# AREO 2021 Thematic Chapter: Global Value Chains in the Post-Pandemic "New Normal"

Dr. Hoe Ee Khor Chief Economist AREO 2021 Webinar April 7, 2021





#### **Presentation outline**



#### **Recent GVC developments**



**ASEAN+3** in post-pandemic GVCs



**Technology and GVCs** 

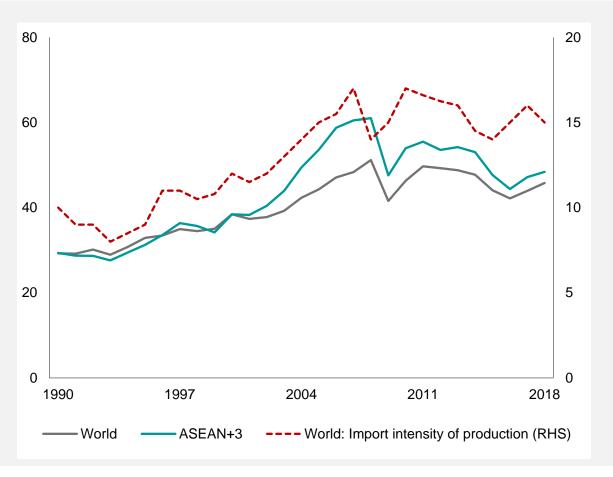


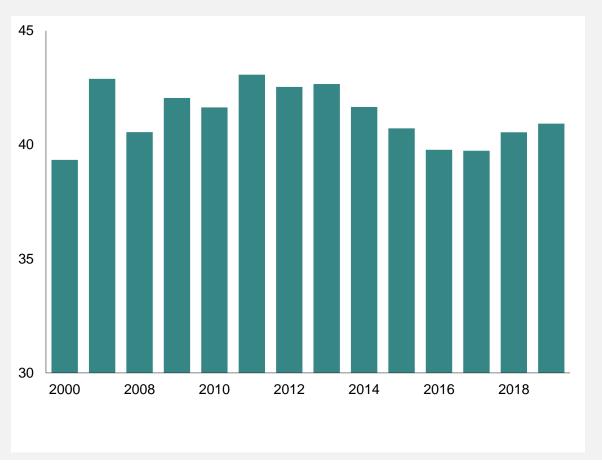
**Key Takeaways** 

# With trade and GVCs slowing, COVID-19 shocks further fueled speculations of a reconfiguration

World and ASEAN+3: Annual Trade (Percent of GDP; Percent of final products)

ASEAN+3: GVC Participation
(Percent of total exports, 3-year moving average)

