



1 Regional Cooperation for Transformative Economic Recovery

While the COVID-19 risk dissipates, emerging challenges keep Asia's economic outlook modest.

Asia and Pacific economies are emerging from the lows of the protracted coronavirus disease (COVID-19) pandemic with reduced hospitalization and eased border restrictions.¹ However, the challenges are not altogether over. The growth slowdown in the United States (US) and Europe coupled with a dip in domestic activity in the People's Republic of China (PRC) are weighing on Asia's growth prospects. Policy rate hikes across the world to rein in surging inflation, exacerbated by the escalation of geopolitical tensions and the PRC's zero-COVID policy for a period that constrained the supply chains, provide another drag. In light of the buildup of headwinds, the *Asian Development Outlook 2022 Supplement* in December pared the growth forecast for developing Asia to 4.2% in 2022 and 4.6% in 2023 (ADB 2022a). The expected growth rate for the region is weaker than the 7.0% expansion rate recorded in 2021.

Cross-border economic activities are progressing unevenly across trade, investment, and tourism.

International flows were treading contrasting paths midway through 2022. The growth in value of the merchandise and services trade of Asian economies has remained robust although losing some traction

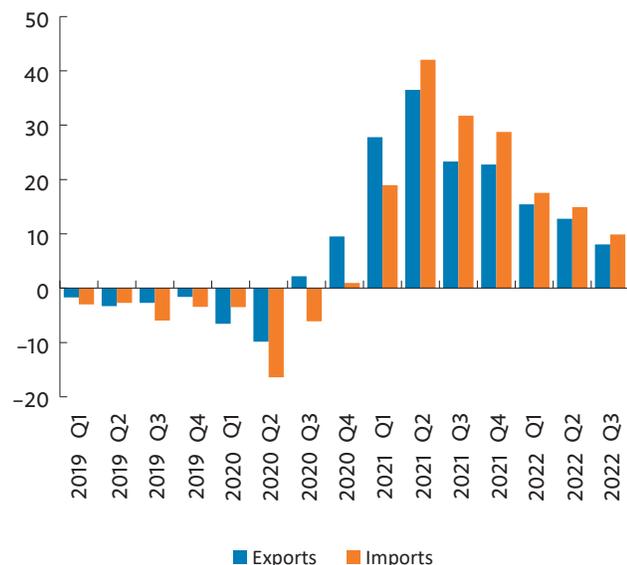
amid persistent weakness in domestic conditions of key external markets and the tense geopolitical climate. Foreign portfolio investments have pulled back as near-term uncertainties rise, while foreign direct investment (FDI) inflows are seemingly holding up well, indicative of a robust longer-term investor outlook. In the meantime, tourist arrivals and remittances are recovering briskly in a number of economies.

Goods trade in the region continues to expand through the third quarter (Q3) of 2022, but the momentum is decelerating in line with the global trend. Asia's merchandise exports value growth has slowed to about 12% year-to-date from 29% in the same period the previous year (Figure 1.1). The region's merchandise imports largely follow a similar trend, rising by about 14% year-on-year from January to September 2022, down from 31% 12 months earlier. Notable drivers include the weakening global economy, as the US, the European Union (EU), and the PRC hobble; the ongoing Russian invasion of Ukraine; and some degree of base effects, owing to the strong growth the previous year.

There are some encouraging indications even though the economic outlook is still challenging. Besides slowly tapering food and fuel prices, the agreement reached on Ukraine's grain exports signals an openness to compromise, although the situation remains precarious overall.² The decline in shipping cost is another welcome development. The Global Container Freight index has notably fallen by about 75% since September 2021,

¹ Asia and the Pacific, or Asia, consists of the 49 regional member economies of the Asian Development Bank (ADB). The composition of economies for Central Asia, East Asia, the Pacific and Oceania, South Asia, and Southeast Asia are outlined in ADB. Asia Regional Integration Center. Economy Groupings. <https://aric.adb.org/integrationindicators/groupings>.

² The Government of the Russian Federation reportedly sought a review of the deal in September 2022 (Bland and Clyne 2022).

Figure 1.1: Merchandise Trade Value Growth—Asia and the Pacific (% change, year-on-year)

Q = quarter.

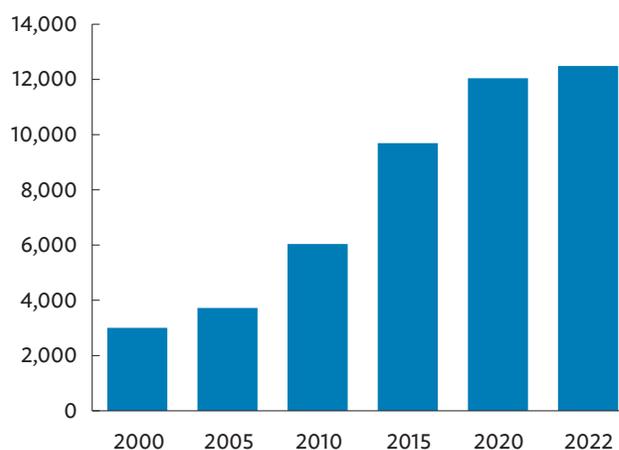
Note: Asia and the Pacific includes Hong Kong, China; India; Indonesia; Japan; Malaysia; Pakistan; the People's Republic of China; the Philippines; the Republic of Korea; Singapore; Taipei, China; Thailand; and Viet Nam.

Source: ADB calculations using data from CEIC Data Company.

although the prevailing rate is still high relative to the rate before the pandemic.³ On the downside, the ongoing energy crisis in Europe could squeeze the region's economic activity, which could stifle Asia's trade in the coming months.

Structurally, as discussed in Chapter 2, Trade and Global Value Chains nontariff measures, such as sanitary and phytosanitary standards and technical trade barriers, remain a considerable trade hindrance. The number of active nontariff measures imposed on Asia exceeded 12,000 in 2020, which is more than threefold that in 2000 (Figure 1.2). Worryingly, the trend suggests a steady increase, with data as of July 2022 already exceeding the number for the entire 2020.

Growth in the region's services trade value was robust through the second quarter of 2022, although like merchandise trade, the rate is gradually declining. Total

Figure 1.2: Trade-Related Measures Imposed on Asia and the Pacific (number)

Note: Based on cumulative number of nontariff measures in force as of the end of each year.

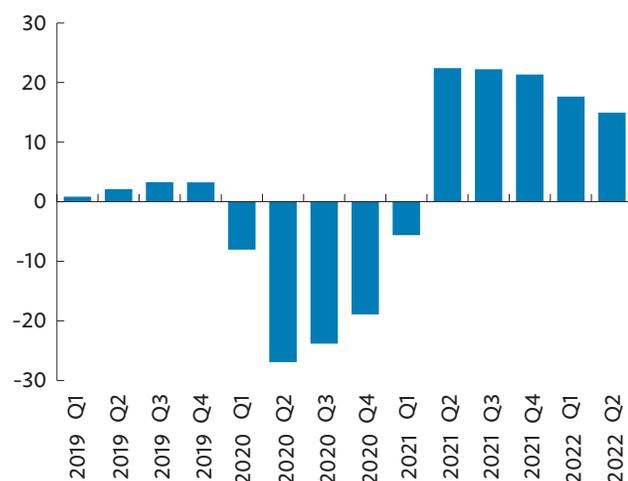
Source: ADB calculations using data from World Trade Organization. Integrated Trade Intelligence Portal. <https://i-tip.wto.org/goods/default.aspx> (accessed July 2022).

services trade grew by about 20% through to the Q2 2022, compared with the same quarter of 2021 (Figure 1.3). Sectors leading that growth were transportation; telecommunications, computer, and information; and other business services. Gross transaction value rose close to that in the same period in 2019 before the pandemic hit.⁴ Advanced estimates indicate that the global momentum is sustained (WTO 2022), which bodes well for the region's trade prospects.

