

WORLD BANK EAST ASIA AND THE PACIFIC ECONOMIC UPDATE APRIL 2022

BRAVING THE STORMS



Braving the Storms

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List of Abbreviations

AE	Advanced Economy
AFC	Asian Financial Crisis
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DEC	Development Economics
EFI	Equitable Growth Finance and Institutions
EMDE	Emerging Markets and Developing Countries
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross domestic product
GFC	Global Financial Crisis
GTAP	Global Trade Analysis Project
GVC	Global Value Chain
HIC	High Income Country
HNP	Health Population and Nutrition
ICT	Information and Communications Technology
ICU	Intensive Care Unit
IMF	International Monetary Fund
LMIC	Lower Middle Income Country

NPL	Nonperforming loans
OECD	Organisation for Economic Co-operation and Development
pp	Percentage point
PPP	Purchasing Power Parity
RCEP	Regional Comprehensive Economic Partnership
RHS	Right Hand Side
ROW	Rest of the World
SME	Small and medium enterprise
SOE	State-owned enterprise
TPP	Trans-Pacific Partnership
UHC	Universal Health Coverage
UMIC	Upper Middle Income Country
U.S.	United States
VAT	Value Added Tax
VAR	Vector autoregression
VIX	Volatility Index
WDR	World Development Report
WTO	World Trade Organization

Regions, World Bank Classification and Country Groups

EAP	East Asia and Pacific
ECA	Eastern Europe and Central Asia

LAC	Latin America and the Caribbean
MNA	Middle East and North Africa
SAR	South Asia
SSA	Sub-Saharan Africa

Country Abbreviations

CHN	China
FJI	Fiji
FSM	Federated States of Micronesia
IDN	Indonesia
JPN	Japan
KHM	Cambodia
KIR	Kiribati
KOR	Republic of Korea
LAO	Lao People's Democratic Republic
MNG	Mongolia
MMR	Myanmar
MYS	Malaysia
NRU	Nauru

PHL	Philippines
PLW	Palau
PNG	Papua New Guinea
RMI	Republic of the Marshall Islands
SLB	Solomon Islands
THA	Thailand
TLS	Timor-Leste
TON	Tonga
TUV	Tuvalu
UK	United Kingdom
USA	United States
VNM	Vietnam
VUT	Vanuatu
WSM	Samoa

List of Abbreviations continued

<i>Currency Units</i>	
B	Thai baht
CR	Cambodian riel
D	Vietnamese dong
F\$	Fiji dollar
K	Myanmar kyat
K	Papua New Guinea kina
Kip	Lao kip

P	Philippine peso
RM	Malaysian ringgit
RMB	Chinese renminbi
Rp	Indonesian rupiah
SIS	Solomon Islands dollar
Tog	Mongolian tugrik
US\$	Timor-Leste (U.S. dollar)
US\$	United States dollar

Preface and Acknowledgments

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Throughout the report, geographic groupings are defined as follows:

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

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

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

The ASEAN-5 comprise Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

The analysis in this report is based on the latest country-level data available as of March 22, 2021.

Summary

Just as the EAP region was weathering the recurrent COVID-19 storms, three clouds have gathered over the economic horizon, which will mean lower economic growth and higher poverty.

- Most recently, shocks emanating from the war in Ukraine are disrupting the supply of commodities, increasing financial stress, and dampening global growth.
- The war comes on top of not just the lingering pandemic, but two other developments.
 - US inflation ignited by the stimulus-led rebound and persistent supply disruptions could provoke faster-than-anticipated financial tightening, perhaps timely in the US but too early in many EAP countries where recovery is incomplete.
 - China's structural slowdown, deleveraging of the real estate sector and COVID-19 resurgence amidst zero-COVID policies, could dampen regional exports.

Set against these shocks, are some opportunities.

- *Shifts in the trade landscape* are creating new export niches: in manufacturing, for other EAP countries as some production moves out of China; in services, as digital delivery, renders tradeable a wider variety of tasks.
- *The diffusion of digital technologies* could boost productivity, not just of the few countries and firms close to the frontier, but also of the many in the inefficient interior.
- *The increased viability of green technologies* could allow EAP countries to cut carbon emissions and cope with the new energy insecurity without unacceptable cuts in consumption or growth.

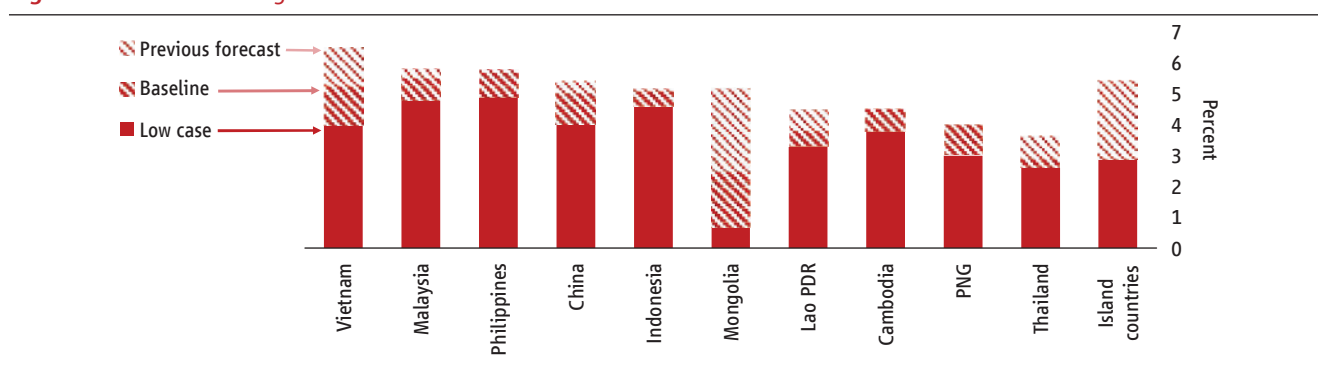
To mitigate the risks and grasp the opportunities, countries must take four steps:

- *Enhance efficiency of fiscal policy* for recovery and growth. More efficient and targeted support to households and firms would limit pain from the cumulative shocks and create space for investment in the infrastructure of trade, energy, and technology diffusion. Fiscal support implemented by entities like local governments and state-owned enterprises must not undermine their financial viability. Committing to fiscal rules and future reforms of revenue and expenditure would help reconcile spending needs with tightening budget constraints amidst growing debt.
- *Strengthen macroprudential policies* to mitigate risks from global financial tightening. Monetary policy must remain alert to new inflationary pressures but at present can continue to support recovery, because real interest rates are relatively high and core inflation relatively low. Stress-testing diagnostics are needed to help identify vulnerabilities that might fester behind the veil of regulatory forbearance and implicit guarantees. Measures could then be taken where needed to capitalize banks, hedge and extend the maturity of debt, and enhance liquidity buffers.
- *Reform trade-related policies* in goods and, especially, in still-protected EAP services sectors to take advantage of shifts in the global trade landscape. In addition, facilitating domestic labor mobility, as well as entry and exit of firms, would allow reallocation of resources in response to the global shocks. Refraining from national export restrictions in the face of rising global prices could help avert an even worse global outcome. Participation in deep trade agreements could catalyze reform at home and secure access to markets abroad.
- *Policy reform and assistance to encourage diffusion of technology.* Increased domestic and international competition could strengthen incentives for productivity-enhancing technology adoption. Enhancing managerial and technical skills, and improving access to finance as well as digital infrastructure would boost the capacity for technology adoption. Eliminating domestic distortions, such as those due to fossil fuel subsidies and local content requirements, could encourage the adoption of green technologies.

Overview

At the beginning of 2022, the EAP countries appeared to be on the path of sustained recovery. The region had emerged from the difficult Delta wave and suffered relatively little from the Omicron wave. External trade and financial conditions remained benign, and governments were contemplating fiscal consolidation. Since then, the acceleration in US inflation prompted faster-than-expected financial tightening, China saw a spike in COVID-19 infections and continued strains on overleveraged real estate firms, and Russia invaded Ukraine. While some larger countries may be better equipped to weather these shocks, the repercussions of these events will dampen the growth prospects of most in the EAP region. Projections for regional growth in 2022 have therefore been reduced from 5.4 percent in the previous Update to 5 percent. In a low case scenario, if global conditions worsen and national policy responses are weak, growth could slow to 4 percent. (figure O.1). However, the turmoil should not obscure the new avenues for growth through trade and innovation. Bold reforms of fiscal, prudential, trade and innovation policies could help EAP countries avert the many risks and grasp the few opportunities.

Figure O.1. Forecasts for growth in 2022



Source: World Bank staff estimates.
Notes: PNG stands for Papua New Guinea.

The backdrop

After the Delta-dip in 2021Q3, economic recovery in much of the EAP region resumed in 2021Q4 and continued in 2022Q1, despite the Omicron outbreak. Countries in the region grew on average by 7.2 percent and are projected to grow by 5 percent in 2022 (figure O.1). However, the revival has been uneven across countries and sectors. China, Indonesia, and Vietnam have already surpassed pre-pandemic levels of output, while Cambodia, Malaysia, Mongolia, the Philippines and Thailand are expected to do so in 2022. However, output in several hardest hit Pacific Islands is not likely to return to pre-pandemic levels even by 2023. While sectors like agriculture, finance, information, and communication technology have been resilient, output in transportation, accommodation and catering remains well-below pre-pandemic levels. The year 2021 saw no decline in poverty in countries other than China, but in 2022, 30 million people are projected to escape poverty, relative to the upper-middle income class poverty line of US\$5.50/day (2011 PPP).

Why?

The economic performance of countries is being shaped by how efficiently they contain the COVID shock, how they are affected by changing conditions in the rest of the world, and how much support governments provide. Natural disasters, notably the volcanic eruption which affected Tonga, and other idiosyncratic factors, like the unrest in the Solomon Islands, also played a role.

▸ COVID shock and containment strategy

Thanks to the increased immunity conferred by vaccination and Delta variant infections, most countries in the region have so far been less vulnerable to new spikes in infection by the Omicron variant and have therefore imposed fewer restrictions on mobility and economic activity. However, some countries, such as those in the Pacific, are yet to feel the full force of the Omicron wave and China has recently seen a spike in cases prompting strict lockdowns. The Delta variant in 2021 inflicted a much greater human cost on the region than the initial wave of COVID-19 in early 2020. But the economic contraction induced by the Delta variant was smaller than in the earlier wave. Nevertheless, across countries, the virus and related measures continue to dampen domestic consumption, private investment, and international tourism.

▸ Trade

Since demand in the rest of the world remained buoyant even in the face of the Omicron spike, and logistics constraints are beginning to ease, trade has continued to grow. The fear of saturating global demand for consumer electronics, which are important exports for countries like China, Malaysia, and Vietnam, has not yet materialized. However, the incoming data point to a slowdown of global trade growth in 2022. While trade in digitized services, which are important for countries like China and the Philippines, remains resilient, tourism, which is vital for several Pacific islands, Cambodia, the Philippines and Thailand, is recovering much more slowly.

▸ Macroeconomic support

A combination of tightening intertemporal budget constraints and what had until recently seemed like diminishing need were leading to a reduction in fiscal support, from an average of 6 percent in 2020 to 5 percent in 2021. A further decline to 1.5 percent of GDP on average was projected in 2022, although China was projected to ease fiscal policy significantly to support growth. In 2021, average consumer price inflation remained within the central bank target ranges in all major economies, allowing central banks to keep an accommodative monetary policy stance over the course of the year.

New growth risks: Three international developments

Financial tightening, especially in the United States, changes in the growth and composition of economic activity, especially in China, and the war in Ukraine, are now shaping the external environment for EAP countries.

The rapid stimulus-led rebound in the United States has contributed to higher inflation. The earlier-than-expected monetary tightening in response could make recovery even harder in other countries. Financial conditions in the US are of particular significance for developing EAP countries, especially those like Malaysia which rely more on short term capital flows. The risk of capital outflows, which could put pressure on their currencies, could induce premature financial tightening. A monetary policy shock in the U.S., assumed to increase interest rates by at least 25 basis points, is likely to hurt growth

in developing EAP, by as much as -0.4 percentage points in Malaysia to -0.7 percentage points in Thailand (figure O.2).

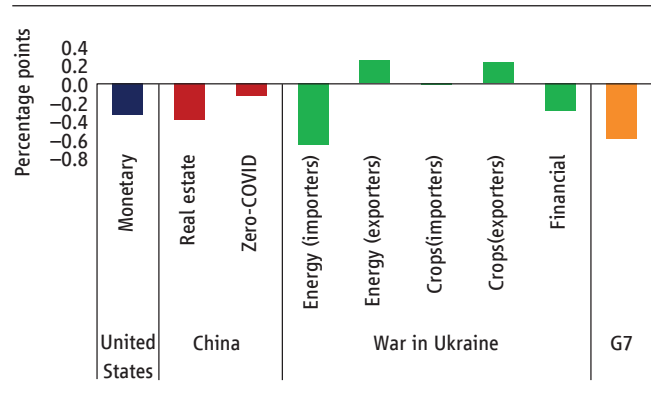
Growth is expected to slow down both in China, because of the structural slowdown and regulatory regime change, and in the US, because of the cyclical slowdown. Therefore, both are expected to make smaller contributions to global growth in 2022 and 2023 than in 2021—the year in which output rebounded from the COVID contraction. However, the absolute size of China and the US' contribution to growth, is estimated to be almost as large as in the pre-COVID years. A one percent slowdown in US growth is estimated to have a slightly larger impact (0.4 percentage points) on the EAP region than a comparable slowdown in China's growth (0.3 percentage points).

Specific shocks to economic activity in China, are likely also to affect EAP countries whose trade is increasingly oriented to China's markets. Construction, constrained by efforts potentially to reduce leverage, industry, by efforts potentially to reduce emissions; and services, constrained by efforts to control COVID-19 and monopolistic providers, are each a significant destination for EAP value added. The contraction in the real estate sector, assumed to match a projected decline in residential investment growth by 10 percentage points from 2020 to 2022, could reduce the EAP region's growth by 0.3 percentage points in 2022. China's zero-COVID policy, assumed to be equivalent to the impact of the Delta shock on consumption in China for only one quarter of 2022, could reduce EAP growth by 0.14 percentage points.

Shocks emanating from the war in Ukraine and the related sanctions could affect the EAP region most concretely by disrupting the supply of commodities, as well as by increasing financial stress and reducing global confidence. The region's direct dependence on Russia and Ukraine through imports and exports of goods, services, and capital, is limited. But the war and sanctions are likely to increase international prices of food and fuel, hurting consumers and growth. The number of poor in the Philippines, for example, could increase by 1 percentage point or 1.1 million measured at the lower-middle-class poverty line (\$3.2/day) if cereal prices rise by an average of 10 percent over the year. Real national income in commodity importers like Cambodia and Thailand could be reduced by 0.7 percentage points if fuel prices increase by an average of 10 percent over the year. Furthermore, with already heightened global inflationary pressures, the knock-on effects of the war may not be transitory and could de-anchor inflation expectations.

These three shocks could have both offsetting and reinforcing aspects. On the one hand, the financial shock from the war in Ukraine may lead to a slower-than-planned tightening of US monetary policy despite the stronger inflationary pressures. Similarly, the increase in commodity prices due to the war may offset the decline in prices due to real estate contraction in China, though the commodities affected would not be the same. On the other hand, each shock will adversely affect global growth by hurting economic activity in the directly affected countries as well as indirectly in the rest of the world. A slowdown in the growth of G7 countries by 0.9 percent would imply weaker export demand for EAP countries and hence a decline in their average growth by as much as 0.6 percent.

Figure O.2. The estimated impact on EAP countries' growth of international developments



Source: World Bank staff estimates.

Notes: This chart provides a rough sense of the impact of alternative hypothetical shocks. The specific assumptions underlying each shock are presented in the text. Effects of US monetary shocks are estimated using the sign-restricted structural VAR methodology. China real estate, zero-COVID, and global financial shocks from the war in Ukraine are modeled and estimated using the Oxford Economics Model. Shocks to energy and crops in the aftermath of the war in Ukraine war are modeled and estimated using the GTAP computable general equilibrium model. The G7 shocks is estimates using a structural VAR methodology.

These shocks are likely to magnify existing post-COVID difficulties. Struggling regional firms, more than 50 percent of which reported payment arrears in 2021, will be hit by new supply and demand shocks. Households, whose 8 million members fell back into poverty during the pandemic, will see real incomes shrink even further as prices soar. The microeconomic misery will have to contend with macroeconomic miserliness. Indebted governments, who have seen their debt as a share of GDP increase by 10 percentage points since 2019, will struggle to provide economic support. Financial tightening and increased inflation, at least one percentage point above previous expectations due to the oil price shock alone, will shrink room for monetary easing. And overexposed banks, with credit as a share of GDP about 10 percent higher than before the pandemic, will have to cope with new financial stresses and increased risks to loans.

Some countries in the region may nevertheless be more resilient than others in the face of these shocks because of their attributes and prior prudence. Commodity exporters, like Indonesia and Malaysia, may absorb international price increases with less difficulty than commodity importers, like Fiji and Thailand. Countries that exercised fiscal and monetary policy restraint in the early phases of the pandemic have the policy space to counteract shocks. For example, China reduced its structural fiscal balance by as much 2.6 percentage points of GDP in 2021, allowing it to plan an increase of 2.8 percent in 2022 to meet its growth target. In contrast, Mongolia, with government debt equal to nearly 80 percent of GDP and annual inflation running at over 14 percent, has little room to soften the adverse impact. But all countries in the region, by virtue of their openness to trade and finance, face serious economic risks if global conditions significantly worsen. Regional growth in 2022 could decline from the 5.4 percent projected in the October 2021 Update, to 5 percent in the present baseline scenario and in the low case scenario to 4 percent.

New growth opportunities: Trade, digital technology, and green production

The incentives to diversify production and imports, already strong because of the dependence aversion in the aftermath of COVID-19, will be magnified by the current war and sanctions. Incentives to relocate production were already strengthening because of the increase in China's real wages, driven by growth and demographic change, and the China-US trade tensions. The share of EAP countries other than China in US final good imports increased from 10 percent in early 2018 to 14 percent in mid-2021 before the Delta shock, while China's share fell over the same period from 33 percent to 25 percent. However, the growing scope for automation is narrowing the window of opportunity for other countries to engage in GVCs by specializing in labor intensive tasks. The extent to which individual countries benefit from the reconfiguration of value chains depends on their production and trade costs. But developing EAP countries' advantage in terms of low labor costs is offset to varying degrees by low labor productivity.

Technology is a key driver of productivity and the COVID-19 shock has accelerated the diffusion of digital technologies. In the EAP countries, frontier firms tended to adopt better technologies more quickly than in the past, but these technologies diffused more slowly to other firms. While the COVID shock has led to convergence in the use of basic consumer-facing technologies, such as ecommerce, it has been associated with divergence in the use of more sophisticated productivity-enhancing technologies, such as data analytics.

The pandemic-induced diffusion of technologies is also changing the structure of services trade. While tourism and travel have been disrupted, trade in data-intensive services has grown. Irreversible investments in digital delivery made by firms and consumers during the pandemic are durably reducing the costs of international trade relative to domestic transactions. The result will be increased opportunities for trade in digitized services even as tourism and travel recover more slowly.

High fossil fuel prices could increase incentives to switch to renewable energy. And the adoption of green production technologies would allow EAP countries to cut carbon emissions and cope with the new energy insecurity without unacceptable cuts in

consumption or growth. But not all current changes will favor green technologies. The high fuel prices could also induce more investment in the production of fossil fuels. And the war in Ukraine could reduce availability of key inputs in the production of green goods, like palladium and nickel.

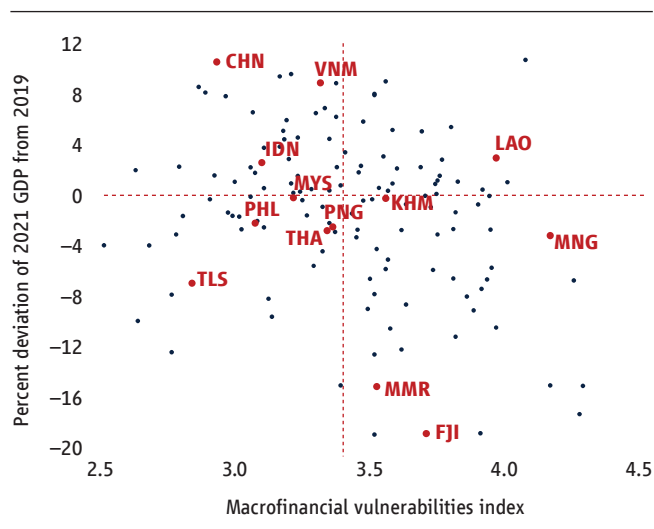
What must be done?

Fiscal policy. EAP countries were already struggling to reconcile fiscal support, for relief, recovery, and growth, with shrinking fiscal space. For example, the growth in debt—by more than 10 percentage point of GDP in most EAP countries and by more than three times as much in Fiji—is increasing pressure for fiscal consolidation even where recovery is incomplete (figure O.3). Furthermore, fiscal support implemented by entities like local governments and state-owned enterprises risks undermining their financial viability. The new shocks will sharpen the trade-offs, and lower investment in the infrastructure of trade, energy, and technology diffusion—which are needed to harness the new growth opportunities by enhancing domestic capacity and international connectivity.

Three measures can help. First, more efficient social protection would free fiscal space for other ends. EAP countries have shielded households from recent COVID-related income shocks though a broad-based increase in social protection and from price shocks through a combination of price controls and subsidies (or tax cuts). Both types of measures may be the only form of assistance that is feasible in the short term, but neither is efficient or fiscally sustainable. Direct transfers to poor households and firms, once the relevant digital infrastructure is in place, would alleviate the pain from the cumulative shocks without distorting price signals or subsidizing the wealthy. For example, a means-based transfer could deliver a 2 percentage point greater reduction in poverty rates than a universal transfer in a typical middle-income country. Second, public resources combined with investment policy reform could encourage greater private investment in the creation of public infrastructure. Finally, governments should reconcile spending needs with tightening budget constraints, by committing (a) to restoring fiscal discipline through the (re)introduction of fiscal rules, as Indonesia is planning to do in 2023; and (b) to fiscal reform through enactment of legislation to be implemented conditional on objective measures of recovery. For example, new tax reform legislation in Indonesia is expected to raise revenue by 1.2 percent of GDP in the medium term.

Macroprudential policy. EAP countries must guard against the risk of financial instability in the face of financial tightening in major markets. Monetary policy must remain alert to new inflationary pressures, but can at present continue to support recovery in most EAP countries, because real interest rates are relatively high and core inflation relatively low. While banks in most EAP countries are well-capitalized and reported levels of non-performing loans are low, stress-testing diagnostics can help identify vulnerabilities that might fester behind the veil of regulatory forbearance. Then, depending on circumstances, countries must ensure adequate capitalization of banks with large loans at risk; hedge and extend the maturity of debt to address currency mismatches and rollover risk; enhance liquidity buffers and secure lines of credit to anticipate potential

Figure O.3. State of recovery and macrofinancial vulnerabilities



Source: World Bank staff estimates.
Note: y-axis shows the latest quarterly/annual real GDP level compared to 2019. The macrofinancial vulnerability index comprises four dimensions: government finances; external financing needs; financial sector health; and macroeconomic volatility. The scale 1-5 refers to quintiles compared to a sample of all emerging market and developing economies.

increases in external financing needs. Countries with unsustainable external debt, like Lao PDR and some of the Pacific Island Countries, would benefit from the development of a more effective international debt resolution framework.

Trade: policy and infrastructure. Comprehensive trade-related reforms would enable EAP countries to take advantage of shifts in the global trade landscape. First, liberalizing and facilitating trade, rather than retaliating in response to reshoring policies abroad, could lead to a net increase in real incomes by as much as 3 percent. Also, global restraint on export restrictions in the face of commodity price shocks would avoid creating price spirals and an even worse global outcome. Second, looking beyond goods trade, reforming still-high restrictions on trade in transport, communication, and other business services, could reduce trade costs and boost economy-wide productivity. Third, implementing measures to facilitate domestic labor mobility, such as retraining and placement assistance, would allow resources to move to new areas of comparative advantage, also boosting productivity and incomes. Finally, participation in deep trade agreements could both catalyze reform at home and secure access to markets abroad. For example, China joining is estimated to quadruple the global income gains from the CPTPP to around \$630 billion compared to the current gains of about \$150 billion. Deep agreements could include not just trade liberalization, but regulatory cooperation and infrastructural coordination that further deeper economic integration.

Technological diffusion: policy and infrastructure. The rapid diffusion of technology in the post-COVID period could boost productivity. But harnessing technology will require policy reform and assistance. First, enhancing competition, by eliminating barriers to entry and exit for both domestic and foreign firms, as well as reforms of the business environment, would strengthen incentives for technology adoption and diffusion. Second, measures to enhance relevant managerial and technical skills as well as access to the necessary finance, would enable firms to embed productivity-boosting technologies in their businesses. Third, while digital infrastructure for basic technologies is often available, broadband access, which is widespread for example in China's Eastern provinces, needs to be widened in countries like Indonesia and the Philippines to facilitate the use of more advanced technologies. Finally, eliminating domestic distortions, such as those due to fossil fuel subsidies and local content requirements, could encourage the adoption of green technologies.

Table 0.1. GDP growth forecasts

	October 2021 forecast for 2022	April 2022	
		Baseline	Lower case
East Asia & Pacific	5.4	5.0	4.0
East Asia & Pacific (excluding China)	5.2	4.8	4.2
ASEAN-5	5.2	4.9	4.3
Pacific Island Countries	5.4	2.9	
China	5.4	5.0	4.0
Indonesia	5.2	5.1	4.6
Malaysia	5.8	5.5	4.8
Philippines	5.8	5.7	4.9
Thailand	3.6	2.9	2.6
Vietnam	6.5	5.3	4.0
Cambodia	4.5	4.5	3.8
Lao PDR	4.5	3.8	3.3
Mongolia	5.2	2.5	0.7
Myanmar		1.0	
Papua New Guinea	4.0	4.0	3.0
Timor-Leste	3.7	2.4	
Palau	12.0	7.2	
Fiji	7.8	6.3	
Solomon Isl.	4.5	-2.9	
Tuvalu	3.5	3.5	
Marshall Isl.	3.5	3.0	
Vanuatu	3.0	2.0	
Kiribati	2.6	-1.8	
Tonga	2.6	-1.6	
Samoa	1.5	-0.3	
Micronesia	1.0	0.4	
Nauru	0.9	0.9	

Source: World Bank; World Bank staff estimates and projections.

Notes: Percent growth of GDP at market prices. Values for 2022 represent forecast. Values for 2021 for the small island economies refer to GDP growth estimates. ASEAN-5 comprises Indonesia, Thailand, the Philippines, Malaysia, and Vietnam. Values for Timor-Leste represent non-oil GDP. For the following countries, values correspond to the fiscal year: Federal States of Micronesia, Palau, and Republic of the Marshall Islands (October 1–September 30); Nauru, Samoa, and Tonga (July 1–June 30). Myanmar growth rates refer to the fiscal year from October to September. Given the lack of high-frequency data, we have not produced forecasts for the low case scenario for Myanmar, Timor-Leste and the Pacific Island countries.

Table O.2. Growth, the disease, trade and financial exposure, and fiscal and monetary policy space

Country	GDP growth estimates (2022)	COVID-19		Commodity dependence		Trade and financial exposure		Macroeconomic policy space	
		COVID-19 cases per million (March 2022)	Restriction index (March 2022)	Net energy export (% of GDP, 2015-19)	Net food export (grains) (% of GDP, 2015-19)	Gross goods & services export (% of GDP, 2015-19)	External financing needs (% of GDP, 2022 est.)	General government debt (% of GDP, 2021)	CPI inflation (Feb 2022 or latest)
China	5.0	1	64	-1.4	0.0	20	6	45	0.8
Indonesia	5.1	67	61	1.4	-0.3	19	9	41	2.1
Malaysia	5.5	818	54	3.6	-0.4	78	29	63	2.2
Philippines	5.7	5	78	-3.1	-0.6	30	8	55	3.0
Thailand	2.9	346	48	-3.5	0.9	66	11	58	5.3
Vietnam	5.3	2267	65	-2.9	0.0	99	5	45	1.4
Cambodia	4.5	13	23	-9.6	1.3	72	36	35	3.7
Lao PDR	3.8	84	82	-4.7	0.2	34	20	78	7.3
Mongolia	2.5	124	12	10.0	-0.3	57	43	80	14.3
Myanmar	1.0	18	71	2.4	0.7	29	3	57	9.9
PNG	4.0	1	51	14.7	-0.8	42	-9	52	5.7
Timor-Leste	2.4	4	36	0.8	-1.4	7	18	25	5.4
Fiji	6.3	20	65	-5.6	-1.1	45	14	86	2.7
Kiribati	1.8	55	76	-7.7	-2.8	11		21	3.0
Marshall Is.	3.0	0			-1.0	29		14	
Micronesia	0.4	0		-9.2	-1.1	30		15	2.5
Nauru	0.9	0		-26.2	-0.1	32		28	2.0
Palau	7.2	463		-4.7	-0.3	54			3.0
Samoa	-0.3	60		-4.6	-0.3	35	10	50	8.5
Solomon Is.	-2.9	204	87	-3.7	-1.9	40	21	21	3.3
Tonga	-1.6	1460	87	-6.7	0.0	20	12	46	6.0
Tuvalu	3.5	0		-22.1	-0.7	20		6	2.8
Vanuatu	2.0	159	41	-4.1	-0.6	44	14	28	4.5

Source: UN Comtrade; Fitch Solutions; Haver Analytics; International Monetary Fund; Oxford Covid-19 Government Response Tracker (OxCGRT), WHO Coronavirus (COVID-19) Dashboard; World Development Indicators; World Bank.

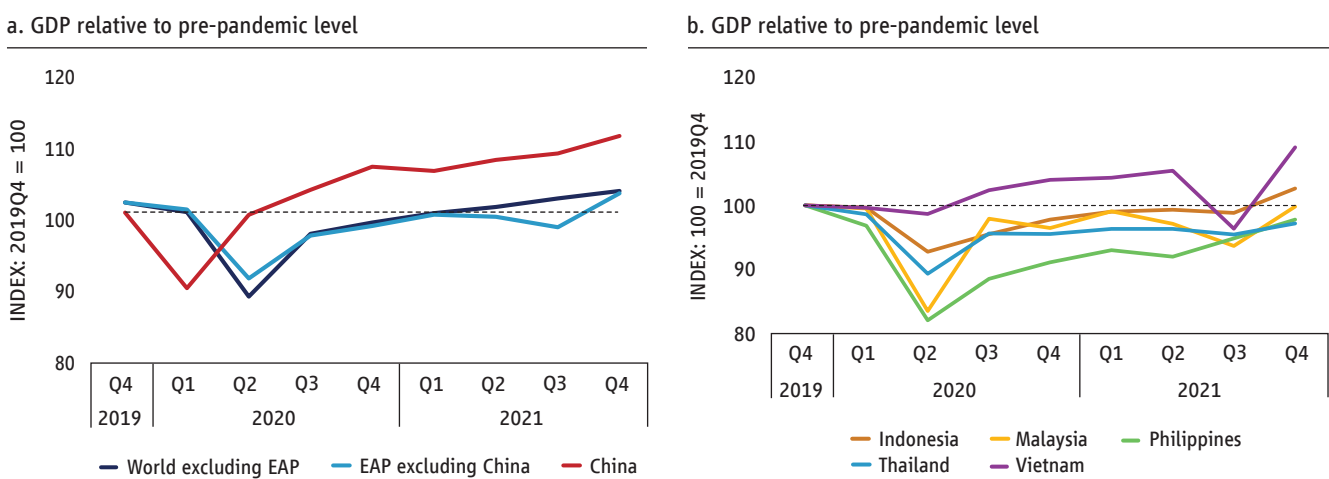
Note: Restriction index refers to a measure of COVID-19-related government restriction policies, rescaled from 0 to 100 (100 = strictest). For countries missing March 2022 data, February 2022 data were used. Net energy export includes mineral fuels, oils and waxes (HS code 27) less electrical energy. Net food export (grain) includes cereals and grains (HS code 10). CPI inflation of Kiribati, Micronesia, Nauru, Palau, Samoa, Solomon Is., Tonga, Tuvalu and Vanuatu show 2021 end-of-period estimates. Color scale represents quintiles relative to the group of emerging markets and developing economies, with red denoting the worst exposure and green the least. General government debt of small island economies is not color scaled because debt tolerance of small island countries is lower than larger EMDEs.

1. Recent Developments

The region’s economic recovery resumed in the fourth quarter of 2021. The EAP countries continued the recovery during 2021, albeit in an uneven fashion. China’s economy grew by 8.1 percent in 2021, while the rest of the region grew by 2.6 percent. Output in China and Vietnam had already exceeded pre-pandemic levels in 2020. Strong performance in the fourth quarter of 2021 undid some of the sluggishness in economic growth during the Delta-dip in the third quarter that was highlighted in the previous EAP Update. Output in Indonesia and Malaysia surpassed the pre-pandemic level at the end of 2021. While output in the Philippines and Thailand remains below the pre-pandemic level, growth accelerated in the fourth quarter of 2021, boosted by further easing of COVID-19 curbs and surging rates of vaccination (figure 1).

Output remains below pre-pandemic levels in many of the region’s economies. The recovery has been uneven across EAP countries. The worst affected and the slowest to recover are Myanmar and several Pacific Island countries (figure 2). Cambodia, Mongolia, the Philippines and Thailand are expected to surpass pre-pandemic levels of output in 2022, and output in many Pacific Islands is not likely to return to pre-pandemic levels even by 2023.

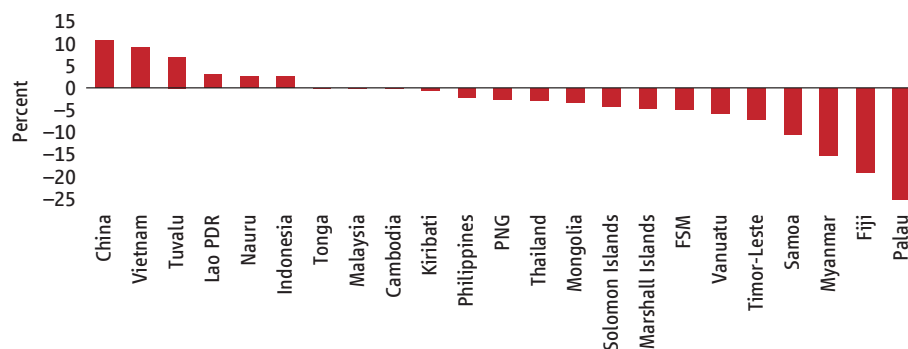
Figure 1. GDP recovered in 2021Q4, after the Delta-dip in 2021Q3



Source: Haver Analytics, World Bank.
 Note: The figures show seasonally adjusted real GDP indexed to 2019Q4 (100).

Figure 2. The recovery is uneven across countries . . .

Change in GDP between 2021 and 2019



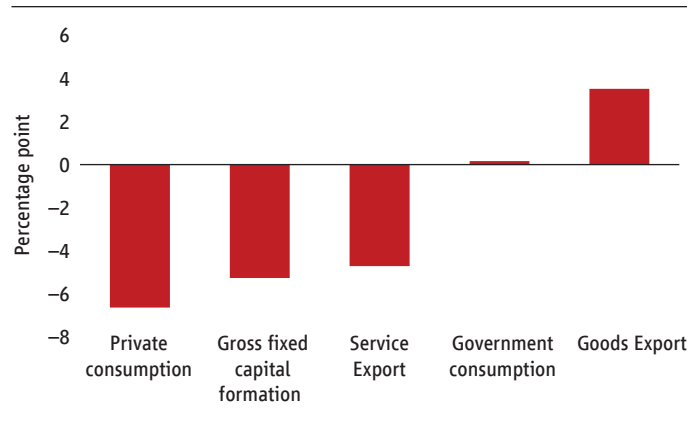
Source: Haver Analytics, World Bank.
 Note: The figure shows real GDP deviation between the 2021 and 2019. FSM stands for Federated States of Micronesia, and PNG stands for Papua New Guinea.

Private consumption and investment have negatively affected growth since the pandemic started. In contrast, goods exports, and to a lesser extent public spending, have supported growth reflecting robust global demand (figure 3). Services exports have remained sluggish, disproportionately affecting tourism-dependent countries.

The recovery has been uneven across sectors. While sectors like information and communication technology, finance and agriculture have been resilient, output in transportation, accommodation and catering sectors remains well-below pre-pandemic levels (figure 4).

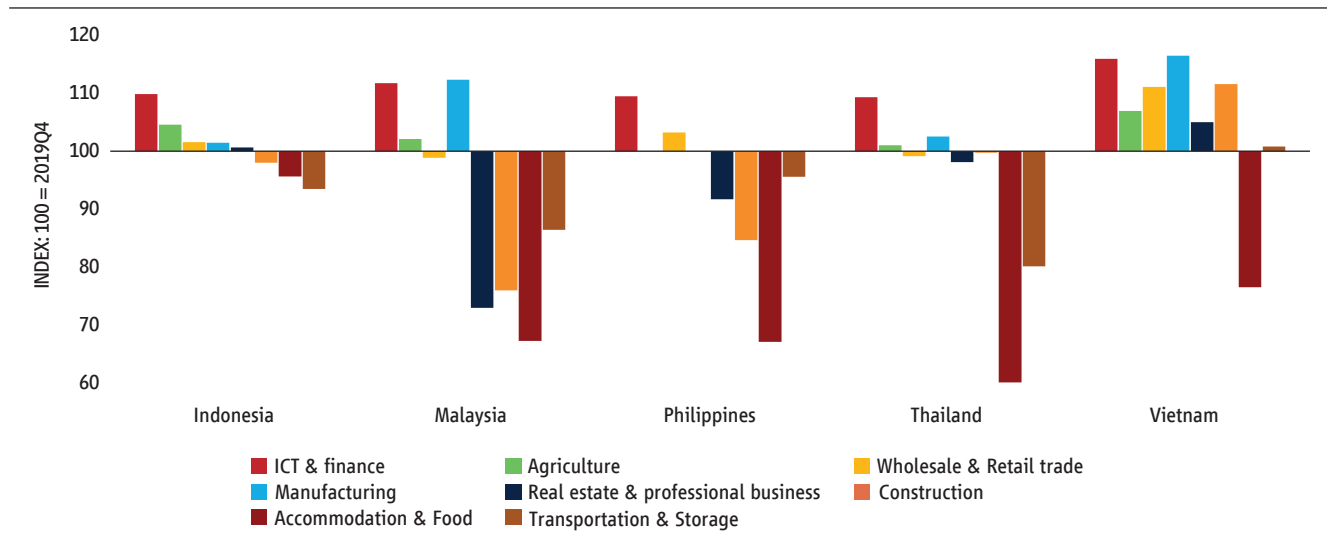
The number of poor in developing East Asian and Pacific countries is expected to decline to its 2019 level in 2022 (figure 5). In China, the estimated number of poor has continued to decline during the pandemic and has already returned to levels predicted prior to the pandemic, based on strong GDP growth in 2021. Elsewhere in developing EAP, the COVID-19 economic shock coupled with slow economic recovery in most countries, set back progress on poverty reduction in 2020 and 2021. However, with expected economic recovery, poverty is projected to decline again in 2022 and to reach pre-pandemic levels. For the region, 11 million people are expected to escape poverty between 2021 and 2022 using the lower-middle income class poverty line of US\$3.20/day (2011 PPP), and 30 million people are projected to escape poverty using the upper-middle income class poverty line of US\$5.50/day (2011 PPP). Recent food price increases in the region, reinforced by food and fuel price rises related to the the war in Ukraine could threaten expected progress in poverty reduction in 2022, as poor households tend to spend substantial shares of their incomes on food and energy. Simulation analysis suggests, for example, that if cereal prices rise by 10 percent in the

Figure 3. . . . uneven in terms of components of aggregate demand . . .



