



Boao Forum for Asia

Asian Economic Outlook and Integration Progress

Annual Report 2021



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ACRONYMS

ABIF	ASEAN Banking Integration Framework
ADB	Asian Development Bank
AI	Artificial Intelligence
AIIB	Asian Infrastructure Investment Bank
ARFP	Asia Region Funds Passport
ASEAN	Association of Southeast Asian Nations
BIS	Bank for International Settlements
CBDC	Central Bank Digital Currencies
CIPS	Cross-Border Inter-bank Payment System
CPIS	Coordinated Portfolio Investment Survey
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DGCX	Dubai Gold and Commodities Exchange
DIFC	Dubai International Financial Center
DLT	Distributed Ledger Technology
DMCC	Dubai Multi Commodities Centre
DME	Dubai Mercantile Exchange
ERI-ASIA	Export Reliance Index on Asian Economies
FAST	Fast and Secure Transfers
FDI	Foreign Direct Investment
FinTech	Financial Technology
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GTCN	Trade Connection Network
HKMA	Hong Kong Monetary Authority
IATA	International Air Transport Association
ICT	Information and Communications Technology
IFFO	Infrastructure Financing Facilitation Office
IIF	Institute of International Finance
IMDA	Information and Communication Media Development Authority of Singapore
IMF	International Monetary Fund
IoT	Internet of Things
IPO	Initial Public Offering
JETRO	Japan External Trade Organization
MAS	Monetary Authority of Singapore
MCDF	Multilateral Cooperation Center for Development Finance
MOI	Memorandum of Intent

OECD	Organization for Economic Cooperation and Development
OFDI	Outward Foreign Direct Investment
OFDII	Index of Outward FDI Dependence
QABs	Qualified ASEAN Banks
RCEP	Regional Comprehensive Economic Partnership
RTA(s)	Regional Trade Agreements
SGQR	Singapore Quick Response Code
SWIFT	Society for Worldwide Inter-bank Financial Telecommunication
TPP	Trans-Pacific Partnership
UNCTAD	United Nations Conference on Trade and Development
UPI	Unified Payments Interface
USBEA	US Bureau of Economic Analysis
VCC	Variable Capital Company
WHO	World Health Organization
WTO	World Trade Organization

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FOREWORD

This past 2020 was a year unlike any other. The COVID-19 pandemic has claimed more than 2.7 million lives and caused major economic, trade, and investment downturns and profound changes across the globe. In 2021, the world sees hope of recovery and a stronger call for cooperation, as countries ramp up anti-pandemic and vaccination efforts and begin to bounce back. Asian economies, an “anchor” for multilateralism, play a key role in bolstering global pandemic control, keeping industries and supply chains efficient and stable, and promoting trade and investment.

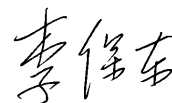
In 2020, facing the once-in-a-century COVID-19 pandemic and the first economic shrink in 60 years, Asian economies stood united and were the first in the world to emerge from the pandemic and reopen. In 2020, Asia’s share in the global economy increased to 47.3%¹ as the continent worked together for greater integration and regional cooperation. Other developments in Asia include ever-increasing trade integration, retained regional centers in the global value chain, strengthening service trades between regional economies, and the fast-track growth of digital trades during the pandemic. These interactions and collaborations have helped Asia respond effectively to the pandemic and the economic challenges.

In 2021 with the COVID-19 being brought under control worldwide, economic recovery in Asia will pick up speed and the emerging economies in the region as a whole are expected to lead other parts of the world in growth rate. Post-pandemic economic development in Asia will be distinguished by stronger integration of intra-regional trade in goods, trade in services (with digital trade as a major contributor), direct investments, and financial markets and greater infrastructure inter-connectivity. The Regional Comprehensive Economic Partnership (RCEP) coming into effect at an early date, together with other regional free-trade agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), will build a broad and strong institutional foundation for liberalizing and facilitating trade and investment within the continent. The alignment between various regional or even global inter-connectivity programs—the Belt and Road Initiative (BRI), Master Plan on ASEAN Connectivity 2025, and Eurasian Economic Union, for example—provide significant impetus for regional trade and economic cooperation and post-pandemic economic recovery and development.

But global challenges such as inadequate cooperation in health and pandemic control, trade protectionism, wealth polarization, climate change, and digital divide will also be more salient in the post-pandemic world, demanding an updated global governance system and new governance solutions. Asia, highly integrated in trade, investment, and finance, has demonstrated through its actions the benefit and significance of economic globalization and multilateral cooperation. There is reason to believe that in the post-pandemic era, Asian economies will be more active and resourceful in helping formulate international economic and trade rules, advance the reform and strengthening of international organizations, build an open world economy, and safeguard economic globalization and multilateralism.

¹ By purchasing price parity.

In 2021 the Boao Forum for Asia will celebrate its 20th Anniversary. This is an important moment to look back on Asia's vigorous development amid the tide of globalization, and look forward to how Asia can contribute to the sustainable development of a greatly changing world. This year also marks the 10th anniversary of the organization's flagship report *Asian Economic Outlook and Integration Progress*. I hope this report will continue to stimulate reflections and discussions on what lies ahead for Asia and how Asia can connect more deeply with the world.



Li Baodong
Secretary General
Boao Forum for Asia

Part I | Asian Economic Outlook



Overview

The COVID-19 pandemic has hit the world, and Asia has been severely impacted. According to statistics published by the World Health Organization (WHO), as of March 7th, 2021, the cumulative number of confirmed cases of COVID-19 in Asia has reached 25,668,000—about 22.1 percent of all confirmed cases in the world; and the cumulative number of deaths is more than 400,000, accounting for 15.8 percent of the global deaths. In 2020, the COVID-19 pandemic brought a heavy blow on the Asian economy, and aggravated the long-standing “three highs and three lows” problems in some Asian economies, i.e. “high debt, asset prices, and income gaps”, and “low growth, interest rates, and inflation”. Despite its ongoing efforts to fight the pandemic, the Asian economy has only achieved fragile and imbalanced recovery.

All Asian economies have experienced a sharp decline in growth rate. According to the World Economic Outlook issued by the International Monetary Fund (IMF) in January 2021, the economic growth rate of Asian economies in 2020 is projected to be -1.7 percent, a decrease of 5.7 percentage points from 2019. However, in light of the global growth contraction for 2020 at -3.5 percent, Asia’s economic growth is significantly better than other regions, and Asia’s share in the global economy, as measured by purchasing power parity (PPP), has therefore further increased by 0.9 percentage point to 47.3 percent from 2019. As Asia’s largest economy, China has made indelible contributions to Asia’s economic growth. In 2020, China was the only major economy in the world to achieve positive economic growth, with an economic growth rate of 2.3 percent, though 3.7 percent lower than in 2019. Japan, as the largest developed economy in Asia, registered an economic growth rate of -5.1 percent, a decrease of 5.4 percentage points from 2019.

Economic contraction is usually accompanied by falling prices and increasing unemployment. In 2020, China’s inflation rate was 2.5 percent, a decrease of 0.4 percentage point from 2019; the core inflation rate excluding food and energy was 0.8 percent, a decrease of 0.8 percentage point from 2019. In October 2020, Japan slid into deflation, with its consumer price index (CPI) dropping 0.4 percent year-on-year, and the drop further expanded to 1.2 percent in December, a new low since May 2010. India’s inflation level remains relatively high, but has shown a downward trend. In December 2020, India’s inflation rate was 4.6 percent, a drop of 3 percentage points from the year’s high of 7.6 percent in October. Despite the decline of overall price levels, unemployment rates in Asia countries rose to varying degrees. According to International Labour Organization (ILO) estimates in November 2020, the unemployment rate of the population aged 15 and older in the Asia-Pacific region in 2020 would be 5.2 percent, an increase of 0.8 percentage point from 2019; that in East Asia would increase by 0.4 percentage point from 2019 to 4.8 percent; that in Southeast Asia and the Pacific would increase by 0.6 percentage point from 2019 to 3.2 percent; that in South Asia would increase by 1.5 percentage points from 2019 to 6.8 percent; that in Arab countries would increase by 1.7 percentage points from 2019 to 9.9 percent; that in Central Asia and West Asia would increase by 0.5 percentage point from 2019 to 9.8 percent.

Decline in trade and cross-border investment and fluctuation in commodity prices are the results accompanying economic contraction. According to World Trade Organization (WTO) statistics, in the first three quarters of 2020, Asia’s trade in goods totaled USD9.16 trillion, a decrease of 7.0 percent from the same period in 2019. The amount of goods export totaled USD4.77 trillion, a year-on-year decrease of 4.9

percent; and that of goods import totaled USD4.39 trillion, a year-on-year decrease of 9.1 percent. Nonetheless, trade in goods for a few Asian economies, China included, achieved positive growth. According to the China Customs, China's total import and export of goods reached USD4.65 trillion in 2020, an increase of 1.5 percent over 2019, ranking first in the world. Foreign direct investment (FDI) attracted by Asian developing economies declined. According to the Global Investment Trend Monitor released by the United Nations Conference on Trade and Development (UNCTAD) in January 2021, the FDI attracted by Asian developing economies in 2020 was projected to be USD476 billion, a 4 percent decrease from 2019, in contrast to a 42 percent decline in global FDI flows. The pandemic also caused a plummet in the prices of oil and other commodities. IMF data shows that in April 2020, the global commodity price index fell by 32 percent year-on-year, though commodity prices have rebounded ever since. In November 2020, the index dropped by 1.6 percent year-on-year.

Violent fluctuations were seen in the capital market, exchange rates went upwards, and government debt expanded rapidly. The pandemic also caused a sharp decline in the stock markets of Asian economies. To curb the decline, South Korea, Indonesia, Thailand, the Philippines, Egypt, Turkey and other countries introduced countermeasures, such as prohibiting short selling or temporarily closing the market. Thanks to the stimulus policies introduced and a relatively loose macro-environment, most economies were able to see the rebounding of stock prices. Specifically, throughout 2020, Iran's TEDPIX Index rose by 270.8 percent; Nepal's NEPSE Index rose by 79.0 percent; and South Korea's KOSPI Index, China's CSI 300 Index, Japan's Nikkei 225 Index and India's SENSEX Index rose by 30.8 percent, 27.2 percent, 16.0 percent, and 15.8 percent, respectively. The currencies used in major Asian economies appreciated to varying degrees against the US Dollar. In 2020, Chinese yuan, Japanese yen, South Korean won and Indian rupee rose by 6.3 percent, 5.0 percent, 6.0 percent and 2.3 percent, respectively against the US Dollar. Due to the emergency measures taken against the pandemic, most Asian economies saw a further increase in the government debt-to-GDP¹ ratio. According to IMF

estimates in January 2021, 41 Asian economies saw rising government debt-to-GDP ratio in 2020. Particularly, the ratio for the Maldives, Japan and Bahrain rose by 40.3, 28.2, and 24.9 percentage points, respectively, over 2019.

In response to the pandemic, Asian economies adopted varied forms of temporary fiscal and monetary policies. For example, China increased its fiscal deficit in 2020 by RMB1 trillion from 2019 to RMB6 trillion, and issued RMB3.75 trillion of special local government bonds, a RMB1.6 trillion increase over 2019, and RMB1 trillion of government bonds for COVID-19 control. Japan also stepped up its efforts to support economic growth by expanding the budget deficit from 2.6 percent of GDP in 2019 to 11.3 percent of GDP in 2020. In May 2020, India launched a INR20 trillion (approximately USD268 billion) fiscal stimulus package, or about 10 percent of GDP. In fiscal year 2020, India's fiscal deficit rate reached a relatively high level of 7.2 percent. In terms of monetary policy, the central banks of 30 Asian economies cut interest rates at 80 occasions in 2020, and those of major advanced economies continued to maintain ultra-low interest rates. For example, the Bank of Japan maintained its benchmark interest rate at -0.1 percent.

Going forward in 2021, the pandemic remains the major variable that will have a direct bearing on the performance of Asian economies. Currently, many Asian economies are pushing forward mass immunization against COVID-19, making it more possible to put the pandemic under control. However, there are still great uncertainties on a global scale. If US and major European economies continue to be dragged down by the pandemic, Asia's economic growth will be pretty limited as well. In terms of regional economic cooperation, the signing and implementation of the Regional Comprehensive Economic Partnership Agreement (RCEP) will inject new positivity into Asian economy through trade and investment.

Even if the pandemic is brought under control in 2021, Asian economic recovery will still face the impact of non-pandemic factors. In November 2020, Standard & Poor's (S&P) released a report, pointing out that in 2021, the global banking industry, including in the Asian region, may face the most difficult period since the 2008 global financial crisis. S&P held a

1 GDP=Gross Domestic Product.

“negative” outlook for one-third of the world’s banks. It suggested that the global banking industry would face the following near- and medium-term risks: (i) the credit rating of banks under pressures will become lower before the pandemic is brought under control; (ii) governments of various economies will gradually terminate their aid to the sectors affected by the pandemic. These short-term aids may increase the debt of businesses and households, making it difficult for them to raise money in normal times; (iii) the continuous growth of corporate debt and more defaults will put greater pressure on the asset quality and profitability of banks; (iv) the latent problems in the property market are increasing and

their severity is underestimated. In addition to the risks on the micro level, the risks inherent in Asian capital markets and foreign exchange markets must not be underestimated. The possibility of severe currency crises in individual countries cannot be ruled out either. In the meantime, certain emerging economies and developing countries may experience chain sovereign debt crises triggered by defaults.

Overall, the Asian economy is likely to witness recovery in 2021. Its economic growth rate is expected to reach more than 6.5 percent. In particular, the growth rate of South Asia is expected to reach more than 8.5 percent.

Chapter 1

Asian Economic Outlook and Policies

1.1 Economic Growth

In 2020, the COVID-19 pandemic ravaged the world, putting global public health at great stake. To curb the spread of the virus, countries introduced prevention and control measures of varying degrees, which led to demand contraction, supply interruption, and economic uncertainty. Albeit the subsequent relief or stimulus policies, the world economy still fell into a deep recession. The COVID-19 pandemic in fact interrupted or “covered over” US-China trade war that has been heating up in recent years. But it did have an impact on the implementation of the first phase of US-China economic and trade agreements that have been reached, with some assessments suggesting that China’s purchases of US products in 2020 reached 58 percent (based on Chinese import statistics) or 59 percent (based on US export statistics) of the agreed amount.¹ Nevertheless, the direct impact of a US-China trade war on the Asian economy in 2020 would be relatively limited in the context of a pandemic. The IMF World Economic Outlook report published in October 2020 predicts that the global economic growth rate in 2020 would be -4.4 percent, and the updated version in January 2021 revised the growth rate to -3.5 percent. Despite the 0.9 percentage point

adjustment, the global economic growth rate in 2020 was still much lower than -0.1 percent during the 2009 global financial crisis, and it is the worst recession since World War II. In our report last year, we predicted that Asia’s economic growth would be negative in 2020, and “if the pandemic recurs or stimulus policies render ineffective, there is possibility of an even worse negative growth.” According to IMF forecasts, the weighted real GDP growth rate of the Asian economy² in 2020 was -1.7 percent, significantly lower than 4.0 percent in 2019, but still significantly higher than the global economic growth rate. The Asian economy occupies an increasing share in the world economy. The share as measured by PPP was 45.3 percent, 45.9 percent and 46.4 percent, respectively, from 2017 to 2019 and it is expected to further increase to 47.3 percent in 2020. In 2021, the Asian economy is likely to experience recovery. According to IMF, its weighted real GDP growth rate is expected to reach 6.7 percent, and its share in the global GDP at PPP will continue to rise slightly to 47.9 percent.

1.1.1 Asian Economy Fell into A Severe Recession in 2020

In 2020, most Asian economies experienced an obvious negative growth. Specifically, among the 47 Asian economies for which the IMF has data,³ Turkey

1 Chad P. Bown. US-China phase one tracker: China’s purchases of US goods. March 1, 2021. <https://www.piie.com/research/piie-charts/us-china-phase-one-tracker-chinas-purchases-us-goods>.

2 Asian countries include Afghanistan, Armenia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, Cambodia, China, Georgia, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kazakhstan, Democratic People’s Republic of Korea, South Korea, Kuwait, Kyrgyzstan, Laos, Lebanon, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Oman, Pakistan, Palestine Territory, the Philippines, Qatar, Saudi Arabia, Singapore, Sri Lanka, Syria, Tajikistan, Thailand, Timor-Leste, Turkey, Turkmenistan, United Arab Emirates (UAE), Uzbekistan, Viet Nam and Yemen.

3 In the IMF database, the data for Palestine Territory, Democratic People’s Republic of Korea, and Syria are missing.

and Iran registered real GDP growth rates in 2020 higher than those in 2019, while the performance of the other 45 economies in 2020 was not as good as that in 2019. Among the 47 economies, 34 or 72.3 percent of the economies have experienced negative real GDP growth in 2020, and 18 or 38.3 percent of the economies underwent over 5 percent economic contraction.

By sub-region, according to the IMF's October 2020 forecasts,¹ and its adjusted data in January 2021,² among the Asian sub-regional economies,³ all sub-regional economies in Asia showed negative growth in 2020, based on the IMF's forecast in October 2020 and the updated data of some Asian countries in January 2021 (see Figure 1.1). Among them, the weighted real GDP of East Asia only showed a slight negative growth of -0.2 percent, ranking first among all Asian regions in terms of growth speed. As the largest economy in the region, China (excluding the Hong Kong Special Administrative Region of China, Macao Special Administrative Region of China, and Taiwan Province of China) achieved a growth rate of 2.3 percent in 2020, making an important contribution to avoiding a precipitous decline in the region's economy. In addition, the regional economies that also maintained positive growth included Myanmar (2.0 percent), Viet Nam (1.6 percent), Brunei (0.1 percent) and Taiwan Province of China (0.05 percent). Macao Special Administrative Region of China, a small economy dominated by services, saw an economic decline of as much as 52.7 percent, and ASEAN⁴ economies with advanced manufacturing also registered obvious economic downturn, such as the Philippines (9.6 percent) and Thailand (6.6 percent), Singapore (6.0 percent), Malaysia (5.8 percent). Japan, the region's largest developed country, recorded a negative growth of 5.1 percent.

Central Asia's economic performance in 2020 was second only to that of East Asia, with a weighted real GDP growth rate of -2.1 percent. Tajikistan (1 percent), Uzbekistan (0.7 percent) and Turkmenistan (1.8 percent) in the region recorded positive growth in 2020. But Kyrgyzstan, which suffered the sharpest contraction, suffered a 12.0 percent drop in GDP, and Kazakhstan, the region's largest economy, suffered a 2.7 percent decline, weighing on regional economic growth.

The weighted real GDP growth rate of West Asia was -3.7 percent. Except for Turkey, all other West Asian economies reported negative growth in 2020. Lebanon declined by 25 percent, the most serious one in the region, and Saudi Arabia, which saw the slightest economic decline in the region, also reported negative growth of 3.9 percent. Without Turkey's economic growth, West Asia's growth in 2020 would have been even lower. In its January 2021 forecast, the IMF sharply raised Turkey's 2020 real GDP growth rate to 1.2 percent from -5.0 percent projected in October 2020. Since Turkey accounts for about a third of the region's economy, this adjustment avoided a further dip in West Asia's weighted real GDP growth rate.

South Asian economies as a whole experienced a significant decline, and their weighted real GDP growth rate in 2020 was -6.2 percent. Among the South Asian economies, Bangladesh (3.8 percent), Bhutan (0.6 percent) and Nepal (0.02 percent) achieved positive growth. However, India, the largest economy in the region, registered an economic growth rate of -7.6 percent in 2020, which to a large extent dragged down the regional growth. The Maldives, a country with tourism as its economic mainstay, also experienced a severe decline, with a real GDP growth rate of -18.6 percent.

1 IMF. World Economic Outlook, October 2020.

2 IMF. World Economic Outlook, January 2021 Update.

3 According to Boao Forum for Asia, Asian economies are divided as follows: East Asia includes Brunei, Cambodia, China (Chinese mainland, Hong Kong Special Administrative Region of China, Macao Special Administrative Region of China, and Taiwan Province of China), Indonesia, Japan, Democratic People's Republic of Korea, South Korea, Laos, Malaysia, Mongolia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam; South Asia includes Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka; Central Asia includes Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan; West Asia (Asian economies in the Middle East) includes Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine Territory, Qatar, Saudi Arabia, Syria, Turkey, UAE, and Yemen.

4 ASEAN=Association of Southeast Asian Nations.

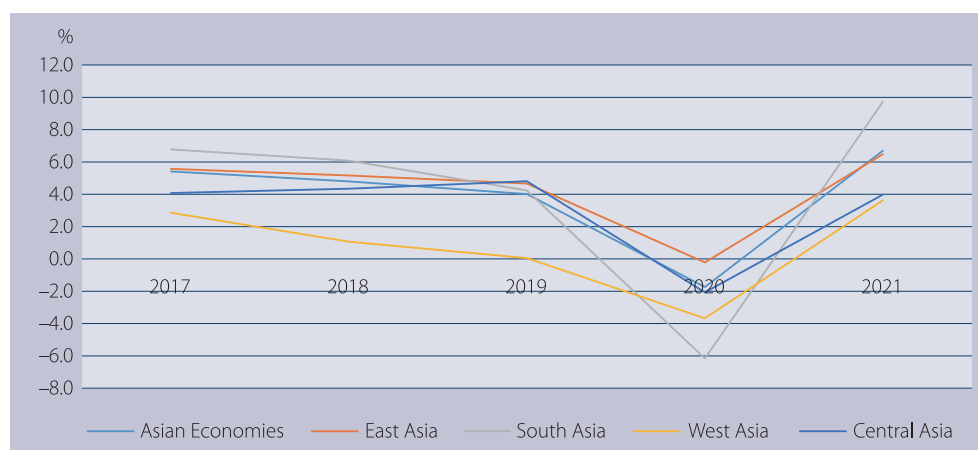


Figure 1.1 Weighted Real GDP Growth Rates of Economies by Sub-region, 2017-2021

Source: Calculated on the basis of IMF data.

Note: The data for 2020 are estimated values, and the data for 2021 are predicted values.

1.1.2 Economies Introduced Relief or Stimulus Policies

In response to the unprecedented pandemic, Asian economies introduced corresponding relief or stimulus policies in 2020. National policies tend to have both demand-side initiatives to stimulate demand and supply-side initiatives to implement bailouts to improve supply. The latter measures taken by major Asian countries are presented in this report under the section “Employment and Income”.¹

In East Asia, China introduced proactive measures to fight the pandemic. First, China raised its fiscal deficit rate from 2.8 percent to 3.6 percent.² In other words, its deficit increased by RMB1 trillion from 2019 to RMB3.76 trillion (approximately USD580 billion) in 2020, as part of an effort to boost market confidence. Second, China stepped up effort to issue government bonds, and arrange RMB3.75 trillion special bonds to be issued by local governments, an increase of RMB1.6 trillion over 2019. In the meanwhile, China issued RMB1 trillion of anti-pandemic special treasury bonds. Third, China further cut taxes and fees, and set the goal of reducing the burden of market players by more than RMB2.5 trillion throughout the

year. Fourth, China increased the transfer payments from the central government to local governments by 12.8 percent. Fifth, China ensured a balanced budget by reducing non-urgent non-rigid expenditures, and enhancing fiscal sustainability.³ South Korea relinquished its traditional conservative fiscal policies and replaced them with measures to stimulate employment and growth. In September 2020, South Korean government proposed to increase fiscal expenditure by 8.5 percent to KRW555.8 trillion in its 2021 national budget, mainly for job creation and social welfare improvement. Japan also stepped up its efforts to support economic growth by expanding the budget deficit-to-GDP ratio from 2.6 percent in 2019 to 11.3 percent in 2020.

In South Asia, India’s economy in 2020 was subjected to the dual impact of the pandemic and its domestic protests. Its anti-pandemic measures were largely offset by the protests. Before the nationwide lockdown in March 2020, the Indian government announced a INR1.7-trillion (approximately USD23 billion) relief plan to distribute necessities, such as money and food, to the poor who were affected by the lockdown. In May, India launched a INR20-trillion

¹ This section mainly summarizes the fiscal policies of major countries in each sub-region. There is also a chapter dedicated to monetary policies.

² According to the Economist Intelligence Unit, China’s fiscal deficit rate in 2020 was 5.2 percent. Economist Intelligence Unit: Country Report: China, Generated on February 5, 2021.

³ Ministry of Finance Research Group: Report on the Implementation of China’s Fiscal Policies in the First Half of 2020, http://www.mof.gov.cn/zhengwuxinxi/caizhengxinwen/202008/t20200806_3563343.htm.

(approximately USD268 billion) economic stimulus package (or about 10 percent of its GDP) used for SME¹ loan guarantees, market liquidity support, relief funds targeting workers and vendors, and infrastructure construction.² In October, India implemented a fiscal stimulus policy targeting at the demand side by taking advantage of holiday consumption, though the size of the stimulus was pretty limited. In the 2020-2021 fiscal year, India's fiscal deficit rate reached 7.2 percent, partly because of the significant reduction in direct and indirect tax revenues caused by the nationwide lockdown from March to May 2020. Aside from the worsened pandemic, the Indian government had to deal with the dissatisfaction among the stakeholders against its reforms in the agricultural sector, labor law, and state-owned enterprises (SOEs). Indian farmers' continued protests forced the government to postpone land acquisition reforms. The spread of the virus and the risk of social disorder caused by the protests largely offset the effect of the anti-pandemic measures.