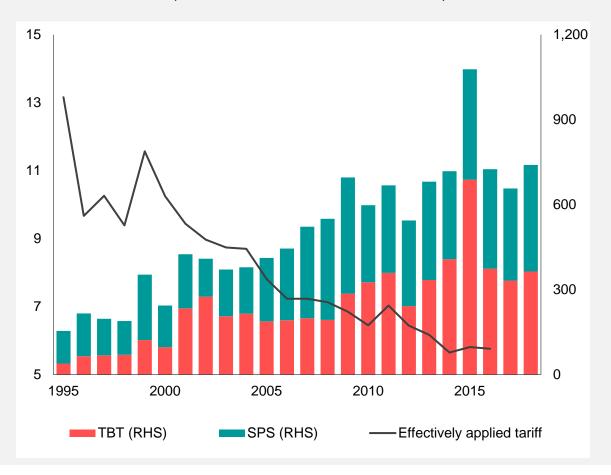


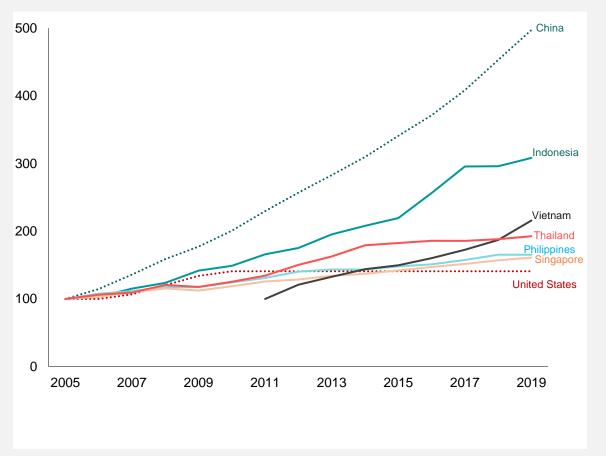


# Rising protectionism and the call of reshoring are already shifting GVCs away from host economies

World Trade Organization: TBT and SPS Notifications and Effectively Applied Tariff Rates (Percent; Number of notifications)

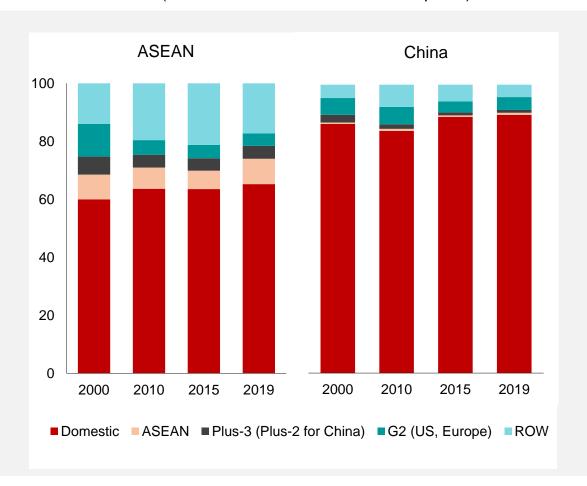
Selected Economies: Wages (2005 = 100)