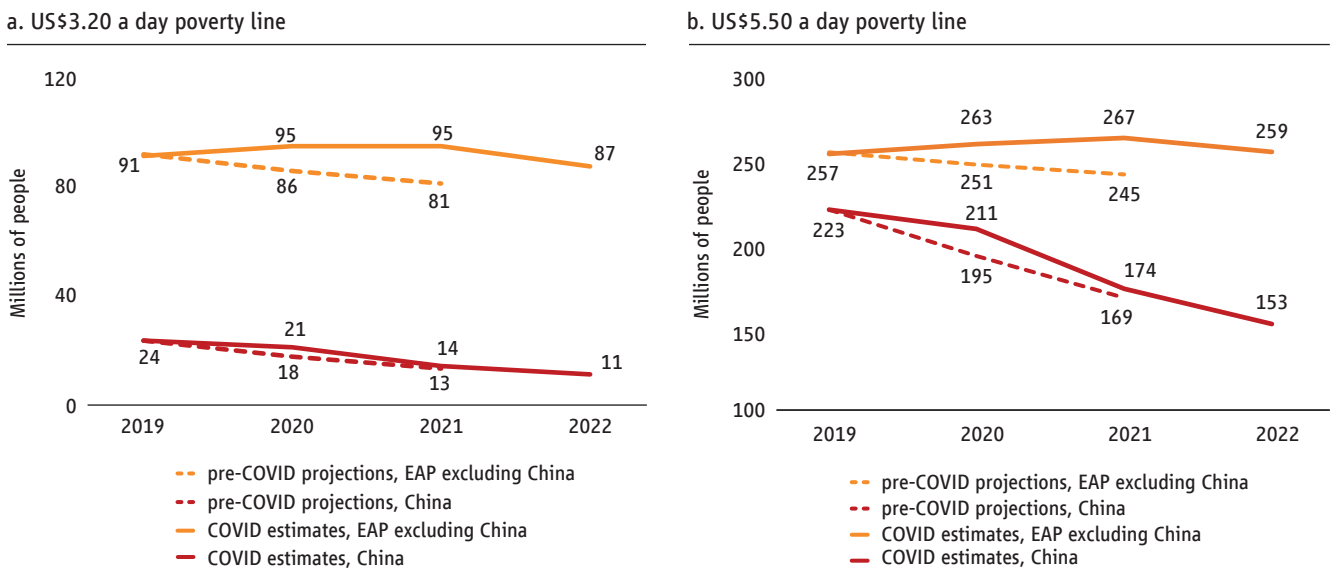
Source: Haver Analytics.
 Note: Figure shows the percentage point difference between the contribution to GDP growth of the 2021Q4 compared to 2019Q4 and the average contribution in 2017–2019. Weighted average of Indonesia, Malaysia, Philippines, and Thailand.

Figure 4. . . . and uneven across sectors



Source: Haver Analytics.
 Note: Figure shows sectoral real value added in 2021Q4 indexed to 2019Q4.

Figure 5. The number of poor in developing EAP countries is expected to decline to 2019 levels in 2022

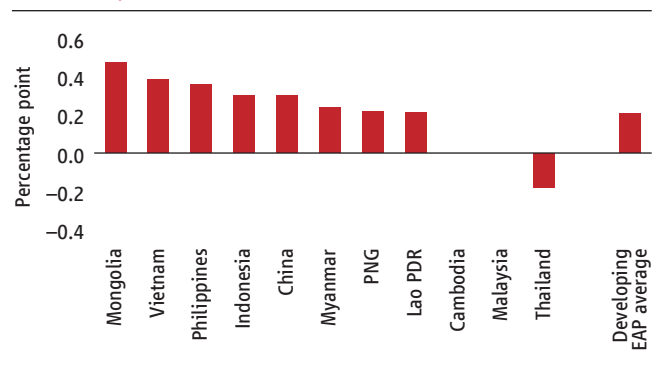


Source: World Bank Staff estimations. Poverty estimates are based on growth forecasts, population projections, and historical growth elasticities of poverty.
 Note: Forecasts are based on GDP growth projections as of March 23, 2022. US\$3.20 per-person-per-day and US\$5.50 per-person-per-day poverty lines (2011PPP) represent the typical value of poverty lines found in lower-middle-income and upper-middle-income countries, respectively (World Bank, 2018a). The pre-COVID forecasts are based on GDP growth projections from January 2020 GEP and are available up to 2021.

Philippines, this would be expected to increase the poverty rate by 1 percentage point—about 1.1 million addition poor—measured using the lower-middle-class poverty line (\$3.20/day). If the low case GDP growth scenario were to materialize, 6 million more people would remain trapped in poverty in 2022 at the US\$5.50/day poverty line.

The COVID-19 pandemic has increased inequality within several developing EAP countries. While official estimates on income/consumption inequality are available only for a few countries, such estimates, based on nationally representative household survey data, suggests that income inequality has increased (World Bank, 2021a; Kim et al. 2021). In Indonesia, for example, the Gini coefficient rose during the pandemic (from 37.0 in March 2019 to 37.3 in March 2021), driven by increasing inequality in urban areas.¹ In China, the income Gini also increased slightly, from 46.5 in 2019 to 46.8 in 2020, again the result of increasing urban inequality. Preliminary simulations suggest that the Gini coefficient may also have risen in Mongolia, Vietnam, the Philippines, Myanmar, Lao PDR, and Papua New Guinea, but decreased in Thailand during the initial year of the pandemic (Mahler, Yonzan and Lakner, *forthcoming*) (figure 6).

Figure 6. Estimated income inequality in several developing EAP countries has increased during the COVID-19 pandemic



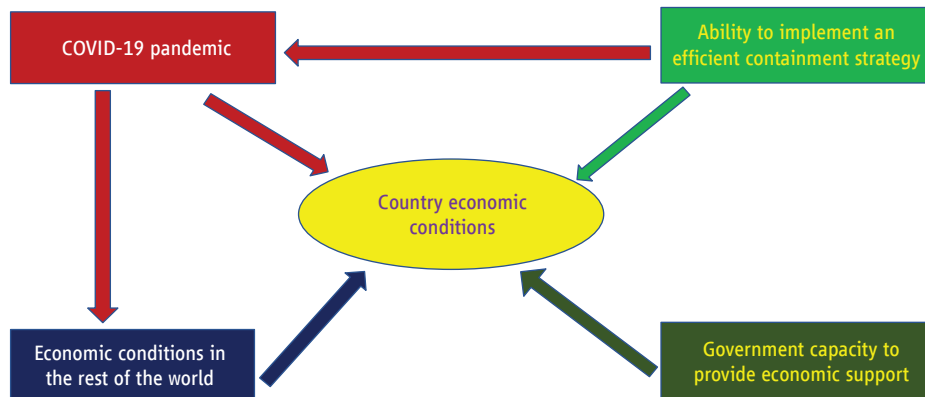
Sources: For China and Indonesia: official sources. For other countries: Mahler, Yonzan and Lakner (forthcoming), simulated based on household surveys and high-frequency phone surveys.
 Notes: The figure shows percentage point change in Gini index between 2019 and 2020. Income-based Gini indices for China, Malaysia and Philippines; expenditure-based Gini indices for the rest of the countries. Average Gini indices is a simple average across countries included in the figure. For Indonesia, the 2021 estimate is included instead of 2020 because the available data are from March of each year, and the March 2021 better captures the impact of the pandemic.

¹ Between March 2019 and March 2021, only the top 20 percent of urban households in Indonesia experienced robust consumption growth. The rest of urban households, especially middle to upper-middle income classes, experienced negative to zero consumption growth. By contrast, consumption growth of rural households was more equitable across the welfare distribution and the rural Gini ratio remained stable.

2. What Explains Economic Performance

Four broad factors are shaping the recovery across EAP countries. The heterogeneity of economic performance across EAP countries is explained primarily by the scale of the COVID-19 shock, the measures by which the disease is being contained, the extent to which external conditions are favorable to recovery, and the capacity of the government to provide support (figure 7). Most EAP countries have been able to ramp up vaccinations, and relaxed restrictions that hurt domestic economic activity. Until recently the buoyant external environment helped sustain exports of the countries that export manufactured goods and commodities, but international tourism remained subdued, hurting countries like Thailand, the Philippines and many Pacific Islands. EAP governments' ability to provide continued policy support differed, with some increasingly constrained by rising debt.

Figure 7. EAP country performance is being shaped by COVID-19 containment, external conditions, and governments support



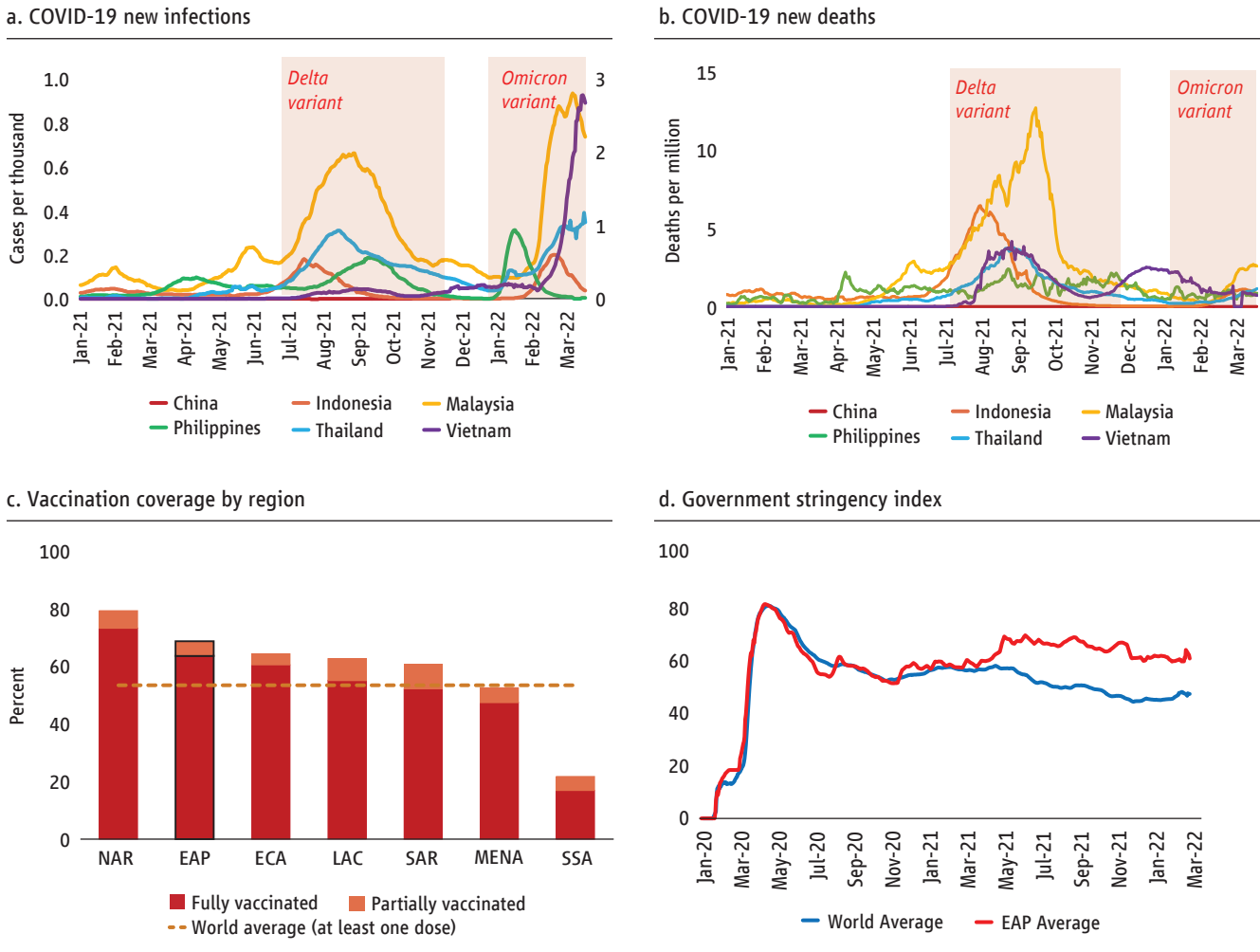
Source: World Bank staff elaboration.

Some countries' performance was also shaped by idiosyncratic factors. The military takeover in Myanmar in February 2021 and the subsequent third wave of COVID-19 cases have severely impacted economic activity. Tonga was affected by a volcanic eruption.

2.1. COVID-19: shock and containment

The coming of the Delta variant in 2021 inflicted a much greater human cost on the region than the initial wave of infection in early 2020. However, the economic contraction induced by the Delta variant was relatively small. Thanks to increased immunity conferred by vaccination and Delta infections, COVID-19-related mortalities in the region have remained less severe during the ongoing Omicron-variant wave, despite new spikes in infection. As a result, the stringency of government restrictions on mobility and economic activity continue to decline in most countries (figure 8). Because there are less disruptions to mobility and interaction, we are beginning to see economic recovery. However, some countries are yet to feel the full force of the Omicron wave and China has seen a recent spike in infections and related restrictions. The Pacific Island countries (PICs), having managed to largely avoid domestic COVID-19 outbreaks up until 2022, have seen the Omicron variant spreading rapidly through the region, requiring strict lockdowns and public health

Figure 8. Thanks to increased immunity, EAP’s COVID-19-related mortality remains low even though the Omicron-variant wave is underway. EAP governments have not heightened mobility restrictions as a result



Source: Oxford COVID-19 Government Response Tracker (OxCGRT), Our World in Data (OWID).
 Note: Latest observations as of March 21, 2022. Stringency Index is an aggregate policy score based on the number and strictness of government policies (Panel D). 0 to 100, 100 = strictest.

measures (box A1). Across countries, the virus and related measures continue to dampen domestic consumption, private investment, and international tourism.

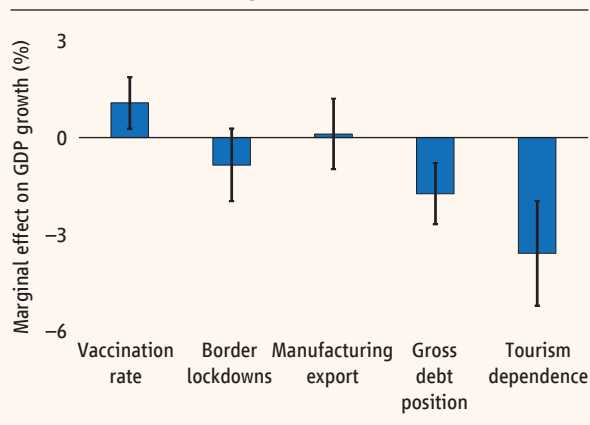
High rates of vaccination reduce the sensitivity of economic activity to infections. High frequency indicators of economic activity suggest that recent economic activity has been relatively resilient to infections in countries with high vaccination rates. In addition, in most countries, the public health measures provoked by the outbreak restrict overall mobility less, and economic agents have learned to function in the face of infections and diminished mobility (figure 8; figure A1.1). As countries adapt to living with surges of infection, and vaccination rates continue to increase across the region, new infections are likely to hurt economic activity less. On average, countries having fully vaccinated one percentage point larger share of their population during H1-2021 experienced a 6-basis points higher GDP growth in 2021 relative to the pre-pandemic level in 2019 (box 1).

Box 1. Vaccination, GDP growth, and household economic circumstances

Cross-country correlation analysis suggests vaccination progress—especially before the Delta-variant outbreak—is significantly correlated with economic recovery, even after controlling for indicators related to other COVID-19 containment measures (proxied by border lockdown stringency), baseline economic exposures (proxied by the dependence on manufacturing and services) and fiscal vulnerabilities (proxied by total gross debt position). On average, countries having fully vaccinated a one percentage point larger share of their population during H1-2021, experienced a 6-basis points higher GDP growth in 2021 relative to the pre-pandemic level in 2019 (figure B1.1). Higher pre-pandemic tourism dependence and debt contribute negatively to growth; an additional index-point of tourism dependency and an additional GDP-equivalent percentage point in debt is associated with a 13-basis points and a 5-basis points lower GDP growth, respectively.

Empirical evidence using micro-level data from Facebook’s Global COVID-19 Trends and Impact Survey also suggests that vaccination is significantly correlated with improved economic circumstances of households. On average, being vaccinated is associated with a 2 percentage points lower likelihood of unemployment, and over a 5 percentage points lower likelihood of a household facing financial and food securities (figure B1.2).

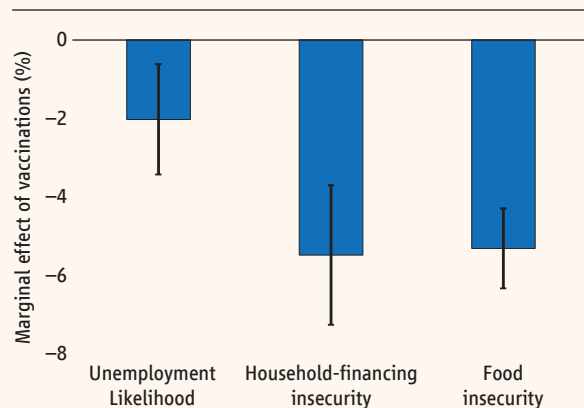
Figure B1.1. Correlation between vaccination and GDP growth



Source: EAP staff research, based on data from World Economic Outlook (WEO) October 2021; World Development Index (WDI); OWID.

Note: the figure shows point-estimates from cross-section Ordinary Least Square regressions between countries’ GDP growths in 2021 (relative to the 2019 level) and pre-Delta vaccination coverages (cumulative share of the population fully vaccinated in June 2021), international lockdown stringency (OWID index), manufacturing export (share of GDP), tourism dependency index (calculated using 2015–2019 averages for the total contribution of tourism to export receipts; scaled between 0 and 100), and gross debt position (share of GDP). All explanatory variables are standardized as units of deviation from the global average. Bar heights represent the sizes of the estimated coefficients. Whiskers represent 90-percent confidence intervals of the estimates.

Figure B1.2. Correlation between vaccination and household’s economic circumstances



Source: EAP staff research, based on data from Facebook’s Global COVID-19 Trends and Impact Survey (Facebook GTIS).

Note: The figure shows panel-data regression results from Facebook GTIS’s micro-data covering March–December 2021. An observation is specific to a demographic-group (defined categorically by gender, age cohort, and educational level), location (first-tier administrative unit in a surveyed country), and week. Dependent variables are derived from individual responses to the following question in the Facebook survey: “In the past 4 weeks, did you do any work for pay? By work for pay, we mean any kind of business, farming, or other activity to earn money, even if only for one hour.” (unemployment); “How worried are you about having enough to eat in the next week?” (food security); and “How worried are you about your household’s finances in the next month?” (household finance security). The regressions control for group-by-location and location-by-week fixed effects. Covariates includes self-containment behaviors such as covid testing and wearing mask. Standard errors are clustered at the country level.

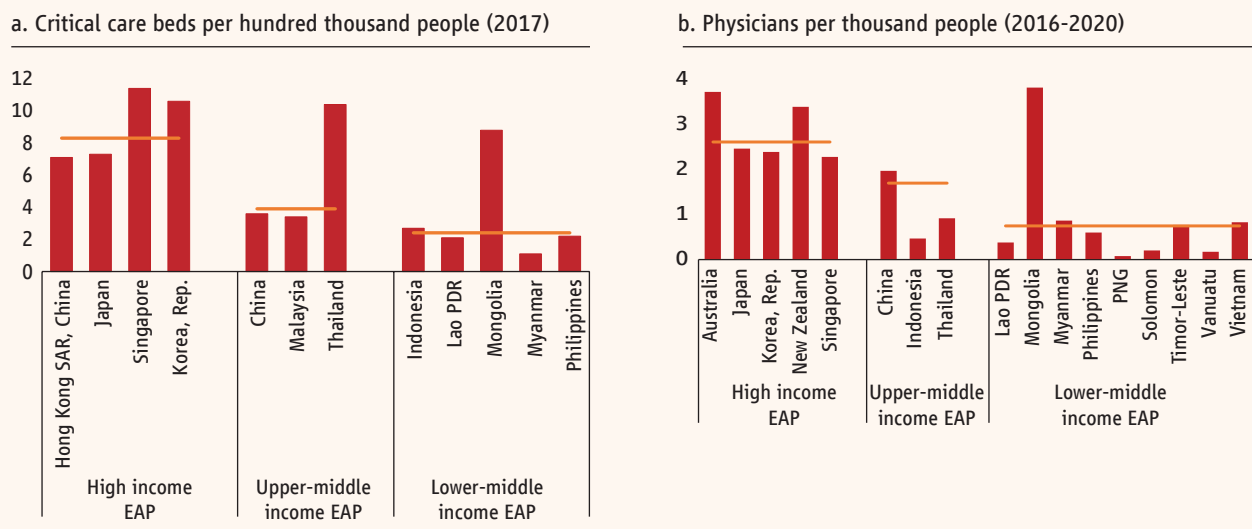
Box 2. Not all endemicity is benign

What next for the COVID-19 response in EAP? As the Omicron wave sweeps through the EAP region, it is evident that vaccines are doing exactly what they were designed to do: prevent serious illness, not infection. Countries with high levels of population immunity through varying combinations of prior infection and vaccination have reported significantly lower level of mortality compared to the previous waves. With the majority of EAP countries well-placed to achieve 70% vaccination coverage or higher by mid-2022, the focus is now on managing the endemicity of COVID-19 and preparing health systems for future pandemics.

Does endemicity imply a benign state of the disease? An endemic disease is one that is constantly present in a certain area, irrespective of severity. The move towards endemicity implies reaching a dynamic equilibrium where on average, one person infects one other person. It does not mean that the disease reaches a stage where it causes minimal harm. Malaria for example is endemic in tropical and sub-tropical areas and killed more than 600,000 people in 2020.

Are health systems in EAP adequate to manage endemicity of COVID-19 and respond to future pandemics? The Global Health Security Index assessment of countries' readiness for future health emergencies noted in December 2021: ". . . despite significant steps taken by countries to respond to the COVID-19 pandemic, all countries remain dangerously unprepared to meet future epidemic and pandemic threats." COVID-19 revealed critical gaps in health systems capacity in EAP countries, a result of many years of relative underinvestment in health (Figures B2.1, B2.2).

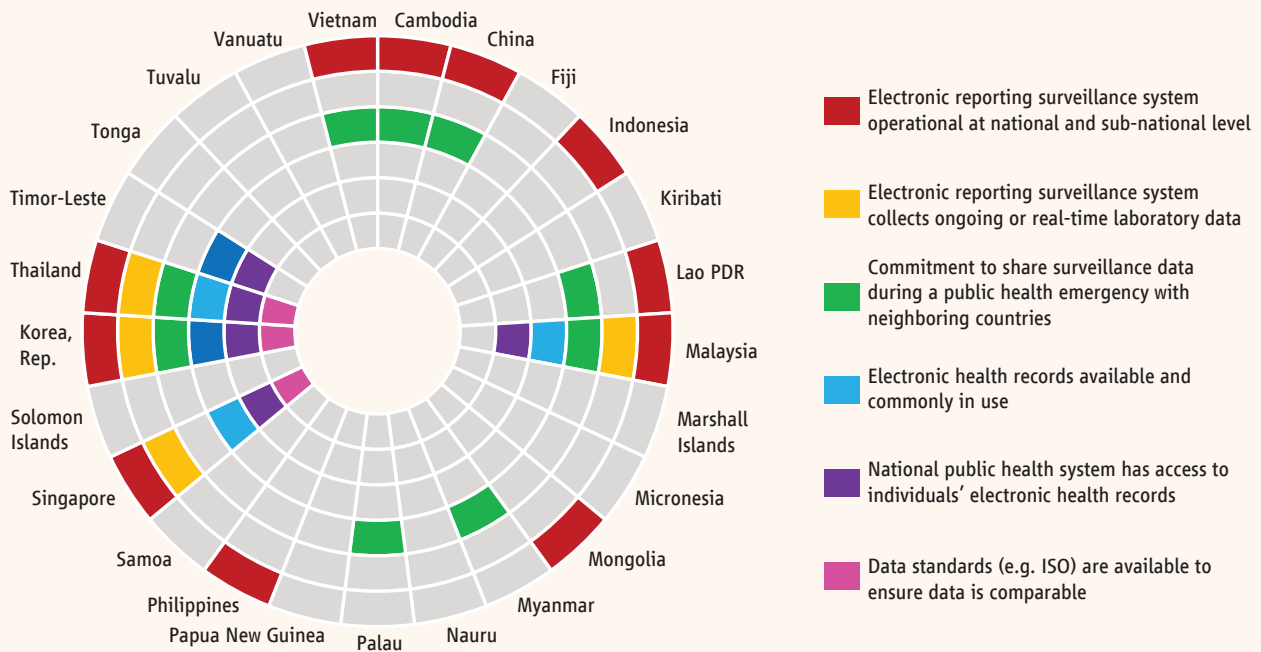
Figure B2.1. Critical gaps in health systems capacity in EAP countries



Source: Phua et al. (2020); World Development Indicators.

(continued)

(Box 2. continued)

Figure B2.2. Most EAP countries are ill-prepared to carry out real-time surveillance and reporting

Source: Global Health Security Index (2019).

What are no-regret investments in health sector in EAP?

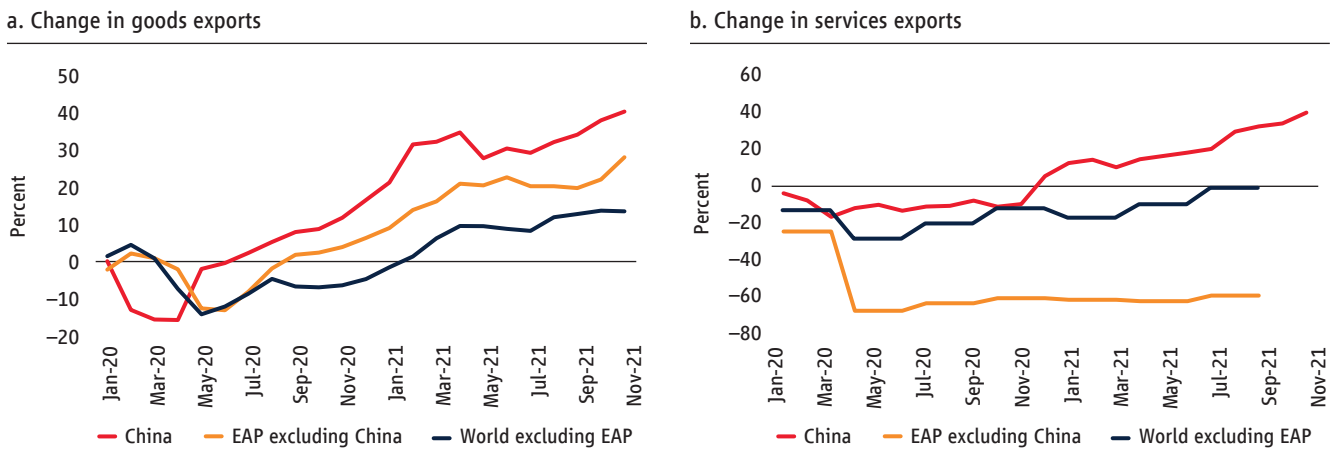
COVID-19 was both a health shock and an economic shock, implying that a strong and resilient recovery must address the health crisis as well. The overall public financing landscape was impacted by COVID-19. EAP countries increased the priority given to health in an effort to contain the pandemic, but countries were left with having to make difficult choices between responding to COVID-19, protecting essential health services and strengthening surveillance and preparedness. In the short-term, managing endemicity will require continued surveillance, treatment, and wide-spread coverage of COVID-19 vaccines. In the long-term, progress toward universal health coverage (UHC)—including pandemic preparedness—and sound population health are vital for a sustainable and inclusive longer-term economic recovery and poverty reduction.

“No-regret investments” that address the health crisis includes strengthening health systems to sustain progress towards Universal Health Coverage, managing endemicity of COVID-19, and building resilience against future pandemics. EAP countries should invest in emergency preparedness where surges can be handled on top of routine work; make extra hospital capacity ‘modular’, which will allow more critical care capacity to be quickly expanded on demand; adopt technologies for low-cost/modular ICUs, such as oxygen generation capacity, that will allow for a universal coverage expansion of ICU capacities; reduce inequalities in access to critical care capacity, especially in remote areas; and digitize health management and information systems and increase laboratory networks.

2.2. External environment

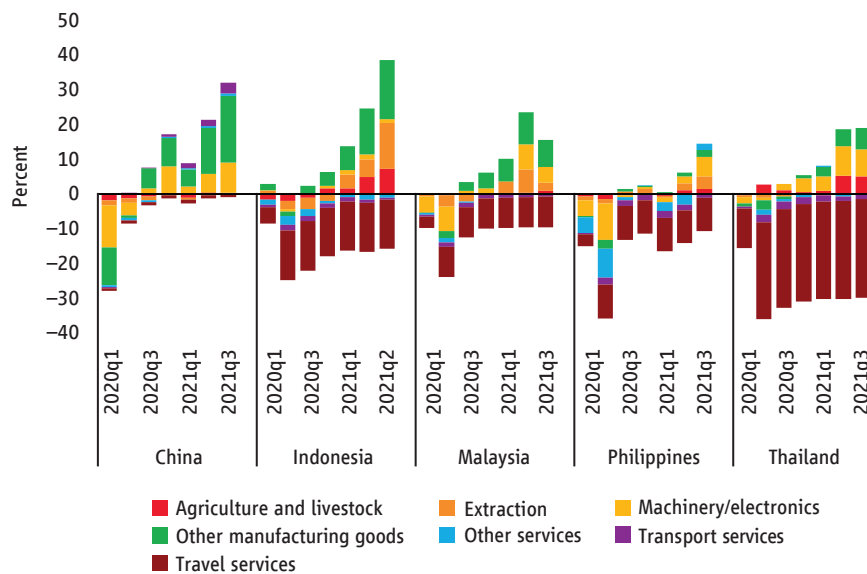
Trade continued to grow in 2021 because demand in the rest of the world remained buoyant in even in the face of the omicron spike (figure 9A). However, logistics constraints disrupted trade and global value chains, hurting production and employment, in the second half of 2021 (Box 4). These constraints were beginning to ease but the war in Ukraine may create new difficulties. The fear of saturating global demand for consumer electronics, which are important for countries like China, Malaysia, and Vietnam, has not yet materialized (figure 10). However, incoming data point to a slowdown of global trade growth in 2022.

Figure 9. Goods exports have recovered and are growing, whereas services exports still languish, except in China



Source: Global Economic Monitor, World Bank; International Monetary Fund, Balance of Payment Accounts; World Trade Organization.
 Note: The chart shows growth relative to 2019-Q4.

Figure 10. Manufacturing has led growth of EAP countries' good exports, whereas travel and transport are a drag on services exports



Source: Customs data from China, the EU, Japan, and the US, IMF Balance of Payment Statistics.
 Note: The chart shows decomposed export growth relative to 2019-Q4.

Services trade continued to languish. Tourism did not show any signs of revival (figure 9B, box 3). Trade in digitized services, which are important for countries like China and the Philippines, remains resilient. International tourism, which is vital, not just for several Pacific islands but also countries like Cambodia and Thailand, is reviving only slowly. Several EAP countries have eased restrictions on international tourists during the last few months, which is expected to bring some increase in international travelers.

Box 3. Tourism and growth in the Pacific

Countries which were most tourism-dependent saw the highest declines in GDP growth. The tourism-dependent economies of Fiji, Palau, Samoa and Vanuatu saw the largest declines in GDP as international border closures halted overseas arrivals. Large declines in output were seen in 2020 with the four countries experiencing an average decline in output of 8.3 percent relative to 3.7 percent for the region. A further decline was seen in 2021 with average output declining by 6.7 percent in 2021 for the four countries relative to a 1.9 percent decline for the region as borders remained closed to overseas arrivals. However, as borders have reopened in Fiji, tourist arrivals have been larger than expected with more than 23,000 arrivals in January 2022 which is about one-third of the number of arrivals in January 2019.

Countries that were dependent on commodities exports, particularly fishing exports, saw relatively modest declines in output. The economies of Kiribati, Tuvalu, FSM, and Republic of the Marshall Islands (RMI) that were largely dependent on fishing exports saw modest declines in output relative to other PICs as these exports were largely unaffected by the pandemic. On average, output declined by 1.2 percent for these countries compared to 3.7 percent for the region in 2020 and remained constant in 2021 relative to a 1.9 percent decline for the region. Papua New Guinea which is also a large commodity exporter, including gold, copper, palm oil and coffee, saw a 3.5 percent decline in output in 2020 but recovered to 3.5 percent growth in 2021. Additionally, Nauru which is largely dependent on revenues from the regional processing center did not experience a recession with positive growth in both 2020 and 2021.

Figure B3.1. GDP growth and dependence on tourism

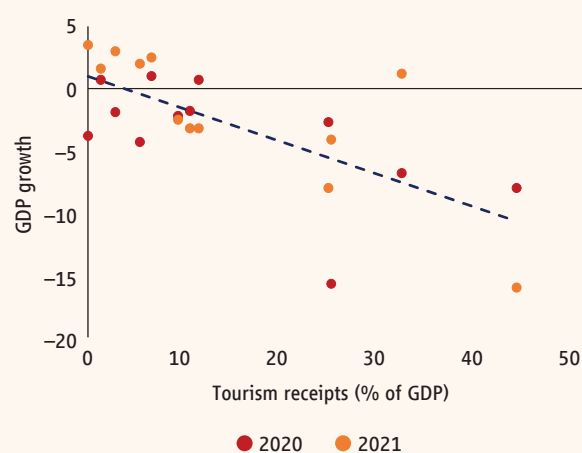
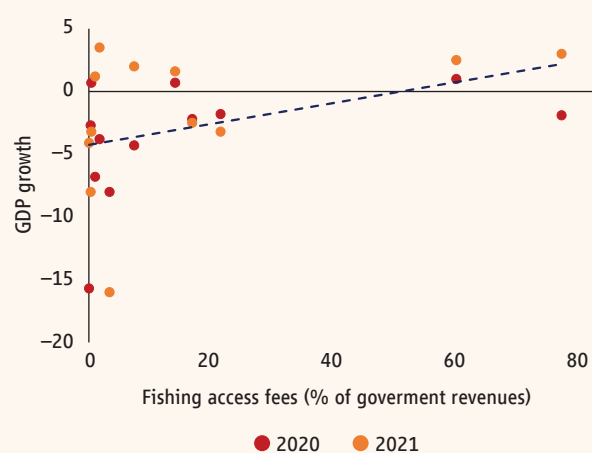


Figure B3.2. GDP growth and fishing license fees



Source: World Development Indicators and Fiji Bureau of Statistics.

Box 4. The effects of global supply chain disruptions

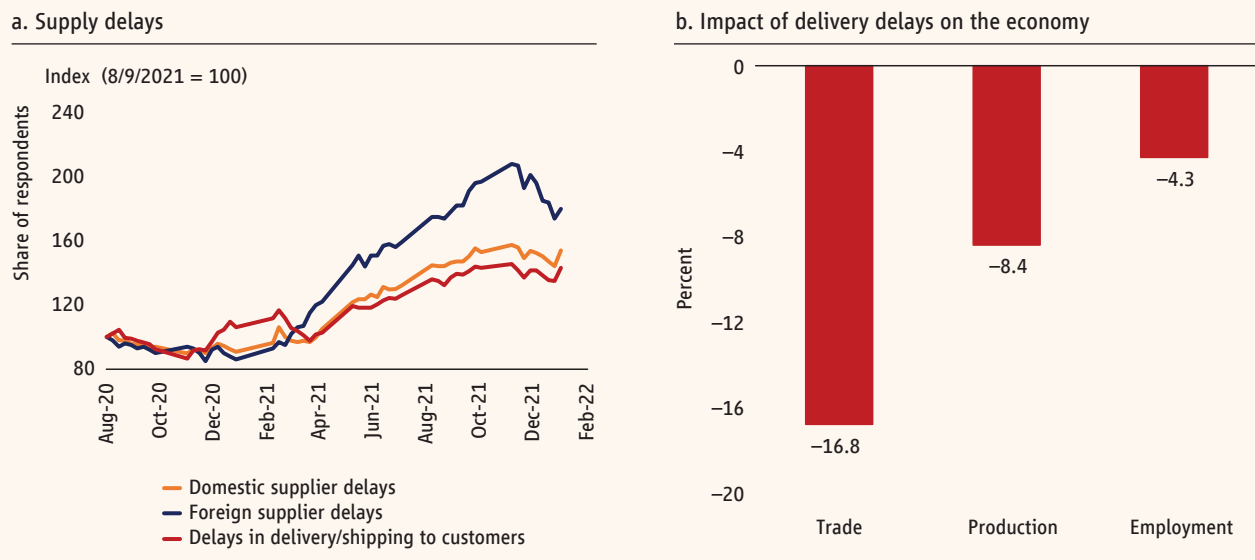
The economic recovery in the aftermath of COVID-19 was affected by supply chain disruptions during the second half of 2021. These disruptions were seen in the form of large shipping delays, port congestion, and the ensuing increase in shipping costs. A new study (Alessandria et al. forthcoming) uses a general equilibrium trade framework with a shipping delays margin and inventory holdings to evaluate the aggregate effects of supply chain disruptions.