In West Asia, Saudi Arabia was faced with the dual crisis of the pandemic and oil market turmoil. In the second quarter of 2020, the oil revenue of Saudi Arabia fell by 45 percent year-on-year, while the pandemic-related relief and stimulus expenditures for businesses and individuals remained high. The government had to introduce measures, such as increasing value-added tax (VAT) from 5 percent to 15 percent, canceling the monthly allowances paid to workers in the public sector, and drastically cutting capital expenditures, which in turn hurt investment and consumption. Nevertheless, Saudi's fiscal deficit-to-GDP ratio in 2020 was as high as 10 percent. In April 2020, Israel launched the first round of NIS80 billion (approximately USD22.4 billion) stimulus plan, of which NIS11 billion was used as health expenditures and NIS20 billion was used to support the social security net, extend the period of benefits granted to the unemployed and subsidies for the self-employed, NIS41 billion as assistance to corporate liquidity, NIS8 billion for infrastructure projects, and a one-off subsidy of NIS500 for each household with children, elderly and other vulnerable members. In June, Israel

expanded the first round stimulus plan by NIS20 billion as employment incentives and support for SMEs. In July, the second round stimulus plan of NIS80 billion was launched, and an additional NIS10.5 billion was injected in September for supporting the unemployed and the employers. Turkey implemented counter-cyclical fiscal expenditures. Through loan guarantees and other off-balance sheet measures, Turkey spent an additional TRY280 billion (approximately USD36.5 billion, accounting for about 5 percent of GDP) worth of fiscal expenditures in 2020. As a result, its fiscal deficit was expected to reach TRY172.7 billion, accounting for about 3.4 percent of GDP. The number is significantly higher than 2.9 percent in 2019 and much higher than the 2014-2018 average of 1.3 percent. Restrictive measures for COVID-19 control had a negative impact on income growth. In response, the Turkish government postponed the collection of certain taxes and social security fees. However, indirect taxes, mainly special consumption tax (SCT) and VAT, saw decent growth, which to a large extent avoided a further increase in the deficit rate. Compared with other countries, Turkey had a relatively large space for fiscal policies. Thanks to measures such as the deferral of tax payment and employment support, economic activities in Turkey rebounded strongly from the third quarter of 2020, exceeding the level before the pandemic.

In Central Asia, the Kazakh government and its state bank have put forward a comprehensive plan for the restoration of economic growth and an "employment roadmap" that includes measures to support the most affected sectors. The Kazakh government has also reached agreements with other countries to reduce import tariffs on some foods Kazakhstan cannot feed itself on. Kazakhstan's monetary authorities capped interest rates for final borrowers at no more than 5 percent. The Kazakh government has also introduced supportive measures for specific industries. All businesses with large retail facilities, shopping and entertainment facilities, exhibitions and expos, and health, fitness and sports facilities are exempt from property tax. In the agricultural sector, agricultural producers are exempt

1 SME=small and medium-sized enterprise.

2 Edited by Zhang Yuyan: *World Economy Analysis and Forecast (2021)*, Social Sciences Academic Press, 2021.

from land tax on agricultural land, and individual businesses that involve agriculture are exempt from individual income tax. KZT200 billion (USD475 million) was allocated for spring agricultural work, 70 billion of which was for developing seed production and purchasing chemical fertilizers and pesticides. About 390,000 tons of diesel oil were sold to agricultural producers at a 15 percent reduction in market prices. The government has also paid bonuses to doctors, nurses and police officers, and plans to gradually raise the pay for medical workers to double the average wage by 2023. It has also taken steps to subsidize domestic drug manufacturers.

1.1.3 Economic Outlook

Overall, the Asian economy is highly likely to experience recovery in 2021. According to IMF forecasts, the weighted real GDP growth rate of the Asian economy in 2021 is expected to reach about 6.7 percent, a significant rebound from -1.7 percent in 2020. The South Asian economy is expected to grow the fastest at 9.7 percent, based on the considerable contraction India's economy as the biggest economy in the region suffered in 2020. The East Asian economy is expected to grow by 6.5 percent in 2021. It would be a decent result, given that the region only experienced a slight negative growth in 2020. This is due to the effective pandemic control measures adopted by China, South Korea, Singapore, among others, and their efforts to promote resumption of work and production. The West Asian economy is expected to continue to be affected by the pandemic and low oil prices in 2021, as the region is not in the best position to obtain the vaccines, and oil prices will face greater uncertainties. Therefore, the IMF expects the West Asian economy to grow by 3.6 percent only. If Turkey's economy suffers from currency devaluation, inflation, repeated pandemic outbreaks or tightening US sanctions, West Asia's economic growth could be even lower. Central Asia's economy is expected to grow by 4.0 percent in 2021.

The pandemic will remain the most important factor affecting the Asian economy in 2021. As vaccines continue to be researched and produced in various countries around the world, COVID-19 is likely to be put into effective control in the near future. However, uncertainties remain in whether the second wave pandemic in Europe and US will render the

existing vaccines, in whole or in part, ineffective, whether the distribution of a working vaccine will lead to disorder due to the scramble among major powers in the world, and whether supporting policies will be repealed prematurely. Besides, will the Biden administration adopt a more favorable policy towards Asia, or China in particular? To what extent the bilateral relations will be improved (or deteriorated) relative to the Trump administration? Will the relations between US and Iran, as well as the Democratic People's Republic of Korea, trigger regional conflicts? Will the border disputes between China and India spread to other fields, such as economy and trade? These questions may also cast a shadow over the restorative growth of the Asian economy in 2021.

1.2 Employment and Income

In 2020, the global labor market, including in Asian economies, saw unprecedented damage owing to the pandemic. According to the ILO's COVID-19 and the World of Work, in 2020, 8.8 percent of global working hours were lost relative to the fourth quarter of 2019, equivalent to 255 million full-time jobs, approximately four times greater than during the global financial crisis in 2009; the significant loss of working hours also led to the decline of global labor income by 8.3 percent, which amounts to USD3.7 trillion, or 4.4 percent of the global GDP in 2019. Compared with other regions, the Asia-Pacific region suffered relatively fewer losses of working hours. In 2020, working-hour losses amounted to 7.9 percent of the total, resulting in a 6.6 percent year-on-year decrease in labor income. The Americas, which was the hardest-hit, had working-hours losses amounting to 13.7 percent of the total, and the corresponding labor income dropping by 10.3 percent year-on-year. According to the ILO estimates, the baseline scenario projects a continued loss in working hours of 3.0 percent in 2021 relative to the fourth quarter of 2019. In the pessimistic scenario, working-hour losses in 2021 will remain at 4.6 percent, relative to the fourth quarter of 2019. Even in the optimistic scenario, which assumes more favorable conditions, a loss of 1.3 percent of global working hours is still expected in 2021 relative to the fourth quarter of 2019. In the Asia-Pacific region, the losses were 2.1 percent, 3.7 percent,

and 0.8 percent for the three scenarios, respectively.¹

1.2.1 The Pandemic Led to High Unemployment rate

The data contained in ILO's World Employment and Social Outlook report doesn't reflect the impact of the pandemic on employment, but its forecasts for the mid- to long-term trends indicate that major regions in Asia² will see unemployment rates rise or maintain at high level in the upcoming years (See Figure 1.2). In particular, the unemployment rate in Arab countries

will remain at around 8.1 percent from 2018 to 2021; that in Central Asia and West Asia will increase from 8.2 percent in 2018 to 9.3 percent in 2021; that in East Asia will increase from 4.1 percent in 2018 to 4.3 percent in 2021; that in Southeast Asia and the Pacific will rise from 3.0 percent in 2018 to 3.2 percent in 2021; that in South Asia will rise from 5.3 percent in 2018 to 5.4 percent in 2021; and that in the entire Asia-Pacific region will rise from 4.3 percent in 2018 to 4.5 percent in 2021.

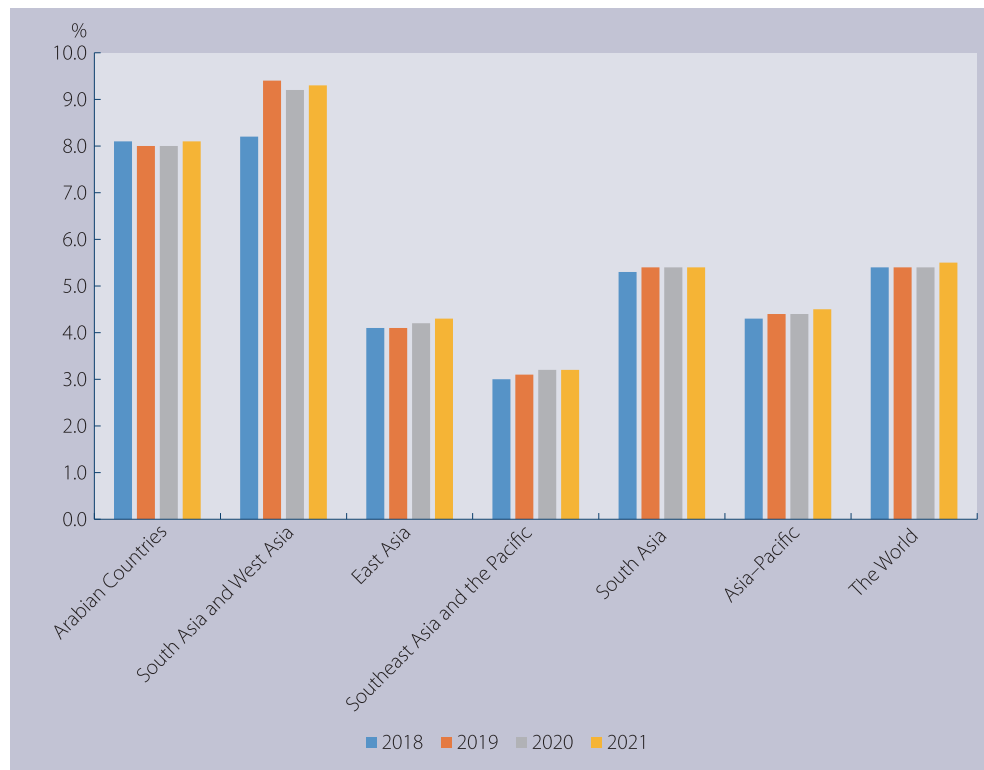


Figure 1.2 Unemployment Rates in Different Asian Economies, 2018-2021

Source: ILO WESODATA.

The impact of the COVID-19 pandemic on employment in 2020 has caused the unemployment rate in the Asia-Pacific region to significantly deviate

from the long-term trend. According to November 2020 ILO forecasts, the unemployment rate for people aged 15 years or older worldwide would rise from 5.4

¹ ILO Monitor: COVID-19 and the world of work. Seventh edition. January 25, 2021. p.8-11.

² According to the ILO, the Arab states include Bahrain, Iraq, Jordan, Kuwait, Lebanon, Palestine Territory, Oman, Qatar, Saudi Arabia, Syria, UAE, and Yemen; the Asia-Pacific region includes East Asia, Southeast Asia and the Pacific, and South Asia, among which the East Asian economies include China (Chinese Mainland, Hong Kong Special Administrative Region of China, Macao Special Administrative Region of China, and Taiwan Province of China), Japan, Democratic People's Republic of Korea, and South Korea; the Southeast Asian and the Pacific economies include Australia, Brunei, Cambodia, Fiji, French Polynesia, Guam, Indonesia, Laos, Malaysia, Myanmar, New Caledonia, New Zealand, Papua New Guinea, the Philippines, Samoa, Singapore, Solomon Islands, Thailand, Timor-Leste, Tonga, Vanuatu, and Viet Nam; the South Asian economies include Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, and Sri Lanka; and the Central and West Asian economies include Armenia, Azerbaijan, Cyprus, Georgia, Israel, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan, and Uzbekistan.

percent in 2019 to 6.5 percent in 2020; that for the Asia-Pacific region would rise from 4.4 percent to 5.2 percent, and that for the East Asia region would rise from 4.4 percent to 4.8 percent; that for Southeast Asia and the Pacific would increase from 2.6 percent to 3.2 percent; that for South Asia would increase from 5.3 percent to 6.8 percent; that for Arab countries would increase from 8.1 percent to 9.9 percent; that for Central Asia and West Asia would increase from 9.3 percent to 9.8 percent, in particular, that for West Asia would increase from 11.8 percent to 12.3 percent.

1.2.2 Labor Income Grew at A Lower Rate and Income Inequality Aggregated

Labor income has been substantially affected by the pandemic. The initial impact of the pandemic on the economy, especially on the supply side, was manifested in the first quarter of 2020. A large number of laborers withdrew from the labor market due to fears of the pandemic and the restrictive measures adopted to curb the spread of the virus. As a result, labor shortage became a prominent problem, and the average nominal monthly income of employees saw rapid growth. Starting from the second quarter, the pandemic started to have an impact on the demand side, which replaced the supply side at the center of economic impact. The year-on-year growth rate of average nominal monthly income of employees dropped significantly, and that in some countries even experienced negative growth. For example, in the first quarter of 2020, the average nominal monthly income of Mongolian employees increased by 34.4 percent year-on-year, and fell to 8.8 percent year-on-year in the second quarter; that of Palestinian employees in the first quarter of 2020 increased by 10.8 percent year-on-year, and dropped to 2.6 percent year-on-year in the second quarter; that of Thai employees increased by 2.3 percent year-on-year, and fell to -0.8 percent year-on-year in the second quarter; that of Vietnamese employees in the first quarter of 2020 increased by 8.5 percent year-on-year, and dropped to -0.2 percent and -0.6 percent year-on-year, respectively, in the second and third quarters.

In response to the impact of the pandemic on employment and income, Asian economies have adopted a series of favorable policies for businesses and laborers. In February 2020, China implemented the policy of subsidies for stabilizing jobs with

unemployment insurance for enterprises that face temporary production and operation difficulties, that are expected to recover, and that insist on not laying off any employee or furloughing fewer employees. An online application platform for businesses was launched so that offline approvals are avoided to achieve faster allocation of funds to support corporate effort to stabilize employment. China also introduced phased policies on the reduction and exemption of basic pension, unemployment insurance and work-related injury insurance. The Opinions on the Implementation of Measures to Respond to the Impact of the COVID-19 Pandemic and Stabilize Employment issued by the Chinese government in March 2020 proposed to refund up to 100 percent unemployment insurance premiums paid in 2019 by companies that do not lay off any employee or furlough fewer employees. For insured companies that face temporary production and operation difficulties, that are expected to recover, and that insist on not laying off any employee or furloughing fewer employees, the criteria for identifying them as eligible companies may be relaxed, with an aim to help those who have been seriously affected by the pandemic. The amount to be refunded shall be determined according to the local monthly unemployment insurance premiums per capita for the last 6 (max.) months and the number of insured employees, or the social insurance premiums payable by the enterprise and its employees in the last 3 (max.) months. As of April 2020, the Chinese government had issued a total of RMB3.71 billion (approximately USD524 million) of price subsidies to support those in need. In October 2020, the Chinese government issued the List of Policies for supporting the Employment and Entrepreneurship for Registered Unemployed Persons, which specified that enterprises (units) hiring registered unemployed persons may enjoy vocational training subsidies, one-off employment subsidies, tax reductions and exemptions, entrepreneurship guaranteed loans and interest subsidies. Registered unemployed persons who participate in vocational skills training may enjoy vocational training subsidies and vocational skills appraisal subsidies. Registered unemployed persons who start their own businesses (self-employed) may enjoy entrepreneurship guaranteed loans and interest subsidies, tax reductions and exemptions, and administrative fee reductions.

Registered unemployed persons may enjoy unemployment insurance, unemployment subsidy, one-off living allowance, temporary living allowance, minimum living allowance, and one-off temporary assistance according to their insurance and living status.

South Korea has put forward targeted policies for supporting enterprises and employment in different industries. Particularly, in the transportation industry, measures such as reducing site rental fees, extending the payment period for fines newly incurred by airlines, extending the time for exemption of aircraft certification system (ACS) fees, and granting emergency loans for passenger/cargo transport companies, were adopted. In the tourism and catering services industry, measures, such as providing disinfection services for companies with confirmed cases of COVID-19, relaxing requirements on the application of employment subsidy, reducing asset taxes levied on accommodation facilities, extending the period for duty-free shops to pay royalties and allowing installments, temporarily introducing preferential non-mortgage financing methods, and expanding the coverage of general loans, were adopted. Measures to support livelihoods of disadvantaged groups were also adopted, such as providing emergency living assistance to workers on unpaid leave and vacations, relaxing the requirements for the self-employed and freelancers to apply employment subsidies, providing zero-interest loans to construction workers, and providing the elderly participating in public services with advance employment promotion subsidies.

Japan has also introduced a number of measures to support businesses, households and employment. For example, in response to the pandemic, Japan decided to make cash payment to all residents amounting to approximately JPY12.9 trillion; provide additional child allowance of JPY10,000 per child; provide emergency microcredit to troubled households (Max. JPY200,000 loan (no interest) to those who need temporary money, and additional loan (no interest) of JPY450,000-600,000 for 3 months to those who rebuild their lives. Loans are forgivable in certain cases; enhance rent support for low income households; allow reduction or exemption of social security contribution (healthcare, long-term care insurance) and deferment of utility charges; establish a new subsidy system that covers both short-term and

long-term employees, where the “employment adjustment subsidy” paid when employees stop working due to poor performance was up to JPY8,330 per day, and then increased to JPY15,000; for freelancers who have signed business contracts with a company, and have to stop working due to the pandemic, provide a daily subsidy of JPY4,100; set up special interest-free loans for emergency funds ranging from JPY100,000 to 200,000; pay approximately JPY2.3 trillion in cash to SMEs and sole proprietorship; reduce or exempt local property taxes on machinery and buildings of SMEs affected by the pandemic; and require the landlords to consider deferring rent payment according to the tenants’ financial situation, and require the banks to reschedule the landlords’ debts.

The Indian government has decided to: provide 5 kg of rice or wheat and 1 kg of pulses to the poor every month; increase wages under the Employment Security Program; disburse in installments USD13 per person in cash to pensioners, widows and the disabled living in poverty, and USD19.6 in cash to the 200 million Indian women; disbursing USD26.25 per person in cash to the 8.69 million Indian farmers; allow more than 60 million users of the Employees’ Provident Fund Organization of India (EPFO) to withdraw from their provident fund accounts no more than 3 months of basic salaries and price subsidies; allocate an additional USD5.3 billion to the Employment Guarantee Scheme to promote employment; require landlords to not demand rent from workers during the lockdown period; provide an additional USD1.3 billion in subsidies for the housing program; for enterprises with less than 1,000 employees, provide 12 percent the amount of their salaries as their provident fund contribution, and another 12 percent as the employers’ contribution to the employees’ provident fund; issue advisory opinions to public and private employers, requiring them not to dismiss employees, especially temporary workers and contract workers, or reduce wages during the 21-day quarantine period; for recipients of microloans at less than USD660, provide a 2 percent interest subsidy to timely payers within 12 months; provide street vendors with USD663 million in credit services, and each vendor with up to USD130 as the initial working capital; provide USD13 billion to farms that carry out agricultural infrastructure projects; provide USD1.4

billion for marine, inland fishery and aquaculture activities, and USD1.1 billion for related infrastructure; and provide an additional USD1.3 billion as stimulus for capital and industrial spending.

Saudi Arabia also put forward a series of business and employment support policies. The Saudi Government would pay 60 percent of the salaries of Saudi employees working in the private sector for a period of three months with a ceiling of SAR9 billion (or USD2.39 billion); allow the employers and employees to agree within six months on reducing the employees' wages to reflect the actual work hours; introduce a stimulus package, including SAR50 billion (USD13.3 billion) for SMEs; allocate SAR5 billion through the Human Resource Development Fund to support private sector enterprises to hire and train nationals (SAR2 billion for supporting employment, SAR800 million for training, SAR1.5 billion for supporting new job applicants, and SAR1 billion as salary subsidies for Saudi people employed in the private sector since July 1, 2019); approve a 30 percent discount for two months on utility bills for the commercial, industrial and agricultural sectors; and provide freelancers and employees of the "gig economy" with 2 months' salary (up to SAR3,000 per month).

To support its businesses, households and employment, the Turkish government decided to: provide the 7.2 million households with TRL1,000 per household in installments, and raise the minimum pension to TRL1,500 per month; launch long-term credit through public banks for households with a monthly income less than TRL5,000; raise the monthly disbursement to the Social Welfare and Solidarity Association from TRL135 million to TRL180 million. provide 2.324 million primary and middle school students with conditional cash transfers in education; relax the conditions for applying short-term work allowance (equivalent to 60 percent of the minimum wage); provide TRL1,170 per month to employees who are forced to take unpaid leave due to the pandemic and cannot benefit from short-term work; introduce a "Back to Normal" support plan, according to which if an employee returns from a short-term job to normal, TRL1,103 will be deducted from the social insurance premiums paid by the employer to the Social Security Bureau; provide a monthly minimum wage of TRL75 to approximately 7.8 million employers

until the end of 2020; increase the upper limit for "investment and management credit" to TRL3 million, and accordingly, adjust the repayment period from 48 months to 60 months; make sure that the loan interest rates for the auto, construction, general consumption and tourism industries are lower than average; allow the deferral of repayment up to 3 months by companies facing cash flow interruption due to the pandemic; allow the deferral of repayment up to 3 months by handicraftsmen and artisans to the state lenders without interest; launch a re-discount credit program through Türk Eximbank to provide low-interest loans to SMEs, as well as large companies, to support exports; allow the deferral of payment of membership fees by enterprises to the Chamber of Commerce and Commodity Exchanges from June 2020 to October 2020; provide financial support of up to TRL6 million through the Small and Medium Enterprise Development Organization (KOSGEB) to enterprises, and increase its credit limit for SMEs from TRL300,000 to TRL3 million; exempt all enterprises from environmental sanitation and advertising taxes during the lockdown period; and reduce the VAT for private schools from 8 percent to 1 percent.

Kazakhstan provided a one-time assistance of KZT42,500 (approximately USD103) to citizens who had lost sources of income as a result of lockdown measures, expanded the list of citizens eligible for new social payments for loss of income from the State Social Insurance Fund, simplified their booking conditions and documents submitting, and shortened the processing time. More than 4.6 million people received financial assistance in the form of social welfare when they lost income during the state of emergency. A total of KZT25.6 billion was allocated from the budget and transferred to the accounts of 1.1 million disadvantaged citizens for purchase of food and household goods. Some KZT191.6 billion was provided to families with multiple children, benefiting 386,800 households. From April 1 to July 1, 2020, medical institutions provided full services to citizens regardless of whether they are covered by compulsory social health insurance. As part of the "employment roadmap 2020-2021", 6,107 infrastructure projects employing 150,000 people were implemented to repair and build social facilities, engineering and transport infrastructure, irrigation systems, housing and community services, and beautify residential areas.

Within the framework of the project “developing labor skills and stimulating employment”, 1,500 employees from job centers in various regions of the country were trained for three months and education grants were paid at the request of the employer. Companies that are economically important to the country are registered, to provide them with financial support to avoid them laying off workers and cutting wages. Government guarantees for SMEs have been increased. More than 700,000 companies and individual entrepreneurs were exempted from any type of tax for three months before December 31, 2020, helping them save about KZT1 trillion. Loan repayments have been postponed, and loan interest rates lowered and unified for SMEs. More than 1.6 million citizens and 11,500 SMEs have received more than KZT360 billion in loans and loan deferrals. The calculation and payment of taxes and other payments in the payroll of SMEs employed by the most affected sectors have been suspended for six months.

Despite the above-mentioned policies for supporting businesses, households and employment in response to the pandemic, the influence of these policies on people with different incomes varies greatly. The ILO’s analysis of the effects of policies in Viet Nam and other countries generated the following results. (i). After the income support measures, including job retention programs, were implemented, the extent to which young people’s labor income was reduced was much greater than that of the population as a whole, and the discrepancy in Viet Nam was as high as 18 percent. (ii). Compared with employees who were affiliated with an organization, freelancers were more vulnerable to the pandemic. Despite the government’s support programs, the income of freelancers dropped 5 percentage points more than that of the employed in Viet Nam. (iii). Women suffered more losses than men even with the support. (iv). Those engaged in low-skilled and medium-skilled jobs suffered the greatest losses in terms of labor income after the support, and those in

high-skilled occupations (managers, professionals, and technicians) were less affected. (V). Due to the imbalance in the types of job losses caused by the pandemic, income inequality may further intensify during and after the pandemic. This is mainly because during the pandemic, a large number of jobs were lost at the low end of the labor market, while high-paying jobs remained basically unaffected. During the recovery stage, employment at the upper end of the income distribution showed a strong momentum of recovery, while the demand for low-paying jobs remained low.¹

1.3 Prices and Monetary Policies

Under the impact of the COVID-19 pandemic, most Asian economies have seen falling inflation rates, some have even fell into deflation. However, driven by currency depreciation and rising food prices, some Asian economies have seen sharp rises in inflation, such as Lebanon, where inflation exceeded 130 percent at the end of 2020. Under the pressure of a sharp recession, most Asian economies have maintained loose monetary policies, and some have lowered their monetary policy rates to historic lows.

1.3.1 Inflation Situations Have to Some Extent Eased

The overall inflation rates in Asian economies showed a downward trend in 2020. By sub-regions, the inflation rates in East Asia and South Asia continued to decline in 2020, while the inflation rates in Central Asia first rose rapidly, then declined and then rose again. The inflation rates in West Asia fell rapidly in the first half of 2020, but rebounded rapidly in the second half of the year. On the whole, some economies in Central Asia, West Asia and South Asia still face relatively high inflationary pressure, while the inflation rates of all economies in East Asia remain generally low and inflation pressures relatively small (See Figure 1.3).