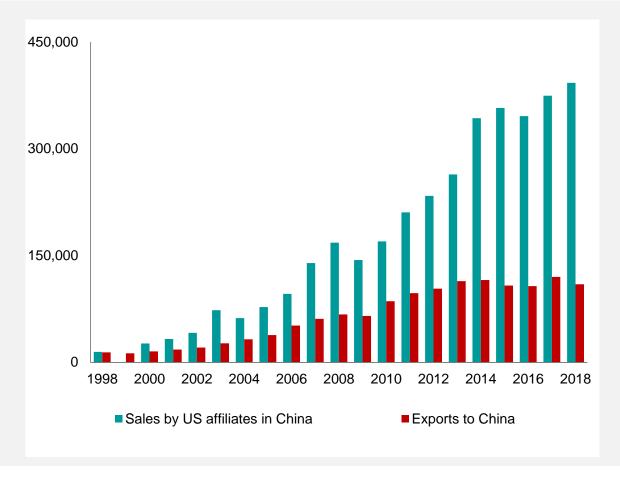


# Reshoring poses a risk to FDI, which has helped increase ASEAN+3's domestic value-added activity

#### Sources of Value-added in Exports (Percent of total value-added exports)



### United States: Sales of MNE affiliates vs. Direct Exports (Millions of US dollars)



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**Recent GVC developments** 



**ASEAN+3** in post-pandemic GVCs



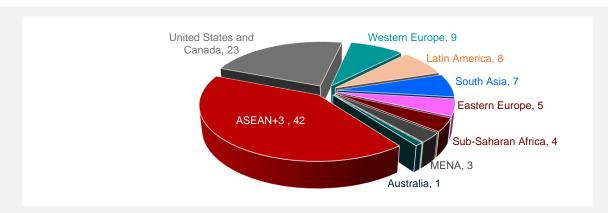
**Technology and GVCs** 



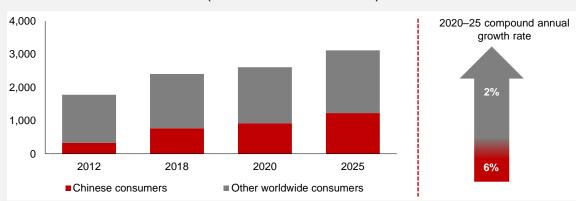
**Key Takeaways** 

#### Shifting GVCs away from the ASEAN+3 will prove to be difficult

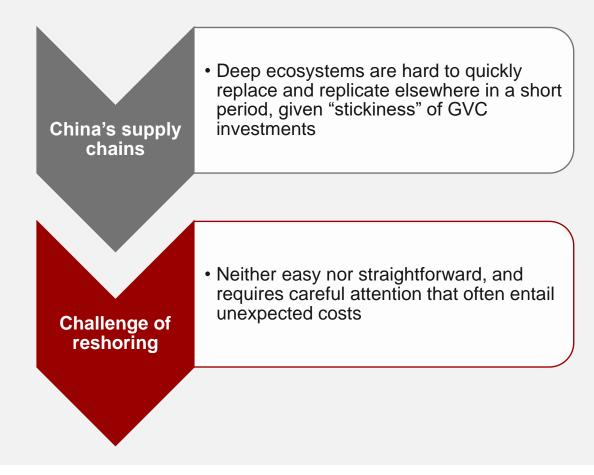
### Demand Side: ASEAN+3's Large Consumer Market (Percent Share of Urban Consumption Growth, 2015 to 2030)



### China and the Rest of the World: Spending on Luxury Goods (Billions of Renminbi)



#### Supply Side: ASEAN+3's Well-Developed GVC Ecosystem

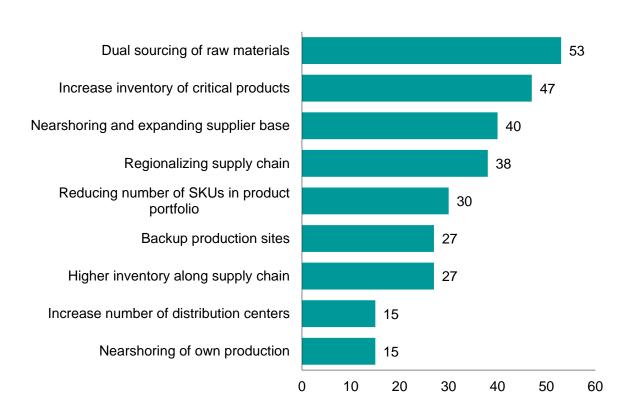


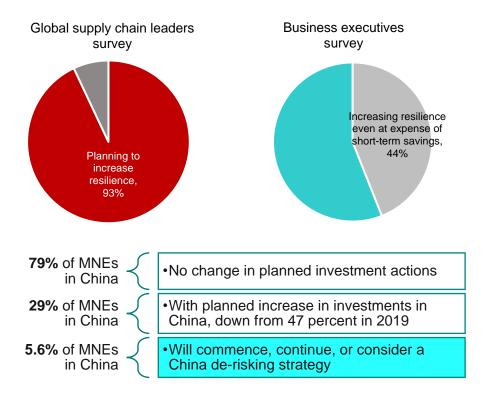
Sources: United Nations Economic and Social Commission for Asia and the Pacific (2019); and AMRO staff.

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# Only a few consider a "China de-risking" strategy as key in building supply chain resilience