Digital services trade gained importance in recent years with a rise in digitally enabled cross-border trade transactions. Evidently, its share in the total services trade in Asia is estimated to have risen from less than 35% in 2005 to over 55% in 2020 (ADB 2022b). However, digital regulations in Asian economies (e.g., telecom regulations, data protection, competition policy, cybersecurity act, and others) are found to be relatively

³ The weekly Freightos Baltic Index (Global Container Freight) dropped from over \$11,100 in the second week of September 2021 to about \$2,800 in the last week of November 2022. See Freightos Data. Freightos Baltic Index - Global Container Freight. <https://fbx.freightos.com/> (accessed December 2022).

⁴ Annualized data refer to the four-quarter moving sum. The latest data are as of Q1 2022.

Figure 1.3: Services Trade Value Growth—Asia and the Pacific (% change, year-on-year)

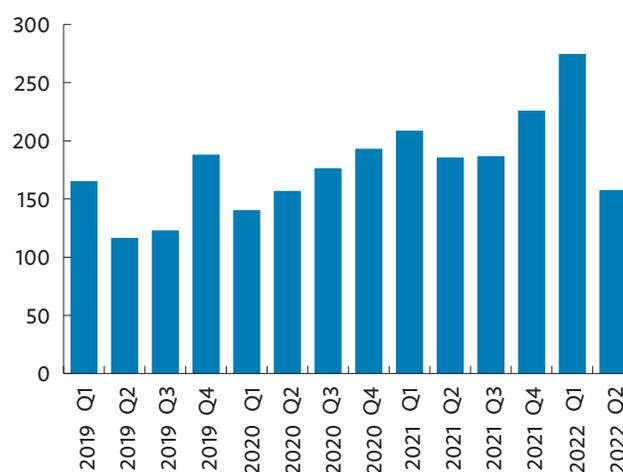
Q = quarter.

Notes: Trade in services is computed as trade in services credits plus debits. Asia and the Pacific includes Armenia; Australia; Cambodia; Georgia; Hong Kong, China; India; Indonesia; Japan; Kazakhstan; Malaysia; Nepal; New Zealand; Pakistan; the People's Republic of China; the Philippines; the Republic of Korea; Singapore; Taipei,China; and Thailand.

Source: ADB calculations using data from International Monetary Fund Balance of Payments and International Investment Position Statistics. <https://data.imf.org/BOP> (accessed November 2022).

less integrated compared with traditional merchandise trade regulations (e.g., tariffs, quota, licensing standards, and procedures) (UNESCAP and OECD 2022).⁵

Net foreign direct investment (FDI) receipts of Asian economies show resilience in the first half of 2022, although data in the second quarter hint some growing apprehensions. Traditionally large FDI recipients appear to have had a mixed performance year-to-date (Figure 1.4). FDI inflows to Australia; Hong Kong, China; India; and Japan were bulkier than the previous year while inflows into the PRC and Singapore receded marginally. The year-to-date value of inflows into these economies are notably generally higher than they were in the same period in 2019. Inflows have also risen markedly in other developing economies in the region. Taipei,China in East Asia; and Armenia and Georgia in Central Asia have at least doubled their inflows year-to-date relative to the previous year.

Figure 1.4: Inward Foreign Direct Investment—Asia and the Pacific (\$ billion)

Q = quarter.

Notes: Asia and the Pacific includes Armenia; Australia; Bangladesh; Cambodia; Georgia; Hong Kong, China; India; Indonesia; Japan; Kazakhstan; the Kyrgyz Republic; the Lao People's Democratic Republic; Malaysia; Mongolia; New Zealand; Pakistan; the People's Republic of China; the Philippines; the Republic of Korea; Singapore; Sri Lanka; Taipei,China; Thailand; Uzbekistan; and Viet Nam. The data refer to net direct investment liabilities (i.e., foreign placements net of foreign withdrawals).

Source: ADB calculations using data from CEIC Data Company.

While still robust, investors sentiment for the region in the medium and long terms is arguably weighed down by global economic uncertainties and the pressure for multinational companies to reshore (Knizek, Jenner, and Dharmani 2022). On the other hand, global and domestic infrastructure expansion plans that are a part of the recovery agenda will help sustain the momentum. For example, the Group of Seven economies have launched the 5-year, \$600 billion Partnership for Global Infrastructure and Investment project (Savoy and McKeown 2022), which is said to mainly catalyze private finance and use official finance on a limited scale.

Enhancing the competitiveness of Asian economies' investment climate in the coming years may require a reexamination of domestic investment laws in the context of the international tax reform being pursued, the so-called inclusive framework. As discussed in Chapter 3: Cross-Border Investment, these may include

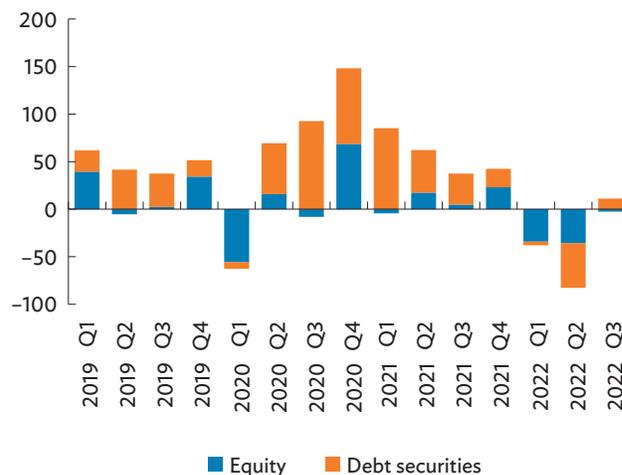
⁵ The definition of the Asia and Pacific region here is based on United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and Organisation for Economic Co-operation and Development (OECD) (2022).

incentives in tax, research and development, and regulations. Corporate income tax (CIT) incentives are a significant component of that work. Tax Foundation data show that CIT rates across economy groups have steadily declined over the years (Figure 1.5a) and suggest that CIT rates in Asia in 2021 are lower than Africa, Latin America, and North America but higher than in the European Union and the Middle East. Asian economies have introduced several investment incentives in recent years, particularly CIT-based measures (Figure 1.5b). The aggregate number of measures in Asia is more than the tally in Europe and North America, and Latin America and the Caribbean, but less than in Africa.