1 ILO Monitor: COVID-19 and the world of work. Seventh edition. January 25, 2021, p.15-17.

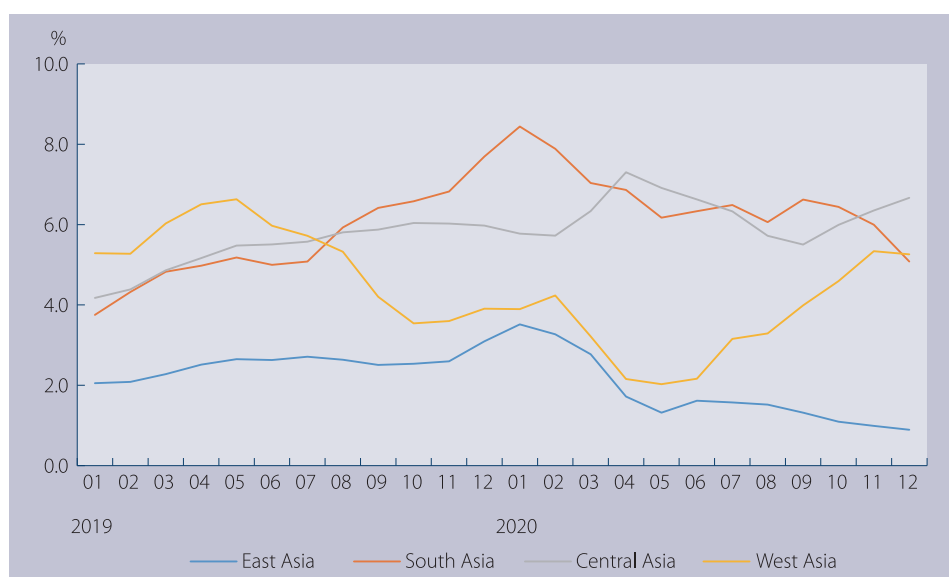


Figure 1.3 Inflation Rates in Asian Sub-regions, 2019-2020

Note: East Asia does not include Cambodia, the Democratic People's Republic of Korea and Timor-Leste, and South Asia excludes Afghanistan, Bhutan and Maldives; Central Asia does not include Turkmenistan, and West Asia does not include Iraq, Lebanon, Syria, and Yemen.

Source: CEIC, February 2021.

In 2020, some Asian economies saw a rise in their inflation rates. Due to increased imported inflationary pressure as a result of currency devaluation, the inflation rates experienced a sharp rise in Lebanon and Iran. Lebanon's inflation rate soared to 145.8 percent in December 2020, compared to only 7 percent in December 2019. Iran's inflation rate dropped from the high level in 2019 to 19.8 percent in April 2020, but then continued to rise, again to 46.4 percent in November 2020, which then slightly fell 44.8 percent in December. Driven by rising food prices, Kyrgyzstan maintained the trend of rising inflation in 2019, which reached 9.7 percent in December 2020, an increase of 6.6 percentage points over the same period in 2019. Kazakhstan saw a similar situation, with inflation rising to 7.5 percent in December 2020, up 2.1 percentage points from 2019. In the first months of 2020, the inflation rate in Turkey remained at about 12 percent, but it rose to more than 14 percent in November and December, respectively, indicating it faces growing inflationary pressure.

Although some Asian economies do not face huge inflationary pressure, their inflation rates showed an upward trend in 2020, to which enough attention should be paid. Entering 2020, Saudi

Arabia's inflation rate turned from negative to positive and continuously rose, increasing to 6.2 percent in August 2020 and then beginning to fall, but still 5.3 percent in December. Inflation in the Philippines also picked up in the second half of 2020, reaching 3.5 percent in December 2020.

Inflation rates declined in some Asian economies, but still remained at high levels. India's inflation exceeded the 6 percent target ceiling set by its central bank in most months of 2020, and in particular reached a six-year high of 7.6 percent in October 2020. However, the inflation pressure eased slightly when it fell to 4.6 percent in December 2020. Pakistan's inflation rate still remained at a high level in 2020, although it went down from 14.6 percent in January to 8.0 percent in December. In Sri Lanka, the situation was similar to that of Pakistan. Although its inflation rate was generally low in 2020, it still remained 4.6 percent in December 2020.

Most Asian economies have maintained low inflation rates. China's inflation rate showed a first-rise-then-fall trend in 2020, reaching a high of 5.4 percent in January and then beginning to gradually fall. It declined by 0.5 percent year-on-year in November, a record low in nearly 11 years, but rose by 0.2 percent

in December, and the annual inflation rate in the whole of 2020 was 2.5 percent, down 0.4 percent compared with 2019. If food and energy prices are excluded, China's core inflation rate was only 0.8 percent in 2020, down 0.8 percentage point from 2019. The trend of inflation rate in Viet Nam was similar to that in China, falling from 6.4 percent in January 2020 to 0.2 percent in December. Indonesia's inflation rate gradually declined from April 2020 to 1.3 percent in August 2020, but since picked up to 1.7 percent in December, which was generally low. In 2020, the inflation rate in South Korea always remained at a low level. In May 2020, the CPI of South Korea even decreased by 0.3 percent year-on-year, then it picked up somewhat, but its growth was only 0.5 percent year-on-year in December 2020.

Some Asian economies have fallen into deflation. Japan's inflation rate at the end of 2019 and 2020 saw a brief rebound, but then gradually fell back. Japan has fallen into a state of deflation in October 2020, with the CPI rising by negative 0.4 percent and further expanding to negative 1.2 percent in December 2020, the lowest level since May 2010, and its core inflation rate has remained at zero or negative since April 2020. Such Asian economies as Malaysia, Singapore and Thailand in East Asia, Bahrain, Israel, Oman and Palestine Territory in West Asia also fell into deflation from late 2019 or early 2020. Qatar, UAE and other countries continued to maintain deflation, which was exacerbated in 2020.

The COVID-19 outbreak has had an important impact on the inflation trend in Asian economies in two ways. On the one hand, the outbreak and corresponding prevention and control measures have reduced economic activity and the incomes of businesses and households, while the pandemic has also increased economic uncertainty and depressed consumption and investment, all of which have had a significant impact on aggregate demand in the short term, driving down prices. The pandemic has also sent prices of oil and other commodities tumbling. The IMF's commodity price index fell by 32 percent year-on-year in April 2020, and 21.8 percent and 24.2 percent respectively in March and May of the same

year. Since then it has improved, but was still down 1.6 percent year-on-year as of November 2020.¹ All this has become an important factor driving the price index of Asian economies to go downwards.

On the other hand, border lockdowns and social isolation caused by the pandemic outbreak have affected the supply of certain commodities, resulting in price increases for some commodities, particularly medical supplies and food. In the early stages of the outbreak, for example, the price of surgical masks increased by 200 percent,² and the same was true to food prices. As a result of the COVID-19 outbreak, global grain production has declined significantly, international transportation has been disrupted, and correspondingly food prices have increased. According to the data released by the UN Food and Agriculture Organization (FAO), global food prices have been rising since June 2020, and from October to December 2020, food prices increased by more than 6 percent year-on-year. Given that food has a large weighting in the basket of consumer goods, increasing food prices have had a greater impact on inflation in developing countries. For example, in October 2020, food prices in India rose by more than 11 percent year-on-year, the highest in nine months, causing India to see a high inflation rate of 7.6 percent that month. In addition, the pandemic has further exacerbated currency devaluations of Asian economies, resulting in increased imported inflationary pressure in some economies. For example, despite weak domestic demand, inflation rate has remained high in Turkey, as a result of its currency falling sharply against the US Dollar. Under the impact of the pandemic, the economic crisis, and the August 2020 bombing in the capital, Lebanon's pound has depreciated significantly against the US Dollar. As Lebanon is heavily dependent on imports for necessities such as food, fuel and medical supplies, the sharp depreciation of the Lebanese currency has led to a sharp rise in its consumer prices.³

The inflation rates in Asian economies are expected to rise in 2021, and some economies are expected to face an increased risk of inflation. The pandemic will continue to have a negative impact on

1 UNCTAD. Commodity Price Bulletin - November 2020, UNCTAD/GDS/DSI/CPB/2021/1, January 22, 2021.

2 Ehsan Ebrahimi, Deniz Igan, and Soledad Martinez Peria. The Impact of COVID-19 on Inflation: Potential Drivers and Dynamics, IMF Special Notes Series on COVID-19, September 10, 2020.

3 UN. Diverging Inflation Rates Suggest New Risks, World Economic Situation and Prospects, Monthly Briefing, No. 139, July 2020.

economic activity in Asian economies, but there is a high probability that economic growth of Asian economies will rebound in 2021, and investment and consumer demand will continue to recover, which will lead to rising prices. At the same time, two other factors are also likely to exacerbate inflationary pressures in Asia and globally in the future. First, the pandemic outbreak has further worsened their public finances, which may increase the risk of monetization of their fiscal deficits. Second, under the impact of the pandemic, various countries, especially developed economies such as US, Europe and Japan, have implemented extremely loose monetary policies, resulting in abundant global liquidity, which may aggravate inflationary pressures in the future.

1.3.2 Monetary Policies Substantially Loosened

Under the impact of the COVID-19 pandemic, most Asian economies have adopted loose monetary policies. According to incomplete statistics, 30 Asian economies totally cut interest rates 80 times in 2020 (see Table 1.1). In January 2020, Turkey, Malaysia and other Asian countries began to cut interest rates in response to economic downturn risks. In February, as the COVID-19 outbreak spread around the world, more Asian economies joined interest rate cuts. Affected by the outbreak of the pandemic, the People's Bank of China (PBOC) strengthened counter-cyclical adjustment of its monetary policy, lowering the one-year Loan Prime Rate (LPR) to 4.05 percent in February 2020. Indonesia, the Philippines, Thailand and other countries also started the process of cutting interest rates in February 2020.

In March 2020, the WHO announced that COVID-19 had the characteristics of a global pandemic. Such a statement caused a huge impact to the global economy and financial markets, and in response one central bank after another around the world began to cut interest rates. In particular, on March 3 and March 15, US Federal Reserve made two emergency rate cuts, lowering the target range for federal funds rate to 0-0.25 percent, and then implemented open-ended quantitative easing. Under this influence, Asian economies also began an intensive race for interest rate cuts. On March 16, 2020, the Bank of Korea announced that it would further loosen monetary policy and cut the benchmark interest rate by 50 basis

points to 0.75 percent, the first time that the country's central bank cut the benchmark interest rate below 1 percent. On the basis of previous rate cuts in January and February 2020, Turkey's central bank cut interest rates by another 100 basis points on March 17. On March 27, the Reserve Bank of India cut interest rate by an emergency 75 basis points to 4.4 percent in response to the impact of the COVID-19 outbreak. According to statistics, at least 21 Asian central banks cut interest rates in March 2020. The central banks of Bahrain, Jordan, Kuwait, Laos and Qatar, among others, made their only interest rate cut in March for 2020.

The rapid spread of the pandemic prompted several Asian economies to continue to cut interest rates in the second quarter of 2020. On April 20, 2020, PBOC further lowered the one-year LPR to 3.85 percent. Turkey's central bank cut rates by 100 basis points on April 22 and another 50 basis points on May 21. On May 22, the Reserve Bank of India cut interest rates again to a record low of 4 percent. On May 28, the Bank of Korea cut interest rates by another 25 basis points to 0.5 percent, the country's lowest level on record. Moreover, the central banks of Armenia, Georgia, Myanmar, Pakistan, the Philippines and Sri Lanka all cut interest rates at least twice in the second quarter of 2020. From the third quarter of 2020, Asian countries began slowing the pace and frequency of interest rate cuts, because inflation rates had picked up or the benchmark interest rates had fallen to low levels. Going into the fourth quarter of 2020, only the central banks of Azerbaijan, Indonesia, Mongolia and the Philippines made interest rate cuts.

In addition to interest rate cuts, most Asian economies have also adopted other loose monetary policies. To support pandemic prevention and control and the resumption of production, PBOC, following the allocation of RMB300 billion special re-loan in January 2020, again earmarked RMB500 billion for a special re-loan and rediscount quota in February, and another RMB1 trillion for small and medium-sized banks in April. In addition, China's central bank has also tried to maintain a reasonably adequate liquidity in the banking system through such monetary policy tools as open market operations and comprehensive or targeted reductions in the required reserve ratio for financial institutions. In 2020, the Bank of Japan continued to keep the benchmark interest rate

unchanged at -0.1 percent, but after the pandemic outbreak, it also increased the scale and frequency of the purchase of government bonds, and decided on April 27 to purchase national debts without an upper limit. India's central bank has also stepped up liquidity injections during the pandemic outbreak. In April 2020, the Reserve Bank of India implemented long-term refinancing operations (LTROs) totaling INR5,000 billion, and decided again to implement a 1 trillion targeted three-year LTROs in October. The Bank of Korea has also improved liquidity conditions in the financial system by expanding the scope of open market operations for participants, expanding the scope of eligible collateral for open market operations, and purchasing South Korean government bonds.

But a handful of central banks raised interest rates in 2020, partly in response to inflationary pressures and partly out of a need to curb currency depreciation. Kyrgyzstan was the only country that

only raised interest rates in 2020. In February 2020, the central bank of Kyrgyzstan raised its policy rate from 4.25 percent to 5 percent in the face of rising inflation expectations. In March 2020, Kazakhstan's central bank raised its benchmark interest rate by 275 basis points to 12 percent in order to ease the depreciation pressure of Kazakhstan's tenge due to the fall in oil prices and stabilize inflation expectations. However, the country's central bank reversed the direction of monetary policy in April 2020, under the impact of the pandemic. Under the dual pressure of inflation and currency depreciation, Turkey's central bank raised interest rates by 875 basis points in three cumulative increments in September, November and December 2020, making the country's monetary policy rate even higher than the pre-pandemic level. Due to similar reasons, Armenia also raised its policy rate by 100 basis points to 5.2 percent in December 2020.

Table 1.1 Changing Benchmark Interest Rates in Some Asian Economies in 2020 (basis point, %)

Economies	1	2	3	4	5	6	7	8	9	10	11	12	Interest Rate
Armenia			-25		-25	-50			-25			100	5.25
Azerbaijan	-25					-25	-25		-25			-25	6.25
Bahrain			-125										1.00
Bangladesh			-25	-50			-50						4.75
China		-10		-20									3.85
Georgia				-50		-25		-25					8.00
India			-75		-40								4.00
Indonesia		-25	-25			-25	-25				-25		3.75
Israel				-15									0.10
Jordan			-150										3.50
Kazakhstan			275	-250			-50						9.00
Korea, Republic of			-50		-25								0.50
Kuwait			-125										1.50
Kyrgyzstan		75											5.00
Laos			-100										3.00

(continued)

Economies	1	2	3	4	5	6	7	8	9	10	11	12	Interest Rate
Malaysia	-25		-25		-50		-25						1.75
Mongolia			-100	-100					-100		-200		6.00
Myanmar			-50	-100	-150								7.00
Nepal					-100								5.00
Oman	-13	-165											0.50
Pakistan			-225	-200	-100	-100							7.00
The Philippines		-25	-50	-50		-50					-25		2.50
Qatar			-175										2.50
Saudi Arabia			-125										1.00
Sri Lanka	-50		-25	-25	-50		-100						4.50
Tajikistan					-100			-100					10.75
Thailand		-25	-25		-25								0.50
Turkey	-75	-50	-100	-100	-50				200		475	200	17.00
UAE			-75										1.25
Uzbekistan				-100					-100				14.00
Viet Nam			-50		-50					-50			2.50

Sources: CEIC, central banks of involved Asian countries, January 2021.

Monetary policies in most Asian economies are expected to remain loose in 2021. Under the lingering impact of the pandemic, Asian countries still face great pressure and need to promote economic growth through loose monetary policies. Some Asian countries with policy space may further cut interest rates, but they also need to pay attention to some issues in the process of monetary easing. The first is that inflation and currency depreciation pressures will inhibit further monetary easing in some economies. The second is that interest rates in some economies are already at low levels, which will reduce their room for further rate cuts.

1.4 Trade and Investment

Under the severe impact of the COVID-19 pandemic, global economic growth remains sluggish, trade protectionism is on the rise, and international trade

and investment have seen a sharp decline. Asian economies are not immune, but their overall situation is better than the rest of the world, with some countries even registering trade and investment growth against headwinds. Against the backdrop of the pandemic, Asia is still moving fast towards trade and investment liberalization. The conclusion of a series of important multilateral and bilateral economic and trade cooperation arrangements, such as RCEP and China-EU Comprehensive Agreement on Investment (CECAI), has given a strong boost to global trade and investment liberalization and contributed Asia's share to global economic development.

1.4.1 Foreign Trade Sharply Contracted

Asia's trade in goods has shrunk, but its share in world trade in goods has risen. According to WTO statistics, in 2020, Asian economies' trade in goods continued the trend of contraction in 2019. In the first three

quarters of 2020, Asia's total trade in goods stood at USD9.16 trillion, down 7.0 percent from the same period in 2019, accounting for 36.3 percent of the world's total trade in goods, up 1.5 percentage points from the same period in 2019. Among them, the total

exports of goods were USD4.77 trillion, down 4.9 percent year on year, and total imports of goods were USD4.39 trillion, down 9.1 percent year on year (see Figure 1.4).



Figure 1.4 Year-on-year Growth Rates of Asia's Imports and Exports of Goods, 2019Q1-2020Q3

Source: WTO, January 2021.

Despite facing a gloomy picture of overall trade, a few Asian economies still have seen their trade in goods grow against adverse conditions. According to China's Customs statistics, China's total import and export of goods in 2020 reached USD4.65 trillion, ranking the first in the world, up 1.5 percent over 2019 and becoming the only major economy with positive growth in trade in goods in the world. Of the volume, the exports of goods reached USD2.59 trillion, up 3.6 percent from 2019 and the imports of goods were USD2.06 trillion, down 1.1 percent from 2019. Viet Nam's imports and exports of goods have also done well. According to Vietnamese customs statistics, Viet Nam's total import and export trade reached USD545.36 billion in 2020, an increase of 5.4 percent compared with 2019, of which exports accounted for USD282.65 billion, up 7 percent year-on-year, and imports amounted to USD 262.7 billion, an increase of 3.7 percent. Viet Nam's trade growth was largely driven by the Asian market. In 2020, its exports to the Asian market accounted for 49.6 percent of its total

exports, an increase of 3.4 percent, and its imports from the Asian market accounted for 80.8 percent of its total imports, an increase of 4.7 percent.

However, most Asian countries have seen a decline in trade in goods to varying degrees. In 2020, Turkey's total import and export of goods was USD388.88 billion, down 0.6 percent compared with 2019, which was mainly driven by the decline in export. Except for April, May and July, Turkey's import of goods maintained a year-on-year growth in 2020, and the annual import increased by 4.3 percent. South Korea's total imports and exports of goods in 2020 declined by 6.3 percent from 2019. Of this, exports of goods amounted to USD512.85 billion, which remained above USD500 billion for the fourth consecutive year, down 5.4 percent year on year, and the decline was narrower than that in 2019, and imports of goods were USD467.23 billion, down 7.2 percent year on year. Thailand's total imports and exports of goods in 2020 dropped to USD438.46 billion, 9.1 percent lower than in 2019, of which

exports decreased by 6 percent and imports 12.4 percent. Indonesia's total import and export of goods in 2020 amounted to USD304.88 billion, down 9.9 percent from 2019, with exports down 2.6 percent and imports down 17.1 percent. According to the statistics of the Japan External Trade Organization (JETRO), affected by the sharp decline in overseas demand for automobiles and other products, Japan's total imports and exports of goods in 2020 was USD1.27 trillion, a year-on-year decrease of 10.7 percent, among which exports and imports decreased by 9.3 percent and 12.2 percent respectively.

Some Asian economies have seen steeper declines in trade in goods. According to the statistics released by India's Ministry of Commerce and Industry, the country's total imports and exports of goods in 2020 was USD648.38 billion, a sharp drop of 20 percent compared to 2019, with exports dropping by 14.8 percent and imports by 23.5 percent. Lebanon and Iran saw their trade shrink even more. According to WTO statistics, in the first three quarters of 2020, Lebanon's total imports and exports of goods decreased by 43.9 percent year-on-year, and due to domestic economic contraction, the imports shrank by 49.6 percent year-on-year. Iran's trade in goods contracted smaller in 2020 than in 2019, but it was still a 29 percent decline in the first three quarters of 2020 from the same period of 2019, with exports shrinking by 41.9 percent year-on-year. Other countries where trade in goods shrank by more than 20 percent year-on-year in the first three quarters of 2020 included Saudi Arabia, Bahrain and the Philippines.

The COVID-19 pandemic has caused an impact to the foreign trade of Asian economies in a number of aspects. First, the pandemic has depressed the economic growth of all countries, added more uncertainties to their economic growth, dealt a severe blow to the confidence of consumers and entrepreneurs, and caused a recession in their import and export trade as a result of shrinking domestic and foreign demand. Second, the pandemic and its prevention and control measures have impeded the flow of personnel, materials and capital, posing a risk of disruption to international supply chains in some industries and affecting the production and operation of enterprises. As one of the world's three major production and trade hubs, the disruption of regional

production network in Asia can also extend to other chains and links of global trade and production labor of division. Third, the pandemic has led to the rise of trade protectionism, and trade protection measures taken by countries during the pandemic have further worsened the international trade environment.

The recovery of Asia's international trade in the future depends on how the pandemic develops. The pandemic brought serious impacts to the foreign trade of Asian economies in the second quarter of 2020, causing their exports and imports to shrink by 10.1 percent and 16.8 percent respectively. As the pandemic prevention and control measures gradually relaxed, the economic activities and foreign trade of Asian countries started to turn better from the third quarter of 2020, especially exports recovered and even returned to positive growth year-on-year. In terms of individual economies, after the pandemic was brought under effective control at home, China's exports of goods returned to positive growth after June 2020, and imports of goods also began to achieve positive growth in September 2020. Similar to the situation in China, Viet Nam's exports and imports have restored to positive growth year-on-year since July 2020 and August 2020 respectively. South Korea's exports also showed clear signs of recovery after the third quarter of 2020, with a growth of 0.4 percent in the second half of 2020 compared with the same period of 2019. Exports from Bangladesh, Malaysia and Sri Lanka also resumed growth in the third quarter of 2020. Pakistan, the Philippines, Singapore, Turkey and other countries saw negative export growth in the third quarter of 2020, but compared with the second quarter, the situation already turned better.

Asia's trade in services has also fallen sharply. According to the WTO data, in the first quarter of 2020, Asian economies already saw signs of year-on-year shrinkage in their trade in services. Under the impact of the outbreak of COVID-19, the imports and exports of Asia's trade in services suffered a year-on-year fall of 29 percent and 30 percent respectively in the second quarter of 2020, and unlike trade in goods, there was no signs such kind of situation turned better in the third quarter of 2020, with both imports and exports shrinking 26 percent year-on-year (See Figure 1.5). This suggests that the pandemic has caused greater impacts to Asia's trade in services than it has done to its trade in goods.

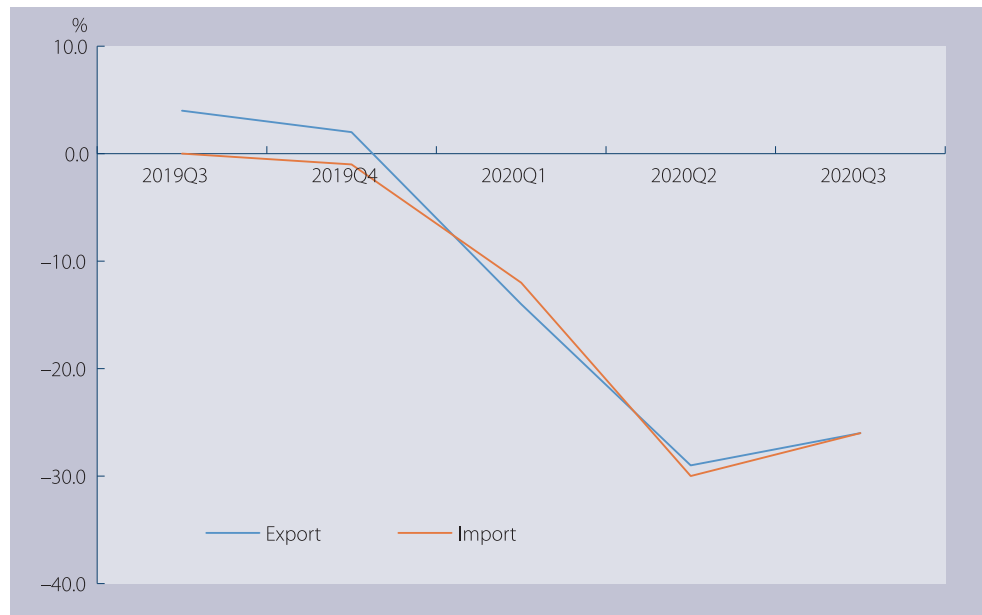


Figure 1.5 Year-on-year Growth Rates of Asia's Imports and Exports of Trade in Services, 2019Q3-2020Q3

Source: WTO, January 2021.

In terms of individual economies, according to UNCTAD estimates, trade in services in most Asian economies shrank by more than 10 percent in the first three quarters of 2020. In the first three quarters of 2020, India's total trade in services was USD258.56 billion, down 11.9 percent from the same period in 2019, with exports declining by 6.8 percent and imports by 18 percent. Over the same period, China's and Japan's total trade in services shrank by 17.4 percent and 16.1 percent respectively, with China's service trade shrinking mainly driven by a decline in imports, while Japan's service trade shrinking mainly driven by a decline in exports. South Korea and the Philippines both saw their trade in services shrink by more than 20 percent, while Viet Nam, Malaysia and Turkey registered a contraction of more than 30 percent. In the first three quarters of 2020, Saudi Arabia's and Indonesia's total trade in services declined by 40.4 percent year-on-year and 43.2 percent year-on-year respectively, especially both countries suffered a decline of more than 50 percent in exports. Kyrgyzstan, Georgia, Armenia, Jordan and Laos all saw their trade in services decline by more than 50 percent year-on-year in the first three quarters

of 2020.

