEs and "Other EMDEs" use latest available year. India's local government refers to urban local bodies from Kapur and Subramanian (2025). "Other EMDEs" and "AEs" include, respectively, 65 and 34 economies for local government data.

been weaker and less prone to upside surprises, possibly in part because of a lack of reform progress. Business climates tend to be challenging, with Bangladesh, Bhutan, and Nepal all scoring below the median EMDE in terms of the quality of their regulatory frameworks and public services (World Bank 2025i). This may soon change, however, as several South Asian countries are currently stepping up structural reforms, often with IMF and World Bank support. These are concentrated in countries emerging from periods of public unrest and include reforms to improve governance of state-owned enterprises in Sri Lanka, enhance exchange rate flexibility in Bangladesh, and improve revenue collection and fiscal management in Nepal, among others.

The baseline forecast assumes that recent social unrest in Bangladesh and Nepal is followed by a rebound in growth as stability returns and structural reforms are enacted. This view is supported by recent improvements in indicators of governance quality (the World Bank Group's Country Policy and Institutional Assessment).

There is, however, a risk that these reforms are not implemented fully or effectively. Recent improvements in the governance indicators mentioned above were partly in response to social unrest and came only after a preceding period of decline. These countries may have underlying political economy constraints that could impede reform follow-through. The possibility of renewed social unrest and political volatility also makes reform trajectories less predictable. The payoff could be large if reforms are implemented steadfastly; but slippages, reversals, or uneven execution could just as easily erode confidence and stall these countries' growth momentum.

Even modest differences in potential output growth can transform a country's economic

trajectory if sustained. If countries in the region were to complete structural reforms that added the equivalent of South Asia's recent forecast errors (+0.8 percentage points) on top of recent growth performance, it would significantly bring forward the date they would be expected to reach high-income status: India could be a high-income country by 2047, Bangladesh by 2060, Sri Lanka by 2050, and Bhutan by 2042.

Policy challenges

Accelerating growth and job creation is a major challenge. Cities can be a powerful tool for accomplishing these goals. Reforms to empower local governments can improve the ability of South Asian cities to drive productivity growth and create large numbers of jobs. Concentrating growth in small areas while other regions lag can be a recipe for social tensions. Promoting tourism can spread growth more broadly, including to rural areas where poverty is often concentrated. Well-designed and targeted industrial policy can help accelerate and spread growth. Facing limited fiscal space and regulatory capacity, South Asia can focus on broad-based development policies complemented by first-choice industrial policy measures that address market failures. A cross-cutting priority is improving infrastructure in the region.

Urban development

Urbanization is a powerful force for raising productivity and incomes (Ciccone and Hall 1996; Brülhart and Sbergami 2009). The concentration of people in cities allows firms and people to benefit from knowledge spillovers, specialization, and skill matching both within and across sectors (Henderson 2003; Glaeser et al. 1992). The density of activity improves economies of scale and allows infrastructure to be efficiently shared, making complex, high-value activities viable.

Using internationally comparable data, around 40 percent of South Asians live in cities, which is less than in other EMDE regions (figure 1.12; United Nations 2025). This share is increasing: more than 500 million people are expected to move into South Asian cities by 2050 (World Bank 2025j). Cities that are able to absorb large numbers of migrants are a critical engine of labor market integration, helping to absorb shocks in the national job market as workers suffering from job losses elsewhere can move to locations with more promising prospects.

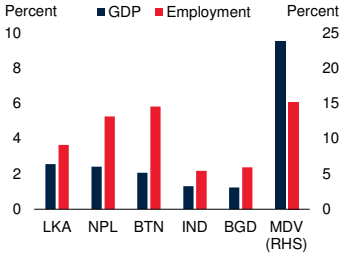
There are signs that many cities in South Asia are less effective than elsewhere at boosting incomes and absorbing migrants. For example, the Indian states of Maharashtra and Gujarat have almost identical urban population shares, but Maharashtra has a wage premium (controlling for worker characteristics) that is 6 percentage points above the median, while Gujarat's is 7 percentage points below the median (chapter 2, box 2.2). As a result of this wide heterogeneity, and unlike in other EMDEs, there is no statistically significant association between greater urbanization and higher wages across regions in South Asia. The labor productivity premium for urban formal firms in South Asia is also on the low end among EMDEs.

This may be because the benefits of agglomeration are being undermined by the negative externalities of urban density, including costs of congestion, disease, and crime (Jedwab and Vollrath 2015). The densely-populated Indo-Gangetic Plains and Himalayan Foothills—which include parts of Bangladesh, Bhutan, India, Nepal, and Pakistan—have some of the world's highest levels of pollution, which take a heavy toll on

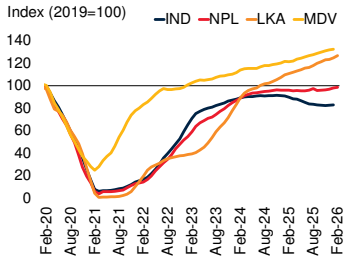
FIGURE 1.13 Tourism for development

Tourism activity has largely recovered since the pandemic and is an important sector for South Asia. The sector has many appealing characteristics, and is far more productive than the informal sector, even if it is one of the least productive formal sectors. Improving infrastructure quality can help boost productivity gains and other benefits of the sector.

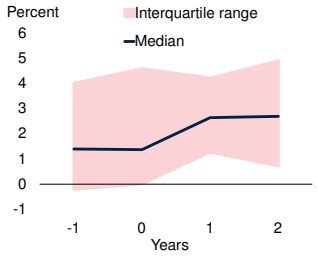
A. Contribution of the tourism sector to GDP and jobs



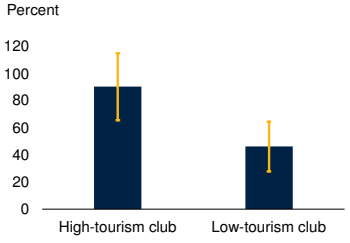
B. Tourist arrivals in South Asia



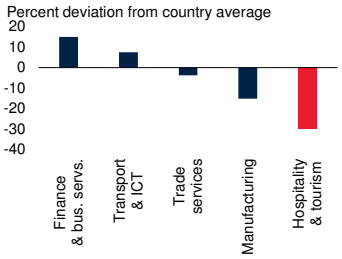
C. Per capita real GDP growth after significant increases in share of tourism activity



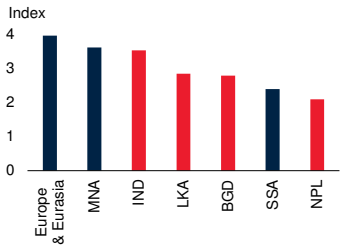
D. Cumulative change in real GDP per capita, 2000–19, by convergence club



E. Formal sector wage gap relative to EMDE average, 2020–2025



F. Infrastructure and services development index for tourism and travel



Sources: BLS; Haver Analytics; Travel & Tourism Development Index 2024; WEO; World Bank Enterprise Survey; World Bank.

A. Tourism share of GDP is measured as the value added share of accommodation and food service activities. Tourism employment is proxied by accommodation, food and beverage service activities, and travel agency and tour operator activities. For Maldives, the direct tourism value added share is used for GDP, and employment share also includes the transportation sector. Employment data are for 2017 for Nepal, 2019 for Maldives, 2023 for Sri Lanka, and 2024 for others.

B. Figure shows 12-month moving average of tourist arrivals, indexed to 2019.

C. T = 0 denotes the year in which tourism share rose by more than 1.67 percentage points, which is the 90th percentile of increases in the sample. Sample includes 159 EMDEs from 1995 to 2020.

D. Figure shows cumulative percent change in real GDP per capita for each convergence club from 2000 to 2019. Whiskers indicate 90 percent confidence intervals. Convergence clubs are groups of countries whose differences in macroeconomic outcomes narrow over time. Based on the methodology of Phillips and Sul (2009). "High-tourism club" represents the convergence group with the highest tourism share of GDP (averaging 9.5 percent), while "Low-tourism club" represents the group with the lowest tourism share (averaging 1.8 percent).

E. EMDEs include 82 economies between 2020 and 2025. Average country and sectoral wages are weighted at firm-level. Bars show the median percent deviation across all EMDEs.

F. Bars show the 2024 Travel & Tourism Development sub-index for Infrastructure and Services.

health and productivity (Heger, Cros, and Pople 2025).

All major cities are congested to a degree, but in productive cities high density coexists with high levels of livability. In most South Asian countries, 40 percent or more of the urban population lives in slums, above the EMDE median, likely due to inefficiencies in land and housing markets (Bryan, Glaeser, and Tsivanidis 2020).

Policymakers can improve the livability and prosperity of cities in a variety of ways. Land and housing reform can increase the supply and density of affordable housing (Ellis and Roberts 2016; World Bank 2025j). This includes improving land titling and registration systems, and increasing access to finance for construction and mortgages. It also includes improving urban land management by governments, which often own and underutilize large tracts of prime land. Revenues from land sales can be an important funding source for local governments.

Basic urban services that could mitigate negative externalities are often not adequate in South Asia (Bryan, Glaeser, and Tsivanidis 2020). Core elements of urban infrastructure such as transit, electricity, and sanitation often lag demand—many firms in South Asia report frequently experiencing electrical outages and that transportation is among their biggest obstacles. Insufficient infrastructure investment also translates into a lack of resilience to natural hazards, particularly heat waves and urban flooding (World Bank 2025j).

Local governments are limited in their ability to improve urban infrastructure. They often lack the mandate, accountability, or financial capacity needed to develop or maintain urban infrastructure. As in other EMDEs, local governments in South Asia are often under-

resourced and generally lack the ability to raise needed funds on their own, relying on transfers from federal or state governments for the majority of their expenditures. The central government in Maldives sets all local revenue rates (Ellis and Roberts 2016). In Bangladesh and Bhutan, local governments must comply with central government guidelines and secure approval to adjust local tax rates.

One way to harness the potential gains from urbanization is to strengthen fiscal decentralization so that public services can be delivered closer to citizens (Sow and Razafimahefa 2015). In India, for example, fiscal decentralization has made rapid progress at the state level, but less so at the local level: between 1961 and 2019, the share of state-level expenditure increased from 8.1 to 16.6 percent, while that of local expenditures changed from 0.6 to 0.8 percent (Kapur and Subramanian 2025).

Several South Asian countries have increased the resources available to local governments through intergovernmental transfers rather than increasing local revenues. Revenue decentralization to the local government level has the potential to improve public services, as local governments have more knowledge and accountability to their communities. Expanding access to own-source tax revenues and capital market financing could provide additional, more flexible resources for local governments to support urban infrastructure and public service delivery (Khemani et al. 2005). For example, fiscal decentralization to the third tier of government has been found to be associated with lower infant mortality rates and overall citizen satisfaction, as improved citizen participation makes the allocation of expenditure more closely match popular preferences (Gonçalves 2014; Miao 2023).

Tourism for development

Tourism is an important economic sector in South Asia. It accounts for a particularly large share of activity and employment in Maldives, Bhutan, and Nepal (figure 1.13). Tourist arrivals collapsed during the pandemic but have since rebounded (Twining-Ward et al. 2026).

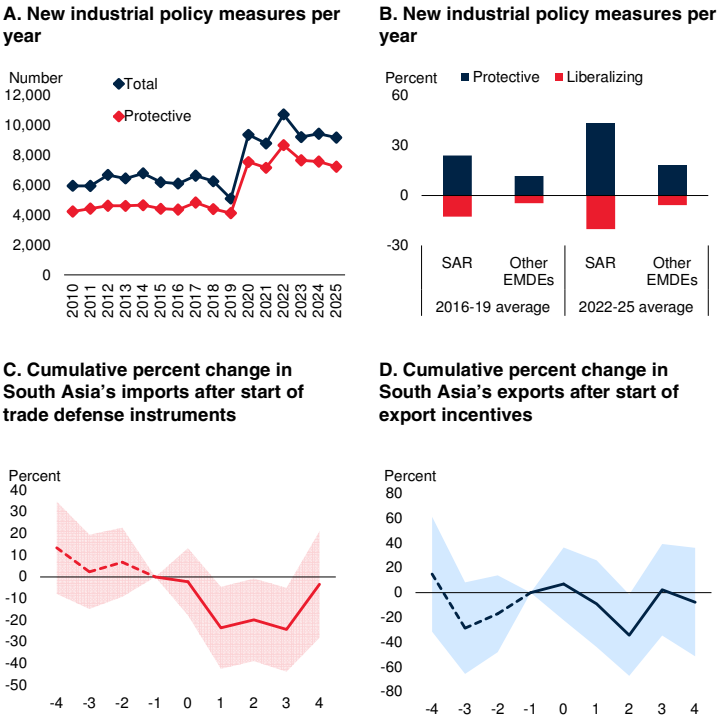
Tourism activity has several appealing economic characteristics. It can spread growth to lagging areas such as secondary cities and rural areas where poverty is often concentrated, thereby reducing urban-rural income inequality (Li et al. 2016). It brings in foreign exchange earnings but, unlike many other export industries, it is less vulnerable to foreign policy changes such as tariffs or competition from artificial intelligence. It creates a wide spectrum of jobs that can absorb labor from agriculture and informal sectors, often including marginalized groups, women, and youth.

In recent decades, EMDEs where tourism increased as a significant share of GDP also tended to experience accelerations in per capita GDP. An exercise following the methodology of Tomal (2024) and first suggested by Baumol (1986) also finds that there is a distinct "convergence club" of countries characterized by large tourism sectors (averaging about 10 percent of GDP) and faster recent growth in per capita incomes.

These findings are consistent with those in the literature. On a macroeconomic level, studies find a positive relationship between the degree of tourism dependence and the pace of GDP growth, and no evidence of systematic distortions—such as overvalued real exchange rates and de-industrialization—that might lead to the opposite (Pérez-Rodríguez, Ledesma-Rodríguez, and Santana-Gallego

FIGURE 1.14 Industrial policy

The number of new industrial policy measures soared in the 2020s, led by advanced economies. In South Asia, the number of new industrial policy measures per year doubled between 2016–19 and 2022–25. Import-restricting industrial policy measures were followed by declines in imports, but export-supporting measures did not produce gains in exports.



Sources: CEPII BACI; GTA; World Bank.

A. Lines show the new industrial policies implemented over time, either the total number of policies (liberalizing as well as protective measures) or protective policies only, which discriminate against foreign businesses and protect domestic businesses, as classified in the Global Trade Alert (GTA).

B. Bars show the annual average number of new industrial policies implemented in each country group. Blue bars show the number of protective measures, and the red bars show the number of liberalizing measures, shown as negative values.

C. Estimates of the change in affected sector's imports after the introduction of trade defense instruments, including anti-dumping, anti-subsidy, and other safeguards. Refer to chapter 2 for more details.

D. Estimates of the change in affected sector's exports after the introduction of export incentives, including export subsidies, export tax incentives, and other export incentives. Refer to chapter 2 for more details.

2015; Holzner 2011). On a local level, surges in tourism have been found to lead to large and significant economic gains through both direct effects and spillovers to other sectors (Faber and Gaubert 2019; Nocito, Sartarelli, and Sobbrio 2023).

Jobs in tourism are generally less productive than those in other formal sectors, and wages in the sector tend to be considerably lower than average. The prevalence of face-to-face services in tourism means that the benefits from economies of scale and automation can be more challenging to achieve than in manufacturing, for example. Tourist activity can be seasonal, resulting in high staff turnover and inefficiently low capacity utilization during off-peak periods. The sector can nonetheless support rising incomes when it is drawing workers from the informal sector, who are less than half as productive as formal sector workers in South Asia (Ohnsorge and Yu 2022).

Several countries in South Asia (Sri Lanka, Bhutan, and Nepal) are making efforts at improving connectivity and increasing value-added in tourism to create jobs in lagging regions (World Bank 2024b, 2025k, forthcoming). Productivity and wages in the sector can be raised by moving into high-yield segments and investing in skills, standards, and enterprise capabilities. Empowered destination management organizations can professionalize local stewardship and coordinate private investment. The benefits of tourism can be distributed throughout the economy by moving away from import-dependent "enclave" models. Community linkages can be maximized to raise value added and positive spillovers—for example, by connecting the hospitality industry with local farmers, transport services, and creative industries. Appropriately designed industrial policies can guide such efforts.

Many of the enabling conditions for tourism are also helpful for growth more generally. Infrastructure quality tends to be low in South Asia, resulting in gaps in transport connectivity and services such as sanitation at destinations. Public investment can close these gaps with significant benefits for both tourism and the broader private sector, as it reduces congestion, improves safety, and helps preserve sensitive ecosystems and heritage sites

from degradation. Both tourism and the broader economy benefit from sound regulation and land-use planning; transparent and predictable permitting; environmental sustainability; and skills systems aligned with industry needs.

Industrial policy

Over the past decade, industrial policy has gained momentum globally (figure 1.14; Evenett et al. 2024; Fernandes and Reed 2026; Juhász et al. 2023). In the right enabling environment, industrial policy can drive meaningful structural change by addressing market failures such as high fixed costs, coordination problems, and information gaps (chapter 2). Partly inspired by success stories from East Asia and guided by lessons from Latin America, new industrial policies are more outward-oriented and focused on integrating into global value chains. They are also less likely to be motivated by import substitution and industrialization than they were in the 1970s to 1990s.

South Asia has long made proactive use of industrial policy. Already prior to the pandemic (2016–19), South Asia introduced about twice as many new industrial policies per year as the average EMDE. In the four years after the pandemic (2022–25), the region's use of industrial policies more than doubled. India drove most of the increase, with the average number of new protective measures implemented each year increasing from 125 to 240, placing it among the world's top 10 countries by policy counts and third among EMDEs.

Since the pandemic, significantly more new industrial policy measures have been directed at firms with more workers (Bangladesh, India) or higher productivity (India). In manufacturing, which is the target of about half of new policies in South Asia, Sri Lanka directed more policies at sectors with more employment, and India directed more policies at sectors with higher wages.

Compared with other EMDEs, South Asia used fewer domestic subsidies and more procurement-related measures (India) and trade-related measures (elsewhere in South Asia). Import instruments—such as import bans, import tariffs, and import licensing requirements—accounted for 25 percent of the region's new protective policies implemented during 2022–25. Measures to steer exports—such as export subsidies, taxes, or quotas—have accounted for about one-tenth of South Asia's protective policies, but about one-third in Bangladesh.

Trade-related measures have had asymmetric effects in South Asia. Sectoral imports declined significantly for several years after the introduction of import-restricting policies in South Asia, but sectoral exports did not rise significantly after export-promoting policies.

In principle, domestic subsidies—such as financial grants, loans, and interest payment subsidies—could help firms address the credit constraints, high fixed costs, or coordination challenges that often accompany exporting activities. In practice, however, such subsidies have not been associated with significant increases in sectoral exports in South Asia.

More broadly, South Asia's experience with industrial policies has been mixed. The region's use of industrial policies has been constrained by limited fiscal space and government capacity, as well as gaps in implementation and infrastructure. The few success cases have hinged on coordinated policy and integration into global value chains.

Because of these constraints on industrial policies, efforts to address market failures head

on (so-called first-choice policies)—such as industrial parks, skills development, market access assistance, and quality infrastructure improvement—can maximize the chance of success. These are likely to be most effective if accompanied by broad-based policies to improve physical and digital infrastructure, business environments, and institutions. Some of South Asia's fastest periods of investment growth have been driven by broad-based improvements in the underlying business environment, regulatory predictability, and state capacity—reinforcing the importance of cross-cutting reforms.

Annex B1.1 Methods and data

The analysis in box 1.1 combines data on tariffs, imports and exports, and household income and consumption expenditure to assess how proposed trade reforms relate to countries' current trade specializations and how households might be affected. Trade specializations are proxied using *revealed comparative advantages* (RCA). Household impacts are estimated using the framework of Artuc, Porto, and Rijkers (2021).

Tariffs and para-tariffs. Latest 6-digit HS product-level tariff data are obtained from the Analytical Database of the World Trade Organization (WTO) and from the Sri Lanka Customs National Imports Tariff Guide 2025 for para-tariffs. The reform scenario applies Sri Lanka National Tariff Policy's proposed full phase-out of the Commodity Export Subsidy Scheme (CESS) and Ports and Airport Development Levy (PAL) on all imports until 2029. Tariff cut commitments as part of India's free trade agreements (FTA) with the European Union and the United Kingdom are from Indian, EU, and UK customs schedules and various press releases. The India-UK Comprehensive Economic and Trade Agreement (CETA), annex 2, comprises a full list of 8-digit HS product-level tariff cut commitments.

Household impact: Method. The impact analysis estimates the first-order, short-run real income effects of the proposed tariff and para-tariff reforms on different households across the income distribution, following the framework of Artuc, Porto, and Rijkers (2021). The real income effects are given by

$$\widehat{V^h} = \sum_i \left(\phi_i^h - s_i^h\right) \frac{\Delta\tau_i}{1+\tau_i} \qquad (1.1)$$

Thus, household h experiences real income gains if reductions in import duties τ are concentrated in sectors i where it is a net-consumer, such that expenditure shares s_i^h exceed income shares ϕ_i^h. This conceptualization, which is based on Deaton (1989), assumes perfect pass-through elasticities from changes in import duties to producer and consumer prices. To more closely reflect the expenditure and income effects on households, the analysis across broader commodity groups or goods-producing sectors relies on import-weighted import duties.

Household impact: Data. Household income and expenditure data are from IFPRI's 2023 Social Accounting Matrices for India and Sri Lanka. They provide income and expenditure data across 10 household groups. Urban and rural households are separated into national per capita consumption expenditure quintiles, such that urban and rural quintiles are comparable and that the combined population of each quintile is equal to one-fifth of the national population. Income and expenditure data are disaggregated across 42 sectors (30 goods-producing sectors and 12 service sectors; IFPRI 2024, 2025). The sum of sectoral household income is the difference

between total household income and enterprise, government, and foreign transfers. The sum of sectoral household expenditure is the difference between total household expenditure and non-marketed consumption, taxes, savings, and payments abroad.

Revealed comparative advantages. This measure, as introduced in Balassa (1965), represents the ratio of a country's sectoral export shares relative to the global average. More formally, country c's RCA index in sector j is calculated as

$$RCA_{cj} = \frac{\left(X_{cj} \Big/ \sum_j X_{cj}\right)}{\sum_c X_{cj} \Big/ \sum_c \sum_j X_{cj}} \qquad (1.2)$$

where X denotes export values. The numerator measures the share of sector j in country c's total gross exports. The denominator calculates the same across all economies. If the

RCA is above 1 for a particular sector j, it indicates that country c is specialized in exporting that sector's outputs. Given its distributional properties, figures B1.1.3 and B1.1.5 report the natural logarithm of RCAs, such that values above zero indicate country's export specialization. Data on RCAs across 35 sectors (16 goods-producing sectors and 19 service sectors) are from the ADB Multiregional Input-Output Tables and CEPII BACI for 2024 (annex table B1.1).

Annex Table A1.1 Selected indicators of South Asia's exposure to the Middle East conflict

	Exposure		Vulnerability		Policy Space	
	Oil & gas net imports (% of GDP, 2024)	External financing (% of GDP, 2025)	Inflation rate (Feb 2026 or latest)	Reserves (months of imports, 2025 or latest)	General gross debt (% of GDP, 2025)	Fiscal balance (% of GDP, 2025)
Bangladesh	1	5	9.1	5.2	40	-3.5
Bhutan	6	29	5.8	6.9	106	-2.6
India	3	6	3.2	8.7	81	-7.4
Maldives	11	25	0.4	3.7	132	-4.3
Nepal	5	-4	2.4	16.0	49	-1.6
Sri Lanka	3	11	1.6	3.0	101	-2.9

Sources: BACI; Fitch; Haver Analytics; IMF WEO; WDI; World Bank.
Note: External financing needs are defined as the sum of the current account deficit, short-term external debt, and debt service payments on long-term external debt.

Annex Table B1.1 List of sectors

ADB	IFPRI	Broad mapping
Agriculture, hunting, forestry, and fishing	Maize; rice; other cereals; pulses; oilseeds; roots; vegetables; sugarcane; tobacco; cotton and fibres; fruits and nuts; coffee, tea, and cocoa; other crops; cattle and raw milk; poultry and eggs; other livestock; forestry; fishing	Agriculture
Mining and quarrying	Mining	Other industry
Food, beverages, and tobacco	Food processing	Light manufacturing
	Beverage and tobacco	
Textiles and textile products	Textiles, clothing, and footwear	
Leather products, and footwear		
Wood, products of wood and cork	Wood and paper products	
Pulp, paper, paper products, printing, and publishing		
Coke, refined petroleum, and nuclear fuel	Chemicals and petroleum	Heavy manufacturing
Chemicals and chemical products		
Rubber and plastics		
Other non-metallic minerals	Non-metal minerals	
Basic metals and fabricated metal	Metals and metal products	
Machinery, not elsewhere classified	Machinery, equipment and vehicles	
Electrical and optical equipment		
Transport equipment		
Manufacturing, not elsewhere classified; recycling	Other manufacturing	Light manufacturing
Electricity, gas, and water supply	Electricity, gas, and steam	Other industry
	Water supply and sewage	
Construction	Construction	
Sale, maintenance, and repair of motor vehicles and motorcycles; retail sale of fuel	Wholesale and retail trade	Other services
Wholesale trade and commission trade		
Retail trade; repair of household goods		
Inland transport	Transportation and storage	
Water transport		
Air transport		
Other supporting and auxiliary transport activities		
Hotels and restaurants	Accommodation and food services	
Post and telecommunications	Information and communication	Business services
Financial intermediation	Finance and insurance	
Real estate activities	Real estate activities	
Renting of M&Eq and other business activities	Business services	
Public administration; defense; compulsory social security	Public administration	Other services
Education	Education	
Health and social work	Health and social work	
Other community, social, and personal services	Other services	
Private households with employed persons		

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CHAPTER 2

Where Policy Lands:

Industrial Policy and Jobs in South Asia

Chapter 2. Where Policy Lands: Industrial Policy and Jobs in South Asia

On average during 2022–25, South Asian countries implemented twice as many industrial policies as the average EMDE. About half of these policies have been aimed at manufacturing. Among the policies targeted at manufacturing, Sri Lanka's focused on high-employment activities, Bangladesh's on large firms, and India's on high-wage activities and on large, more productive firms. While the activities with the most industrial policy measures have been the largest source of manufacturing employment growth, they have not been the main source of non-agricultural employment growth. The main source of non-agricultural employment growth has been the service sector, which has received few industrial policies. Compared with other EMDEs, South Asia has relied less on subsidies and more on procurement measures (India) and trade-related measures (elsewhere in South Asia). The latter have had asymmetric impacts in South Asia: import-restricting policies were followed by statistically significant declines in imports, but export-supporting measures did not produce significant gains in exports. Constrained by limited fiscal space and regulatory capacity, South Asia can focus on broad-based development policies such as infrastructure investment, business environment reforms, and stronger institutions. Where more targeted measures are needed, industrial policy can prioritize policies that address clear market failures, such as industrial parks, skill development programs, market access assistance, and quality assurance infrastructure.