This analysis extends the two-country inventory model of Alessandria et al. (2010) to include an input-output structure and sectoral heterogeneity in the use and consumption of imported intermediates. A key feature of the approach is that it explicitly models the differential costs in time, resources, and delivery risk for domestic and international transactions. These risks are reflected in the different inventory management approaches used for imported and domestic transactions.

This framework is used to study a global increase by 10 days in domestic and international shipments. The results indicate that such an increase in shipping delays contributes to a 17 percent reduction in trade whereas industrial production and employment decline by 8.4 percent and 4.3 percent, respectively.

Recently, there has been a reduction in shipment delays due to the relaxation of port, retail, and production restrictions across the world. The analysis suggests a corresponding dissipation of the negative effects on trade production and employment over time. However, the war in Ukraine is already disrupting air traffic and some shipping, and may once again lead to delivery delays.

Figure B4.1. Immediate effects of international and domestic supply chain disruptions



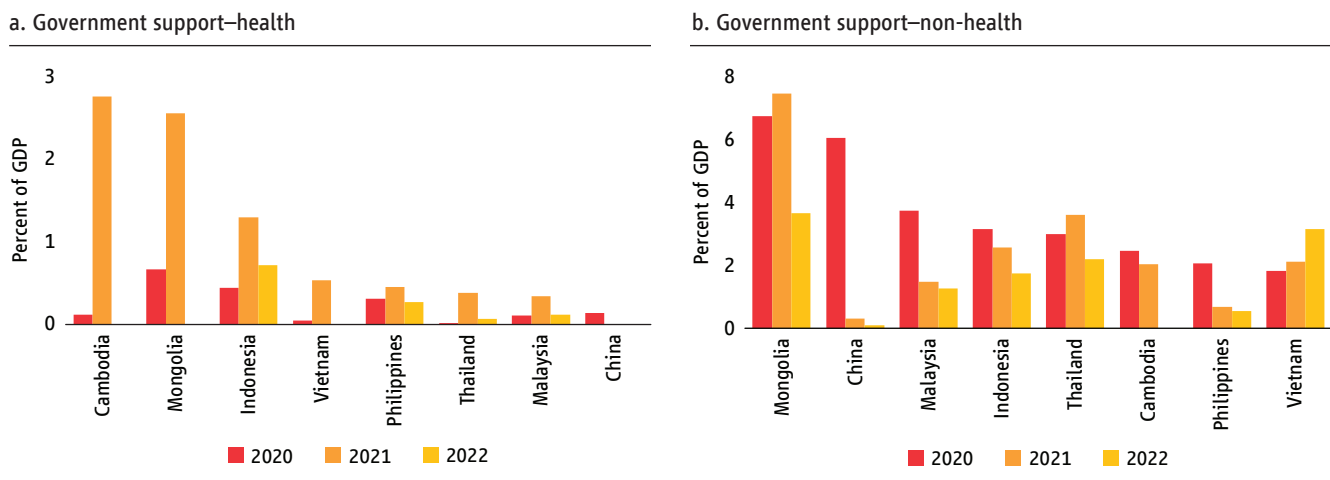
Source. Based on Alessandria et al. (forthcoming).

Note. A. Share of businesses reporting shipment delays (8/9/2021 = 100). B shows simulated effects of a global increase in domestic and international shipments of 10 days from an average delay of 35 days initially.

2.3. Macroeconomic policy

A combination of tightening intertemporal budget constraints and diminishing need are leading to a reduction in COVID-19 related fiscal support. Such support declined from an average of 6.0 percent in 2020 to 5.0 percent in 2021 (figure 11). A further decline to 1.5 percent of GDP is projected in 2022.

Figure 11. While COVID-19-related fiscal support for health has increased, support on non-health expenses has declined



Source: World Bank staff estimates.

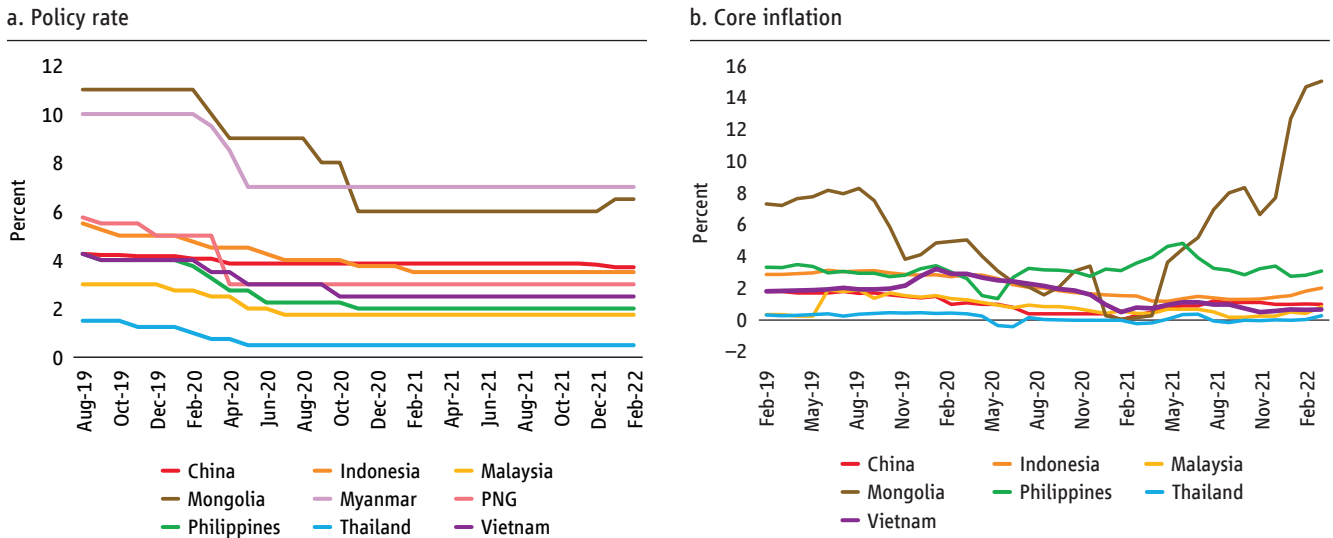
Notes: B. Figure shows fiscal support excluding health measures, below-the-line measures, and contingent liabilities.

In 2021, average consumer price inflation remained within the central bank target ranges in all major economies. Dormant inflation allowing central banks to keep an accommodative monetary policy stance over the course of the year (figure 12). Despite the signs of monetary tightening in the US, financial conditions have so far remained relatively benign for the EAP region.

During the crisis, governments increased spending, relaxed monetary policy, and exercised regulatory forbearance toward the financial sector. As a result, policy space narrowed in certain dimensions (table 1).

However, price pressures are building rapidly in most countries, reflecting rising energy and food prices (figure 13). Inflation is now above the target range in Thailand and, significantly so, in Mongolia. In Mongolia, the prolonged border frictions associated with China's zero-COVID policy contributed to supply shortages and generated significant price pressures. In Myanmar, consumer price inflation was nearly 10 percent in October 2021 reflecting increasing transport prices and a sharp depreciation in the kyat, amid ongoing war. Among small economies with available data, inflation has accelerated in Cambodia, Fiji, Lao PDR, and Timor-Leste. A sustained increase in producer prices, driven by high import prices could further add pressure to consumer prices. Indonesia and Malaysia announced price stabilizing measures on crucial food items such as rice, meat, and cooking oil in early 2022 to cap the increase in food prices. While helpful in containing price pressures in the short term, subsidies to limit price increases are less efficient than direct transfers to poor households (box 5).

Figure 12. Monetary policy remained supportive, because inflation remained low in 2021



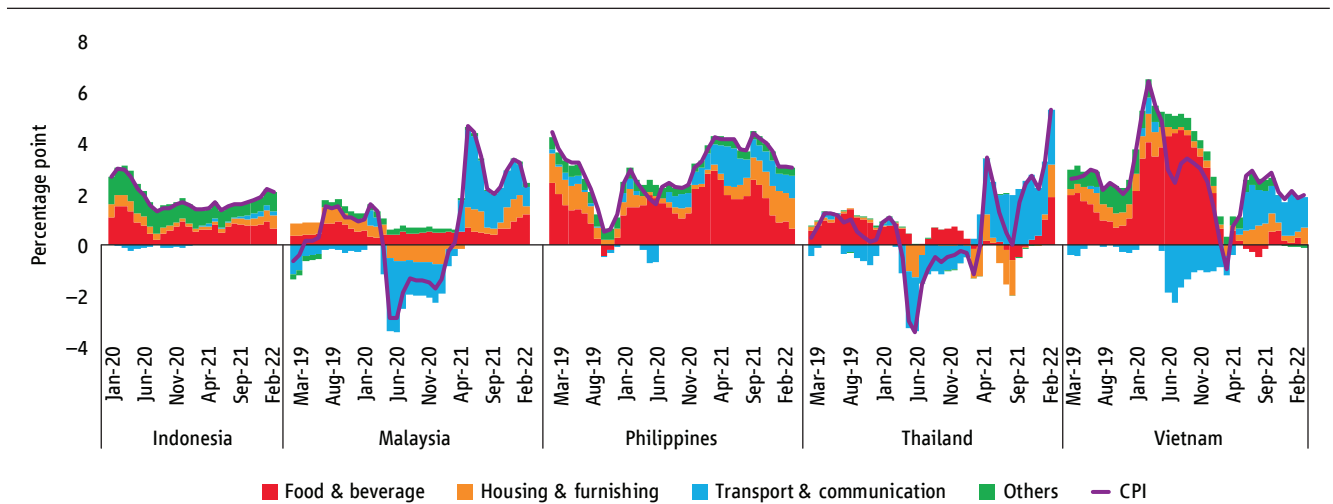
Source: Haver Analytics.
Note: Core inflation measure excludes food and energy from CPI inflation.

Table 1. Fiscal policy space has narrowed across developing East Asian economies; monetary policy space less so

	Fiscal						Monetary				Reserve Buffers	
	General government gross debt (% of GDP)		Fiscal balance (% of GDP)		Domestic credit to private sector (% of GDP)		Key policy rate, in percent	Headline inflation rate, in percent	Inflation target in 2022	Reserves, months of imports		
	2021	change	2021	change	2021	change	Feb-22	change	Feb-22	change	2021	change
Cambodia	35	5	-5.7	-6	143	52			3.7		9.5	2
China	45	-5	-4.4	0	205	17	3.7	-1	0.8	3	12.8	-4
Indonesia	41	12	-4.6	-2	39	1	3.5	-2	2.1	2-4	8.0	0
Lao PDR	78	21	-1.4	4	46	5	3.0	-1	7.3		3.1	1
Malaysia	64	8	-6.4	-4	145	14	1.8	-1	2.2	2.5-4	9.1	2
Mongolia	80	4	-3.1	1	46	-7	6.5	-5	14.2	4-8	8.3	1
Myanmar	57	19	-8.8	-5	27	2	7.0	-3	9.9		7.2	2
Philippines	55	17	-8.6	-8	52	2	2.0	-2	3.0	2-4	10.3	2
Thailand	58	16	-7.8	-8	135	13	0.5	-1	5.3	1-3	9.9	1
Vietnam	45	0	-3.8	-1	117	-9	2.5	-2	1.4	<4	5.3	2

Source: World Development Indicators; Haver Analytics; Fitch Solutions; World Bank staff estimates.
Note: Color scale represents country quintiles relative to the group of emerging markets and developing economies, with red denoting the worst exposure and green the least. Change denotes percentage point change compared to 2015-2019 average.

Figure 13. Higher prices of food and transport are driving inflation



Source: Haver Analytics.
Note: The figure shows the decomposition of headline CPI year on year inflation. The latest CPI weight is applied to the whole period.

Box 5. The role of price controls in times of high volatility

Some EAP countries have shielded households from price increases stemming through a combination of price controls and subsidies (or tax cuts). Both types of measures may be the only form of assistance that is feasible in the short term, but neither is efficient or fiscally sustainable.

The most common practice is the use of price ceilings (maximum prices) to keep prices of goods deemed to be necessities, such as staple food items and fuels, low to protect consumers. Basic economic theory suggests that binding price ceilings will result in allocative inefficiencies due to price distortions and shortages as producers will not be willing to produce as large a quantity of the good at that price as consumers will demand. Such shortages can be avoided through subsidies paid to the producer or to the consumers but that implies a fiscal cost.

Standard economic thinking views price controls as mostly inefficient as they result either in market shortages or substantial public expenditures. Moreover, a subsidy will necessarily benefit the well-off as well as poor households. For goods such as gasoline it may even be regressive (benefit the better-off more than the not-so-well-off) if richer households spend a larger share of their income on it than poorer ones. For that reason, direct cash payments to poor households are considered a more efficient policy than subsidies. A case in point here is Indonesia, which replaced a costly fuel subsidy with a cash-transfer program. More generally, replacing price controls and related subsidies with well-targeted social safety nets, combined with competition-enhancing reforms, can reduce poverty and increase growth (Guenette 2020).

There are, however, situations in which price controls may constitute an efficient market intervention. Wanting to curb monopolistic market power, the rationale behind price controls on medicines in most advanced economies, would be one example. A case can also be made for keeping price volatility in check. For one, cash assistance programs to the poor are usually very static. So sudden spikes in the price of staple foods or fuel could still lead to widespread destitution. They can have important impacts on the rate and volatility of inflation. Unexpected bottlenecks in several crucial sectors have been widely blamed for increased inflation during the second half of 2021. Given the concerns that higher inflation can become entrenched, short-term price controls may play an important role in keeping medium to longer-term inflation in check.

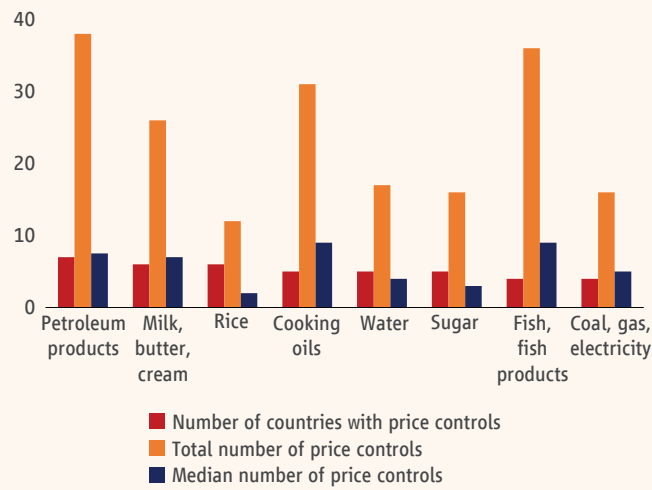
We will now look at the extent and nature of price controls in the EAP region and assess if they may have played a role in lowering headline inflation. The data used is tentative and only captures price controls that show up in trade statistics. We can compare the number of price-controlled product categories for 11 EAP countries to other Emerging Markets and Developing Countries (EMDE). The median number of price controls on food and beverage in EAP is 10, while the median for EMDEs (excluding the EAP countries) is five. Similarly, median number of price controls set on energy related products is significantly higher in the 11 EAP countries relative to the rest of the EMDEs. Within the EAP countries, Malaysia and the Solomon Islands have the highest number of price controls on food items.

Looking more closely at the 11 EAP countries, figure B5.1 shows the aggregate number of price controls by more detailed product categories. We show the number of countries with any controls, the median number of controls in countries that have at least one such control, and the total number of controlled prices in all 11 countries.

(continued)

(Box 5. continued)

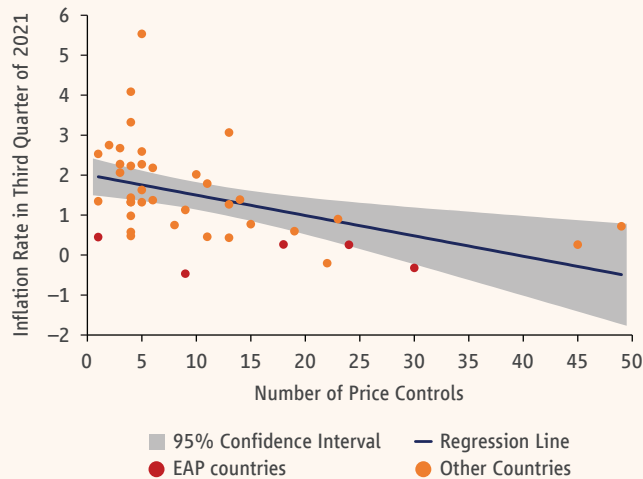
Figure B5.1. Most common price controls in EAP



Source: Guenette (2020); World Bank; World Trade Organization.
 Note: Listed price control policies are retrieved from the latest (2003–19) country Trade Policy Review publication.

The next question is if the relatively large number of price controls in EAP may have played a role in its subdued inflation during the second half of 2021, and whether such a negative relationship between price controls and inflation does exist at all. To shed light on this question we regressed the inflation rates in the third quarter of 2021 on the number of price controls for a subset of countries for which we have consistent data on both measures (figure B5.2). The five included EAP countries lie entirely below the regression line, suggesting that some other factors are at play. However, a strongly negative relationship holds at the global level.

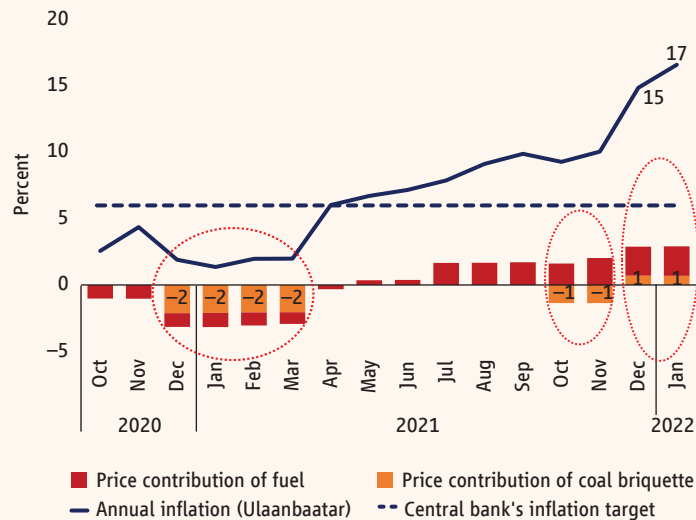
Figure B5.2. Effect of price controls on inflation



Source: World Bank Economic Monitoring; World Bank staff calculations; World Trade Organization.
 Note: Inflation rate refers to CPI inflation.

(continued)

(Box 5. continued)

Figure B5.3. Relation between controlled energy prices and inflation in Mongolia

Source: National Statistics Office, Bank of Mongolia; World Bank staff estimates.
 Note: Central bank targets inflation at 6 percent within a band of ± 2 percent.

An instructive case study can be found in Mongolia. The price of coal briquettes and fuel is partially and temporarily controlled by the government through a variety of instruments. Figure B5.3 illustrates how the easing of price controls on coal briquettes over the course of 2021 is associated with an increase in the rate of inflation.

The bottom line is that while inefficient in most cases, under certain circumstances price controls may be warranted to avoid sudden price spikes in necessities. Two considerations stand out: first, except gasoline, most such products, like staple foods and cooking fuels, make up a larger share in the consumption basket of poorer households relative to richer ones. An abrupt and large increase in their prices would thus hit poor households particularly hard, throwing them deeper into poverty. In the absence of highly dynamic social protection programs, price ceilings, while costly to the public purse, constitute an effective measure of protection. Second, since such goods make up a large part of the overall consumption basket, sudden price spikes will feed directly into higher inflation. If inflation expectations are not well-anchored, this may result in a permanently higher rate of inflation with all the associated efficiency costs, not least the need of contractionary monetary policies to bring it back down to previous levels.

That said, caution must be exercised when implementing price controls. They run the risk of incurring high efficiency costs due to price distortions and may lead to unaffordable fiscal costs. In the absence of subsidies, they may also lead to severe shortages and possibly the emergence of black markets. Monopolistic situations aside, they should not be used to fix prices below their long term, or average, equilibrium market price. Price ceilings could be set at levels that prevent sudden temporary price spikes but are non-binding (i.e. above the market price) in normal times. In any case, direct transfers to poor households and firms, once the relevant digital infrastructure is in place, would alleviate the pain from the price shocks without distorting price signals or subsidizing the wealthy.

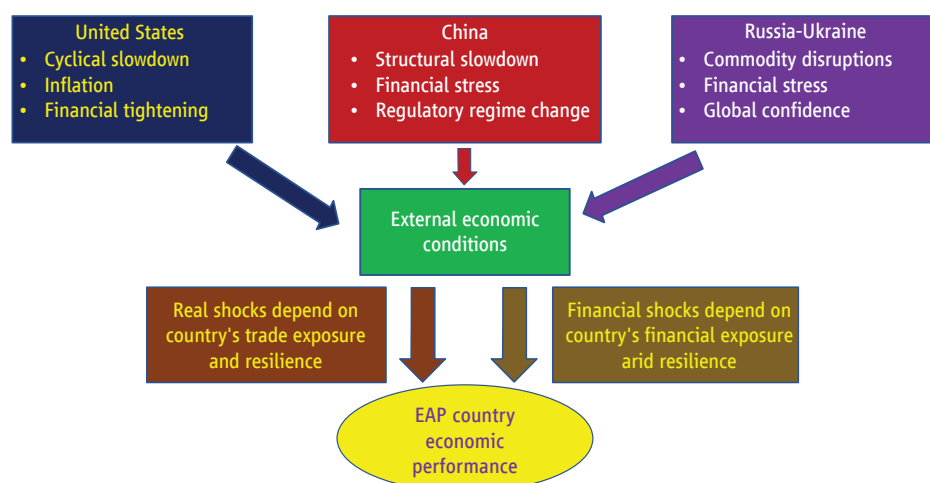
3. Risks, Opportunities and Outlook

3.1. New growth risks: three international developments

The global economy has become increasingly interconnected over the past decades, leading to growing spillovers through both real and financial channels. The importance of China and the United States to the global economy implies that developments in these two countries have far-reaching macroeconomic consequences (figure 14). Shocks to growth or investment in China, reflecting a structural slowdown and regulator changes, can affect countries in the region through trade ties. Shocks to monetary policy or financial markets in the United States, because of policy makers reactions to increasing inflation or market corrections, could spill over to other countries, including in East Asia, through interconnected financial markets.

Shocks emanating from the war in Ukraine and the related sanctions could affect the EAP region by disrupting the supply of commodities, increasing financial stress, and reducing global confidence. The region's direct dependence on Russia and Ukraine through imports and exports of goods, services, and capital, is limited. However, the war and sanctions are likely to increase international prices of food and fuel, hurting consumers and growth, and de-anchoring inflation expectations. Increasing investor risk aversion could lead to capital outflows, and hence exchange rate depreciation, falling equity prices and rising risk premia. Reduced confidence can inhibit consumer spending and business investment.

Figure 14. Three international developments are shaping external conditions



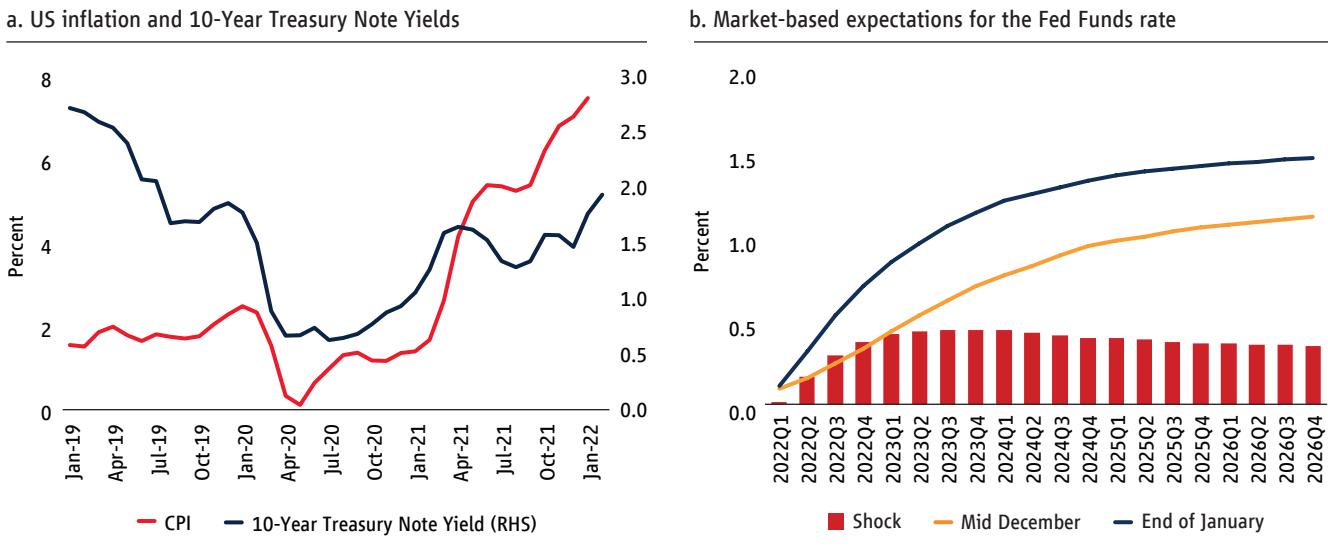
Source: World Bank staff.

› 3.1.1. Financial channel

New financial stresses are emerging due to inflationary pressures and international war. A generalized rise in investor risk aversion could lead to capital outflows, currency depreciations, equity market devaluations, and rising risk premia in bond markets. The increasing financial stress could compound post-pandemic fiscal and financial vulnerabilities in the region.

Inflation expectations in the United States are increasing, leading to faster than expected rises in interest rates. The market-implied path of US policy rates shifted upwards from three to six 25-basis point increases this year following the January FOMC meeting (figure 15). The Federal Reserve is moving forward with the planned increase in the U.S. policy rate

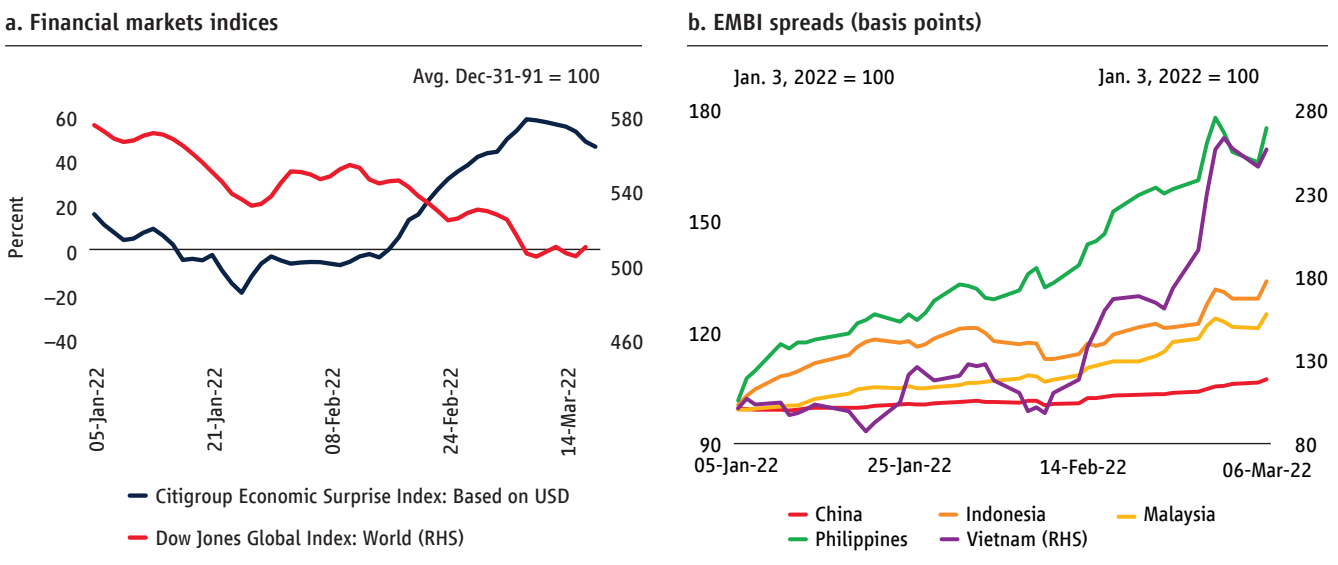
Figure 15. Inflation outside the region is increasing fast, accelerating monetary tightening in the United States



in March given the 40-year-high inflation rate in February, despite the heightened uncertainty following the war in Ukraine. Expected euro area policy rates have also moved up, with the market anticipating slightly more than 50 basis points of tightening in 2022, having foreseen only one 10 basis point increase as recently as early January.

Russia’s invasion of Ukraine on February 24, 2022 led to a sharp increase in global financial volatility and contributed to a further tightening of financial conditions. While an “economic surprise index,” jumped from –7 to +31, the highest level since 2001, global stocks fell 2.8 percent on news of Russia’s invasion (figure 16). The US dollar

Figure 16. Global financial volatility increased and financial conditions in the region tightened as Russia invade Ukraine



appreciated by more than 1 percent against a basket of currencies due to a rise in investors' risk aversion. Spreads for a range of EAP countries, especially Vietnam, widened. Uncertainty is expected to remain elevated following the imposition of sanctions towards Russia by other major economies (box 6).

EAP countries differ in their vulnerability to tighter global financing conditions. In some dimensions, major EAP economies appear to be relatively well equipped to cope with those shocks. They generally have a strong pre-COVID track record of growth, flexible exchange rate regimes, and relatively robust fiscal, monetary, and prudential frameworks. However, EAP

Box 6. Sanctions imposed on Russia in response to the escalation of war in Ukraine

Following the escalation of Russia's military intervention in Ukraine, major western economies are imposing a wide range of sanctions on Russia. These include sanctions on oil and gas, financial measures, trade, and restrictions on specific individuals. The following is an illustrative list of still-evolving measures.

Oil and gas

The US is banning all Russian oil and gas imports and the UK will phase out Russian oil by the end of 2022. The EU, which gets a quarter of its oil and 40 percent of its gas from Russia, is planning to switch to alternative sources of energy and reduce Europe's dependence on Russian energy "well before 2030." Germany has put on hold permission for the Nord Stream 2 gas pipeline from Russia to open.

Financial measures

Western countries have frozen the assets of Russia's central bank, preventing it from using its \$630bn of dollar reserves. Some Russian banks are being removed from the international financial messaging system Swift, which is used to transfer money across borders. This will delay payments to Russia for energy exports. The UK is freezing the assets of major Russian banks and the Russian state and major companies will not be able to raise finance or borrow money in the UK. The EU is considering targeting 70 percent of the Russian banking market and key state-owned firms.

Targeting individuals

Assets belonging to Russian President Vladimir Putin and his foreign minister Sergei Lavrov are being frozen in the US, EU, UK and Canada. Sanctions have been imposed on wealthy business leaders known as oligarchs, who are considered close to the Kremlin, including freezing their assets and restricting their ability to travel. EU, UK and US have also imposed sanctions on 386 members of the Russian parliament. The UK is limiting the sale of "golden visas", which allowed wealthy Russians to get British residency rights.

Targeting specific traded products

Many countries, including EU, UK, and the US have announced export restrictions on technological exports as well as items that could have both a civilian and military purposes—including chemicals and lasers. The EU is also banning the sale of aircraft and equipment to Russian airlines. All Russian flights have been banned from US, UK, EU and Canadian airspace. The UK has also banned private jets chartered by Russians.

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*(Box 6. continued)***Private sector response**

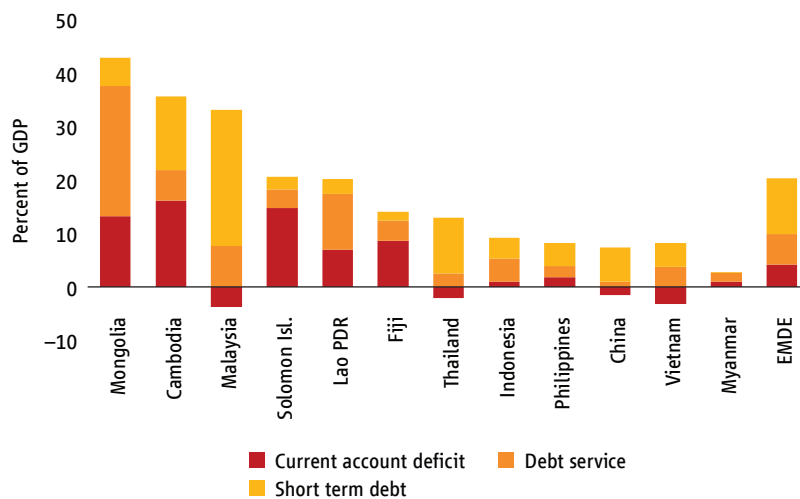
Many companies in the energy sector have refrained from buying and transporting Russian produced energy products even at a discount. At the same time, a growing number of international companies have suspended all operations in Russia.

Russia's response

Russia has banned exports of more than 200 products, including telecommunications, medical, vehicle, agricultural, electrical equipment and timber. In addition, it is blocking interest payments to foreign investors who hold government bonds, and banning Russian firms from paying overseas shareholders. It has stopped foreign investors who hold Russian stocks and bonds from selling them. Russia has also warned that it could shut off gas supplies in response to oil sanctions.

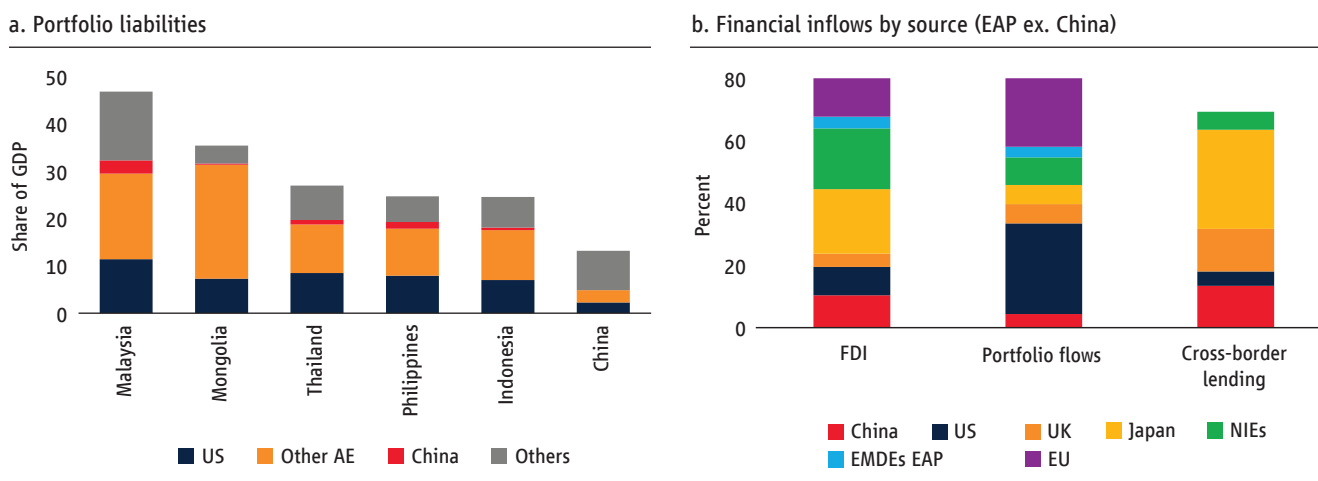
countries are susceptible to financial shocks in certain respects: sizable external financing needs (Cambodia, Malaysia, Mongolia); large stock of foreign portfolio liabilities (Malaysia, Mongolia, the Philippines, Thailand); elevated public (Fiji, Lao PDR, Mongolia) and private (Cambodia, China, Lao PDR, Thailand, Vietnam), and especially external (Cambodia, Lao PDR, Malaysia, Mongolia, Papua New Guinea), debt; considerable foreign holdings of domestic debt (Indonesia, Malaysia, Thailand); and sizable fiscal deficits (Myanmar, Philippines, Thailand) (figure 17, table 3, table 5, and table A1.1).

Most EAP economies are more financially integrated with the major global financial hubs than with each other (figure 18). The region is most exposed to the US on portfolio flows and to Japan on cross-border lending. Regional financial integration has grown as China has gradually eased restrictions on portfolio flows and foreign exchange transactions and Chinese banks have gained a stronger foothold in the region. Financial volatility in these two countries will affect economic activity in the EAP countries through these linkages (box 7).

Figure 17. External sector vulnerabilities

Source: International Monetary Fund. World Development Indicators. World Bank. Fitch Solutions.

Note: The figure shows decomposition of external financing needs in 2022 estimates. EMDE shows the unweighted average of EMDEs.

Figure 18. Financial linkages of developing EAP with the US are more important than those with China

Source: BIS, IMF, World Bank.

Note: Newly industrialized economies (NIEs) include Korea, Rep., Singapore, and Taiwan, China. China includes Hong Kong SAR, China.

Box 7. Estimated financial spillovers from the United States and China

The United States is at the heart of the global financial system, and its shocks have been found to have the most impactful and far-reaching macroeconomic consequences (Miranda-Agrippino and Rey 2015; Georgiadis 2016; D'ees and Galesi 2019). Recently, monetary policy and financial shocks emanating from China have also been found to influence global financial and activity variables (Miranda-Agrippino, Nenova and Rey 2020; Beirne, Renzhi and Volz 2021).

The transmission of hypothetical financial shocks and monetary policy tightening from the United States and China can be evaluated using a suite of structural vector autoregressive models in sequential order. First, sign-restricted vector autoregressive models (VARs) are used to extract historical sequences of financial and monetary shocks in China and the United States.² Second, recursively identified VARs are estimated to quantify the impact of these shocks on output growth in other East Asian economies.

Financial tightening shocks emanating from the United States are estimated to have large negative spillovers to output in the broader EAP region (figure B7.1). In all countries examined, US financial shocks have a bigger incidence on output than the corresponding shocks from China. On the balance, financial shocks result in larger output spillovers than their monetary policy counterparts. This may be due to a much larger negative impact on equity prices across the region (figure B7.1). Among EAP countries, Malaysia is estimated to experience the largest impact on output from financial shocks occurring in China and the United States, which likely reflects the greater depth of Malaysia's financial markets among other factors.