Despite an overall negative growth, some Asian economies saw signs of improvement in their trade in services in the third quarter of 2020. In terms of the export of service trade, the situation in China began to improve quarter by quarter in the first three quarters of 2020 and registered a 1 percent growth in the third quarter of the year, making China one of the few Asian economies whose export of service trade recovered positive growth. Turkey, Israel, Pakistan, the Philippines, Qatar, and Singapore also recovered the export growth of trade in services in the third quarter of 2020, while Viet Nam, Japan, Indonesia, and Thailand saw the speed of export growth further decline. In terms of the import of service trade, Qatar resumed year-on-year growth in the third quarter of 2020, and Pakistan, Kyrgyzstan, Thailand, India, Turkey, and Viet Nam also saw improvements, while Japan and Saudi Arabia saw a further decline.

Current account balances have improved in most Asian economies. In the first three quarters of 2020, China's current account surplus stood at USD168.71 billion, an increase compared with the same period in 2019, mainly due to the expansion of

trade surplus in goods and the narrowing of trade deficit in services. As the trade deficit in goods has narrowed substantially, India's current account balance turned from deficit to surplus in 2020, with a surplus of USD35.35 billion in the first three quarters of the year. In the first three quarters of 2020, South Korea's current account surplus stood at USD43.31 billion, an increase of 3.5 percent compared to the same period in 2019. Starting from the beginning of 2020, Indonesia's current account deficit gradually narrowed and achieved a surplus of USD960 million in the third quarter of 2020, reducing its current account deficit to USD5.67 billion in the first three quarters. Pakistan and the Philippines have also seen current account balances improve. However, there are also some Asian economies with a worsening current account balance. Turkey began to saw a current account deficit at the end of 2019, which widened further in 2020, rising to USD30.85 billion in the first three quarters of the year. Saudi Arabia also ran a current account deficit in the first three quarters of 2020.

In the face of the COVID-19 pandemic and global economic downturn, Asia is still pushing forward trade liberalization at a rapid pace. On November 15, 2020, 15 Asia-Pacific countries, including 13 Asian economies, officially signed the RCEP, marking the birth of the world's largest free trade area. After the entry into force of the RCEP, more than 90 percent of trade in goods within the RCEP will be tariff-free, which will robustly boost the economic and trade development of the whole world, especially the Asia-Pacific region. On August 1, 2020, EU-Viet Nam Free Trade Agreement officially came into force, making Viet Nam the first emerging market country in Asia to establish a free trade link with EU. The FTA will eventually eliminate tariffs on 99 percent of goods traded between the two sides. In addition, the FTA between Hong Kong Special Administrative Region of China and Australia and the FTA between Indonesia and Australia also came into force in 2020. This, together with negotiations being advanced at a rapid pace on a series of free trade agreements (FTAs), has

helped maintain the process of trade liberalization in Asia and the world at large.

1.4.2 FDI Has Fallen Slightly

The volume of FDI flowing into Asian economies has fallen slightly. According to UNCTAD, FDI flowing into Asian economies in 2019 was USD517.69 billion, down 4.0 percent from 2018, accounting for 33.6 percent of the total volume of global FDI inflows, a decline of 2.4 percentage points from 2018 (See Figure 1.6). Influenced by the COVID-19 pandemic, the inflow of FDI in Asia continued to shrink in 2020. According to the "Global Investment Trend Monitor" released by the UNCTAD in January 2021, global FDI would drop from USD1.5 trillion in 2019 to USD859 billion in 2020, a year-on-year decrease of 42 percent, which is more than 30 percent lower than the investment trough in 2009 after the international financial crisis. Among them, FDI attracted to developing Asian economies fell by 4 percent from USD495 billion in 2019 to USD476 billion in 2020, the smallest drop among all the regions covered by UNCTAD.¹

From an individual perspective, despite suffering the severe impact of the COVID-19 pandemic, some Asian economies have also attracted more FDI inflows. According to UNCTAD estimates, China attracted USD163 billion FDI in 2020, up 4 percent from 2019, making it the world's largest FDI recipient. China's economic recovery and the government's investment promotion policies have become important factors to attract FDI inflows. The FDI attracted to India in 2020 reached USD57 billion, up 13 percent from 2019, with merger and acquisition (M&A) deals in the digital economy being the largest contributor to the country's FDI inflow growth. FDI inflows rose from USD15 billion in 2019 to USD17 billion in 2020 in Japan, while from USD18 billion to USD26 billion in Israel. FDI inflows to the Philippines reached USD6.4 billion in 2020, an increase of 29 percent from 2019. The FDI flowing to Saudi Arabia is expected to be USD4.7 billion in 2020, up 4 percent from 2019.

¹ UNCTAD. Global Investment Trend Monitor, No. 38, January 24, 2021.

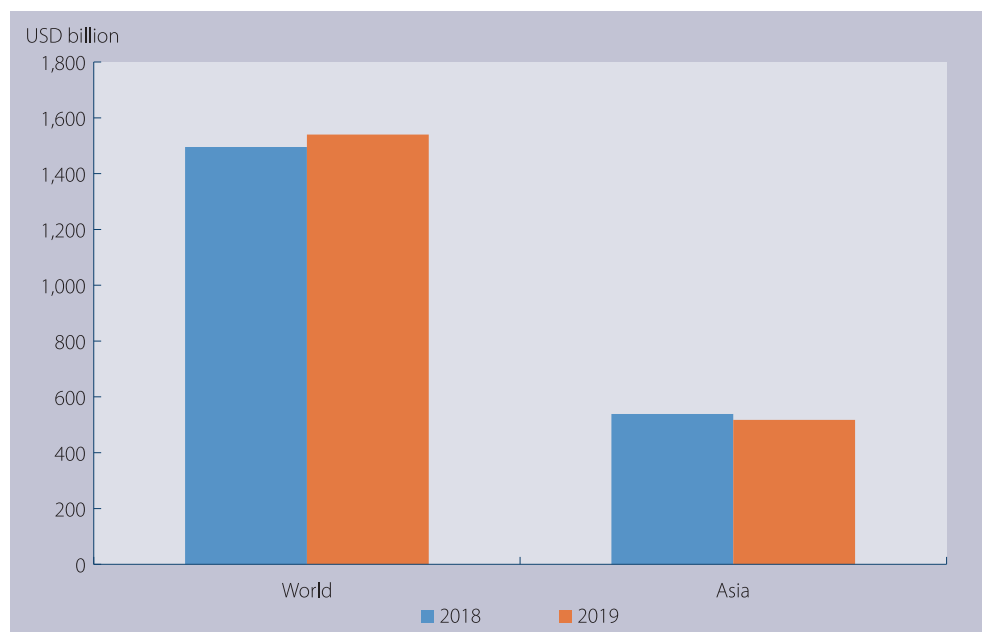


Figure 1.6 World and Asian FDI Inflows, 2018-2019

Source: UNCTAD, January 2021.

However, some Asian economies have seen a decline in FDI inflows. In 2020, ASEAN countries as a whole attracted 31 percent less FDI than in 2019, among which Singapore attracted USD58 billion, 37 percent less than in 2019, Indonesia attracted USD18 billion, a decline of 24 percent, Viet Nam attracted USD14 billion, down 10 percent, and Malaysia registered USD2.5 billion, down 68 percent. FDI inflow to Turkey fell by 19 percent from 2019 to USD6.8 billion in 2020. According to South Korea's MOTIE¹ data, the country attracted USD20.75 billion FDI in 2020, down 11.1 percent year on year, with an actually utilized FDI of USD11.09 billion, down 17 percent year-on-year. The volume of FDI flowing to South Korea has declined for two consecutive years since 2018.

Asian economies still remain an important source of global FDI outflows. According to the UNCTAD data, global outward FDI reached USD1.31 trillion in 2019, up 33.2 percent from 2018, of which the outward FDI from Asian economies reached USD562.81 billion, up 1.0 percent, accounting for 42.8

percent of the global total, down 13.6 percentage points from 2018 (See Figure 1.7).

From an individual perspective, Japan remained the world's largest outward FDI source in 2019, with the volume reaching USD226.65 billion, up 58.3 percent compared with 2018. The outbound FDI from Israel, Malaysia, Singapore and India also increased. However, China, Indonesia, Saudi Arabia, Turkey and South Korea have seen a decline in outbound FDI to varying degrees. In 2020, China's outbound investment and cooperation maintained steady development. According to the statistics from the Ministry of Commerce, China's outbound FDI in 2020 reached USD132.94 billion, up 3.3 percent year on year. But most Asian economies are expected to see a decline in outward FDI as a result of the pandemic outbreak. According to the JETRO statistics, Japan's outward FDI in the first three quarters of 2020 was only USD94.81 billion, a sharp decline compared with the same period in 2019.

1 MOTIE=Ministry of Trade, Industry and Energy of Korea.

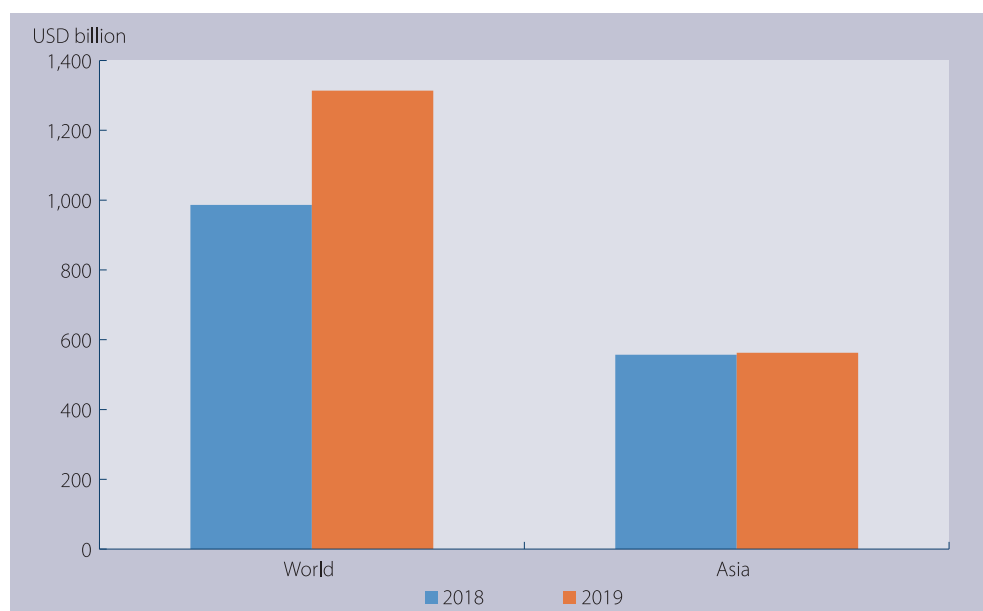


Figure 1.7 World and Asian FDI Outflows, 2018-2019

Source: UNCTAD, January 2021.

Against the backdrop of the impact of the COVID-19 pandemic, Asian economies have adopted a series of policy measures to boost investment and economic growth in 2020. On January 1, 2020, China formally implemented the Foreign Investment Law, which, based on the full implementation of the pre-establishment national treatment plus negative list management system, has helped the country promote investment liberalization and facilitation at a higher level. After the outbreak of the pandemic, China's Ministry of Commerce issued on February 18 a notice on stabilizing foreign trade, foreign investment and promoting consumption, to actively support foreign-funded enterprises in coping with the impact of the pandemic and stabilize their confidence. On August 12, the State Council of China, issued guidelines on further stabilizing foreign trade and foreign investment, rolling out 15 policies to protect foreign trade players and maintain supply chain stability. In June 2020, the Chinese government issued the Special Administrative Measures for the Access of Foreign Investment (Negative List) (2020 Edition) and the Special Administrative Measures for the Access of Foreign Investment in Pilot Free Trade Zones (Negative List) (2020 Edition) respectively to further reduce the negative list for the access of foreign investment. In November 2020, the Chinese

government issued the Catalogue of Industries Encouraged for Foreign Investment (2020 Edition), in a move to further expand the scope of foreign investment. India has also further relaxed foreign investment restrictions in some sectors. In March and September 2020, the Indian government raised the limit on foreign investment in India's aviation and defense sectors under Automatic Route to 100 percent and 74 percent respectively. In June 2020, Viet Nam's National Assembly passed a newly revised Law on investment, opening up a number of business sectors to foreign investors.

Asian economies have continued to strengthen international investment cooperation. By 2020, a total of 1,950 bilateral investment agreements or accords containing investment provisions had been implemented by Asian economies, of which 1,509 were bilateral investment agreements. Despite suffering the impact of the COVID-19 outbreak, Asian economies still have reached some important international investment agreements. In addition to the aforementioned RCEP, the leaders of China and EU jointly announced on December 30, 2020 the conclusion of negotiations on the China-EU Investment Agreement, which will further deepen China-EU economic and trade ties and promote the liberalization and facilitation of global trade and

investment. In addition, the agreements related to investment newly signed by Asian economies in 2020 also include Japan-Morocco Bilateral Investment Agreement, India-Brazil Bilateral Investment Agreement, Kazakhstan-Hungary Bilateral Investment Agreement, Japan-Britain Comprehensive Economic Partnership Agreement (CEPA), Singapore-Britain Free Trade Agreement, Viet Nam-Britain Free Trade Agreement, and Turkey-Britain Free Trade Agreement, etc.

1.5 Financial Market

In 2020, the huge impact of the COVID-19 pandemic caused dramatic fluctuations in Asian stock markets, but thanks to the stimulus policies of various economies and the relatively loose macro environment, most stock markets were on an upward tendency, and the stock indexes of some economies saw a considerable rise. The currencies of most Asian economies have appreciated but those of certain economies have fallen sharply. Ten-year bond yields fell in most economies. In some economies, real estate prices rose more than fell, and some economies' real estate prices saw a relatively big rise. The non-performing loan (NPL) ratio of the banking sector in most Asian economies rose, but the overall operation of the banking system is relatively sound.

1.5.1 Stock Indexes Drastically Fluctuated

In 2020, despite the huge impact of the COVID-19 pandemic led to the drastic stock market fluctuations, most of the economies in Asia benefited from the stimulus policies and relatively loose macro environment, the stock markets of the vast majority of Asian economies were on an upward trend, and the stock market indexes of some rose significantly. According to the data from CEIC and Wind, stocks of 18 Asian economies rose and those of 16 economies fell. Of them, 14 economies—Sri Lanka, Kazakhstan, Bangladesh, India, Japan, Taiwan Province of China, Viet Nam, Kyrgyzstan, China, Turkey, South Korea, Syria, Nepal and Iran—saw increases of more than 10 percent in stock prices. Five economies saw their stock prices fall by more than 10 percent—Laos, Cambodia, Singapore, Kuwait and Israel. Specifically, Iran's TEDPIX index increased by 270.8 percent, the largest among Asian economies (see Figure 1.8), immediately followed by Nepal's NEPSE index, which saw a rise about 79.0 percent, and then the weighted index of

Syria's Damascus Stock Exchange, which gained 38.5 percent. In comparison, Laos' Composite Index fell the most, by about 17.8 percent, followed by Cambodia's Composite Index, which fell by about 14.9 percent, and Singapore's Straits Times Index, which lost about 11.8 percent. In addition, South Korea's KOSPI Index rose by 30.8 percent, China's CSI 300 Index gained 27.2 percent, Japan's NIKKEI 225 Index rose by 16.0 percent and India's SENSEX Index climbed up 15.8 percent.

The sudden outbreak and rapid spread of the COVID-19 pandemic has dealt a heavy blow to the world economy, causing violent shock to the capital market, especially the stock market. US stock market has experienced five circuit breakers since the introduction of circuit breakers in 1987, four of which happened in March 2020 alone. Stock markets across Asia also suffered sharp declines, with South Korea, Indonesia, Thailand, the Philippines and Turkey successively taking measures banning short selling or temporarily closing their markets in an effort to stem sharp stock index declines. In order to cope with the impact of the COVID-19 pandemic, Asian economies have successively taken special measures, including adopting more proactive fiscal policies and looser monetary policies and increasing the hedging of macroeconomic policies, which has played an important role in stabilizing economic operation and reducing the fluctuation of the capital market. Adhering to the "bottom line" thinking and the "bottom line" management, China shifted from its policy priorities from "Six Stabilizes" to "Six Maintains" in April 2020, namely maintaining employment, maintaining people's basic livelihood, maintaining main market players, maintaining grain and energy security, maintaining the stability of industrial and supply chains and maintaining the smooth operation of grassroots work. While adopting extraordinary macroeconomic policies to provide support and stimulus under the condition that its national economy was suffering a huge impact, China also steadily advanced institutional reforms at its stock market through introducing the registration system and normalized delisting mechanism, thus resulting in a tangible rise in stock indexes in all the year round. Under the impact of the pandemic outbreak, Japan's NIKKEI 225 Index fell sharply in the first quarter of 2020, but began to rebound in April and hit a record high since 1990 as of December 2020, thanks to the Japanese government's implementation of aggressive

and expansionist fiscal and loose monetary policies, the expected use of COVID-19 vaccines very soon and

the dust settling of the US presidential election, among other factors.

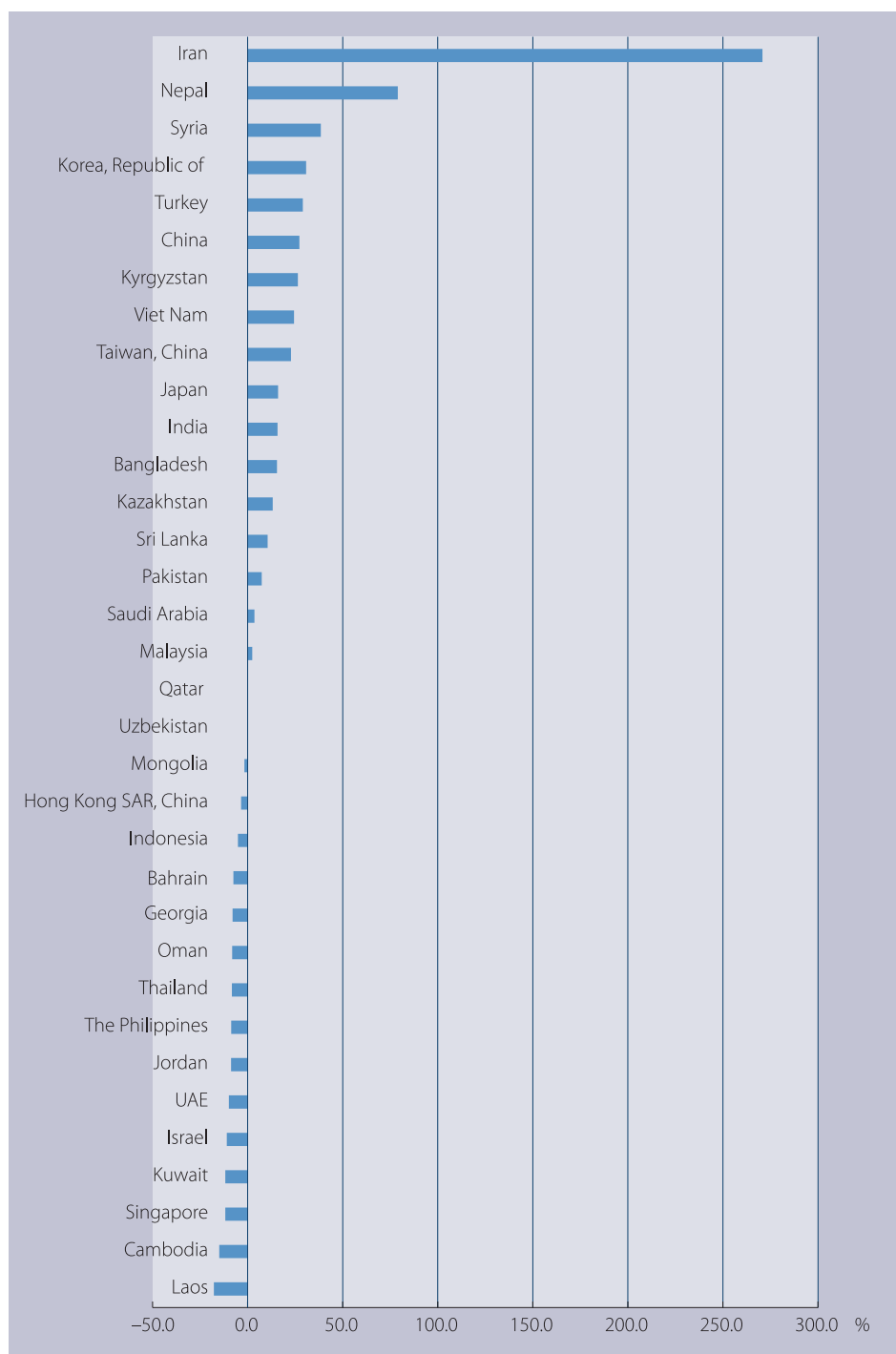


Figure 1.8 Rising or Falling Rates of Stock Indexes of Some Asian Economies in 2020

Note: Rising or falling rates of stock indexes = (closing prices of last trading day in 2020 - closing prices of last trading day in 2019) * 100% / closing prices of last trading day in 2019. The data for China is the China's CSI 300 Index.

Sources: CEIC Database and Wind Database, January 2021.

1.5.2 Appreciations of Most Asian Currencies against the US Dollar

Asian economies have seen more currencies rise than fall, but there are also some economies that have seen their currencies decline sharply. According to the CEIC database, 15 economies in Asia saw currencies appreciate in 2020, 14 economies saw currencies devalue and another 9 economies saw currencies unchanged due to their pegging to the US Dollar, based on the exchange rate of local currencies against the US Dollar (see Figure 1.9). Among the currencies which appreciated against the US Dollar, Myanmar's rose the most, by about 10.2 percent, immediately followed by Israel's, which rose by approximately 7 percent, then followed by China's, which rose by about 6.3 percent. Of the currencies which have devalued against the US Dollar, Turkish lira fell the most, by about 23.6 percent, immediately followed by Kyrgyzstan's som, which depreciated by 18.7 percent, then followed by the Tajikistan's currency, which depreciated by about 16.6 percent. In addition, the Japanese yen appreciated about 5.0 percent against the US Dollar, the Korean won appreciated about 6.0 percent and the Indian rupee depreciated about 2.3 percent.

The RMB exchange rate against the US Dollar showed a "first-fall-later-rise" tendency in 2020. Several reasons have contributed to such a scenario. First, the impact of the COVID-19 outbreak on China and US had time differences, so when China took timely and strong measures to effectively contain the spread of the pandemic, US got deeply trapped in the pandemic. In this context, China's economic recovery significantly accelerated, the gap between China and US in risk-free interest rates widened, and a large amount of short-term international capital flooded into China, pushing up the RMB exchange rate against the US Dollar. Second, in response to the impact of the COVID-19 pandemic, central banks in the developed world, including US, adopted the loosest monetary policy in history, resulting in excess liquidity around the world. Third, the ever-exacerbating pandemic has led to a record decline in US' GDP growth, a downward trend in risk-free interest rates, and a significant narrowing of economic growth and risk-free interest rate gap between US and other major developed countries, thus resulting in a general depreciation of the Dollar index since late March 2020. Fourth, the accelerated opening-up of China's financial market to foreign institutional investors (FIIs) has caused some

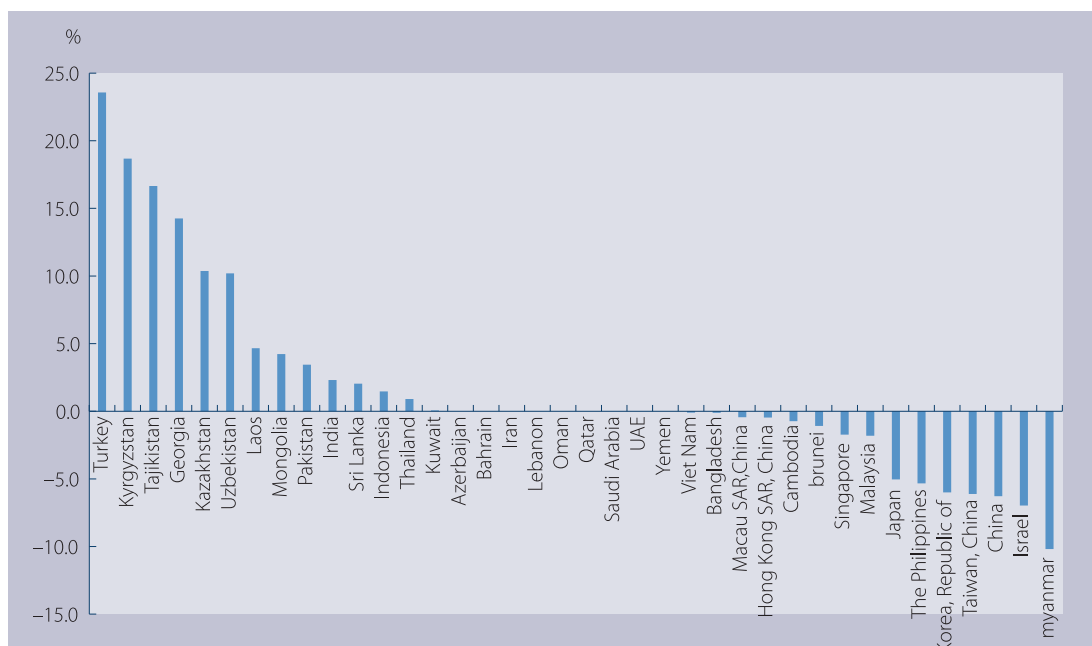


Figure 1.9 Changes in the Exchange Rates of Some Asian Currencies against the US Dollar in 2020 (Direct Quotation)

Source: CEIC Database, January 2021.

major global financial indexes to include more and more Chinese financial products, and as a result, foreign investors have actively or passively increased their holding of China's financial assets. Turkey was one of the few Asian countries to raise interest rates during the COVID-19 pandemic, mainly to ease the depreciation pressure on the Turkish lira, but to no avail. In addition to the impact of the pandemic, Turkey's involvement in the conflict in Syria and the Nagorno-Karabakh conflict between Azerbaijan and Armenia, as well as its severe economic contraction, rising unemployment, rising prices and other problems at home, eventually led to the sharp devaluation of the Turkish lira against the US Dollar.