Introduction

Over the past decade, the use of industrial policy has grown around the world (figure 2.1; Evenett et al. 2024; Fernandes and Reed 2026; Juhász et al. 2023). Defined broadly as government actions aimed at increasing strategic business activities, industrial policies are typically designed to develop or support specific firms, sectors, or domestic economic activities by providing policy preferences (IMF 2025; World Bank 2024a).[1]

Against the backdrop of a global slowdown in growth, supply chain disruptions, and the rapid rise in automation and artificial intelligence, both advanced economies and emerging markets and developing economies (EMDEs) have increased their use of industrial policies to support domestic priority sectors and boost resilience. South Asia, too, has stepped up its use of industrial policy measures: in the average South Asian country, the annual average number of newly implemented policies doubled between the four years prior to the COVID-19 pandemic (2016–19) and the four years afterward (2022–25). When ranked by the number of new industrial policies during 2022–25, India was among the world's top 10 countries and was third among EMDEs, after China and Brazil.

Historical evidence suggests that industrial policies, when implemented in the right enabling environment, can address market failures—such as high fixed costs, coordination problems, and information gaps—and drive meaningful structural change (Aghion et al. 2015; Altenburg and Rodrik 2017; Choi and Levchenko 2025; Fernandes and Reed 2026). Partly inspired by success stories from East Asia

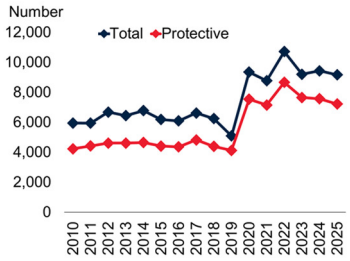
Note: This chapter was prepared by Zoe Xie, with contributions from Jonah M. Rexer, Siddharth Sharma, and Margaret Triyana.

[1] Industrial policy measures are not limited to the industrial sectors, and can be used to develop services sectors, such as tourism, and agricultural and mining sectors that provide upstream inputs. Industrial policy can be implemented using policy instruments such as domestic subsidies and state aid, trade-related policies including import tariffs and controls and export subsidies, and public procurement policies.

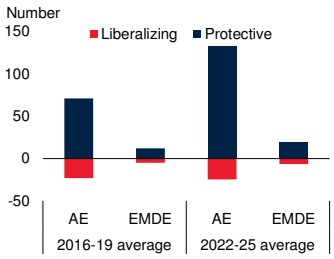
FIGURE 2.1 Trends in industrial policies

The number of new industrial policy measures soared in the 2020s, led by advanced economies. In South Asia, the number of new industrial policy measures per year doubled between 2016–19 and 2022–25, with India accounting for most of the increase.

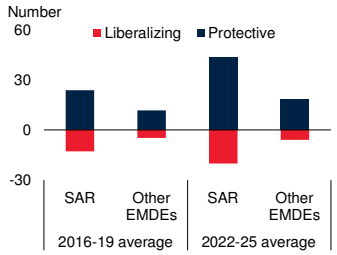
A. World: Number of new industrial policy measures



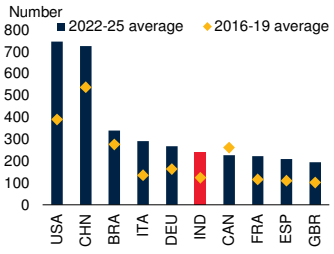
B. Average annual number of new industrial policy measures per country



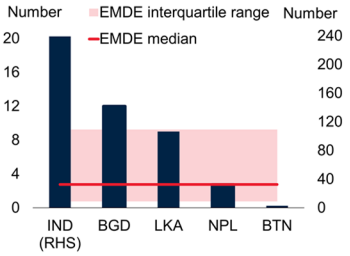
C. Average annual number of new industrial policy measures per country



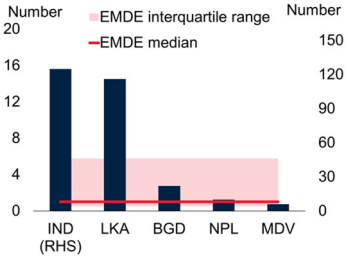
D. Average annual number of new protective industrial policy measures, select major countries



E. South Asia: Average annual number of new protective industrial policy measures, 2022–25



F. South Asia: Average annual number of new protective industrial policy measures, 2016–19



Sources: GTA (database); World Bank.

A. Lines show new industrial policies implemented over time, either the total number of policies (liberalizing as well as protective measures) or only protective policies, which are those that discriminate against foreign businesses and protect domestic businesses, as classified in the GTA.

B. Bars show the annual average number of new industrial policies implemented in each country group. Blue bars show the number of protective measures, and the red bars show the number of liberalizing measures, in negative.

C. Bars show the annual and country average number of new industrial policies implemented in South Asia and other EMDEs. Blue bars show the number of protective measures, and red bars show the number of liberalizing measures, shown as negative values.

D. Bars show the annual average of new protective industrial policies implemented in each of the top 10 countries by policy numbers during 2022–25. Markers show the annual average new protective industrial policies implemented during 2016–19.

E.F. Bars show the annual average number of new protective industrial policies implemented in each South Asian country during 2022–25 (E) and 2016–19 (F). Shaded regions and horizontal lines show the interquartile range and median for EMDEs.

and guided by lessons from Latin America, new industrial policies are more outward-oriented and focused on integrating into Global Value Chains (GVCs), and less likely to be motivated by import substitution and industrialization than they were in the 1970s to 1990s (Juhász, Lane, and Rodrik 2024).

South Asian countries—Bangladesh, Bhutan, India, Maldives, Nepal, Sri Lanka—also make proactive use of industrial policies to achieve development goals. Indian authorities, for example, envision using industrial policies to boost competitiveness, exports, and strategic resilience, particularly in high-technology manufacturing (Government of India 2026). In Bhutan, Maldives, and Sri Lanka, the most recent national development plans emphasize the services sector—specifically the tourism sector (figure 2.2). At the same time, jobs at South Asian firms, especially those that supply to GVCs, are at risk of displacement by artificial intelligence (AI), while shifts in trade policies can lead to short-term disruptions in labor markets (boxes 1.1 and 2.1; World Bank 2025a). Industrial policies can be used to support at-risk workers through programs designed to develop their abilities to adapt to changing skills demand.

Questions. This chapter examines the following questions:

- What are the features of South Asia's industrial policies?
- What has been the effect of industrial policies on trade?
- How can South Asia maximize gains from industrial policies?

Main findings

This chapter reports the following findings.

Allocation of industrial policies. On average during 2022–25, South Asian countries implemented more than twice the number of industrial policies as the average EMDE. About half of South Asia's new industrial policy measures implemented since 2022 have been aimed at manufacturing, even though the sector only accounts for 14 percent of South Asia's employment. The industrial policy measures aimed at manufacturing have been mainly trade-related. In India, trade-related measures have accounted for almost half the new measures in manufacturing. Among measures aimed at manufacturing, Sri Lanka's focused on high-employment activities, Bangladesh's on high-employment firms, and India's on high-wage activities and high-employment and highly productive firms. Activities with the most industrial policy measures have been the largest source of *manufacturing* employment growth. However, they have not been the main source of *non-agricultural* employment growth—the main source has been the service sector, which has rarely been the target of industrial policies.

Effectiveness of new industrial policies. Compared with other EMDEs, South Asia used fewer domestic subsidies, and more procurement-related measures (India) and trade-related measures (rest of South Asia). The latter had asymmetric impacts. A local projection estimation suggests that South Asia's import-restricting industrial policy measures were associated with significant declines in imports, but export-promoting policies were not associated with significant increases in exports.

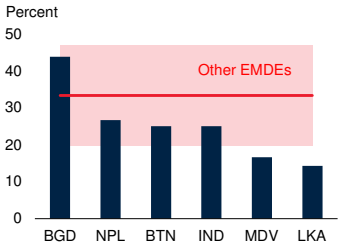
Candidate for industrial policy: Adjustment to AI. In South Asia, AI adoption has proceeded rapidly since the release of ChatGPT in November 2022, particularly among affiliates of multinational companies (box 2.1). At the same time, higher AI exposure has been associated with slower hiring. An interquartile-range increase in AI exposure has been associated with a 1.5 percent decline in job postings on average and by about twice as much for multinational affiliates. Some of these declines appear to have been related to spillovers from AI adoption by foreign firms: hiring slowed more in South Asian firms supplying goods and services to more AI-exposed foreign firms. Value chain upgrading, underpinned by faster AI adoption and skills development that can be supported by industrial policies, will be critical if firms are to remain competitive in the age of AI.

Candidate for industrial policy: Subnational labor market differentials. South Asia has some of the largest and some of the smallest within-country wage differentials by the standards of EMDEs (box 2.2). In South Asia's larger countries, worker characteristics

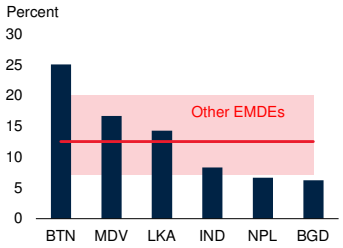
FIGURE 2.2 Sector composition of national development plans

In their most recent national development plans, Bhutan, Maldives, and Sri Lanka targeted an above-average share of industries, while Bangladesh targeted manufacturing.

A. Share of manufacturing industries targeted by national development plans



B. Share of service industries targeted by national development plans



Sources: Fernandes and Reed (2026); World Bank.

Note: Bars show the share of unique industries mentioned in a national development plan that are manufacturing (A) or services (B). Industries are defined at either the two-digit HS (1992) code level for agriculture, mining, and manufacturing, or service categories in the services trade data from the Harvard Growth Lab's Atlas of Economic Complexity. Data are assembled by Fernandes and Reed (2026). National development plan of 2017 for Sri Lanka, 2018 for India, 2020 for Bangladesh, and 2024 for Bhutan, Maldives, and Nepal. Horizontal lines show the median of other EMDEs, which include 140 non-South Asia countries. Shaded regions show the inter-quartile range of other EMDEs.

account for about one-fifth of these subnational wage differentials. South Asia's remaining wage premiums, after controlling for worker characteristics, are higher in regions with better transport connectivity, more skilled workforces, larger firms, and more services sector activity. Wage premiums appear to be persistent and self-reinforcing. While such regional wage persistence may warrant place-based or industrial policies, South Asia's experience with such policies has been mixed.

Policy implications. South Asia's experience with industrial policies has been mixed, as a result of limited fiscal space and government capacity, poor implementation, and infrastructure gaps. The success cases—such as the electronics sector supported by India's production incentives—hinge on well-coordinated policies supporting integration into GVCs. Because of these constraints on industrial policies, those that address market failures head on (so-called first-choice policies) —such as industrial parks, skills development, market access assistance, and quality infrastructure improvement—can maximize the chance of success.[2] These are likely to be most effective if accompanied by broad-based policies to improve physical and digital infrastructure, business environments, and enabling institutions.

Contribution

This chapter makes several contributions to the literature.

First, it documents the features of industrial policies in South Asia and compares South Asia with other EMDEs. Past evidence on industrial policies has focused primarily on advanced economies and large EMDEs. This chapter deepens the analysis of World Bank (2024b), which only sketched out an overview of the use of industrial policies in South Asia. The patterns documented here provide new evidence on how developing economies, especially lower- and middle-income countries, have used industrial policies.

Second, this chapter evaluates the impact of trade-related industrial policy on the exports and imports that were targeted by these policies, using sector-level data. Machado Parente et al. (2025) documented in firm-level data that export incentives have been associated with short-term declines and limited medium-term gains in firms' value added and productivity. In contrast to this earlier study, this chapter examines sector-level data to allow for reallocations across firms. A similar exercise as the one in this chapter was conducted by Rotunno and Ruta (2024), but it examined the impact of subsidies on exports only and only for the world's largest emerging markets.

Third, the chapter evaluates South Asia's use of industrial policy tools in the framework set out by Fernandes and Reed (2026). Case studies illustrate why policies that may be feasible in principle have tended not to succeed in South Asia because of the characteristics of a given country.

Data and methodology

Data. The analysis draws on multiple datasets at individual, firm, and sector levels. Counts of industrial policy measures are derived from the *Global Trade Alert* (GTA) database. The database includes detailed information on trade-related industrial policies implemented in 186 countries, including 149 EMDEs, with information on the timing, targeted sectors, policy instruments, and the scope (for

[2] Following Fernandes and Reed (2026), "first-choice" policies are those that address market failures head-on by subsidizing activities that are underprovided.

example, whether firm- or location-specific) of each policy, but not the policy's size or monetary value. Policies are classified into those that discriminate against foreign businesses and protect domestic business ("protective policies") and those that liberalize trade or improve policy transparency ("liberalizing policies"). For most analyses, only protective policies are used—because these are the majority of the policy measures, and many liberalizing policies appear to reverse or relax previous protective policies.

All analyses use the flow of policies, that is, the count of newly implemented policies, instead of the stock of active policies, to capture how economic outcomes respond to policy shocks. To capture changes in the choice of industrial policies, policies newly implemented during the more recent period of 2022–25 are compared with those implemented during 2016–19, where possible. This time window skips the pandemic years (2020–21).

Sector-level tariff data are drawn from the World Trade Organization's (WTO) *Analytical Database*, which includes tariff rates as recent as 2025. Data on subsidies to businesses are sourced from the International Monetary Fund (IMF)'s *Government Financial Statistics* (GFS) and the World Bank's *BOOST Open Budget* dataset. Tax revenue foregone comes from the *Global Tax Expenditures Database* (GTED). A database of industries targeted in national development plans in more than 180 countries, assembled by Fernandes and Reed (2026), is used to illustrate countries' priority sectors for development.

Economy-wide employment data drawn from the World Bank's *Global Labor Database* (GLD) are used for three South Asian countries and five other EMDEs for the period 2022–25. Firm-level data drawn from the World Bank's *Enterprise Survey* for the period 2022–25 are used and include about 70 countries. Export and import data are sourced from the Base pour l'Analyse du Commerce International (BACI) database of the Centre d'Études Prospectives et d'Informations Internationales (CEPII) at detailed sector levels for 229 countries (154 EMDEs) up to 2023.

Methodology. In addition to descriptive statistics, a series of linear regressions at country and sector levels and with year fixed effects is used to estimate the correlation between the number of industrial policies in a sector and the sector's employment, wages, firm size, firm productivity, exports, and imports. A dynamic difference-in-differences model is estimated at the country, detailed sector, and year level to analyze the impact of industrial policy on sector exports and imports. Annex 2.1 provides more details on the data and methodology.

Limitations. The data and methodology have several limitations. First, the industrial policy data are at the policy-country-sector level, but it is unknown which firms received or were affected by the policy measure. Second, only direct exposures to industrial policies are considered, while indirect exposures through input-output linkages or policies on the same sector by trading partners or competitors are not taken into account (refer to Lane 2025 and Machado Parente et al. 2025 for examples where both input-output linkages and other countries' policies are considered). Third, the GTA dataset provides the count of industrial policies but not the size or monetary value of individual policies; for this reason, tariff data and subsidies data are used to supplement the GTA dataset.

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains

Artificial intelligence (AI) is already reshaping firms and jobs in South Asia. AI adoption has proceeded rapidly since the release of ChatGPT in November 2022, particularly among affiliates of multinational companies. At the same time, higher AI exposure has been associated with slower hiring: an interquartile-range increase in AI exposure has been associated with a 1.5 percent decline in job postings on average, and with declines of about twice that size for multinational affiliates. Some of these declines appear to be related to spillovers from AI adoption by foreign firms: South Asian firms supplying goods and services to more AI-exposed foreign firms have experienced slower hiring. Value chain upgrading, underpinned by faster AI adoption and skills development, will be critical for firms to remain competitive in the age of AI.

Introduction

Emerging effects of AI in South Asia. The latest wave of AI technologies—Generative AI (GenAI), which can interpret human prompts and produce content across multiple formats—has the potential to raise productivity considerably by augmenting human labor in higher-value tasks while automating more routine, lower-value tasks.[a] Its effects are already visible in South Asia, particularly in the business process outsourcing (BPO) and information and communications technology (ICT) sectors, which constitute an above-average share of South Asia's exports (figure B2.1.1; Liu 2024). Early evidence suggests that firms in these sectors are experiencing productivity gains along with greater AI. Exports continue to grow steadily even as hiring has slowed following the introduction of GenAI. In parallel, the demand for AI-related competencies in South Asian firms has increased, with positions requiring these skills commanding a wage premium of nearly 30 percent (World Bank 2025a).

Reshoring of AI-exposed activities. Global Value Chains (GVCs) may amplify the effect of AI on South Asian firms in export-oriented sectors. AI adoption rates, investment levels, and new company formation are substantially higher in the primary GVC export destinations of South Asia than in South Asia itself (figure B2.1.2). South Asian exporters in sectors in which AI can readily substitute for labor face demand erosion if their foreign buyers deploy AI to reshore business functions that were previously sourced through imports. For example, firms in the BPO sector might experience falling demand for lower-value tasks that are automatable, such as software development, customer support, accounting, web development, and payroll processing (Webb 2020). Such reshoring of activities (although not necessarily jobs) from emerging markets and developing economies (EMDEs) back to advanced economies occurred during the last major automation wave. This wave was driven by the adoption of industrial robots in advanced economies (Faber 2020; Kugler et al. 2020; Krenz, Prettner, and Strulik 2021). However, this time the effect might be different because GenAI is relevant to a wider range of tasks—including high-skilled cognitive work—than are industrial robots, which primarily automate physical and routine manual tasks (Webb 2020).

Positive GVC spillovers from foreign AI adoption. At the same time, South Asian firms

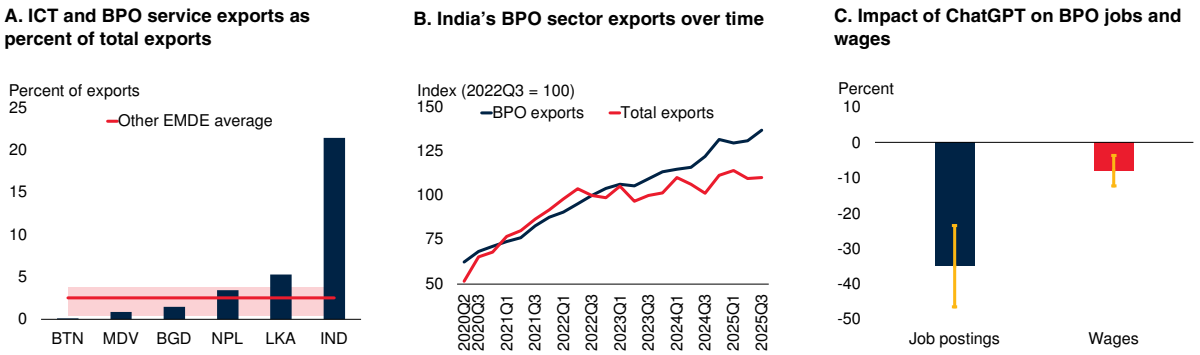
Note: This box was prepared by Jonah M. Rexer and Siddharth Sharma.

[a] Prominent examples of GenAI include OpenAI's ChatGPT, Anthropic's Claude, X's Grok, Google's Gemini, Microsoft's Copilot, and DeepSeek. Highly AI-exposed occupations with low complementarity—comprising routine jobs such as call center agents, secretaries, and digital application programmers—tend to have lower complementarity. High-complementarity, high-exposure jobs instead often involve interpersonal interaction, responsibility, and expert judgment—such as managers, business consultants, and other professional service providers, doctors, teachers, and lawyers (World Bank 2025a).

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

FIGURE B2.1.1 Exports and AI impacts in ICT and BPO sectors

South Asia has above-average export dependence on information and communications technology (ICT) and business process outsourcing (BPO) services. In India, the sector has experienced strong export performance following the introduction of GenAI, even as hiring and wages have fallen.



Sources: Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); Reserve Bank of India; WDI (database); World Bank.

Note: BPO = business process outsourcing; ICT = information and communications technology.

A. Bars show the ICT sector exports relative to total exports. Pink areas indicate the interquartile range for other EMDEs, weighted by population.

B. Lines show indexed values of technology services exports and total exports (2022Q3 = 100) in India from 2020Q2 to 2025Q3, with 2022Q3 marking the quarter before the release of ChatGPT.

C. Bars show coefficients from occupation-month regressions of the log of job postings and the log of wages on the interaction between post-ChatGPT and a business services occupation indicator, conditional on occupation and month fixed effects. Gold whiskers represent 95 percent confidence intervals, with standard errors clustered at the occupation level. Estimates are from World Bank (2025a).

stand to benefit if AI-driven productivity gains among foreign GVC buyers increase their demand for high-value goods and services that cannot be easily automated by AI. For example, stronger productivity and investment due to AI adoption in major economies could support global demand for high-quality professional services exports from South Asia. Evidence suggests that, in an earlier wave of automation, robot adoption in advanced economies increased total imports into those economies—even though it also resulted in some job reshoring (Artuc, Bastos, and Rijkers 2023; Cilekoglu, Moreno, and Ramos 2024). High AI penetration in foreign GVC partners may also generate positive knowledge spillovers for South Asian firms, given past evidence that exporting promotes technological upgrading in EMDE firms (Verhoogen 2023; World Bank 2020).

Questions. This box examines the following questions:

- Are the effects of GenAI on hiring in South Asian firms more pronounced among GVC-integrated firms?
- Are GVC-integrated firms in South Asia experiencing spillovers from foreign AI adoption?

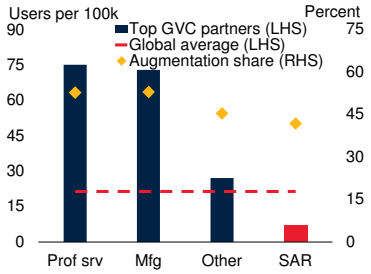
Contribution to the literature. This box contributes to the literature on the effects of automation in advanced economies on firms and jobs in EMDEs. It is one of the first studies to examine cross-border spillovers that involve GenAI-led automation. With the exception of Betai and Chen (2025), who examine the effects of AI-led automation on online job platforms, earlier studies have focused on industrial robots

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

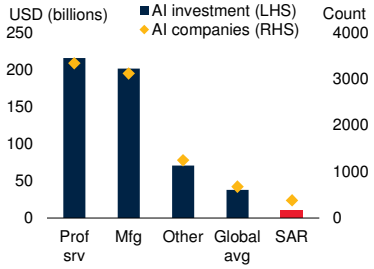
FIGURE B2.1.2 AI adoption among South Asia's trading partners

South Asia's major global value chain (GVC) export destinations, particularly for professional services, are rapidly investing in AI development and adopting AI technology at an above-average rate.

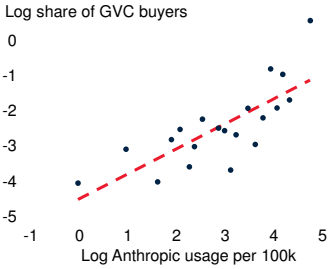
A. Average AI use for South Asia's top GVC export destinations by sector



B. AI investment and company formation in top GVC export destinations



C. AI adoption and GVC buyer share for South Asia's GVC export destinations in professional services



Sources: Anthropic Economic Index database (2025–26), Anthropic; FactSet database (2003–25); Maslej et al. (2025); World Bank.

Note: AI = artificial intelligence; avg = average; BPO = business process outsourcing; GVC = global value chain; Mfg = manufacturing; Prof. srv. = professional services.

A. Bars show country-level average usage of Anthropic's Claude AI models per 100,000 people. Each bar restricts the sample to the top 10 GVC trading partners in professional services, manufacturing, or other sectors. All averages are weighted by working-age population (aged 16 to 64). The top trading partners are shown in annex tables B2.1.2–3.

B. Each bar restricts the sample to the top 10 GVC trading partners in professional services, manufacturing, or other sectors. All averages are weighted by the working-age population.

C. The vertical axis represents the foreign country's share in the total number of GVC buyers of South Asian professional services firms, in logs. The horizontal axis represents the (log) Anthropic adoption rate per 100,000 working-age people in that country. The sample comprises all trading partners, such that each point represents a country, with GVC connections to South Asian firms. The country-level scatterplot is binned at 20 quantiles of the distribution of the independent variable. Linear fit is estimated on the underlying data.

and the reshoring of manufacturing activities. Their relevance to the current wave of AI-led automation is limited because, unlike robots, AI technologies have mainly affected service sector jobs in advanced economies (Bonfiglioli et al. 2025). The findings in this box also contribute to research on the effects of AI in EMDEs, extending the work presented in a World Bank report (2025a) by examining firm-level hiring responses and trade-related effects of AI (Goldfarb and Trefler 2018).

Main Findings. Several findings emerge from this study.

First, historical experience with industrial robots suggests that advanced-economy automation can displace EMDE jobs through reshoring of automatable tasks. However, productivity gains in adopting firms can partly offset these job losses by raising overall demand for inputs. The net employment effect depends on the balance between these opposing forces.

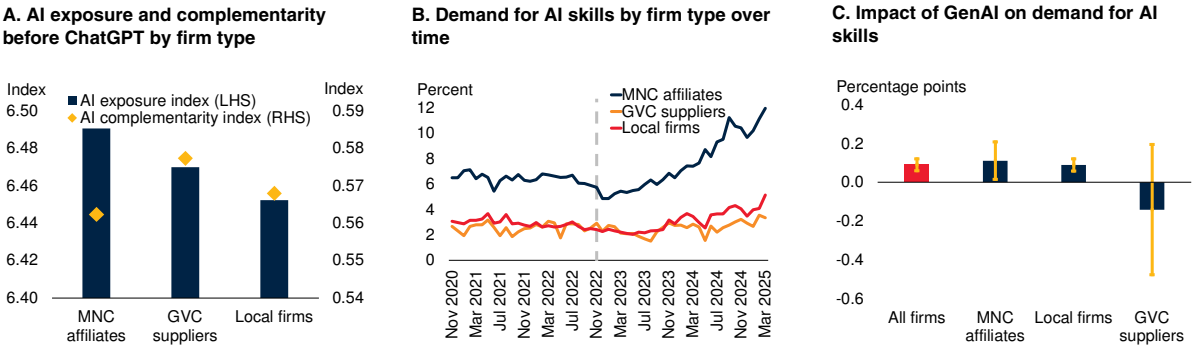
Second, the introduction of GenAI has increased AI adoption and slowed hiring among South Asian firms, especially among multinational affiliates. An interquartile-range increase (from the 25th to the 75th percentile) in AI exposure is associated with a 1.5 percent decline in job postings among South Asian firms on average, with the impact being about twice as much among multinational affiliates. The larger effects among multinational affiliates may reflect both higher exposure to reshoring and higher returns from AI adoption.

Third, South Asian firms are upskilling in response to GenAI—that is, they are posting jobs that, on average, are less exposed and more complementary to AI.

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

FIGURE B2.1.3 Impacts of GenAI on AI adoption

Jobs posted by multinational affiliates operating in South Asia tend to be more exposed to AI and less complementary with it. As a result, multinational affiliates are adopting AI more rapidly than local firms following the introduction of GenAI.



Sources: FactSet database (2003–25); Felten, Raj, and Seamans (2023); Lightcast database (2020–25); Pizzinelli et al. (2023); World Bank.