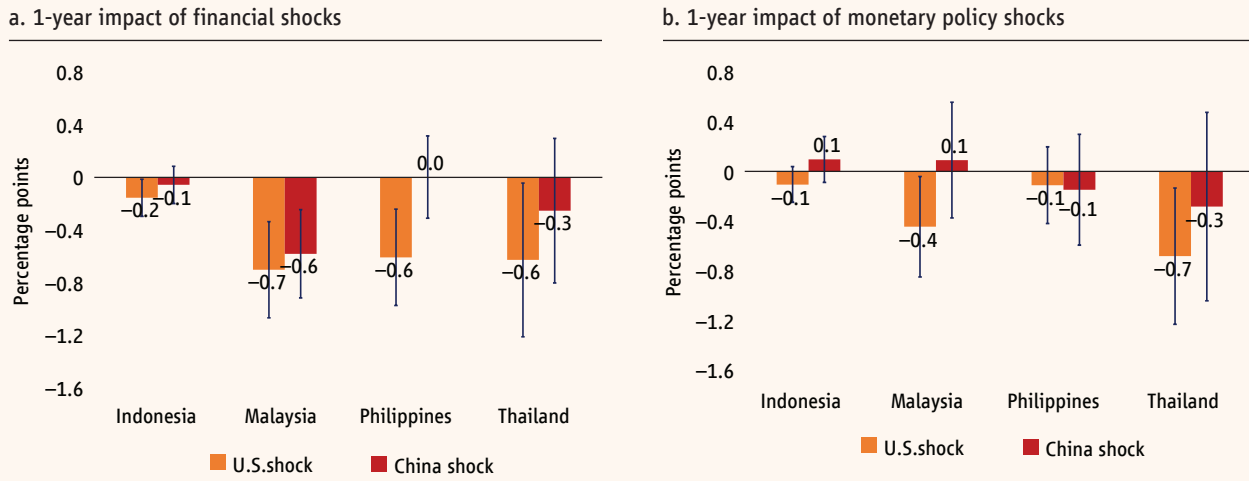
Monetary policy tightening shocks emanating from the United States tend to have a larger impact on activity in the region than their Chinese counterparts, which is broadly consistent with the empirical findings of Miranda-Agrippino, Nenova, and Rey (2020). However, there is heterogeneity in the impacts across countries, with estimates only for Malaysia and Thailand showing statistically significant output spillovers.

² This step exploits the stylized fact that both China and the United States can be considered large, closed economies

(continued)

(Box 7. continued)

Figure B7.1. Financial shocks from US and China have sizeable effect on EAP countries



Source: World Bank staff estimations.
 Note: Financial and monetary policy shocks are generated using a sign-restricted structural VAR methodology. Effects on output growth of financial and monetary policy shocks emanating from the United States and China are estimated using recursively identified structural VAR models.

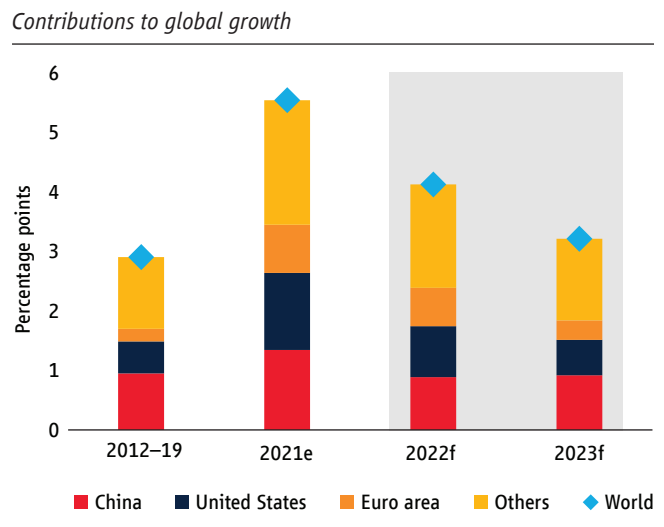
► **3.1.2. Real channels**

Growth spillovers from China and the US

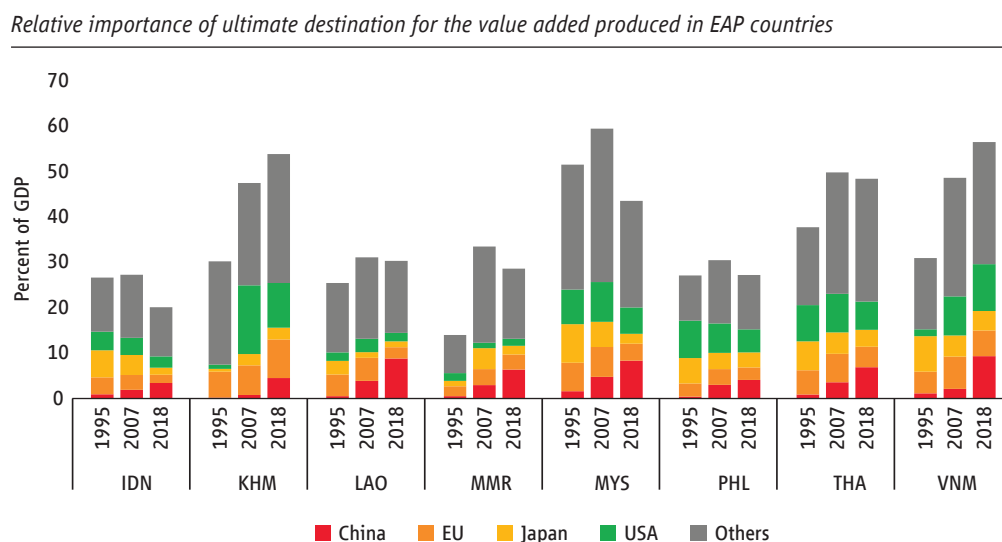
China and the US are expected to make smaller contributions to global growth in 2022 and 2023 than in 2021. Growth was exceptionally high in 2021, the year in which output rebounded from the COVID-19 contraction (figure 19). However, the absolute size of China and US' contribution to global growth will be as large as in the pre-COVID years.

China and the US are also a significant a source of final demand for the countries in the region. Direct and indirect value-added exports to reveal how much economic activity in an EAP country is exposed to shocks to domestic demand in foreign countries. This measure excludes both the value of imported inputs and gross exports to a particular country that are headed for other countries positioned downstream. China's importance as an ultimate destination has been growing and is now comparable to that of the US: about one-tenth of value added in Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam is ultimately absorbed in China (figure 20).

Figure 19. China and United States are major contributors to global growth



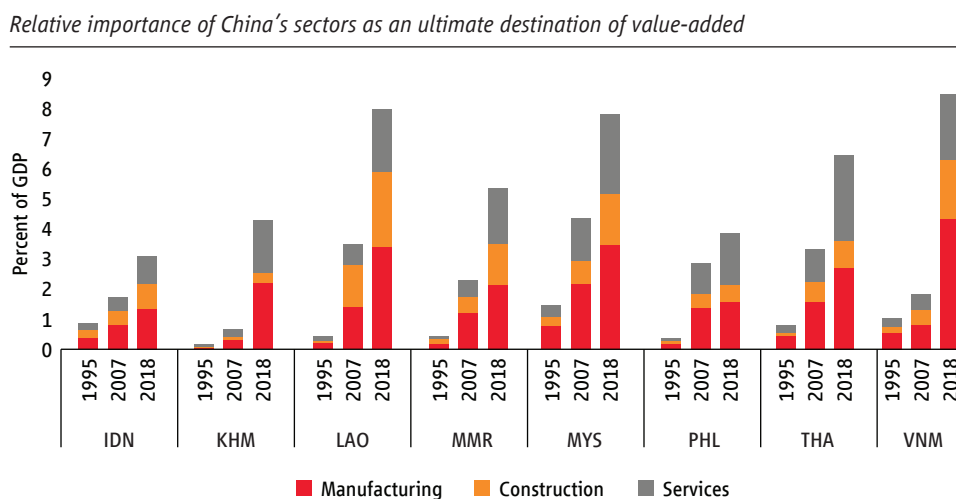
Source: Haver Analytics, World Bank.

Figure 20. China's growing importance as the ultimate destination of the EAP countries' value-added exports

Source: OECD Trade in Value Added database.

Note: The chart plots the share of EAP countries' total value added that is absorbed in major economies. The values for other countries do not include value added absorbed domestically.

Furthermore, the three sectors likely to see slowing growth in China—construction because of efforts to reduce leverage, industry because of efforts potentially to reduce emissions, and services because of efforts to control COVID-19 and monopolistic providers—are each a significant destination for EAP value added (figure 21). Shocks to real activity in China and the US can negatively affect growth in EAP countries (box 8).

Figure 21. The importance of Chinese sectors as a source of demand has grown significantly

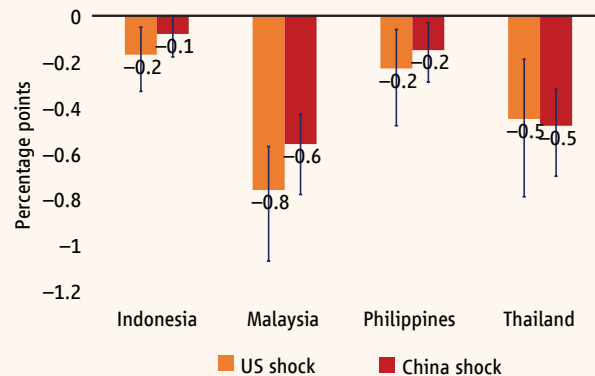
Source: OECD Trade in Value Added database.

Note: The chart plots the share of EAP countries' total value added which is absorbed in China's manufacturing, construction, and services sectors.

Box 8. Estimated growth spillovers from China and United States to developing East Asian economies

Growth shocks in China and the United States would reverberate to developing EAP countries. A growth shock originating in China or the United States would impact other EAP economies through bilateral trade, including trade in intermediate goods through global and regional supply chains, trade in services, and financial flows, including foreign direct investment (FDIs). An unexpected, one-off drop in China's GDP growth rate of 1 percentage point would lower the aggregate growth rate in the rest of developing EAP by 0.3 percentage points after one year. A similar shock to US GDP growth would lower GDP in developing EAP by 0.4 percentage points after one year. This estimate captures both the upside and downside risks associated with China's and US' economic growth. These results are consistent with previous findings (World Bank 2016a,b; World Bank 2018b). The effects of a simulated 1 percentage point slowdown in China (US) range from a decline of 0.1 (0.2) percentage point in Indonesia's growth rate to a decline of almost 0.6 (0.8) percentage points in Malaysia's (Figure B8.1).

Figure B8.1. Output growth declines in China and the United States will negatively affect growth in developing East Asia



Source: World Bank staff estimations.

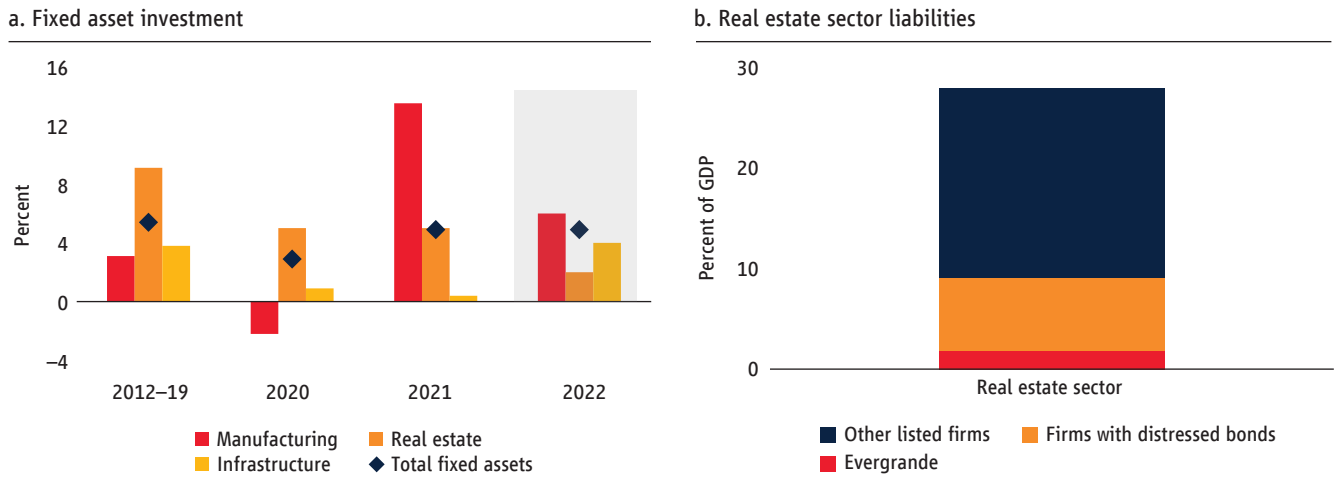
Notes: Shock refers to one percentage point decline in China and US growth, respectively. Effects estimated using a structural VAR model. Other controls include G7 countries GDP growth, VIX index, EAP country-specific commodity price growth, EAP country GDP growth, and real effective exchange rate.

The regional impact of China's property market downturn and Zero-COVID policy

Specific changes within China also have important implications for EAP countries. The projected contraction of residential investment, including a sluggish recovery over the remaining three quarters of 2022, is expected to reduce real estate investment growth (figure 22A). A downturn in the real estate sector would have significant economy-wide reverberations. Activity and investment in the real estate sector represents around 25 percent of both China's gross value added and fixed asset investment (box 9). The sector is an important revenue source for most local governments and a significant income source for a large share of households. Around 40–50 percent of total bank loans are property-related. The combined onshore and offshore liabilities in real estate sector amount to almost 30 percent of GDP (figure 22B).

China's Zero-COVID Policy is also affecting economic activity. Eliminating COVID-19 infections through a combination of testing-tracing-isolation and targeted shutdowns entailed a relatively small economic cost when the COVID-19 variants

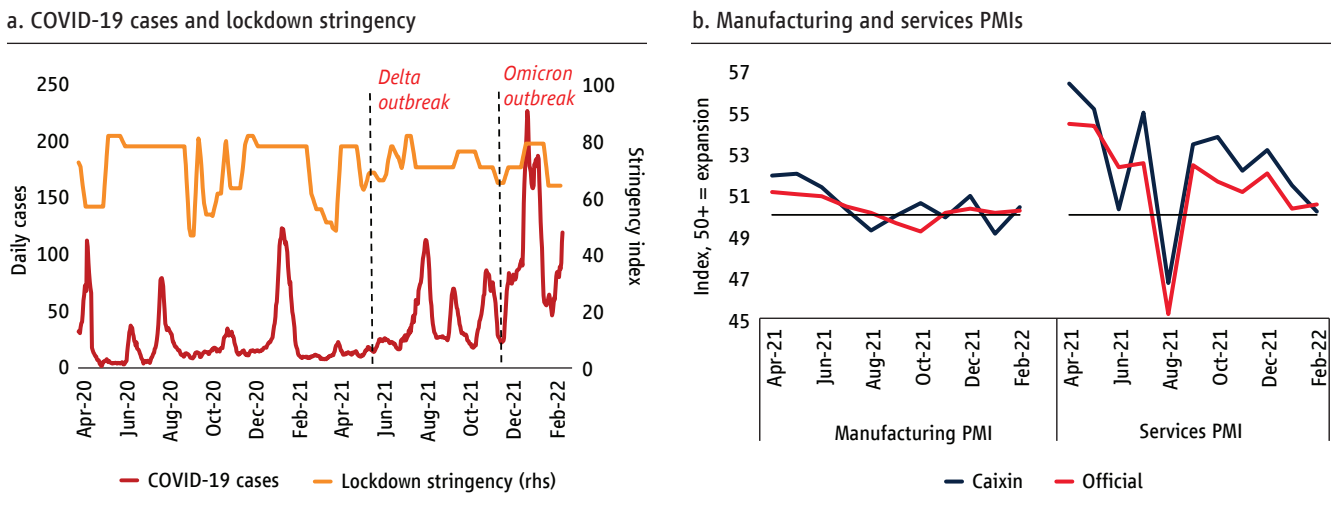
Figure 22. Declining investment in China’s real estate sector reflects high leverage



Sources: Haver Analytics; Morgan Stanley Capital International; Wind Information, Co; World Bank.
 Note: A. Nominal fixed asset investment in urban areas. B. Left bar shows liabilities of real estate firms as share of GDP. Firms with distressed bonds refer to those whose USD-denominated bond spreads exceed 20 percentage points.

were less infectious. However, the highly transmissible but seeming less potent Omicron variant has increased the economic costs and reduced the health benefits of an elimination strategy. Both services and manufacturing PMIs dropped in January reflecting COVID-19 flare-ups and strict control under Beijing’s zero COVID strategy (figure 23). Despite the changing trade-offs, China is maintaining the strict strategy, perhaps because (a) tolerating low levels of infection may not be a stable equilibrium, (b) a spike in infections could overwhelm China’s limited health capacity in rural areas, and (c) the Omicron variant may still have serious health consequences for China’s population because it has suffered fewer prior infections and been inoculated with a less effective vaccine.*

Figure 23. China Zero-COVID Policy



Sources: Oxford Economics; World Bank.

Source: Haver Analytics.

*<https://www.healthdata.org/covid/covid-19-vaccine-efficacy-summary>

Box 9. The simulated regional impact of China's property market downturn and Zero-COVID policy

Economic developments in China can have meaningful spillovers onto activity in the broader EAP region. These spillovers can be simulated using a global macroeconomic projection model.

Methodology. The scenarios are developed using the Oxford Global Economic Model (OEM). The OEM is a semi-structural projection model that balances theoretical properties, empirical fit, and forecasting performance (Oxford Economics 2019). It features over 80 explicitly modeled country blocks, many of which are available at the quarterly frequency.³

China's Property Market Downturn

Growth in China's property investment is expected to decline from a recent peak of 11.2 percent year-on-year in 2021Q1 to –8.3 percent in 2022Q1.⁴ The model quantifies the domestic, regional, and global effects of this slowdown by simulating a shock to China's residential investment of a similar magnitude and duration.

The model simulation matches the sharp decline in residential investment over the course of 2021 and projects a sluggish recovery over 2022. In this simulation, residential investment would decrease by an average of 5 percent per year in 2021 and 2022 compared to an alternative scenario without a property market downturn.⁵ The shock would have a small impact on private consumption due to its limited effect on the level of personal disposable income. As a result, the overall impact on output growth would be relatively muted, amounting to an estimated 0.6 percentage point in 2022 compared to the alternative scenario of robust growth in residential investment (figure B9.1A). But the impact on Chinese imports would be more pronounced, in part due to the property market's elevated commodity intensity. The resulting decline in global commodity demand would lower global commodity prices.

The region's economies would be affected via several channels. First, the decline in China's import demand, coupled with a deterioration in competitiveness caused by the depreciation of the Yuan, would lower trading partner exports. Second, the decline in commodity prices induced by the contraction in residential investment would further weigh on activity in the region's commodity-exporting economies. Third, the fall in China's equity prices would weigh on investor risk appetite across the region, contributing to a mild downturn in equity markets in several neighboring countries. Overall, growth in developing EAP excluding China would be reduced by 0.3 percentage points in 2022 (figure B9.1B). The heterogenous impact across EAP countries reflects differences in their exposure to developments in China.

³ The model exhibits "Keynesian" features such as sticky prices in the short run, and neoclassical properties in the long run, such that prices adjust fully and the equilibrium is determined by supply factors. Countries are assumed to be small open economies, in the sense that exports are determined by aggregate demand and a country cannot ultimately determine its terms of trade. Consequently, exports are a function of world demand and real exchange rates.

⁴ Oxford Economics estimates as of March 2022.

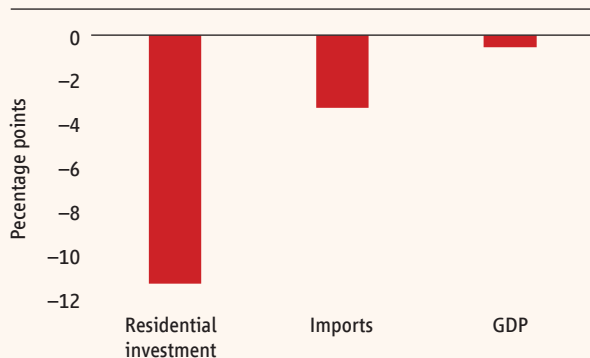
⁵ In the alternative "no property market downturn" scenario, residential investment growth in China is assumed to remain at its recent 5-year quarterly average of about 9 percent (y/y).

(continued)

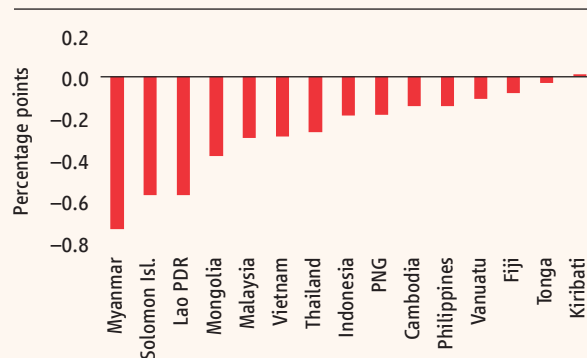
(Box 9. continued)

Figure B9.1. Simulated exogenous contraction in China's residential investment

a. Residential investment, imports and GDP growth—simulated shock



b. Growth spillovers to other EAP economies



Sources: Oxford Economics; World Bank.

China's Zero-COVID Policy

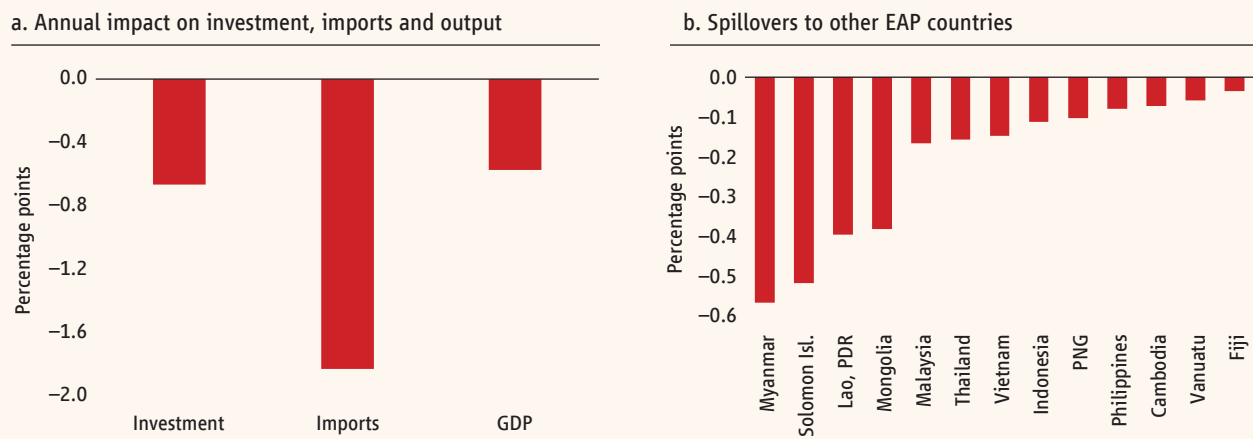
The continuation of China's zero-COVID policies in the face of the Omicron variant will hurt economic activity in China and have negative spillovers onto the rest of the region. To quantify the zero-COVID policy shock, first, private consumption shocks that hit China during the first wave (2020Q1–2020Q2) are extracted from the OEM following Guenette and Yamazaki (2021). These shocks represent exogenous disturbances to private consumption unrelated to the model's predicted evolution of macroeconomic fundamentals. By and large, they reflect the imposition and subsequent relaxation of strict pandemic control measures, including lockdowns (Guenette and Yamazaki 2021). Then, these shocks are scaled to match the relationship between epidemiological developments and economic activity. During the Delta wave in 2021Q3, the size of the exogenous shock to private consumption was approximately 20 percent of that of the first pandemic shock in 2020Q1. This 20 percent scaling is used to calibrate China's zero-COVID shock during the Omicron wave. Finally, the scaled shocks are re-introduced in the OEM as an alternative scenario.⁶ The negative shock to consumption is assumed to occur in 2022Q1 followed by an immediate rebound in 2022Q2.

In this scenario, private consumption in China is reduced by about 3 percent in 2022Q1, reducing aggregate demand. The level of investment would fall by 1.3 percent, and output would be 1.6 percent lower in 2022Q1 relative to an alternative baseline without an Omicron wave. Much of the fall in output experienced in 2022Q1 would be reversed in 2022Q2, with the level of output recovering to 0.5 percent below baseline. By 2022Q4, output would be nearly fully recovered. Overall, for 2022, the zero-COVID shock would be expected to reduce output in China by about 0.6 percent (figure 2.A).

⁶ See Guenette and Yamazaki (2021) and World Bank (2022a).

(continued)

(Box 9. continued)

Figure B9.2. China zero-COVID shock in the Oxford Economics' model

Sources: Oxford Economics; World Bank.

The spillovers to EMDEs would be modest owing to the short duration of the shock and the particularly sharp bounce back in activity in the second quarter. Still, EAP countries would be hit harder than other EMDEs. The model-based simulations point to significant heterogeneity in the impact on activity across EAP countries. Spillovers would be most acute for small commodity-exporting and tourism-focused economies such as Lao PDR, Myanmar, and the Solomon Islands. In contrast, spillovers to the larger better-diversified trading partners would be limited. Spillovers to advanced economies would be minimal, in line with those to EMDEs outside of East Asia (figure 2.D). Overall, global output could be reduced by about 0.2 percent in 2022 as a result of China's zero-COVID strategy in response to Omicron.

The regional impact of the war in Ukraine

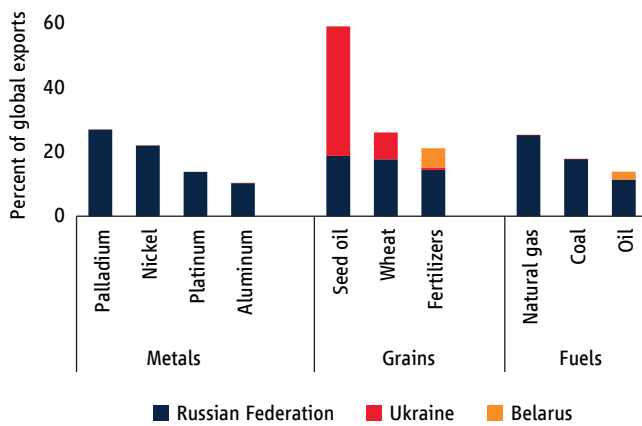
Apart from the financial spillovers, the region will also suffer from the war-driven loss of confidence and policy uncertainty. Russia's invasion of Ukraine and other countries' response could weaken confidence and generate a period of heightened policy uncertainty. The war could trigger uncertainty about a potential escalation, resulting in spillovers of economic and political stresses to other countries. High policy uncertainty is associated with weaker investment and trade as firms seek to hedge against adverse outcomes. For example, a one standard deviation increase in global policy uncertainty is associated with a 0.4 percentage points lower global industrial production (World Bank 2017).

However, the most tangible impact will be felt through disruptions in the commodity market. The region's direct dependence on Russia and Ukraine through imports and exports of goods, services, and capital, is limited. However, the war and sanctions are likely to increase international prices of food and fuel, hurting consumers and growth, because the countries involved are large suppliers (box 10 and 11).

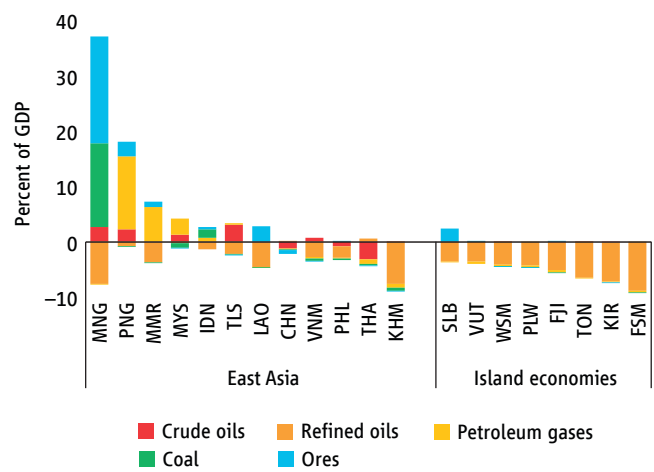
In the EAP region, Thailand among the larger countries and Fiji among the smaller countries are most dependent on fuel imports (figure 24). Cambodia, Myanmar, Thailand, and Vietnam are rice exporters, while most other countries are net grain importers. Even though most EAP countries consume more rice than wheat, they are nevertheless likely to see food price increases. First, since wheat and rice are substitutes, a negative supply shock to wheat also tends to increase rice prices as some consumers shift their demand from wheat to rice. Second, the increase in fuel prices feeds through to increased fertilizer prices and hence the price of all agricultural products.

Figure 24. EAP region is exposed to oil and food market developments

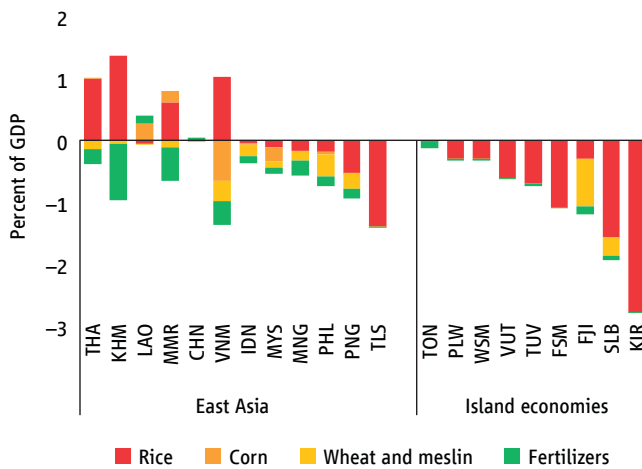
a. Belarus, Russia, and Ukraine’s commodity exports as a share of global GDP



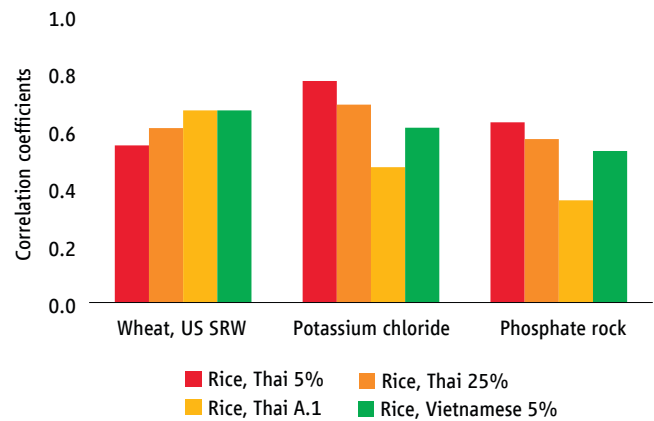
b. EAP countries’ net exports of ores and mineral fuels



c. EAP countries net exports of rice, corn, wheat, and fertilizers



d. Correlation between rice, wheat, and fertilizer prices



Sources: UN Comtrade, Consensus Economics, Haver Analytics, World Bank.

Notes: A. Share of selected countries in total global exports of each commodity, in 2020. B.C. Net export of selected commodities as a share of GDP in average 2015–19.

Box 10. Impact of the fuel and grain price increase on real incomes

The fuel price increase affects real income through both the consumption and production channels. An increase in energy prices hits consumers through higher costs of heating, cooking, electricity, and transport. The increase also adversely affects production and therefore incomes. The increase in the price of grain affects the cost of the consumption basket.

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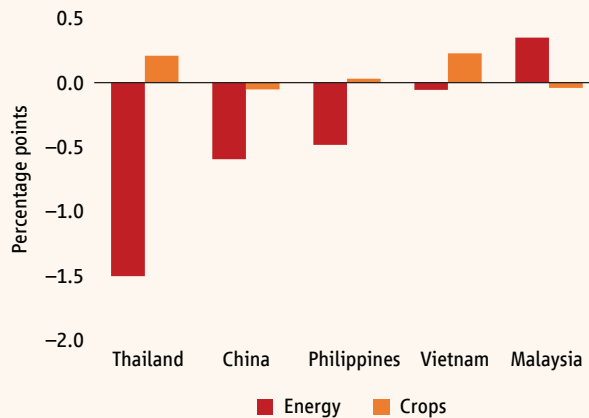
(Box 10. continued)

The impact of both price increases can be simulated using the static version of Envisage global computable general equilibrium model. While coal, oil, gas and petroleum products are represented as separate commodities in the model, wheat is not separated from a broader category of crops. Therefore, these simulations should be seen as illustrative.

We conduct the following policy simulations: a cut in fuel exports of the Eastern European and Central Asian countries which leads to an increase in the global price of oil by 11 percent; and cuts in grain exports with resulting increase in the global grain price of around 5 percent.

The impact on selected EAP countries is presented below. As we would expect, relatively import dependent Philippines, China, and Thailand (figure B10.1), see a contraction in real income—of between 0.5 and 1.5 percent—while the net exporter, Malaysia, sees an increase in real income of 0.3 percent. The grain exporters, Thailand and Vietnam (figure B10.1), benefit from the increase in the price of grains by 0.2 percent, while the grain importers, like China and Malaysia, suffer a slight decline.

Figure B10.1. Impact of fuel and grain price changes on real incomes



Source: Chepeliev et al. (2022).

Box 11. Possible effects on poverty: A simulation from the Philippines

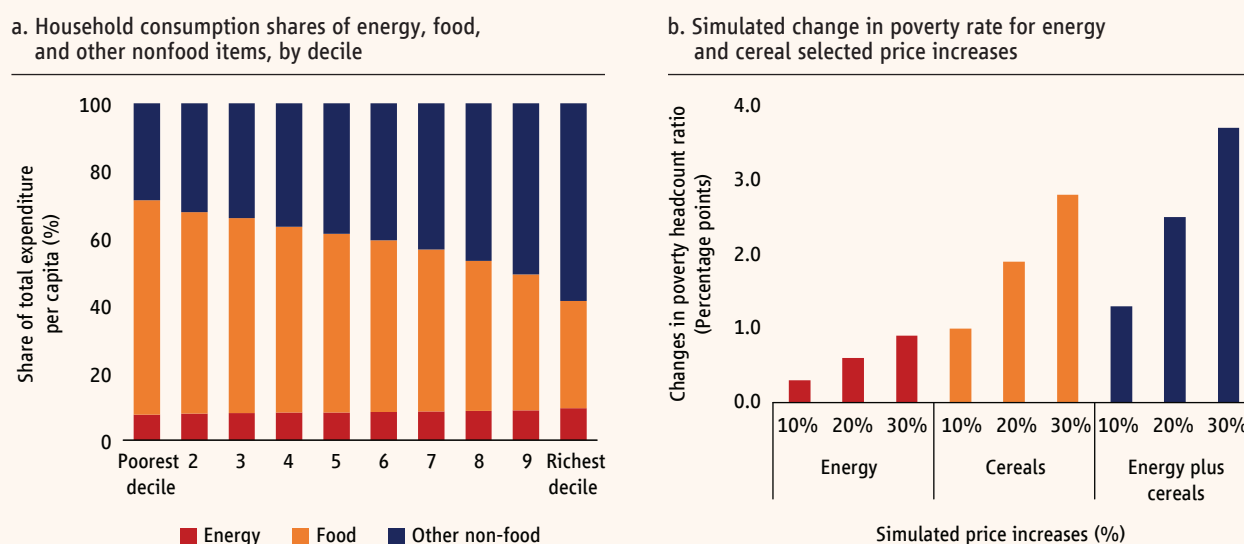
Figure B11.1 panel A shows household consumption baskets in the Philippines, by decile, using nationally representative household survey data from 2018. Energy accounts for an average of 8–9 percent of household expenditure in the Philippines, shares that are fairly constant across the welfare distribution. The food share is much larger: more than 50 percent for 60 percent of the Philippines population. Cereals (e.g., wheat, rice, corn) make up a substantial share of household food expenditure, especially among the poor: as high as 39–43 percent of all food expenditures among households in the poorest 2 deciles.

(continued)

(Box 11. continued)

The welfare effects of increases in cereal prices dominate the effects of the same percentage increase in energy prices (figure B11.1B). For example: if cereal prices rise by 10 percent in the Philippines, this would be expected to increase the poverty rate by 1 percentage point—about 1.1 million additional poor—measured using the lower-middle-class poverty line (\$3.20/day). If energy prices rise by 10 percent, the poverty rate would rise by 0.3 percentage points—about 329,000 people. Together, the effect of 10 percent increases in both energy *and* cereals prices would be expected to increase the poverty rate by 1.3 percentage points (or an additional 1.4 million poor Filipinos). Note that the energy price effects simulated here represent lower-bound estimates. While they capture the effects related to direct energy consumption, they do not include the indirect effects of rising energy prices on the costs of transportation or other non-food goods.

Figure B11.1. Potential poverty impacts of energy and cereal price increases in the Philippines



Source: World Bank staff estimates, based on FIES 2018 data.

Note: Simulations of energy price increases capture effects via direct energy consumption, but not the indirect effects associated with higher transport prices or higher goods prices that result from higher energy prices.

The Philippines does not control prices in the markets for gasoline, diesel, and rice. Rather, for the most part, the approach of policymakers has been to provide targeted social transfers to vulnerable categories affected by price increases, which has been shown to help lower poverty (see also Section 4.1). In the present crisis, anticipating the potentially significant effect of rising prices on poverty, the government has recently provided targeted cash transfers to vulnerable groups such as public transporters and farmers.

3.2. New growth opportunities: trade, digital technology and green production

› 3.2.1. Shifting Global Value Chains

A simple analytical model can help us understand how alternative shocks are likely to affect the location of production and hence the structure of global value chains. Say the cost of relocation is F , per unit cost saving in the new location c , and expected output Q . A firm will relocate if: $F < cQ$. Firms' per unit costs will depend on real wages, insurance premium, logistics costs, taxes and destination tariffs. Firm's fixed costs will depend on the costs of establishing production facilities and technological choices.

The increase in real wages in China, as well the tariffs imposed by the US on China, widen unit cost differences and increase incentives for relocation to other countries (Figure 25). But, contrary to current public discourse, a COVID-like shock that reduces the level of output *reduces* the incentive for firms to move. The reason is that for any given unit cost differences, lower output implies less profits to cover the fixed cost of establishing a new factory. A shock like the Tsunami is different because it wipes out existing factories, making firms more sensitive to cost differences since new establishment costs must be incurred in both existing and new locations.