1.5.3 Bond Yields in Most Asian Economies Have Been on the Decline

Most Asian economies have seen a decline in their ten-year bond yields. According to monthly data from Wind and Investing, only four economies in Asia have seen a rise in ten-year bond yields (see Table 1.2): Turkey, South Korea, Japan and China, while 15 economies reported declines: Israel, Thailand, Taiwan Province of China, Malaysia, India, Qatar, Singapore, Viet Nam, Hong Kong Special Administrative Region of China, Pakistan, Indonesia, the Philippines, Jordan, Sri Lanka and Bangladesh. Seven economies saw the monthly average of their 10-year national debt yields above 5 percent and 12 economies saw it below 5 percent. Among them, Turkey saw a 10-year national debt yield basically between 10.0 percent and 14.1 percent, which is at a relatively high level compared with other economies. Japan's 10-year government bond yield remains relatively low, basically fluctuating around zero. In addition, China's 10-year national debt

yield ranged from 2.5 percent to 3.3 percent, while South Korea's between 1.3 percent and 1.7 percent and India's between 5.8 percent and 6.6 percent.

Generally speaking, the higher inflation expectations, the steeper the national debt yield curve, because investors demand higher yields to compensate for higher inflation in the future. Turkey's higher 10-year bond yields are related to the rising geopolitical risk it faces and its high domestic inflation expectations. In the face of the negative impact of the pandemic, China's prudent monetary policy has become more flexible, and proactive fiscal policy has become more proactive. With the effective control of the pandemic at home, and the gradual and steady resumption of work and production, inflation expectations rebounded, China's 10-year national debt yield began to rise gradually from the low point of 2.5 percent in April 2020, and basically had returned to the pre-pandemic level by December. Among major economies in Asia, the yield of 10-year government bonds in India has remained relatively high. On the one hand, the "INR100 Trillion Infrastructure Plan" implemented by India in 2019 needs the government to issue bonds to support, which, added by more-than-expected increases in public expenditures to deal with the impact of the COVID-19 pandemic in 2020, has brought climbing pressures for the Indian government to increase public debt issuance. On the other hand, three major international rating agencies—Moody's, Fitch and Standard & Poor's, successively downgraded India's sovereign credit rating to the lowest level of investment grade in June 2020, and all held a negative outlook. These are the main reasons for India's relatively high national debt return rate.

Table 1.2 Changes of 10-year National Debt Yields of Some Economies in Asia in 2020 (% , percentage point)

Economies	Dec.2020	Dec.2019	Changes	Economies	Dec.2020	Dec.2019	Changes
Turkey	12.5	12.0	0.51	Singapore	0.8	1.7	-0.90
Korea, Republic of	1.7	1.7	0.05	Viet Nam	2.5	3.4	-0.93
Japan	0.0	0.0	0.04	Hong Kong SAR, China	0.8	1.8	-1.04
China	3.2	3.2	0.03	Pakistan	9.9	11.0	-1.07
Israel	0.8	0.8	-0.08	Indonesia	5.9	7.0	-1.11

(continued)

Economies	Dec.2020	Dec.2019	Changes	Economies	Dec.2020	Dec.2019	Changes
Thailand	1.2	1.5	-0.33	The Philippines	3.0	4.4	-1.43
Taiwan, China	0.3	0.7	-0.36	Jordan	4.7	6.2	-1.55
Malaysia	2.7	3.3	-0.64	Sri Lanka	8.0	10.1	-2.10
India	5.9	6.6	-0.66	Bangladesh	5.8	9.4	-3.63
Qatar	1.7	2.6	-0.90				

Note: Changes of 10-year national debt yields = closing yield of the last trading day of December 2020 – closing yield of the last trading day of December 2019. The data for some Asian economies Data is unavailable.

Source: Investing.com Database, January 2021.

1.5.4 Considerable Rises in Real Estate Prices of Some Economies

Real estate prices in some Asian economies have risen more than they have fallen, and some economies have seen considerable rises. Of the 15 Asian economies covered by CEIC's quarterly data, nine saw year-on-year real estate price increases as of the third quarter of 2020, including Turkey, Kazakhstan, China, Taiwan Province of China, South Korea, Israel, Thailand, Indonesia and Singapore. Real estate markets in six economies reported year-on-year price declines, including Japan, the Philippines, Mongolia, Malaysia, Hong Kong Special Administrative Region of China and Brunei. Some economies in Asia have seen bigger increases in property prices, of which Turkey's real estate saw the biggest price increase of 26.5 percent, followed by Kazakhstan's, the second largest increase of about 9.5 percent, and China's, the third largest increase of about 6.6 percent increase. There are also Asian economies that have seen real estate price declines. Among them, Brunei's real estate prices fell the most, about 7.7 percent, followed by Hong Kong Special Administrative Region of China, a decline of about 1.1 percent, and then Malaysia, a decline of about 0.9 percent.

Property prices in Turkey have seen a sharp rise. According to a global house price index report released by Knight Frank, real estate prices in Turkey rose by 27.3 percent in 2020, the highest in the world. There are several factors behind the continuous real estate price increases in Turkey. First, in response to the impact of the COVID-19 pandemic, the Turkish government adopted loose policies, including lowering loan interest rate in May, which continued to

stimulate enthusiasms for house purchases. Second, construction costs have increased. According to the construction cost index report released by the Turkish Statistics Bureau, the index has maintained a stable rising trend in Turkey since 2015, and the engineering cost index has increased by 22.99 percent in 2019. The rising cost of building materials and labor is the main cause of the rising construction cost, which would inevitably push up real estate prices. Third, Turkey's urbanization process has highlighted the scarcity of its land resources, resulting in a rise in land costs. Fourth, Turkey has a younger population structure, which means it has a huge potential housing demand. Under the general real estate tone that "housing is for living, not for speculation", China's real estate market, after withstanding the impact of COVID-19 pandemic at the beginning of 2020, began to warm up in the first half of the year, but became chilly in the second half of the year, and then rebounded again at the end of the year to realize the "double rise" of whole-year selling volumes and selling prices. According to statistics released by China's National Bureau of Statistics, China registered an investment of RMB14.14 trillion in real estate development in 2020, up 7.0 percent from 2019. Of the total investment, residential investment was RMB10.44 trillion, up 7.6 percent year on year. The sales area of commercial housing was 1.761 billion square meters, up 2.6 percent year on year, with an average sales price of about 9,860 yuan/m², up 5.9 percent year on year, and the increase being slightly smaller than that in 2019. Under the influence of such multiple factors as adhering to the principle of "housing is for living, not for speculation", vigorously developing the rental market, and a series

of policy measures aimed to promote financial deleverage of real estate enterprises, China's real estate prices are less likely to see a sharp rise in 2021, and there is a high probability for prices to stabilize.

1.5.5 NPL Ratio of the Banking Sector in Most Economies Increased

The NPL ratio of the banking sector in most Asian economies rose. According to the statistics of the World Bank Group, the NPL ratio of banks increased in 18 economies and decreased in 7 economies in 2019 compared with 2018 (see Table 1.3). Specifically, Lebanon, Bhutan and Turkey remain the top three in terms of banks' NPL ratio rise, respectively increasing by 4.9 percentage points, 1.4 percentage points, and 1.3 percentage points, while Thailand, Macao Special Administrative Region of China and Hong Kong Special Administrative Region of China saw a lesser NPL ratio rise, which increased by 0.05 percentage point, 0.02 percentage point, and 0.02 percentage point respectively. Georgia, Brunei and Bangladesh saw a decline of 0.8 percentage point, 0.8 percentage point and 1.0 percentage point respectively in terms of the NPL ratio of banks while Singapore saw the smallest decline of about 0.003 percentage point. In 2019, with the exception of Lebanon, the NPL ratio of banks in all other economies was below the 10

percent international warning line, which indicates that the banking system of Asian economies is relatively stable and the probability of systemic default risk is small.

The main operation and risk indicators of China's banking sector generally stay within a reasonable range, and China's ability to withstand risks has strengthened. According to the data released by the China Banking and Insurance Regulatory Commission (CBRC) on January 22, 2021, by the end of 2020, the outstanding NPLs in China's banking sector had reached RMB3.5 trillion, an increase of RMB281.6 billion compared with the beginning of the year, with the NPL ratio being 1.92 percent, down 0.06 percentage point from the beginning of the year, and the loans over 90 days overdue accounting for 76 percent of NPLs, down 5.1 percentage points from the beginning of the year. A few main factors have contributed to the positive changes in the NPL ratio of China's banking sector. For example, since the CBRC required banks to strengthen risk control and prevention, domestic banks have stepped up efforts to dispose of their NPLs, disposing of RMB3.02 trillion of non-performing assets in 2020. At the same time, the higher-than-expected 2.3 percent economic growth in 2020 has laid a solid foundation for banks to prevent and control a substantial NPLs rebound.

Table 1.3 NPL Ratio of Some Asian Economies, 2016-2019 (%)

Economies	2016	2017	2018	2019
Lebanon	4.9	5.7	10.3	15.2
Bangladesh	8.9	8.9	9.9	8.9
India	9.2	10.0	9.5	9.2
Maldives	10.6	10.5	8.9	9.4
Afghanistan	11.1	12.2	8.9	--
Pakistan	10.1	8.4	8.0	8.6
Kazakhstan	6.7	9.3	7.4	--
Kyrgyzstan	8.5	7.4	7.3	7.7
Bhutan	7.2	8.4	7.0	8.4
UAE	5.1	5.3	5.6	6.5
Jordan	5.5	5.3	5.4	--

(continued)

Economies	2016	2017	2018	2019
Armenia	6.7	5.4	4.8	5.5
Brunei	4.7	3.7	4.7	3.9
Turkey	3.1	2.8	3.7	5.0
Sri Lanka	2.6	2.5	3.4	4.7
Thailand	3.0	3.1	3.1	3.1
Georgia	3.4	2.8	2.7	1.9
Indonesia	2.9	2.6	2.3	2.4
Cambodia	2.1	2.1	2.0	1.6
Saudi Arabia	1.4	1.6	2.0	1.9
China	1.7	1.7	1.8	1.9
Viet Nam	2.3	1.8	1.8	--
The Philippines	1.7	1.6	1.7	2.0
Kuwait	2.2	1.9	1.6	--
Nepal	1.7	1.7	1.6	--
Malaysia	1.6	1.5	1.5	1.5
Singapore	1.2	1.4	1.3	1.3
Uzbekistan	0.7	1.2	1.3	1.5
Israel	1.6	1.3	1.2	1.4
Hong Kong SAR, China	0.9	0.7	0.5	0.6
Korea, Republic of	0.5	0.4	--	--
Macao SAR, China	0.2	0.2	0.2	0.2

Note: NPLs ratio = NPLs of the banks *100% / total loans, that is, the amount of NPLs divided by the total amount of loan portfolios (including NPLs before deducting special loan loss provisions). The economies in the table are ranked according to the 2018 data. Some Asian economies have no available data. "--" means the data is unavailable.

Source: World Development Indicators (WDI) Database, January 2021.

Chapter 2

Hot Economic Issues in Asia

2.1 Transformation of the Digital Economy in the Post-pandemic Era

In 1996, Don Tapscott, known as the “father of the digital economy”, first put forward the concept of “digital economy” and used it to refer to the economy in the era of network intelligence.¹ In 1997, Japan’s Ministry of International Trade and Industry(MITI) introduced the ‘digital economy’ into Japanese government documents, making Japan one of the first countries to use the concept. In the same year, US Department of Commerce released a report, which detailed the digital revolution in US, the construction of the Internet, e-commerce, consumers and workers in the digital age, and the challenges ahead. Nowadays, people have a more comprehensive and systematic understanding of the digital economy. In 2020, China Academy of Information and Communications Technology (CAICT), issued a white paper on China’s digital economic development, pointing out that “the digital economy, with digital knowledge and information as the key factors of production, digital technology innovation as the core driving force, and modern information network as the important carrier, is a new economic form that continues to make traditional industries more digitized, networked and intelligent, and accelerate

the restructuring of economic development and governance models through promoting deep integration of digital technology and the real economy”.² As a new economic form, digital economy includes both the economy that takes data or digitized knowledge and information as key factors of production, and the economy that takes cloud computing, big data, internet of things (IoT), artificial intelligence (AI), blockchain and other digital technologies as means.

In recent years, the global digital economy has developed very rapidly. In 2019, the value-added of digital economy in 47 countries around the world reached USD31.8 trillion, accounting for 41.5 percent of GDP, and industrial digitalization accounted for 84.3 percent of the digital economy, becoming the leading force driving the development of the global digital economy.³ Since the COVID-19 outbreak in 2020, the development of the global digital economy has greatly accelerated. According to an Organization for Economic Cooperation and Development (OECD) report, in the context of the pandemic, progress has been made in all aspects of digital transformation, and pandemic prevention and control measures taken by all countries have further stimulated demand for broadband communications services. In OECD member states, an estimated 1.3 billion people work and study at home, and on the internet value chain,

1 Don Tapscott, *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*, The McGraw-Hill Book Company, 1996, p.6.

2 CAITC, *White Paper on the Development of China’s Digital Economy*, July 3, 2020.

3 CAITC, *A New Vision of the Global Digital Economy (2020)—New Drive for Sustainable Development under Great Changes*, October 2020.

flow volumes of all participants have increased by as much as 60 percent from the pre-outbreak level.¹ The widespread use of digital technology has greatly facilitated the digital transformation of industries, and the long-term influence of the pandemic on digital transformation also begins to emerge. According to the prediction of the International Data Corporation (IDC), 65 percent of global GDP will be driven by digitalization in 2022, and from 2020 to 2023, investment directly derived from digital transformation will grow at a compound annual growth rate (CAGR) of 15.5 percent, with the total scale expected to exceed USD6.8 trillion.² IDC also predicted that the overall revenue of global hardware, software and service market related to big data will reach USD187.84 billion in 2020, an increase of 3.1 percent over 2018.³ Big data technology and services-related revenues will grow at a five-year CAGR of 15.6 percent in 2019-2024.⁴

Led by some emerging economies such as China and India, Asia has become one of the growing regions in developing the digital economy. In 2019, Asia's digital economy grew by 7.7 percent year-on-year, 3.4 percentage points higher than GDP growth during the same period. At present, the overall level of China's digital economy ranks second in the world, digital industrialization has maintained rapid growth, industrial digitization has advanced in an all-round way, and the environment for the development of the digital economy has become better day by day.⁵ Especially after the outbreak of the COVID-19 pandemic in 2020, the digital economy played an important role in promoting the resumption of work and production and economic stability. According to China's National Bureau of Statistics, the added value registered by information transmission, software and information technology services grew by 16.9 percent in 2020, 14.8 percentage points higher than that of the tertiary industry, and online retail sales reached RMB11.7601 billion, up 10.9 percent from 2019.⁶ In

2020, the digital economy accounted for nearly 40 percent of China's GDP and contribute nearly 70 percent to GDP growth.

Against the backdrop of the pandemic outbreak, many Asian countries have introduced new measures to promote the transformation of the digital economy, covering digital infrastructure construction, digital industrialization, industrial digital transformation, digital governance and international digital cooperation. In terms of digital infrastructure construction, 5G has become a new highlight. In March 2020, the Ministry of Industry and Information Technology of PRC issued a notice aimed to accelerate the 5G network construction, application promotion, technology development and safety guarantee. In 2020, China newly built 580,000 5G base stations, increasing the cumulative total number of completed 5G base stations to 718,000. Japan, South Korea and other countries have also formulated plans to expand the digital infrastructure investment.⁷ In terms of the development of digital industrialization, information technology has played an important role in pandemic prevention and control and economic recovery. Big data and the Internet of Things have played a bigger supporting role, and the development of AI has also entered a fast track. For example, in August 2020, China's Standardization Administration and five other departments released the Guidelines for the Construction of a New Generation of Artificial Intelligence Standard System. In October, South Korean government released the Artificial Intelligence Semiconductor Industry Development Strategy and so on. In terms of industrial digital transformation, the digital economy and the real economy are undergoing deeply integrated development, and such sectors as digital agriculture, digital cultural industry, "Internet + medical and health", and "Internet + tourism" are flourishing. In terms of digital governance, steady progress has been made in joint prevention and control of digital public security,

1 OECD, OECD Digital Economy Outlook 2020, OECD Publishing, November 27, 2020.

2 Shawn Fitzgerald, et al., IDC Future Scape: Worldwide Digital Transformation 2021 Predictions, October 2020.

3 IDC, Worldwide Big Data and Analytics Spending Guide, August 2020.

4 Chandana Gopal, et al., Worldwide Big Data and Analytics Software Forecast, 2020–2024, August 2020.

5 Yin Libo, A Report on the Development of the Digital Economy (2019–2020), Publishing Housing of Electronics Industry, 2020. p.125.

6 The Research Center for National Industrial Information Security and Development, Analysis of Digital Economy Situation in 2020–2021, January 2021.

7 CAITC, A New Vision of the Global Digital Economy (2020)—New Drive for Sustainable Development under Great Changes, October 2020, p.27–28.

standardized management of digital government affairs, intelligent upgrading of urban facilities, and competition in the digital market. In terms of international digital cooperation, some regional and international economic and trade cooperation covering digital economy cooperation has made new progress. At the G20 Special Meeting of Digital Economy Ministers in April 2020, participants reached a consensus on the use of digital technology to accelerate research on COVID-19, enhance business flexibility and create job opportunities. In June, Singapore, New Zealand and Chile signed a digital economy partnership agreement, and South Korea and Singapore announced the launch of a digital partnership agreement (KSDPA).¹ In August, Singapore signed a digital economy agreement with Australia, and in November, China, ASEAN, Japan, South Korea and Australia signed the RCEP, which covers telecommunications services and e-commerce.

In short, the pandemic has made all countries more fully aware of the value of the digital economy and thus has promoted its faster development. In the post-pandemic era, the digital economy will become a key force after agricultural economy, industrial economy and information economy that can influence the world economy and international relations, and will be more closely linked with the core interests of all countries in the world.

2.2 Debt Sustainability Faces Serious Challenges

The COVID-19 outbreak has posed a severe challenge to public finances around the world, and major economies have embarked on a new round of policy easing. As a result of reduced economic activities, output has shrunk and fiscal revenues have fallen, and at the same time emergency measures taken to deal with the pandemic have led to extraordinary increases in public spending, causing the government deficit ratio and debts to rise above the levels during the international financial crisis. According to the Fiscal Monitor Report released by the IMF in January 2021, global public debt reached 98 percent of GDP in 2020, a record high, and the average deficit ratio was 13.3 percent for developed economies, 10.3 percent for

emerging market and middle-income economies, and 5.7 percent for low-income developing countries. According to the data released by the Institute of International Finance (IIF) in January 2021, after the outbreak of COVID-19, global debt increased by USD17 trillion in 2020 to reach a record USD275 trillion. This is largely due to a surge in government borrowing, with global government debts climbing from 90 percent of GDP in 2019 to almost 105 percent in 2020. Economic stimulus policies have to some extent played a hedging role in fending off the COVID-19 outbreak, protecting the private non-financial sector and the household sector, but under the condition that sharp economic contractions have caused fiscal revenue to obviously decline, continuous financial supports have triggered a rising public debt and deficit ratio, which will bring serious challenges to debt sustainability around the world.

The government debt level and the fiscal deficit ratio in Asian economies as a whole have climbed. According to statistics released by the IMF in January 2021, the ratio of government debts to GDP in 41 Asian economies saw a rising in 2020 compared with 2019, while the ratio fell in only two economies. Among the economies that saw a rise ratio of government debts to GDP, the Maldives, Japan and Bahrain saw a bigger increase of 40.3, 28.2 and 24.9 percentage points respectively, while Hong Kong Special Administrative Region of China, Iran and Brunei saw a smaller increase of 0.02, 0.6 and 0.6 percentage point respectively (see Table 2.1). Government debts as a share of GDP fell by 2.8 percentage points in Lebanon and by 1.9 percentage points in Turkmenistan. In addition, India's government debts to GDP ratio rose by 17.0 percentage points, China's by 9.1 percentage points and South Korea's by 6.5 percentage points. Compared with 2019, 44 economies in Asia saw their fiscal surplus as a percentage of GDP turn from positive to negative or their fiscal deficit ratio increase in 2020, while only two economies saw their fiscal deficit ratio decrease. Of them, Iraq changed from a 0.9 percent fiscal surplus of GDP to a 17.5 percent fiscal deficit of GDP, while Maldives' fiscal deficit ratio increased from 6.4 percent to 21.9 percent, and Singapore changed from a 3.8 percent fiscal surplus of

1 KSDPA=South Korea-Singapore Digital Partnership Agreement.

GDP to a 10.8 percent fiscal deficit of GDP. Bangladesh, Laos and Turkmenistan saw smaller increases of 1.4, 1.4 and 1.1 percentage points respectively in terms of

fiscal deficit ratio. In contrast, Pakistan and Timor-Leste saw their fiscal deficit ratio fall by 1.0 percentage point and 14.6 percentage points respectively.

Table 2.1 Proportions of Government Debts to GDP and Fiscal Deficit Ratios of Some Asian Economies, 2018-2020 (%)

Economies	Proportion of Government Debts to GDP			Economies	Fiscal Deficit Ratios		
	2018	2019	2020		2018	2019	2020
Japan	236.6	238.0	266.2	Qatar	5.9	4.9	3.0
Lebanon	154.9	174.5	171.7	Macao SAR, China	13.4	15.3	1.4
Singapore	110.4	130.0	131.2	Turkmenistan	-0.2	-0.3	-1.4
Bahrain	95.0	103.4	128.3	Cambodia	0.7	3.2	-2.4
Bhutan	110.5	104.4	121.3	Afghanistan	1.6	-1.1	-2.8
Maldives	71.3	78.0	118.3	Korea, Republic of	2.6	0.4	-3.2
Sri Lanka	83.8	86.8	98.3	Uzbekistan	1.7	-0.3	-4.1
India	69.6	72.3	89.3	Taiwan, China	-1.9	-1.8	-4.7
Jordan	75.1	78.0	88.4	Thailand	0.1	-0.8	-5.2
Pakistan	72.1	85.6	87.2	Kazakhstan	2.6	-0.6	-5.3
Yemen	74.5	76.5	81.7	Bhutan	-2.6	-1.1	-5.5
Oman	53.2	63.1	81.5	Armenia	-1.8	-1.0	-5.8
Israel	60.9	60.0	76.5	Tajikistan	-2.8	-2.1	-6.0
Laos	59.7	62.6	70.9	Myanmar	-3.4	-3.9	-6.0
Iraq	48.9	46.9	68.3	Viet Nam	-1.0	-3.3	-6.0
Qatar	46.5	56.2	68.1	Azerbaijan	5.5	8.1	-6.3
Malaysia	55.5	57.2	67.6	Indonesia	-1.8	-2.2	-6.3
China	48.8	52.6	61.7	Laos	-4.7	-5.0	-6.4
Armenia	51.2	49.9	60.7	Malaysia	-3.3	-3.7	-6.5
Georgia	40.0	42.6	58.7	Bangladesh	-4.6	-5.4	-6.8
Thailand	42.0	41.1	50.4	Turkey	-3.7	-5.6	-7.9
The Philippines	37.1	37.0	48.9	Nepal	-6.7	-4.6	-7.9
Korea, Republic of	40.0	41.9	48.4	Pakistan	-6.4	-9.0	-8.0

(continued)

Economies	Proportion of Government Debts to GDP			Economies	Fiscal Deficit Ratios		
	2018	2019	2020		2018	2019	2020
Tajikistan	47.8	43.1	47.8	The Philippines	-1.6	-1.8	-8.1
Viet Nam	43.6	43.4	46.6	Georgia	-0.8	-1.8	-8.1
Iran	40.3	44.7	45.4	Kuwait	9.0	5.4	-8.5
Myanmar	40.4	38.8	42.4	Jordan	-4.7	-6.0	-9.1
Turkey	30.2	33.0	41.7	Yemen	-7.8	-5.3	-9.2
Bangladesh	34.6	35.8	39.6	Iran	-1.9	-5.5	-9.5
Nepal	30.2	30.1	39.2	Sri Lanka	-5.3	-8.2	-9.6
Indonesia	30.1	30.5	38.5	UAE	1.9	-0.8	-9.9
UAE	20.9	27.3	36.9	Saudi Arabia	-5.9	-4.5	-10.6
Uzbekistan	20.4	29.3	36.1	Singapore	3.7	3.8	-10.8
Taiwan, China	34.0	32.8	35.6	Mongolia	3.0	0.9	-11.5
Saudi Arabia	19.0	22.8	33.4	Hong Kong SAR, China	2.4	-1.5	-11.8
Cambodia	28.6	28.6	31.5	China	-4.7	-6.3	-11.9
Turkmenistan	31.4	32.8	30.9	Israel	-3.6	-3.9	-12.9
Kazakhstan	20.3	19.9	23.4	India	-6.3	-8.2	-13.1
Azerbaijan	18.7	17.7	20.1	Bahrain	-11.9	-10.6	-13.1
Kuwait	14.8	11.8	19.3	Japan	-2.5	-3.3	-14.2
Afghanistan	7.4	6.1	7.8	Lebanon	-11.3	-10.5	-16.5
Brunei	2.6	2.6	3.2	Timor-Leste	-28.1	-32.1	-17.5
Hong Kong SAR, China	0.1	0.3	0.3	Iraq	7.8	0.9	-17.5
				Brunei	-3.6	-7.1	-17.9
				Oman	-7.9	-7.1	-18.7
				Maldives	-5.2	-6.4	-21.9

Note: The ratios of government debts to GDP and fiscal deficit ratios are ranked based on the 2020 data. Data for some Asian economies are unavailable.