Note: MNC = multinational company; MNC affiliates are defined as multinational firms headquartered outside of South Asia but operating foreign affiliates within South Asia. Local firms are those headquartered in South Asia without any foreign buyers, while GVC suppliers are firms with international buyers before the release of ChatGPT. AI adoption is measured as the share of job postings requiring AI skills.

A. Chart shows average AI exposure and complementarity of job postings by firm type. Exposure metrics are calculated for all vacancies posted prior to the release of ChatGPT from November 2020 to November 2022.

B. Chart shows the share of total job postings that require AI skills by firm type. Vertical line indicates the release of ChatGPT in November 2022.

C. Chart shows the coefficients from a firm-level regression of the share of job postings requiring AI skills on the average AI exposure of pre-ChatGPT job postings, interacted with a post-ChatGPT indicator, controlling for firm and month fixed effects (annex table B2.1.6). Yellow whiskers show a 95 percent confidence intervals.

Fourth, South Asian GVC suppliers whose foreign buyers had higher AI exposure prior to the introduction of ChatGPT have experienced significantly slower hiring after the introduction of ChatGPT.

Fifth, policies could help South Asian firms adapt by investing in foundational infrastructure—internet connectivity, reliable electricity, and expanded access to technical education—so that firms and workers are equipped to adopt AI. It may also involve supporting AI-exposed sectors through "first-choice" industrial policy tools that provide public inputs that can be underprovided by markets, such as skills development programs and market access assistance schemes.

Data and methodology. This box combines occupational, firm-level, and international data to examine how exposure to AI shapes labor demand and firms' behavior in South Asia, both directly and through GVCs. Occupational AI exposure is measured using task-based indices from Felten, Raj, and Seamans (2021; 2023), complemented by human-AI complementarity measures from Pizzinelli et al. (2023). Firm-level labor demand is captured through roughly 25 million online job postings from Lightcast, covering 437,300 unique firms in South Asia between 2020 and 2025. These postings are merged at the firm level with GVC data from FactSet, which identify buyer, supplier, and partnership relationships between South Asian and foreign firms, using a fuzzy name-matching algorithm. The resulting monthly panel links firms' hiring activity in South Asia to their participation in GVCs and the AI exposure of their foreign partners.[b] The empirical analysis

[b] The analysis distinguishes between affiliates of multinationals, GVC suppliers, and purely local firms. Multinational affiliation is determined on the basis of ownership, while GVC status is based on contractual relations.

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

estimates, in a difference-in-differences approach, how firms' pre-existing exposure to AI shapes labor demand, skill composition, and participation in GVCs using the monthly firm-level job postings data. To identify the effect of GenAI, all regressions relate changes in firm outcomes after the introduction of ChatGPT, the first major GenAI product, to measures of pre-ChatGPT AI exposure and include firm and month fixed effects (details in annexes B2.1.2 and B2.1.3).[c]

Impact of automation: Historical experience

Although "this time may be different," the closest historical precedent of AI adoption to automate service activities is the adoption of industrial robots to automate goods production. Historical experience with industrial robots suggests that advanced-economy automation can displace EMDE jobs by reshoring automatable tasks. However, productivity gains in adopting firms can counteract these losses by boosting overall demand for imported inputs—with the net effect depending on the balance between these opposing forces.

Effects of advanced-economy automation on EMDE labor markets. The introduction of industrial robots sparked research into the effects of the automation of production in advanced economies on EMDEs (annex B2.1.1). One branch of the literature estimates the effect of robot adoption in advanced economies on EMDE employment using shift-share instrumental variables approaches, These approaches exploit pre-existing differences in exposure to robotization across EMDE local labor markets. These studies generally find that robot adoption in advanced economies caused job losses in EMDE locations with high exposure to automation. For instance, U.S. robot adoption during 2011–16 is estimated to have caused 63,000 to 100,000 cumulative job losses in Colombia (Kugler et al. 2020). It also had similarly negative effects on employment and exports in exposed Mexican and Brazilian locations (Artuc, Christiaensen, and Winkler 2019; Faber 2020; Stemmler 2023). These findings are consistent with automation-driven reshoring of automatable tasks.

Evidence of reshoring in advanced-economy industries and labor markets. A related literature explores reshoring from the perspective of advanced-economy firms and labor markets. Bonfiglioli et al. (2022) find that robot automation reduces offshoring of business functions from the United States, while Krenz, Prettner, and Strulik (2021) estimate that an increase of one robot per 1,000 workers is associated with a 2.5 percent rise in reshoring activity within the manufacturing sector. In contrast, Artuc, Bastos, and Rijkers (2023) find that greater robot intensity in advanced-economy industries increases both imports from and exports to EMDEs, and Cilekoglu, Moreno, and Ramos (2024) report that robots raised intermediate input purchases from foreign suppliers among Spanish firms. These contrasting findings may be reconciled by distinguishing *substitution effects*—which reduce demand for labor-intensive, routine inputs that can be automated—from *scale effects*, whereby automation-driven productivity gains raise overall input demand (Artuc, Bastos, and Rijkers 2023; Stapleton and Webb 2020).

Productivity effects of automation on advanced-economy firms. The hypothesized *scale effects* depend on robots increasing productivity and

[c] The launch of ChatGPT in November 2022 is widely used as the "exogenous" cutoff date in event studies of the impact of GenAI This timing reflects that it was the first major demonstration of a GenAI model and was followed by a rapid acceleration in its adoption.

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

output in adopting firms in advanced economies. Several studies confirm sizable positive effects, using exogenous variation in robot adoption costs as instruments to address reverse causation (for example, Bonfiglioli et al. 2024; DeStefano and Timmis 2024; Graetz and Michaels 2018). Robot adoption by Spanish firms is estimated to have raised total factor productivity, expanding output by 20–25 percent (Koch, Manuylov, and Smolka 2021). Across 17 countries, robot usage contributed about 0.36 percentage points to annual labor productivity growth (Graetz and Michaels 2018). Robots have also increased product quality and GVC participation in both advanced economies and EMDEs (DeStefano and Timmis 2024; Fontagné et al. 2024; Xie, Guo, and Chen 2025; Zhang, Chen, and Wei 2025). Overall, the evidence on productivity and output impacts is consistent with robots generating positive scale effects on import demand in adopting firms.

Impact of automation: GenAI

South Asian firms with greater pre-ChatGPT AI exposure have adopted AI faster, while reducing overall hiring. These effects are largest among multinational affiliates. They have also shifted hiring toward fewer AI-exposed and more AI-complementary roles. South Asian GVC suppliers whose foreign buyers had higher pre-ChatGPT AI exposure have experienced a greater reduction in hiring, indicating a decline in foreign demand for automatable business functions.

AI adoption. Multinational affiliates and GVC supplier firms account for nearly 8 percent of all jobs posted by South Asian firms during the study period. Prior to the introduction of ChatGPT, jobs posted by multinational affiliates and GVC suppliers were more exposed to AI than jobs posted by purely local firms. This suggests that the tasks that foreign firms have been offshoring to their South Asian affiliates or GVC partners were particularly AI-exposed (figure B2.1.3). Multinational affiliates have been leading AI adoption—as measured by the share of job postings requiring AI skills—with the gap relative to local firms rising over time. This may reflect the gap in AI penetration between advanced economies and EMDEs. Higher AI exposure before the release of ChatGPT has been associated with a significantly higher increase in AI adoption post-release, with the strongest increase among multinational affiliates.

Hiring slowdown. Higher ChatGPT AI exposure has been associated with greater reductions in overall hiring post-ChatGPT (figure B2.1.4). This effect has been more pronounced among more internationally connected firms: job postings have declined by about 3.2 percent for multinational affiliates, 1.5 percent for GVC suppliers, and 1.1 percent for purely local firms. These differences are consistent with two mechanisms. First, they may reflect in-house labor substitution due to more intensive adoption of AI among internationally connected firms.[d] Second, they may reflect demand displacement operating more strongly for firms with greater flexibility to relocate production across borders.

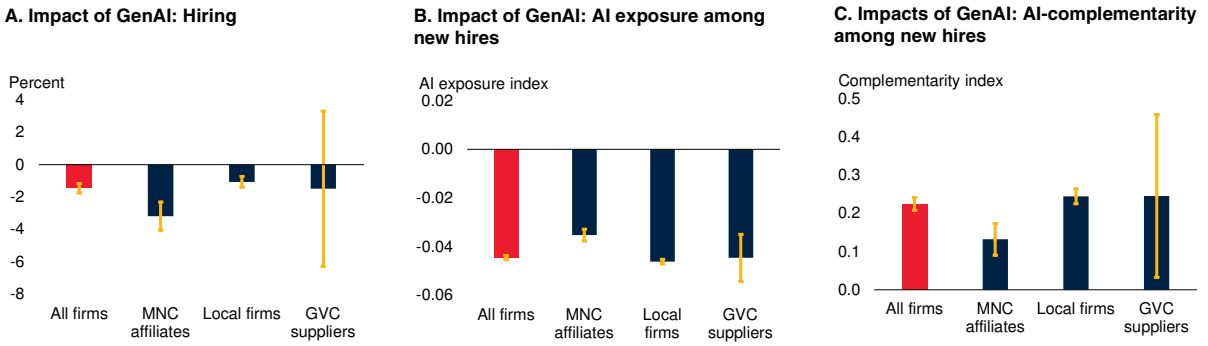
Skill upgrading. Following the introduction of ChatGPT, firms with higher pre-existing AI exposure have shifted hiring toward job functions that are less exposed to AI substitution and offer more complementary roles (figure B2.1.4). These adjustments are observed across all firm types but are substantially larger for GVC suppliers and local firms than for multinational affiliates. This

[d] The estimated average impact of Gen AI on hiring (minus 1.5 percent) translates into a loss of 200,000 job openings between November 2022 (the introduction of GenAI) and March 2025 (the last month in the dataset). This projection is based on the fact that there were 13 million job openings observed during this period, and assumes that GenAI only affected firms in the top quartile of AI exposure (which account for about 11 percent of job openings in SAR).

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

FIGURE B2.1.4 Impacts of GenAI on hiring

Greater AI exposure leads firms to reduce hiring and change their skill composition toward less-exposed and more-complementary roles. Job losses have been most pronounced for multinational affiliates, while changes in skill composition has been the main response among local firms.



Sources: FactSet (database); Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); World Bank.

Note: Panels show coefficients and 95 percent confidence intervals, shown as yellow whiskers, from a firm-level regression of the outcome on the average AI exposure of pre-ChatGPT job postings, interacted with a post-ChatGPT indicator, controlling for firm and month fixed effects (annex table B2.1.6). Multinational (MNC) affiliates are defined as multinational firms headquartered outside of South Asia but operating foreign affiliates within South Asia. Local firms are those headquartered in South Asia without any foreign buyers, while GVC suppliers are firms with international buyers before the release of ChatGPT. Jobs (A) is defined as the log of total job postings. Outcome variables in (B) and (C) are defined as the average AI exposure and complementarity of posted jobs. Sample includes 196,202 firms with pre-ChatGPT hiring data, split by firm type. Standard errors are clustered at the firm level. Coefficients are scaled to correspond to a change in the interquartile range of AI exposure.

pattern is consistent with firms upgrading skill demand as AI adoption progresses, with complementary skills becoming more valuable and exposed tasks increasingly substitutable. The more muted skill upgrading observed among multinational affiliates may reflect their ability to reshore higher skill, complementary functions to headquarters or other locations outside South Asia.

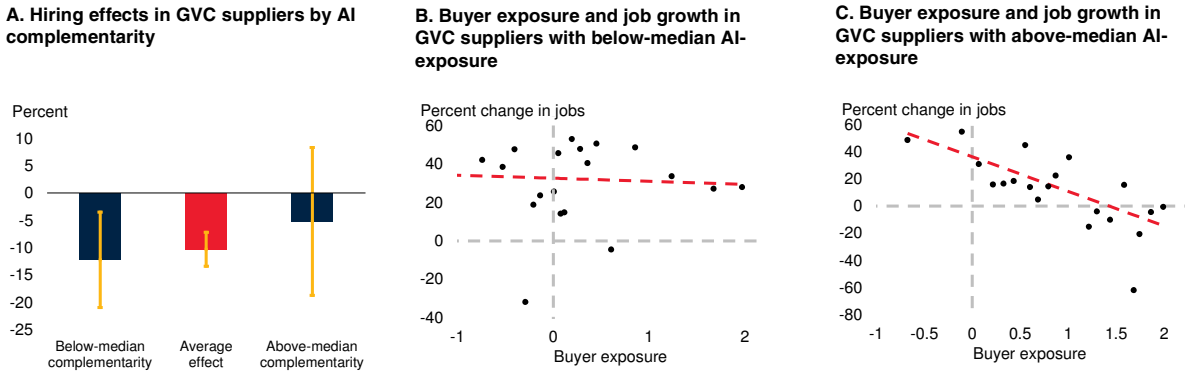
Cross-border spillovers from AI exposure abroad. To capture how foreign AI adoption affects South Asian firms, the analysis focused on GVC suppliers and measured their buyer-side AI exposure—the average pre-ChatGPT AI exposure of their foreign buyers—where higher exposure implies stronger partner incentives to adopt AI and, consequently, greater negative demand spillovers. There is a clear negative employment spillover associated with foreign buyers' exposure to AI: an interquartile range increase in buyers' AI exposure has reduced hiring by 10 percent (figure B2.1.5).

Cross-border spillover, combined with own AI exposure. This spillover has been larger for suppliers whose own AI complementarity is lower: an interquartile range increase in buyers' AI exposure has reduced hiring by 12 percent among low-complementarity suppliers, but has not had a statistically significant effect among high-complementarity ones. Moreover, the negative spillover from buyer exposure is concentrated entirely among GVC suppliers in highly exposed product categories (figure B2.1.5). These patterns are consistent with an automation-driven reduction in foreign demand for low-complementarity services such as basic ICT support, customer services, or other routine business functions. Notably, there has been no corresponding increase in AI adoption by GVC suppliers connected to highly exposed buyers,

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

FIGURE B2.1.5 GVC spillover effects of AI adoption

Hiring growth has been slowest in South Asian GVC suppliers whose workforce was itself more susceptible to substitution by AI and who had more highly exposed foreign buyers.



Sources: FactSet (database); Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); Speedtest Global Index; WDI (database); World Bank.

Note: GVC suppliers are firms with international buyers before the release of ChatGPT.

A. Bars show coefficients and 95 percent confidence intervals, shown as yellow whiskers, from a firm-level regression of log job postings on the average AI exposure of firms' international buyers before the introduction of ChatGPT, interacted with a post-ChatGPT indicator, controlling for firm and month fixed effects. Regression also controls for firms' own pre-ChatGPT AI exposure interacted with a post-GPT indicator. Standard errors are clustered at the firm level. Sample is 1,824 GVC suppliers with international buyers before ChatGPT, split into those above and below the median of pre-ChatGPT firm-level complementarity (annex tables B2.1.7–8). Coefficients are scaled to correspond to a change in the interquartile range of AI exposure.

B.C. Outcome variable is the log difference in the total number of jobs posted by a firm before and after the introduction of ChatGPT in November 2022. Buyer exposure measures the average AI exposure of a firm's international buyers before ChatGPT. Panels show binned scatterplot at 20 quantiles of the distribution of buyer exposure, with a linear fit estimated on the underlying data. Sample is 1824 GVC suppliers with international buyers before ChatGPT, split into those below (B) and above (C) the median pre-ChatGPT firm-level AI exposure. Regression results are in annex table B2.1.9.

suggesting that the observed employment effects are unlikely to reflect AI technology transfer from buyers to suppliers (figure B2.1.5; annex table B2.1.7). Finally, the negative effect of buyer exposure on hiring does not differ significantly across GVC suppliers in the services and manufacturing sectors, suggesting that negative demand spillovers are not specific to services exports (annex table B2.1.10).

Conclusion

GVC upgrading. Rapid AI adoption in advanced economies is disrupting GVCs in which South Asian firms participate, as foreign buyers automate tasks previously outsourced to the region. However, this disruption also creates opportunities for South Asian firms to upgrade into higher-value GVC activities that complement rather than compete with AI. Global demand for such activities may itself expand as AI-driven productivity gains fuel investment and growth in advanced economies. Upgrading hinges on two factors: South Asian firms themselves adopting AI, and workers acquiring the skills needed to perform more sophisticated tasks. By raising productivity and enabling more sophisticated outputs, AI adoption can help firms move up the value chain and remain competitive as lower-skill tasks are automated—but only if workers are equipped to take on higher-value roles. For example, South Asian BPO firms facing automation of routine services such as payroll processing can transition into Knowledge Process Outsourcing (KPO), delivering higher-quality analytical and advisory services such as legal research or engineering design. AI is complementary to such

BOX 2.1 Where Firms Hire: AI and the Reshaping of Global Value Chains (*continued*)

sophisticated knowledge processing activities, making both its adoption and workforce upskilling essential for firms seeking to compete in the KPO sector. Experience from past automation waves suggests that such product upgrading can allow GVC suppliers to thrive amid technological disruption.

Policies to support GVC upgrading in the age of AI. South Asian governments can facilitate adaptation to AI through policies that ensure access to fast and reliable internet and electricity, and strengthen science, technology, engineering, and mathematics (STEM) skills (World Bank 2025a). These broad-based policies will help firms adopt AI and equip workers for higher-value, AI-complementary roles. Governments could also consider targeted support to the most AI-exposed, export-oriented sectors, focusing on two types of public inputs tailored to these sectors and at risk of being underprovided by markets: skills development programs and market access assistance schemes. For example, they could explore comprehensive sectoral retraining schemes, learning from programs with strong community and private sector links, which have shown promise in advanced economies (Katz et al. 2022). Successful implementation of these industrial policy tools hinges on government bandwidth—or capacity to interact with many businesses and industries to ensure that the public input being provided is market-relevant (Fernandes and Reed 2026).

Features of South Asia's industrial policies

Compared with other EMDEs, countries in South Asia are more likely to use procurement measures (India) and trade instruments (elsewhere in the region), and less likely to use subsidies as industrial policy measures. Half of South Asia's policies are aimed at manufacturing, 15 percent (twice the share of other EMDEs) at utilities and construction, and a growing share at services. Across non-agricultural sectors, those least protected by industrial policy measures (mostly service sectors) have been the source of South Asia's job creation, while within manufacturing, sectors more targeted by industrial policies have contributed more to employment growth.

Number of policies: Gathering pace. Between 2016–19 and 2022–25, South Asian countries on average doubled the number of new industrial policies (figure 2.1). The number of new protective industrial policies implemented each year by South Asian countries was more than twice the number of the average EMDE and was the second-highest across EMDE regions. India drove most of the increase, with the average number of new protective measures implemented each year increasing from 125 to 240, placing it among the world's top 10 countries by policy counts and third among EMDEs (after China and Brazil). Among other South Asian countries, Nepal doubled and Bangladesh quadrupled their new protective policy measures, while Sri Lanka reduced new policy measures in the later period.

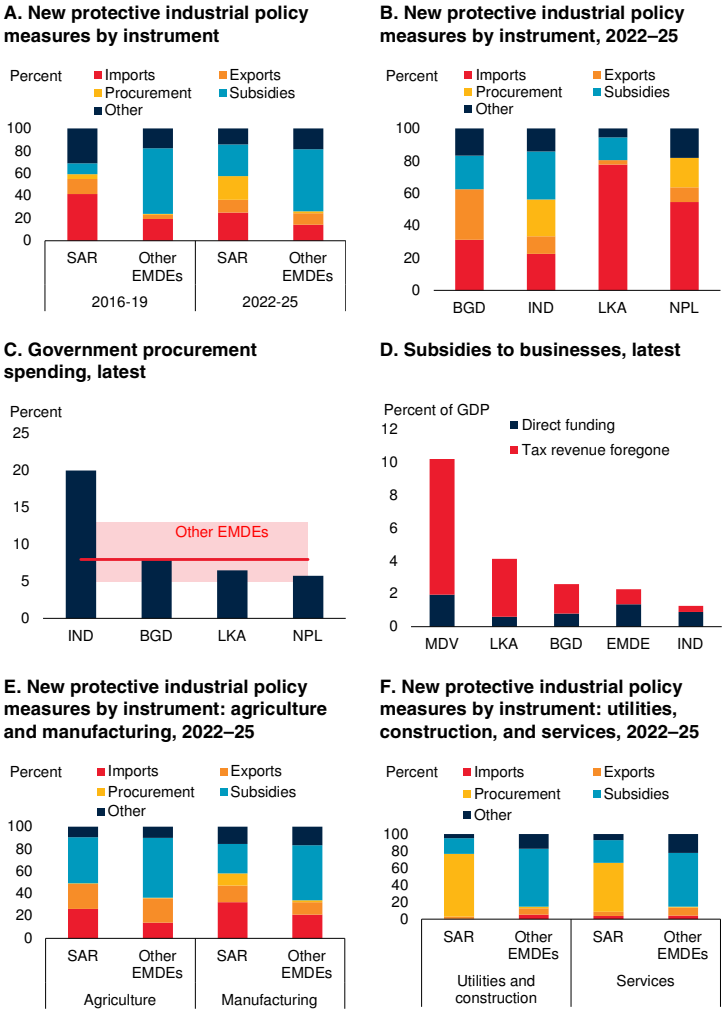
Policy instruments: Public procurement growing, especially in India. Between 2016–19 and 2022–25, the average South Asian country increased the share of public procurement policies (figure 2.3). Public procurement policies, including procurement preference margins (the difference between the cost of producing an item and its sales price)

and procurement localization, have been found to lead to long-term improvement in business performance in other countries (Ferraz, Finan, and Szerman 2015; Mensah, Wankuru, and Kirui 2026). Procurement policies accounted for 20 percent of South Asia's industrial policies implemented during 2022–25, compared with less than 2 percent among other EMDEs and a substantial increase from 4 percent in the region during 2016–19. Many of these policies were concentrated in the utilities, construction, and services sectors, with some applied in the manufacturing sectors. India drove the increase: public procurement policies accounted for one-quarter of the country's industrial policies implemented during 2022–25, and government spending on procurement represented 20 percent of GDP in 2022—more than twice the median of EMDEs. India's latest Economic Survey, for example, highlighted the use of public procurement policies to boost domestic innovation and to shape incentives (Government of India 2026).

Policy instruments: Subsidies below EMDE average with large within-region variations. Subsidies on production or innovation can support firms in nascent and high-potential industries, but can be fiscally costly. A growing share of South Asian industrial policies took the form of subsidies and state aid—such as financial grants, loan guarantees, production subsidies, and interest payment subsidies (figure 2.3). Even so, South Asian countries still rely less on subsidies than the average of other EMDEs. Subsidies accounted for about one-quarter of South Asia's protective industrial policies implemented during 2022–25, compared with more than half among other EMDEs. On the value of subsidies—in the form of both direct funding to businesses and foregone tax revenues—South Asia is also below the EMDE average.

FIGURE 2.3 Instruments of protective industrial policies

Compared with other EMDEs, South Asian countries use more procurement measures—especially in construction, utilities, and services sectors—and fewer domestic subsidies and, except for India, more import restrictions.



Sources: Fernandes and Reed (2026); GTA (database); GTED (database); GPPD (database); IMF GFS (database); World Bank BOOST (dataset); World Bank.

Note: Sample is restricted to protective measures only.

A.B. Bars show the number of new industrial policies by instrument type, as a share of total new industrial policies implemented during 2022–25 or 2016–19 by the country group or by South Asian country. Sample includes all protective industrial policies. "Other EMDEs" include 115 economies for policies implemented during 2016–19 and 108 countries for policies implemented during 2022–25. Grouping of instrument types is based on the more detailed classification of the Global Trade Alerts, and details are in annex 2.1. "Other" comprises capital controls and exchange rate policy, foreign investment policy, labor force migration policy, localization, and trade defense instruments.

C. Bars show government procurement expenditure as a percentage of GDP. "Other EMDEs" include 70 non-South Asia EMDEs. Latest data are between 2018 and 2022—including 2018 for Bangladesh and Sri Lanka and 2022 for India and Nepal. Horizontal line shows the median among other EMDEs, and the shaded region shows the interquartile range of this sample.

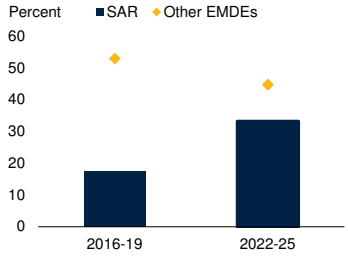
D. Direct funding refers to direct transfers to businesses, such as cash grants, which come from GFS, supplemented by BOOST. Data are for 2022 for all countries except 2019 for Sri Lanka. Tax revenue foregone is from 2023—except for BGD and BTN, which are from 2022. No data are available for Nepal for either direct funding or tax revenue foregone. For both variables, the number for EMDE refers to the median level of the sample, and includes 101 economies for subsidies and 47 economies for tax revenue foregone.

E.F. Bars show the number of new industrial policies by instrument type, as a share of total new industrial policies implemented during 2022–25 by the country group in each of the four broad economic activity sectors.

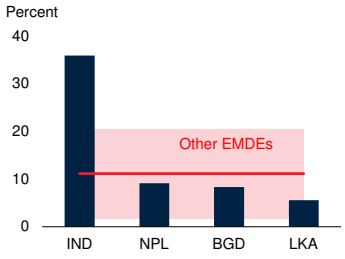
FIGURE 2.4 Scope of protective industrial policies

South Asia's new industrial policy measures implemented in 2022–25 are more targeted at specific firms or locations than those implemented in 2016–19.

A. Share of firm- or location-targeted new protective industrial policy measures



B. Share of firm- or location-targeted new protective industrial policy measures, 2022–25



Sources: GTA (database); World Bank.

Note: Sample is restricted to protective measures only.

A. Bars show the number of firm or location targeted policies as a share of all new protective industrial policies in South Asia. Markers show the share for other EMDEs.

B. Bars show the share of South Asian countries' new protective industrial policies implemented in 2022–25 that are targeted. "Other EMDEs" comprise 108 non-South Asia countries. The horizontal line shows the median, and the shaded region shows the interquartile range of other EMDEs.

The region's governments paid 0.9 percent of GDP in direct funding in 2022, below the EMDE average. The region had about the same amount in foregone tax revenues as the average EMDE. There was considerable variation within the region. Tax revenue foregone in Bangladesh, Maldives, and Sri Lanka was far higher than the EMDE average, while total subsidies in India are about half of the EMDE average as a percentage of GDP.

Policy instruments: Trade measures still above EMDE average, especially outside India. The average South Asian country shifted away from trade instruments. In particular, import instruments—such as import bans, import tariffs, and import license requirements—accounted for 25 percent of the region's new protective policies implemented during 2022–25, a decline from 40 percent during 2016–19 but still more than in other EMDEs (figure 2.3A, E). South Asian countries other than India still rely more heavily on import or export instruments than the average EMDE, and the average import duties in all countries in the region are above the median of other EMDEs (figure 2.3B; box 1.1). Import restrictions may be tempting options for the development of domestic industries, but in the long term they can reduce the competitiveness of the targeted sector and increase the cost of production in downstream sectors that use imported inputs (World Bank 2025a).