Asia’s net portfolio investments have receded in the first 9 months of 2022, reflecting near-term apprehensions about corporate earnings, debt yields, and narrowing interest rate differential between regional economies and advanced economies. Steep US Federal Reserve policy rate hikes were arguably pivotal in the direction of capital flows during the period. The Federal Reserve increased its policy rate by 425 basis points between mid-March and end-December 2022. Capital markets subsequently wobbled, while local currencies in the region depreciated considerably against the US dollar. Reversing the net

portfolio investment flows hinges on the effectiveness of inflation containment measures and the pace of stabilization in financial conditions (Figure 1.6).

Figure 1.6: Nonresident Portfolio Inflows—Asia and the Pacific (\$ billion)



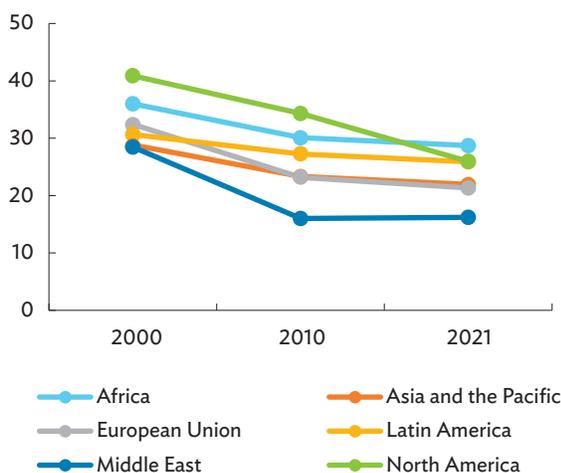
Q = quarter.

Note: Asia and the Pacific includes India; Indonesia; Malaysia; Mongolia; Pakistan; the People’s Republic of China; the Philippines; the Republic of Korea; Sri Lanka (equity); Taipei,China (equity); Thailand; and Viet Nam (equity).

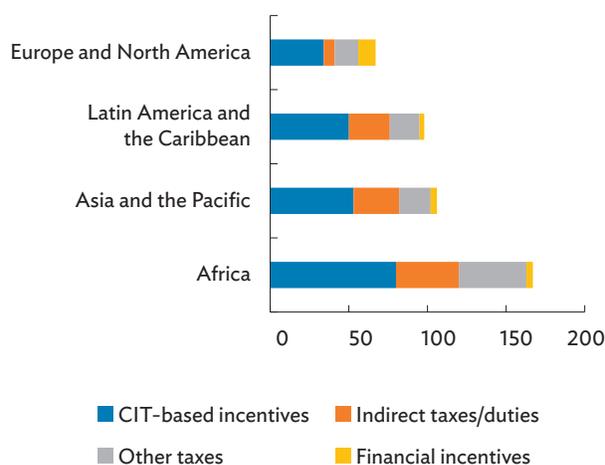
Source: ADB calculations using data from Institute of International Finance. Monthly Emerging Markets (EM) Portfolio Flows Database. <https://www.iif.com/Research/Download-Data#PortFlows> (accessed October 2022).

Figure 1.5: Average Statutory Corporate Income Tax Rate and New Investment Incentives by Region

(a) Average statutory corporate income tax rate (% per annum)



(b) New investment incentives by type (2011–2021, number)



CIT = corporate income tax.

Sources: ADB calculations using data from Tax Foundation. Corporate Taxes database. <https://taxfoundation.org/publications/corporate-tax-rates-around-the-world/> (accessed August 2022); and United Nations Conference on Trade and Development (2022).

Reassuring investors arguably necessitates containment of solvency risks as debt has piled up in some economies in the region, as discussed in Chapter 4: Financial Cooperation. Asian economies' credit default swap spreads have been inching up generally since the start of 2022, although the wider dispersion indicates that the perceived risk is evolving in a dissimilar manner across the region (Figure 1.7a). The JP Morgan Emerging Markets Bond Index sovereign stripped spreads underline even more the divergence in risk perception for Asian economies with the inclusion in the sample of Mongolia, Pakistan, and Sri Lanka—economies facing more challenges than others in Asia (Figure 1.7b).

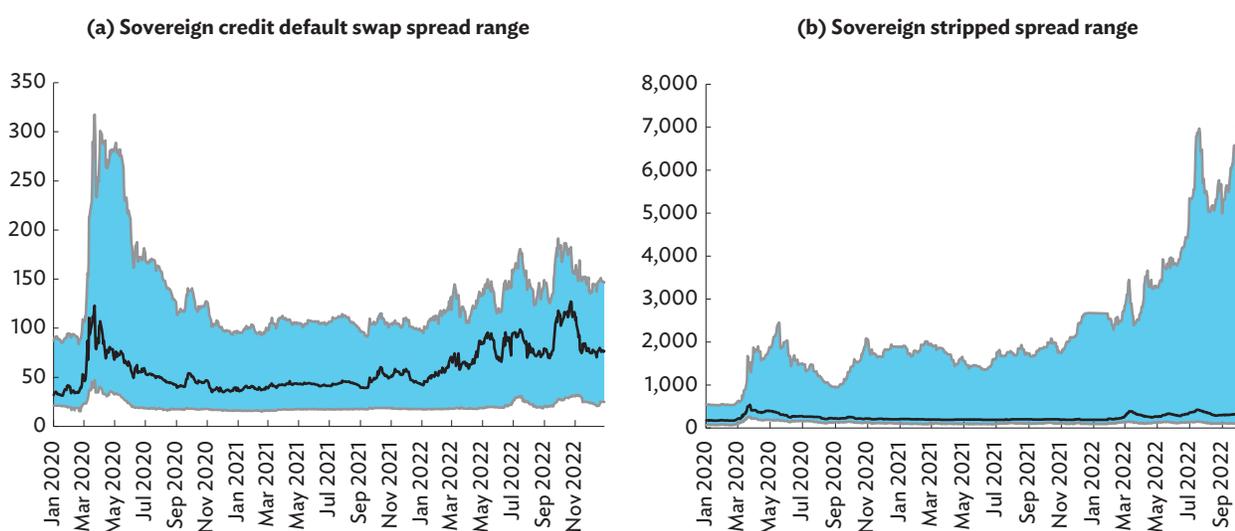
The buoyancy of remittances was pivotal in sustaining private consumption at the height of COVID-19 restrictions, while a recent revival of tourist arrivals brought some relief. Inflows of overseas-based individuals also partly supported the external positions of the economies. However, as with the previous year, data in recent months suggest a mixed picture. Robust inflow appears to continue in economies like Armenia, Georgia, Kazakhstan, and Samoa in 2022, with year-to-date rates

outpacing those in 2021 (Figure 1.8). Two factors that may underpin the strength on remittance inflows into Central Asia, as discussed in Chapter 5: Movement of People, are (i) the rise in energy prices that resulted in increased demand for migrants in several sectors in the Russian Federation, and (ii) the relocation of families and enterprises because of the Russian invasion of Ukraine.