Source: IMF, January 2021.

Sovereign credit ratings will directly affect the financing cost of Asian economies in the international financial market, and then affect their debt sustainability. In terms of sovereign credit rating, S&P

rated China's sovereign credit as A+ in June 2020, with a stable outlook. S&P expects China's economy to grow faster than the average of other middle-income economies over the next three to four years, with its

fiscal position gradually improving. As the Chinese economy steadily recovers from the COVID-19 pandemic, its average growth rate of real per capita GDP is expected to be about 5.5 percent in 2021-2023. However, China's economic growth rate is still at risk of weakening due to uncertainties such as the evolution of the pandemic, tensions between China and US, and rising financial risks. In addition, according to the statistical data of Wind database, the yield curve of one-year US Dollar bonds of Chinese enterprises (rated A+) showed an inverse "J-shaped" trend, falling sharply from the highest point of 2.32 percent on January 2, 2020, to 0.92 percent on December 31, 2020, a drop of up to 59.9 percent for the whole year. This also reflects that international investors are full of confidence in the prospect of China's steady economic recovery. S&P kept Japan's sovereign credit rating unchanged at A+ in June 2020, but revised its outlook to stable from positive. The Japanese government has earmarked additional budget spending to deal with the COVID-19 outbreak, which will further inflate its already large public debt. Japan's relatively high fiscal deficit is expected to stimulate a sustained upward trend in the broad government debt-to-GDP ratio until fiscal 2023. S&P maintained India's sovereign credit rating at BBB-, the lowest investment grade rating, in June 2020, with a stable outlook, while Moody's lowered India's sovereign credit rating to Baa3 from Baa2 with a negative outlook. India's continued slowdown in economic growth, further widening of fiscal deficit as a result of its passive response to the pandemic, and the government's slow progress in promoting reforms in areas such as land and labor are the main factors contributing to its low credit rating by international rating agencies. In addition, Fitch kept Kazakhstan's sovereign credit rating unchanged at BBB with a stable outlook in February 2021. The main reasons for this include: Kazakhstan maintains a relatively low level of national debt and sufficient reserves, which can help it mitigate actual and potential external shocks; the stable development of such real economic sectors as agriculture, manufacturing and construction plays an important role in ensuring the stable operation of Kazakhstan's economy. In the same month, Moody's placed Kazakhstan's sovereign credit rating at Baa3 with a positive outlook.

In response to the COVID-19 outbreak, China has

taken forcible measures and brought the pandemic under control earlier than other countries. It has also adopted a more proactive fiscal policy and more flexible and appropriate monetary policy to steadily promote the resumption of work production. Despite an obvious increase in government debts, China was the only major economy in the world to register positive economic growth in 2020. According to the January 2021 data from the Ministry of Finance, China's total government debt balance accounted for 45.8 percent of GDP in 2020, lower than the internationally accepted warning line of 60 percent, which means China's debt risk is generally controllable. In November 2020, India announced a new fiscal support package, including additional agricultural subsidies, multi-year investment incentives, and supports for housing and rural employment. South Korea and Japan announced new plans to boost green investment and digital spending. Japan also expanded its existing spending plans during the third wave of the COVID-19 outbreak, contributing to the rise in government debts in the region's economies.

Looking ahead to 2021, debt levels in Asia and the world as a whole are likely to reach new highs, which will further erode the sustainability of fiscal policies and slow the pace of economic recovery. According to the IMF forecasts, China's broad government debt will reach 69 percent of GDP in 2021 and India's government debt will climb to a high of 83 percent of GDP, while average debt levels in low-income developing countries will also peak in 2021, and debt service in some Asian economies, such as Myanmar, will exceed 20 percent of their tax revenues. Asian economies should collaborate on COVID-19 vaccines and treatment, and continue to provide financial supports to sectors hit by the pandemic. At the same time, economies in the region with high debt levels, tightened or risky financing conditions should establish credible medium-term fiscal frameworks that can ensure the government sector's debt sustainability while managing fiscal and financing risks.

2.3 Regional Economic and Trade Arrangements Have Been Steadily Advanced and Implemented

In recent years, global trade protectionism and

unilateralism have been on the rise, and anti-globalization has become increasingly serious. The COVID-19 outbreak has further exacerbated these trends and caused a sharp contraction in international trade and investment, plunging the world economy into a deep recession. Asia has been an important promoter of global trade liberalization and facilitation. By strengthening multilateral and bilateral economic and trade cooperation, Asia has continuously created new driving forces for regional economic growth and providing support and confidence for world

economic recovery.

The pandemic has also brought a serious impact on Asia's economic and trade development, but the region's overall situation is better than that of other regions. In the second quarter of 2020, when the pandemic fiercely spread, both the world's exports and imports of goods shrank by 21 percent year on year, while those in Asia shrank by 10 percent and 17 percent respectively, much lower than those in other regions. Asia's overall picture for trade in services is also better than elsewhere (see Table 2.2).

Table 2.2 Year-on-year Growth Rate of Trade in Goods and Services in Asia in 2020Q2 (%)

Trade Type	Export/ Import	World	North America	Central and South America	Europe	Asia	Other Regions
Trade in Goods	Export	-21	-32	-19	-23	-10	-39
	Import	-21	-23	-26	-22	-17	-24
Trade in Services	Export	-28	-29	--	-25	-29	-42
	Import	-31	-36	--	-29	-30	-41

Source: WTO, January 2021.

The relatively good economic and trade situation in Asia to a large extent owes to its continuous advancement in regional economic and trade cooperation. According to WTO statistics, as of February 2021, a total of 186 regional trade agreements (RTA) had entered into force between Asian economies and economies in and out of the region, accounting for 54.9 percent of the global total, most of which were FTAs or free trade and economic integration agreements (EIAs). Most Asian economies have signed a varying number of FTAs or similar arrangements. According to the Asian development bank (ADB) statistics, as of October 2020, regional economies that had signed a large number of FTAs include: Singapore (26), China (22), Japan (18), South Korea (18), Malaysia (17), Kyrgyzstan (15), Kazakhstan (15), Indonesia (15), Armenia (15), Thailand (14), Georgia (14), Viet Nam (13), and India (13).¹

The Comprehensive and Progressive Agreement

for Trans-Pacific Partnership (CPTPP) is an important representative of the Asian regional economic and trade cooperation agreements. On December 30, 2018, the CPTPP, which includes five Asian economies—Brunei, Japan, Malaysia, Singapore and Viet Nam—and six other Asia-Pacific countries, officially came into force. Under the agreement, the signatories will eliminate or cut tariffs on industrial and agricultural products and provide more facilitation measures in the area of trade and investment. More importantly, the CPTPP embodies the high standards and represents the development direction of future international economic and trade rules. To this end, China, South Korea and some other economies outside the Asian region have expressed their willingness to join the CPTPP. On November 20, 2020, when attending the APEC Economic Leaders' Meeting,² Chinese President Xi Jinping pointed out

¹ For relevant data, see ARIC (<https://aric.adb.org>).

² APEC=Asia-Pacific Economic Cooperation.

that “China will actively consider joining the CPTPP”.¹ On December 8, 2020, South Korean President Moon Jae-in also said that South Korea would consider joining the CPTPP.²

The signing of the RCEP marked another important milestone in Asia’s economic integration. On November 15, 2020, the RCEP was officially signed, and its members include the 10 ASEAN countries, as well as China, Japan, South Korea, Australia and New Zealand. As the free trade area with the largest participating population, the most diverse membership structure and the greatest development potential in the world, the signing of the RCEP is an important support for free trade and the multilateral trading system, and will inject strong impetus into regional and global economic growth. According to a study by the Peterson Institute for International Economics, RCEP will add world income by USD186 billion annually by 2030 and contribute 0.2 percentage point to the GDP growth of member countries.³ At the same time, the signing of the RCEP will further accelerate negotiations on other trade agreements in the Asian region. A spokesperson of the Japanese Foreign Ministry said that the completion of the RCEP talks will further advance the negotiations on the China-Japan-South Korea free trade area.⁴ A spokesperson of China’s Ministry of Commerce also said that the signing of the RCEP has created good conditions for accelerating the China-Japan-South Korea FTA negotiations.⁵

In addition, Asian economies have concluded a number of important bilateral economic and trade arrangements in recent years. On February 1, 2019, the FTA between the EU and Japan came into force, and the two sides promised to eliminate 99 percent tariffs on imported goods. On November 21, 2019, EU-Singapore FTA came into force, under which Singapore will cancel all remaining tariffs on EU products, and EU will cancel all tariffs on Singapore

products in the next 3-5 years. On August 1, 2020, EU-Viet Nam FTA came into force. It is the most comprehensive trade agreement ever reached between EU and a developing country, which will eventually eliminate tariffs on 99 percent of goods traded between the two sides. Meanwhile, other FTAs involving several Asian economies are still in the process of negotiations. With the entry into force of the Sino-EU Comprehensive Investment Agreement (CECIA), the Sino-EU FTA is also under negotiations.

The advancement of economic and trade cooperation across Asia has promoted the development of intra-regional trade and economy. The ADB report showed that intra-regional trade in Asia accounted for 57.5 percent of its total trade in 2018, up from 56.3 percent between 2012 and 2017, indicating that Asia’s regional integration has continued to deepen.⁶ In recent years, economic and trade ties among Asian economies have continuously strengthened. For example, following China becoming the ASEAN’s largest trading partner for many years in a row, ASEAN replaced EU to become China’s largest trading partner in goods in 2020. Despite the impact of the pandemic, two-way trade still totaled USD684.6 billion in 2020, up 6.7 percent from 2019. The accelerating regional integration will further promote the economic growth of Asian countries. According to the IMF research, further trade openness and regional integration can increase Asia’s total GDP by at least 10 percent at a new stable state.⁷

2.4 High-quality “Belt and Road” Construction under the COVID-19 Outbreak

In 2020, the sudden outbreak of the COVID-19 pandemic swept the world, which seriously affected the economic and social life of all countries. In the face

1 Xi Jinping: Building an Asia-Pacific Community with a Shared Future – Remarks at the 27th APEC Economic Leaders’ Meeting, November 20, 2020.

2 Moon: S. Korea to Consider Joining CPTPP to Expand its Free Trade Network, <http://www.koreaherald.com/view.php?ud=20201208000334>, December 8, 2020.

3 Peter Petri and Michael Plummer. East Asia Decouples from US: Trade War, COVID-19, and East Asia’s New Trade Blocs, Peterson Institute for International Economics, Working Paper, No. 20-9, 2020.

4 Facing US Trade Uncertainty, China Seeks Closer Ties with Neighbours, <https://news.yahoo.com/facing-us-trade-uncertainty-china-seeks-closer-ties-075755330--finance.html?guccounter=1>, December 25, 2019.

5 A regular press conference of the Ministry of Commerce, November 19, 2020, <http://www.mofcom.gov.cn/xwfbh/20201119.shtml>.

6 ADB. Asian Economic Integration Report 2019/2020: Demographic Change, Productivity, and the Role of Technology, November 2019.

7 Tao Zhang. Speech on the Global and Asia Economic Outlook, at Greater Bay Area Chief Economist Forum, July 10, 2020.

of the test posed by the pandemic, the Belt and Road Initiative (BRI) has shown strong resilience and vitality, with relevant projects continuing to advance, cooperation yielding many fruits, and trade and investment keeping growth against headwinds.

Economic and trade cooperation between China and the countries along the Belt and Road took on new bright points in 2020. According to the data from China's Ministry of Commerce, the volume of trade in goods between China and Belt and Road countries in 2020 reached USD1.35 trillion, up 0.7 percent from 2019 and accounting for 29.1 percent of China's total foreign trade. The Sino-Europe freight train has played a more prominent role as a major trade corridor, the construction of a new international land and sea trade channel has been accelerated, and steady progress has been made in the formulation of cooperation plans and other relevant work. At the same time, the successful signing of the RCEP marks the most important outcome of East Asia's regional integration in the past 20 years, and its effective implementation will inject new momentum into the trade cooperation between China and relevant countries.

In 2020, the non-financial direct investment of Chinese enterprises into 58 BRI countries reached USD17.79 billion, up 18.3 percent from 2019, accounting for 16.2 percent of their total amount of such investment during 2020, an increase of 2.6 percentage points year-on-year, which mainly covered Singapore, Indonesia, Viet Nam, Cambodia, Laos, Malaysia, Thailand, UAE, Kazakhstan and Israel and other countries. In terms of foreign contracted projects, Chinese enterprises signed 5,611 new contracts for foreign contracted projects in 61 countries along the "Belt and Road", with a total contract value of USD141.46 billion, accounting for 55.4 percent of China's newly signed contracts for foreign contracted projects in 2020, and the completed turnover reached USD91.12 billion, accounting for 58.4 percent of the total turnover during the same period. A large number of overseas projects and industrial parks have made steady advancement, positive progress has been made in some major projects such as the China-Laos Railway and the Jakarta-Bandung Railway, and the China-Belarus Industrial Park has brought in 13 new enterprises. At the same time, enterprises from countries along the Belt and Road are also optimistic

about China's development opportunities and set up 4,294 new enterprises in China with a direct investment of USD8.27 billion.

Since the outbreak of the pandemic, "Belt and Road" international cooperation has shown the following characteristics: (i), Cooperation demand has further increased. The pandemic has had a strong impact on the normal operation and development of the world economy. Whether in fighting the pandemic or promoting economic recovery, BRI countries both need this international cooperation platform to improve their resilience and strengthen policy coordination, communication and information sharing with relevant parties. (ii). Areas of cooperation have further expanded. In the face of new challenges brought about by the pandemic, the "Belt and Road" circle of friends has been focusing on global public health cooperation and striving to build a "health silk road", which has further enriched the connotation of high-quality co-construction of the Belt and Road. Cooperation in digital economy, green development and regional economic integration is also deepening. (iii). Cooperation forms have further diversified. In the past, the co-construction of Belt and Road focused on cross-border flows of trade, investment, goods and services. Nowadays, various kinds of online transactions are on the rise, the degree of integration between online and offline is deepening, and the real economy and virtual economy promote each other, which all make the "Belt and Road" more dynamic. (iv). Cooperation has further become institutionalized. Faced with great changes in world situations never seen in the past century as well as the global pandemic, countries involved in the BRI have strengthened policy communication and rule alignment, such as signing the RECP and completing negotiations on the China-EU Investment and Trade Agreement. All these achievements have pushed Belt and Road cooperation to develop in an institutionalized direction.

Over the past more than seven years since it was proposed, the BRI has played its main role in enhancing global connectivity, and such a role has become more obvious especially since the pandemic outbreak. In terms of hardware, it has promoted connectivity in the field of infrastructure. The launch of the Sino-Europe freight train against headwinds is a typical case. According to the data released by China State Railway Group Co., Ltd, a total of 12,400 Sino-

Europe freight trains operated in 2020, an increase of 50 percent year-on-year, and 1.35 million containers were delivered, an increase of 56 percent year-on-year, which were accessible to 92 cities in 21 countries, 37 more than at the end of 2019. In terms of software, the BRI has played an important role in stabilizing global industrial and supply chains. Compared with the sharp contraction of global investment and trade, the investment and trade of Belt and Road countries showed strong resilience in 2020, in which the achievements of connectivity construction in previous years played a fundamental role. This has helped speed up the recovery of industrial and supply chains damaged by the pandemic and inject strong impetus into regional and global economic recovery.

The BRI is a public good that China has contributed to the world, and China's proposition has won extensive endorsement from the international community. So far, China has signed more than 200 cooperation documents on the joint construction of the initiative with more than 130 countries and 31 international organizations. In terms of development philosophy, the pandemic has tested the cooperation concepts and basic principles advocated by the BRI—openness, inclusiveness, transparency, consultation, co-construction, and sharing. The pandemic has made all countries increasingly realize that mankind lives in a global village and is a community with a

shared future in which we all have a stake. The BRI is an important platform to implement the concept of a community with a shared future for mankind. Actions speak louder than words. China has provided material and technological assistance within its capacity to countries involved in the BRI, and actively helped other countries and regions fight the pandemic and recover their economies. Since the pandemic outbreak, China has become the world's largest supplier of anti-pandemic materials, and has provided more than 200 billion masks, 2 billion protective suits and 800 million testing kits to other countries by mid-December 2020.

In today's world, unilateralism and trade protectionism are on the rise, and anti-globalization undercurrents are surging, posing severe challenges to the international multilateral trading system. Against this backdrop, the BRI has achieved a bright "list of performances" in promoting international cooperation, which has further laid a solid foundation for its high-quality co-construction. This has once again proved the importance of multilateralism. To promote connectivity and adhere to openness and inclusiveness are the only way to cope with the global crisis, achieve long-term development, and fundamentally promote the common development and prosperity of human society.

Part II | Asian Economic Integration Progress



Overview

Asian economic integration continued. In 2020, the COVID-19 pandemic caused negative growth in trade and investment in Asia. Nevertheless, Asia's commitment to promote integration has not been lessened. The newly signed RCEP and CPTPP will become the key forces in promoting regional trade, investment liberalization and facilitation, and economic globalization in the years to come.

Integration of trade in goods strengthened. The Export Reliance Index on Asia (ERI-ASIA) further increased in 2019, and the trade interdependence ratios of major Asian economies in Asia were all close to or above 50 percent. Major Asian economies generally have a high reliance on China and ASEAN countries. Although relatively small, some Southeast countries such as Viet Nam, saw a jump in trade volume.

Major Asian economies heavily relied on Factory Asia on the value chain. Most Asian economies experienced an increasing degree of dependence on the region, with India enjoying the highest increase. In 2019, Hong Kong Special Administrative Region of China, Indonesia, the Philippines, and South Korea were on the top of the scale of dependency on Factory Asia. Although the pandemic caused production disruptions in parts of the region, it did not shift the center of the global value chain in Asia. The region's dependence on China was much higher than that on US, Japan and other Asian economies. Among the 22 production parts and components (P&Cs) with the highest trading volumes, 18 were reliant on Chinese production. Factory Asia will lead the region out of the post-pandemic recession and to a quick recovery.

Based on analysis of final demand, the demand for services by Asian economies grew at a higher rate than the demand for goods. The interconnectivity of trade in services was also getting stronger among Asian economies, exceeding that with out-of-region

economies. This strengthening trend was the result of increasing participation of the service industry in the production fragmentation of the manufacturing industry in the region. After the refinement of the division of production in the manufacturing industry, productive service activities could link the scattered low-cost and high-efficiency manufacturing procedures to form competitive production value chains and promote the trade and growth of manufacturing production. At the same time, these services act as crucial components in value creation and deploying global value chains.

In the tourism industry, Southeast Asia enjoyed the highest increase in both the number of tourists and tourism receipts in 2019. The tourism interdependency among Asian economies did not change significantly. An important feature of the tourism industry in Asia was that tourists in Asia prefer neighborhood economies as outbound travel destinations. In 2020, the tourism industry had been struggling to recover from devastation by the pandemic in 2020.

The vigorous development of digital trade in Asia mainly stemmed from the development of Asia's digital economy, large population, and active governance. It was also accelerated by digital technology and digital companies. Different digital services business models also exhibited large variation in the development level. Computer services and communication services showed the greatest promise in export, accounting for 33 percent and 29 percent of world volume respectively. Under the pandemic, in order to control the spread of disease and relieve its shock on the economy, digital trade became the option taken by economies and enterprises which led to speedy development. Among the many business models, remote online office, distance education, and telemedicine enjoyed the most significant growth.

In the area of foreign investment, international capital showed heightened interests in Asia. In terms of inflows and outflows of FDIs, Asian economies established robust performance. FDI inflows into China, ASEAN countries, and India all reached a historical high. FDI from Japan into other economies also rose significantly. The major source of FDI into Asia is Asia itself. The Intra-Asia dependence for inward FDI remained over 50 percent for four consecutive years, from 2016 to 2019, while the outward FDI experienced high fluctuation. In 2020, while global inward FDI dropped by 42 percent, it only declined by 4 percent for developing Asia, and China even had growing inward and outward FDIs, becoming the largest destination for international capital.

The integration of Asian financial markets continued to advance steadily. The portfolio holdings of Asian financial assets increased by 14.24 percent in 2019. Among portfolio investment to Asia in 2019, 22 percent of funds came from Asia itself. Outward and inward portfolio holdings for China increased by 29.73 percent and 21.27 percent respectively. Asian economies also actively promoted currency cooperation and infrastructure connectivity. Bilateral currency swaps promoted the use of local currencies in pricing and settlement in trade and investment among Asian

economies. In January 2021, among the top 10 most used currencies for international settlement, there were 5 Asian currencies, namely Japanese yen, Chinese yuan, Hong Kong Dollar, Singapore Dollar and Thai Baht. Among the 10 most used currencies for international trade and financing, 7 were Asian currencies, including Chinese yuan, Japanese yen, Indonesian rupiah, and UAE dirham, etc. Asia strived to further financial market connectivity and mutual regulatory recognition, encourage cooperation in payment system and digital currency, and enhance infrastructure financing. Besides, international financial centers such as Shanghai, Tokyo, Hong Kong Special Administrative Region of China, Singapore, Beijing, and Shenzhen also played vital roles in attracting international capital to Asia, directing finance services to serve the real economy, and supporting innovation. Post pandemic, the trend toward financial globalization has not been lessened. Asian financial market suffers from the spillover effects of monetary and fiscal policies of major economies such as US.

Improving all-round integration, cooperation and interdependence in Asia could improve resource allocation efficiency, enhance economic resilience and risk resistance capability, and contribute to post-pandemic recovery and development.

Chapter 3

Merchandise Trade Integration in Asia

3.1 Integration of Merchandise Trade

This section is to measure the Asian economic integration in merchandise trade from three dimensions, i.e. export reliance index analysis, trade dependence analysis, and trade flow matrix. It is found that the export reliance on Asia of Asian economies has increased steadily. The trade dependence among Asian economies has remained at a high level, and the bilateral trade between the Asian economies has kept growing. Most Asian economies witnessed a high trade dependence on China and ASEAN, which are the two trading hubs within Asia. Besides, China's exports to Viet Nam are expected to exceed USD100 billion.

3.1.1 Asian Economies' Export Reliance Steadily Increased

This section employs the ERI-ASIA to describe the overall trend of the trade integration of Asian economies. ERI-ASIA is a composite index, which measures the dependence of a particular economy on the whole Asia region, consisting of three sub-indices: the share of export exposure to Asia, trade openness indicator, and merchandise exports concentration.¹ The sub-indices are normalized and then the geometric means are calculated. The index ranges from 0 to 100, where a higher ERI-ASIA implies that the economy is more dependent on Asian economies as a whole. Table 3.1 shows the ERI-ASIA for selected Asian economies from 2012 to 2019. The general conclusion drawn is that the Asian economic integration process continued, resulting in an increasing ERI-ASIA for Asian economies as a whole. The ERI-ASIA is 12.7 in 2019 (see Figure 3.1).

¹ Share of export exposure to Asia captures the extent to which one economy relies on Asian economies in trade for goods, which is a ratio of merchandise exports destined to Asian economies out of total exports. The higher the exports share, the higher the dependence on Asian economies. Data is from UNCTAD. Trade openness is an indicator of one economy's dependence on trade in economic activities, calculated as ratio of imports and exports on goods and services to GDP. The higher trade openness, the more reliant is the economy on trade. Data is from UNCTAD. Merchandise exports concentration is a measure of the dispersion of exporting categories, calculated using the Herfindahl-Hirschman method. In particular, the index is calculated at the SITC-3 digit level and the trading partners are set to Asian economies. The higher the exports concentration, the more vulnerable is the economy to changes in trade pattern. To alleviate concerns of the fluctuations in annually economic data, all sub-indices are calculated as the average of value of the two latest years. We contain countries and areas other than Asian economies (such as Asian regions, EU, ASEAN, TPP countries and CPTPP countries) in the process of normalization.

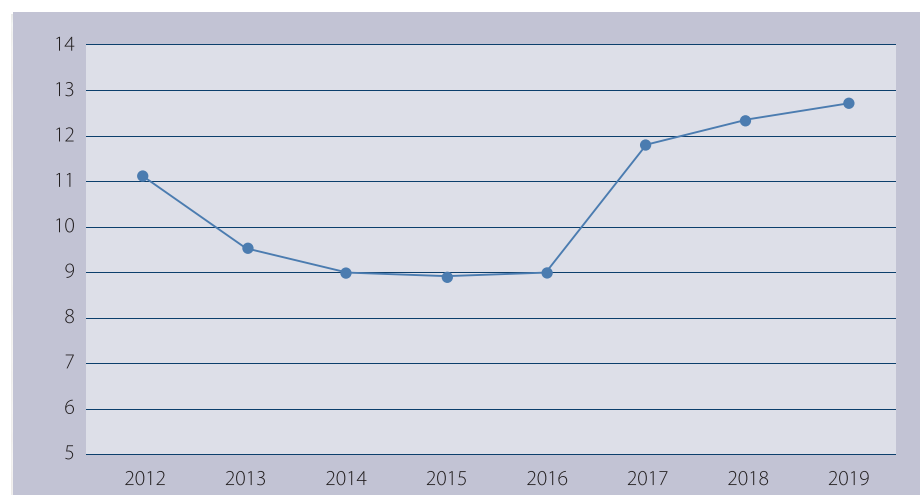


Figure 3.1 The ERI-ASIA for Selected Asian Economies, 2012-2019

Source: Author's calculation, based on WITS and UNCTADstat.