Figure 25. Shifting GVCs: the relocation decision will depend on the shock

$F < cQ$					
Shocks		Relative unit cost savings (c)	Quantity (Q)	Relative fixed cost (F)	Relocation likelihood
Shocks that reduce level of economic activity (Great Recession and COVID shock)			↓ Lower sales		Less
Shocks that increase location-specific risk and/or destroy facilities (Tsunami, COVID)	↑	Increased local risk premium		↓ Need for new investments in current location	More
US-China trade tensions	↑	Increased destination tariffs			More
Relative wage increases in China	↑	Increased relative real wages			More
Domestic or border carbon taxes	↑ ↓	Depends on domestic and foreign action			Depends
New technologies	↓	Reduced relative costs of production		↓ Need for new investments in current location	Depends

Source: World Bank staff illustration.

In general, an increase in perceived risk could evoke a range of possible responses. These responses could be to: *reshore* (if risks are perceived to be higher in trade per se); *relocate* (if risk inclusive c outweighs F); *diversify* (if risk inclusive c outweighs nF); *increase inventories* (if lower risk premia outweighs inventory costs). It is conceivable that the COVID shock has increased the perceived riskiness of concentrating production in any one location. Today, China accounts for an exceptionally large share of inputs for most countries (figure 26). A post-COVID increase in “dependence aversion” may also encourage importers to diversify away from China.

We may therefore expect to see a reduction in direct trade, for example between the US and China. This decline could be due to (a) rising wages in China, or (b) an increase in the trade barriers imposed on China, or (c) increased risk aversion to post-COVID over-dependence on China. Some of this trade is likely to be diverted towards EAP countries (figure 27). However, as value chains have become increasingly regionalized, China has become an important source of inputs for the exports of other EAP countries. China’s value added embodied in the total exports of countries like Vietnam and Cambodia increased from a little over 6 percent in 2007 to more than 13 percent in 2018 (figure 28). Therefore, even as the US imports more from other EAP countries, these countries are likely to increase intermediates imports from China.

Figure 26. China accounts for a large share of inputs for most countries

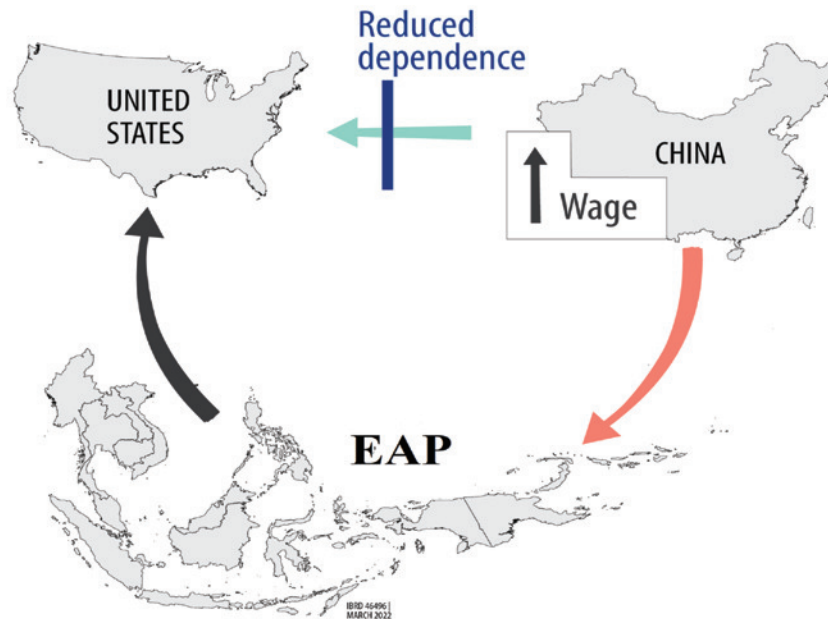
Foreign input reliance (%) in 2015

USA		4.8	2.6	1.6	0.9	0.6	0.7	8.9	1.8	1.3	0.7	11
CAN	29		2.2	1.8	1.3	0.8	0.8	9.9	1.7	1.3	0.6	18
MEX	28	2		2.7	0.7	0.9	1	19	3.3	3.3	1.1	15
DEU	3.9	0.4	0.3		2.8	4.1	3.3	6.3	1.4	0.8	0.7	35
GBR	5.6	1.2	0.2	6.3		3.5	2.2	6.7	1.2	0.8	1	25
FRA	4.9	0.6	0.3	9.1	3.2		4.1	5.7	1.1	0.6	0.7	31
ITA	3	0.4	0.3	7.7	2.2	4.9		6.5	0.8	0.9	0.9	36
CHN	3.3	0.7	0.2	1.5	0.5	0.6	0.5		2.9	3.8	0.5	21
JPN	3.6	0.6	0.2	1.1	0.6	0.5	0.4	8.9		1.7	0.4	22
KOR	6.6	0.7	0.5	3	1.3	1.1	0.9	23	6.7		1.1	35
IND	4.2	0.7	0.3	1.6	1.3	0.7	0.6	10	1.5	2		37
	USA	CAN	MEX	DEU	GBR	FRA	ITA	CHN	JPN	KOR	IND	ROW

Source: Baldwin and Freeman 2021.

Note: The numbers denote foreign input reliance (%). ROW stands for the rest of the world.

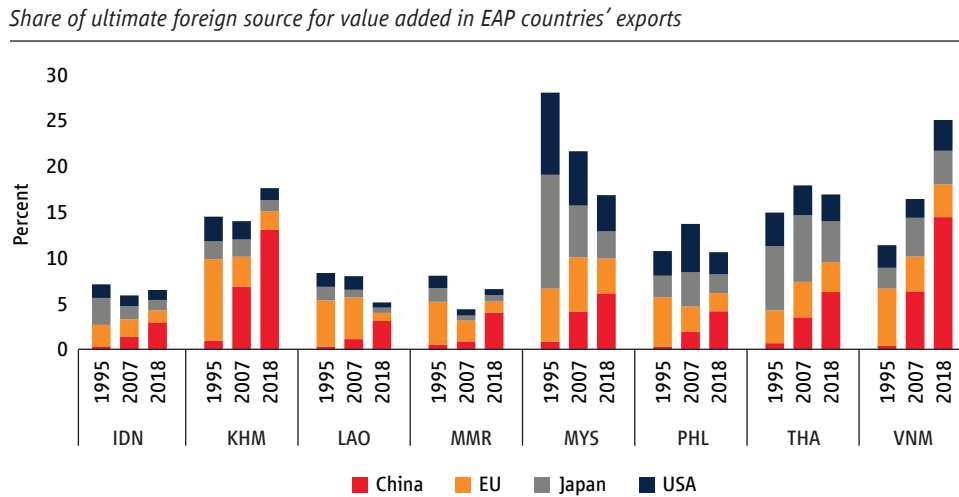
Figure 27. EAP needs to adapt to a changing trade landscape: A stylized depiction



Source: World Bank staff.

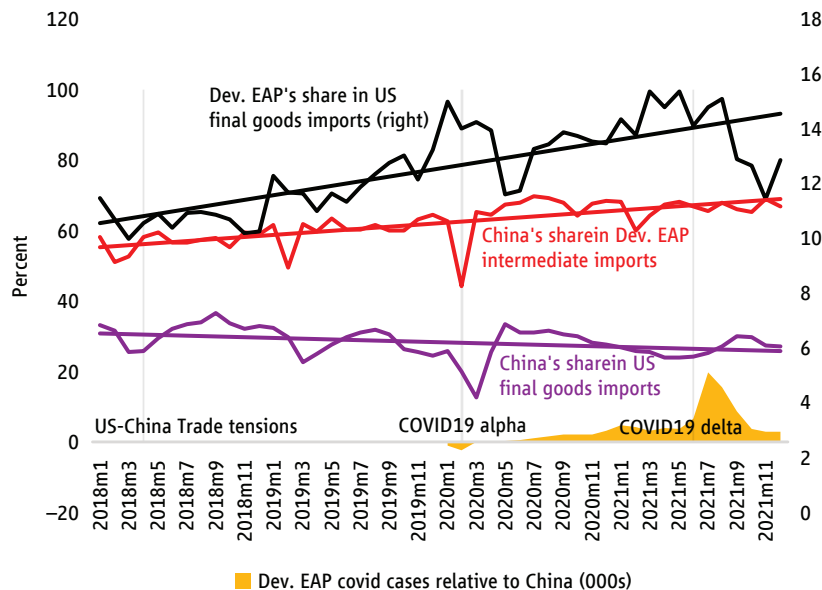
China's share in the final good imports of the US has in fact declined, while the share of EAP countries has increased (see figure 29 and figures A2–A7 for longer term trends in the EU, Japan and US). This shift along with rising EAP sourcing of intermediates from China signals shifting production towards other EAP countries. The trend was, however, disrupted when China recovered faster than the rest of the world from the first COVID Alpha variant, and again in recent months, when the EAP countries suffered bigger production disruptions from the COVID variant than China. It remains to be seen whether the longer term trend resumes once the COVID pandemic subsides.

Figure 28. China a growing source of inputs for EAP exports



Source: OECD Trade in Value Added database.
 Note: The chart plots the share of major economies value-added in EAP countries' exports—a measure of backward GVC linkage.

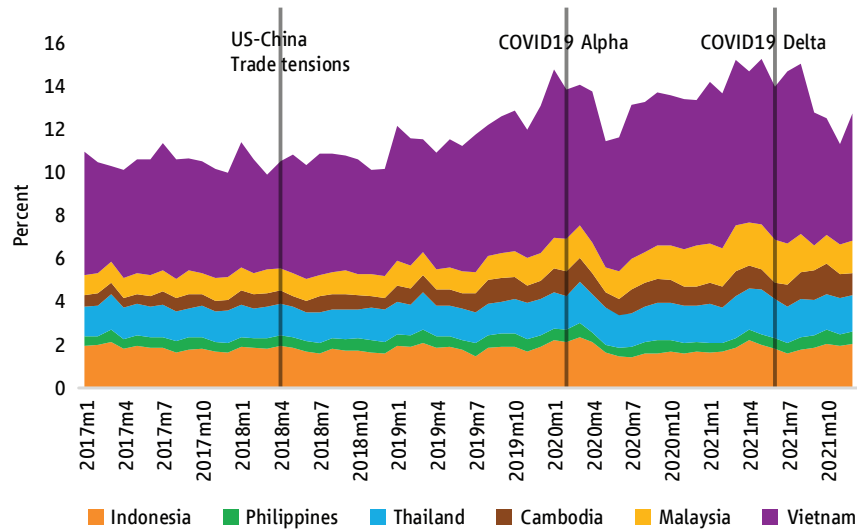
Figure 29. As China's share of US final goods imports fell, the rest of EAP's share rose



Source: China, EU, Japan and US customs trade data.

The increase in EAP (excluding China) share in US imports was not evenly spread across countries. Vietnam's share increased from an average of 5 percent to 7.5 percent of US final goods imports before the Delta wave (see figure 30, figures A2–A7 for longer term trends in EU, Japan and US, and figure A8 for examples of relocation of production from China to Vietnam). There was also a smaller increase in Cambodia and Malaysia's exports, but other EAP countries did not see comparable growth during this period.

Figure 30. Vietnam accounted for much of the increase in EAP countries’ share of US imports

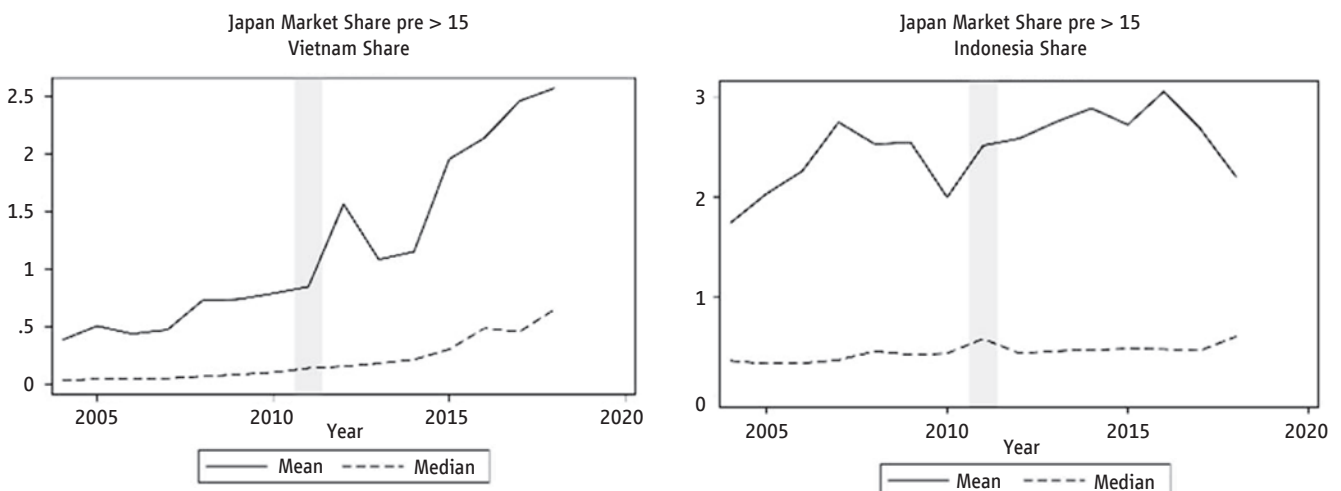


Source: China, EU, Japan and US customs trade data.
 Note: The figure shows the share in US final goods imports.

While the shifts described above arise from contemporaneous policy and exogenous shocks, the longer-term trade implications are indicated by the response to an earlier shock, the 2011 earthquake in Japan. That natural disaster had large immediate ripple effects across the world but also led to longer term relocation of production outside of Japan, presumably because of increased awareness of the risks associated with overdependence on a particular source. As expected, this relocation was driven by industries where Japan had a higher global share. At that stage too, Vietnam was a significant beneficiary of the relocation while countries like Indonesia did not benefit from changing GVC patterns (figure 31).

Figure 31. Past shocks suggest production relocation to countries with more trade friendly conditions

Relocation in products on which dependence on Japan was high after the 2011 earthquake Change in share of imports of electronic components

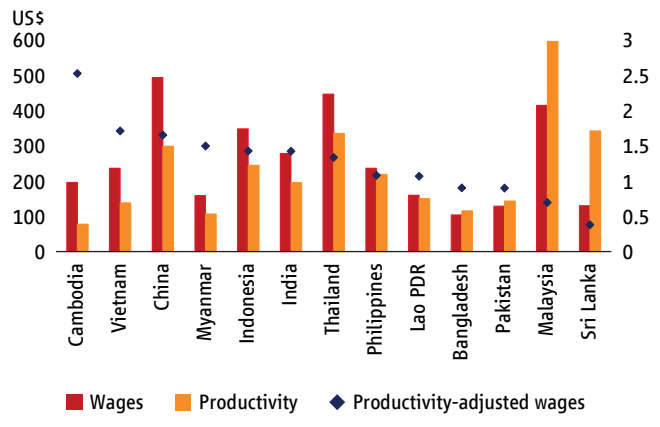


Source: Freund, Mattoo, Mulabdic, and Ruta (2020).
 Note: The figures plot each country’s mean and median market share in country-products in which Japan had an average market share greater than 15 percent (right panel “High Share”) calculated over the 2004–10 period.

What determines the attractiveness of a specific location? Labor costs are clearly an important factor as a key determinant of relative unit costs. It is, however, not just the wage level but productivity-adjusted wages that matter for the relative cost advantage. Accumulated human capital through education, availability of complementary capital, and better labor matching and management, all contribute to higher labor productivity—which can even make high absolute wage costs worthwhile, especially for the high value added production. On the face of it, we have a puzzle: Vietnam does not have an advantage over other EAP countries in terms of economy-wide productivity-adjusted wages (figure 32). The picture in exportable goods sectors may be quite different. We explore other factors that may affect the relocation choice in the policy section.

Figure 32. Low productivity tends to erode EAP countries' labor cost advantage

Average monthly salary and productivity in 2019, descending order by productivity-adjusted wages



Source: JETRO survey (2019); WDI.

Note: Countries on the horizontal axis are sorted by productivity-adjusted wages (wages/productivity), shown on the right-hand scale, in decreasing order.

3.2.2. Accelerating technology diffusion and adoption

EAP countries have large scope for broader technology diffusion: frontier firms are adopting new technologies more quickly than in the past; however, these technologies are diffusing more slowly to other firms (box 12). Technologies are used less intensively in EAP than OECD economies, as reflected by the vertical grey lines in figure 33. Importantly, this use intensity gap is widening for newer technologies, shown by the diverging fitted lines between the OECD and EAP in figure 33. For example, in 2001 the electric furnaces in EAP were used with around 50% of the intensity of the US, compared to 95% in OECD countries. In contrast, more modern oxygen furnaces (invented 43 years later) are used with only 10% of US intensity in EAP, compared to more than 90% in OECD countries. To close technology diffusion gaps between EAP and advanced economies requires diffusing modern technologies more widely, beyond the best firms.

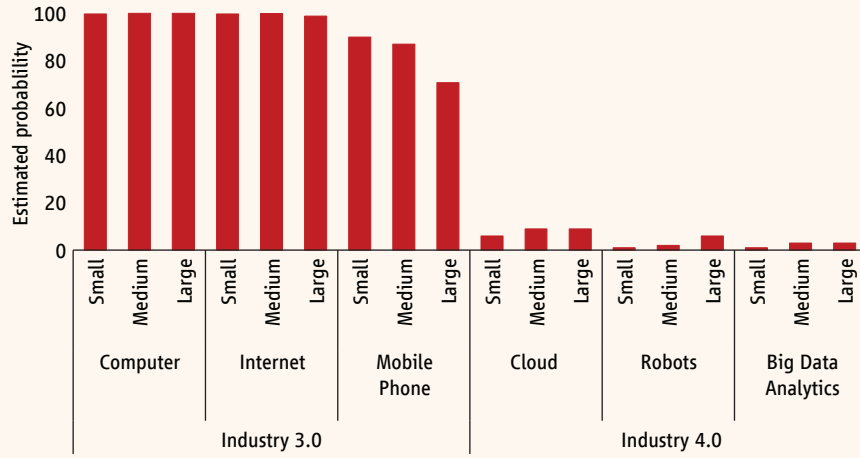
Box 12. Limited technology diffusion among East Asian firms: evidence from Vietnam

Although Vietnam has near universal diffusion of more basic technologies, use of modern so called industry 4.0 technologies is rare (figure B12.1). Almost all Vietnamese firms of all sizes use a computer and have access to the internet, and nearly 90% of firms use mobile phones. In terms of industry 4.0 technologies, fewer than 6% of firms have advanced manufacturing methods that use robots, only 7% of firms use cloud computing, and less than 2% of firms use big data or AI in their business. Even amongst large firms in Vietnam, few use these advanced technologies and adoption is even more anemic for small enterprises. In addition, there are large differences in technology use within firms. Some business functions, such as quality control, production planning, sales, and sourcing and procurement, remain reliant on basic technologies even where other parts of the firm are upgrading. Differences in factor prices, such as labor costs, between developing and advanced economies, may explain part of the limited adoption of Industry 4.0 technologies, especially automation.

(continued)

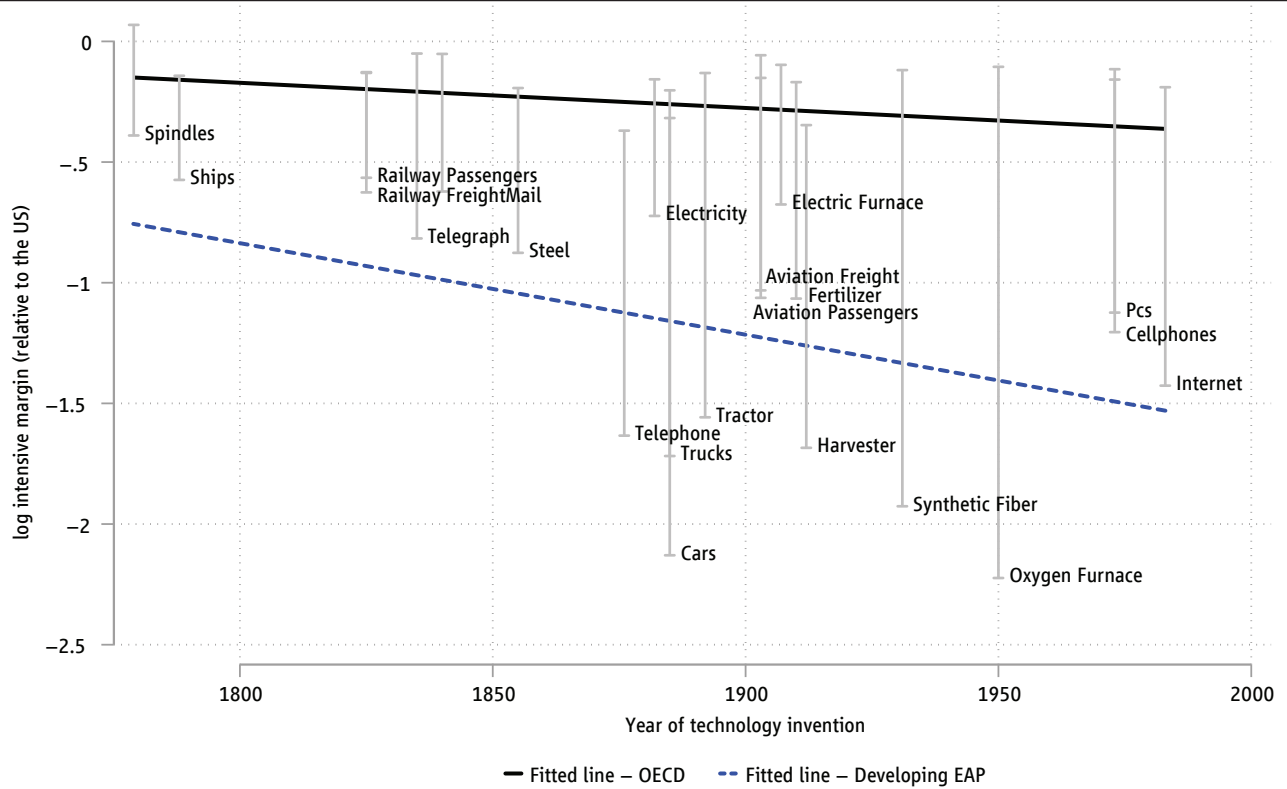
(Box 12. continued)

Figure B12.1. Despite widespread diffusion of basic technologies, advanced technology use is nascent in Vietnam

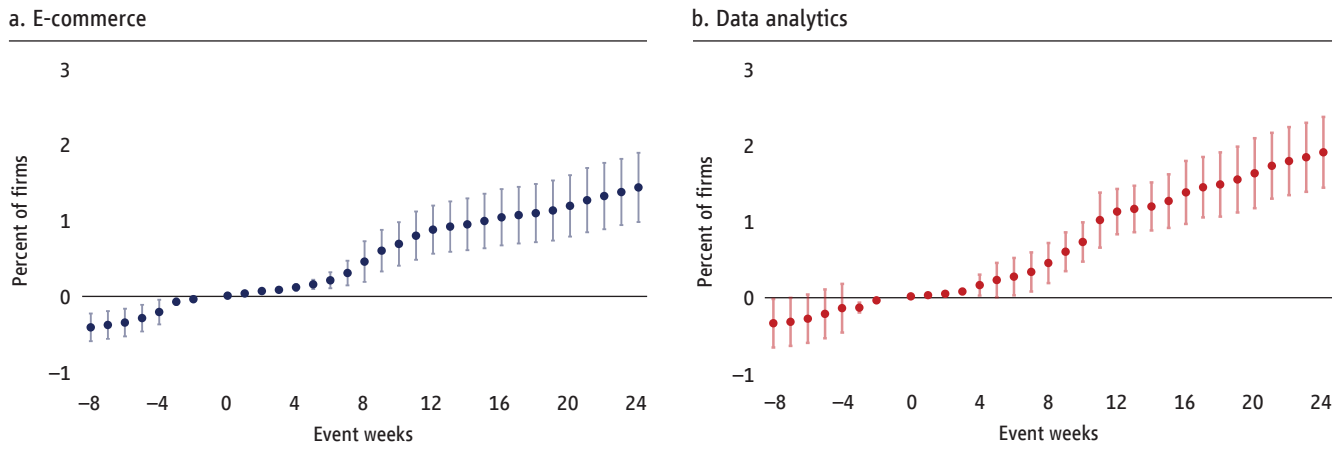


Source: Cirera et al. (2021b).

Figure 33. Large scope for faster technology diffusion in EAP



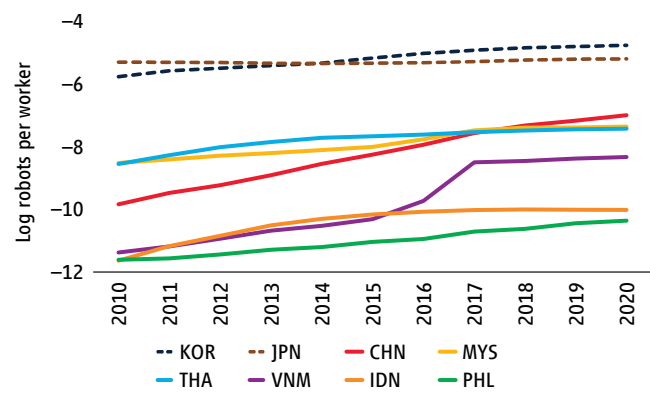
Source: Cirera et al. (2021a) using country technology-level estimates from Comin and Mestieri 2018.
 Notes: The vertical grey lines show the difference in use intensity between the OECD (at the top of the line) and developing EAP countries (at the bottom) for each technology. The fitted line for EAP (OECD) passes through the points at the top (bottom) of the grey lines. Use intensity is measured in 2003 or earlier, depending upon the technology (see Comin and Hobijn, 2009).

Figure 34. COVID has accelerated technology adoption

Source: World Bank, 2021a.

Note: Event study plot where the x-axis shows event time in weeks—relative to the first COVID-19 cases. COVID-19 cases taken from Oxford Covid-19 Government Response Tracker. Unweighted average of country-level adoption for firms in Brazil, China, the Czech Republic, Hungary, India, Mexico, Poland, the Slovak Republic, and Thailand. Includes country fixed effects, and standard errors clustered at country levels. Bars reflect 95 percent confidence intervals. Coefficients are normalized relative to the omitted category at week t-1, the week before the first COVID cases. Data analytics includes both advanced functions, such as A/B testing, and more basic functions, such as visitor count tracking, feedback forms, and error tracking.

COVID-19 accelerated technology diffusion – particularly those for reaching customers online. Weeks after the first COVID-19 cases, there was large growth in e-commerce and digital finance, as well as technologies to analyze the data generated online (figure 34). The pandemic forced companies to adjust business models due to lockdown barriers to in-person sales and customers less willing to visit stores in-person. Despite widespread anecdotal report of robots replacing locked-down workers, automation doesn't seem to have accelerated during the pandemic so far. In most EAP countries (excluding China), robot diffusion slowed in the years preceding the pandemic and similar adoption trends are observed during 2020 (figure 35). For example, automation diffused rapidly between 2010 and 2015 from 2 to 5 robots per 10,000 workers in Thailand's economy; however this only further increased to 6 robots per 10,000 workers by 2020.

Figure 35. Limited evidence that COVID accelerated automation

Source: World Bank calculations based on IFR data on industrial robots and WDI labor force data.

Notes: Robots per worker reflects the total number of industrial robots (stock net of depreciation) in the economy as a share of the total labor force.

While the COVID-19 shock led to convergence in the use of basic consumer-facing technologies such as e-commerce, it is also associated with divergence in the use of more sophisticated productivity-enhancing technologies such as advanced data analytics. Across countries, those with relatively low use of e-commerce, online payments or digital marketing pre-pandemic experienced faster growth in their uptake (Ragoussis and Timmis, forthcoming). Within EAP countries, the growth in e-commerce use appears to be faster among non-frontier firms: those that are domestically owned and, if anything, smaller. In contrast, advanced data analytics, such as A/B testing, is disproportionately concentrated in richer countries, and among the most productive and largest firms.

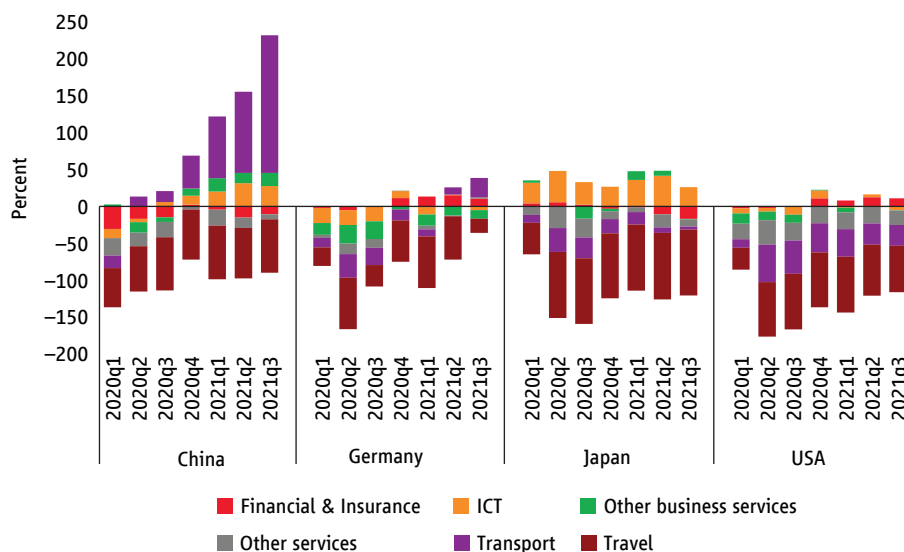
The rapid adoption of technology presents an opportunity to unlock productivity growth—particularly for advanced technologies. Use of more sophisticated technologies, such as data analytics, have previously been found to be important for data driven decision making, organizational change and productivity gains (Brynjolfsson and McElheran 2019; Koning et al., 2019). However, adoption of these advanced technologies is concentrated in the best firms and richer countries, suggesting the productivity gains may not be widespread. In addition, more productive firms are better able to reorganize their business models to take advantage of new technologies, with access to more data and complementary skills, and embed them more fully across their business (Cirera et al. 2020). So, the best firms are both more likely to adopt the technologies that matter most for productivity and better able to transform these technologies into growth.

The pandemic is changing the structure of services trade. While tourism and travel have been disrupted, trade in data-intensive services has grown (figure 36). Irreversible investments in digital delivery made by firms and consumers during the pandemic are durably reducing the costs of international trade relative to domestic transactions. The result will be increased opportunities for trade in digitized services even as tourism and travel recover more slowly.

While the pandemic affected the structure of services trade, the war in Ukraine is likely to affect the energy transition. Oil and gas prices have soared due to the supply disruption and sanctions, as countries start diversifying away from Russia, a major exporter of oil and gas. These price increases may catalyze the competitiveness of renewable energy. In the past decade, renewable power generation has become substantially cheaper, thanks to steady improvements in technologies, economies of scale, competitive supply chains, and developers’ increased experience. Producing energy from utility-scale solar photovoltaics (PV) has become 85 percent cheaper than in 2010 (figure 37). Before the war, the variable costs of energy from either solar PV or onshore wind were already below the cheapest new fossil fuel-fired project, and recent prices increase may widen this cost differential.

Figure 36. The COVID-induced digital diffusion is changing the structure of services trade

Export growth over corresponding quarter in 2019

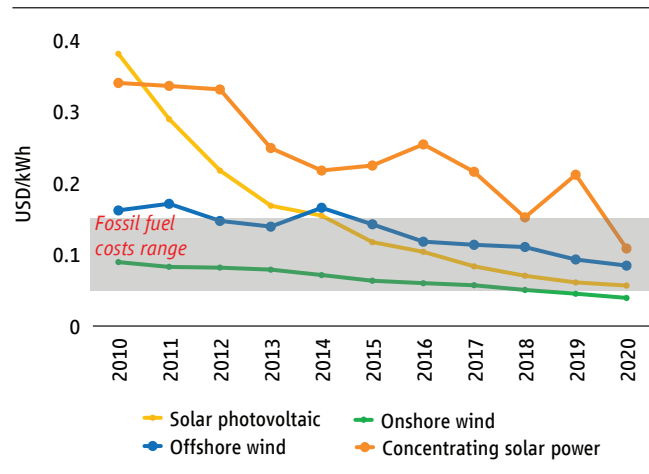


Source: International Monetary Fund.

Yet other developments in the wake of the war could inhibit the switch from fossil fuels to renewable energy in the short term. The increase in fuel prices is likely to induce further investments in fossil fuel production. The war is also disrupting availability of key metals, like palladium and nickel, used in the production of green products, such as catalytic converters and lithium-ion batteries for electric vehicles respectively.

Domestic distortions could also inhibit the transitions - despite recent net capacity changes in favor of renewable sources and ASEAN's (ambitious) commitment to derive 23 percent of its total primary energy supply from renewables by 2025, socially inefficient policies could be an impediment. For example, in Indonesia, fossil fuel subsidies and renewable energy regulations contribute to limiting the development of renewable sources with the highest potential. Corporate users are prevented from purchasing renewables other than on-site solar, thus hampering the growth of geothermal power—for which Indonesia has the worldwide highest potential. Similarly, local content requirements negatively affect the production of technologies that typically rely on foreign-made equipment.

Figure 37. Energy cost increases could make green technologies more economically viable



Source: IRENA (2021).

Note: Lines are the global weighted average levelized cost of energy (LCOE) by year. The band that crosses the entire chart represents the fossil-fuel power generation cost range.

3.3. Outlook

In the base line scenario, growth in region is projected to decelerate from 7.2 percent in 2021 to 5 percent in 2022, which is half a percentage point slower than expected in October 2021. The slowing growth will be mostly due to China, where growth will slow to 5 percent in 2022, after the 8.1 percent rebound in 2021. Even though growth in the rest of the region is projected to rebound to 4.8 percent in 2022 from 2.6 percent growth in 2021, the acceleration will be less than the 5.2 percent expected in October 2021 (table 2). The forecast assumes lingering COVID-19 related disruptions and varying degrees of supportive fiscal and monetary policy in the face of external shocks.

The baseline scenario reflects current expectations. The scenario is based on the following assumptions. Most of the Covid-19 related economic shock will be felt in the first half of 2022, followed by a bounce back in the second half of the year. The current COVID-19 outbreak, in China and elsewhere, will largely affect the demand side with a limited impact on production. Commodity prices will decline from their current highs but will remain significantly higher than before the war because of disruptions production and trade and the lingering sanctions. Global growth will be only 1 percentage point lower than previously expected, as the OECD predicts. Financial conditions will be somewhat tighter but less volatile. China, and a few other countries in region, will be able to mitigate the impact of the adverse shocks on growth to a varying extent through expansionary fiscal policy and supportive monetary policy.

Some countries in the region may be more resilient than others in the face of these shocks because of their attributes and prior prudence (table O.1). Commodity exporters, like Indonesia and Malaysia, can absorb international price increases with less difficulty than commodity importers, like Fiji and Thailand. Export dependent economies like

Table 2. GDP growth forecast

	2020	2021	April 2022		October 2021
			Baseline	Low case	Forecast for 2022
East Asia & Pacific	1.3	7.2	5.0	4.0	5.4
East Asia & Pacific (excluding China)	-3.7	2.6	4.8	4.2	5.2
ASEAN-5	-3.9	3.4	4.9	4.3	5.2
Pacific Island Countries	-9.9	-3.2	2.9		5.4
China	2.2	8.1	5.0	4.0	5.4
Indonesia	-2.1	3.7	5.1	4.6	5.2
Malaysia	-5.6	3.1	5.5	4.8	5.8
Philippines	-9.6	5.6	5.7	4.9	5.8
Thailand	-6.2	1.6	2.9	2.6	3.6
Vietnam	2.9	2.6	5.3	4.0	6.5
Cambodia	-3.1	3.0	4.5	3.8	4.5
Lao PDR	0.5	2.5	3.8	3.3	4.5
Mongolia	-4.4	1.4	2.5	0.7	5.2
Myanmar	3.2	-18.0	1.0		
Papua New Guinea	-3.5	1.0	4.0	3.0	4.0
Timor-Leste	-8.6	1.6	2.4		3.7
Palau	-9.7	-17.1	7.2		12.0
Fiji	-15.7	-4.1	6.3		7.8
Solomon Isl.	-4.3	0.1	-2.9		4.5
Tuvalu	4.4	2.5	3.5		3.5
Marshall Isl.	-2.2	-2.5	3.5		3.5
Vanuatu	-6.8	1.2	2.0		3.0
Kiribati	-0.5	1.5	1.8		2.6
Tonga	0.7	-0.8	-1.6		2.6
Samoa	-2.6	-8.1	-0.3		1.5
Micronesia	-1.8	-3.2	0.4		1.0
Nauru	1.1	1.5	0.9		0.9

Source: World Bank; World Bank staff estimates and projections.

Notes: Percent growth of GDP at market prices. Values for 2022 represent forecast. Values for 2021 for the small island economies refer to GDP growth estimates. ASEAN-5 comprises Indonesia, Thailand, the Philippines, Malaysia, and Vietnam. Values for Timor-Leste represent non-oil GDP. For the following countries, values correspond to the fiscal year: Federal States of Micronesia, Palau, and Republic of the Marshall Islands (October 1–September 30); Nauru, Samoa, and Tonga (July 1–June 30). Myanmar growth rates refer to the fiscal year from October to September. Given the lack of high-frequency data, we have not been able to produce forecasts for the low case scenario for Myanmar, Timor-Leste and the Pacific Island countries.

Cambodia, Malaysia, Vietnam are more vulnerable to contractions in global demand. Countries with large external financing needs, either in the form of short-term capital, as in Cambodia, Indonesia and Malaysia, or because of high overall debt, as in Lao PDR and Mongolia, are more susceptible to global financial turmoil. Countries that exercised fiscal and monetary policy restraint in the early phases of the pandemic have the policy space to counteract shocks. For example, China reduced its structural fiscal balance by as much 2.6 percentage points of GDP in 2021, allowing it to plan an increase of 2.8 percent in 2022 to meet its growth target (box 13). In contrast, Mongolia, with government debt equal to nearly 80 percent of GDP and annual inflation running at over 14 percent, has little room to soften the adverse impact.

Box 13. China's growth in 2022: between shocks and stimulus

This box explains China's growth projections for 2022. It presents the estimated impact of the twin shocks related to the war in Ukraine and the pandemic resurgence. It then presents the estimated impact of the government's fiscal stimulus and concludes with presenting the potential net impact of the all these factors.