Policy scope: Increasingly firm- or location-specific. About one-third of South Asia's industrial policies implemented during 2022–25 were targeted at specific firms or locations, compared with less than 20 percent during 2016–19 and about 40 percent among other EMDEs (figure 2.4). Across South Asian countries, industrial policies implemented by India were the most targeted, while policies of other countries in the region were less targeted than the EMDE median. Firm- or location-specific policies can direct fiscal resources where most needed, if the targets are well chosen. For example, young firms in nascent and high-potential industries, and firms facing high fixed costs can be targeted for more effective industrial policies (Choi and Levchenko 2025; Machado Parente et al. 2025). Conversely, targeted policies can also create unfair competitive advantages. Successful targeting depends on state administrative capacity to identify targets correctly (ISID 2025). For example, policies that benefit unproductive state-owned enterprises can lead to resource misallocation and crowd out more competitive private businesses (Criscuolo et al. 2022).

Sectoral targeting: Half in manufacturing. About half of industrial policies implemented by South Asian governments in 2022–25 targeted the manufacturing sectors, a slightly larger share than in other EMDEs but lower

than during 2016–19 (figure 2.5). About 40 percent of the policies in the manufacturing sectors—and 70 percent outside of India—were trade-related instruments, and about 25 percent were implemented using domestic subsidies. Within manufacturing, the electronics industry has become the second-largest beneficiary of protective industrial policies after food manufacturing. During 2022–25, seven percent of all South Asia's new protective industrial policies were targeted at the electronics industry—a marked shift from the focus on chemicals, machinery, and basic metals manufacturing in the 2010s. Examples include India's production-linked incentives for information technology hardware and advanced lithium batteries (Government of India 2021, 2023). The region also focused an above-average share of policies on basic metals and food manufacturing (for example, Bangladesh's export ban on several food items), although the shares of policies targeting both sectors have declined from 2016–19.

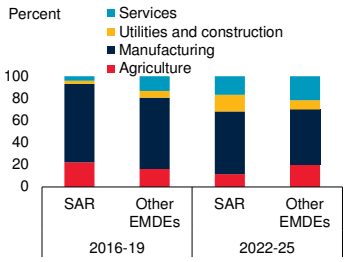
Sectoral targeting: More in construction than in the average EMDE. Fifteen percent of South Asia's industrial policies targeted the utilities and construction sectors during 2022–25, twice the share in the average EMDE and a five-fold increase from 2016–19. India accounted for all the increase in the region (figure 2.5). Civil engineering, in particular, stands out, accounting for 6 percent of all policy measures in the region, ten times the share in the average EMDE and a ten-fold increase from 2016–19. These policies have accompanied a rapid expansion in public infrastructure, especially in India and Bangladesh.

Sectoral targeting: Increasingly in services. The share of policies targeting the service sector has risen fourfold in South Asia (figure 2.5). Whereas other EMDEs focused on

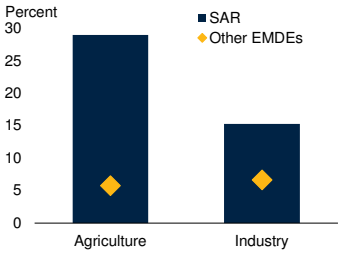
FIGURE 2.5 Sector composition of protective industrial policies

Half of South Asia's protective industrial policies target manufacturing, but they also focus more on utilities and construction than those in other EMDEs. Agriculture sector output is protected by high tariffs, but there were fewer new measures in the 2020s aimed at protecting this sector than in the 2010s. Over the past decade, the non-agricultural sectors least targeted (mostly services) by protective industrial policies have been the main source of employment growth in South Asia, while, in manufacturing, the more targeted activities contributed more to employment growth.

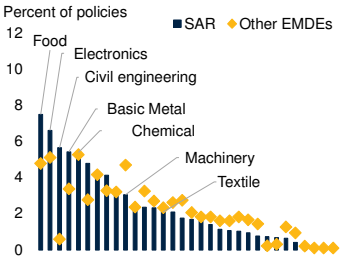
A. New protective industrial policy measures by broad sector



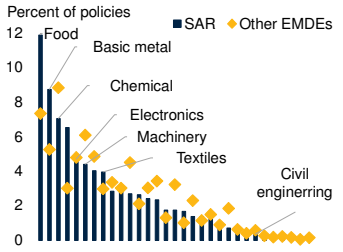
B. Tariffs on sectoral output, latest



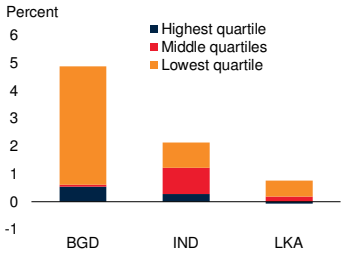
C. Share of new protective industrial policy measures in manufacturing, utilities and construction sectors, 2022–25



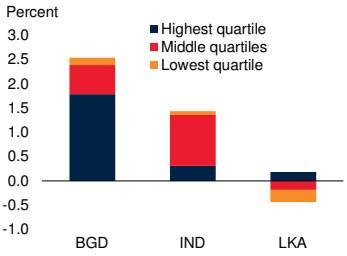
D. Share of new protective industrial policy measures in manufacturing, utilities and construction sectors, 2016–19



E. Contribution to annual non-agriculture employment growth, by share of new industrial policy



F. Contribution to annual manufacturing employment growth, by share of new industrial policy



Sources: GLD (database); GTA (database); WTO Analytical Database; World Bank.

A. Bars show the number of new protective industrial policies by broad sectors, as a share of total new industrial policies for the country group. Policies are shown by the year they were implemented.

B. Tariff data are the latest available. For Sri Lanka, data include para-tariffs (border charges that resemble tariffs). Refer to World Bank (2025a) for more details. Industry comprises manufacturing, mining, utilities, and construction.

C.D. Bars show the number of new protective industrial policies at detailed two-digit ISIC v4 sector level of the broad manufacturing, utilities, and construction sectors, as a share of all policy counts at detailed sector level among South Asian countries. Markers show the shares for non-South Asia EMDEs. Sample includes policies implemented in 2022–25 (C) or 2016–19 (D). Policies that apply to multiple sectors are counted in each of those sectors.

E.F. Annual employment growth is computed for 2016–22 for Bangladesh, 2017–23 for India, and 2015–23 for Sri Lanka. Industrial policy measures are the sum of new protective policies implemented in the two-digit sector during the period.

protective measures in finance and transport, South Asia's main policy focus in the service sector in 2022–25 was engineering and warehousing—services that mainly support the construction and manufacturing sectors.

Sectoral targeting: Agriculture protected by tariffs. During 2022–25, the share of new industrial policies targeting agriculture declined compared with the 2010s, but the sector—employing about 40 percent of South Asia's workforce—continued to receive substantial policy support and protection (figure 2.5). In Bangladesh, India, and Sri Lanka, crop and animal production, the largest agricultural sector, was among the 10 percent of sectors most targeted by protective industrial policies, while food manufacturing—a downstream sector—was the target of the largest number of new policies in each of the three countries. The sector's output remains protected by an average tariff of 30 percent, compared with an average 15 percent import tariff on the region's industry (manufacturing, mining, utilities, and construction) sector and 6 percent in the agriculture sector of other EMDEs.

Sectoral targeting: Manufacturing sectors with faster job growth. Non-agricultural sectors least protected by industrial policies have been the source of job creation in South Asia over the past decade. The quarter of non-agricultural sectors that were targets of the least industrial policies generated over 80 percent of non-agricultural employment growth in Bangladesh and Sri Lanka—and 40 percent in India (figure 2.5). In part, this reflects the concentration of protective industrial policies in manufacturing, where employment growth has been slower than in services. Within manufacturing, however, sectors that were targets of more industrial policies have contributed more to employment growth. The quarter of manufacturing sectors that were targets of the most industrial policies generated around three-quarters of manufacturing employment growth in Bangladesh and were the only manufacturing sectors with positive employment growth in Sri Lanka. In India, the quarter of manufacturing sectors with the least industrial policies were sources of only five percent of manufacturing employment growth.

De facto policy targeting of South Asia's industrial policies

On average during 2022–25, significantly more new industrial policy measures were directed at firms with more workers (Bangladesh, India) or higher productivity (India). In manufacturing (the target of about half of new policies), Sri Lanka directed more policies at sectors with more employment, and India directed more policies at sectors with higher wages. India and Bangladesh directed new industrial policies at sectors with larger imports, while India and Sri Lanka targeted sectors with larger exports.

Methodology. A series of linear regressions reveal the de facto policy targeting of South Asia's industrial policies. A country's share of new protective industrial policies by sector is regressed on its one-year-lagged sectoral share of total employment, sectoral average (log) hourly wage, sectoral average (log) firms' employment size, sectoral average (log) firms' output per worker, and the sectoral share of exports and imports. The regression includes year fixed effects. The resulting coefficient estimates capture the degree to which more of a country's policies are targeted at a sector with larger employment and higher wages, larger firms' size and productivity, or larger exports and imports. The sample is restricted to non-agricultural sectors. The sample

comprises 73 sectors at the two-digit ISIC level in four South Asian countries (Bangladesh, India, Nepal, and Sri Lanka) for analysis of sector-level employment and wage; 45 sectors in three South Asian countries (Bangladesh, India, and Nepal) for firms' size and productivity; and 25 sectors in all six South Asian countries for trade. Annex 2.1 provides more details on the samples.

High-employment in Sri Lanka and high-wage manufacturing sectors in India. Most of South Asia's new protective industrial policies did not target non-agricultural sectors with larger employment (figure 2.6). Instead, a significantly larger number of India's policies targeted manufacturing sectors with higher wages. The quarter of manufacturing sectors that were targets of the most industrial policies paid 30 percent higher hourly wages than the quarter that received the fewest new policies in India. An exception was Sri Lanka, where significantly more policies were applied in sectors with larger employment, especially among manufacturing sectors. On average, the quarter of non-agricultural sectors that were targets of the most industrial policies employed 50 percent more workers than the quarter of sectors that received the fewest policies in Sri Lanka—and 80 percent more among manufacturing sectors.

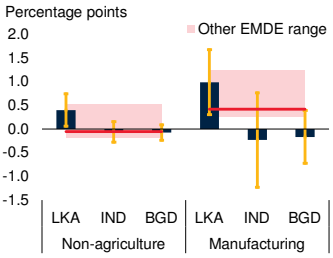
Larger and more productive firms. During 2022–25, sectors with larger formal firms in both Bangladesh and India—and, in India, more productive firms—were targets of significantly more industrial policies (figure 2.6). In India, the quarter of sectors with the most industrial policies had firms that were 100 percent larger (by employment) and 40 percent more productive.

Larger imports, larger exports. During 2022–25, non-agricultural sectors with larger imports were the targets of significantly more industrial policy measures in Bangladesh and India, while significantly more policies were

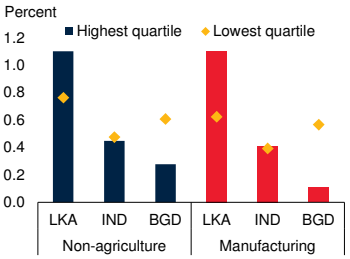
FIGURE 2.6 Correlation between sector characteristics and protective industrial policies

During the 2020s, more industrial policies were deployed in sectors with larger employment in Sri Lanka and sectors with larger firms in Bangladesh. In India, policies were directed to sectors with larger and more productive firms, as well as in manufacturing sectors with higher wages.

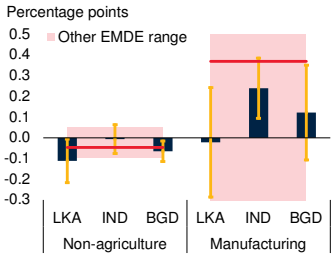
A. Predicted impact of a 1 percentage point increase in employment share on new industrial policy measures, 2022–25



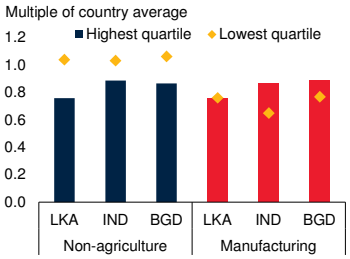
B. Average employment share in sectors in the highest and lowest quartiles of new industrial policy measures, 2022–25



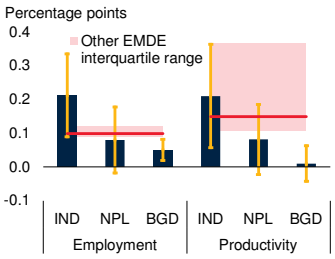
C. Predicted impact of a 10 percent increase in hourly wages on new industrial policy measures, 2022–25



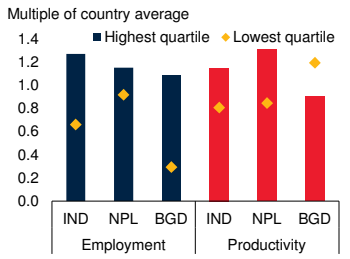
D. Average hourly wages in sectors in the highest and lowest quartiles of new industrial policy measures, 2022–25



E. Predicted impact of a 10 percent increase in firms' employment or productivity on new industrial policy measures, 2022–25



F. Average firms' employment and productivity in sectors in the highest and lowest quartiles of new industrial policy measures, 2022–25

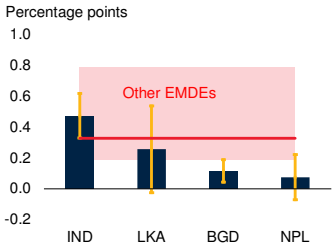


Sources: GLD (database); GTA (database); WBES (database); World Bank.
Note: Sample is restricted to non-agricultural sectors only.
A.C. Bars show the coefficient from regressions of sector share of new protective industrial policy on one-year lagged sector share of total employment (A) or sector average log hourly wage (C), with year fixed effects, for non-agricultural sectors or only manufacturing sectors. For C, coefficients are scaled by 10 to show the effect of a 10 percent change in hourly wage. The other EMDE sample comprises 5 non-South Asia EMDEs. Shaded region and horizontal line show the max-min range and median of regression coefficients for other EMDEs. Whiskers indicate a 90 percent confidence interval. Annex 2.1 provides more details.
E. Bars show the coefficient from regressions of sector share of new protective industrial policy on one-year lagged sector average log firms' employment and log productivity. Coefficients are scaled by 10 to show the effect of a 10 percent change in firms' employment or productivity. The other EMDE sample comprises 51 non-South Asia EMDEs. Shaded region and horizontal line show the interquartile range and median of regression coefficients for other EMDEs. Whiskers indicate a 90 percent confidence interval.
B.D.F. Bars show the average employment share (B), average hourly wage (D), and average firms' employment and productivity (F) for the two-digit ISIC sectors in the top quartile by the sector share of new protective industrial policies. Diamonds show the values for sectors in the bottom quartile. For D and F, values are normalized by the country's average hourly wage, average firms' employment, and firms' productivity.

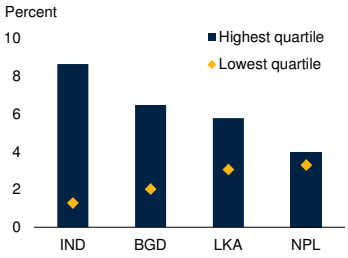
FIGURE 2.7 Correlation between sectoral trade intensities and protective industrial policies

In the 2020s, new protective industrial policies have targeted sectors with larger imports in Bangladesh and India, and those with larger exports in India and Sri Lanka.

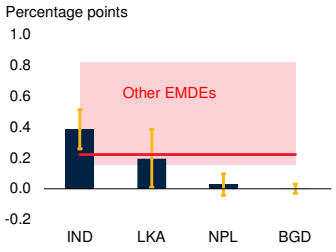
A. Predicted impact of a 1 percentage point increase in import share on new industrial policy measures, 2022–25



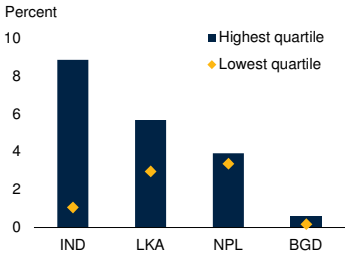
B. Average import share in sectors in the highest and lowest quartiles of new industrial policy measures, 2022–25



C. Predicted impact of 1 percentage point increase in export share on new industrial policy measures, 2022–25



D. Average export share in sectors in the highest and lowest quartiles of new industrial policy measures, 2022–25



Sources: CEPII BACI (database); GTA (database); World Bank.

Note: Sample is restricted to non-agricultural sectors only.

A.C. Bars show the coefficient from regressions of sector share of new protective industrial policy on one-year lagged sector share of the country's exports or imports, with year fixed effects and separately for each country. Industrial policies are counted at the two-digit ISIC v4 sector level and include protective policies newly implemented during 2022–25. Industrial policy share is the sector's share of total new protective industrial policies in the country-year. Import or export share is computed at the two-digit ISIC v4 sector level in the year prior to the industrial policy count, and expressed as a share of the country's total imports or exports. The last year of trade data is 2023. The shaded region and horizontal line mark the interquartile range and median among other EMDEs with statistically significant coefficient at the 10 percent level. The sample includes 36 non-SAR EMDEs for imports (A) and 42 non-SAR EMDEs for exports (C).

B.D. Bars show the average import share (B) or average export share (D) for the two-digit ISIC v4 sectors in the top quartile by the sector share of new industrial policies implemented. Diamonds show the values for sectors in the bottom quartile by the sector share of new industrial policies. Values are normalized by the country's average import or export share. New industrial policies are for 2023.

directed at sectors with larger exports in India and Sri Lanka (figure 2.7). In India, for example, the quarter of sectors targeted by the most industrial policies imported seven times, and exported eight times, as much as the quarter of sectors that received the fewest industrial policies. In India and Sri Lanka, the most export-competitive sectors (those with the highest revealed comparative advantage)—textiles in Sri Lanka and mineral fuels in India—are protected by the lowest tariff rates in each country (box 1.1).

Evolution of trade after introduction of new industrial policies

During 2004–23, South Asia's imports declined significantly after the introduction of import-restricting policies while exports did not rise significantly after the introduction of export-promoting policies.

Trade supports South Asia's long-term macroeconomic stability, development, and jobs (World Bank 2025a). Manufacturing competitiveness and exports are among India's stated development goals (Government of India 2026). As shown above, more than half of the new industrial policies implemented in South Asian countries other than India were import restrictions or export incentives (figure 2.3). Globally, export incentives have been associated with short-term declines and statistically insignificant medium-term gains in firms' value added and productivity (Machado Parente et al. 2025). Domestic subsidies have been shown to have persistent positive effects on sectoral trade and, in some cases, positive effects on inward cross-border investment (Huang et al. 2025; Rotunno and Ruta 2024; Ruta and Sztajerowska 2025).

Methodology. A local projection model is estimated to trace out changes in sectoral imports and exports after the introduction of sector-specific protective industrial policy measures that discriminate against foreign businesses and protect domestic ones. Estimates distinguish by instruments used. The sample consists of data for 31 sectors at the two-digit ISIC level in 154 EMDEs, including all six countries in South Asia, for

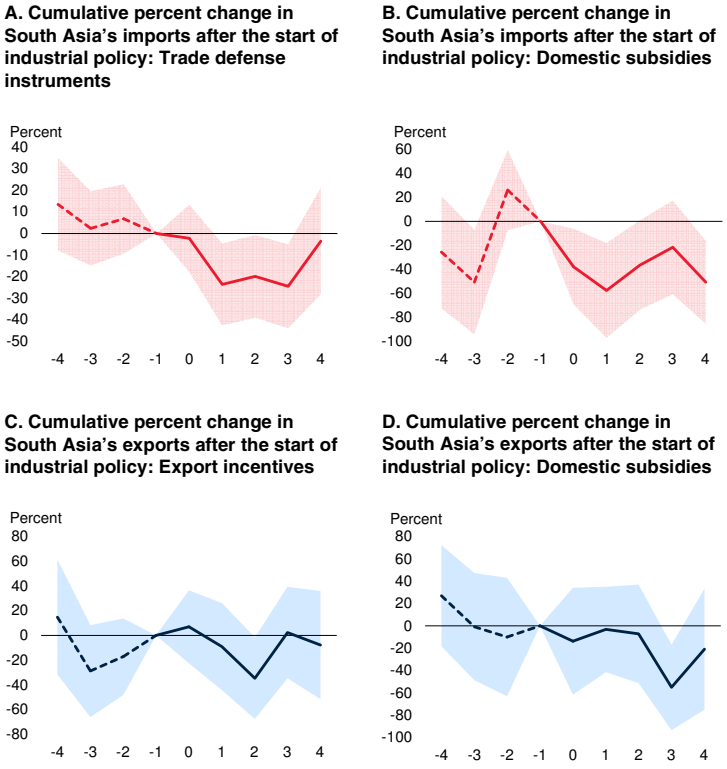
2004–23. During this time span, new policy measures were introduced in about 10 percent (8,706 observations) of country-sector-year observations among EMDEs and 17 percent (604 observations) in South Asia. The estimation controls for country-sector, country-year, and sector-year fixed effects to remove global sector-specific trends, country-specific trends, and country-sector characteristics. It also controls for the presence of pre-existing industrial policies in the sector before the introduction of the new measure. Figure 2.8 illustrates results for the South Asia region; annex 2.1 shows that these results are consistent with those for all 154 EMDEs.

Imports: Declines after policy restrictions. Sectoral imports declined significantly for several years after the introduction of trade defense policies or domestic subsidies in South Asia (figure 2.8). This is consistent with domestic subsidies serving as import-substitution policy: subsidies on import-competing sectors support the expansion of domestic production and, after some delay, lower imports of goods produced in the targeted sectors. It is also consistent with trade defense policies outright restricting imports; for example, Sri Lanka's import ban on fertilizers in 2021 led to a dramatic decline in fertilizer imports without the development of a domestic fertilizer industry (Ghose, Pinheiro Fraga, and Fernandes 2023). Similarly, public procurement policies, such as procurement access, localization, and preference margins, could restrict imports. But in practice, these policies, although gaining popularity in South Asia, were not followed by significant changes in imports in the region (annex 2.1).

Exports: No significant change after policy support. The introduction of outright export-promoting policies (such as export incentives) was not followed by a significant increase in exports in South Asia (figure 2.8). In principle, domestic subsidies—such as financial grants, loans, and interest payment subsidies—can alleviate credit constraints for young firms and industries with high fixed costs or coordination challenges (including many exporting activities). In practice, however, such subsidies have not been associated with a significant increase in sectoral exports in South Asia. Public procurement policies, if used to support

FIGURE 2.8 Evolution of trade flows after introduction of protective industrial policies

In South Asia, industrial policies to protect against imports have been followed by periods of significantly lower imports in the sectors targeted by these measures. In contrast, export-promoting policies were not followed by significantly higher exports.



Sources: CEPII BACI (database); GTA (database); World Bank.

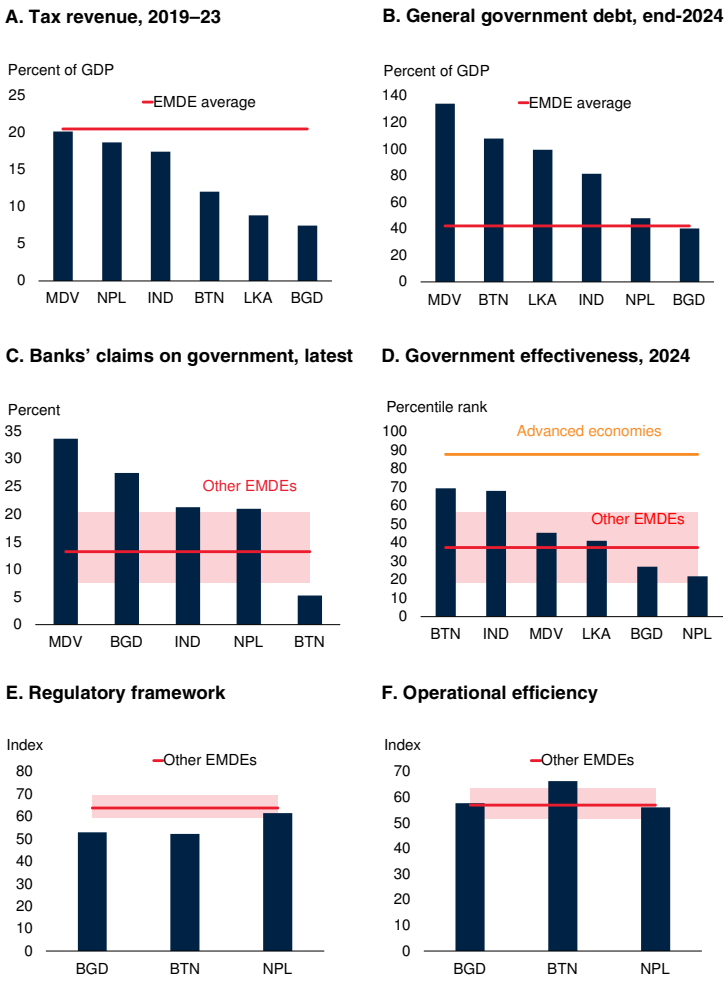
Note: The impulse response function is from a local projection estimation of cumulative changes in log imports (A, B) or exports (C, D) on a dummy variable for the implementation of a protective industrial policy. T=0 is the first period after policy implementation. Estimation includes controls for the presence of other active industrial policies in the same country and sector. Country-sector, country-year, and sector-year fixed effects are included. Sectors are at the two-digit ISIC v4 level. Standard errors are clustered at the country-sector level. The sample includes protective industrial policies implemented between 2004 and 2023 that were active for more than five years. The broken parts of the line show the pre-trend. Shaded regions indicate 90 percent confidence intervals. Annex 2.1 provides more details on the estimation.

A.B. Estimates for the change in imports of affected sectors after the introduction of trade defense instruments (A), or domestic subsidies (B). Trade defense instruments include anti-dumping, anti-subsidy, and other safeguards.

C.D. Estimates for the change in exports of affected sectors after the introduction of export incentives (C), or domestic subsidies (D). Export incentives include export subsidies, export tax incentives, and other export incentives. Domestic subsidies also include state aid.

FIGURE 2.9 Preconditions for industrial policies: Fiscal space and government effectiveness

South Asian countries have limited fiscal space, with below-average revenues, above-average debt, and above-average bank holdings of sovereign debt. Several South Asian governments are also limited in their effectiveness, operational efficiency, and the quality of their regulatory frameworks.



Sources: B-Ready Index (database); Haver Analytics; IMF WEO (database); World Bank Fiscal Survey (database); WDI (database); WGI (database); World Bank.

A. Tax revenue includes social security contributions and excludes grants. EMDE average is the nominal GDP-weighted average of 142 EMDEs.

B. EMDE average is the nominal GDP-weighted average of 147 EMDEs. For Bhutan, about two-thirds of general government debt is in hydropower debt.

C. Bars show the banks' claims on central government as percentage of banks' total assets. The red horizontal line shows the median among 102 non-SAR EMDEs. The shaded region shows the inter-quartile range for this sample. Latest data are for December 2025 for Bangladesh, Bhutan, Maldives, and Nepal, and FY24/25 for India.