There were large variability in the ERI-ASIA index among the selected economies in and out of Asia, mainly due to the differences in economic sizes among the economies. In particular, Hong Kong Special Administrative Region of China, Macao Special Administrative Region of China, and Singapore recorded a relatively high dependence on Asia, with an ERI-ASIA of 48.45, 40.97 and 39.3 respectively, while China, Japan and India recorded a relatively low dependence, with an ERI-ASIA of 8.05, 8.74 and 10.93, respectively. Out of Asia, Australia and New Zealand also reported an increasing ERI-ASIA in recent years, reaching 21.04 and 17.33 respectively in 2019. On the other hand, US and EU had relatively low ERI-ASIA scores, 5.59 and 7.01, respectively. While Macao Special Administrative Region of China, the Philippines and Malaysia saw significant increase in ERI-ASIA, the ASEAN, China and Japan only saw a slight increase. Although the ERI-ASIA of Hong Kong Special Administrative Region of China increased from 46.76 to 48.45 in 2019, this was still much lower than the pre-2017 level. The ERI-ASIA of most Asian economies listed in Table 3.1 demonstrated an upward trend, so do US and EU. This pattern was resulted from the deepening interdependence among Asian economies,

as well as the rising influences of Asian economies in global trade.

To clearly demonstrate the variations, Table 3.2 reports, respectively, the top 3 and the bottom 3 economies measured by the three sub-indices. Hong Kong Special Administrative Region of China was among Top 3 for all the three sub-indices, implying that Hong Kong Special Administrative Region of China was highly dependent on trade with Asian economies, had high trade openness level, and was highly concentrated on a few merchandise trading categories, resulting in its vulnerability to trade fluctuations. On the other end of the scale, China ranked in the Bottom 3 of three sub-indices. China had the lowest export concentration in 2019, and thus, was more resilient to market disturbances. Furthermore, Viet Nam's trade openness was relatively high, while the export concentration was low. By contrast, Indonesia had high merchandise export concentration with relatively low trade openness. In general, the large economies witnessed a lower export share to the Asian economies and low trade openness. This was largely due to the fact that large economies tend to have large domestic markets to absorb domestic production.

Table 3.1 Export Reliance Index on Asian Economies for Selected Asian Economies, 2012-2019

	2012	2013	2014	2015	2016	2017	2018	2019
China	8.29	7.54	7.34	7.50	7.84	8.83	7.92	8.05
Japan	5.67	5.04	5.56	6.38	6.90	8.75	8.50	8.74
Korea, Republic of	16.50	15.62	15.18	15.16	15.16	18.58	21.04	20.96
Hong Kong SAR, China	65.94	72.93	69.15	64.10	70.43	65.12	46.76	48.45
Macao SAR, China	5.02	--	19.70	28.68	30.31	--	34.92	40.97
South Asia	12.63	11.84	11.59	10.34	8.80	10.65	11.06	10.74
India	13.81	13.15	12.51	11.04	9.41	10.94	11.15	10.93
Sri Lanka	12.77	12.62	12.72	12.93	12.89	13.70	--	--
ASEAN	16.95	15.72	15.74	15.94	15.86	17.65	17.94	18.28
Singapore	37.88	37.22	37.72	37.91	37.49	38.73	39.19	39.30
Malaysia	21.81	21.18	21.44	21.32	20.98	23.17	24.92	25.96
Thailand	13.32	9.61	7.36	6.46	6.36	11.92	12.03	11.81
The Philippines	16.90	16.20	16.44	18.81	21.03	21.92	20.65	21.91
Indonesia	13.34	12.74	12.20	11.58	10.55	11.70	11.69	11.69
Viet Nam	15.83	15.83	16.38	17.37	19.29	23.87	24.16	21.83
Australia*	16.06	16.53	17.24	16.62	16.73	19.03	19.25	21.04
New Zealand*	14.83	15.60	16.80	16.15	14.75	16.24	16.39	17.33
US*	4.60	4.19	4.50	5.18	5.82	6.78	5.54	5.59
EU27*	5.89	3.83	3.17	3.87	4.60	7.00	6.93	7.01
Asia	11.05	9.54	9.02	8.90	9.00	11.76	12.35	12.70

Source: Author's calculation, based on WITS and UNCTADstat.

* indicates economies outside Asia, whose results are not entirely comparable with their Asian counterparts due to different base number in calculation.

The Asian economic integration process continued in 2019, and most Asian economies witnessed an increasing ERI-ASIA. This is consistent with the transition from globalization to regionalization. Furthermore, according to the WTO tariff statistics, the average tariff of Asian economies have generally been on a downward trend. There were relatively significant tariff cuts in countries such as China, Turkey, Israel, Kazakhstan, Laos, the Philippines, and Bhutan, while Singapore, Hong Kong Special Administrative Region of China and Macao Special Administrative Region of China remain at the zero-tariff level. These may have contributed to the growth of the merchandise trade among the Asian economies.

Facing the disruptions of the global supply chain caused by the COVID-19 pandemic, Asia's intra-regional trade is expected to increase. Bucking the trend of a steep decline in global trade, merchandise trade between China and ASEAN member states increased significantly in 2020, and they became the largest trading partner for each other for the first time. Furthermore, the RCEP is the world's largest free trade deal, featuring the largest population, most diverse membership, and greatest development potential. The signing of the agreement would provide new opportunities for economic exchanges between the member states, and therefore the Asian economic integration is expected to gather new momentum.

During 2020, the COVID-19 pandemic led to the disruptions of supply chains both at home and abroad. Looking into 2021, the global pandemic remains the biggest risk factor affecting global trade. Although the rapid development and application of vaccines against COVID-19 would have a positive

impact, there remain difficulties and challenges in the global vaccine rollout. Asian economies should strengthen regional collaboration, share the vaccine research and development results and promote the recovery and development of regional production chains, supply chains and value chains.

Table 3.2 The Top 3 and Bottom 3 Economies in Sub-Indices in 2019

Sub-index	Top 3	Bottom 3
Share of Export Exposure	Macao SAR, China	Thailand
	Hong Kong SAR, China	China
	The Philippines	Japan
Trade Openness	Hong Kong SAR, China	Japan
	Singapore	China
	Viet Nam	Indonesia
Merchandise Concentration	Hong Kong SAR, China	China
	Indonesia	India
	Malaysia	Viet Nam

Source: Author's calculation, based on WITS and UNCTADstat.

3.1.2 Trade Interdependence Remained High

This section updates the traditional trade interdependence index of the major Asian economies as seen in our

previous reports. The computed index lies between 0 and 100 percent, with a higher value representing a higher degree of trade interdependence.¹

Table 3.3 Trade Interdependence Index, Selected Asian Economies in 2019 (%)

Y on X of	ASEAN	China	India	Japan	Korea, Republic of	Asia	TPP	CPTPP
ASEAN	22.35	18.07	2.75	7.98	5.60	70.12	34.57	24.01
China	14.05	--	2.03	6.89	6.23	49.05	35.25	23.39
India	11.38	10.68	--	2.19	2.59	55.64	24.57	13.45
Japan	15.00	21.30	1.15	--	5.32	58.22	30.59	15.05
Korea, Republic of	14.47	23.29	1.98	7.27	--	62.85	37.00	24.02
TPP	10.36	16.22	1.88	4.55	4.05	45.61	42.38	25.87
CPTPP	12.49	17.55	1.63	3.95	4.52	50.03	43.63	15.71

Source: Author's calculation, based on WITS and UNCTADstat.

1 This measure is calculated as the ratio of country X's total goods trade (imports and exports) with country Y over the country's total goods trade with the world. In one extreme case, if the index for country X on country Y (or a region) is equal to zero, the economy is not trading with the latter economy. If the index is equal to one, then the former economy only trades with the latter economy, not with all other economies.

Table 3.3 shows the interdependence of selected Asian economies in trade in 2019. Asian economies were generally highly dependent on Asia, with their trade with Asia accounting for half or more of their total goods trade, resulting in a distinct characteristic of trade regionalization. ASEAN countries had the highest degree of dependence on Asia, with a degree of dependence of more than 70 percent, followed by South Korea and Japan with 63 percent and 58 percent respectively. Most Asian economies had a relatively high degree of trade dependence on ASEAN and China, indicating that China and ASEAN were the twin centers of Asia's trade. The trade interdependence among ASEAN members was the highest, with 22.35 percent in 2019, while the trade dependence of China, Japan and South Korea on ASEAN was about 15 percent. On the other hand, South Korea and Japan's dependency on China were both above 20 percent, while ASEAN, CPTPP and TPP countries had dependency of above 15 percent on China. According to the World Trade Profiles 2019 issued by the WTO, major Asian economies and most

of the TPP member states had China as their largest trading partner for goods in 2018 (See Table 3.4). Besides, although India's trade dependence on ASEAN and China was relatively low, it showed an upward trend.

As Figure 3.2 illustrates, the trade dependence of major Asian economies, CPTPP countries and TPP countries on Asia generally remained high, although on a downward trend. This slight decline maybe due to the Sino-US trade war and tensions in Japan-South Korea bilateral relations, given the central role of China, Japan and South Korea in Asia's trade. However, the trade intensities between China and ASEAN increased, and the mutual trade dependence among them rose over the past years. To some extent, this may be due to the multinational companies continuously transferring their production capacities from China to Southeast Asian countries and the consequent growth in bilateral trade. Furthermore, other major Asian economies and TPP countries also showed increased trade dependency on ASEAN, indicating the rising status of ASEAN countries in Asian.

Table 3.4 Selected Economies with China as Their Largest Trade Partner in 2018

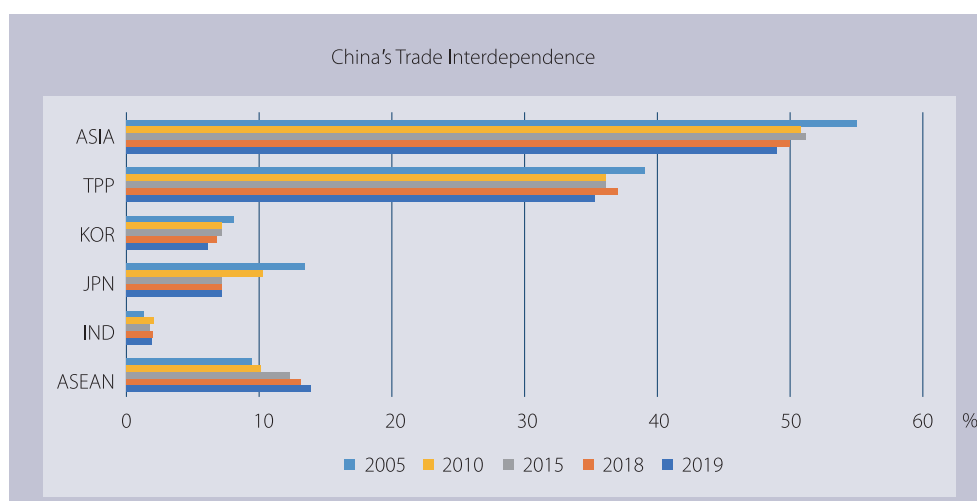
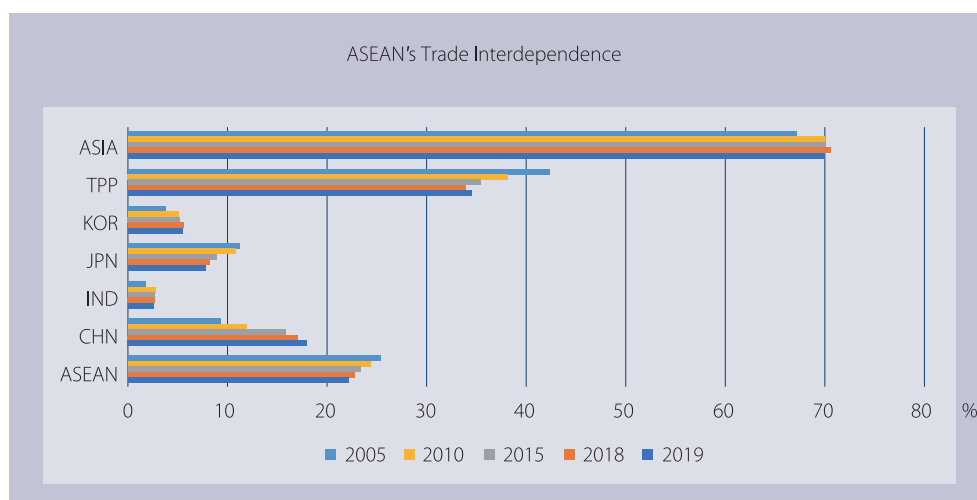
1	Angola	21	Iran	41	Russia
2	Australia	22	Iraq	42	Rwanda
3	Bangladesh	23	Japan	43	Saudi Arabia
4	Brazil	24	Kenya	44	Sierra Leone
5	Cambodia	25	DPRK	45	Singapore
6	Cameroon	26	Korea, Republic of	46	Solomon Islands
7	Chile	27	Kuwait	47	South Africa
8	Hong Kong SAR, China	28	Kyrgyzstan	48	South Sudan
9	Macao SAR, China	29	Lebanon	49	Sudan
10	Taiwan, China	30	Malaysia	50	Tanzania
11	Congo	31	Marshall Islands	51	Thailand
12	Cote d'Ivoire	32	Mongolia	52	Togo
13	Cuba	33	Myanmar	53	UAE
14	Egypt	34	New Caledonia	54	US
15	Eritrea	35	New Zealand	55	Uganda
16	Ethiopia	36	Pakistan	56	Uzbekistan
17	Gabon	37	Panama	57	Viet Nam
18	Germany	38	Peru		
19	India	39	The Philippines		
20	Indonesia	40	Qatar		

Source: WTO World Trade Profiles 2019.

Given the persisting adverse effects of Sino-US trade conflicts, the bilateral trade interdependence between China and US has declined. The uncertainties caused by the tensions may have long-lasting adverse effects on bilateral trade. In view of this, however, the signing of the Phase One Economic and Trade Agreement between US and China may help stabilize the market expectations, and thus create some opportunities for the recovery of the bilateral trade relations in the future. Despite the deteriorating relations between US and China, it is worth noting that, the dependence of CPTPP countries on China

increased.

In summary, the trend of the high level of trade interdependence on Asian economies has not changed. Excluding US, CPTPP countries have become more dependent on Asia. China and ASEAN countries have continued to strengthen their trade ties. The conclusion of the RCEP negotiations has raised the status of the ASEAN economy. As the bloc continues to grow in the size of the economy and trade, it will also play a leading role in Asia's trade integration in the future.



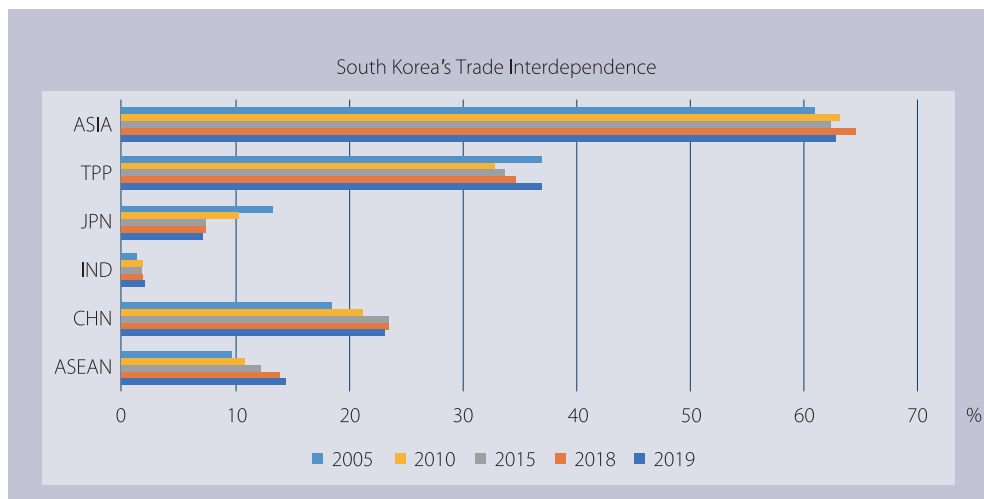
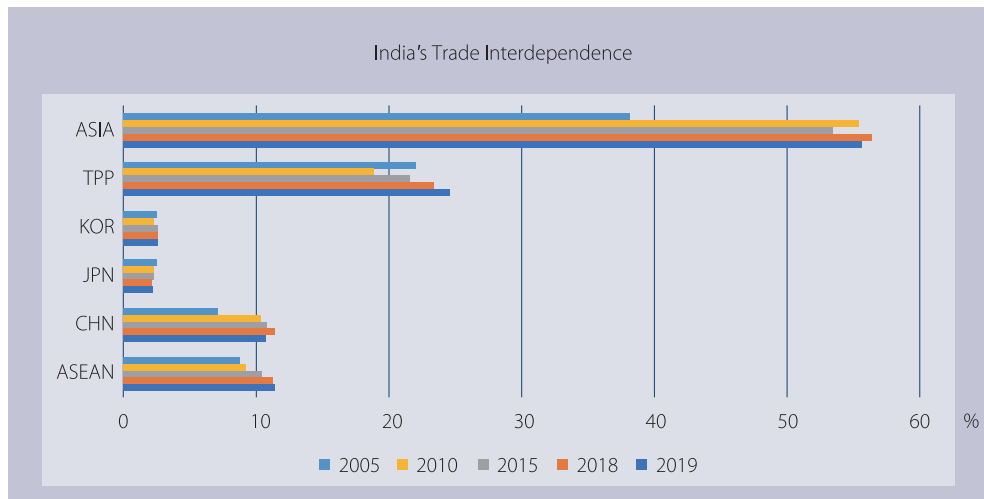
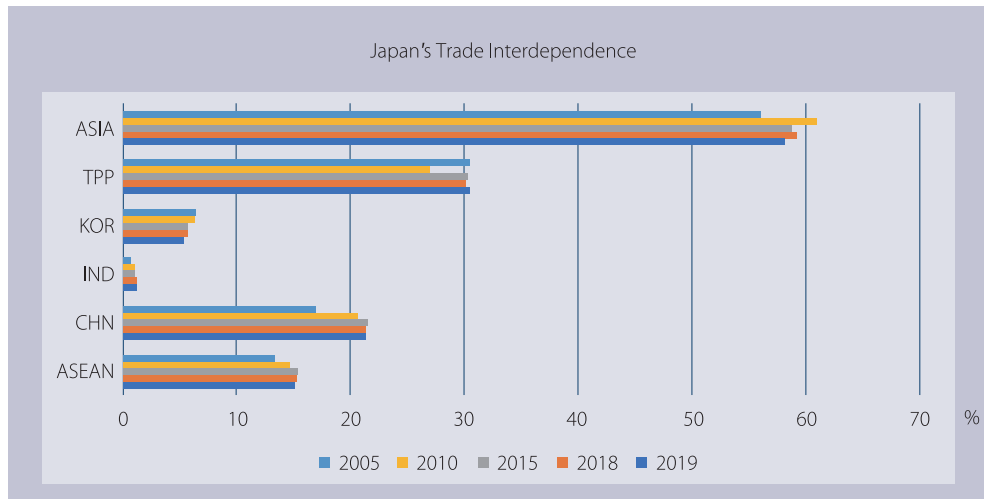




Figure 3.2 Trade Interdependence Index for Selected Economies, 2005-2019

Source: Author's calculation, based on WITS.

3.1.3 China and ASEAN Remained at the Center for Goods Trade

Table 3.5 presents the trade flows matrix¹ for major Asia-Pacific economies in 2019. As data shows, major Asian economies' merchandise trade with China and ASEAN dominated others. In particular, ASEAN's imports from China amounted to USD360 billion, which was even larger than their intra-regional imports, while ASEAN's exports to China reached USD204 billion. The bilateral exports between ASEAN and Japan also reached USD105.7 billion. China's

exports to Japan and South Korea reached USD143 billion and USD111 billion, respectively. China's imports from Japan and South Korea amounted to respectively USD135 billion and USD136 billion. It is worth noting that, China's imports from Australia exceeded USD100 billion for the first time, amounting to USD103 billion; while China's exports to Viet Nam amounted to USD98 billion, likely to have exceeded USD100 billion in 2020.

Table 3.6 shows the merchandise exports at the SITC 1-digit by Asian regions in 2019.² Northeast Asia

1 Along the row-wise, it gives the value of exports from one economy to its trading partner (in USD billion), e.g. the ASEAN countries export to ASEAN, China, Indonesia, India, Japan, among others; while column-wise indicates how much one country import from its trading partners, such as the ASEAN countries import from ASEAN, China, Indonesia, India, Japan and others.

2 SITC=Standard International Trade Classification.

is the manufacturing hub in Asia, with exports of machinery and transport equipment (SITC 7) reaching USD2.29 trillion, accounting for three-quarters of Asia's exports; chemicals (SITC 5) and manufactured goods (SITC 6) accounted for more than half that of Asia's total exports. The primary export categories of Southeast Asia were also machinery and transport equipment (SITC 7), which accounted for about 20 percent of Asia's aggregate exports. Besides, Southeast Asian countries have comparative advantages in primary commodities. Among them, the exports of animal and vegetable oils and wax products (SITC 4) were USD34.2 billion, accounting for about 90 percent of the total exports of Asia; food and live animals (SITC 0), beverages and tobacco (SITC 1), and crude materials, inedible, except fuels (SITC 2) were USD96 billion, USD9.9 billion and USD46 billion respectively, all of which were the highest in Asia. Fuels were the primary export categories among the West Asian nations, and the exports in mineral fuels, lubricants and related materials (SITC 3) accounted for about half of the total exports of Asia. The primary export categories of South Asia were manufactured goods (SITC 6) and

machinery and transport equipment (SITC 7), with exports of USD147.1 billion and accounting for about 42 percent of the region's total exports. The primary export categories for Central Asian countries were fuels, with export of USD59.2 billion, accounting for more than 60 percent of the region's total exports.

In summary, China and ASEAN were the two trading hubs within Asia, and trade patterns among the five Asian regions demonstrated substantial differences. Japan, which is the largest developed economy in Asia, also played an outstanding role in Asia's merchandise trade. Although relatively small, Southeast Asian countries such as Viet Nam saw significantly increased trading volumes during the past years. Northeast Asia was Asia's manufacturing hub. The Southeast Asian countries had advantages in the exports of primary commodities. Central Asia and West Asia had comparative advantages in the exports of fuels. To some extent, the supply chain shocks brought by the global pandemic contributed to Asia's regional economic integration, and the trade connectedness among Asian economies will grow stronger.

Table 3.5 Trade Flows among Asian Economies in 2019 (USD billion)

From \ To	ASEAN	China	India	Indonesia	Japan	Korea, Republic of	Malaysia	The Philippines	Thailand	Viet Nam	Australia	New Zealand
ASEAN	319.8	203.8	51.8	46.5	105.7	57.2	62.2	30.6	48.4	37.6	34.2	5.7
China	360.6	--	75.0	45.7	143.3	111.1	52.5	40.8	45.7	98.1	48.1	5.7
India	34.2	17.3	--	4.5	4.8	4.7	6.3	1.6	4.3	5.5	3.0	0.4
Indonesia	41.6	27.9	11.8	--	15.9	7.2	8.9	6.8	6.2	5.2	2.3	0.4
Japan	106.2	134.7	11.0	14.0	--	46.3	13.3	10.7	30.2	16.5	14.5	2.3
Korea, Republic of	95.1	136.2	15.1	7.7	28.4	--	8.8	8.4	7.8	48.2	7.9	1.4
Malaysia	68.6	33.7	9.1	7.4	15.8	8.1	--	4.4	13.5	8.4	6.9	1.1
The Philippines	10.8	9.8	0.5	0.8	10.7	3.2	1.8	--	3.0	1.3	0.4	0.1
Thailand	59.9	28.1	7.1	8.5	23.1	4.5	10.0	6.5	--	11.6	9.5	1.4
Viet Nam	24.9	41.4	6.7	3.4	20.4	19.7	3.8	3.7	5.1	--	3.5	0.5
Australia	28.0	103.0	9.7	4.1	39.5	17.5	6.2	1.9	3.1	4.2	--	7.1
New Zealand	4.0	11.2	0.5	0.7	2.4	1.2	0.7	0.6	0.7	0.5	5.5	--

Source: WITS, UNCTADstat.

Table 3.6 Merchandise Exports by Asian Regions in 2019 (USD billion)

SITC \ Region	Northeast Asia	Southeast Asia	South Asia	Central Asia	West Asia	Asia
Food and Live animals	86.8	96.0	34.5	5.3	26.7	249.4
Beverages and Tobacco	8.5	9.9	1.2	1.3	5.4	26.3
Crude Materials	37.5	46.0	11.1	6.5	11.0	112.2
Fuels	107.3	141.7	44.9	59.2	337.2	690.3
Animal and Vegetable Fats, Oils, and Waxes	1.6	34.2	1.4	0.2	1.6	39.0
Chemicals	330.1	115.5	54.1	3.5	79.9	583.2
Manufactured Goods	592.9	128.0	85.2	11.9	82.4	900.3
Machinery and Transport Equipment	2,294.9	583.4	61.9	1.8	78.1	3,019.9
Miscellaneous Goods	737.5	201.5	51.8	1.1	47.1	1,039.1
Commodities n.e.s.	92.7	53.9	0.3	7.7	227.4	382.0
Total	4,289.8	1,410.2	346.5	98.5	896.8	7,041.7

Source: WITS.

3.2 Integration of Factory Asia

Most of the world's products are produced in many countries, and each country is only engaged in a specific stage of the production process. Although the international production network first appeared in Europe and North America, the production network in Asia is more active and has become an important part of the regional economy. Intra-Asian trade in P&Cs (or intermediate goods) has been the core of trade growth among Factory Asia economies over the past decade.

COVID-19 has led to a disruption of some supply chains in Factory Asia, exacerbating the destruction of Asian global value chains. Developed economies are moving their production activities (or value chains) back to their country, likely to severely hit Factory Asia. It is very difficult to predict the depth of impact of COVID-19 on Factory Asia at the current stage, due to the various progress of COVID-19 and the reactions of different countries. On the whole, COVID-19 has posed a great challenge to the integration of production in Asia.