### McKinsey & Company Corporate Survey: Planned Actions to Build Resilience (Percent of total respondents)



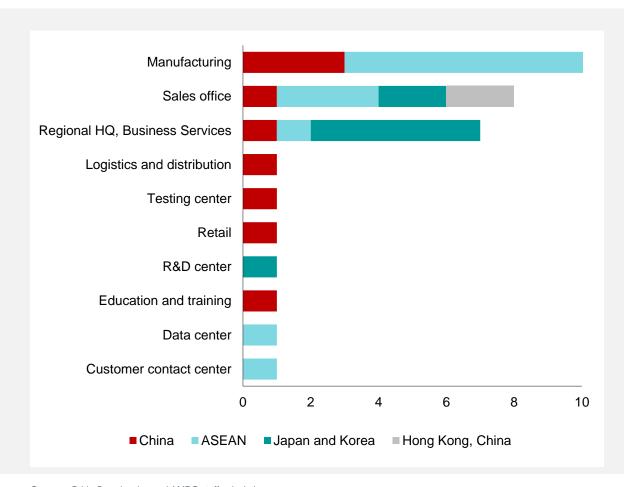


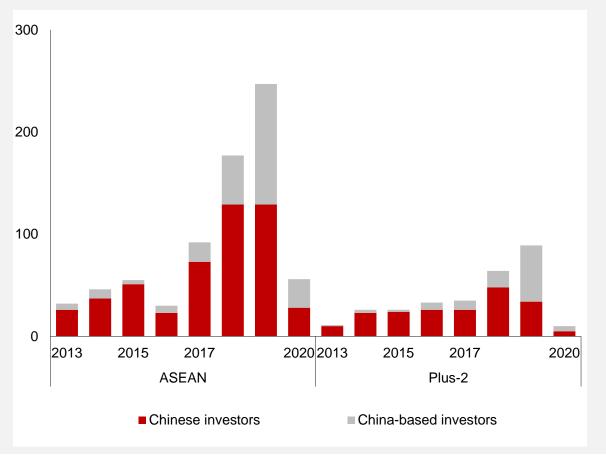
# Inward relocations remain strong, with foreign firms in China showing increasing interest in ASEAN

ASEAN+3: Relocation Announcements by Sector, 2020 (Number of projects)

Investment Announcements from China to the rest of ASEAN+3, by Ownership

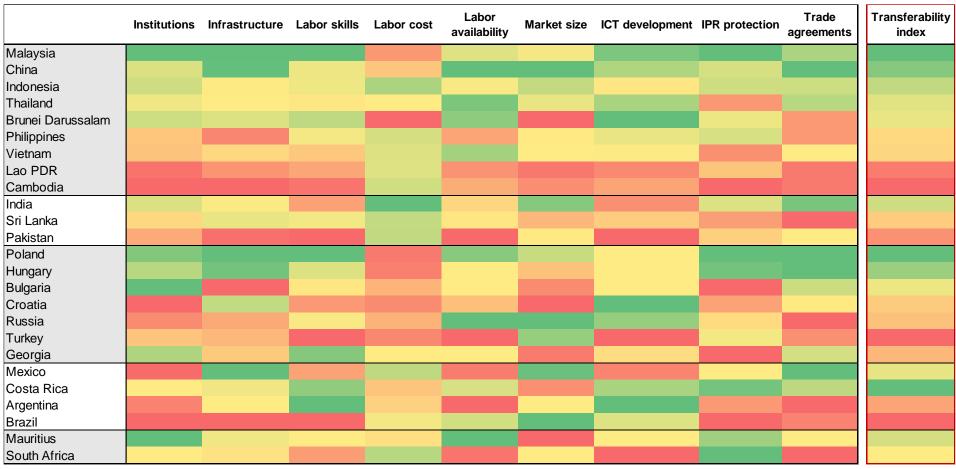
(Number of projects)





# Even with the likely reconfiguration, ASEAN+3 remains an attractive location compared to peers

#### **Heatmap for GVC "Transferability"**



Sources: Asia Regional Integration Center, ADB; International Labour Organization; World Economic Forum; World Bank; World Trade Organization; United Nations International Telecommunication Union; United Nations Population Division; national authorities via Haver Analytics; and AMRO staff calculations.

Notes: The overall Transferability index is a simple average of the nine indicators for each economy. The greener the color, the higher its relative z-score and the greater the GVC transferability to that economy or location; the redder, the lower the attractiveness for GVC relocation. See "Which GVC Sectors can be Easily Reconfigured?" in AREO 2021 for details.