The analysis rests on the following assumptions:

- **COVID-19 resurgence:** the current COVID-19 outbreak will be brought under control within two months and will largely affect the demand side with a limited impact on production.
- **Terms of trade and external demand shock:** China will experience a deterioration in its terms of trade and will face a significant slowdown in global growth which will impact economic activity from 2022Q2 onwards.

The impact of these combined shocks on economic growth is significant. Simulations suggest that these shocks could shave off around 1.6 percentage points from the earlier 5.1 percent baseline projection in 2022, unless counteracted by additional offsetting stimulus (figure B13.1A.). Estimates show that around 0.9 percentage point of this 1.6 percentage point decline is due to the terms of trade shock, 0.3 percentage point is owed to the slowdown in global growth, which is expected to weigh on manufacturing investment growth, and the remaining 0.4 percentage points are related to the negative impact of the COVID-19 resurgence and the associated mobility restrictions and impact on the demand for services.⁷

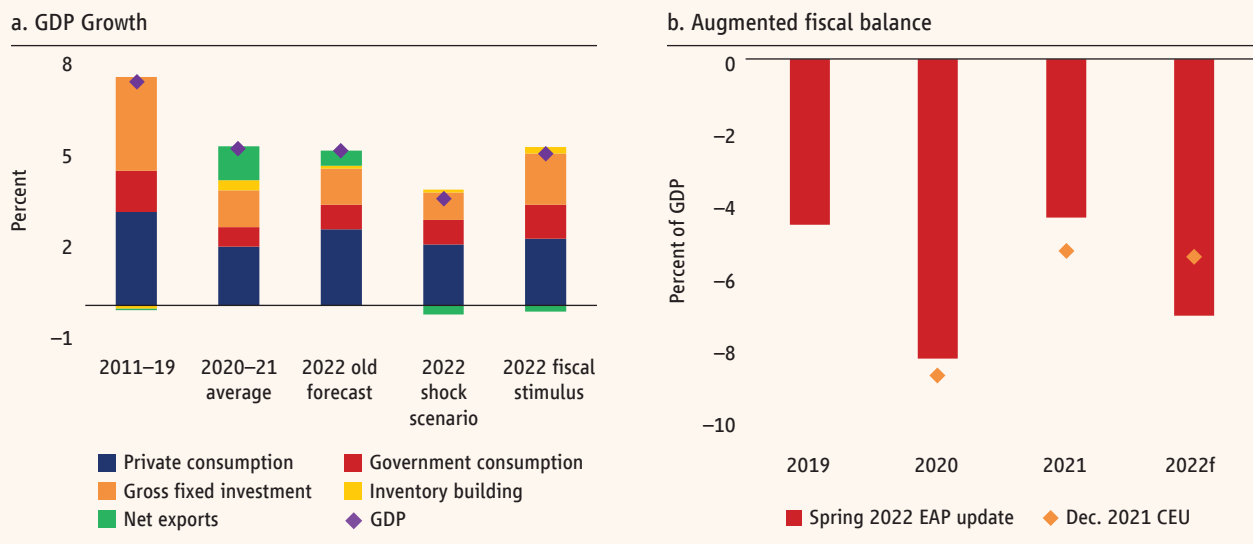
In the face of these shocks, the authorities have announced a significant loosening of policy, deploying available policy space after last year's tightening. The previous baseline growth forecast included the assumption of a moderate fiscal loosening (by around 40 bps of GDP).

The 2022 budget goes beyond this expectation and leaves room for a fiscal impulse of up to 2.7 percent of GDP (figure B13.1B) – 2.3 percent of GDP more than expected in the previous baseline. This does not mean that policymakers will necessarily fully exhaust the fiscal impulse. In previous years, there were large deviations between targets and actual outturns. For instance, fragile local government balance sheets, weak land and real estate markets, and the lack of shovel-ready projects may constrain the execution of fiscal stimulus.

⁷ We examine the effect of the different shocks on growth by applying a Structural Vector Autoregression (SVAR) model with a Cholesky decomposition. All variables are seasonally adjusted, HP filtered monthly data. On the COVID shock, we use the loss in GDP in 2020Q1 as the main reference. For the services sector, we assume that the growth impact of the current COVID outbreak on cities with medium and high-risk districts would account for about one-third to two-third of the magnitude of the GDP loss in 2020Q1. For the industry sector, we assume only cities in lockdown would be impacted by the same magnitude of growth impact.

(continued)

(Box 13. continued)

Figure B13.1. GDP growth and fiscal balance

Source: Haver Analytics; World Bank.

Note: f = forecast. World Bank staff calculations. The augmented fiscal balance (narrow definition) adds up the public finance budget, the government fund budget, the state capital management fund budget, and the social security fund budget.

The analysis explored three scenarios with different execution rates of the fiscal impulse: (i) 70% execution; (ii) 80% execution; and (iii) 90% execution. The analysis further assumes a fiscal multiplier of 0.8, in line with recent experience. The projections under the different scenarios all point to a significant policy impact that can largely offset the growth impact of the combined shocks, with growth ranging from 4.8 to 5.2 percent. The new baseline forecast of 5.0 percent growth for 2022 adopts the middle range of these scenarios. It does not account for any additional forms of policy loosening, such as measures to stimulate credit growth to the private sector.

Table B13.1. 2022 GDP growth forecast under fiscal policy scenarios (percent)

	2022
70 percent execution of fiscal impulse	4.8
80 percent execution of fiscal impulse	5.0
90 percent execution of fiscal impulse	5.2

Source: World Bank calculations.

These projections are subject to significant risks. These include uncertainties about the duration and magnitude of the war-related shock, which could lead to even higher commodity prices, weaker export demand and more volatile financial market conditions than expected in the revised baseline. Domestically, a wider and more persistent COVID-19 outbreaks could lead to more severe and broad-based economic disruption. Potential financial stress among property developers could also create negative spillovers to upstream sectors and weigh on investment, employment and consumption.

(continued)

(Box 13. continued)

There are also uncertainties about the size, composition, and effectiveness of the policy response. Boosting domestic demand through investment-led stimulus could exacerbate risks in the real estate sector and run into diminishing returns as China's stock of public infrastructure approaches its saturation point. In the face of uncertainty, government actions may fail to restore private investor confidence, lowering fiscal multipliers and dissipating the effects of the stimulus.

Finally, excessive stimulus could further delay China's difficult rebalancing towards high-quality growth. The pandemic has led to persistently lower consumption and China's return to investment-led stimulus will further increase domestic imbalances (see figure B13.1A). Moreover, the recovery up to mid-2021 was heavily industry, real estate and infrastructure based, leading to a temporary halt in the reduction in emission intensity of the economy. The reliance on already heavily leveraged SOEs to ensure economic stability may exacerbate distortions in credit allocation and hamper the shift towards productivity-based growth.

Against this background, the authorities' official target of 5.5 percent looks aggressive. Should China face further negative shocks, policy makers may want to settle for lower growth and maintain policy buffers rather than jeopardize hard-won rebalancing gains. Providing more support to households, consumption and green investment could also ease the trade-off between near term stabilization and long term rebalancing targets.

Given the large uncertainty, we also consider a low-case scenario in which regional growth in 2022 could decline to 4.0 percent. This more dismal scenario is based on the following assumptions. The COVID-19 related shock will persist and any bounce back in the latter half of 2022 will only partly offset the disruption caused by the outbreak in the first half of 2022. Moreover, the current outbreak will affect both the demand side and the production. Commodity prices will stay at their current highs because of worsening geopolitical tensions and tightening sanctions. Global growth will be more than 1 percentage point lower than previously expected. Financial conditions will be both tighter than in the baseline scenario and continue to be volatile. All the countries in region will have largely exhausted their capacity to mitigate the worsening impact of the adverse shocks on growth.

Country-specific circumstances will also weigh on growth. In Myanmar, the economy is projected to grow by a meager 1 percent in 2022, after a sharp contraction in 2021 due to the impact of the military takeover in February 2021 and the third wave of COVID-19 infection. Prolonged border closures with China, which is hurting coal exports, and import-dependence on Russia will further hurt growth prospects in Mongolia. Continued weakness in tourism and increased COVID-19 infections are likely to slow the recovery across the Pacific Island Countries. Growth in the Solomon Islands is expected to shrink by 2.5 percent in 2022, reflecting the negative impact of the recent civil unrest and widespread community transmission of the coronavirus. Investments to replace damaged productive capacity caused by the riots are unlikely to gain pace until later in the year. A volcanic eruption in early 2022 has damaged economic prospects in Tonga.

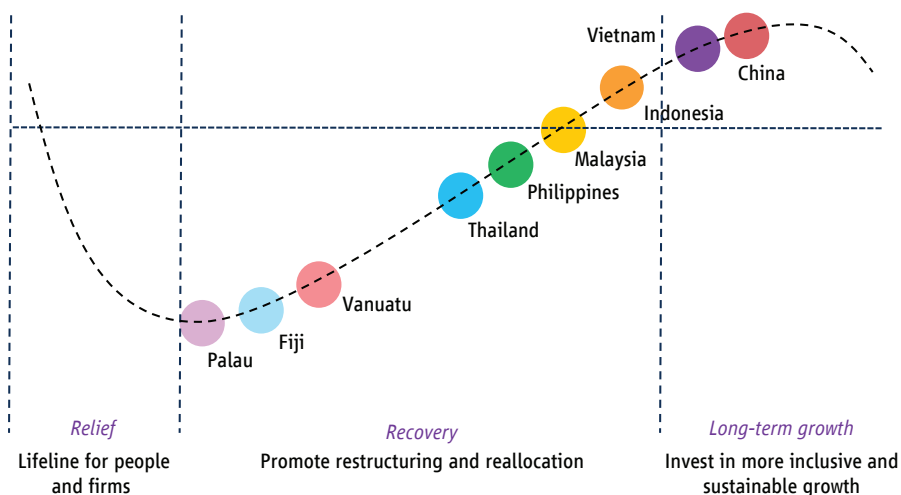
EAP annual median headline inflation is now expected to surpass 3.0 percent in 2022. This forecast is above previous expectations and implies that inflation will overshoot the upper band of the inflation target in several EAP economies. Higher food and fuel prices represent a significant risk to the upward-revised inflation outlook. In addition, capital outflows triggered by faster-than-expected monetary policy tightening in the United States could put pressure on regional currencies, and pass-through into higher inflation, especially in countries that rely on short-term capital inflows (e.g., Mongolia, Malaysia and to some extent Indonesia).

4. Policy Priorities

4.1. Enhancing efficiency of fiscal policy

Governments in the region have relied on fiscal, monetary, and financial sector policies to support their economies in response to shocks. These policies are expected to play a demanding triple role of supporting relief, recovery, and growth (figure 38). While economies are in deep recession, households and firms need relief, liquidity, and access to credit. During the recovery phase, further policy support could help avoid an underemployment equilibrium trap. Once recovery sets in, macroeconomic policies could help facilitate a transition to more sustainable and inclusive growth.

Figure 38. Macroeconomic policy is expected to play a demanding triple role



Source: Authors' illustration.

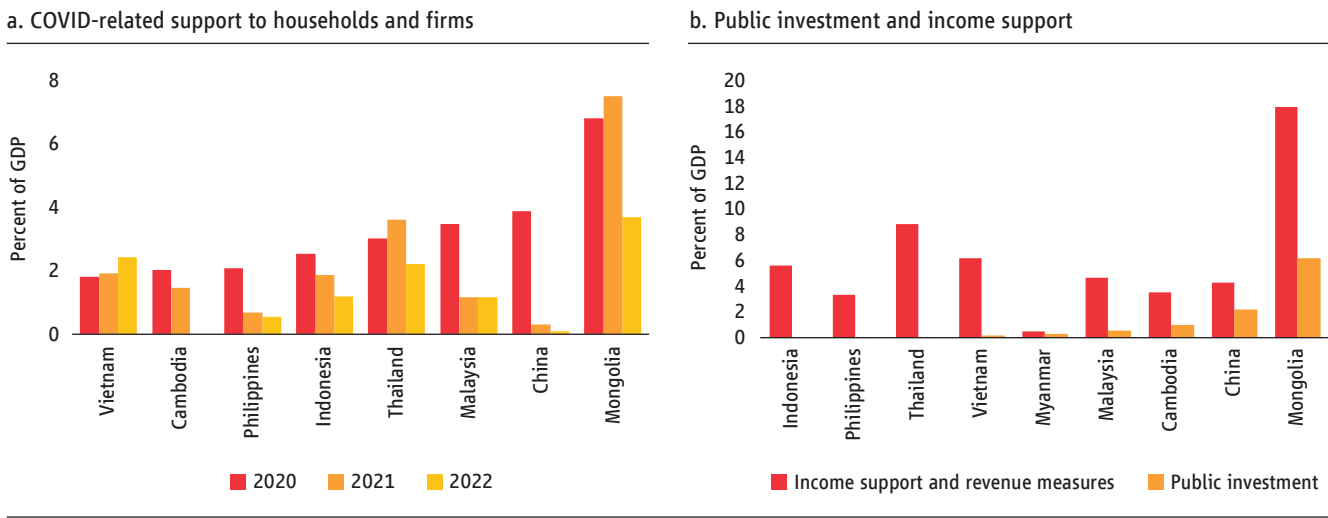
Note: The horizontal line indicates the level of GDP in December 2019.

Until recently, government spending in most countries has been oriented towards relief in response to the COVID-19 shock rather than investment. Most countries focused their support on providing income support to households and firms (figure 39). Relatively few countries, including China, Mongolia, and Thailand increased public investment through public works and the acceleration of already approved public investment projects. Other countries, like Vietnam, accelerated already planned public investment spending to help the economy during the shock.

Box 14. COVID-19–related policy issues examined in recent economic updates

Previous updates have focused on a number of other policy issues, including: (1) vaccination to contain COVID-19; (2) fiscal policy for relief, recovery, and growth; (3) climate policy to build back better; (4) smart containment of COVID-19, especially through non-pharmaceutical interventions like testing-tracing-isolation; (5) smart schooling to prevent long-term losses of human capital, especially for the poor; (6) social protection to help households smooth consumption and workers reintegrate as countries recover; (7) support for firms to prevent bankruptcies and unemployment, without unduly inhibiting the efficient reallocation of workers and resources; (8) financial sector policies to support relief and recovery without undermining financial stability; (9) trade reform, especially of still-protected services sectors—finance, transport, communications—to enhance firm productivity, avert pressures to protect other sectors, and equip people to take advantage of the digital opportunities whose emergence the pandemic is accelerating; and (10) creating opportunities for firms and ensuring inclusion to promote equitable growth.

Figure 39. COVID-19 related spending focused more on relief than on growth

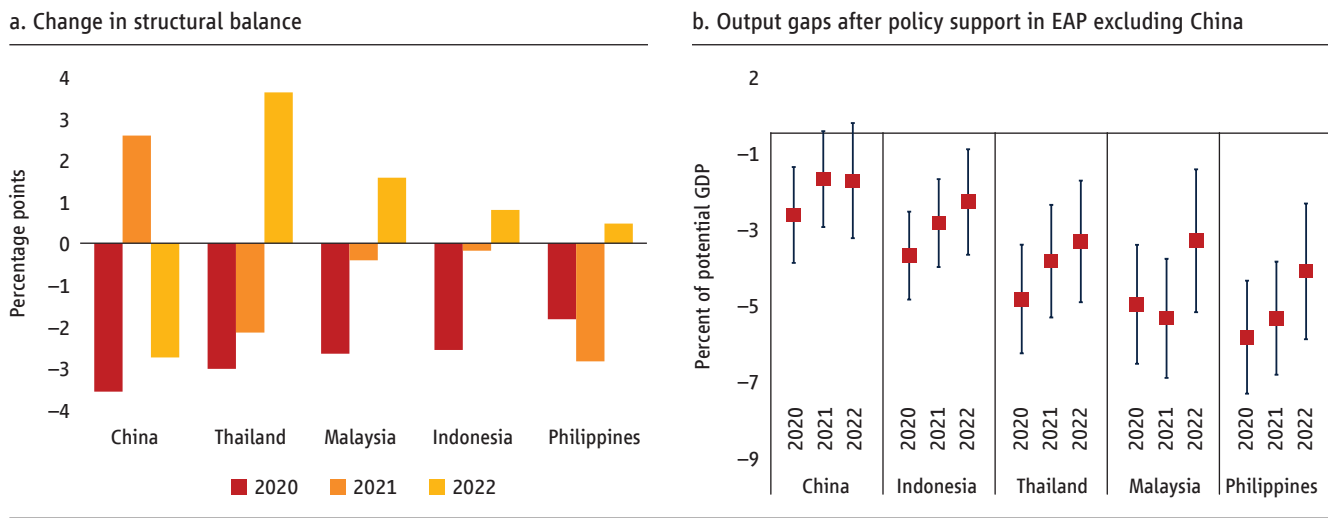


Source: World Bank staff estimates.
 Notes: B. Income support and revenue measures include direct transfers and revenue measures, such as tax exemptions, benefitting both households and firms. Public investment does not include the expansion of credit to public SOEs for investment, which is likely to be significant in a country like China. Data show sum of 2020–2022.

Before the war in Ukraine, governments were beginning to cut expenditure even though output remained below potential (figure 40). Support to individuals and firms was waning. The focus was shifting from emphasizing relief (cash handouts to households in the informal and agricultural sectors) to measures that supported the economy, ranging from cashback for spending on goods and services and subsidy programs for domestic travel (Thailand) to improving connectivity infrastructure (China, Indonesia). This consolidation was happening even though output still remained below potential. Economic slack is mostly concentrated in sectors such as transportation and accommodation and catering. Other sectors, like information and communication technology, finance and agriculture are close to their productive capacity.

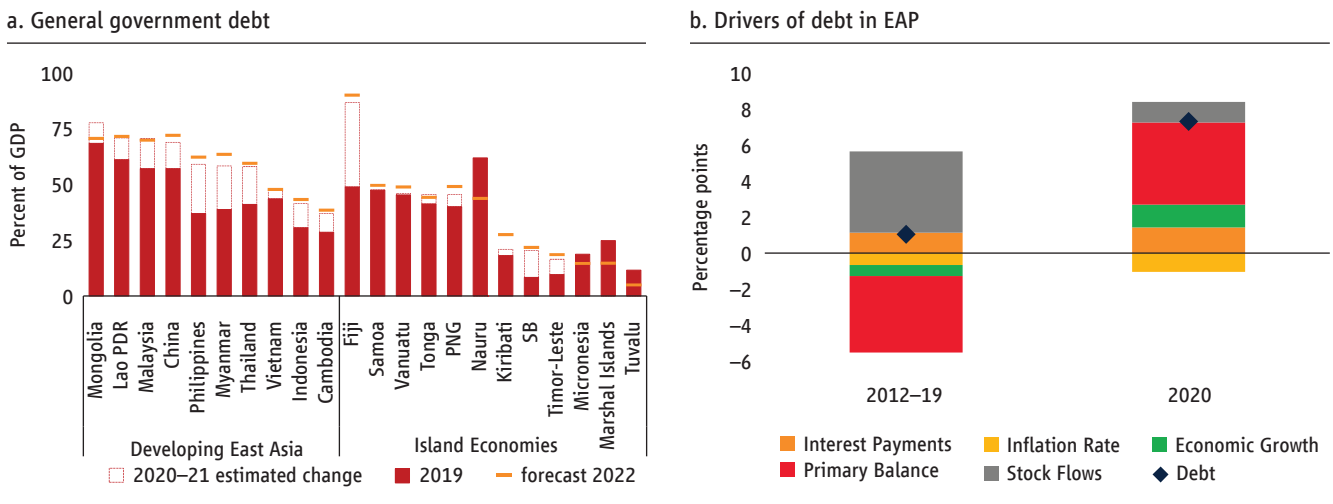
Fiscal consolidation was being induced by a tightening intertemporal budget constraint. By 2021, public debt had increased by more than 10 percent of GDP in most developing EAP countries compared to pre-pandemic levels, and

Figure 40. Most governments are beginning fiscal consolidation even though output remains below potential



Source: IMF; World Bank Staff estimates.
 Notes: A. The figure shows the structural balance estimates as a share of potential GDP relative to 2019 level. B. Output gap based on estimates from a modified multivariate filter model of World Bank (2018c). Error bands reflect 90 percent confidence intervals.

Figure 41. Government debt has grown significantly because of large primary deficits

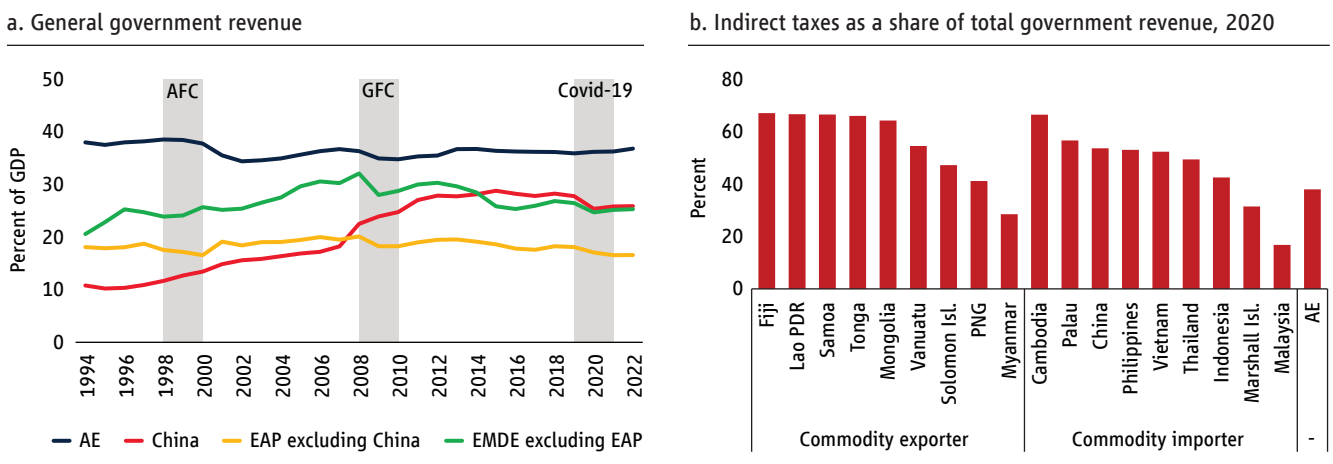


Source: IMF, World Bank.
 Note: A Figure shows gross general government debt as a share of GDP.

by more than 20 and 30 percent in the Philippines and Fiji, respectively (figure 41). The increase in debt was mainly driven by primary deficits and lower economic growth due to the COVID-19 shock.

Fiscal difficulties are also due to traditionally low revenue mobilization. EAP countries raise relatively limited revenue—on average less than 20 percent, compared to close to 25 percent for other EMDEs. Among the largest economies general government revenue is lowest in Indonesia, Malaysia, and the Philippines. Among the smaller economies revenue generating capacity is weak in Lao PDR and Papua New Guinea. EAP countries also remain heavily dependent on indirect taxes, which have declined with COVID-19 cuts in consumption (figure 42). To increase revenues, governments can enact fiscal reforms, as Indonesia is doing (box 15). Fiscal deficits are sizable in all major economies and exceptionally large in Fiji, Palau, and Timor-Leste. Interest payment burden is very significant in Indonesia, Lao PDR, Papua New Guinea, and Mongolia (table 3). General government gross debt is significant in Mongolia and Fiji, while short term debt to GDP ratio is high in Malaysia, Thailand, and the Philippines.

Figure 42. . . . and relatively low revenue mobilization



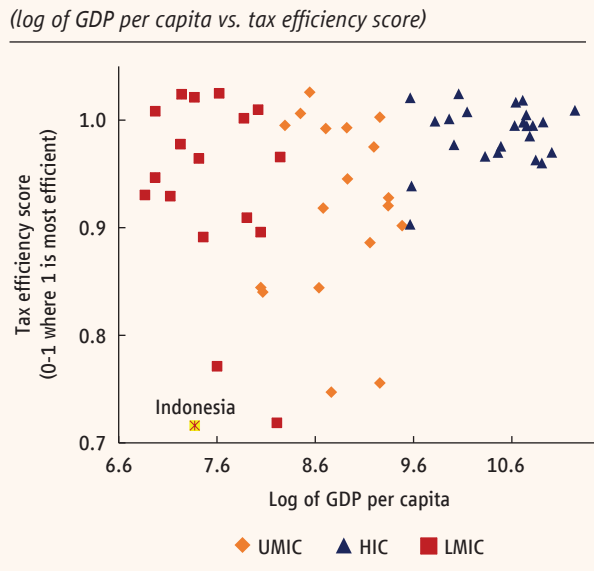
Source: IMF; International Center for Tax and Development and United Nations University World Institute for Development Economics Research (ICTD/UNU-WIDER) Government Revenue Dataset; World Bank staff calculations.
 Note: A. Averages are computed with current U.S. dollar GDP weight. B. Total revenue excludes social contributions and grants revenue. 2020 or latest available year. Commodity exporter denotes countries of which more than 60 per cent of its total merchandise exports are composed of commodities (UNCTAD).

Box 15. Indonesia’s tax reforms to create fiscal space

Indonesia’s low and volatile public revenues constrain the overall resource envelope and fiscal space available for development priorities. Tax revenue was 9.2 percent of GDP in 2021, which is well below its estimated tax potential and about half the average of similar emerging markets. The tax system is characterized by high tax-free thresholds, wasteful exemptions, uneven treatment across sectors, and unduly low health, wealth and environmental taxes. Altogether, these result in a narrow tax base from which government must fund most of its activities.

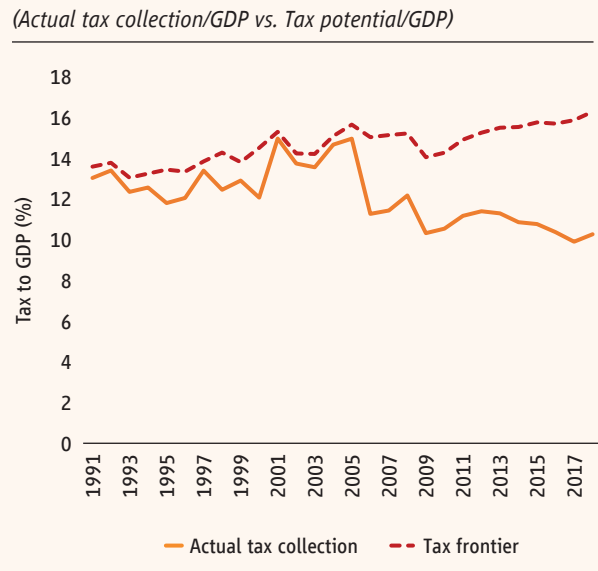
Indonesia has opportunities to increase tax revenue, as its tax gap, the difference between what is collected and what could be collected given economic and other conditions, was about 6 percent of GDP in 2018. A stochastic frontier analysis (SFA)⁸ shows that Indonesia’s tax efficiency⁹ is below that of peers and the tax gap is rising. High Income Countries in general tend to be clustered closer to the efficiency frontier (figure B15.1). Middle Income Countries are more dispersed. Indonesia’s efficiency score (averaged since 2015) is among the lowest in the sample of countries and therefore furthest from the efficiency frontier. Tax efficiency has also declined over time. Indonesia’s tax potential is estimated at 16.3 percent of GDP in 2018 with a growing tax gap estimated at around 6 percentage of GDP for 2018 (figure B15.2).

Figure B15.1. Indonesia has a low tax efficiency score



Sources: ICTD, WDI, ILO, WB Staff estimates.

Figure B15.2. Indonesia has experienced a widening tax gap since 2005



Sources: ICTD, WDI, ILO, WB Staff estimates.

8 The team applied a stochastic frontier analysis (SFA) to provide a first approximation of Indonesia’s tax gap using a cross country approach, linking a set of inputs (country characteristics) to a specific output (tax to GDP). The analysis uses a sample of countries, covering high and middle-income countries, with a population of at least 20 million (with exception of a few HICs for which population may be lower), and natural resource rents below 20 percent of GDP.
 9 This is the ratio of actual taxes over tax potential as a measure of the efficiency of tax collection.

(continued)

(Box 15. continued)

The recently approved Tax Harmonization Law is expected to increase tax revenue in the near term and to structurally increase fiscal space for pro-growth and pro-poor spending. The Law, approved in late 2021 and to be implemented in steps between 2022 and 2025, expands the tax base and increases tax rates. It expands the tax base through the introduction of a carbon tax, removal of VAT exemptions, VAT collection on domestic e-commerce platforms, simplification of the approval process for excises reforms, and an asset declaration program ('tax amnesty'). It increases tax rates in 3 different areas: The VAT rate is set to be increased from 10 to 11 percent in April 2022 and to 12 percent in 2025. A top income tax bracket of 35 percent has been added for high income earners. A previously legislated corporate income tax rate cut from 22 to 20 percent in 2022 has been abandoned.

The reforms also make the tax system fairer through several measures, including notably: (i) rationalizing VAT exemptions improves the horizontal equity of the VAT (i.e., fewer distortions with fewer exemptions resulting in more equal treatment of different business sectors); (ii) shifting the personal income tax burden towards high-net-worth individuals; (iii) effective taxation of the digital economy levels the playing field between digital and non-digital businesses; (iv) the introduction of a new tax-free threshold for the income of small firms; and (v) stricter fringe benefits rules.

The Tax Harmonization Law is expected to reduce the tax gap. Preliminary estimates suggest that the Tax Harmonization Law could raise revenues by 0.7 percent–1.2 percent of GDP in the medium-term, all other things constant. This would bridge the tax gap by 12 percent–20 percent approximately. This is quite significant, although there will still be a significant tax gap of around 5 percent of GDP, which will require additional tax reforms.

Such tax reforms should be complemented by improvements in the competitiveness of the business environment. Lack of competitiveness raises the costs of doing business and induces informality and thereby tax leakage. For example, access to finance is a dimension of competitiveness that has an important impact on tax declarations. Several studies have illustrated the link between financial sector depth and tax collections. This includes firm level evidence showing that financially constrained firms tend to engage more in tax evasion and avoidance.¹⁰ Recent investment liberalization reforms and upcoming financial sector reforms could have multiplicative effects on tax collections when complemented with tax reforms

¹⁰ See for example: Alm, Liu, and Zhang (2018).

The new shocks will sharpen the fiscal policy trade-offs. EAP countries were already struggling to reconcile fiscal support, for relief, recovery, and growth, with shrinking fiscal space. The new shocks will create more needs for support and a further contraction in revenues. One risk is that fiscal support implemented by entities like local governments and state-owned enterprises could undermine their financial viability. Another risk is lower investment in the infrastructure of trade, energy, and technology diffusion—which are needed to harness the new growth opportunities by enhancing domestic capacity and international connectivity.

Three measures can help. First, *more efficient social protection* would protect the vulnerable and free fiscal space for other ends. EAP countries have shielded households from recent COVID-related income shocks through a broad-based increase in social protection and from price shocks through a combination of price controls and subsidies (or tax cuts). Both types of measures may be the only form of assistance that is feasible in the short term, but neither is efficient or fiscally sustainable (Section on social protection below and Box 5 on price controls). Direct transfers to poor households and firms, once the

Table 3. Government finances have worsened in most EAP countries

	General government revenue (% of GDP)		Fiscal balance (% of GDP)		Interest payment (% of revenue)		General government gross debt (% of GDP)		Sovereign debt average maturity (years)		Short-term debt (% of GDP)	
	avg. 2019-21	change	2021	change	2021	change	2021	change	2020	change	2020	change
China	36	7	-4.4	0	2	0	45	-5	7.9	0	5	0
Malaysia	16	-5	-6.4	-4	7	-3	64	8	11.1	3	8	1
Indonesia	12	-3	-4.6	-2	12	1	41	12	13.3	0	3	0
Philippines	16	-3	-8.6	-8	14	8	55	17	7.6	-5	5	1
Vietnam	19	0	-3.8	-1	5	0	45	0	4.4	-1	3	0
Thailand	21	-1	-7.8	-8	3	0	58	16			23	3
Lao PDR	14	-3	-1.4	4	15	4	78	21			2	1
Mongolia	30	2	-3.1	1	7	-15	80	4	2.9	-1		
Cambodia	23	1	-5.7	-6	4	1	35	5				
Myanmar	16	-3	-8.8	-5	5	0	57	19				
Timor-Leste	46	-10	-44.2	-9			25	19				
Fiji	23	-3	-12.8	-9	8	4	86	41				
Solomon Islands	31	-8	-5.4	-4	1	0	21	12				
Papua New Guinea	15	-2	-7.6	-4	16	-2	52	18				
Samoa	37	6	1.9	3	2	0	50	-2				
Vanuatu	41	3	-6.0	-6	1	0	28	-16				
Tonga	43	3	-0.4	-2	2	0	46	0			0	0
Palau	45	3	-24.0	-28								

Source: International Monetary Fund, World Bank, Fitch Solutions.

Note: Color scale represents country quintiles relative to the group of emerging markets and developing economies, with red denoting the worst exposure and green the least. Change denotes percentage change compared to 2015–2019 average.

relevant digital infrastructure is in place, would alleviate the pain from the cumulative shocks without distorting price signals or subsidizing the wealthy. Second, the growth benefits of public spending could be magnified if it were combined with *investment policy reform* to encourage greater private investment in the creation of public infrastructure. Such reforms are being undertaken in Indonesia and the Philippines (see Box IIB3 in the October 2021 EAP Economic Update). Third, governments should reconcile spending needs with tightening budget constraints, by committing (a) to restoring fiscal discipline through the (re)introduction of *fiscal rules* (see below); and (b) to *fiscal reform* through enactment of legislation to be implemented conditional on objective measures of recovery. For example, new tax reform legislation in Indonesia is expected to raise revenue by 1.2 percent of GDP in the medium term (Box 15).

Governments should commit to restoring fiscal discipline through the reintroduction of fiscal rules. During the COVID-19 pandemic, fiscal rules and fiscal councils were tested. The widespread use of escape clauses, temporary suspension of fiscal rules, and modification of fiscal rule limits were among the novelties in this crisis. For instance, among developing EAP countries, Indonesia, Malaysia, Mongolia, Thailand, and Vietnam either suspended or revised their fiscal rules (table 4). Even before COVID-19 spending, fiscal rules had not prevented a large buildup of debt. Several countries plan to revise the framework as part of the transition to reinstate the fiscal rules. The policy challenge is for countries to reinstate improved fiscal rules. Countries with a good track record regarding fiscal rules are able to respond more aggressively during crises (Davoodi et al., 2022).

Table 4. Many EAP countries adopt fiscal rules to ensure fiscal discipline

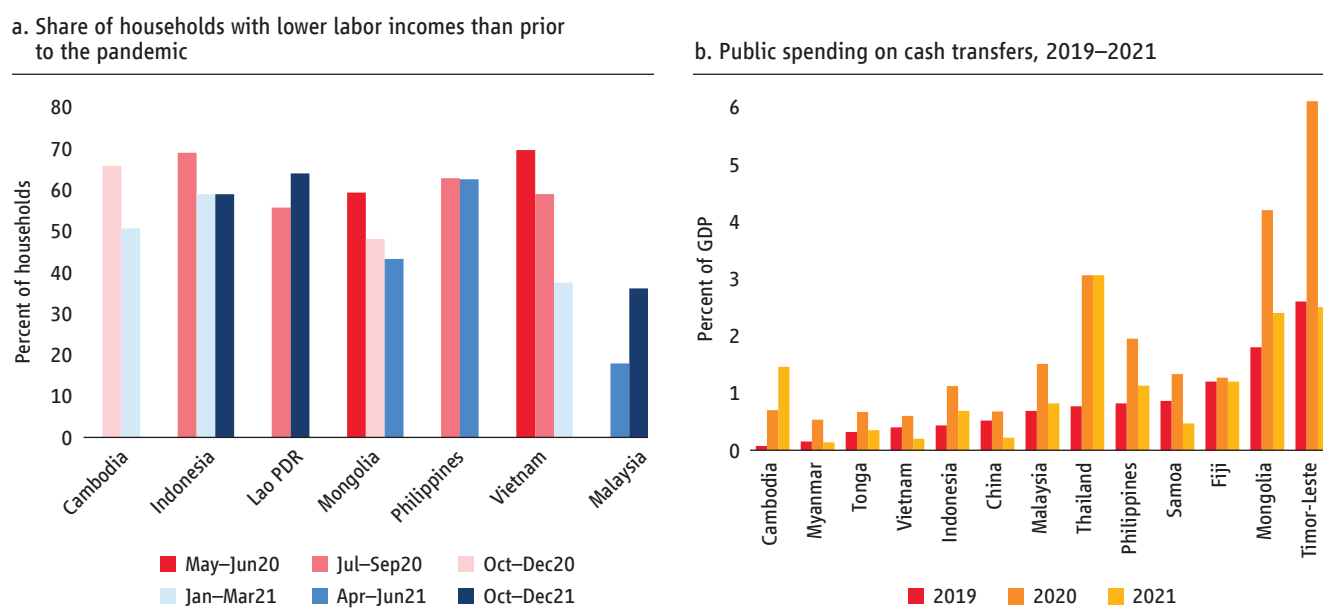
	<i>Budget Rule</i>	<i>Status</i>	<i>Actual</i>	<i>Debt Rule</i>	<i>Status</i>	<i>Actual</i>
Cambodia	no			55		38
Indonesia	-3.0	suspended	-4.8	60	suspended	43
Malaysia	-3.5	revised	-4.1	65	revised	70
Mongolia	-5.1	revised	-5.6	70	revised	71
Thailand	no			70	revised	60
Vietnam	-3.7	revised	-4.7	65		48

Source: IMF Fiscal Rules Database 1985–2021.

› Efficient social protection

Many households' incomes remain below pre-pandemic levels, creating a risk of rising poverty if government assistance programs are unwound too quickly. Recent high-frequency survey data collected by the World Bank indicate that more than one-third of Malaysian households and more than half of Indonesian and Laotian households reported having lower incomes in the final quarter of 2021 than prior to the pandemic (figure 43A). At the same time, most countries in the region began scaling back household support in 2021 (figure 43B). However, unwinding household income support too quickly raises a risk that countries' efforts to reduce poverty could remain stalled—or that poverty could increase. This can be seen in Indonesia where data show that in 2021 real earnings remained below their 2019 levels (figure 44A). While Indonesia's social assistance response was instrumental in limiting the rise in poverty in the first year of the pandemic, simulation analysis indicates that reductions in social assistance budgets in 2021 may have resulted in further increases in poverty (figure 44B).