In contrast, the decline in remittances persists, and even steepened in 2022 in Bhutan and Sri Lanka. The sharp fall of the value of the Sri Lankan rupee against the US dollar—about 80% between March and October 2022—resulting from the central bank's decision to float the currency, coupled with dire socioeconomic and political conditions domestically, possibly means that nationals offshore are holding up from sending money home. Bhutan's year-to-date remittance slump stems from the peculiar large drop in transfers coming from Australia.

Meanwhile, tourist arrivals are slowly picking up and providing much-needed support to ailing tourism and affiliated enterprises. The level is still far off from 2019 arrivals in many economies, but the trajectory is on the

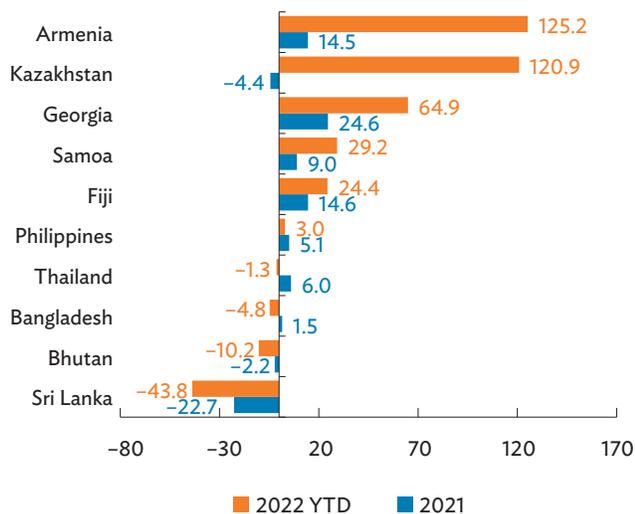
Figure 1.7: Perceived Solvency Risk—Asia and the Pacific (basis points)



Notes: The black line refers to the median value. The gray lines refer to the upper and lower bounds. The blue shade refers to the range. For the credit default swap, Asia and the Pacific includes Indonesia, Japan, Malaysia, the People's Republic of China, the Philippines, the Republic of Korea, Thailand, and Viet Nam. The data refer to the mid-spreads based on 5-year senior sovereign US dollar bonds. For the sovereign stripped spreads, Asia includes Armenia, India, Indonesia, Kazakhstan, Malaysia, Mongolia, Pakistan, Papua New Guinea, the People's Republic of China, the Philippines, and Sri Lanka. The data refer to JP Morgan Emerging Markets Bond Index Sovereign Stripped Spreads.

Source: ADB calculations using data from Bloomberg.

Figure 1.8: Remittances Growth—Selected Asian Economies (% , year-on-year)



YTD = year to date.

Note: YTD data are as of October 2022 for Bangladesh; September 2022 for Armenia, Bangladesh, Georgia, Kazakhstan, Samoa, Sri Lanka, and Thailand; August 2022 for the Philippines and Fiji; and July 2022 for Bhutan.

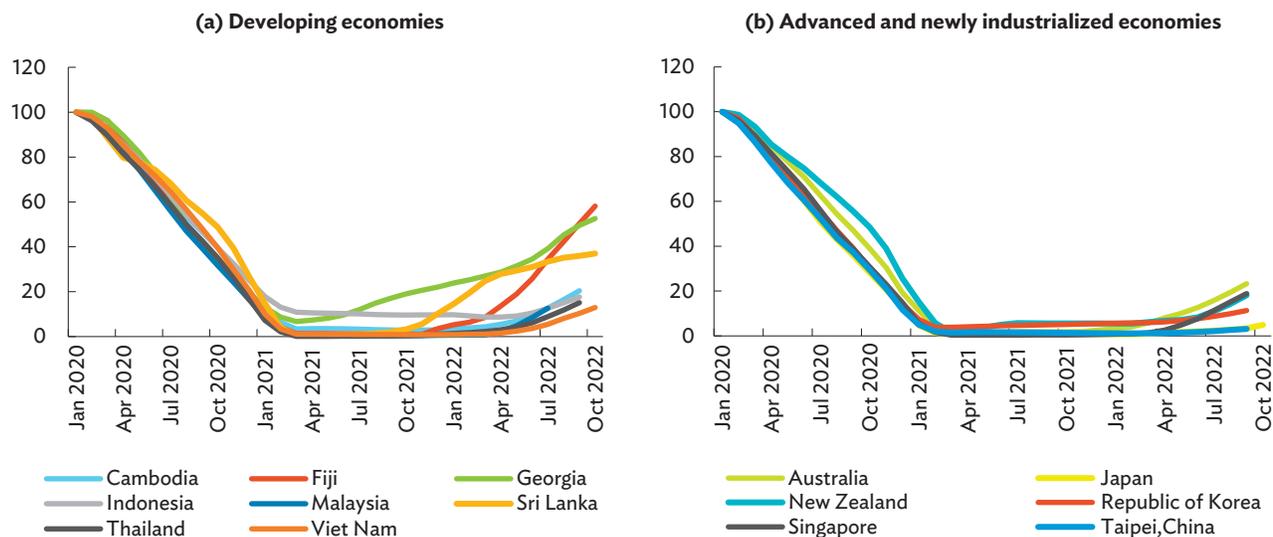
Source: ADB calculations using data from domestic sources.

rise. The rate of recovery is however uneven across the region, with Georgia and Fiji enjoying larger increases than regional neighbors in annualized terms (Figure 1.9). It helps that many developing Asian economies rank well in tourism competitiveness compared with counterparts outside the region, but ample scope remains to build strategic partnerships and explore new source markets to maximize the potential of the sector, as noted in Chapter 5: Movement of People.⁶

Regional integration is progressing steadily, with Southeast Asia integrating faster than other Asian subregions.

Notwithstanding the COVID-19-induced disruption to economic activities across the world, the Asia-Pacific Regional Cooperation and Integration Index (ARCI) has remained relatively stable, declining only a marginal 0.3% from 2019 to 2020 (Figure 1.10).⁷ Subindexes broadly support resilience in the overall index.

Figure 1.9: International Tourist Arrivals—Selected Asian Economies (January 2020 = 100, 12-month moving sum)

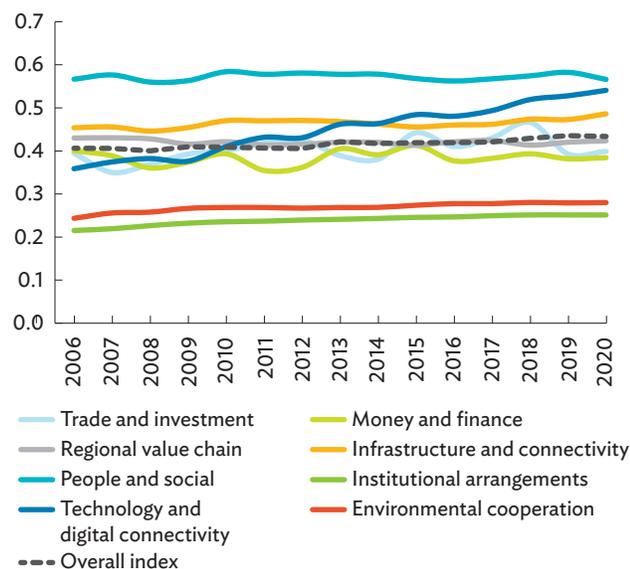


Source: ADB calculations using data from CEIC Data Company and domestic sources.