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**Recent GVC developments** 



**ASEAN+3** in post-pandemic GVCs



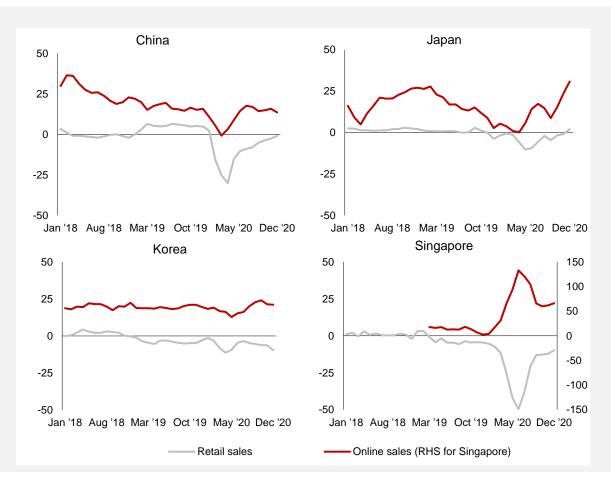
**Technology and GVCs** 



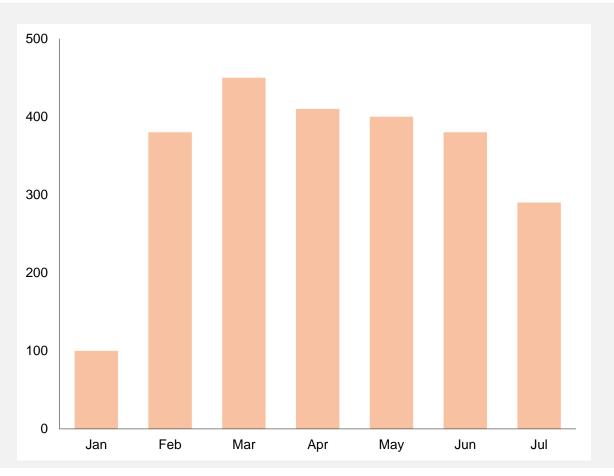
**Key Takeaways** 

## The pandemic accelerated the flight to digital, a behavior unlikely to be reversed

### Selected ASEAN+3 Economies: Retail and Online Sales (Percent year-over-year, 3-month moving average)



Number of Active ASEAN Users of Telemedicine Platforms, 2020 (January 2020 = 100)



### GVCs will increasingly be driven by technology, from production to trade to finance

#### **Technology in Trade and Supply Chain Finance**

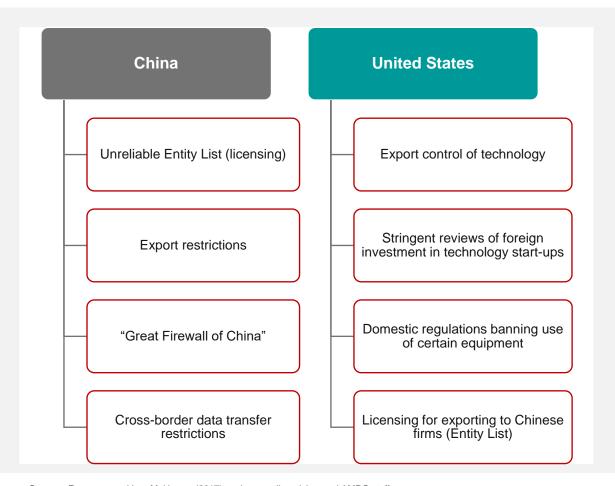
#### **Export** Manufacturing Shipping and Logistics destination 3D printing Global positioning Single Window Smart contracts Applicable Technology Robotics systems (GPS) E-documents E-commerce Internet of Things Automation Blockchain Cloud-based solutions Internet of Things Blockchain Big data analytics • Artificial intelligence Smart contracts Trade Financing Big Data analytics Artificial intelligence Cloud-based solutions (e-docs) Confirming bank used by Issuing bank used by importer Machine learning exporter