D. The red horizontal line shows the median among 149 non-SAR EMDEs for which the government effectiveness index is available from the Worldwide Governance Indicators database. The shaded region shows the interquartile range for this sample.

E.F. B-Ready indicators, where a higher index indicates a more business-friendly business climate. Data are available for three South Asian countries. "Other EMDEs" include 73 non-SAR EMDEs. The red line is the unweighted average of other EMDEs.

innovation by domestic firms, could boost firms' competitiveness in the export market. At the same time, contracts with the public sector could reduce firms' incentive to export if the public sector offers more attractive prices or more favorable terms than the export market (Deringer et al. 2018). In South Asia, the introduction of public procurement measures was not followed by significantly higher or lower exports (annex 2.1).

Experience of industrial policies in South Asia

Even outside the remit of trade policies, South Asia's experience with industrial policies has been mixed. The region's use of industrial policies has been constrained by limited fiscal space and government capacity, poor implementation, and gaps in infrastructure. The few success cases have hinged on coordinated policies and integration into global value chains.

Limited fiscal space in most South Asian countries. South Asian countries have limited fiscal space. Tax revenue as a percentage of GDP during 2019–23 was below the EMDE average in all six South Asian countries, and general government debt as a percentage of GDP was above the EMDE average in all but Bangladesh as of the end of 2024 (figure 2.9; World Bank 2025b). India and Nepal have higher tax revenue and lower government debt than other South Asian countries, a combination that could allow their governments to use fiscal resources for industrial policies. However, Nepal has little access to international financial markets, and a large share of its fiscal financing comes from domestic banks, which hold more assets in domestic government bonds than do domestic banks in most other EMDEs. Even in India, the share of sovereign bonds in bank assets ranks in the top quartile of EMDEs. As a result, fiscally expensive policies—including state loans, financial grants, and trade finance—are not priorities (Fernandes and Reed 2026). Indeed, South Asian countries have relied less heavily on domestic subsidies and state aid than other EMDEs, although

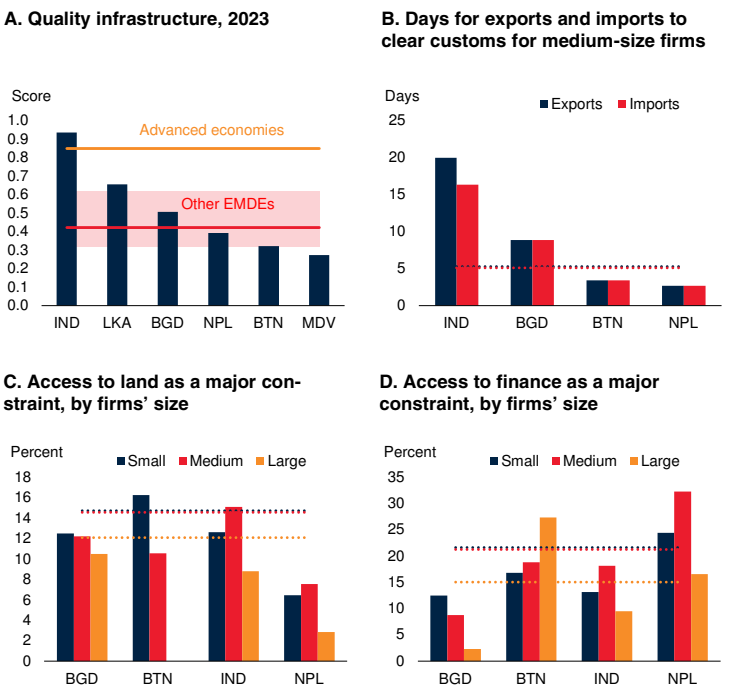
India uses a larger share of subsidy measures than other countries in the region (figure 2.3).

Lack of a large local market in most South Asian countries. South Asian countries other than Bangladesh and India have moderately sized local markets, ranking in the second quartile of EMDEs by U.S. dollar GDP. For countries without a large local market size, trade policies that leverage local market size for advantages, such as technology transfer quid pro quo and local content requirements, are not priorities (Fernandes and Reed 2026).

Limited government capacity in Bangladesh and Nepal. In Bangladesh and Nepal, government capacity—whether measured by the government effectiveness index or the World Bank's B-Ready scores for regulatory frameworks and operational efficiency—is below the median of other EMDEs (figures 2.9; World Bank 2025b). Although government capacity in Bhutan and India is higher than in most other EMDEs, it still falls well short of the median of advanced economies. In Bhutan, government capacity constraints exist in areas such as technical capacity and implementation capacity. For countries with low government capacity, firm-specific policies that require accurate targeting—such as trade finance, export subsidies, financial grants, and state loans—do not appear to be priorities (Fernandes and Reed 2026). *Nepal*'s export subsidy scheme is one such example. The scheme—first introduced in 2010–11 and expanded in 2022—provided 4–8 percent of export value for targeted product categories. However, the program had faced long delays in paying out cash incentives to exporters because of scattered budget allocations, long approval processes, and lack of coordination across multiple ministries (The Annapurna Express 2024; Verma 2025). As a result, the subsidy program was found to have limited impact on the exports of domestically produced goods and has since been abolished (Defever et al. 2020; The Kathmandu Post 2025). Limited capacity can also lead to poor program designs. *Bangladesh*'s policy support for its ready-made garments (RMG) sector—including preferential taxation, concessional export finance, and subsidized lending—helped propel the sector into a global export powerhouse during the 1980s and 1990s but, since then, rent-seeking and stifled broader economic diversification have been attributed to the absence of sunset clauses for these policies (Galal et al. 2025).

FIGURE 2.10 Preconditions for industrial policies: Regulation

Several South Asian countries have poor-quality infrastructure, and some face constraints from non-tariff trade barriers and from access to land and finance, which typically hinder small and medium-sized enterprises in particular.



Sources: GQII (database); Harmes-Liedtke, Muñoz, and Waltos (2024); WBES (database); World Bank.

A. Red horizontal line shows the median among 139 non-SAR EMDEs for which the Global Quality Infrastructure Index is available. Shaded region shows the inter-quartile range for this sample. Yellow horizontal line shows the median among 38 advanced economies.

B. Bars show the average number of days it takes for imports or exports to clear customs among medium-sized firms (20 to 99 employees). Horizontal line shows the median among other EMDEs, which comprise 74 non-SAR EMDEs with surveys between 2022 and 2025.

C.D. Bars show the share of firms identifying inadequate access to land (C) or finance (D) as a major or very severe constraint. Small firms are those with fewer than 20 employees, medium-sized firms are those with 20–99 employees, and large firms are those with 100 or more employees. Horizontal lines show the median among other EMDEs, comprising 78 non-SAR EMDEs with surveys between 2022 and 2025.

Poor implementation and onerous regulation. Even in countries with solid government capacity, gaps in implementation can limit the impact of industrial policy. *India*'s Production-Linked Incentive (PLI) offers sales-based incentives to encourage domestic production. But as of September 2025, the PLI, which started in 2020–21 and was scheduled to last five years, had issued only 12 percent of the funds allocated to it (CareEdge Ratings 2025). Burdensome administrative requirements, limited coordination across ministries, and supply chain constraints (in solar production sectors) have been cited as reasons for the ineffective implementation (Hudson Institute 2024; IEEFA 2025; Reuters 2025). *Sri Lanka*'s more than 500 state-owned enterprises contributed significantly to the country's debt crisis because of conflicting objectives, mismanagement, and inadequate oversight (Advocata 2022). For Sri Lanka, strengthening the oversight and management of state-owned enterprises is therefore among the core reform priorities (World Bank 2025c). Complex and long regulatory processes limit the take-up and success of industrial policy programs. South Asian firms across all sectors cite a host of obstacles to doing business, in particular non-tariff trade barriers, and difficult access to land and finance. Medium-sized firms in *Bangladesh* and *India* experience longer delays to clear import and export customs than firms in the median EMDE (figure 2.10). An above-median share of small firms in *Bhutan* and an above-median share of medium-sized firms in *India* identify inadequate access to land as a major constraint to operations. An above-median share of firms of all sizes in *Nepal* face a major constraint from access to finance.

Gaps in infrastructure. Gaps in infrastructure, both physical and digital, constrain the scale of industrial policy. In *Bangladesh*, planned economic zones were canceled or experienced long delays because of slow infrastructure development (The Daily Star 2025). In *Sri Lanka*, the lack of a fully digitized and automated system prevented exporters from taking full advantage of tax incentives for purchases of domestic inputs (World Bank 2024c). In addition, infrastructure for quality assurance, as measured by the Quality Infrastructure Indices, is below the median of other EMDEs in Bhutan, Maldives, and Nepal (figure 2.10). Quality infrastructure—such as standardization, accreditation, and metrology (measurement science)—assures buyers of the quality of a country's products and helps promote exports, whereas weak quality infrastructure can hinder the effect of industrial policies on export promotion.

Coordinated policy and integration into global supply chains. *India*'s electronics sector illustrates how coordinated policies can drive integration into global supply chains. The National Policy on Electronics laid the foundation for a broader ecosystem—attracting foreign direct investment (FDI), nurturing domestic manufacturers, and linking Indian producers to GVCs. Building on this foundation, the PLI schemes provided targeted financial incentives tied to incremental production, directly encouraging firms to scale up manufacturing capacity and boost exports. The results have been significant: Since FY21, the sector has attracted more than US$ 4 billion in FDI, including Apple suppliers establishing operations in Tamil Nadu, alongside strong growth in mobile phone exports (CareEdge Ratings 2025; Fernandes and Reed 2026; Karnik 2025).

Maximizing gains from industrial policies

South Asian countries can maximize the gains from industrial policies through first-choice policies such as industrial parks, skill development programs, and market access assistance. Better infrastructure, business regulation, and institutions can provide broad benefits across industries.

First choice policies to address market failures

Market failures such as coordination problems, high fixed costs, and information gaps can be addressed by first-choice policies and require only moderate institutional capacity (Fernandes and Reed 2026).

Industrial parks allow firms to jointly locate and operate with coordinated infrastructure. Industrial parks reduce fixed-cost and entry barriers, especially for a new industry, strengthen agglomeration benefits among firms, and require only moderate government capacity to implement. Sound design choices are critical—such as locating industrial parks near skilled labor and transportation hubs. Industrial parks combined with special regulatory regimes have been successful in China, Poland, Türkiye, and Viet Nam. In South Asian countries, evidence is mixed on the impact of industrial parks and special economic zones (Alkon 2018; Görg and Mulyukova 2024). One exception is India's plug-and-play industrial parks in Tamil Nadu for iPhone production, which have been shown to alleviate constraints from inadequate access to land and finance (Fernandes and Reed 2026; Government of India 2025). Some South Asian countries have unusually divergent subnational labor markets (box 2.2). Locating industrial parks or economic zones in lagging regions could stimulate economic activities and increase employment in the surrounding areas (Gallé et al. 2024; McCaig et al. 2025). But to achieve positive outcomes requires a responsive local government—as in the case of Tamil Nadu. The region needs to have the resources, including land and labor, to provide production inputs and connectivity to ensure access to markets. Otherwise, it is often more cost-effective to allow labor reallocation across locations by lowering barriers to worker mobility (Grover, Lall, and Maloney 2022).

Skills development programs can target priority sectors with skills shortages to support growth of firms in these sectors. Such programs can start with mapping private sector demand to training programs, and seek to develop both technical and managerial skills. For example, in Costa Rica, a technician training program supported the development of its electronics industry. Similar efforts supported the software industry in India—a government-private sector partnership in the city of Bhubaneswar, India, provides technical training to nearly 38,000 people each year (Banga 2026; Kumar 2014). Countries with limited fiscal space, including many South Asian countries, could also benefit from the skills training provided by the Global Skills Partnership (Acosta et al. 2025). Skills development programs can help workers adapt to changing skill demand and equip them with the necessary skills to move to rising sectors, especially as disruptions from trade and AI are thinning out labor markets (box 2.1).

Market access assistance—which India and Sri Lanka include in their national development plans—helps match firms to their best trading partners and to their best sources of quality inputs from foreign suppliers. Such assistance can be especially helpful for small- and medium-sized

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia

South Asia has some of the largest and some of the smallest within-country wage differentials by the standards of emerging market and developing economies (EMDEs). In South Asia's larger countries, worker characteristics account for about one-fifth of these subnational wage differentials. South Asia's remaining wage premiums, after controlling for worker characteristics, are higher in regions with better transport connectivity, more skilled workforces, larger firms, and more services sector activity. Wage premiums appear to be persistent and self-reinforcing. While such regional wage persistence may warrant place-based or industrial policies, South Asia's experience with these policies has been mixed.

Introduction

Despite balance of payments crises and severe pandemic-related recessions, per capita real GDP growth in South Asia—Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka—has outpaced that of other EMDEs since the mid-2010s (figure B2.2.1). This growth, however, was reflected unevenly in labor market outcomes—with large regional disparities. Per capita incomes in India, for example, grew on average by 4.1 percent per year between 2017 and 2023, but average annual real wage growth at the state level ranged from –5.4 percent per year in Punjab to +5.6 percent per year in Chhattisgarh. Chhattisgarh's average wage is 40 percent below the national mean, whereas Kerala's wage is 60 percent above.

Regional wage differentials may widen further as asymmetric shocks affect sectors and—because of different sectoral compositions—regional labor markets. For example, the widespread adoption of artificial intelligence is disrupting service sector exports (such as in India's state of Karnataka), while major tariff changes abroad are affecting manufacturing sector exports (such as in the state of Gujarat; figure B2.2.1; World Bank 2025a).

Such asymmetric shocks can cause job and wage losses if workers cannot quickly move to more promising activities, locations, and firms. For example, the output gains from a trade reform that lowers import costs would be only half of those that would be generated without a modest reduction in job-switching costs. The combined reform would encourage workers to move to different sectors and firms, and increase the gains (World Bank 2025a).

Industrial policies can help create the right conditions for job creation and business growth in disadvantaged regions, including by supporting employment-creating sectors (chapter 2). Tourism and agribusiness, for example, have been cited as sectors that could boost economic activity in lagging regions (Fernandes and Reed 2026; Government of India 2026).

This box examines labor market fragmentation among entities that are one administrative level below the national government: divisions in Bangladesh, districts in Bhutan, states and union territories in India, major atolls and cities in Maldives, and provinces in Nepal and Sri Lanka. Extremely small subnational units that account for less than 1 percent of the working-age population are excluded from the analysis, to ensure that findings are broadly applicable to the vast majority of the workforce. Specifically, this box considers the following questions:

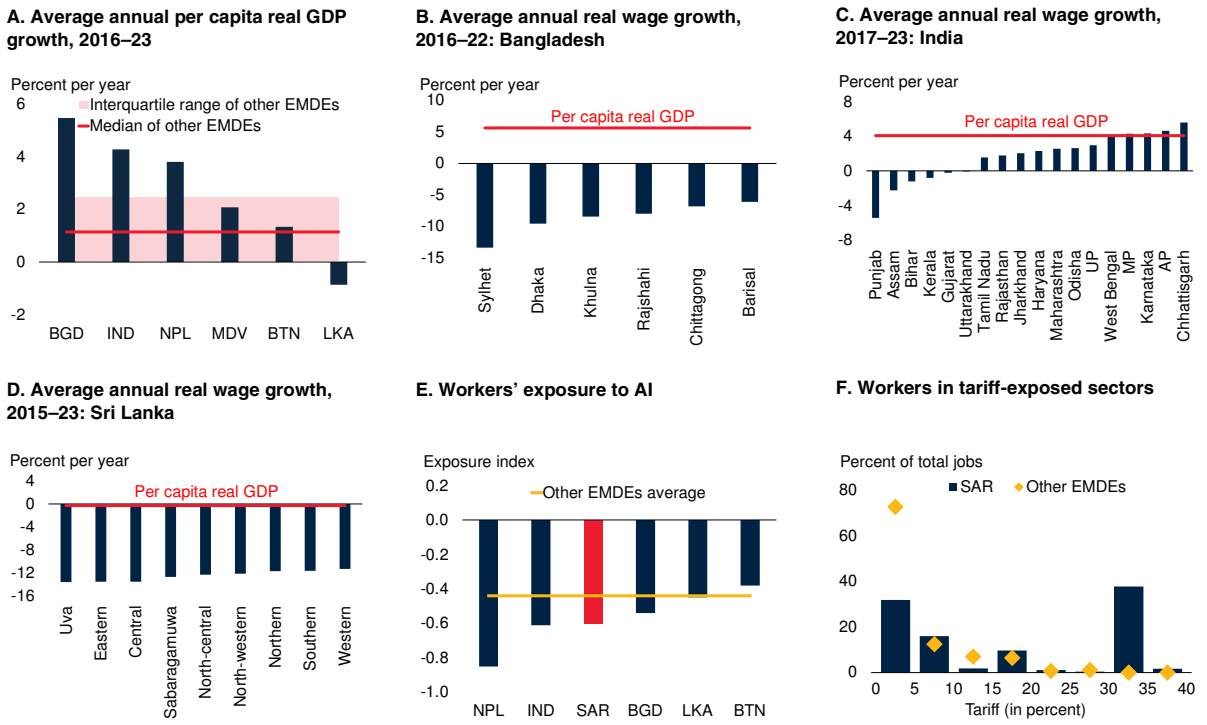
- How large are wage differentials among South Asia's labor markets by international comparison?

Note: This box was prepared by Margaret Triyana.

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

FIGURE B2.2.1 Asymmetries in South Asian labor markets

Since the mid-2010s, most of South Asia has benefited from higher per capita real GDP growth than most other EMDEs. However, this per capita growth has been reflected in labor market outcomes in a highly uneven manner. Several asymmetric shocks may further widen the gap between higher- and lower-paying regional labor markets.



Sources: GLD (database); Maldives Household Income and Expenditure Survey 2019; World Bank (2025a); WDI (database); World Bank.

Note: AI = artificial intelligence; AP = Andhra Pradesh; MP = Madhya Pradesh; UP = Uttar Pradesh.

A. Red line is the median, and red shade is the interquartile range, for 145 EMDEs, excluding the six countries in South Asia.

B.–D. Charts show average annual growth in regional average raw wages between the year with available data closest to 2015 and the year with the last available data. Subnational units with a population of less than 1 percent of the national population are omitted.

E. "Other EMDEs" are 25 non-SAR economies for which labor force surveys are available. All EMDE and regional averages are weighted by the working population (aged 15+). Generative AI (GenAI) occupational exposure scores are averaged across text and image and defined as standard deviations relative to the average occupational exposure. Bars show the average GenAI exposure index in SAR countries. Yellow line shows the average GenAI exposure index in 25 EMDEs for which labor force surveys are available, excluding SAR.

F. South Asia comprises the latest data for all six countries in the region and other EMDEs comprise six comparator countries.

- What are the features of the most dynamic subnational labor markets in South Asia?
- Which policy options are available to improve labor market outcomes in lagging regions?

Main findings. This box documents the following findings.

First, considering regional wage differentials as a proxy for within-country labor market fragmentation, South Asia's labor markets range from being unusually fragmented by EMDE standards (in Bhutan, India, Maldives) to being unusually integrated (in Bangladesh, Nepal). Differences in worker characteristics, such as education and sector of employment, explain about one-fifth (Bangladesh, Bhutan, India) to

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

four-fifths (Maldives) of the wage differences across subnational regions. Until 2019, wage differentials between leading and lagging regions narrowed in most South Asian countries, but then widened again.

Second, the regions that pay the highest wage premiums, after controlling for worker characteristics, are those with larger and better transport networks, more educated workforces, and more employment in larger firms in industry and services. These are also the features of the regions with fastest-rising wage premiums, suggesting self-reinforcing regional wage dynamics.

Third, improved transport connectivity and skilling can help improve labor market outcomes in South Asia's lagging regions. Industrial policies can foster economic activity in lagging regions by supporting sectors such as tourism and agribusiness, or by addressing market failures. For example, industrial parks that concentrate manufacturing activity can alleviate coordination challenges, although South Asia's experience with industrial parks has been mixed.

Contribution to the literature. An urban wage premium is well established for advanced economies and, in the United States, accompanied by greater earnings inequality (Buchholz 2025). In both the United States and Europe, local wage premiums have been higher (or grown faster) in urban centers, and in areas that have more skilled workforces and specialize in more technologically sophisticated and globally connected activities (Bathelt, Buchholz, and Storper 2024; Groot, de Groot, and Smit 2014). In EMDEs, too, urban centers offer agglomeration benefits, but some lagging regions may struggle even when market failures or transitory adverse shocks are addressed (Grover, Lall, and Maloney 2022; Grover, Lall, and Timmis 2023). This box differs from the existing literature in two ways. First, instead of focusing on individual cities, this box focuses on a subnational level of government that controls much of economic policy in South Asia. Second, instead of focusing on single-country patterns, this box identifies common, cross-country regularities in subnational wage differentials.

Data and definitions

Data. This box draws on a wide range of sources. Harmonized, detailed labor force surveys from the World Bank's Global Labor Database (GLD) are supplemented with national survey data for Bhutan and Maldives. The data are then aggregated to the subnational level. Infrastructure data at the subnational level come from Straub et al. (forthcoming). These sources result in a dataset of subnational labor market indicators between 2008 and 2024 for all South Asian countries and 19 other EMDEs. For India and Sri Lanka, the latest available data are for 2023; for Bangladesh, 2022; for Bhutan, 2024; for Maldives, 2019; and for Nepal, 2017.

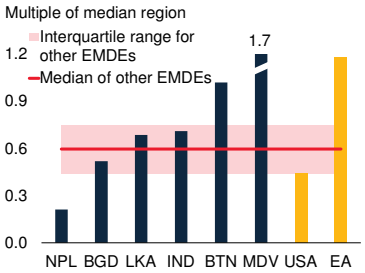
Definitions. For the purposes of this box, regional "wage differentials" are captured by the minimum-maximum range of raw regional averages of wages at the administrative level 1 in the GLD database, scaled by the median region's average wage. By contrast, the regional "wage premium" is a regional average wage controlling for worker characteristics. Specifically, it is the coefficient on the regional fixed effect derived from a survey-by-survey regression. The analysis regresses individual workers' log wages on experience, squared experience, as well as dummy variables for male gender, primary education, secondary education, post-secondary education, urban location, high-skilled occupation, employment in industry, and employment in services. Experience is defined as

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

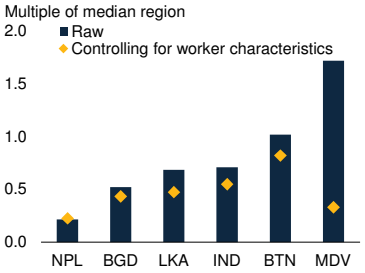
FIGURE B2.2.2 Regional wage differentials

In most South Asian countries, wage dispersion across regional labor markets is near the top quartile of EMDEs. One-fifth (Bangladesh, Bhutan, India) to four-fifths (Maldives) of the dispersion is accounted for by differences in worker characteristics. Until about 2019, differences between regional wages narrowed in most South Asian countries but then widened amid balance of payments pressures in Bangladesh and Sri Lanka.

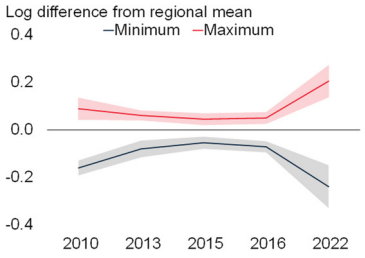
A. Range of regional average wages



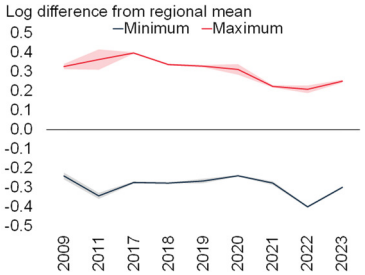
B. Range of regional average wages, with and without worker characteristics



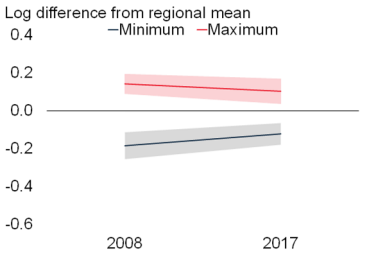
C. Highest and lowest regional wage premium: Bangladesh



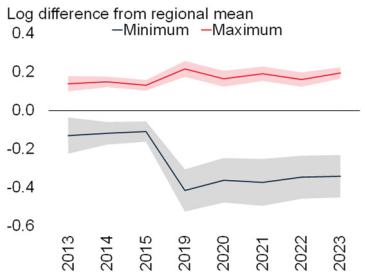
D. Highest and lowest regional wage premium: India



E. Highest and lowest regional wage premium: Nepal



F. Highest and lowest regional wage premium: Sri Lanka



Sources: Eurostat; GLD (database); IPUMS USA: Version 16.0 (dataset); Maldives Household Income and Expenditure Survey 2019; World Bank.

Note: Charts show the minimum-maximum range of average wages in admin-1-level subnational units relative to the average wage of the median subnational unit. Subnational units that account for less than 1 percent of the country's working-age population (aged 15+ years) are excluded.

A. Red shade represents the interquartile range and the red line shows the median value for 22 EMDEs, excluding countries in South Asia. Bar for euro area shows the cross-country range of country-level average wages in 2024 in 12 euro area countries. Bar for United States shows the cross-state region of state-level average wages in 2024 in 29 U.S. states.

B.–F. "Controlling for worker characteristics" is based on the residual derived from country-by-country regressions of individual workers' log wages on experience; squared experience; as well as dummy variables for male, primary education, secondary education, post-secondary education, urban residence, high-skilled occupation, employment in industry, and employment in services. Experience is defined as age minus years of education minus 6. Shaded region indicates 90 percent confidence intervals. Results can be found in annex table B2.2.2.

age minus years of education minus six years to account for the age that most workers entered primary school. Extremely small regions, which host less than 1 percent of the working-age population, are dropped from the sample.

Regional wage differentials

Regional wage differentials. In the average South Asian country, the wage differentials (almost 20 percent) is slightly wider than the average EMDE, but South Asia has some of the largest, as well as some of the smallest, spatial wage differences among EMDEs. Wage differentials are particularly narrow in *Nepal* and *Bangladesh*: the range of raw wages across subnational regions is well below that of the median EMDE (figure B2.2.2). Nepal's wage differential is low even compared with the narrow differentials between U.S. states that have been widely studied in the literature. In contrast, South Asia's small states—mountainous Bhutan

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

and the islands and atolls of Maldives—have exceptionally wide regional wage differentials, ranking among the highest quartile of EMDEs. In fact, their *subnational* wage differentials are on par with the *cross-country* wage differentials in the euro area that have been the focus of much of the convergence literature. Cross-regional differences in raw wages in *India,* too, rank near the top quartile among EMDEs, and those in *Sri Lanka* are also above the EMDE median. In part, these regional differences in raw wages reflect different worker characteristics.