⁶ For tourism competitiveness, refer to Uppink and Soshkin (2022).

⁷ ARCI is a multidimensional measure of regional integration. The composite index captures the extent of integration with Asia in terms of trade and investment, money and finance, regional value chain, infrastructure and connectivity, people and social dimensions, institutional arrangements, technology and digital connectivity, and environmental cooperation. Subregional indexes measure integration of the subregion with Asia as a whole.

Figure 1.10: Overall and Dimensional Integration Indexes—Asia and the Pacific



Notes: Based on ADB's Asia-Pacific Regional Cooperation and Integration Index (ARCII) estimates. Higher values denote greater regional integration.

Source: ADB, Asia Regional Integration Center. ARCII Database. <https://aric.adb.org/database/arcii> (accessed December 2022).

Relative to the other regional blocs, Asia trails the EU in its degree of regional integration while staying ahead of the Middle East, Africa, and Latin America (Figure 1.11a). Within the region, the highest degree of integration with Asia is in Southeast Asia, closely followed by East Asia. In comparison to other subregions, Southeast Asia fares better in the dimensions of trade and investment, money and finance, infrastructure and connectivity, institutional arrangements, and people and social dynamics (Figure 1.11b). East Asia has a slight edge in technology and digital connectivity integration while Central Asia also reports high scores in this dimension.

Economies covered by the subregional initiatives in Southeast Asia, specifically the Association of Southeast

Asian Nations (ASEAN) and the Greater Mekong Subregion (GMS), are relatively more integrated among them than economies in other subregional programs such as the Central Asia Regional Economic Cooperation Program (CAREC), and South Asia Subregional Economic Cooperation (SASEC) (Figure 1.11c). All subregional initiatives showed improvement in the extent of intrasubregional integration, except for SASEC, which experienced a decline.

Climate-related risks emanating from trade and investment call for deeper global cooperation.⁸

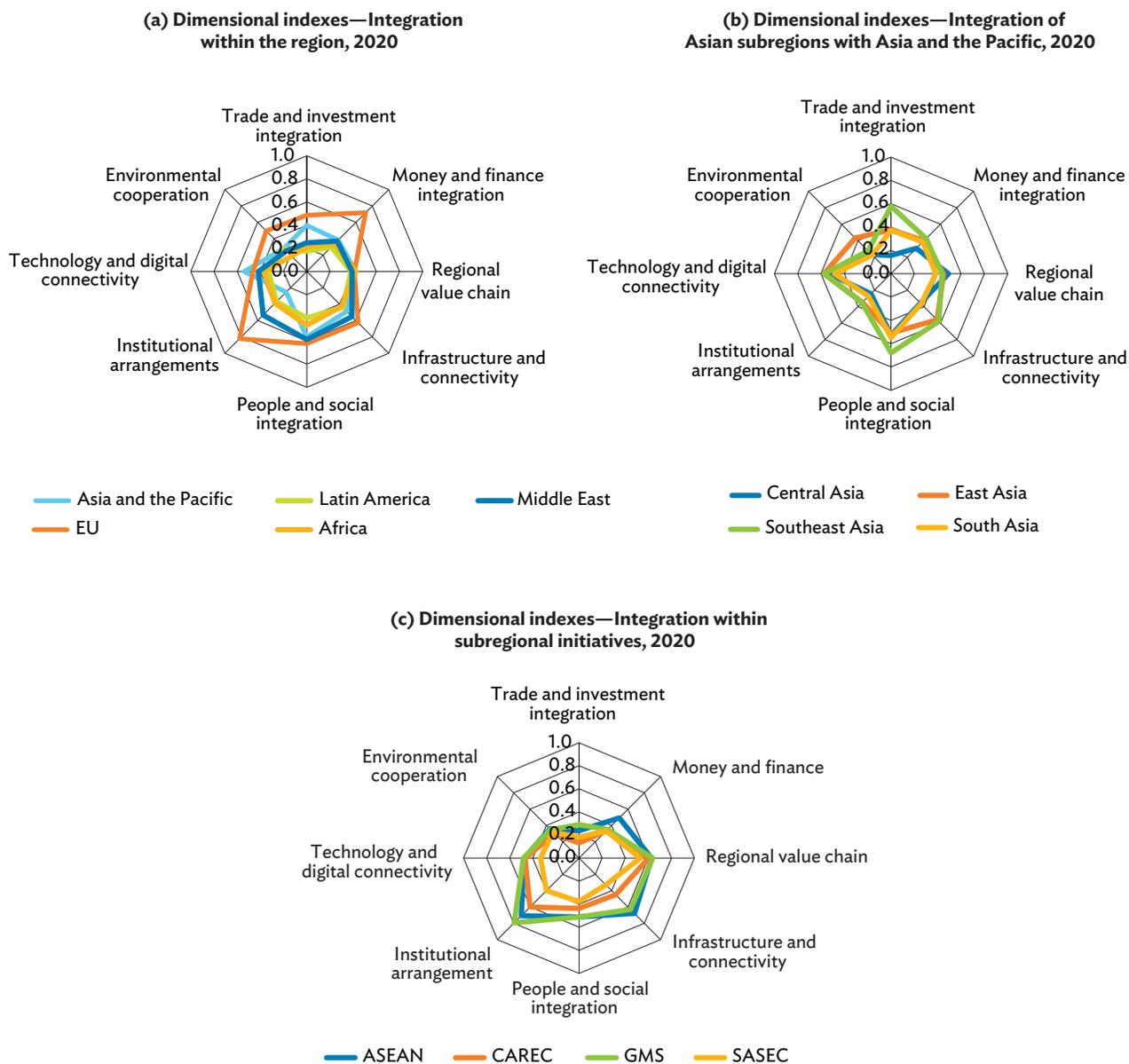
Asia is estimated to account for about 50% of the global emissions in 2019 as discussed in Chapter 7: Theme Chapter—Trade, Investment, and Climate Change in Asia and the Pacific.⁹ Notably, Asia has become the net emissions exporter to non-Asian economies. Its carbon emissions in production have exceeded that of consumption as it is the major provider of products to meet growing global demand.

Asia hosts more FDI from carbon intensive industries than other regions. On average, Asia accounted for 33% of inward carbon intensive FDI flows from 2008 to 2016 on average, followed by North America (29.7%) and Europe (22.5%) (Figure 1.12). East Asia and Southeast Asia hosted about three-quarters of the carbon intensive FDI, mainly in manufacturing, retail trade, mining, gas and oil extraction, and utilities. Nevertheless, Asia's share of FDI in highly carbon intensive industries relative to non-carbon intensive industries remains within the global average. Indeed, for non-carbon intensive industries, Asia was the second destination for investments after Europe, making up for 20% of greenfield investment for the period.

⁸ This subsection is based on Chapter 7: Theme Chapter—Trade, Investment, and Climate Change in Asia and the Pacific.

⁹ ADB calculations using data from OECD. Carbon dioxide emissions embodied in international trade (TECO₂) data set.