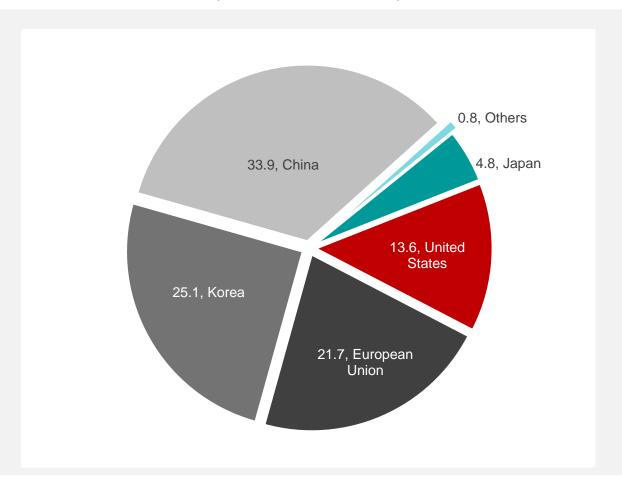
Source: AMRO staff.

# But US-China tech tensions, and global standards competition, could lead to technology bifurcation

United States and China: Selected Tech Measures and Countermeasures

Selected Economies: Shares in 5G Standard Essential Patents (Percent share to total)





### The semiconductor sector is a significant area of strain

#### **Semiconductor Supply Chains**



First stage Integrated circuit (IC) design

EDA (Electronic design automation) software used for IC design has US intellectual property rights and subject to export control

But China has improved its advanced chip design capability



Second Stage
Fabrication/ chip manufacturing

Equipment for chip manufacturing supplied by US firms

China has 2<sup>nd</sup> generation chip fabrication capability, but high-end chip fabrication uses lithography technology not available domestically



Third Stage Assembly and testing

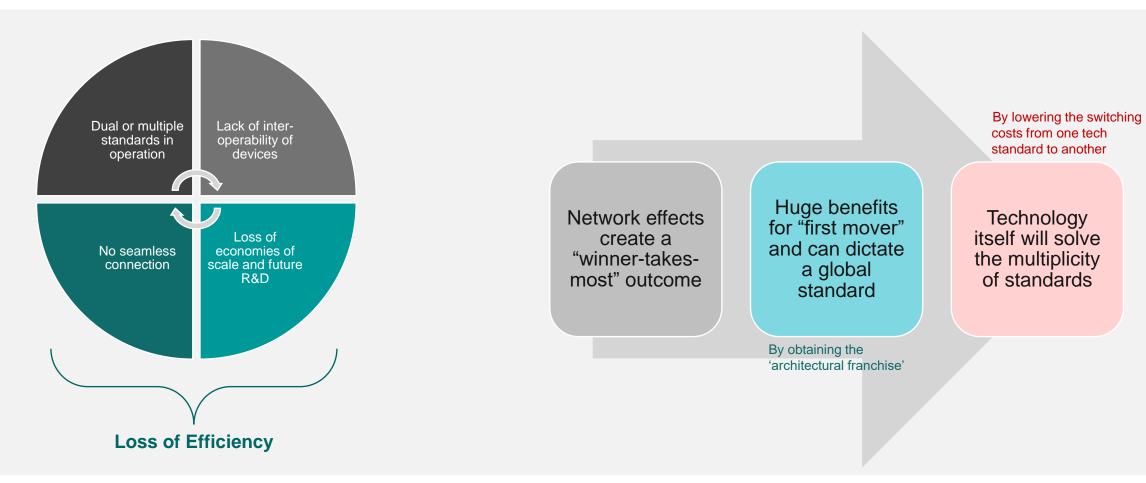
Labor-intensive; China making inroads
But Japan dominates materials: silicon
wafer, photoresists, essential packaging
chemical, among others

Source: Adapted from Kotasthane and Seth (2020).