Regional wage premiums, controlling for worker characteristics. To control for worker characteristics such as education and sector of employment, the regional wage premium is estimated as the coefficient on the regional fixed effect of a regression of log wages on worker characteristics. The resulting regional wage premium reflects region-specific wage differentials for workers with the same characteristics. In Maldives, worker characteristics account for almost all of the regional wage differentials: controlling for worker characteristics shrinks these differentials to one-fifth (figure B2.2.2). In South Asia's other countries, worker characteristics account for about one-fifth, and at most one-third (Sri Lanka) of the cross-regional wage differentials. The remaining range of regional wage premiums amounts to about three-fourths of the median region's wage premium in India, Bangladesh, and Sri Lanka and less than one-fifth the median region's wage premium in Nepal.

Regional wage premiums over time. In India, differentials in regional wage premiums have gradually narrowed since the 2010s as wage premiums in the highest-paying regions trended down. In Bangladesh and Sri Lanka, differences in wage premiums narrowed over the 2010s, but then diverged beginning in 2019–20 (figure B2.2.2). As severe exchange rate pressures and energy shortages depressed non-agricultural activity in Bangladesh in 2022, a large number of workers moved into agriculture, widening wage differentials between higher-wage urban and lower-wage rural areas (World Bank 2025d). In Sri Lanka, the Easter Sunday terrorist attacks in 2019 and a simultaneous fall in tea prices disproportionately affected the Central Province, where some of Sri Lanka's most famous cultural sites and tea estates are located (IMF 2019; Sri Lanka Department of Census and Statistics 2019).

Characteristics of regions with higher wage premiums

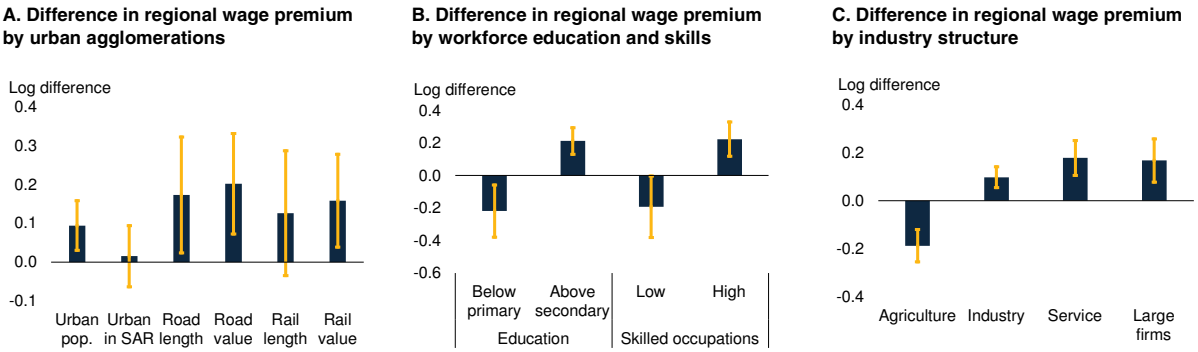
Candidate correlates of regional wage premiums: Literature. In both the United States and Europe, local wage premiums have been higher (or grown faster) in urban settings, which tend to have more skilled workforces, and specialize in more technologically sophisticated and globally connected activities (Bathelt, Buchholz, and Storper 2024). In EMDEs, too, urban areas have offered higher wages (Grover, Lall, and Maloney 2022).

- ***Urbanization benefits.*** The spatial concentration of economic activity that is commonly found in urban centers can increase wage premiums by enhancing productivity and growth through knowledge spillovers, labor market pooling, and input sharing (Bathelt, Buchholz, and Storper 2024). Alternatively, such a concentration of people and activity can generate pollution, congestion, and crime that offset agglomeration-driven productivity gains (Grover, Lall, and Timmis 2023).
- ***Labor sorting.*** Related to agglomeration, the observed wage premiums can reflect the

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

FIGURE B2.2.3 Correlates of regional wage premiums

Regions with large urban agglomerations, better transport connectivity, better-educated workforces, and larger firms, especially in services and industry, offer a higher wage premium, even after controlling for workers' individual characteristics.



Sources: GLD (database); Maldives Household Income and Expenditure Survey 2019; World Bank.

Note: pop. = population. Predicted difference in log regional wage premium between the highest (90th percentile) and lowest (10th percentile) value for each regional characteristic in South Asia. Prediction is based on a linear regression of the log regional wage premium on one characteristic at a time, controlling for country-year fixed effects. Yellow whiskers represent 90 percent confidence intervals. Regional wage premium is the coefficient on the regional fixed effect in a country-by-country regression of individual workers' log wages on experience; squared experience; as well as dummy variables for male, primary education, secondary education, post-secondary education, urban residence, high-skilled occupation, employment in industry, and employment in services. Experience is defined as age minus years of education minus 6. Results can be found in annex table B2.2.3.

A. "Urban pop." stands for the share of urban population. "Rail length" and "Road length" stand for the log length of railway tracks and roads, respectively (in kilometers). "Rail value" and "Road value" stand for the log value of the stock of rail and road assets, respectively, at replacement cost (in U.S. dollars).

B. "Below Primary" stands for the share of workforce with below-primary education. "Above Secondary" stands for the share of population with post-secondary education.

C. "Agriculture," "Industry," and "Service" stand for share of workers employed in agriculture, industry, and service, respectively. "Large firms" stands for the share of workers in firms with more than 20 workers.

spatial concentration of higher-skilled workers in high-wage local labor markets, and a self-reinforcing interaction between skill demand and skill supply (Overman and Xu 2024). In France, for example, skill sorting accounts for a substantial share of wage differences across regions after controlling for worker heterogeneity (Combes, Duranton, and Gobillon 2008).

- ***Others.*** Wage premiums can reflect differences in place-based endowments, constraints that limit mobility across regions, or market failures that dampen firms' growth. For example, rising housing costs in high-income areas limit low-skill migration in the United States (Ganong and Shoag 2017). Language barriers limit cross-border integration in the European Union (Bartz and Fuchs-Schündeln 2012). Lack of transport links prevented access to export markets for highland tea-growing areas in Kenya (Grover, Lall, and Maloney 2022).

Correlates of regional wage premiums: Empirical estimates. Correlations between regional wage premiums and regional characteristics are derived from a series of panel regressions of regional wage premiums after controlling for worker characteristics. They include education and transport connectivity, one characteristic at a time, and country-year fixed effects. To test for differences between South Asia and other EMDEs, an interaction term between the regional characteristic and a South Asia dummy variable is added, but

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

retained only when the coefficient on the interaction term is statistically significant (annex table B2.2.3). Applying the resulting estimates to data for South Asia's regions suggests that South Asia's regions with higher regional wage premiums differed systematically from their peers in the composition of their workforce, in the composition of their firms, and in their transport connectivity, broadly in line with the literature.

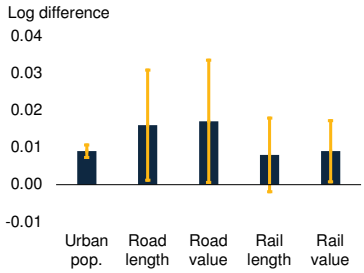
- ***Urbanization.*** In the full EMDE sample, regions with higher urban population shares had significantly higher regional wage premiums—except in South Asia, consistent with South Asia's relatively low-performing urban areas (figure B2.2.3; chapter 1). The urban population share is the only regional characteristic whose correlation with regional wage premiums differs significantly between South Asia and other EMDEs. In South Asia, the correlation between urban population shares and regional wage premiums is statistically indistinguishable from nil because wage premium differ widely between states with large urban population shares. For example, the two Indian states Maharashtra and Gujarat had virtually identical urban population shares in 2023 (a touch under 43 percent), but Maharashtra's wage premium was 6 percentage points above the median, while Gujarat's was 7 percentage points below the median.
- ***Transport connectivity.*** Transport connectivity plays a special role, as regions with larger and better-quality road and rail networks also offer significantly higher wage premiums. The regional wage differential between South Asia's regions in the lowest and highest deciles by transport links amounted to 10–20 percent (0.1–0.2 log points in figure B2.2.3). About half of India's states and union territories, half of Bangladesh's divisions, all of Nepal's provinces, and the Eastern and North-Central provinces of Sri Lanka have smaller road networks than the EMDE median. Similarly, across South Asian subnational regions, the road quality (as measured by the average replacement value) is below the EMDE median. This suggests considerable potential for better transport connectivity to raise wages in South Asia's lagging regions.
- ***Workforce composition***. Regions with a larger share of more educated and more skilled workers offer significantly higher wage premiums. Conversely, those with a larger share of less-educated and less-skilled workers offer significantly lower wage premiums (figure B2.2.3). The wage differentials between South Asia's regions in the lowest and highest deciles by education and skill amounted to 20 to 40 percent (that is, 0.2 to 0.4 log points in figure B2.2.3). Most of South Asia's subnational regions have lower shares of high-skilled workers and higher shares of low-skilled workers than the EMDE median. Efforts to improve skills and employment opportunities for higher-skilled workers could therefore yield broader wage gains.
- ***Firm composition.*** South Asia's regions with fewer agricultural and more industrial jobs offer higher wage premiums (figure B2.2.3). A higher share of workers in large firms—those with 20 or more workers—is also associated with higher regional wage premiums. South Asia's regions with the highest and lowest deciles of services shares and firm sizes had wage differentials of about 20 percent (0.2 log points in figure B2.2.3).

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

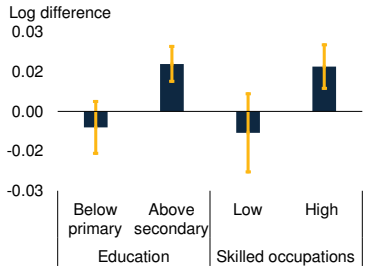
FIGURE B2.2.4 Correlates of growth in regional wage premiums

The factors associated with higher regional wage premiums were also those associated with higher growth in regional wage premiums, suggesting self-reinforcing regional wage dynamics.

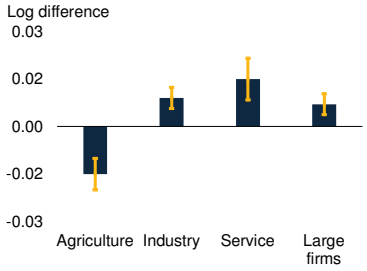
A. Difference in regional wage premium growth by urban agglomerations



B. Difference in regional wage premium growth by workforce education and skills



C. Difference in regional wage premium growth by industry structure



Sources: GLD (database); Maldives Household Income and Expenditure Survey 2019; World Bank.

Note: Predicted difference in log regional wage premiums between the lowest (10th percentile) and highest (90th percentile) value of each regional characteristic in South Asia. Prediction is based on a linear regression of the log regional wage premium on one characteristic at a time, controlling for country-year fixed effects and for lagged log regional wage premium. Yellow whiskers represent 90 percent confidence intervals. The regional wage premium is the coefficient on the regional fixed effect in a country-by-country regression of individual workers' log wages on experience; squared experience; and dummy variables for male gender, primary education, secondary education, post-secondary education, urban location, high-skilled occupation, employment in industry, and employment in services. Experience is defined as age minus years of education minus 6. Results can be found in annex table B2.2.4.

A. "Urban pop." stands for the share of urban population. "Rail length" and "Road length" stand for the log length of railway tracks and roads, respectively (in kilometers). "Rail value" and "Road value" stand for the log value of the stock of rail and road assets, respectively, at replacement cost (in U.S. dollars).

B. "Below Primary" stands for share of workforce with below-primary education. "Above Secondary" stands for the share of population with post-secondary education.

C. "Agriculture," "Industry," and "Service" stand for the share of workers employed in agriculture, industry, and service, respectively. "Large firms" stands for the share of workers in firms with more than 20 workers.

With fewer than a handful of exceptions in India (such as Goa), all of South Asia's subnational regions have lower shares of workers employed in large firms than in the median EMDE. Also, with very few exceptions (such as Delhi and Goa in India, Colombo in Sri Lanka, and Kathmandu in Nepal), agricultural employment shares are higher, and services employment shares are lower. This suggests that a continuing process of structural transformation may lift wages even in South Asia's lagging regions.

Correlates of growth in regional wage premiums: Empirical estimates. The same regression exercise is conducted for average annual growth in regional wage premiums (after controlling for worker characteristics) between the mid-2010s and the latest available data in the 2020s, controlling for initial regional wage premiums. There is strong evidence of convergence: wage premiums rose significantly faster in regions with initially lower wage premiums (table B2.1.4). Beyond convergence pressures, the same characteristics that were associated with significantly higher *levels* of regional wage premiums were also associated with significantly higher *growth rates* of regional wage premiums (figure B2.2.4A). This suggests that self-perpetuating dynamics are working against convergence: those regions that are thriving are pulling further ahead, while those that are struggling lag further behind.[a]

[a] In practice, convergence has been the stronger force in South Asia.

BOX 2.2 Where Jobs Pay: Wage Differentials in South Asia (*continued*)

Policy implications

The results suggest that broad-based development policies, such as investment in transport connectivity and education, can help raise wages across the board. But self-reinforcing dynamics suggest that such broad-based policies may particularly benefit regions that are already thriving.

Labor markets in lagging regions can be supported through a combination of broad-based policies, industrial policies that promote specific sectors, or place-based policies (Grover, Lall, and Maloney 2022). For example, industrial policy support can target sectors such as tourism, agribusiness, and low-skilled manufacturing that could attract economic activity into lagging regions (World Bank 2023).

In South Asia, however, the experience with such policies has been mixed. For example, tax incentives for "backward" districts in four Indian states did expand the number of light manufacturing firms and did raise employment, but only in the least backward districts and only for as long as the incentives remained in place. They also lowered economic activity in adjacent, non-backward districts (Hasan, Jiang, and Rafols 2021). While these tax incentives increased firm hiring, they attracted migrants such that neither the employment probability nor wages rose for the average initial resident (Abeberese, Chaurey, and Menon 2026). In contrast, a later tax incentive scheme in two different Indian states promoted employment without triggering migration (Chaurey 2017). Evidence from special economic zones in Bangladesh and India suggests that they can attract foreign direct investment, increase firm size, and raise employment and wages. However, the wage benefits may only pertain to higher-skilled workers, and trade facilitation and transport connectivity may yield greater benefits than fiscal incentives (Galal 2024; Hyun and Ravi 2018). In general, policies that target lagging regions require identifying market failures and distortions, addressing the main shortfalls, prioritizing the most viable projects, taking into account private sector interest, and funding them accordingly (Grover, Lall, and Maloney 2022).

enterprises that have information gaps and for firms in emerging industries that have no existing trading relations. Colombia and Costa Rica have had some successes in bundling services to provide several forms of market access assistance and in combining the assistance with other export promotion policies (Rodríguez-Álvarez and Monge-González 2013). Market access assistance can help maximize the gains from broader trade agreements and ongoing reforms aimed at reducing non-tariff barriers (box 1.1).

Trade facilitation measures to reduce customs delays, streamline inspection and documentation protocols, and improve regulatory processes help reduce the time and cost of trade, and improve predictability and transparency.

Quality infrastructure improvements remove information gaps for exporters through standardization and help promote exports. Establishing a well-functioning quality infrastructure system requires government

capacity, including an independent agency for standardization, metrology, and accreditation. The private sector can be involved through public-private partnerships. India has achieved a level of quality infrastructure comparable to the average advanced economy, after efforts to reform the country's standards system to make it more flexible and responsive to external standards (World Bank 2025e). In Bangladesh, improvements in quality infrastructure—such as stricter factory inspections and safety standards in the garment sector prompted by major industrial failures—have largely been driven by external initiatives (World Bank 2025e).

Cross-cutting policies for broad development

In South Asia, some of the periods of fastest investment growth have been driven by broad -based improvements in the underlying business environment, regulatory predictability, and state capacity—reinforcing the importance of cross-cutting reforms (Rajagopalan 2026).

Improved infrastructure—particularly in transportation networks, logistics systems, electricity reliability, and digital connectivity—is not only sound development policy but also a foundational input for effective industrial parks and economic zones. Better roads, ports, and power systems lower transaction costs, expand market access, and enable lagging regions to integrate into national and global value chains.

A more conducive business environment, through reduced regulatory burdens, streamlined approvals, and improved predictability of administrative processes, can increase the take-up of industrial programs and their success. Excessive compliance requirements and slow processing times often deter firms from investing or participating in incentive schemes, and they raise uncertainty for both domestic and foreign investors.

Stronger enabling institutions for implementing industrial policies typically have three features (Rodrik 2009). First, government agencies are closely embedded with firms and industry associations to ensure rapid, two-way information flows and timely identification of bottlenecks. Second, support combines carrots—such as reliable infrastructure, streamlined public inputs, and coordinated services—with sticks, including sunset clauses and clear, enforceable performance-based conditionalities. Third, robust accountability mechanisms guard against favoritism and elite capture, ensuring that industrial policy remains disciplined, transparent, and aligned with development goals.

Annex 2.1 Data and methodology

Data

The analysis draws on multiple datasets at individual, firm, and sector levels.

Industrial policy data. Industrial policy counts are derived from the *Global Trade Alert* (GTA) database. This is the most widely used database for cross-country comparison of industrial policies. It contains the years of announcement, implementation, and closing for each policy, as well as affected sectors and instrument types of industrial policies implemented in 186 countries, including 149 EMDEs. Depending on the expected impact, GTA classifies policies into those that discriminate against foreign businesses and protect domestic business ("protective

policies") and those that are conducive to trade ("liberalizing policies").

GTA provides detailed classification of instrument type used in the industrial policy. Policy instruments are grouped into broad categories according to annex table A2.1. For figure 2.2, only several of the broad categories are shown, and the "Other" category includes the rest.

To supplement the GTA data, sector level tariff data are drawn from the World Trade Organization (WTO) *Analytical Database* to quantify industrial policies that rely on import tariffs. Subsidies to businesses sourced from the IMF's *Government Financial Statistics* (GFS) and the World Bank's *BOOST Open Budget* dataset; and tax revenue foregone from the *Global Tax Expenditures Database* (GTED) are used to quantify industrial policies that rely on subsidies. A database of industries targeted in national development plans in more than 180 countries assembled by Fernandes and Reed (2026) is also used to supplement the GTA data.

Employment data. To estimate the sectoral employment intensity of industrial policies, economy-wide employment and real hourly wage data drawn from the World Bank's *Global Labor Database* (GLD) are used. The GLD consists of harmonized individual-level labor force surveys for about 30 EMDEs. For the analysis, a sample drawing from surveys for three South Asian countries and five EMDEs during 2022–25 is used—which consists of 80 sectors at the two-digit ISIC level. Annex table A2.2 lists the sample country and survey years. In addition, firm-level data drawn from the World Bank's *Enterprise Survey* for the period 2022–25 are used. Unlike GLD, which consists of all types of employment in all economic sectors, the Enterprise Survey covers only employment in formal firms in about 45 sectors at the two-digit ISIC level mostly in industrial sectors. But those are also the firms most likely to receive industrial policies. Further, the broader country coverage of the Enterprise Survey—comprising around 70 countries, depending on the variable—allows for a comparison with a larger sample of other EMDEs. The correlation analysis is restricted to non-agricultural sectors only, which leaves 73 sectors from GLD and 45 sectors from Enterprise Survey (original dataset includes only non-agricultural formal firms).

Trade data. For the analysis of impact of industrial policy on trade, exports, and imports, data are sourced from CEPII BACI database at detailed sector levels, for 229 countries (154 EMDEs) and up to 2023. The advantage of the CEPII BACI database is that it is bilaterally balanced. The downside is that the data coverage is mostly in primary and secondary sectors, with very few services sectors included.

Data merging. For sector level analysis, the industrial policy data are converted to a panel by country, sector, policy, and year. The converted industrial policy data are then merged with employment and trade data at the two-digit ISIC (version 4) level, after necessary conversions from CPC and HS sector codes. Because only countries and sectors with industrial policies show up in the industrial policy data, it is important to distinguish between missing information for a country-sector and a country-sector with no policies in a particular year. It is thus assumed that if a country or sector shows up in the dataset between 2004 and 2025, then whenever the country-sector pair does not appear in a year, it did not have a new industrial policy.

For most analyses, only protective policies are used, because these are the majority of the policy measures, and many liberalizing

policies appear to be a reversal or relaxation of previous protective policies. The analyses use the inflow of policies, that is, the count of newly implemented policies, instead of the stock of active policies, because the stock of active policies in the data could be subject to delay in the reported closing time.

Methodology

Employment shares. The following fixed effects regressions are estimated for each country and at the two-digit ISIC sector level for the correlation between the sectoral share of new protective industrial policies and the sectoral employment share:

$$IP_{ict} = \beta_i \times E_{ict-1} + \alpha_t + \epsilon_{ict}.$$

IP_{ict} is the count of protective industrial policies in sector i in country c, newly implemented in year t, as a share of all protective industrial policies newly implemented in country c in year t. E_{ict-1} is sector i's share of country c's total employment in year $t-1$. α_t is the year fixed effects. β_i gives the estimated employment intensity of industrial policies for country i: sectors with 1 percentage point larger employment shares received a β percentage point larger share of the country's total industrial policies.

Hourly wages. Similarly, the following fixed effects regressions are estimated for each country and at the two-digit ISIC sector level for the correlation between the sectoral share of new protective industrial policies and sectoral average hourly wage:

$$IP_{ict} = \beta_i \times W_{ict-1} + \alpha_t + \epsilon_{ict}.$$

IP_{ict} is similarly defined as before. W_{ict-1} is the average hourly wage in 2010 U.S. dollar, of sector i in country c. α_t is the year fixed effects. Sectors with 10 percent higher average hourly wages received β /10 percentage point larger share of the country's total industrial policies.

Firm size and productivity. The following regressions are used to estimate the distribution of industrial policies across sectors, by average firms' employment size or average sales per worker:

$$IP_{ict} = \beta_i \times F_{ict-1} + \alpha_t + \epsilon_{ict}.$$

IP_{ict} is similarly defined as before. F_{ict-1} is the log sector average of firms' employment size or log sales per full-time equivalent worker in 2009 U.S. dollars, in year $t-1$. α_t is the year fixed effects. Sectors with 10 percent larger average firm size (or firm productivity, or firm age) received a β /10 percentage point larger share of the country's total industrial policies.

Trade shares. The following panel fixed effects regressions are estimated for each country, at the two-digit ISIC sector and year level:

$$IP_{ict} = \beta_i^{EX} \times EX_{ict-1} + \alpha_t + \epsilon_{ic}$$

and

$$IP_{ict} = \beta_i^{IM} \times IM_{ict-1} + \alpha_t + \epsilon_{ic}.$$

IP_{ict} is similarly defined as before. EX_{ict-1} and IM_{ict-1} are sector i's share of country c's total exports and imports in year $t-1$, respectively. β_i^{EX} and β_i^{IM} give the export and import intensity of industrial policies in a country.

Impact of policy on trade. The following dynamic model is estimated at the country, two-digit ISIC sector, and year level for the impact of industrial policy on sector exports and imports:

$$\ln Y_{ict+h} - \ln Y_{ict-1} = \beta_h \times D_{ict} + \gamma_h(\ln Y_{ict-1} - \ln Y_{ict-2}) + \sum_k \delta_i I^k_{ict} + \alpha_{ic} + \alpha_{ct} + \alpha_{it} + \epsilon_{ict}.$$

Using the local projection method, the above model is estimated over time horizons h from

the year of policy implementation to five years after (h=0, …, 4). Y_{ict+h} is the value of exports or imports of sector i of country c at time $t+h$, where t is the year of policy implementation. Following Rotunno and Ruta (2024), an overlapping structure is used, in which an event is considered to occur when at least one policy is implemented. D_{ict} is a dummy variable that equals 1 in the year when at least one protective policy is implemented in sector i of country c. I^{k}_{ict} is an indicator for whether other industrial policies of type k (protective, liberalizing) are present. A control for one lagged change of the dependent variable is also included, as well as country-sector fixed effects, country-year fixed effects, and sector-year fixed effects.

The country-sector fixed effects absorb any time-invariant determinants of sector-level exports and imports in the country. The country-year fixed effects absorb any country -specific trends, and the sector-year fixed effects absorb global and sector-specific trends. With these fixed effects, the estimated model resembles a difference-in-differences setup. The estimated β_h compares the change in trade flows from the year before the policy implementation to h years afterward with changes across the same time horizon for country-sectors without policy implementation. Reported standard errors are clustered at the country-sector level to correct for potential serial correlation.

The model is estimated separately by policy instruments. For this analysis, export instruments are further separated into export incentives (export subsidies, export tax incentive and other export incentives) and export barriers (all other export instruments). For analysis by policy instrument, the control sample is still observations without policy implementation.

The sample is restricted to industrial policies that were active for more than five years. This restriction allows the analysis to focus on policies that were in place long enough to have an effect, because the effect of industrial policies tends to have a dynamic component and can take time to materialize. Annex table A2.3 summarizes the sample. In particular, 22 percent of country-sector-years in the sample of EMDEs have at least one active protective policy. In about 10 percent of country-sector-years among EMDEs, at least one protective policy started, and in about 17 percent of observations in South Asia at least one protective policy started. Annex table A2.4 reports the estimates for South Asia and all EMDEs by instrument type.

Limitations

The data and methodology have several limitations. First, the industrial policy data are at policy-country-sector level, but it is unclear which firms received or were affected by the policy measure. Second, only direct exposures to industrial policies are considered, while indirect exposures through input-output linkages or policies on the same sector by trading partners or competitors are not taken into account; refer to Lane (2025) and Machado Parente et al. (2025) for examples in which both input-output linkages and other countries' policies are considered. Third, the GTA dataset provides the count of industrial policies but not the scale or monetary value of individual policies; for this reason, tariff data and subsidies data are used to supplement the GTA dataset.

Annex Table A2.1 Grouping of policy instruments

Broad categories	GTA classification
Trade defense instruments	Anti-dumping; Anti-subsidy; Anti-circumvention; Safeguard; Special safeguard
Subsidies and state aid	Capital injection and equity stakes (including bailouts); Financial assistance in foreign market; Financial grant; In-kind grant; Interest payment subsidy; Loan guarantee; Price stabilization; Production subsidy; State aid, nes; State aid, unspecified; State loan; Tax or social insurance relief
Capital controls and exchange policy	Controls on commercial transactions and investment instruments; Controls on credit operations; Trade finance; Trade payment measure; Repatriation and surrender requirements; Competitive devaluation; Control on personal transactions
Export policy instruments	Export ban; Export licensing requirement; Export quota; Export subsidy; Export tax; Export-related non-tariff measure, nes; Other export incentive; Tax-based export incentive; Export tariff quota; Foreign customer limit; Export price benchmark
Foreign investment policy	FDI: Entry and ownership rule; FDI: Financial incentive; FDI: Treatment and operations, nes
Import policy instruments	Import ban; Import incentive; Import licensing requirement; Import quota; Import tariff; Import tariff quota; Import-related non-tariff measure, nes; Internal taxation of imports; Import monitoring; Import price benchmark; Minimum import price; Other import charges
Labor force migration policy	Labor market access; Post-migration treatment
Localization policy	Local content incentive; Local content requirement; Local labor incentive; Local operations requirement; Local supply requirement for exports; Local value added incentive; Localization, nes; Local labor requirement; Local operations incentive; Local value added requirement
Public procurement policy	Public procurement access; Public procurement localization; Public procurement, nes; Public procurement preference margin
Other	Instrument unclear; Intellectual property protection; Technical barrier to trade; Trade balancing measure; Distribution restriction; Port restriction

Sources: GTA (database); World Bank.
Note: nes = not elsewhere specified.