Figure 1.11: Indexes of Regional Integration



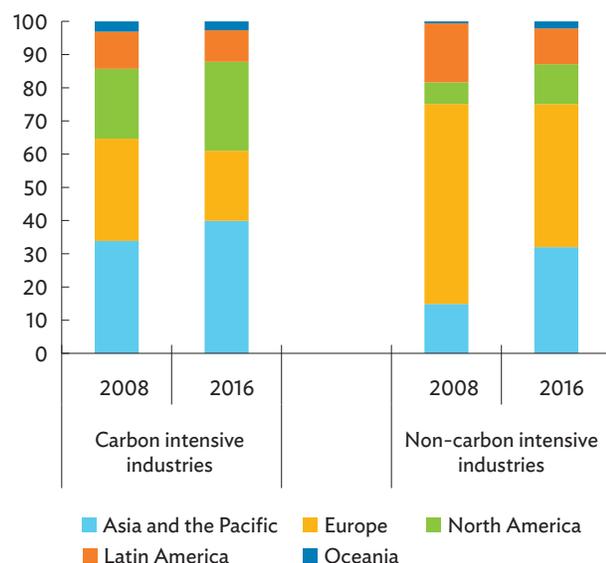
ASEAN = Association of Southeast Asian Nations, CAREC = Central Asia Regional Economic Cooperation Program, EU = European Union (27 members), GMS = Greater Mekong Subregion, SASEC = South Asia Subregional Economic Cooperation.

Source: ADB. Asia Regional Integration Center. Asia-Pacific Regional Cooperation and Integration Database. <https://aric.adb.org/database/aricii> (accessed December 2022).

Moreover, the carbon dioxide (CO₂) content of trade involving Asia is high, which reflects the region’s industrial structure with high dependence on the manufacturing sector relative to services. In 2018, carbon intensive exports comprise about 62% of the

region’s total exports, which is higher than EU+United Kingdom (UK) (40%) and North America (37%). Meanwhile, the proportion of carbon intensive imports in the region’s total imports was 58%—also higher than the shares of EU+UK (41%) and North America (53%).

Figure 1.12: Carbon Intensive and Non-Carbon Intensive Foreign Direct Investment by Host Region (%)



FDI = foreign direct investment.

Notes: The figure shows share of FDI by geographic location of destination economy in 2008 and 2016. The graph does not include data from Africa and the Middle East.

Sources: ADB calculations using data from Financial Times, fDI Markets; Groningen Growth and Development Centre, World Input-Output Database. <https://www.rug.nl/ggdc/valuechain/wiod/?lang=en> (accessed November 2022); and methodology based on Timmer et al. (2015).

In the coming years, a deepening of regional cooperation on trade in environmental goods, reinforcing environmental and climate change chapters in free trade agreements, along with trade facilitation, are going to be pivotal in the region's efforts to decarbonize production and trade. Coming up with an acceptable definition of environmental services or criteria in determining their environmental nature is a crucial first step. Encouraging environmental goods trade likewise necessitates going beyond Asia-Pacific Economic Cooperation's (APEC) list of 54 environmental goods that enjoy preferential treatment. Just as vital is the interoperability of certification systems that enable the use of mutual recognition agreements. A separate chapter on climate change mitigation policies in the regional trade agreements of developing Asia or increased utilization of green economy agreements will also be beneficial.

At the domestic level, it is crucial to nurture the production of green goods, encourage green business,

and put together the appropriate financial incentives. To this end, investment policy frameworks can be made more in line with the climate change agenda. Having a trustworthy carbon pricing mechanism, which helps internalize the costs of pollution, is also key. This entails that policy makers have to keep up with carbon pricing instruments used in reducing emissions cost-effectively, depending on the economy context, and lay out the policies necessary to make them operable.

Regional cooperation remains crucial for a seamless supply chain, enhanced digital trade, and sustainable tourism recovery.

Regional cooperation is crucial in the region's efforts to chart a path for post-COVID-19 economic recovery while navigating geopolitical tensions. Climate change is fast emerging as a systemic challenge, and digital transformation is presenting both opportunities and threats. Addressing vulnerabilities in supply chains have become a key policy issue for Asian economies.

Regional trade agreements (RTAs), as one of the forms of regional cooperation, have potential to mitigate the adverse impact of supply chain disruptions. RTAs between participating economies promote strategic relations, enabling the flow of goods even during periods of crisis. Hayakawa and Imai (2021) acknowledge that even during the height of the export ban during COVID-19, exports of limited quantity of essential goods continued based on economies' bilateral relations and demographic ties. Similarly, Basu-Das and Sen (2022) agree that the onset of the pandemic hurt exports of essential goods. But the damage was not as great for economies engaged in RTAs, emphasizing the role of governments in committing to RTAs and implementing cooperation measures that lower trade barriers and create seamless logistics (Box 1.1).

The ongoing trend toward deeper trade agreements is argued to promote trade and boost global value chain integration (Rocha and Ruta 2022).¹⁰ Implementation of trade facilitation measures, for instance, as committed to the World Trade Organization (WTO) Trade Facilitation

¹⁰ Mattoo, Rocha, and Ruta (2020) define deep trade as "reciprocal agreements between countries that cover not just trade but additional policy areas, such as international flows of investment and labor, and the protection of intellectual property rights and the environment, among others."

Box 1.1: Regional Trade Agreements Help to Mitigate the Adverse Impact on Trade Flows During Crisis

Ensuring that trade channels for essential commodities remain unhampered in times of crisis is critical to lessen the impact of economic shocks. However, as circumstances at the onset of the coronavirus disease (COVID-19) pandemic showed, achieving such an objective requires more concerted and targeted cross-border multilateral policies.

Basu-Das and Sen (2022) noted that Asian economies' participation in the trade of COVID-19 essential medical goods tends to be influenced by their level of economic development. Low-income economies are largely dependent on imports, whereas selected middle- and high-income economies are part of two-way trade and engaged in the low end of the vaccine value chain (such as vaccine packaging materials and protective gears). The authors, who examined bilateral trade data for selected medical items that were clustered into seven categories, further point out the following:

- (i) The decline in global trade interdependence in selected categories of essential medical goods from 2019 to 2020 suggests that governments prioritized their own populations over others as infection rates grew.
- (ii) The People's Republic of China and Japan were two economies whose overall trade interdependency in these goods dropped in 2020 from 2019.

- (iii) Trade interdependencies are higher for Asian economies in personal protective equipment and the lower end of the vaccine value chain—a segment dominated by developed economies in Europe and North America.

In such conditions, the authors argue and empirically demonstrate that regional trade agreements (RTAs) are significant trade facilitation enablers that helped economies access essential medical goods when COVID-19 infection rates were rising and governments were focused on prioritizing their own populations. As shown in the box table, economies in RTAs appear more likely to engage in trade in essential medical goods, and this mitigates the impact of the pandemic on the vaccine and test kits supply chain in these economies. As bilateral trade costs are reduced, participation in RTAs or commitment to trade facilitation initiatives arguably provides a channel to access these essential medical goods like a form of insurance. Being part of an RTA also tends to strengthen participation in global vaccine value chains.