Figure 43. Although household incomes have not completely recovered, most countries have already begun to reduce support to households



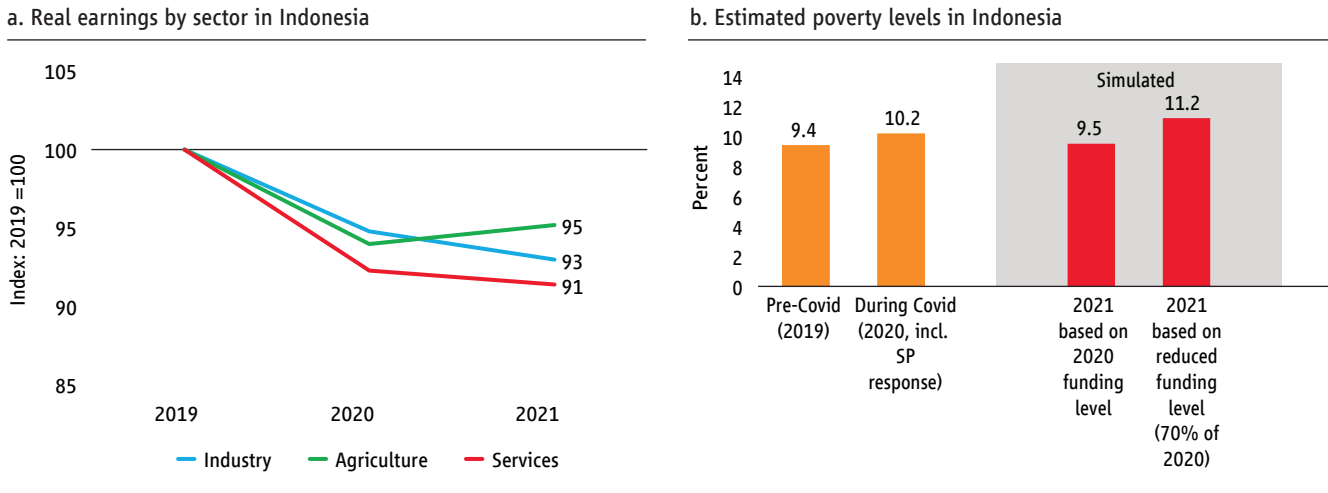
Source: World Bank staff estimates, using HFPS data.

Note: Losses of labor income defined as having experienced a decline in wage, agriculture, or non-farm business income relative to the pre-pandemic period. For countries where labor income is not reported separately (Lao PDR Round 4, Malaysia Round 2, Vietnam) total household income is reported. For country-periods with more than one round, the average is taken across rounds.

Source: World Bank staff estimates, using HFPS data.

Improved targeting of government assistance could ensure continued protection of those who need it most while conserving scarce government resources. To date, social assistance programs have not been targeted strictly to those who experienced pandemic-related income shocks (figure 45A). Governments were prepared to make support broadly available to ensure that assistance got into the hands of those who needed it on a timely basis. Growing pressures for fiscal consolidation have raised the need to spend scarce government resource more efficiently, however. Several countries have already indicated that they will reduce assistance budget in 2022 raising the need for better targeting of scarce public resources. Analysis makes clear that countries in the region can still protect those most in need by improving the targeting of government support programs (figure 45B), focusing on poor households and those that directly experienced income shocks.

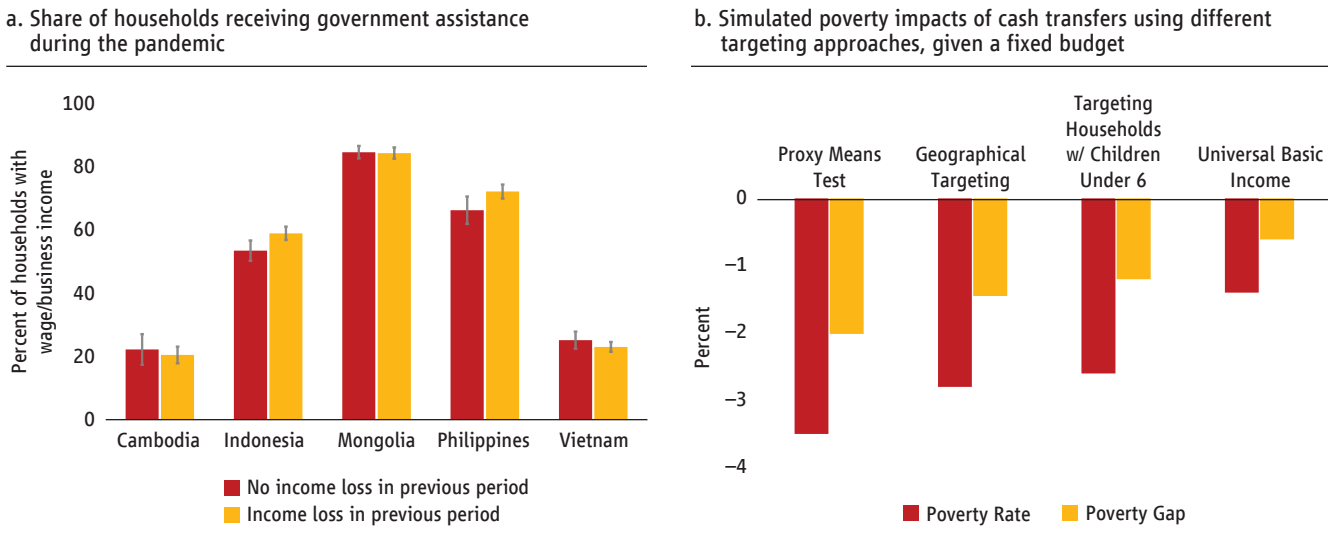
Figure 44. With a persistent slump in earnings, withdrawing support too rapidly could increase poverty: Example from Indonesia



Source: World Bank staff estimates.

Source: 2019 and 2020 figures, based on SUSENAS survey estimate; 2021 estimates simulated, based on different SP funding levels.

Figure 45. Government assistance has been poorly targeted; better targeting could provide more “bang for buck” in terms of poverty reduction



Source: World Bank staff estimates using HFPS data.

Source: Adapted from Grosh et al. (2022).
 Note: Simulations illustrate the poverty impacts of better targeting social assistance resources in a large middle-income country.

4.2. Addressing macrofinancial vulnerabilities

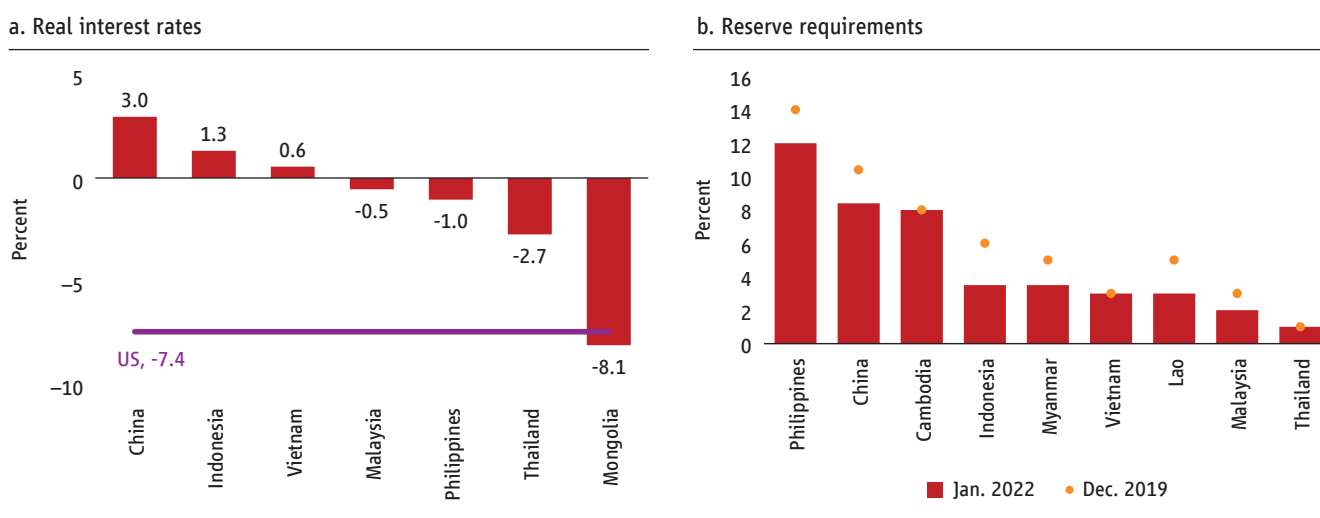
EAP countries must deal with monetary tightening abroad, inflationary risks at home, and a deteriorating global financial environment. Their response will need to include: a monetary policy stance that provides economic support without compromising financial stability; and robust efforts to address the financial vulnerabilities of banks and firms.

› Monetary policy in anticipation of financial tightening

Central banks across the region have so far managed to maintain an accommodative monetary stance, as inflation remained within target ranges and the region enjoyed robust capital inflows. In late 2021, major economies signaled a tightening in their policy stance as it became evident that price increases were accelerating and persisting. Now the war in Eastern Europe threatens to push up commodity prices further and to roil financial markets. These new shocks will require central banks in advanced countries to strike a balance between the need to contain inflation and prevent an economic slowdown.

Monetary policy must remain alert to new inflationary pressures in most EAP countries but at present can continue to support recovery, because real interest rates are relatively high and core inflation relatively low. Policy makers in the region face a trade-off between supporting economic activity and warding off price pressures to prevent the de-anchoring of inflation expectations. For many EAP countries, positive nominal rates and low inflation have translated into positive real policy rate differentials with the US (figure 46). These differentials combined with ample external buffers provide some cushion against capital outflow pressures. Until and where inflation expectations remain well-anchored and import cost pressures contained, central banks can maintain a supportive stance with low interest rates and, in the case of some countries, lower reserve requirements. However, in countries like Mongolia where inflation is persistently running above the target, policy tightening may be needed to prevent de-anchoring of inflation expectations.

Figure 46. Most EAP countries have higher real interest rates than the US and some have scope for cutting reserve requirements



Source: Haver Analytics.

Note: A. The real interest rate denotes nominal policy rate minus CPI inflation at the end of January 2022. B. The figure shows domestic currency reserve requirement at the end of January 2022 and December 2019.

› Identifying and addressing financial sector vulnerabilities

The banking sector in the region's economies is reportedly in sound financial condition. Banks in most EAP countries are well-capitalized and reported levels of non-performing loans are low (table 5). But many countries relaxed the rules defining an NPL during the crisis, and the available data may not reflect the true extent of exposure to bad loans. The eventual reversal of forbearance measures will reveal the full extent of weakness in the financial sector. At the same time, profitability has been declining risks remains to liquidity and solvency of banks. High leverage, combined with stress in the corporate sector is an additional source of risk.

Table 5. Financial sector is well-capitalized, but risks remain to solvency, liquidity and corporate health

	Capital Adequacy		Asset Quality		Profitability		Solvency		Liquidity		Credit Expansion		Arrears
	Regulatory Capital to Risk-Weighted Assets (%)	NPLs to Total Gross Loans (%)	Return on asset (%)	Deposit to loan ratio (%)	Liquid asset (% short-term liability)	Domestic credit to private sector (% of GDP)	Firms in arrears or expect to fall in 6 months (%)						
	2021	change	2021	change	2021	change	2021	change	2021	change	2021	change	2021
Indonesia	24	3	3	.2	1.8	-.5	111	10	28	4	39	1	31
Cambodia	22	1	2	-.1	2.0	-.1	86	-8	25	0	143	52	29
Thailand	20	2	3	.3	1.0	-.4	91	1	34	2	135	13	
Malaysia	18	1	2	.0	1.2	-.2	117	3	154	15	145	14	57
Lao PDR	17	2	2	-.9	0.6	-.3			31	2	46	5	
Philippines	17	2	4	2.6	1.5	.1	132	7	50	-3	52	2	79
China	15	1	2	.0	0.6	-.3	113	-12	59	7	205	17	
Vietnam	11	-1	2	-.5	1.6	.7	112	-8	32	-1	117	-9	48
Myanmar	11	-2	4	.9	0.7	-.3	188	30	15	-27	27	2	
Mongolia			8	.5	-0.2	-.5	119	27	64	18	46	-7	93

Source: IMF, Fitch Solutions, World Bank, national sources.

Note: Color scale represents country quintiles relative to the group of emerging markets and developing economies, with red denoting the worst exposure and green the least. For capital adequacy, the relative ranking is adjusted following Basel III requirements. Change denotes percentage change compared to 2015–2019 average.

Some forward-looking indicators, such as loans at risk, restructured loans, and special mention loans, have all deteriorated during the crisis. For example, in Indonesia, loans at risk have more than doubled and reached 22.7 percent in September 2021. In the Philippines, restructured loans increased three-fold from 0.4 percent in January 2020 to 3.1 percent of the total loan portfolio in December 2021 (table 6). Profitability of banking sectors has declined in all EAP countries, with Cambodia, Indonesia, the Philippines, and Thailand seeing the most significant drops.

Non-financial corporate sector sustainability risks appear to be high across the region, reflecting a sharp increase in debt level compared to pre-pandemic levels. Share of firms facing solvency risks is relatively high in Indonesia, Thailand, and Vietnam. The share of firms facing liquidity risks is high and many firms across the region, especially those with high leverage, signal persistent liquidity constraints. The ratio of firms exhibiting liquidity risks ranges between one-third in China and Malaysia and one-half in Indonesia, Thailand, and Vietnam. In Malaysia firms reported, on average, less than five months of cashflow available as of February 2021. In the Philippines, as many as 63 percent of firms surveyed reported having less than one month of cash available as of May 2021.

Large share of firms in Mongolia, Philippines and Malaysia reported payment arrears in 2021Q1. In Indonesia, as of March 2021, a large share of firms was reporting difficulty in paying rents and utilities and large share of micro firms were reporting difficulty in paying wages. In Indonesia, as of March 2021, a large share of firms was reporting difficulty in paying rents and utilities and large share of micro firms were reporting difficulty in paying wages.

EAP countries must guard against the risk of financial instability, as extended period of forbearance may have worsened the quality of loans. Stress-testing diagnostics can help identify vulnerabilities that might fester behind the veil of regulatory forbearance. Then, depending on circumstances, countries must ensure adequate capitalization of banks with large loans at risk; hedge and extend the maturity of debt to address currency mismatches and rollover risk; enhance liquidity buffers and secure lines of credit to anticipate potential increases in external financing needs.

Countries across the region should strengthen their insolvency frameworks to facilitate firm debt resolution, restructuring and exit. Many countries, including China and the Philippines, have recently introduced policies to improve their insolvency processes. But more needs to be done to facilitate low-cost restructuring and liquidation, especially of micro, small, and medium enterprises. Countries with high levels of external debt, like Lao PDR and some of the Pacific Island Countries, would benefit from the development of a more effective international debt resolution framework.

Table 6. Forward-looking measures of asset quality

Country	Metric	Evolution and Period	Source
China	Debt at risk for listed firms	Significant increase during the early part of the pandemic, declined considerably in recent quarters: 5.62 percent (Q4 2019); 22.54 percent (Q1 2020); 20.62 percent (Q2 2020); 8.33 percent (Q3 2020); 10.4 percent (Q4 2020); 9.8 percent (Q1 2021); 11.9 percent (Q2 2021); 11.7 percent (Q3 2021)	WB staff calculations based on WIND database.
Indonesia	Loans at risk (LAR) ratio	Increased significantly since the start of the pandemic: 9.93 percent (Dec 2019); 11.59 percent (Mar 2020); 20.65 percent (Jun 2020); 23.53 percent (Sep 2020); 23.38 percent (Dec 2020); 23.3 (Mar 2021) ; 22.7 percent (June and Sep 2021)	Kajian Stabilitas Keuangan–Bank Indonesia, OJK Updates (latest available Sep 2021)
	Restructured loans as a share of total loans	Increased from 13 percent (Jun 2020) to 18.8 percent (Dec 2020), then declined to 18.5 percent (Jan 2021) and 14.2 percent (May 2021)	OJK data, Bank Indonesia, banks' financial statements, media.
Malaysia	Rescheduled & restructured loans (R&R)	From April to June 2020, the number of applications from business to reschedule and restructure their loans increased 6.3 times	BNM (https://www.bnm.gov.my/documents/20124/1395181/ch1_2_credit.pdf)
	Gross impaired loans	1.44 percent (Jun 2020); 1.37 percent (Sep 2020); 1.56 percent (Dec 2020); 1.58 percent (Mar 2021); 1.6 percent (June 2021); 1.4 percent (December 2021)	https://www.bnm.gov.my/documents/20124/3434930/1Q2021_GDP_Slides.pdf ;
	MFRS stage 2 loans*	8.4 percent (Jun 2020); 7.9 percent (Sep 2020); 10.2 percent (Dec 2020); 10.0 percent (Mar 2021)	https://www.bnm.gov.my/documents/20124/3434930/1Q2021_GDP_Slides.pdf
Mongolia	Covid-19 restructured loans	22 percent of total loans as of Q3 2020	Fitch Ratings, Mongolian Banks Dashboard: November 2020
Philippines	Restructured loans as a share of total loans	Increased from 0.41 percent in Jan 2020 to 1.91 percent in Dec 2020; 2.2 percent in Mar 2021; 3.05 percent in Jun 2021; 3.07 percent in August 2021; and 3.13 percent in Dec 2021.	BSP (https://www.bsp.gov.ph/Statistics/Selected%20Performance%20Indicators/7.aspx)
Thailand	Special mention loans as a share of total loans	Increased from 2.82 percent in Q4 2019 to 6.65 percent in Q4 2020, 6.44 percent in Q1 2021, and 6.37 percent in Q2 2021; 6.73 percent in Q3 2021.	BOT (https://www.bot.or.th/App/BTWS_STAT/statistics/ReportPage.aspx?reportID=906&language=eng)

Table 7. Share of firms and debt at risk (percent)

	Credit Depth		Solvency			Liquidity				Profitability					
	Corporate debt to GDP	change	Interest Coverage Ratio		Leverage (debt to asset)	Net debt to EBIT		Quick Ratio		Current liabilities to long term liabilities		Return on asset		Market to Book Ratio	
			2021, DaR	change		2021, DaR	change	2021, DaR	change	2021, DaR	change	2021, DaR	change	2021, DaR	change
China	155	0	14	-6	17	-6	23	-8	7	-6	4	-1	5	1	-1
Vietnam	137	32	34	11	24	-8	31	1	9	-3	9	0	5	1	2
Malaysia	71	4	13	-4	22	12	31	15	2	-1	4	3	4	-1	8
Thailand	55	6	17	7	35	9	30	4	15	3	6	4	15	13	0
Philippines	32	3	10	8	40	-4	26	23	3	2	4	4	6	5	18
Indonesia	26	0	24	4	33	9	24	5	17	6	14	13	16	8	4

Source: IIF, Bloomberg; World Bank Staff calculations.

Note: Indicators for solvency, liquidity and profitability show the share of debt at risk (DaR) defined by the methodology of Feyen et al. 2017. Threshold is 1 for Interest Coverage Ratio (earnings before income and taxes (EBIT) divided by interest expenses). For Leverage Ratio, Net Debt to EBIT Ratio, and Current Liabilities to Long-Term Liabilities, the thresholds correspond to the 90th percentile value of the respective indicators for all firms within the same industry and across countries during 2006–2016. For Quick Ratio (current asset excluding inventories divided by current liabilities), Return on Assets, and Market to Book Ratio (market value divided by book value), the respective thresholds are equal to the 10th percentile value of the indicator by industry. Vietnam shows 2021Q1, other countries show 2021Q2. Color scale represents country quintiles relative to the group of emerging markets and developing economies, with red denoting the worst exposure and green the least. Change denotes percentage change compared to 2015–2019 average.

4.3. Trade policy

Comprehensive trade-related reforms would enable EAP countries to take advantage of shifts in the global trade landscape. First, liberalizing and facilitating trade, rather than retaliating in response to reshoring policies abroad, could lead to a net increase in real incomes by as much as three percent. Second, looking beyond goods trade, reforming restrictions on trade in transport, communication, and other business services, could reduce trade costs and boost economy-wide productivity. Third, implementing measures to facilitate domestic labor mobility, such as retraining and placement assistance, would allow resources to move to new areas of comparative advantage, also boosting productivity and incomes. Finally, participation in deep trade agreements could both catalyze reform at home and secure access to markets abroad. Such agreements could include not just trade liberalization, but regulatory cooperation and infrastructural coordination that further deeper economic integration.

Countries should commit to trade liberalization. In an environment where other countries are resorting to protection or encouraging reshoring, it may be tempting for countries to respond in a like manner. Recent analysis suggest that would be a mistake (figure 47). While the heavily trade-dependent EAP countries would lose from reshoring policies in leading countries, responding in kind would lead to even bigger losses in income. Instead, liberalizing and facilitating trade could lead to a net increase in real incomes by as much as three percent.

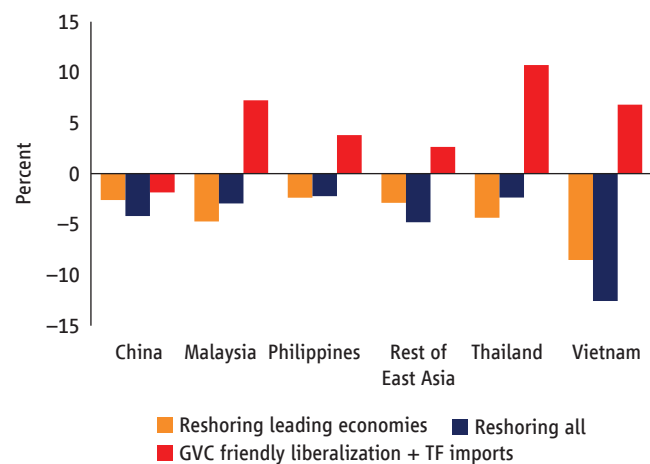
Non-tariff barriers remain high in the region. While tariffs are currently low outside of agriculture, textiles and leather goods, non-tariff measures (NTM) are increasingly used as an instrument of trade policy. While certain NTMs, such as product standards, have legitimate regulatory objectives, many are frequently used as a tool for protectionism. Non-tariff barriers on imports affect the performance of domestic firms by restricting supply of inputs and reducing international competition, which also negatively affects their export performance (figure 48). For example, Indonesia, which has the largest share of imports by value subject to new trade restrictions, also has had a relatively stagnant share of trade in GDP.

There has been a slight improvement in trade logistics of EAP countries over the years, with the exception of Malaysia (figure 49). However, there is considerable variation across different parameters of logistics performance. China's performance remains better than other EAP countries in all logistics dimensions, especially in quality of trade and transport infrastructure.

While EAP countries are relatively open to trade in goods, several continue to have relatively restrictive trade policies in services (figure 50). There is growing evidence that reforming restrictions on trade in transport, communication, and other business services could reduce trade costs, enhance global value chain (GVC) participation, and boost economy-wide productivity. Recent measures of services trade restrictions suggest significant heterogeneity across countries and sectors (figure 51). Indonesia and Thailand have on average more restrictive policies than Malaysia and Vietnam. Trade in telecommunications, financial, transport and professional services remains more restricted in the region than in the average OECD country. The ability to take advantage of new digital opportunities in services trade may be impeded by the persistence of restrictions, revealing inter alia a reluctance in some countries to allow the free flow of data.

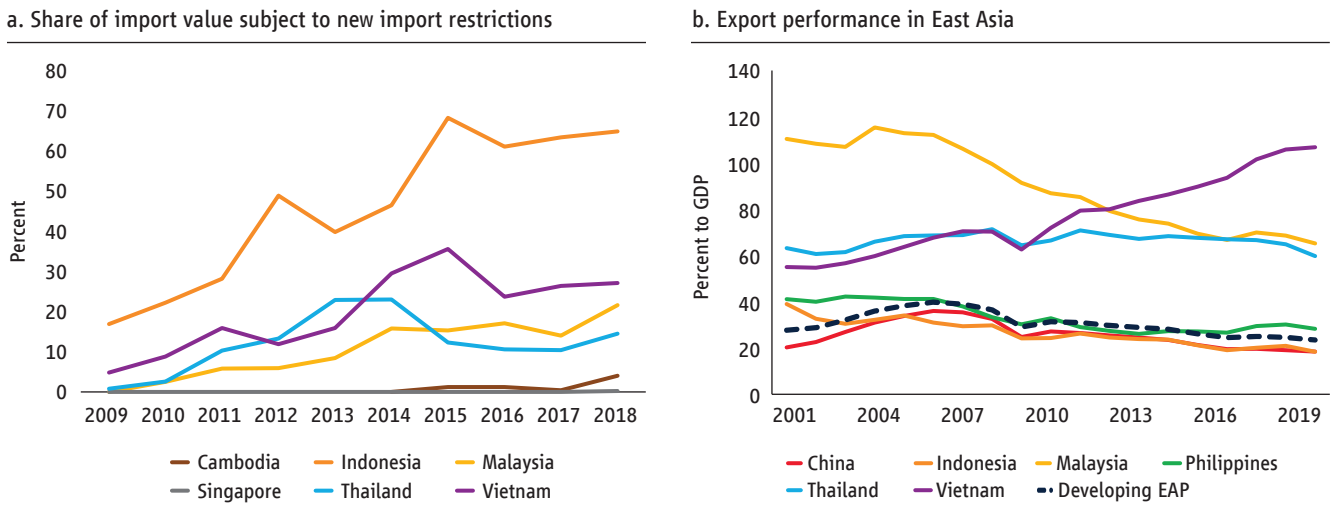
Figure 47. EAP countries can take advantage of changing opportunities

Real income change under reshoring by leading economies, by all countries, and in the GVC-friendly scenario in 2030 (deviations from the L-shape COVID recovery, percent)



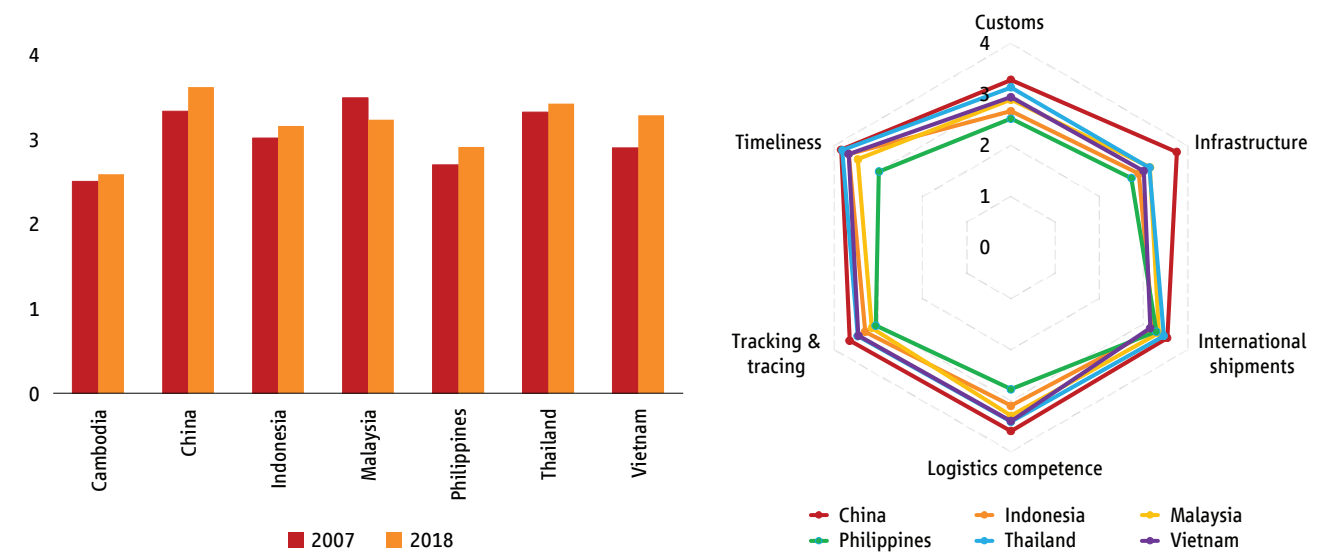
Source: Chepeliev et al. 2021.

Figure 48. Non-tariff barriers penalize exports in a GVC world



Source: Global Trade Alert; World Integrated Trade Solution (WITS) database.

Figure 49. The EAP region has seen slight but uneven improvement in logistics performance

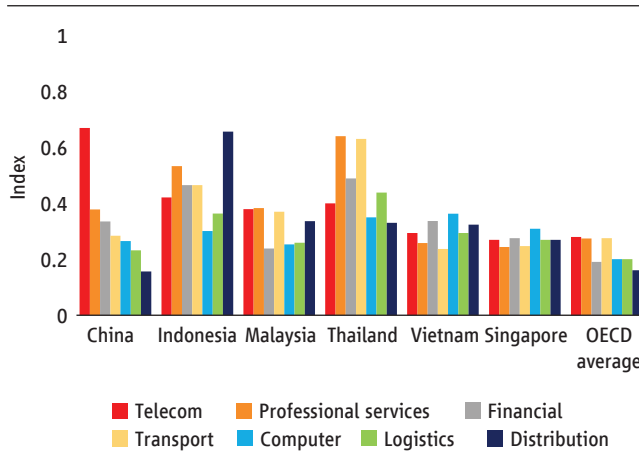


Source: World Bank Trade Logistics Performance Index, 2007 and 2018.

Note: The logistics performance index (LPI) is the weighted average of the country scores on the six key dimensions including (i) efficiency of the clearance process; (ii) quality of trade and transport related infrastructure; (iii) ease of arranging competitively priced shipments; (iv) competence and quality of logistics services; (v) ability to track and trace consignments; and (vi) timeliness of shipments in reaching destination within the scheduled or expected delivery time. Each score ranks between 0 and 4, with 4 representing the best performance.

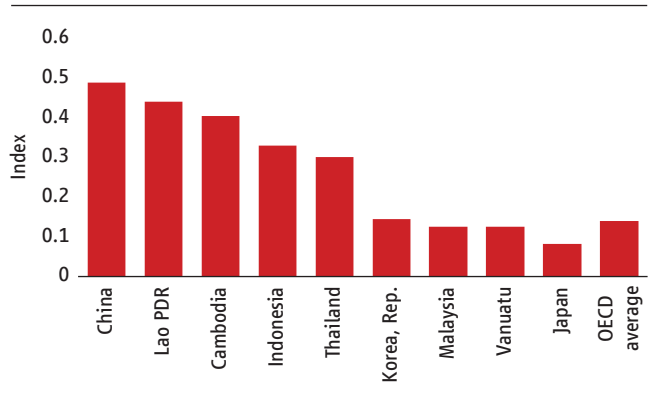
Implementing measures to facilitate domestic labor mobility, such as retraining and placement assistance, would allow resources to move to new areas of comparative advantage, also boosting productivity and incomes. Data from the COVID-19 SPJ Policy Inventory for 55 LMIC countries shows that countries adopted a wide range of labor market policies in response to the crisis (figure 52). Policies targeting direct economic support to workers, such as offering wage subsidies, reducing income taxes, or boosting unemployment benefits, were more popular during the onset of the pandemic but have been phased out completely by the end of 2020. In contrast, policies aiming at facilitating labor mobility and adaptation, such as provision of public works, training and placement assistance, supporting entrepreneurship, and adjusting labor regulations, remain active in several countries.

Figure 50. EAP’s services trade restrictiveness index by sector (2021)



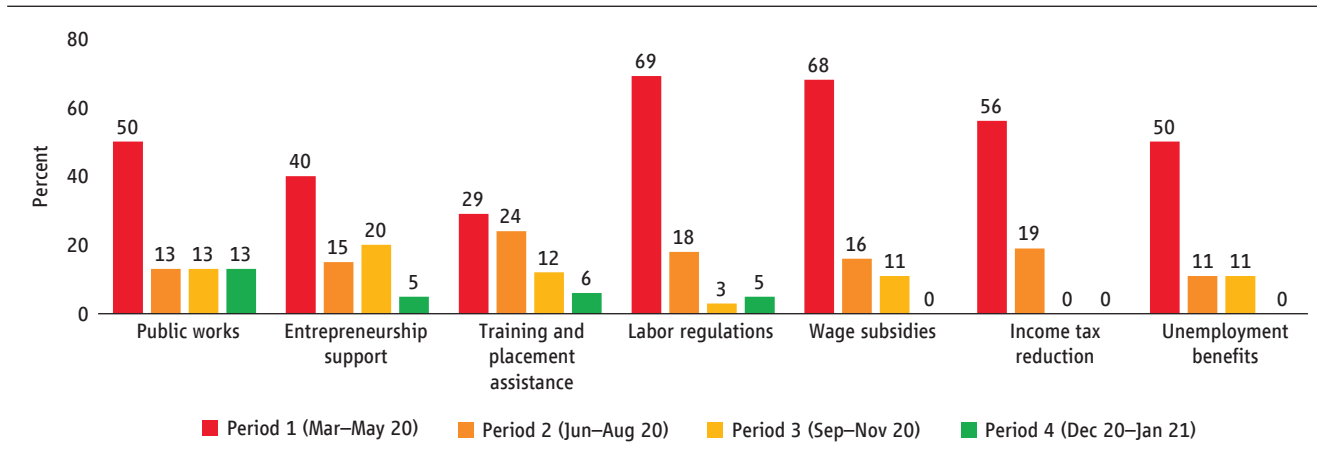
Source: OECD STRI and TIVA databases (2021).
 Note: The Services Trade Restrictiveness (STRI) indices takes values between zero and one, one being the most restrictive. The logistics index is an equal-weighted average of cargo-handling, storage and warehouse, freight forwarding, and customs brokerage. The professional services index is an equal-weighted average of accounting, architecture, engineering, and legal. The transport index is an equal-weighted average of air, maritime, road freight, and rail freight transports. Financial index is an equal-weighted average of commercial banking and insurance.

Figure 51. Significant heterogeneity in digital services trade restrictions across countries



Source: OECD STRI (2021).
 Note: The OECD Digital STRI is a composite index expressing barriers that affect trade in digitally enabled services. The index takes values between zero and one, one being the most restrictive to foreign services providers.

Figure 52. Policies that facilitate rather than inhibit labor mobility can enhance the gains from new trade opportunities

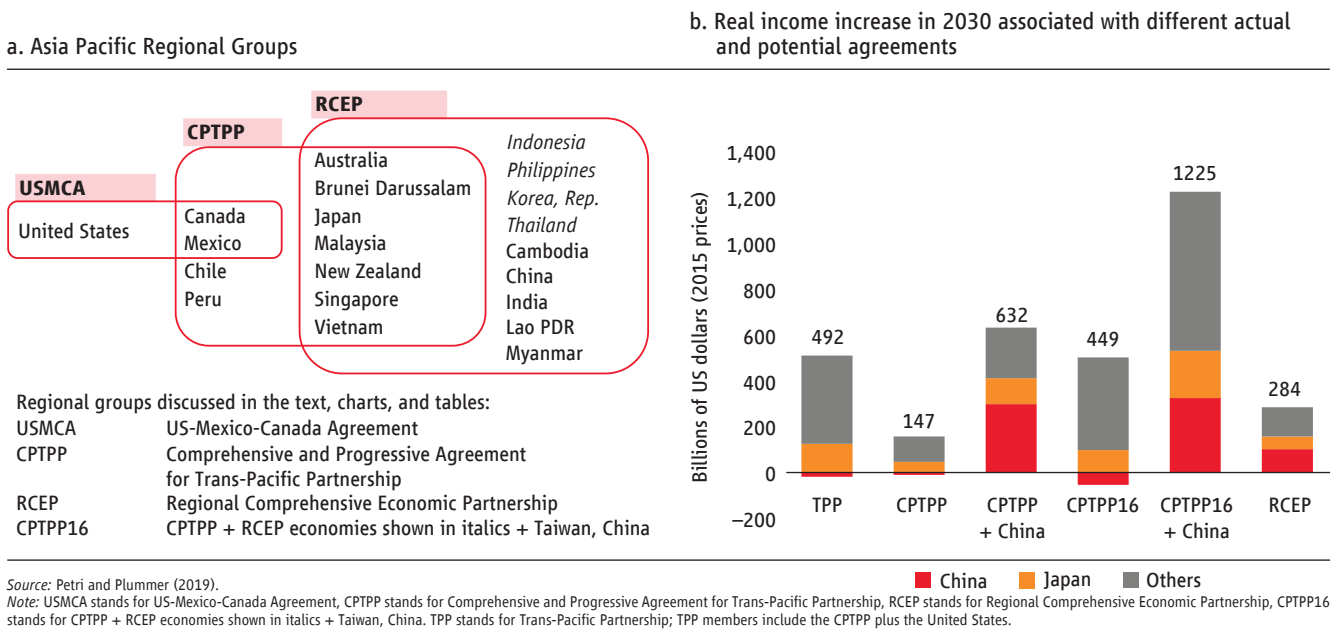


Source: De La Flor Giuffra et al. 2021, using COVID-19 SPJ Policy Inventory.
 Note: Graph based on 55 developing countries implementing labor market programs.

Finally, participation in deep trade agreements could both catalyze reform at home and secure access to markets abroad. Such agreements could include not just trade liberalization, but regulatory cooperation and infrastructural coordination that further deeper economic integration.