#### The impact of tech bifurcation will take time to be fully resolved

#### **Short-term Impact of Bifurcated Technology**

#### **Long-term Impact of Bifurcated Technology**



Sources: AMRO staff. Sources: AMRO staff.

#### **Key takeaways**

- No evidence so far of wholesale reshoring, nearshoring or transfers of manufacturing out of the ASEAN+3 region.
- The region remains an attractive location for GVCs in the case of a reconfiguration, given "sticky" GVC investments.
- The pandemic-induced "flight to digital" could see GVCs powered by new technology, in the areas of trade, logistics and finance.
- Tech tensions can result in technology bifurcation and stymie new innovations, but over time, technology itself can solve the problem of divergent standards.

### Thank you.



#### **Contact Us**

Add: 10 Shenton Way, #15-08/9, Singapore 079117

**Tel**: +65 6323 9844

Email: ong.lilian@amro-asia.org

Website: www.amro-asia.org

### Growth projections: AMRO 2021 and WEO 2021 (April)

| Economy                                     | ١      | WEO APRIL 202 | O APRIL 2021 |  |
|---|--------|---------------|--------------|--|
| Economy                                     | 2020e/ | 2021p/        | 2022p/       |  |
| World Output                                | -3.3   | 6.0           | 4.4          |  |
| Advanced Economies                          | -4.7   | 5.1           | 3.6          |  |
| Other Advanced Economies                    | -2.1   | 4.4           | 3.4          |  |
| Emerging Market and Developing Economies    | -2.2   | 6.7           | 5.0          |  |
| Emerging and Developing Asia                | -1.0   | 8.6           | 6.0          |  |
| Emerging and Developing Europe              | -2.0   | 4.4           | 3.9          |  |
| Latin America and the Caribbean             | -7.0   | 4.6           | 3.1          |  |
| Middle East and Central Asia                | -2.9   | 3.7           | 3.8          |  |
| Sub-Saharan Africa                          | -1.9   | 3.4           | 4.0          |  |
| Memo:                                       |        |               |              |  |
| Emerging Market and Middle-Income Economies | -2.4   | 6.9           | 5.0          |  |
| Low-Income Developing Countries             | 0.0    | 4.3           | 5.2          |  |

| Economy           | AREO 2021 |        |        |  |
|-------------------|-----------|--------|--------|--|
|                   | 2020e/    | 2021p/ | 2022p/ |  |
| ASEAN+3           | -0.2      | 6.7    | 4.9    |  |
| Plus-Three        | 0.7       | 7.2    | 4.7    |  |
| China             | 2.3       | 8.7    | 5.5    |  |
| Hong Kong, China  | -6.1      | 4.8    | 6.5    |  |
| Japan             | -4.8      | 2.7    | 1.8    |  |
| Korea             | -1.0      | 3.2    | 3.0    |  |
| ASEAN             | -3.4      | 4.9    | 5.7    |  |
| Brunei Darussalam | 0.9       | 3.1    | 4.0    |  |
| Cambodia          | -3.0      | 4.7    | 6.1    |  |
| Indonesia         | -2.1      | 4.9    | 5.3    |  |
| Lao PDR           | 0.5       | 4.6    | 4.8    |  |
| Malaysia          | -5.6      | 5.6    | 6.2    |  |
| Myanmar           | 3.2       | -2.6   | 4.5    |  |
| Philippines       | -9.5      | 6.9    | 7.8    |  |
| Singapore         | -5.4      | 6.0    | 4.7    |  |
| Thailand          | -6.1      | 2.3    | 4.8    |  |
| Vietnam           | 2.9       | 7.0    | 6.8    |  |

Sources: World Economic Outlook, April 2021.

Note: e/ = estimate; p/ = projection.