The authors opine that RTAs can be further utilized to identify different source economies for imports of essential goods and enhance investment in domestic production of these goods to diversify risks; lower or eliminate trade barriers; simplify border procedures; and enhance hard and soft infrastructure to improve access to essential medical goods between economies.

Effect of Regional Trade Agreements on Essential Medical Goods Trade Accounting for COVID-19 Cases

Variables	PPE	Test Kits	Vaccines	Ingredients	Vaccine Primary Packaging	Vaccine Storage and Distribution	Vaccine Administration
Export partner	-0.116*** [0.017]	-0.015 [0.017]	-0.006 [0.034]	-0.047*** [0.015]	-0.047*** [0.011]	-0.046*** [0.015]	-0.009 [0.010]
COVID-19 RTA	0.133*** [0.025]	0.043* [0.023]	0.101** [0.051]	0.090*** [0.023]	0.082*** [0.023]	0.060*** [0.023]	0.010 [0.022]
Import partner	0.050*** [0.010]	0.019 [0.016]	-0.020 [0.035]	0.008 [0.008]	-0.039*** [0.007]	-0.019 [0.011]	-0.042*** [0.014]
COVID-19 RTA	-0.015 [0.022]	0.016 [0.024]	-0.030 [0.051]	-0.033 [0.03]	0.067*** [0.02]	0.070*** [0.022]	0.11*** [0.025]
Log pseudo likelihood	-3.24E+11	-2.31E+11	-1.88E+10	-3.71E+10	-1.92E+10	-1.90E+10	-3.82E+10
Pseudo R ²	0.5095	0.6047	0.7245	0.4234	0.6134	0.4595	0.6370
Observations	115,473	57,327	14,064	86,400	28,800	86,400	28,800

COVID-19 = coronavirus disease, PPE = personal protective equipment, RTA = regional trade agreement.

Notes: Estimation results shown by the Poisson pseudo-maximum likelihood method. ***, **, and * denote 1%, 5%, and 10% levels of statistical significance, respectively. The standard errors reported in square brackets are those clustered by pairs of economies. In all specifications, we control for economy-pair fixed effects and trade flow-year fixed effects following Yotov et al. (2016) that proxies for multilateral resistance terms in the structural gravity equation first suggested by Anderson and van Wincoop (2003). COVID-19 indicates the number of confirmed cases.

Source: Basu-Das and Sen (2022).

Source: ADB staff based on Basu-Das and Sen (2022).

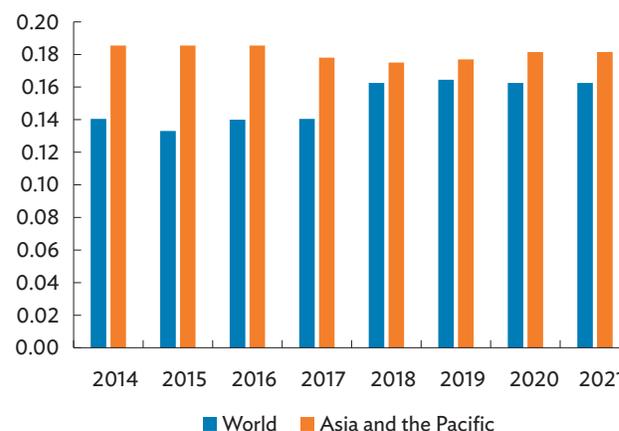
Agreement and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) digital trade, remains crucial. Addressing other challenges, such as export restrictions, narrow source market, and weaknesses in the human component, transport network, information technology systems, assumes priority given the macroeconomic impact of inflationary pressure due to supply chain disruptions (UNESCAP and ADB 2021).

In addition, not many developing economies have specific provisions to govern trade policy in crisis situations (Alisjahbana 2020). While RTAs generally include clauses to permit exceptions in time of emergencies, they do not feature provisions to effectively deal with trade disruptions in emergency situations for the most part. Shirotori et al. (2021) posit that it is relevant to have dedicated provisions in the trade agreements that distinctly define an “emergency situation” and list essential goods and services that ought not to be subjected to tight restrictions to avoid severe shortage. They also note the importance of establishing special government procurement arrangements and emergency mutual recognition of technical regulations.

As the fourth industrial revolution deepens, the importance of digitalization of trade becomes more pronounced. Digital services, digital payment, and digitally enabled trade have grown rapidly along with new technologies. Simultaneously, restrictions in digital space have increased in recent years, limiting the potential of digital trade for benefits of small and medium-scale enterprises and the marginalized population. Data from the OECD show that in general, digital trade restrictiveness globally has marginally risen since 2014 (Figure 1.13). In Asia, the policies are relatively more stable, although the region remains more restrictive than the rest of the world based on the median indexes. Addressing the challenges require coordination among economies to establish and modernize digital rules (e.g., privacy laws, cybersecurity act, data flow, etc.), and harmonize digital policies.

The Comprehensive and Progressive Trans-Pacific Partnership (CPTPP), Digital Economy Partnership Agreement, and the Singapore–Australia Digital

Figure 1.13: Digital Services Trade Restrictiveness—World and Asia and the Pacific (median)



Notes: The index takes the value from 0 (completely open) to 1 (completely closed). There are 77 economies in the sample, 18 of which are in Asia. The Asian economies included in the database are Australia; Brunei Darussalam; Cambodia; Hong Kong, China; India; Indonesia; Japan; the Lao People’s Democratic Republic; Malaysia; Nepal; New Zealand; Pakistan; the People’s Republic of China; the Republic of Korea; Singapore; Thailand; Vanuatu; and Viet Nam.

Source: ADB calculations using data from Organisation for Economic Co-operation and Development. OECDStat: Digital Services Trade Restrictiveness Index. https://stats.oecd.org/?datasetcode=STRI_DIGITAL (accessed October 2022).

Economy Agreement are three agreements involving Asian economies that hold promise to address digital policy fragmentation. According to the World Economic Forum (WEF 2020), while the scope and coverage of the three agreements vary, they share common objectives: reducing trade barriers to the digital economy; building compatible standards and creating greater regulatory harmonization to facilitate interoperability and trust; and facilitating cooperation and capacity-building mechanisms, among others.

A comparison of the features of the trade agreements suggests that Singapore–Australia Digital Economy Agreement has more extensive provisions on digital issues than the other two (Table 1.1). The set of provisions include commitments to promote digital trade, pushing for paperless trading and electronic invoicing, online consumer protection, open government data, dispute settlement, and commonality in standards and protocols, among others. The CPTPP, on the other hand, has the least number of provisions, although it also covers a number of pertinent concerns.

The Digital Standards Initiative, under the auspices of the Asian Development Bank (ADB), the Singapore government, and the International Chamber of Commerce, is another highly relevant undertaking in that it aims to bridge gaps in digital standards and practices such as the use of digital ledgers and QR codes (ADB 2022c). The initiative mainly seeks to forge an agreement among exporters, shippers, ports, customs, warehousing/logistics, and importers concerning the standards and protocols to underpin digitalization. To this end, a proposed advisory board will bring stakeholders together “to promote and explain the measures that are needed, such as a model digitalization law designed by the United Nations.”