Annex Table A2.2 GLD sample country and survey year

Survey year	Country
2022	Bangladesh, Brazil, India, Mexico, Philippines, Sri Lanka, Zambia
2023	Ghana, India, Mexico, Sri Lanka

Sources: GLD (database); World Bank.

Annex Table A2.3 Sample size for estimation of the impact of industrial policy

	EMDEs sample	South Asia sample
Total country-sector-year observations	88,959	3,632
With at least one active policy	19,218	1,173
With more than one active policy	14,317	1,009
At least one event starting	8,706	604

Sources: CEPII BACI (database); GTA (database); World Bank.

Annex Table A2.4 Estimation results for the impact of industrial policy on exports and imports for South Asia and all EMDEs

	Export				Import			
	South Asia		All EMDEs		South Asia		All EMDEs	
T	A. Trade defense instruments							
0	-10.64	[-40.2, 18.9]	-4.33	[-7.6, -1.1]	-2.29	[-17.8, 13.2]	-0.24	[-2.4, 2.0]
1	-8.34	[-41.5, 24.8]	-4.18	[-8.4, 0.0]	**-23.50**	[-42.4, -4.6]	-1.41	[-4.1, 1.2]
2	-16.24	[-44.3, 11.8]	-3.23	[-7.6, 1.2]	**-19.85**	[-39.0, -0.7]	**-4.16**	[-7.0, -1.3]
3	-3.68	[-38.5, 31.1]	-1.52	[-6.3, 3.3]	**-24.37**	[-43.7, -5.0]	-1.62	[-5.0, 1.8]
4	-3.70	[-40.3, 32.9]	1.92	[-3.8, 7.6]	-3.51	[-28.1, 21.1]	-3.33	[-6.8, 0.1]
T	B. Domestic subsidies and state aid							
0	-13.77	[-61.7, 34.2]	**-3.90**	[-7.6, -0.2]	**-37.59**	[-69.2, -6.0]	-0.35	[-4.1, 3.4]
1	-3.22	[-41.5, 35.0]	-2.74	[-6.7, 1.2]	**-57.34**	[-96.8, -17.9]	-2.20	[-6.3, 1.9]
2	-7.19	[-51.3, 36.9]	0.71	[-4.0, 5.4]	-36.24	[-73.4, 0.9]	-3.59	[-7.5, 0.3]
3	**-55.18**	[-93.4, -16.9]	1.74	[-3.6, 7.1]	-21.58	[-60.5, 17.3]	-2.60	[-6.4, 1.2]
4	-20.82	[-75.0, 33.4]	1.65	[-3.7, 7.0]	**-50.55**	[-85.1, -16.0]	**-5.71**	[-9.9, -1.5]
T	C. Export incentives							
0	7.03	[-22.3, 36.4]	-4.51	[-11.5, 2.4]	-8.48	[-34.2, 17.2]	2.58	[-2.3, 7.5]
1	-8.95	[-43.9, 26.0]	-4.39	[-12.0, 3.2]	-1.85	[-29.6, 25.9]	1.08	[-5.9, 8.0]
2	**-34.34**	[-67.1, -1.6]	-1.24	[-9.8, 7.3]	0.29	[-26.5, 27.1]	3.41	[-3.2, 10.0]
3	2.40	[-34.4, 39.2]	-0.16	[-9.8, 9.5]	-8.66	[-34.8, 17.4]	0.99	[-7.0, 9.0]
4	-7.62	[-51.2, 36.0]	-0.30	[-11.7, 11.1]	-21.38	[-54.5, 11.7]	-1.43	[-10.7, 7.9]
T	D. Public procurement							
0	13.12	[-35.6, 61.8]	-1.90	[-11.8, 7.9]	18.79	[-19.1, 56.7]	6.08	[-1.0, 13.2]
1	31.00	[-27.3, 89.3]	-2.98	[-11.6, 5.6]	0.37	[-42.3, 43.1]	2.87	[-4.1, 9.8]
2	-24.86	[-75.1, 25.3]	-2.04	[-10.2, 6.1]	-13.77	[-48.2, 20.7]	2.59	[-6.8, 12.0]
3	-19.85	[-58.1, 18.4]	-7.24	[-15.8, 1.3]	6.53	[-15.3, 28.3]	6.76	[-1.1, 14.6]
4	36.33	[-7.8, 80.5]	5.67	[-7.5, 18.9]	-11.86	[-40.1, 16.4]	17.98	[-3.7, 39.6]

Sources: CEPII BACI (database); GTA (database); World Bank.

Note: Impulse response function from a local projection estimation of cumulative changes in log imports or exports on a dummy variable for the implementation of a protective industrial policy. T=0 is the first period after policy implementation. Estimation includes controls for the presence of other active industrial policies in the same country and sector. Country-sector, country-year, and sector-year fixed effects are included. Sectors are at the 2-digit ISIC v4 level. Standard errors are clustered at country-sector level. The 90 percent confidence interval reported in brackets. Bolded numbers are significant at the 10 percent level. Sample includes protective industrial policies implemented between 2004 and 2023 that were active for more than five years. Estimates show the change in the affected sector's imports after the introduction of trade defense instruments (panel A), domestic subsidies (panel B), export incentives (panel C), or public procurement measures (panel D). Trade defense instruments include anti-dumping, anti-subsidy, and other safeguards. Domestic subsidies also include state aid. Export incentives include export subsidies, export tax incentives, and other export incentives. Public procurement policies include procurement preference margins and procurement localization. Estimates are reported for South Asia only or for all EMDEs.

Annex B2.1.1 Literature review for Box 2.1

Annex Table B2.1.1 Summary of reviewed papers

Citation	Sample	Methodology	Comment
International spillovers from robot adoption and other types of automation in advanced economies			
Artuc, Christiaensen, and Winkler (2019)	Mexico, 2004–14	Difference-in-differences regression with local labor market shift-share exposure measure	One robot per 100 workers in the United States lowered growth in Mexico's exports per worker to the United States by 6.7 percent, and reduced employment in Mexican areas most exposed to U.S. robots, with offsetting positive impacts on employment in other areas.
Artuc, Bastos, and Rijkers (2023)	Cross-country trade data, 1995–2015	IV panel regression	Robot adoption in advanced economies increased their EMDE imports and exports. This is explained by a model featuring two-stage production and trade in intermediate and final goods in which robots can take over some tasks previously performed by humans in a subset of industries.
Betai and Chen (2025)	Global jobs platforms, 2022–24	Difference-in-differences regression and event study	GenAI significantly reduced international service outsourcing to EMDEs on online jobs platforms. Demand shifted toward higher-value, more complex tasks, with fewer but higher-value jobs. Workers adapted by reskilling in AI-exposed and AI-complementary domains.
Bonfiglioli et al. (2022)	U.S., 1990–2015	Difference-in-differences regressions with local labor market shift-share exposure measure	Robot automation displaced U.S. workers but also reduced offshoring from the United States, with its negative employment effects concentrated in non-offshorable occupations.
Cilekoglu, Moreno, and Ramos (2024)	Spain, 2006–16	IV panel regression	Robots increased intermediate input purchases from foreign suppliers among Spanish firms.
DeStefano and Timmis (2024)	100 countries, 2000–15	Difference-in-differences IV panel regression	Robot adoption among foreign customers led to robot adoption at home; robots increased export quality, especially in EMDEs.
Díaz Pavez and Martínez-Zarzoso (2024)	Ten EMDEs, 2008–14	IV Panel regressions with shift-share index of exposure.	Foreign robot adoption negatively affected employment in emerging countries, with effects concentrated in sectors most exposed to automation.
Faber (2020)	Mexico, 1990–2015	Difference-in-differences regression with local labor market shift-share exposure measure.	U.S. robot adoption had sizable negative impact on employment and exports in Mexico, with employment impacts stronger among men and low-educated machine operators.
Fontagné et al. (2024)	14 European countries, 1999–2011	IV panel regression	Robot adoption increased upstream GVC participation, which reduced labor shares in income.
Freund, Mulabdic, and Ruta (2022)	Cross-country trade data, 1995–2015.	Difference-in-differences regression; synthetic control	Exports of hearing aids increased by roughly 80 percent following the introduction of 3-D printing. There is no evidence of no localization of production after the introduction of 3-D printing.
Hallward-Driemeier and Nayyar (2025)	Cross-country data, 2004–15.	Difference-in-differences regression	The intensity of robot use in advanced economies was positively associated with growth in greenfield foreign direct investment (FDI) announcements from advanced economies to EMDEs between 2004 and 2015. Past a threshold, however, increased robotization in advanced economies is negatively associated with this FDI growth.
Krenz, Prettner, and Strulik (2021)	43 countries, 2000–14	IV panel regression	On average, within manufacturing sectors, an increase of one robot per 1,000 workers was associated with a 3.5 percent increase of reshoring activity.

Annex Table B2.1.1 Summary of reviewed papers (*continued*)

Citation	Sample	Methodology	Comment
Kugler, Kugler, Ripani, and Rodrigo (2020)	Colombia, 2011–16	Difference-in-differences regression with local labor market shift-share exposure measure	U.S. robots decrease employment and earnings for Colombian workers, with disproportionate impacts on areas exporting to the United States and on women, older workers, small enterprises and manufacturing. U.S. robots cause an estimated cumulative loss of 63,000–100,000 jobs in Colombia during the study period.
Stapleton and O'Kane (2021)	U.K., 2012–17	Difference-in-differences regression	The demand for machine learning (ML) skills increased in local labor markets in the United Kingdom that were more exposed to ML automation. ML deployment has led to an increase in services offshoring, particularly to lower-income countries, rather than high-income countries.
Stapleton and Webb (2020)	Spain, 1990–2016	IV panel regression	Robot adoption in Spanish firms increased their imports from, and number of affiliates in, lower-income countries. It decreased the share of imports from lower-income countries for firms that were already offshoring to the latter.
Stemmler (2023)	Brazil, 1994–2014	Difference-in-differences regression with local labor market shift-share exposure measure	Foreign automation decreased exports and the share of manufacturing employment, and increased the share of employment in the mining sector in exposed local labor markets.
Impacts of robot adoption on advanced-economy firms and jobs			
Acemoglu and Restrepo (2020)	U.S., 1993–2014.	Difference-in-differences regression with local labor market shift-share exposure measure	One more robot per thousand workers reduced the employment-to-population ratio by 0.2 percentage points and wages by 0.42 percent in local U.S. labor markets.
Acemoglu, Lelarge, and Restrepo (2020)	France, 2010–15	Long differences firm-level regression	Robot adopting firms experienced significant declines in labor shares and increases in value added and productivity. They expanded their overall employment, but at the expense of competitors, leading to an overall negative association between adoption and employment.
Bonfiglioli et al. (2024)	France, 1994–2013	Long differences panel model exploiting baseline variation in robot exposure	Firms facing larger positive demand shocks adopted more robots. Firms that were more exogenously exposed (that is, suited) to robot automation experienced significant job losses and increases in robot usage and labor productivity.
Dauth et al. (2021)	Germany, 1994–2014	Difference-in-differences regression with local labor market shift-share exposure measure	Robot adoption led to reduced manufacturing jobs. However, this was fully offset by increased, higher-quality service sector jobs. The incidence of labor market disruption was higher among younger workers.
Deng et al. (2023)	Germany, 2014–18	Firm-level panel event study	Robot adoption increased turnover among female employees, with modestly positive net impacts on female employment in German firms.
Graetz and Michaels (2018)	17 countries, 1993–2007	IV panel regression	Increased robot use contributed about 0.36 percentage points to annual labor productivity growth, while raising total factor productivity and lowering output prices.
Koch, Manuylov, and Smolka (2021)	Spain, 1990–2016	Firm-level panel difference-in-differences combined with a propensity score reweighting estimator	Better performing firms were more likely to adopt robots. Causal estimates suggest that robot adoption increased output by 20-25 percent and employment by 10 percent over four years.
Stiebale, Suedekum, and Woessner (2024)	Six European advanced economies, 2000–06	Panel regression with TFP estimated using a semi-parametric control function approach	Industries with higher robot adoption rates experienced a disproportionate increase in productivity among more productive firms, and a decrease in the labor share.
Xie, Guo, and Chen (2025)	China, 2006–15	Event study difference-in-differences using firm-level panel data	Automation among Chinese firms was associated with increased GVC participation and productivity improvements.
Zhang, Chen, and Wei (2025)	China, 2000–13	Firm-level panel regression with firm fixed effects	Firm-level robot adoption was associated with significant increases in productivity and export sophistication.

Annex B2.1.2 Data sources

This study combines multiple data sources to characterize AI exposure, firm-level AI adoption, labor demand, and GVC linkages involving Indian firms. The core datasets include occupational AI exposure and complementarity indices, online job postings data, firm-level global supply chain relationships, and country-level AI adoption metrics. These datasets are linked at the occupation, firm, and country levels to study how AI exposure propagates through firms and international production networks.

AI exposure and human–AI complementarity

Occupational exposure to AI is measured using the AI Occupational Exposure (AIOE) indices developed by Felten, Raj, and Seamans (2021, 2023). These indices quantify the extent to which the abilities required for a given occupation overlap with the capabilities of existing AI systems. Exposure is initially measured at the U.S. Standard Occupational Classification (SOC-10) level using task- and ability-level data from the Occupational Information Network (O*NET), a comprehensive database maintained by the U.S. Department of Labor. SOC-level exposure scores are then mapped to four-digit ISCO occupations using a standard crosswalk and averaged across all SOC occupations corresponding to a given ISCO code.

The exposure indices are computed separately for text- and image-based generative AI systems, then averaged and standardized across occupations. The resulting index is expressed in standard deviations relative to the median occupation, with higher values indicating greater potential overlap between occupational tasks and AI capabilities. These standardized indices are used throughout the descriptive analysis of occupational exposure patterns. Similarly, these exposure indices can be aggregated at the industry level to construct the AI Industry Exposure (AIIE) index for 4-digit North American Industry Classification System (NAICS) codes.

To distinguish between occupations where AI is likely to substitute for labor versus augment it, the analysis incorporates measures of human–AI complementarity developed by Pizzinelli et al. (2023). These measures capture the extent to which human input remains essential in an occupation even when certain tasks can be automated. Complementarity is derived from O*NET "work context" variables that describe cross-cutting job characteristics such as interpersonal interaction, decision-making responsibility, task criticality, routine content, physical conditions, and skill requirements. Relevant work contexts are grouped into six dimensions—communication, responsibility, physical conditions, criticality, routine, and skill requirements—and aggregated into a composite index normalized to range between zero and one, with higher values indicating greater reliance on human judgment or interaction.

Using this complementarity index, a complementarity-adjusted exposure measure (C-AIOE) is constructed by scaling down the unstandardized AIOE score by the complementarity parameter. A higher C-AIOE score therefore indicates an occupation that is more easily substituted by AI. The analysis uses standardized AIOE measures when describing broad exposure patterns and relies on the raw AIOE and C-AIOE measures when explicitly analyzing substitution versus augmentation dynamics.

Online job postings and firm-level measures

Firm-level labor demand is measured using online job postings data from Lightcast, a

labor market analytics firm that aggregates vacancies from major online job platforms. The dataset covers about 25,454,327 job postings in South Asia between January 2020 and March 2025, originating from 437,300 unique firms. Each posting reports required skills—including digital and AI-related skills such as machine learning, neural networks, and natural language processing—as well as occupation (four-digit ISCO), sector (2-digit NAICS), location, and, for roughly 16 percent of postings, a posted salary.

The Lightcast data are heavily skewed toward urban, high-skill, white-collar occupations and therefore represent a narrow segment of South Asia's labor market (annex table B2.1.2). Consequently, results based on job postings should be interpreted as applying primarily to formal-sector, white-collar employment. To facilitate firm-level analysis, job postings are collapsed to the firm–month level, generating measures of total job postings, AI-related postings, and the average AI exposure and complementarity of jobs posted in each month. In addition, pre–generative AI baseline measures are constructed of the average exposure and complementarity of all jobs posted during the pre-ChatGPT period (August 2020–November 2022).

Firms' headquarters and ownership characteristics are inferred using a large language model (LLM)–based classification pipeline. Using the Gemini 2.5 Flash-Lite model accessed via API, firms' names are queried to generate structured outputs identifying country of incorporation, primary country of operations, public versus private status, listing status in the South Asian country, and indicators of foreign ownership. API calls are executed in parallel with retry logic and periodic checkpointing to ensure reproducibility. This process identifies 75,821 firms—about 17 percent of all firms in the Lightcast sample—whose primary operations are located outside South Asia. These firms constitute the multinational subsample used in the analysis.

Global value chain linkages

To measure firms' participation in global value chains, the analysis uses firm-level relationship data from FactSet, a global corporate data provider. The FactSet dataset includes time-varying buyer, supplier, and strategic partnership relationships among firms worldwide. The initial FactSet sample contains 38,519 South Asian firms, of which 9,659 are observed to have at least one international relationship between April 2003 and August 2025. These relationships span a wide range of sectors in both manufacturing and services, with particularly strong representation in automotive components and software-related industries (annex table annex table B2.1.3). International partners of South Asian firms tend to be based in advanced economies in Europe and North America, as well as in China (annex table B2.1.4 and B2.1.5).

For each international relationship, the AI exposure of the foreign partner is measured by merging the partner's 4-digit NAICS industry code with sector-level AI exposure indices from Felten et al. (2023), averaged across text- and image-based AI. Firm-level measures of GVC exposure include indicators for any international connection, the number of connections, and the average AI exposure of connected partners. These measures are constructed separately by relationship type (supplier, customer, partner) and by period relative to the introduction of generative AI (before vs. after ChatGPT's November 2022 release).

South Asian firms in FactSet are linked to Lightcast firms using a two-stage fuzzy matching algorithm based on company names. The first stage generates candidate matches using MinHash locality-sensitive

hashing to identify firms with high token-level Jaccard similarity. The second stage refines matches using normalized Levenshtein edit distance to account for spelling and formatting differences. Using this approach, 9,646 Lightcast firms are successfully matched to FactSet firms, of which 4,532 have international connections, representing about 47 percent of internationally connected FactSet firms. The resulting firm–month panel contains 2.86 million observations, with about 3 percent corresponding to internationally connected firms. However, these firms are disproportionately large, and account for nearly 8 percent of all jobs posted during the period. Since the largest, most productive firms export, they are likely to comprise an even larger share of total value-added.

This merged dataset is subject to selection concerns. Not all internationally connected firms post vacancies online, and not all firms appearing in Lightcast are covered by FactSet. Both datasets disproportionately cover larger firms with stronger public reporting, and no quantitative information is available on the economic size or intensity of individual GVC relationships, limiting the ability to measure trade volumes directly.

Country-level AI adoption

Country-level AI adoption is measured using data from the Anthropic Economic Index, which covers 197 countries as of August 2025. The index reports the number of unique users of Anthropic's Claude models per 100,000 inhabitants. Using internal classification of user interactions, queries are categorized as primarily augmentative or automated in nature. These metrics are used to characterize AI adoption levels and usage patterns in countries that are strongly connected to India through GVCs, as identified in the FactSet data.

A key limitation of this measure is that Claude models are less widely adopted than consumer-facing systems such as ChatGPT and tend to be used disproportionately by software developers and enterprise users. As a result, absolute adoption levels may not be directly comparable to other AI platforms. Nevertheless, the data are likely to capture meaningful cross-country variation in AI adoption intensity and usage patterns relevant for firms operating in international production networks.

Annex Table B2.1.2 First-level occupation shares in Lightcast

Occupation category	Lightcast share (percent)	Global Labor Datab share (percent)
Armed Forces	0.01	0.11
Managers	22.02	2.64
Professionals	51.47	5.67
Technicians and Associate Professionals	15.64	3.86
Clerical Support Workers	4.97	1.95
Service and Sales Workers	3.37	14.54
Skilled Agricultural, Forestry and Fishery Workers	0.05	36.25
Craft and Related Trades Workers	1.33	12.57
Plant and Machine Operators, and Assemblers	0.68	7.39
Elementary Occupations	0.45	15.01

Sources: Lightcast (database); GLD (database).

Annex Table B2.1.3 NAICS 2-digit sectoral share of GVC connections in FactSet

North American Industry Classification System Sector	Share of FactSet (Percent)
11 Agriculture, Forestry, Fishing and Hunting	0.51
21 Mining	1.16
22 Utilities	2.27
23 Construction	3.44
31–33 Manufacturing	34.33
42 Wholesale Trade	3.55
44–45 Retail Trade	2.20
48– 49 Transportation and Warehousing	2.17
51 Information	10.05
52 Finance and Insurance	6.77
53 Real Estate Rental and Leasing	1.08
54 Professional, Scientific, and Technical Services	6.59
55 Management of Companies and Enterprises	0.14
56 Administrative and Support and Waste Management and Remediation Services	1.66
61 Educational Services	1.86
62 Health Care and Social Assistance	1.33
71 Arts, Entertainment, and Recreation	0.31
72 Accommodation and Food Services	0.88
81 Other Services (except Public Administration)	0.55
92 Public Administration	0.92
99 Nonclassifiable Establishments	0.02

Source: FactSet (database).

Annex Table B2.1.4 Top 10 buyers of South Asian GVC suppliers, all sectors

Rank	Country	Share of FactSet
1	United States	30.38
2	United Kingdom	8.00
3	Japan	7.37
4	Germany	6.96
5	France	4.43
6	China	3.75
7	Republic of Korea	2.87
8	Switzerland	2.49
9	Sweden	1.99
10	Italy	1.89

Sources: FactSet (database); Lightcast (database).

Annex Table B2.1.5 Top 10 buyers of South Asian GVC suppliers, professional services

Rank	Country	Share of FactSet
1	United States	42.84
2	United Kingdom	8.25
3	Japan	4.34
4	Germany	4.05
5	France	3.63
6	United Arab Emirates	2.34
7	China	2.23
8	Canada	2.00
9	Switzerland	1.94
10	Australia	1.71

Sources: FactSet (database); Lightcast (database).

Annex Table B2.1.6 Impacts of AI exposure by firm type

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome	Share of AI jobs		Log job postings		AI exposure index		AI complementarity in-	
Post GPT × Pre-GPT AI exposure	0.00873***	0.00867***	-0.141***	-0.102***	-0.430***	-0.445***	0.0217***	0.0237***
	(0.00148)	(0.00157)	(0.0144)	(0.0156)	(0.00410)	(0.00442)	(0.000844)	(0.000951)
Post-GPT × Pre-GPT AI exposure × MNC firm		0.00210		-0.206***		0.106***		-0.0109***
		(0.00501)		(0.0455)		(0.0125)		(0.00226)
Post-GPT × Pre-GPT AI exposure × Pre-GPT buyer		-0.0224		-0.0422		0.0147		0.0000912
		(0.0166)		(0.236)		(0.0477)		(0.0105)
Post-GPT × Pre-GPT AI exposure × Pre-GPT partner		0.0434**		0.202		0.0699		-0.0142
		(0.0221)		(0.290)		(0.0598)		(0.0107)
Post-GPT × Pre-GPT AI exposure × Pre-GPT supplier		-0.0307		-0.377		0.114		0.0116
		(0.0240)		(0.446)		(0.0876)		(0.0140)
Observations	2,282,420	2,237,786	2,282,420	2,237,786	2,259,084	2,215,083	2,259,084	2,215,083
R-squared	0.356	0.356	0.576	0.575	0.364	0.362	0.344	0.343

Sources: FactSet (database); Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); World Bank.
Note: Standard errors in parentheses clustered at the firm level. All models include firm and month fixed effects. *p<0.1, **p<0.05, ***p<0.01.

Annex Table B2.1.7 Spillover effects of foreign buyer exposure

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome	Share of AI jobs			Log job postings		
Post-GPT × Pre-GPT exposure	0.00128		-0.00231	-0.171		0.00443
	(0.0121)		(0.0135)	(0.211)		(0.206)
Post-GPT × Buyer AI exposure		0.00159	0.00167		-0.0817***	-0.0818***
		(0.00144)	(0.00159)		(0.0298)	(0.0297)
Observations	32,612	33,786	32,612	32,612	33,786	32,612
R-squared	0.196	0.207	0.196	0.727	0.729	0.727

Sources: FactSet (database); Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); World Bank.
Note: Standard errors in parentheses clustered at the firm level. All models include firm and month fixed effects. *p<0.1, **p<0.05, ***p<0.01.

Annex Table B2.1.8 Spillover effects of foreign buyer exposure by complementarity

	(1)	(2)
Sample: complementarity	Below median	Above median
Post-GPT × Buyer AI exposure	-0.097***	-0.041
	(0.035)	(0.055)
Observations	16,319	16,293
R-squared	0.763	0.683

Sources: FactSet (database); Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); World Bank.
Note: Standard errors in parentheses clustered at the firm level. All models include firm and month fixed effects. *p<0.1, **p<0.05, ***p<0.01.

Annex Table B2.1.9 Long-difference estimates of own and buyer AI exposure

	(1)	(2)	(3)	(4)	(5)
Outcome	Log change in job postings				
Buyer exposure	-0.151***			-0.0159	-0.255***
	(0.0454)			(0.0675)	(0.0769)
Pre-GPT exposure		-0.262***			
		(0.0213)			
Sector exposure			-0.0972***		
			(0.0258)		
Sample	GVC suppliers	All firms	GVC-linked firms	Below-median sector exposure	Above-median sector exposure
Observations	1,338	152,894	2,620	668	600
R-squared	0.008	0.001	0.005	0.000	0.018

Sources: FactSet (database); Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); World Bank.
Note: Standard errors in parentheses clustered at the firm level. All models include firm and month fixed effects. *p<0.1, **p<0.05, ***p<0.01.

Annex Table B2.1.10 Heterogeneity in spillover effects of foreign buyer exposure on jobs

	(1)	(2)	(3)
Outcome		Log job postings	
Pre-GPT exposure × Post-GPT	0.093		0.129
	(0.234)		(0.233)
Pre-GPT exposure Post-GPT × Service sector	-0.207		-0.148
	(0.423)		(0.434)
Post-GPT × Buyer AI exposure		-0.071*	-0.072*
		(0.038)	(0.038)
Post-GPT × Buyer AI exposure × Service sector		0.032	0.034
		(0.058)	(0.059)
AI exposure type	Own exposure	Buyer exposure	Combined
Observations	32,612	33,786	32,612

Sources: FactSet (database); Felten, Raj, and Seamans (2023); Lightcast (database); Pizzinelli et al. (2023); World Bank.
Note: Standard errors in parentheses clustered at the firm level. All models include firm and month fixed effects. *p<0.1, **p<0.05, ***p<0.01

Annex B2.1.3 Empirical strategy and methods

This chapter studies how firms' exposure to artificial intelligence affects labor demand, skill composition, and international engagement, and how these effects vary by firm type and GVC position. The empirical strategy combines firm-level panel regressions with heterogeneity analyses and spillover tests based on firms' pre–Generative AI exposure and the AI exposure of their international partners. All analyses are conducted at the firm-month level using job postings data from January 2020 to March 2025.