China’s CPTPP overture has implications for countries in the EAP region. China’s motives to join could be to advance policy reform, much as it did by joining the WTO and to use the CPTPP to credibly commit to play by the rules. Some estimates suggest that China’s joining would quadruple the global income gains from the CPTPP to around \$630 billion compared to the current gains of about \$150 billion (figure 53). China itself, from incurring the costs of exclusion—estimated to be between \$10-20 billion—could reap the benefits of inclusion—estimated to be around \$300 billion. The impact

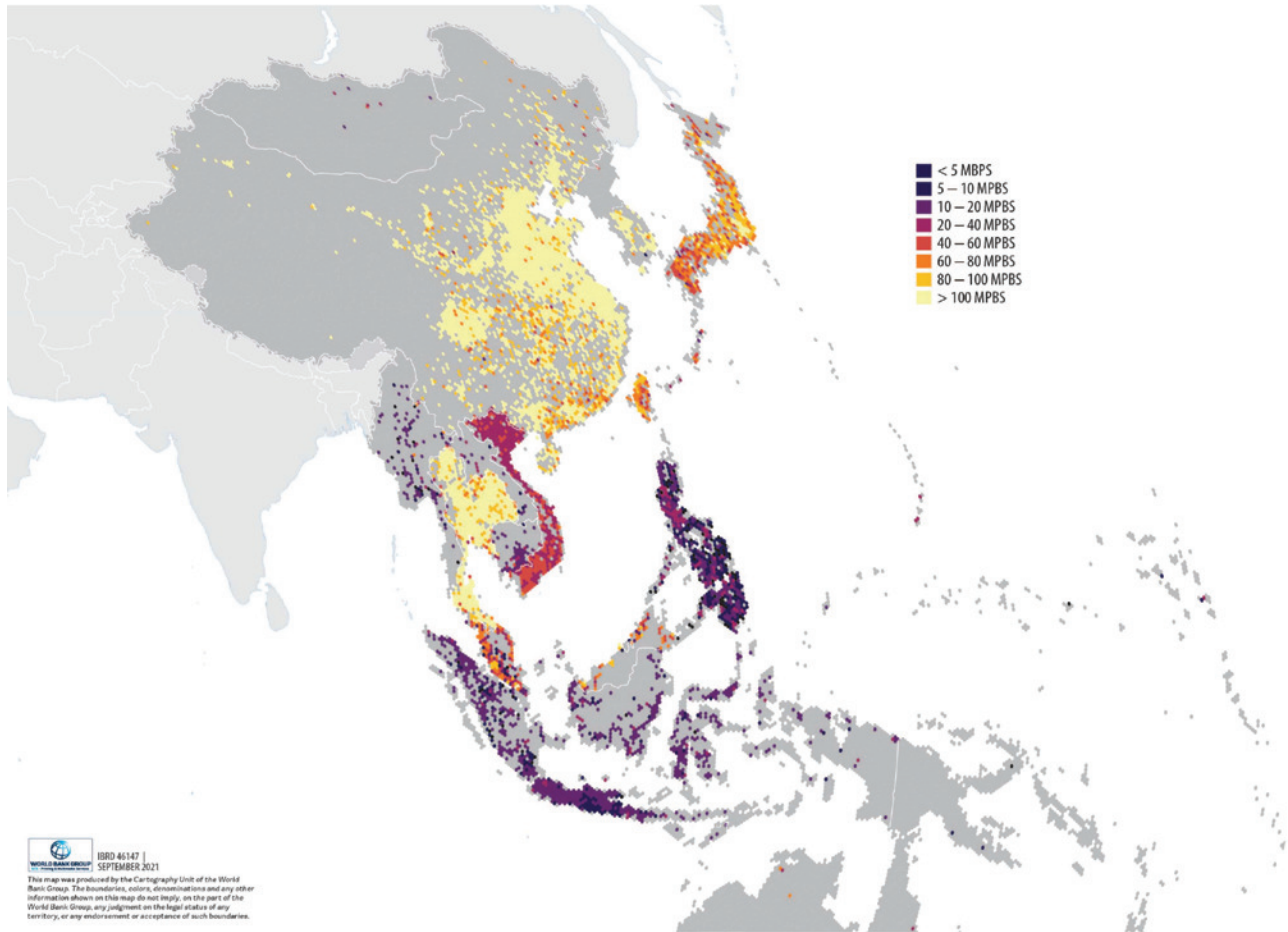
Figure 53. Negotiating shifting constellations of trade agreements



on third countries will depend on whether their exports are (a) destined for ultimate consumption in China; (b) compete horizontally with China’s third markets, as is the case to a certain extent with other regional countries’ exports of electronic products; or (c) are vertically linked to China’s exports, i.e., are used as inputs by China, such as Australia’s coal or Korea, Rep.’s semiconductor exports, or use Chinese exports as inputs, such as Cambodia’s cloth imports. Malaysia and Vietnam, among the biggest beneficiaries of the preferential access they gained thanks to CPTPP, would see an erosion of those preferences if China joined the CPTPP but also benefit from increased access to the Chinese market. If China did implement more meaningful domestic reform of services and state owned enterprises (SOEs), the resultant boost in productivity would imply fiercer competition for its rivals and greater benefits for those in complementary relationships, like Cambodia, Australia, and Korea, Rep. All parties to the agreement would benefit from better and hopefully more secure access to the Chinese market.

4.4. Enhancing innovation

Whilst infrastructure for basic technologies is widely available, the prerequisites for more advanced technologies are often lacking. The widespread availability of basic infrastructure (e.g., mobile broadband) and the prevalence of online platforms allowed many firms to reach customers online through e-commerce. These off-the-shelf websites require minimal adjustment costs and allow firms even with relatively slow broadband speeds to move parts of their business online. In contrast, data-driven business models that rely on sophisticated data analytics technologies need modern digital infrastructure (World Bank, 2021b). Storing and processing data is often less expensive using cloud computing, which has seen rapid growth during the pandemic, but requires a stable, high-speed broadband connection. While in EAP there is widespread access to basic 2G mobile broadband access, fast fiber speeds are unequally available both across and within countries (figure 54). China’s Eastern provinces have broad access to fast broadband, whereas other countries like Indonesia or Myanmar have much slower speeds, and these average speeds mask inequality at more granular levels.

Figure 54. Unequal access to fast broadband across and within EAP countries

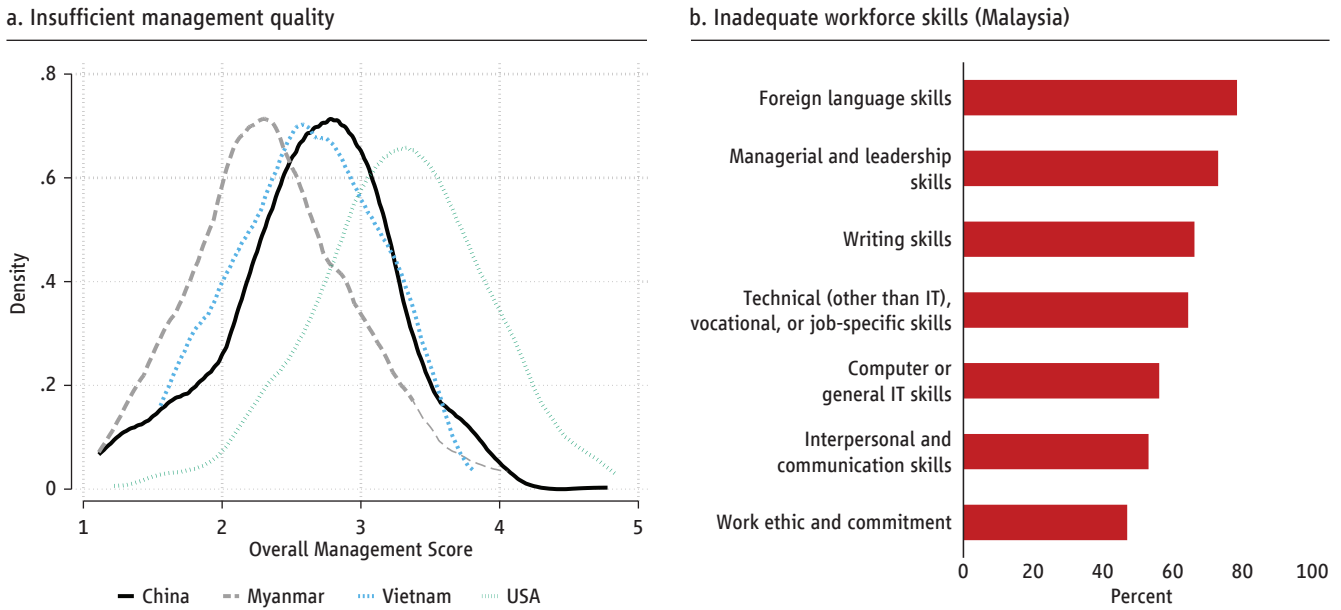
Source: World Bank calculations using Ookla fixed broadband speed test data for Q4 2020.

Notes: Colors reflect the average reported speeds within each 25 kilometers cell, subject to a minimum number of 100 tests per cell. Gray areas reflect either lack of broadband availability or an insufficient number of reported tests.

Worker skills, including management quality, are critical for innovation and technology diffusion—but EAP remains far from the frontier. Management quality among firms in developing East Asian countries remains far from the global frontier (as proxied by the United States) (figure 55). Business advisory services and other forms of training for firm personnel can be effective in strengthening management quality and, thus, firms’ innovation capabilities (Cirera et al. 2020; McKenzie 2020), especially if tailored to firms’ specific needs. Beyond management, firms in the region consistently report difficulties in hiring skilled workers across a range of skills (figure 55, panel B for an illustration from Malaysia). Weak development of foundational skills in reading, math, and science in many of the region’s countries represents an important impediment to the development of the more advanced cognitive, technical, and socioemotional skills needed to support innovation.

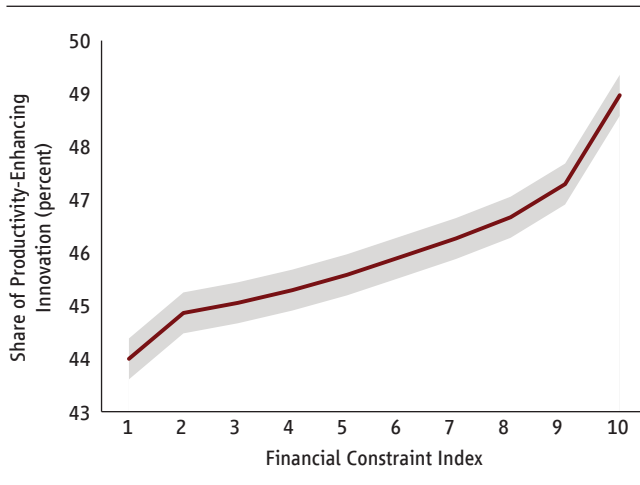
Financial constraints affect innovation—not just its development or diffusion but also its quality. Access to external financing is challenging when financial markets are not fully developed. For R&D investments, these difficulties are compounded by the large sunk costs, high uncertainty, and lack of collateral that characterize these investments. Thus, financially constrained firms, likely SMEs, may shift their investments towards lower-quality but closer-to-market innovation

Figure 55. Strengthening management quality and remedying weaknesses in human capital are critical to greater innovation in the region



Source: Cirera et al. 2021a.
 Notes: Panel A, based on World Management Survey (WMS) data. WMS scores (collected over several years) range from 1 (worst practice) to 5 (best practice) across key management practices used by organizations in different sectors. These practices are grouped into five areas: Operations Management, Performance Monitoring, Target Setting, Leadership Management, and Talent Management. Panel B shows the share of firms cited difficulty by skill, based on World Bank Enterprise Survey data in 2015. IT = Information technologies.

Figure 56. Relaxed financial constraints are associated with higher innovation quality



Sources: Author's Calculation based on China Annual Survey of Manufacturing and Google Patents.
 Notes: the figure shows the conditional prediction of share of productivity-enhancing innovation against a different level of financial constraint index (1 being highly financially constrained and 10 being least financially constrained). The firm-level financial constraint index is measured by investment-cashflow sensitivity.

(figure 56). The top quarter of least financially constrained firms have a three percent higher share of productivity-enhancing innovation than the average firm. This strategy leads to suboptimal innovation production but allows generating cash flow more quickly.

Public support may alleviate these constraints and contribute to productivity-enhancing innovation when carefully deployed. Direct investment subsidies and R&D tax incentives can alleviate firms' financial constraints and promote more productivity-enhancing innovation (Cao, forthcoming). Chinese state-owned manufacturing firms with government subsidies conduct 11% more productivity-enhancing innovation than those without subsidies, but for privately-owned firms the difference is 20%. Subsidizing mainly state-owned firms can cause a misallocation of R&D, since they are less efficient innovators than private firms (Chen et al, 2019). On average, state-owned firms receive 70% more subsidies than privately-owned firms of similar

firm size, whereas state-owned firms file 19% fewer patents than privately-owned firms. Government support would be more effective if targeted towards more productive private sector innovators.

Financial support can also shape the direction of technological change—towards green technologies. Between 2000 and 2010, China’s share of patents for solar photovoltaic (PV) and wind energy grew exponentially, with the country becoming one of the largest innovators in this field. In the past decade, technological advancements were accompanied by incentives and financial support to promote renewables, helping make private-sector financing for solar PV and wind energy viable. Subsidies can assist the transition to green technologies, but these should be limited to investments that are not privately profitable, but socially desirable. The temporary freeze of PV subsidies yielded an initial slowdown in PV capacity additions, but larger developers were largely unaffected by the subsequent phase-out (IEA, 2020). The banking sector has become more reluctant to lend to private companies, which have less diversified sources of revenues than SOEs (World Bank, 2022b.), and meeting the scale of the investments needed requires significant private sector participation. Thus, leveling the uneven access to finance and R&D subsidies to better encompass private firms is critical. Moreover, their impact would be maximized if coupled with reforms of fossil-fuel subsidies which in 2020 amounted to 0.2 percent of GDP (World Bank, 2022b., based on IEA fossil-fuel subsidy data).

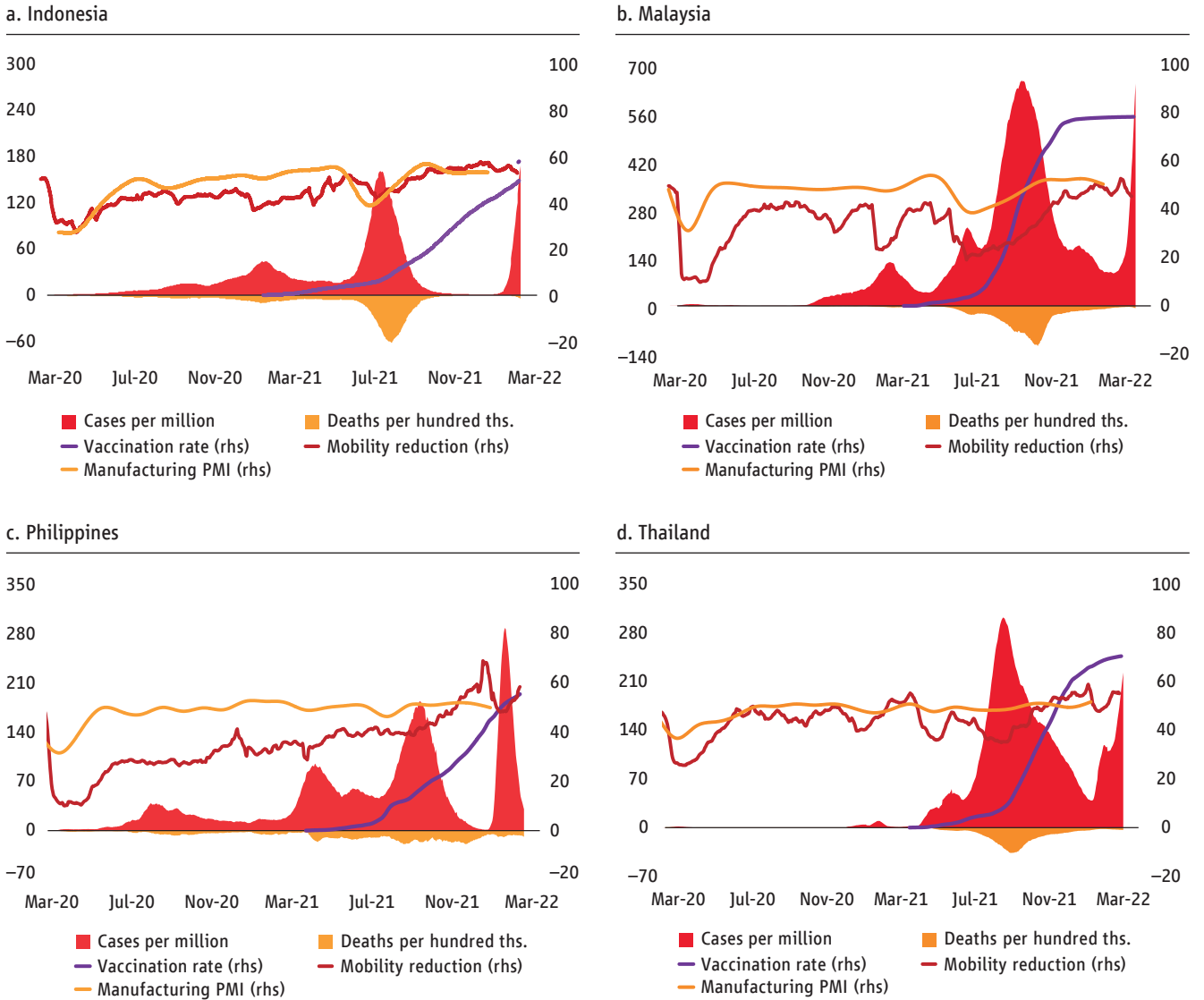
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Annex

Figure A1. Vaccination may help curb mortality during the Omicron wave and allow economic activity to continue



Source: Haver Analytics; Our World in Data (OWID); Oxford Covid-19 Government Response Tracker (OxCGRT).
 Note: Cases show new cases per million. Deaths show new death per thousand. Last observation is February 23, 2022. PMI = Purchasing managers Index.

Box A1. COVID-19 comes to the Pacific

The Pacific Island countries (PICs) managed to largely avoid domestic COVID-19 outbreaks up until 2022.

On 11 March 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization (WHO). Later in the month, Fiji and Papua New Guinea reported their first COVID-19 cases. These outbreaks were brought under control through international border closures and domestic lockdowns. All other PICs managed to avoid domestic outbreaks throughout 2020 and 2021 due to strict border closures to foreign travelers.¹¹

In 2022, the Omicron variant spread rapidly through the region, with many PICs seeing their first domestic outbreaks.

On 26 November 2021, the WHO classified the B.1.1.529 variant of the SARS-CoV-2 virus as 'Omicron' and flagged it as a variant of concern with the potential to spread faster than previous variants. Subsequently, cases have increased exponentially in the region, with domestic outbreaks of the Omicron variant in Fiji, Papua New Guinea, Kiribati, Palau, Solomon Islands, and Tonga. In 2022, the latter four countries reported community transmission for the first time since the beginning of the pandemic. Low testing capacity means that case and death numbers are most likely understated.

PIC governments have been quick to put in place domestic lockdowns to prevent overburdening their weak public health systems.

Since the beginning of the pandemic, the PICs have largely avoided domestic lockdowns as international border closures and quarantine requirements on overseas arrivals allowed countries in the region to remain COVID-free. However, following the rise in Omicron cases, several countries, including Kiribati, Solomon Islands, and Tonga, implemented domestic lockdowns to prevent overburdening weak public health systems, which have limited resources and have to serve very remote regions. In Tonga, the recent volcanic eruption led to further complications, with the country having to rely on international aid which further exposes them to the virus. Additionally, lack of internet and communication services in the aftermath of the volcano, which severed the fiber-optic cable to the country, has made it difficult for people to work from home.

There is wide heterogeneity in vaccination rates across the region.

As of February 2022, Palau has double vaccinated virtually their entire population, while Papua New Guinea and Solomon Islands have double vaccination rates as low as 2.6 and 11.7 percent respectively. Others such as Nauru, the Federated States of Micronesia (FSM), Samoa, and Tonga have managed to vaccinate 60 percent of their populations, the remaining countries have vaccination rates between 20 and 40 percent. Vaccination of the entire Pacific population is likely to take many years, increasing the risk of severe health and economic consequences in the region, as well as increased risk of the emergence of new variants, with potential for global repercussions.

Despite rising vaccination rates, the PICs continue to have strict public health measures: most countries continue to keep borders shut and restrict domestic activities.

Recent outbreaks in Kiribati, Tonga, and Solomon Islands resulted in these countries keeping their international borders closed and introducing strict domestic lockdowns despite rising vaccination rates. In PNG, borders remain shut while internal mobility restrictions

¹¹ Marshall Islands reported its first COVID-19 case in November 2020, but cases only reached a total of seven. Samoa reported its first COVID-19 case in November 2020, but cases only reached a total of three. Vanuatu reported its first COVID-19 case in February 2021, but only six cases were reported throughout the year. Tonga reported its only COVID case in October 2021 when a traveler from New Zealand tested positive. Kiribati, Palau, and Solomon Islands did not report any cases until 2022. FSM, Nauru, and Tuvalu have not reported any COVID cases.

(continued)

(Box A1. continued)

Table B.A1. COVID-19 in the PICs

Country	Cases		Deaths		Vaccinations		Date when 60% full vaccination reached
	Cumulative Cases (% of population)	Cases—newly reported in last 7 days	Cumulative deaths	Deaths—newly reported in last 7 days	Total vaccine doses administered per 100 population	Persons fully vaccinated per 100 population	
Kiribati	2235 (1.9%)	1322	2	2	101.0	38.5	Not reached
Nauru	0 (0.0%)	0	0	0	139.6	68.0	20/2/21
Tuvalu	0 (0.0%)	0	0	0	102.7	49.9	Not reached
Fiji	63398 (7.1%)	192	816	7	142.7	68.5	25/10/21
FSM	0 (0.0%)	0	0	0	78.5	38.4	Not reached
RMI	4 (0.0%)	0	0	0	83.0	39.2	Not reached
Palau	3045 (16.8%)	930	0	0	241.8	94.2	29/8/21
Papua New Guinea	38222 (0.4%)	832	610	13	4.3	2.6	Not reached
Solomon Islands	4203 (0.8%)	1846	50	29	40.4	11.7	Not reached
Samoa	33 (0.0%)	0	0	0	134.6	63.0	13/12/21
Tonga	73 (0.0%)	66	0	0	130.2	60.3	11/1/21
Vanuatu	7 (0.0%)	0	1	0	59.9	24.0	Not reached

Source: World Health Organization.
Note: Data as of 14/02/2022.

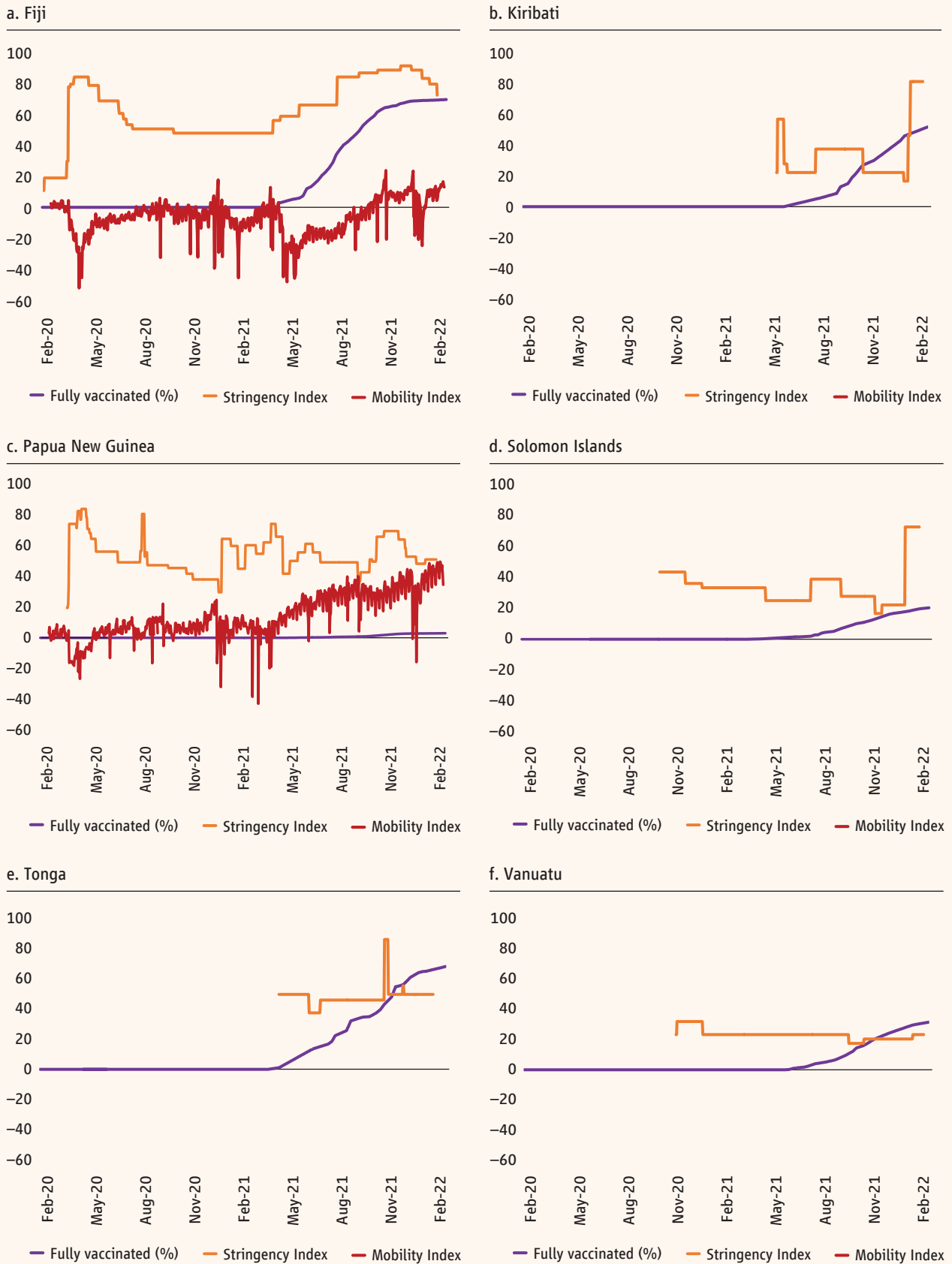
are lenient despite the outbreak which has led to increased mobility relative to levels seen in 2019. Similarly, closed borders in Vanuatu have ensured that a domestic outbreak has not occurred which has allowed for limited domestic restrictions. Of all the countries, only Fiji and Palau which have the highest vaccination rates have opened their borders to foreign arrivals because of their dependence on tourism, resulting in increased internal mobility.

The current outbreaks are likely to stall growth and increase poverty in the near-term. Following a deep recession in 2020 due to international border closures that impacted tourism-dependent economies in the Pacific, growth was expected to rebound in 2021 and future years. However, recent domestic outbreaks have meant that international border closures have continued, delaying recovery of the tourism sector. Domestic lockdowns will further hurt the economies of the PICs particularly in sectors such as hospitality and construction. These economic shocks and slow recovery will also greatly increase the risk of poverty, particularly as households deplete savings and assets to cope with lost incomes.

(continued)

(Box A1. continued)

Figure B.A1. Mobility, stringency and vaccination rates in selected PICs, 2020–2022



Source: Google Mobility Tracker, Blavatnik School of Government (University of Oxford) and The Pacific Community.

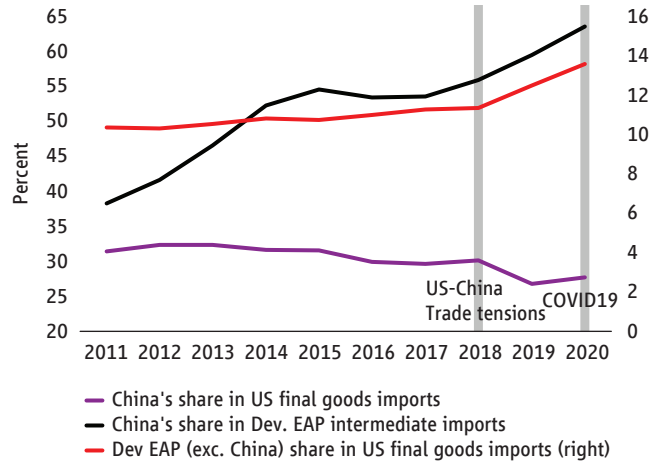
Table A1. External sector vulnerabilities

	Current account (% of GDP)		External debt (% of GDP)		External Financing needs (% of GDP)		Short-term external debt (% of reserves)		Reserves (months of imports)	
	2021	change	2021	change	2022 est.	change	2021	change	2021	change
China	1.8	0	16	2	6	-2	35	3	12.8	-4
Malaysia	3.5	1	68	3	29	2	49	-31	9.1	2
Indonesia	0.3	2	40	5	9	-4	33	-4	8.0	0
Philippines	-1.8	-1	27	4	8	0	12	-9	10.3	2
Vietnam	-0.8	-2	36	1	5	-5	23	-15	5.3	2
Thailand	-2.2	-10	35	2	11	2	26	-6	9.9	1
Lao PDR	1.3	-14	91	6	20	-1	39	-24	3.1	1
Mongolia	-12.7	-1	145	0	43	-19	115	-29	8.3	1
Cambodia	-28.5	-18	72	19	36	12	21	2	9.5	2
Myanmar	-2.8	2	16	0	3	-3	1	-1	7.4	2
Timor-Leste	-33.5	-25	13	5	18	8	0	-3	4.8	1
Fiji	-15.6	-9	25	10	14	2	5	-2	9.2	4
Solomon Islands	-5.2	-1	24	3	21	12	6	0	7.0	-2
Papua New Guinea	20.5	-5	66	-14	-9	4	29	6	7.3	3
Samoa	-15.3	-14	54	2	10	6	0	0	9.4	6
Vanuatu	5.0	2	46	5	14	13	7	-6	16.9	7
Tonga	-6.9	-1	39	0	12	4	0	0	11.0	-3
Palau	-59.3	-43	73	41						

Source: International Monetary Fund, World Bank.

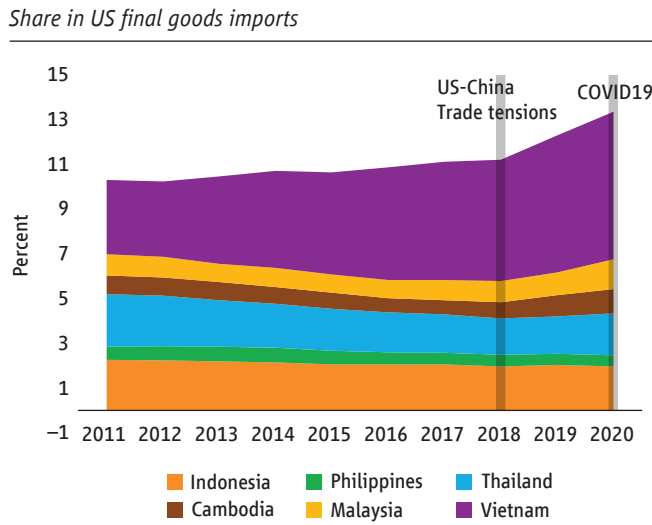
Note: Mongolia's external debt and external financing needs exclude the intercompany transactions amounting to 36 percent of the total external debt in 2021. Color scale represents country quintiles relative to the group of emerging markets and developing economies, with red denoting the worst exposure and green the least. Change denotes percentage change compared to 2015–2019 average.

Figure A2. As China’s share of EU’s final goods imports fell, the rest of EAP’s share rose



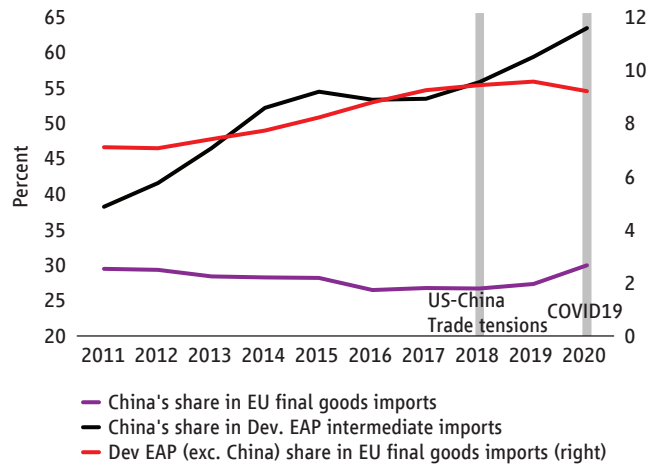
Source: Global bilateral trade data from CEPII-BACI.

Figure A3. Vietnam accounts for much of the increase in EAP countries’ share in US final good imports



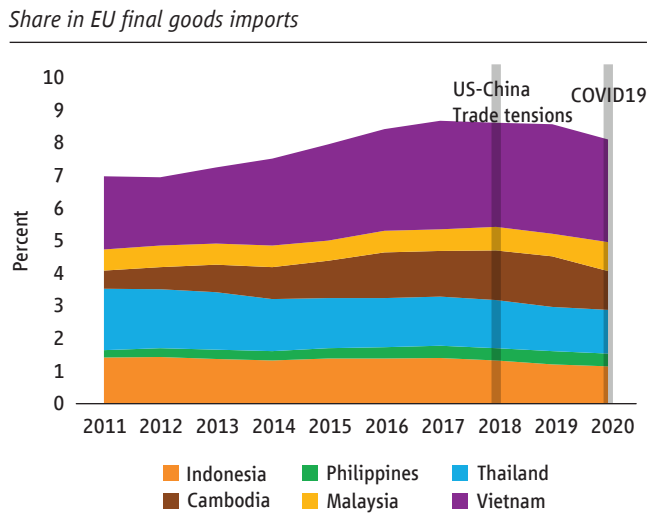
Source: Global bilateral trade data from CEPII-BACI.

Figure A4. As China’s share of EU’s final goods imports fell, the rest of EAP’s share rose



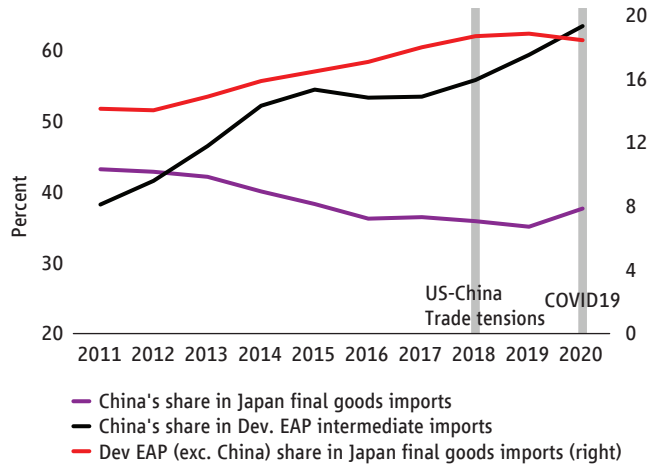
Source: Global bilateral trade data from CEPII-BACI.

Figure A5. Vietnam accounts for much of the increase in EAP countries’ share in EU final good imports



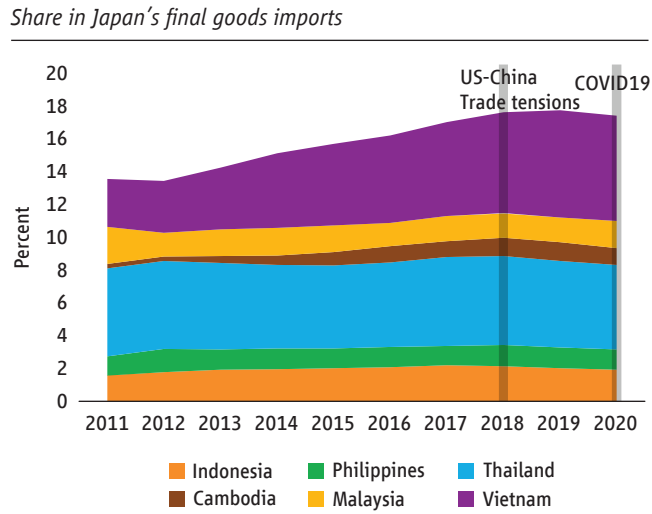
Source: Global bilateral trade data from CEPII-BACI.

Figure A6. As China’s share of Japan’s final goods imports fell, the rest of EAP’s share rose



Source: Global bilateral trade data from CEPII-BACI.

Figure A7. Vietnam accounts for much of the increase in EAP countries’ share in Japan’s final good imports

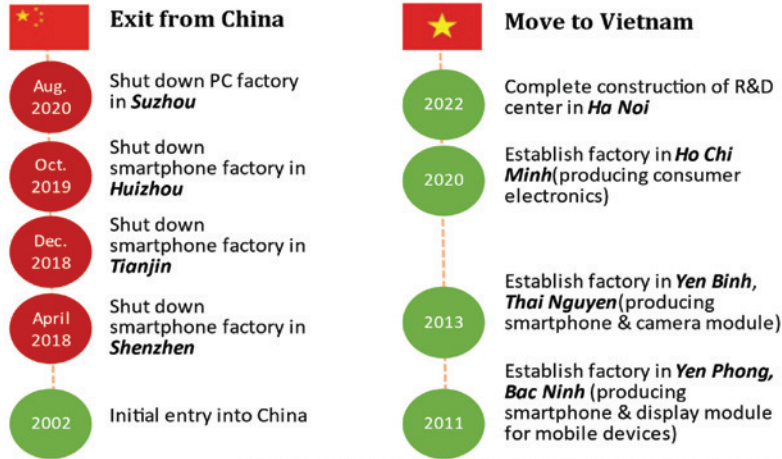


Source: Global bilateral trade data from CEPII-BACI.

Figure A8. Examples of relocation of production from China to Vietnam

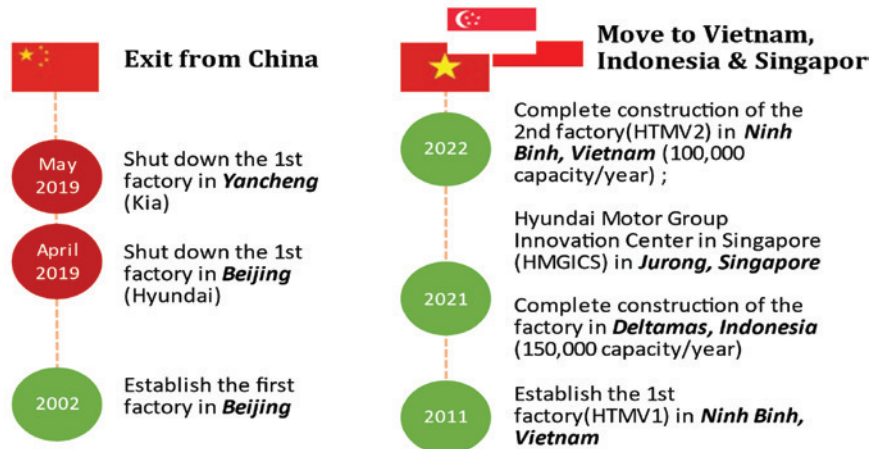
Korean cases of relocation: Samsung

- Samsung is producing almost 60% of its smartphone in Vietnam



Source: Lee, Hyuntai and Jung, Dosook (2020); Financial News (news article on 6 April 2016)

Korean cases of relocation: Hyundai-Kia



Source: Joongangilbo (news article on 14 October 2020); Chosunilbo (news article on 26 November 2019); Naeil (news article on 4 April 2019).

Source: Lee 2021.