As the tourism sector is on its path to recovery, building a sustainable one, leveraging on digitalization and addressing challenges of climate change concerns is important. Prior to the pandemic, digitally enabled tourism services have been growing rapidly in line with the deepening of digitalization. It is estimated that the global revenue of online travel platforms alone is already over \$1 trillion in 2019 (Villafuerte, Narayanan, and Abell 2021), which is only lower than the e-commerce industry. The Asian region accounts for over 37% of the global revenue pie, which is roughly the same as the combined total of the US (20%) and the euro area (17%), largely driven by the PRC.

The appeal of digitalized services arguably hinges on the ease in scanning options and in conducting the transactions. According to the United Nations World Tourism Organization (UNWTO) the use of technologies has made tourism more efficient, inclusive, and economically and environmentally sustainable than previously. These tools are also deemed to have “facilitated innovation and rethinking of processes, with a view to tackling challenges such as seasonality and overcrowding and developing smarter destinations.”¹¹

Many regional organizations have strengthened their cooperation around digitalization of the tourism industry. They have either promised to encourage greater use of technology in tourism services delivery or have committed to developing the skills for tourism marketing and growth. For example, ASEAN governments, in 2020, adopted the ASEAN Declaration on Digital Tourism (ASEAN 2020) emphasizing the use of digital technology for tourism development to enhance competitiveness and growth.

Separately, the Pacific Tourism Organisation, with the support of the Government of New Zealand, has rolled out a 4-year digital transformation program (SPTO 2021a) in 2021. The program, which is in its second phase focuses on training and projects related to digital marketing, advocacy and communications, and sustainable development and research—all in accordance with the Pacific Tourism Organisation’s Digital Strategy Framework (Solomon Times 2022, SPTO 2021b). Similarly, the Central Asia Regional Economic Cooperation Program (CAREC) Tourism Strategy 2030, reiterates the importance of cooperation to develop digital platforms and promote use of digital tools and data to identify opportunities to upscale cross-border tourism (ADB 2020).

Technology can also help pave the sustainable tourism pathways for the region.¹² Some of the technology-related opportunities ADB (2021) underscores for the sector are in waste, water, and energy management; travel and health requirement coordination; data collection for more informed decision-making; and emission containment through digitization of processes and transactions.¹³

¹¹ UNWTO. Digital Transformation. <https://www.unwto.org/digital-transformation>.

¹² As for the notion of sustainable tourism, UNWTO enumerates three broad parameters. First, environmental resources have to be used optimally in the sense that essential ecological processes are maintained, and natural heritage and biodiversity are conserved. Second, the sociocultural authenticity of the host communities has to be respected, and understanding and tolerance among cultures have to be promoted. Finally, economic benefits have to be fairly distributed among stakeholders, with activities geared toward poverty alleviation (see UNWTO. Sustainable Development. <https://www.unwto.org/sustainable-development>). European Commission (2016) succinctly lays out how sustainable tourism is related to concepts such as ecotourism, ethical tourism, and responsible tourism.

¹³ These are some of the risks and challenges identified by ADB (2021).

Table 1.1: Comparison of Digital Trade Provisions in Regional Agreements

Key	No.	Digital Trade Provisions	DEA	DEPA	CPTPP
✓	1	Provision is identical (or very close to identical)	✓	✓	✓
✓ (+)	2	Provision article is more comprehensive	✓ [5]	✓ [3.2]	✓ [14.3]
✓ (-)	3	Provision article is less comprehensive	✓ [6]	✓ [3.3]	✓ [14.4]
✗	4	No similar provision articles	✓ [8]	✓ [2.3]	✓ [14.5]
[]	5	Numbers in brackets refer to the agreement's article number	✓ (+) [9]	✗	✓ (-) [14.6]
	6	Paperless trading	✓ (+) [12]	✓ (+) [2.2]	✓ (+) [14.9]
	7	Electronic invoicing	✓ (+) [10]	✓ (-) [2.5]	✗
	8	Electronic payments	✓ [11]	✓ [2.7]	✗
	9	Express shipments	✓ [13]	✓ [2.6]	✓ [5.7]
	10	Online consumer protection	✓ [15]	✓ [6.3]	✓ [14.7]
	11	Cooperation on competition policy	✓ [16]	✓ [8.4]	✗
	12	Personal information protection	✓ (-) [17]	✓ (+) [4.2]	✓ (-) [14.8]
	13	Unsolicited commercial electronic messages	✓ (+) [17]	✓ (-) [4.2]	✓ (-) [14.8]
	14	Submarine telecommunications cable systems	✓ [22]	✗	✗
	15	Location of computing facilities for financial services	✓ [25]	✗	✗
	16	Data innovation	✓ (-) [26]	✓ (+) [9.4]	✗
	17	Open government data	✓ [27]	✓ [9.5]	✗
	18	Source code	✓ (+) [28]	✗	✓ (-) [14.17]
	19	Digital identities	✓ [29]	✓ [7.1]	✗
	20	Standards and conformity assessment for digital trade	✓ [30]	✗	✗
	21	Artificial intelligence	✓ [31]	✓ [8.2]	✗
	22	Fintech and regtech cooperation	✓ [32]	✓ [8.1]	✗
	23	Dispute settlement	✓ (+) [21]	✓ (+) [14]	✓ (-) [14.18]

CPTPP = Comprehensive and Progressive Trans-Pacific Partnership, DEA = Digital Economy Agreement (Singapore–Australia), DEPA = Digital Economy Partnership Agreement.

Source: World Economic Forum (2020).

The Southeast Asia Sustainable Tourism Hub was launched in March 2022 under the auspices of ADB in line with the post-COVID-19 regional cooperation agenda. The hub is geared toward accelerating a sustainable and inclusive recovery of the tourism industry through assistance to local tourism entrepreneurs, especially women and youth, including adoption of digital platforms to grow their businesses (ADB Knowledge Events 2022). Along the same lines, during the 11th APEC Tourism Ministerial Meeting in August 2022, the 21 member economies likewise agreed to a set of policy recommendations that emphasizes economic, social, cultural, and environmental actions (APEC 2022).

New emerging issues require collective actions.

In post-COVID-19 recovery, regional cooperation among Asian economies will be shaped by global, regional, and domestic forces. While developing economies cooperate at the global level through multilateral frameworks to resolve challenges around global public goods (such as climate change and future pandemics), they also simultaneously manage their own macroeconomic policies to serve domestic interest. Regional cooperation among like-minded economies will continue to assume importance to advance globalization.

In the coming years, cooperation will be sought in areas of hard and soft (regulations) infrastructure to address shared technological, environmental, and socioeconomic challenges. While the rise of nationalist sentiment and the expansion of geopolitics (driven by the shift in economic power, trade conflicts, technology rivalry, the Russian invasion of Ukraine, and others) will be considered as part of the new normal, unpacking the potential of digital transformation will be crucial for economic competitiveness and greater inclusiveness. Investment in the green economy will gain traction. And governments will cooperate to tackle the pressing issue of inequality, particularly in accessing social infrastructure.

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