A key feature of the strategy is that all measures of AI exposure and complementarity on the right-hand side are fixed at pre-GPT levels (August 2020–November 2022). This mitigates concerns that firms adjust their occupational mix, partner composition, or product scope endogenously in response to AI adoption, which would mechanically contaminate contemporaneous exposure measures.

Main effects and heterogeneity by firm type

The first set of analyses estimates the relationship between AI exposure and firm-level outcomes, allowing effects to vary by firm type. Outcomes include the logarithm of total job postings, the share of postings requiring AI-related skills, and the average AI exposure and complementarity of posted jobs. For firm i in month t, the baseline specification is:

$$Y_{it} = \beta_0 postGPT_t \times AIOE_i^{pre} + \sum_k \beta_k (postGPT_t \times \mathbb{1}\{Type_i = k\}) + \alpha_i + \delta_t + \varepsilon_{it},$$

where $AIOE_i^{pre}$ denotes the firm's average occupational AI exposure prior to the introduction of generative AI, computed from

pre-GPT job postings. Firm types k distinguish: (i) purely local (domestic) firms, (ii) domestic firms which are GVC suppliers, and (iii) foreign-owned or multinational affiliate firms. All specifications include firm fixed effects α_i, month fixed effects δ_t, and standard errors clustered at the firm level.

This heterogeneity structure is motivated by differences in adjustment margins available to different firm types. Multinational firms may adopt new technologies more rapidly than Indian firms and can reallocate production across borders at relatively low cost, potentially amplifying both adoption and employment responses. Domestic firms may respond more through changes in skill composition, particularly those integrated into international value chains, where competitive pressure and displacement risks are higher.

Spillovers from AI exposure of foreign buyers

The analysis further examines *spillover effects* arising from firms' exposure to highly automatable foreign buyers by focusing on the subsample of South Asian GVC suppliers. The core hypothesis is as follows. Foreign buyers that operate in highly exposed sectors have a strong incentive to adopt AI, independent of their relationship with Indian exporters. In turn, Indian firms supplying these foreign buyers may therefore experience downstream employment and adoption effects. There are three possible channels for this spillover effect: (i) through reshoring and displacement among clients; (ii) via technology transfer from AI-adopting clients; or (iii) via increased demand for their products from more productive AI-adopting clients.

For exporting Indian firms, the following specification is estimated:

$$y_{it} = \beta postGPT_t \times BuyerExposure_i^{pre} + \lambda postGPT_t \times AIOE_i^{pre} + \alpha_i + \delta_t + \varepsilon_{it},$$

where $BuyerExposure_i^{pre}$ is the average pre-GPT AI exposure of the firm's foreign buyers, measured using industry-level exposure indices. Firm-level occupational exposure $AIOE_i^{pre}$ is also included as a control to isolate partner-driven effects, as firms' AI exposure may be correlated along a supply chain.

Identification of β relies on variation across exporting firms in the AI exposure of their buyers, driven by differences in buyer sector and country composition. The key assumption is that buyers' incentives to adopt AI are determined by their own technological opportunities rather than by bilateral relationships with Indian suppliers, and unrelated to trends in firms' outcomes among their Indian suppliers. To further probe mechanisms, the sample is split by firms' pre-GPT complementarity. If displacement dominates, negative employment effects should be larger among low-complementarity firms whose activities are easier for clients to automate or reshore. Additional tests using alternative outcomes (such as AI skill adoption) help distinguish displacement from pure technology transfer.

Finally, the analysis estimates a binned scatterplot of the log difference in the total number of jobs posted by a firm before and after the introduction of ChatGPT in November 2022, at 20 quantiles of the distribution of buyer exposure, with a linear fit estimated on the underlying data. The sample is split based on the South Asia GVC supplier's pre-GPT product-level AI exposure: if the negative effect of buyer exposure on hiring is driven by reshoring, then it should be concentrated among GVC suppliers producing highly exposed product categories.

Annex B2.2 Data and methodology for Box 2.2

Data

Data from the Global Labor Database (GLD), supplemented with other datasets, are used to analyze the relationship between labor market outcomes and regional characteristics. Annex table B2.2.1 presents the list of countries and survey years used in the analysis. Infrastructure data at the subnational level come from Straub et al. (forthcoming).

Methodology

The following equation is estimated to compare trends in regional wages. For each year of the survey, the following equation is separately estimated:

$$\text{Log}wage_{ji} = \alpha_i + \beta X_{ji} + \epsilon_{ji} \quad (1),$$

where $\text{Log}wage_{ji}$ is the log real hourly wage of individual j in region i. The hourly wage from each survey year is adjusted using each country's CPI, with 2010 as the base year, and then converted into U.S. dollars. Individual characteristics, X_{ji} include experience, experience squared, indicators for education level, male, urban, sector, and high skill. α_i, the regional fixed effects, capture the regional wage premium or penalty after controlling for worker characteristics. All analysis includes the survey weight, and standard errors are clustered at the regional level. Results can be found in annex table B2.2.2.

The following equation is estimated to analyze the association between the estimated regional fixed effects in equation (1) and regional characteristics:

$$wage_{ic} = \beta X_{ic} + \alpha_c + \epsilon_{ic},$$

where $wage_{ic}$ is the fixed effect for region i from the first-stage worker-level regression for country c around the year 2020. X_{ic} includes labor market or spatial characteristics in the region. Country-year fixed effects, α_c, are included to absorb country-level effects, including exchange rates and prices, with standard errors clustered at the country level. Another specification includes an interaction term between regional characteristics and an indicator for South Asia to explore potential heterogeneity in South Asia. The results are shown in annex table B2.2.3.

A similar regression is run where the dependent variable is regional wage growth:

$$\Delta wage_{ic} = \beta X_{0ic} + \alpha_c + \epsilon_{ic},$$

where $\Delta wage_{ic}$ is the change in regional wage premiums between the mid-2010s and the latest available data in the 2020s for region i in country c. X_{0ic} includes labor market or spatial characteristics in the region in the mid-2010s, except for infrastructure variables, which are only available in the 2020s. Country-year fixed effects, α_c, are included to absorb country-level effects, including exchange rates and prices, with standard errors clustered at the country level. Another specification includes an interaction term between regional characteristics and an indicator for South Asia to explore potential heterogeneity in South Asia. The results are shown in annex table B2.2.4.

Annex Table B2.2.1 Data sources

Country	Year(s)	Description
Armenia	2014, 2023	These labor force surveys are nationally representative and have been harmonized using the Global Labor Database. Key variables include: - Sector indicators include agriculture, industry, and services. - High-skilled workers are defined as professionals, managers, and technicians. - Educational attainment includes four categories: less than primary education, primary education, secondary education, and post-secondary education. - Potential experience is defined as age minus years of education, assuming an entry age of 6 for starting primary school. - Firm size is available for some years for some countries. An indicator for 20 and more workers is generated based on the self-reported number of workers or ranges. - Urban residence and sex come directly from the surveys. Sample restriction: The analysis is restricted to the working-age population aged 15 and above who are wage earners.
Bangladesh	2010, 2013, 2015–2016, 2022	
Bhutan	2024	
Bolivia	2023	
Brazil	2008, 2009, 2011–2013, 2015–2020, 2022	
Chile	2017	
Colombia	2012, 2021	
Georgia	2010–2023	
Ghana	2012	
India	2009, 2011, 2017–2019, 2021–2023	
Indonesia	2024	
Maldives Household Income and Expenditure Survey	2019	
Mexico	2008–2023	
Mongolia	2008, 2010–2019. 2021–2022	
Nepal	2008, 2017	
Pakistan	2012, 2020	
Philippines	2008–2009, 2011–2022	
Russia	2020	
Rwanda	2021	
South Africa	2010, 2020	
Sri Lanka	2008, 2011–2015, 2019–2023	
Thailand	2008, 2010, 2012, 2014, 2016–2021	
Türkiye	2009, 2019	
Viet Nam	2022	
Zambia	2012, 2022	

Sources: GLD (database); Maldives Ministry of National Planning 2019; World Bank.

Note: Countries listed in bold are South Asian countries. Mid-2010s data are 2013 for Colombia and Ghana; 2014 for Armenia; 2015 for Georgia and Sri Lanka; 2016 for Bangladesh, Brazil, Mexico, Mongolia, the Philippines, and Thailand; 2017 for Chile and India; and 2019 for Türkiye. The Maldives does not have a labor force survey but the Household Income and Expenditure Survey (HIES) includes a labor module that has sector and occupation data at the 2-digit level. Demographic characteristics, such as education and age, are available. The HIES is nationally representative. The sample is restricted to monthly wage earners aged 15 and above.

Annex Table B2.2.2 Relationship between wages and region in South Asia

Panel A. Bangladesh

	Dependent variable: Log wage				
	(1)	(2)	(3)	(4)	(5)
Variables	2010	2013	2015	2016	2022
Barisal	-1.446***	-0.795***	-0.928***	-1.054***	-1.800***
	(0.033)	(0.024)	(0.031)	(0.031)	(0.049)
Chittagong	-1.456***	-0.715***	-0.903***	-1.012***	-1.899***
	(0.035)	(0.021)	(0.025)	(0.027)	(0.050)
Dhaka	-1.468***	-0.747***	-0.929***	-1.028***	-1.933***
	(0.031)	(0.021)	(0.023)	(0.022)	(0.029)
Khulna	-1.686***	-0.761***	-0.955***	-1.067***	-2.049***
	(0.034)	(0.024)	(0.027)	(0.026)	(0.034)
Rajshahi	-1.662***	-0.781***	-1.002***	-1.133***	-2.103***
	(0.033)	(0.020)	(0.028)	(0.027)	(0.031)
Sylhet	-1.437***	-0.856***	-0.972***	-1.076***	-2.244***
	(0.040)	(0.027)	(0.031)	(0.031)	(0.057)
Observations	42,176	25,206	69,001	73,274	76,859
R-squared	0.762	0.598	0.636	0.756	0.789
Mean log wage	-1.04	-0.4	-0.53	-0.61	-1.01

Panel B. Bhutan

	Dependent variable: Log wage
	(1)
Variables	2024
Bumthang	-2.344***
	(0.059)
Chhukha	-2.254***
	(0.056)
Dagana	-2.509***
	(0.067)
Gelegphu Thromde	-2.517***
	(0.073)
Haa	-2.729***
	(0.065)
Lhuentse	-2.315***
	(0.057)
Monggar	-2.249***
	(0.064)
Paro	-2.118***
	(0.058)
Pema Gatshel	-2.540***
	(0.058)
Phuentshogling Thromde	-2.411***
	(0.069)

Panel B. Bhutan (*continued*)

Variables	Dependent variable: Log wage (1) 2024
Punakha	-2.313*** (0.060)
Samdrup Jongkhar	-2.253*** (0.060)
Samdrup Jongkhar Thromde	-2.381*** (0.068)
Samtse	-2.299*** (0.063)
Sarpang	-2.301*** (0.068)
Thimphu	-1.922*** (0.050)
Thimphu Thromde	-2.115*** (0.069)
Trashi Yangtse	-2.315*** (0.063)
Trashigang	-2.475*** (0.062)
Trongsa	-2.350*** (0.054)
Tsirang	-2.392*** (0.068)
Wangdue Phodrang	-2.258*** (0.058)
Zhemgang	-2.372*** (0.063)
Observations	9,793
R-squared	0.607
Mean log wage	-0.85

Panel C. India

	Dependent variable: Log wage								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	2009	2011	2017	2018	2019	2020	2021	2022	2023
Andhra Pradesh	-2.250***	-2.091***	-1.748***	-1.742***	-1.651***	-1.605***	-1.480***	-1.400***	-1.356***
	(0.028)	(0.027)	(0.020)	(0.019)	(0.026)	(0.021)	(0.023)	(0.021)	(0.021)
Assam	-2.345***	-2.154***	-1.692***	-1.659***	-1.628***	-1.587***	-1.521***	-1.515***	-1.532***
	(0.036)	(0.040)	(0.025)	(0.028)	(0.029)	(0.026)	(0.025)	(0.042)	(0.026)
Bihar	-2.539***	-2.226***	-1.769***	-1.733***	-1.607***	-1.602***	-1.538***	-1.558***	-1.503***
	(0.031)	(0.028)	(0.021)	(0.022)	(0.022)	(0.022)	(0.023)	(0.021)	(0.022)
Chhattisgarh	-2.536***	-2.454***	-2.047***	-1.949***	-1.792***	-1.790***	-1.855***	-1.979***	-1.827***
	(0.037)	(0.030)	(0.031)	(0.029)	(0.027)	(0.029)	(0.032)	(0.027)	(0.030)

Panel C. India (*continued*)

	Dependent variable: Log wage								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	2009	2011	2017	2018	2019	2020	2021	2022	2023
Delhi	-2.092***	-1.748***	-1.601***	-1.568***	-1.407***	-1.348***	-1.355***	-1.453***	-1.427***
	(0.047)	(0.047)	(0.040)	(0.037)	(0.049)	(0.033)	(0.036)	(0.035)	(0.034)
Gujarat	-2.451***	-2.206***	-1.789***	-1.767***	-1.709***	-1.719***	-1.627***	-1.666***	-1.637***
	(0.034)	(0.035)	(0.026)	(0.027)	(0.027)	(0.024)	(0.026)	(0.024)	(0.026)
Haryana	-2.144***	-1.820***	-1.588***	-1.511***	-1.468***	-1.457***	-1.420***	-1.428***	-1.384***
	(0.041)	(0.048)	(0.026)	(0.027)	(0.028)	(0.025)	(0.028)	(0.025)	(0.035)
Jharkhand	-2.407***	-2.229***	-1.947***	-1.959***	-1.947***	-1.887***	-1.724***	-1.699***	-1.593***
	(0.040)	(0.040)	(0.027)	(0.027)	(0.034)	(0.026)	(0.028)	(0.027)	(0.024)
Karnataka	-2.350***	-2.092***	-1.813***	-1.748***	-1.640***	-1.633***	-1.492***	-1.429***	-1.386***
	(0.030)	(0.029)	(0.023)	(0.020)	(0.030)	(0.020)	(0.023)	(0.024)	(0.022)
Kerala	-2.018***	-1.790***	-1.558***	-1.520***	-1.513***	-1.498***	-1.366***	-1.371***	-1.287***
	(0.030)	(0.029)	(0.023)	(0.022)	(0.024)	(0.023)	(0.026)	(0.024)	(0.024)
Madhya Pradesh	-2.585***	-2.331***	-2.001***	-1.970***	-1.893***	-1.872***	-1.713***	-1.718***	-1.691***
	(0.030)	(0.029)	(0.022)	(0.022)	(0.022)	(0.020)	(0.025)	(0.024)	(0.023)
Maharashtra	-2.346***	-2.082***	-1.808***	-1.808***	-1.719***	-1.694***	-1.581***	-1.569***	-1.498***
	(0.029)	(0.025)	(0.020)	(0.019)	(0.022)	(0.020)	(0.022)	(0.021)	(0.024)
Odisha	-2.511***	-2.289***	-2.029***	-1.961***	-1.804***	-1.800***	-1.724***	-1.716***	-1.689***
	(0.029)	(0.026)	(0.022)	(0.021)	(0.023)	(0.021)	(0.025)	(0.023)	(0.025)
Punjab	-2.228***	-2.007***	-1.661***	-1.714***	-1.626***	-1.604***	-1.572***	-1.551***	-1.633***
	(0.032)	(0.031)	(0.025)	(0.025)	(0.040)	(0.024)	(0.027)	(0.027)	(0.026)
Rajasthan	-2.208***	-2.108***	-1.759***	-1.769***	-1.709***	-1.692***	-1.646***	-1.623***	-1.651***
	(0.031)	(0.029)	(0.022)	(0.023)	(0.025)	(0.023)	(0.027)	(0.022)	(0.025)
Tamil Nadu	-2.279***	-2.068***	-1.738***	-1.760***	-1.662***	-1.615***	-1.505***	-1.492***	-1.443***
	(0.026)	(0.024)	(0.019)	(0.020)	(0.021)	(0.019)	(0.022)	(0.021)	(0.021)
West Bengal	-2.490***	-2.272***	-2.062***	-2.044***	-1.941***	-1.899***	-1.764***	-1.753***	-1.600***
	(0.028)	(0.028)	(0.020)	(0.020)	(0.024)	(0.020)	(0.025)	(0.022)	(0.021)
Observations	57,932	59,483	104,643	103,717	100,364	105,359	84,752	115,356	62,004
R-squared	0.840	0.789	0.655	0.665	0.615	0.641	0.590	0.633	0.654
Mean log wage	-0.80	-0.63	-0.53	-0.52	-0.54	-0.55	-0.48	-0.48	-0.34

Panel D. Maldives

	Dependent variable: Log wage
	(1)
Variables	2019
Malé City	-0.373***
	(0.130)
Alif Alif Atoll	-0.550***
	(0.146)
Alif Dhaalu Atoll	-0.564***
	(0.137)

Panel D. Maldives (*continued*)

Variables	Dependent variable: Log wage (1) 2019
Baa Atoll	-0.616***
	(0.132)
Dhaalu Atoll	-0.467***
	(0.136)
Faafu Atoll	-0.437***
	(0.144)
Gaafu Alif Atoll	-0.492***
	(0.139)
Gaafu Dhaalu Atoll	-0.692***
	(0.129)
Haa Alif Atoll	-0.613***
	(0.137)
Haa Dhaalu Atoll	-0.574***
	(0.134)
Kaafu Atoll	-0.423***
	(0.138)
Laamu Atoll	-0.562***
	(0.135)
Lhaviyani Atoll	-0.384**
	(0.151)
Raa Atoll	-0.358**
	(0.168)
Seenu Atoll	-0.672***
	(0.127)
Shaviyani Atoll	-0.487***
	(0.144)
Thaa Atoll	-0.510***
	(0.144)
Observations	4,881
R-squared	0.529
Mean log wage	0.53

Panel E. Nepal

Variables	Dependent variable: Log wage (1) 2008	(2) 2017
Bagmati	-2.055***	-1.365***
	(0.055)	(0.051)
Gandaki	-2.007***	-1.323***
	(0.054)	(0.061)
Karnali	-2.031***	-1.435***
	(0.092)	(0.061)
Koshi	-2.234***	-1.447***
	(0.054)	(0.051)
Lumbini	-2.266***	-1.455***
	(0.066)	(0.056)
Madhesh	-2.332***	-1.414***
	(0.059)	(0.050)
Sudurpashchim	-2.115***	-1.548***
	(0.084)	(0.054)
Observations	7,838	7,710
R-squared	0.802	0.496
Mean log wage	-0.98	-0.48

Panel F. Sri Lanka

	Dependent variable: Log wage							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variables	2013	2014	2015	2019	2020	2021	2022	2023
Central	-1.675***	-1.557***	-1.444***	-1.933***	-1.910***	-2.088***	-2.296***	-2.573***
	(0.073)	(0.063)	(0.056)	(0.104)	(0.110)	(0.137)	(0.122)	(0.121)
Eastern	-1.708***	-1.526***	-1.412***	-1.609***	-1.664***	-1.823***	-2.074***	-2.346***
	(0.075)	(0.057)	(0.061)	(0.093)	(0.089)	(0.128)	(0.105)	(0.097)
North-central	-1.630***	-1.464***	-1.309***	-1.383***	-1.390***	-1.543***	-1.816***	-2.091***
	(0.094)	(0.063)	(0.065)	(0.099)	(0.090)	(0.122)	(0.104)	(0.100)
Northern	-1.450***	-1.478***	-1.409***	-1.523***	-1.568***	-1.651***	-1.889***	-2.219***
	(0.064)	(0.056)	(0.056)	(0.094)	(0.086)	(0.120)	(0.101)	(0.097)
North-western	-1.528***	-1.443***	-1.323***	-1.430***	-1.565***	-1.623***	-1.824***	-2.118***
	(0.064)	(0.054)	(0.054)	(0.095)	(0.087)	(0.120)	(0.102)	(0.095)
Sabaragamuwa	-1.645***	-1.382***	-1.328***	-1.522***	-1.456***	-1.658***	-1.942***	-2.171***
	(0.071)	(0.054)	(0.054)	(0.098)	(0.088)	(0.120)	(0.103)	(0.097)
Southern	-1.559***	-1.338***	-1.228***	-1.419***	-1.426***	-1.643***	-1.849***	-2.144***
	(0.068)	(0.051)	(0.052)	(0.095)	(0.085)	(0.121)	(0.104)	(0.098)
Uva	-1.566***	-1.469***	-1.359***	-1.535***	-1.574***	-1.884***	-2.073***	-2.390***
	(0.068)	(0.057)	(0.064)	(0.114)	(0.095)	(0.152)	(0.132)	(0.108)
Western	-1.439***	-1.290***	-1.204***	-1.301***	-1.384***	-1.524***	-1.789***	-2.038***
	(0.064)	(0.050)	(0.050)	(0.093)	(0.086)	(0.120)	(0.101)	(0.095)
Observations	25,672	26,400	26,978	21,785	17,959	19,525	20,406	20,023
R-squared	0.300	0.386	0.341	0.289	0.286	0.327	0.436	0.474
Mean log wage	-0.59	-0.48	-0.41	-0.33	-0.33	-0.33	-0.60	-0.68

Sources: GLD (database); Maldives Household Income and Expenditure Survey 2019; World Bank.

Note: All analysis included experience, experience squared, indicators for education level, male, urban, sector, and high skill, weighted using the survey weight. Standard errors (in parentheses) are clustered at the regional level. * p<0.10, ** p<0.05, *** p<0.01.

Annex Table B2.2.3 Correlation between average regional wage and regional characteristics

Independent variable	Dependent variable: Regional wage premium (logarithm) (1) Independent variable in 2020s	(2) Independent variable in 2020s × SAR
Share of urban population (percent)	0.209**	-0.243*
	(0.087)	(0.129)
Share of workers with below-primary education (percent)	-0.682**	0.193
	(0.304)	(0.633)
Share of workers with above-secondary education (percent)	0.966***	0.585
	(0.226)	(0.407)
Share of workers in high-skilled occupations (percent)	0.900***	-0.358
	(0.257)	(0.439)
Share of workers in low-skilled occupations (percent)	-0.713	0.340
	(0.423)	(1.228)
Share of workers in agriculture (percent)	-0.356***	0.025
	(0.079)	(0.160)
Share of workers in industry (percent)	0.528***	0.039
	(0.141)	(0.211)
Share of workers in services (percent)	0.537***	-0.122
	(0.133)	(0.288)
Share of workers in firms with more than 20 employees (percent)	0.790**	0.149
	(0.260)	(0.480)
Road length (km, logarithm)	0.041*	0.031
	(0.022)	(0.044)
Road value (U.S. dollars, logarithm)	0.049**	0.018
	(0.019)	(0.035)
Rail length (km, logarithm)	0.022	-0.003
	(0.017)	(0.061)
Rail value (U.S. dollars, logarithm)	0.029*	0.012
	(0.013)	(0.053)

Sources: GLD (database); Maldives Household Income and Expenditure Survey 2019; World Bank.

Note: Each row in column 1 presents the coefficient of a panel regression of regional wage premiums (that is, regional fixed effects from a first-stage regression) on region characteristics. Each row in column 2 presents the coefficient of a panel regression of regional wage premiums (that is, regional fixed effects from a first-stage regression) on region characteristics interacted with an indicator for South Asia. Country fixed effects are included. Standard errors (in parentheses) are clustered at the country level. * p<0.10, ** p<0.05, *** p<0.01.

Annex Table B2.2.4 Correlation between average regional wage growth and regional characteristics

Variables	Dependent variable: Growth in regional wage premium between mid-2010s and latest data in 2020s		
	Regression 1		Regression 2
	(1)	(2)	(3)
	Lagged independent variable	Lagged wage premium (logarithm)	Independent variable × SAR
Share of urban population (percent)	0.020***	-0.055***	0.019
	(0.003)	(0.017)	(0.012)
Share of workers with below-primary education (percent)	-0.018	-0.048**	0.011
	(0.018)	(0.016)	(0.052)
Share of workers with above-secondary education (percent)	0.083***	-0.059***	0.080
	(0.016)	(0.017)	(0.062)
Share of workers in high-skilled occupations (percent)	0.070***	-0.057***	0.054
	(0.020)	(0.017)	(0.032)
Share of workers in low-skilled occupations (percent)	-0.030	-0.059***	0.007
	(0.032)	(0.017)	(0.114)
Share of workers in agriculture (percent)	-0.029***	-0.061***	-0.017
	(0.006)	(0.018)	(0.017)
Share of workers in industry (percent)	0.051***	-0.055***	0.025
	(0.009)	(0.016)	(0.056)
Share of workers in services (percent)	0.044***	-0.057**	0.041
	(0.012)	(0.019)	(0.027)
Share of workers in firms with more than 20 employees (percent)	0.034***	-0.059**	-0.058***
	(0.010)	(0.021)	(0.016)
Road length (km, logarithm)	0.004*	-0.047*	0.003
	(0.002)	(0.022)	(0.003)
Road value (U.S. dollars, logarithm)	0.004	-0.048*	0.003
	(0.002)	(0.023)	(0.003)
Rail length (km, logarithm)	0.001	-0.045**	0.009*
	(0.001)	(0.020)	(0.004)
Rail value (U.S. dollars, logarithm)	0.002*	-0.046**	0.010**
	(0.001)	(0.020)	(0.003)

Sources: GLD (database); Maldives Household Income and Expenditure Survey 2019; World Bank.

Note: The dependent variable is regional wage premium growth (that is, regional fixed effects from a first-stage regression) between available mid-2010s data point and latest 2020s data. Each row presents the coefficient on lagged region characteristic (column 1) and lagged wage premium (column 2). Each row in column 3 presents the coefficient on a regression that includes region characteristics interacted with an indicator for South Asia, controlling for lagged wage premium. Country fixed effects are included. Standard errors (in parentheses) are clustered at the country level. * p<0.10, ** p<0.05, *** p<0.01.

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Note: The *South Asia Economic Update* was called *South Asia Economic Focus* through Spring 2023, and the *South Asia Development Update* through Fall 2025.

South Asia's growth again surprised on the upside but is expected to slow in 2026 amid headwinds from global energy market dislocations. Over the medium-term, trade reforms in South Asian countries could unlock further growth by reducing trade barriers, especially for emerging export sectors. Across South Asia, accelerating job creation is becoming harder as job prospects erode in AI-exposed activities and long-standing subnational labor market disparities persist. To achieve policy goals, South Asian countries make proactive use of industrial policies, at about twice the rate of other EMDEs. Since 2022, about half of South Asia's industrial policies have been directed at the manufacturing sector, particularly toward activities with larger employment, higher average wages, or larger or more productive firms. More than other EMDEs, South Asia has deployed trade-related industrial policy measures but their track record in South Asia has been mixed, with import restrictions lowering imports significantly but export support not materially raising exports. Given limited fiscal space and administrative capacity, cross-cutting measures to improve infrastructure, skilling opportunities, and the business environment remain a priority to accelerate and spread growth and jobs more evenly. These can be complemented by targeted industrial policies, prioritizing those that address market failures directly.

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