This section reports the trading relationships of intermediate goods between major economies in Asia, to study the interdependencies of Asian economies and integration of Factory Asia.

3.2.1 Status of Factory Asia Remained Stable

Amid the trade tensions between US and its major trade partners such as China and EU in 2019, Factory Asia's intra-regional dependence had decreased. Comparing Table 3.7 with Table 3.8, it can be seen that Factory Asia's self-dependence index decreased from 0.60 in 2018 to 0.57 in 2019. Factory North America saw a slight increase in intra-regional dependence with the index of self-dependence from 0.41 in 2018 to 0.42 in 2019. The intra-regional dependence in Factory Europe had been stable, and the dependence index remained around 0.60.

Table 3.9 shows that the major economies in Asia are highly dependent on Factory Asia. In 2019, Hong Kong Special Administrative Region of China still had the highest degree of dependence on Factory Asia, at 0.78 for 2019 and long above 0.7 and rising. Others included Indonesia, the Philippines, South

Korea, Malaysia, Thailand, Viet Nam, Japan, and Singapore among others, with dependence score of 0.73, 0.69, 0.67, 0.64, 0.64, 0.64, 0.59, and 0.59 respectively. China and India are the only ones with less than 0.5 dependence score on Factory Asia, both at 0.44. From 2001 to 2019, the dependence of most Asian economies on Factory Asia had been increasing year by year, including Japan, South Korea, India, Indonesia, Malaysia, Thailand, etc. In particular, India started from a low level of dependence, but because of its active participation in Asia's global value chain in more recent years, its dependence on Factory Asia increased from 0.26 in 2001 to 0.44 in 2019.

China has played a key role in the evolution of Asian production network. Especially after 2001, China's economic development has promoted the rapid development of Factory Asia. The trade in intermediate goods of China was 3.6 times that of South Korea, 2.9 times of Japan and 1.5 times of ASEAN in 2019.

Table 3.7 and Table 3.8 also show that from 2018 to 2019, while Viet Nam increased its dependency on China from 0.25 to 0.28, North America significantly lowered its dependency from 0.19 to 0.16. Likewise, China also saw reduced dependency on North America, from 0.15 to 0.13. The dependence of China remained the same on Factory Asia, but slightly increased the dependence on Europe. In 2019, the dependence of China on other economies were generally lower than that of other economies on China. In 2019, China showed the highest degree of

dependence on Hong Kong Special Administrative Region of China, South Korea and Japan, with the dependence index at 0.10, 0.09 and 0.07, respectively. In general, the ASEAN countries had a higher dependence in P&Cs trade on China, Japan and South Korea than among themselves.

Economies in Factory Asia are highly dependent on China in their P&Cs trade. Despite the tense trade relations between US and China, the interdependence pattern of Factory Asia had not fundamentally changed. As shown in Figure 3.3, despite a slight retreat in Factory Asia's dependence on China, US and Japan in 2019, the trade war had not fundamentally changed the dependency pattern of Factory Asia's trade in P&Cs. The dominant position of China in Factory Asia had remained unaltered. At the same time, although the COVID-19 caused disruptions to the global value chains, the shock was systematic, it may not be sufficient to convince the investors to geographically reallocate their productions and target new markets for the final sales. Over the last ten years, encouraged by the promising prospects of the Chinese economy and accelerated reforms in recent years, global investors have tended to move their investments toward China, and there is no sign that the COVID-19 pandemic would reverse the trend. As the Chinese economy has led the world in recovering from the pandemic shock, this would greatly strengthen the investors' confidence in the Chinese market and cause more investment to flow into China.

Table 3.7 Index of Interdependence in Factory Asia in 2019

Y on X of	CHN	HKG	IDN	IND	JPN	KOR	MYS	PHL	SGP	THA	VNM	ASIA	EU27	USMCA	CPTPP	RCEP
CHN	--	0.10	0.01	0.02	0.07	0.09	0.04	0.02	0.02	0.02	0.06	0.44	0.12	0.13	0.22	0.34
HKG	0.54	--	0.00	0.03	0.03	0.04	0.03	0.02	0.05	0.02	0.02	0.78	0.05	0.05	0.15	0.75
IDN	0.27	0.03	--	0.03	0.13	0.06	0.04	0.01	0.06	0.05	0.04	0.73	0.06	0.06	0.31	0.69
IND	0.15	0.11	0.01	--	0.03	0.04	0.01	0.00	0.03	0.02	0.03	0.44	0.15	0.17	0.12	0.33
JPN	0.29	0.03	0.03	0.01	--	0.06	0.02	0.02	0.01	0.07	0.04	0.59	0.07	0.18	0.12	0.56
KOR	0.32	0.07	0.01	0.02	0.07	--	0.02	0.02	0.01	0.01	0.11	0.67	0.08	0.13	0.24	0.58

(continued)

Y on X of	CHN	HKG	IDN	IND	JPN	KOR	MYS	PHL	SGP	THA	VNM	ASIA	EU27	USMCA	CPTPP	RCEP
MYS	0.18	0.09	0.02	0.01	0.06	0.04	--	0.02	0.14	0.05	0.03	0.64	0.09	0.13	0.25	0.55
PHL	0.18	0.13	0.01	0.00	0.13	0.07	0.03	--	0.07	0.05	0.02	0.69	0.09	0.12	0.27	0.56
SGP	0.14	0.11	0.03	0.02	0.05	0.05	0.11	0.03	--	0.03	0.02	0.59	0.08	0.14	0.21	0.47
THA	0.18	0.04	0.03	0.03	0.18	0.03	0.05	0.03	0.02	--	0.04	0.64	0.08	0.12	0.31	0.60
VNM	0.28	0.02	0.01	0.02	0.07	0.17	0.02	0.01	0.01	0.02	--	0.64	0.09	0.13	0.12	0.61
ASIA	0.20	0.07	0.02	0.02	0.06	0.07	0.03	0.02	0.03	0.02	0.05	0.57	0.09	0.12	0.20	0.50
EU27	0.08	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.16	0.60	0.08	0.05	0.14
USMCA	0.16	0.01	0.00	0.02	0.04	0.03	0.03	0.01	0.01	0.01	0.02	0.35	0.11	0.42	0.34	0.32
CPTPP	0.20	0.04	0.02	0.01	0.04	0.06	0.04	0.01	0.02	0.03	0.02	0.49	0.08	0.30	0.15	0.45
RCEP	0.13	0.08	0.02	0.02	0.07	0.07	0.04	0.02	0.02	0.03	0.05	0.54	0.10	0.14	0.21	0.46

Source: Based on UN ComTrade database, <http://comtrade.un.org.db>.

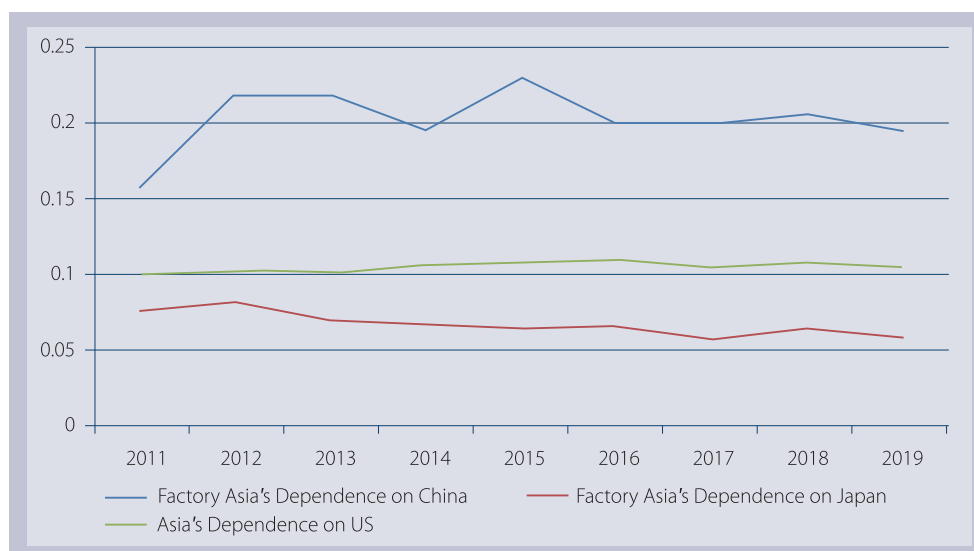


Figure 3.3 Evolving Patterns of Factory Asia's Dependence on China, Japan and US, 2011-2019

Source: UN Comtrade database, <http://comtrade.un.org.db>.

Table 3.8 Index of Interdependence in Factory Asia in 2018

Y on X of	CHN	HKG	IDN	IND	JPN	KOR	MYS	PHL	SGP	THA	VNM	ASIA	EU27	USMCA	CPTPP
CHN	--	0.10	0.01	0.02	0.07	0.10	0.03	0.02	0.02	0.02	0.05	0.44	0.11	0.15	0.21
HKG	0.54	--	0.00	0.03	0.03	0.05	0.03	0.01	0.05	0.02	0.02	0.78	0.05	0.06	0.15
IDN	0.27	0.02	--	0.03	0.15	0.06	0.04	0.01	0.06	0.06	0.04	0.74	0.06	0.05	0.30
IND	0.16	0.11	0.01	--	0.03	0.04	0.01	0.00	0.03	0.02	0.02	0.43	0.16	0.16	0.11
JPN	0.29	0.03	0.03	0.01	--	0.06	0.02	0.02	0.02	0.06	0.04	0.60	0.08	0.18	0.12
KOR	0.32	0.09	0.01	0.02	0.07	--	0.01	0.02	0.02	0.01	0.10	0.67	0.07	0.13	0.22
MYS	0.19	0.10	0.02	0.01	0.06	0.04	--	0.01	0.14	0.05	0.03	0.64	0.10	0.12	0.25
PHL	0.17	0.11	0.01	0.01	0.13	0.11	0.03	--	0.07	0.04	0.02	0.69	0.08	0.11	0.26
SGP	0.14	0.12	0.04	0.02	0.05	0.05	0.12	0.03	--	0.03	0.02	0.62	0.08	0.12	0.21
THA	0.18	0.04	0.03	0.03	0.18	0.03	0.05	0.03	0.03	--	0.04	0.64	0.08	0.10	0.32
VNM	0.25	0.08	0.02	0.02	0.09	0.21	0.03	0.01	0.03	0.03	--	0.63	0.16	0.14	0.20
ASIA	0.20	0.08	0.02	0.02	0.06	0.07	0.04	0.02	0.03	0.02	0.04	0.60	0.09	0.13	0.20
EU27	0.08	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.15	0.60	0.07	0.05
USMCA	0.19	0.01	0.00	0.02	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.36	0.10	0.41	0.32
CPTPP	0.20	0.05	0.02	0.01	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.48	0.08	0.32	0.15

Source: Same as Table 3.7.

Table 3.9 Index of Dependence on Factory Asia, Major Asian Economies, 2001-2019

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CHN	0.51	0.52	0.51	0.49	0.48	0.47	0.46	0.45	0.46	0.46	0.45	0.46	0.46	0.45	0.52	0.45	0.45	0.44	0.44
HKG	0.67	0.70	0.73	0.73	0.74	0.74	0.75	0.75	0.76	0.77	0.76	0.77	0.77	0.77	0.78	0.76	0.78	0.78	0.78
IDN	0.57	0.58	0.60	0.60	0.62	0.58	0.59	0.68	0.67	0.69	0.69	0.69	0.68	0.70	0.69	0.72	0.74	0.74	0.73
IND	0.26	0.25	0.29	0.28	0.32	0.32	0.34	0.35	0.38	0.35	0.35	0.35	0.36	0.37	0.41	0.41	0.43	0.43	0.44
JPN	0.45	0.48	0.51	0.52	0.52	0.52	0.53	0.54	0.57	0.58	0.58	0.60	0.60	0.60	0.59	0.58	0.60	0.60	0.59
KOR	0.49	0.52	0.55	0.53	0.54	0.55	0.55	0.56	0.57	0.58	0.58	0.60	0.61	0.61	0.63	0.63	0.66	0.67	0.67
MYS	0.55	0.57	0.57	0.57	0.58	0.57	0.59	0.58	0.63	0.63	0.63	0.65	0.64	0.62	0.63	0.62	0.64	0.64	0.64
PHL	0.50	0.51	0.55	0.57	0.58	0.57	0.58	0.60	0.58	0.49	0.32	0.64	0.65	0.64	0.64	0.68	0.69	0.69	0.69
SGP	0.59	0.61	0.64	0.63	0.63	0.63	0.65	0.65	0.67	0.66	0.65	0.64	0.63	0.63	0.65	0.65	0.65	0.62	0.59
THA	0.57	0.60	0.64	0.64	0.66	0.66	0.66	0.66	0.66	0.67	0.67	0.67	0.66	0.66	0.66	0.66	0.70	0.64	0.64
VNM	0.65	0.63	0.65	0.67	0.69	0.73	0.73	0.72	0.69	0.71	0.71	0.66	0.66	0.64	0.63	0.63	0.63	0.63	0.64

Source: Same as Table 3.7.

3.2.2 East Asia Kept Competitive Advantages of P&C Trade

This section describes the evolution of the competitive advantages of major Asian economies in P&C trade in the global value chain. 22 most traded intermediate goods (most of them being P&Cs) were identified and used for the analysis. The share of particular intermediate goods imported and exported by one economy against the world total was calculated. If an economy has a high share of trade in this intermediate input, it indicates that the economy may possess a competitive advantage in this product. Table 3.10 and Table 3.11 show the results of the calculations for 2019 and 2018.

In 2019, some changes took place in the ranking of the top 22 intermediate goods. SITC77812 (storage battery) and SITC8931 (plastic products for goods transportation or packaging) entered into the top 22 most traded intermediates goods, while SITC7239 (machinery and equipment for civil engineering and construction contracting business) and SITC7788 (electrical machinery and equipment and parts and accessories not otherwise listed, such as electromagnets) fell out of the top 22.

Table 3.10 and Table 3.11 show that trade in jewelry and rare stones (SITC 667) had mainly relied on India and Hong Kong Special Administrative Region of China. It suggests that these two economies may possess competitive advantages in the production of

the intermediate and/or the final products. However, from 2017 to 2019, the dependence of SITC667 on India had decreased from 0.28 to 0.19. In addition, the dependence of the product on Hong Kong Special Administrative Region of China also dropped from 0.22 to 0.15.

Singapore is the main supplier of SITC714 (turbojet engine or turboprop engine and its parts) and SITC7929 (aircraft parts). From 2018 to 2019, the dependence of SITC714 on Singapore has increased from 0.09 to 0.10, and its competitive advantage is further strengthened. Singapore's competitive advantage in SITC7929 (aircraft parts) also improved from 0.07 in 2018 to 0.08 in 2019. Globally, SITC7929 had the highest dependence on EU, and the index of dependence was 0.34 in 2019. In 2019, Japan and South Korea had dominance in the only very limited scope of products. For example, as shown in Table 3.10, SITC713 (piston internal combustion engine) was the only product that had the highest dependence on Japan, with an index at 0.06. Compared with 2018, however, the distribution of Japan's competitive advantage according to this measure had remained unchanged.

Out of the top 22 most traded intermediate goods, China maintained dominance in 18 of them (see Table 3.12) in 2019. This suggests that China, being a large open economy, tends to have a wide range of competitive advantages in P&C trade.

Table 3.10 Dependence of Trade in Top 22 P&Cs by SITC Codes in 2019

Y on X of	CHN	HKG	IDN	IND	JPN	KOR	MYS	PHL	SGP	THA	VNM	ASIA	EU27	USMCA	CPTPP	RCEP
625	0.10	0.00	0.01	0.01	0.04	0.03	0.01	0.00	0.00	0.04	0.01	0.27	0.36	0.19	0.15	0.27
641	0.06	0.00	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.19	0.47	0.16	0.13	0.18
65	0.25	0.02	0.02	0.04	0.03	0.03	0.01	0.00	0.00	0.01	0.05	0.46	0.24	0.11	0.13	0.42
667	0.04	0.15	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.02	0.00	0.43	0.11	0.18	0.04	0.10
67	0.10	0.00	0.02	0.03	0.05	0.05	0.01	0.01	0.01	0.02	0.02	0.32	0.37	0.10	0.14	0.30
691	0.15	0.01	0.01	0.01	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.28	0.40	0.11	0.12	0.28
699	0.12	0.01	0.01	0.02	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.26	0.39	0.18	0.13	0.25
713	0.06	0.00	0.01	0.01	0.06	0.02	0.00	0.00	0.02	0.02	0.00	0.22	0.39	0.25	0.20	0.21
714	0.04	0.06	0.00	0.02	0.04	0.01	0.00	0.00	0.10	0.00	0.00	0.28	0.31	0.19	0.21	0.20
747	0.14	0.00	0.01	0.02	0.04	0.02	0.01	0.00	0.02	0.01	0.01	0.27	0.35	0.21	0.14	0.26
748	0.11	0.00	0.01	0.02	0.06	0.02	0.01	0.00	0.01	0.01	0.00	0.26	0.40	0.21	0.17	0.25

(continued)

Y on X of	CHN	HKG	IDN	IND	JPN	KOR	MYS	PHL	SGP	THA	VNM	ASIA	EU27	USMCA	CPTPP	RCEP
759	0.22	0.19	0.00	0.01	0.02	0.07	0.02	0.02	0.04	0.02	0.01	0.61	0.14	0.20	0.14	0.42
764	0.23	0.12	0.01	0.02	0.03	0.03	0.01	0.00	0.02	0.01	0.06	0.53	0.19	0.15	0.17	0.41
772	0.16	0.08	0.01	0.01	0.04	0.04	0.02	0.01	0.02	0.02	0.02	0.42	0.31	0.17	0.18	0.34
773	0.11	0.03	0.01	0.01	0.04	0.02	0.01	0.02	0.01	0.01	0.03	0.30	0.33	0.21	0.18	0.27
776	0.29	0.19	0.00	0.01	0.04	0.08	0.05	0.02	0.09	0.01	0.03	0.82	0.09	0.08	0.24	0.62
77812	0.19	0.06	0.01	0.02	0.05	0.07	0.01	0.00	0.01	0.01	0.03	0.47	0.31	0.13	0.16	0.40
784	0.07	0.00	0.01	0.01	0.05	0.03	0.00	0.00	0.00	0.02	0.00	0.21	0.43	0.25	0.18	0.20
7929	0.03	0.01	0.00	0.01	0.04	0.01	0.02	0.01	0.08	0.00	0.01	0.22	0.34	0.19	0.21	0.22
813	0.34	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.41	0.29	0.18	0.09	0.40
8211	0.17	0.00	0.01	0.00	0.02	0.01	0.01	0.00	0.00	0.01	0.02	0.26	0.37	0.26	0.15	0.26
8931	0.10	0.01	0.01	0.01	0.03	0.02	0.01	0.00	0.01	0.02	0.02	0.24	0.38	0.21	0.17	0.24

Source: Same as Table 3.7-Table 3.9.

Table 3.11 Dependence of Trade in Top 22 P&Cs by SITC Codes in 2018

Y on X of	CHN	HKG	IDN	IND	JPN	KOR	MYS	PHL	SGP	THA	VNM	ASIA	EU27	USMCA	CPTPP
625	0.10	0.00	0.01	0.01	0.04	0.03	0.01	0.00	0.00	0.03	0.01	0.26	0.38	0.19	0.14
641	0.06	0.00	0.02	0.02	0.02	0.02	0.01	0.00	0.01	0.01	0.01	0.19	0.48	0.16	0.12
65	0.26	0.03	0.02	0.04	0.03	0.03	0.01	0.00	0.00	0.01	0.04	0.47	0.27	0.12	0.08
667	0.04	0.15	0.00	0.19	0.01	0.00	0.00	0.00	0.01	0.02	0.00	0.42	0.12	0.18	0.03
67	0.10	0.00	0.02	0.03	0.05	0.05	0.01	0.01	0.01	0.02	0.01	0.31	0.39	0.11	0.12
691	0.13	0.01	0.01	0.01	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.26	0.42	0.11	0.11
699	0.12	0.01	0.01	0.02	0.02	0.03	0.01	0.00	0.01	0.02	0.01	0.26	0.42	0.18	0.12
713	0.06	0.00	0.01	0.01	0.07	0.02	0.00	0.00	0.01	0.03	0.00	0.22	0.40	0.25	0.19
714	0.03	0.04	0.00	0.02	0.05	0.01	0.00	0.00	0.09	0.01	0.00	0.25	0.31	0.18	0.21
7239	0.10	0.00	0.02	0.02	0.05	0.04	0.01	0.00	0.05	0.01	0.00	0.30	0.31	0.20	0.20
747	0.14	0.00	0.01	0.01	0.04	0.02	0.01	0.00	0.01	0.01	0.01	0.27	0.36	0.22	0.14
748	0.12	0.00	0.01	0.02	0.06	0.02	0.01	0.00	0.01	0.01	0.00	0.27	0.41	0.21	0.17
759	0.28	0.19	0.01	0.02	0.04	0.06	0.02	0.01	0.03	0.02	0.00	0.66	0.16	0.13	0.11
764	0.22	0.11	0.00	0.01	0.03	0.02	0.01	0.00	0.02	0.01	0.05	0.48	0.22	0.21	0.13
772	0.16	0.08	0.01	0.01	0.05	0.04	0.02	0.01	0.02	0.02	0.01	0.43	0.32	0.17	0.16
773	0.12	0.03	0.01	0.01	0.04	0.03	0.01	0.01	0.01	0.01	0.02	0.29	0.35	0.22	0.16
776	0.27	0.19	0.00	0.01	0.04	0.10	0.06	0.02	0.10	0.01	0.01	0.82	0.09	0.08	0.22
7788	0.16	0.04	0.01	0.02	0.04	0.02	0.02	0.01	0.01	0.02	0.01	0.37	0.32	0.17	0.15

(continued)

Y on X of	CHN	HKG	IDN	IND	JPN	KOR	MYS	PHL	SGP	THA	VNM	ASIA	EU27	USMCA	CPTPP
784	0.08	0.00	0.01	0.01	0.05	0.03	0.00	0.00	0.01	0.02	0.00	0.21	0.44	0.25	0.17
7929	0.03	0.01	0.00	0.01	0.03	0.01	0.02	0.01	0.07	0.00	0.00	0.21	0.36	0.18	0.18
813	0.31	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.38	0.30	0.20	0.09
8211	0.17	0.00	0.01	0.00	0.02	0.01	0.01	0.00	0.00	0.01	0.01	0.24	0.38	0.28	0.13

Source: Same as Table 3.7-Table 3.10

Table 3.12 China's Dominance in Trade of 18 Intermediate Goods in 2019

No.	SITC Code	Product Descriptions
1	625	Rubber tires, replaceable outer tubes, tire straps and inner tubes for various wheels
2	641	Paper and paperboard
3	65	Yarn, textile and finished products materials
4	67	Steel materials
5	691	Steel or aluminium structures and their components not specified otherwise
6	699	Base metal products and parts not otherwise specified
7	747	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, barrels and similar articles
8	748	Transmission shafts and cranks, bearing boxes and ordinary bearings; gears and gear units
9	759	Office machines and other equipment parts and accessories
10	764	Telecommunication equipment parts
11	772	Switchgear parts
12	773	Power distribution equipment not otherwise listed, such as wires, cables, insulation accessories, etc
13	776	Electronic components such as diode, transistor, integrated circuit
14	77812	Storage battery
15	784	Automobile
16	813	Lighting equipment and accessories
17	8211	Seat (such as airplane, automobile seat, etc.)
18	8931	Plastic products for cargo transportation or packaging

Source: UN Statistics Division, <http://unstats.un.org/unsd>.

Note: The products in the table are not arranged sequentially.

Chapter 4

Service Trade Integration in Asia

4.1 Asian Service Trade Integration

This section intends to cast some light on Asia's integration on service trade. The decomposition model based on value-added service export is employed for the analysis. Data of 25 economies¹ from the 2020 version of the World Input-output Table constructed by the ADB are used. In the era of global value chains, the indirect value-added export of the service industry is not only an important part of service trade *per se*, but also vital to the production fragmentation of the manufacturing industry and associated exports of goods. We will start with an overview of the service exports for selected economies, and then focus on the role of the service industry in the process of Asian economic integration from the perspective of final demand and manufacturing production fragmentation.

Table 4.1 shows the composition of service exports and their destinations of the 25 selected economies in 2019, calculated using two metrics (i.e., conventional statistics and value added). It also shows the average annual growth rate (AAGR) from 2010 to 2019. For the sake of brevity, we refer to the internal exports among the 25 selected economies as intra-regional exports, and the exports to other economies outside the region as inter-regional exports.

First, from the perspective of conventional trade statistics, total service exports or the gross exports of

the 25 economies in 2019 was USD1,794.6 billion, of which USD413.3 billion (roughly 23.0 percent) was intra-regional, and USD1,381.2 billion (accounted for 77.0 percent) was inter-regional. However, it is worth noting that the intra-regional exports of services grew at an average annual rate of 5.4 percent between 2010 and 2019, 1.1 percentage points higher than the 4.3 percent annual growth rate of the inter-regional exports. This shows that comparing with the inter-regional exports, the trade links of the 25 economies in service trade are stronger.

From the perspective of value-added trade, the total value added of services of the 25 economies exported within the region was USD767 billion, 1.86 times the value of service exports measured in gross terms. Meanwhile, the services value added exported outside of the region was USD1,724 billion, 1.25 times the corresponding service exports in gross terms. If we look at the growth rate and share, the services value added exported across the region had an AAGR of 6.5 percent, which was 1.6 percentage points higher than the latter, and the share had risen significantly (from 23.0 percent) to 30.8 percent.

Using the conventional statistics, only 14 economies reported higher growth rates in intra-regional service exports than in inter-regional service exports. In contrast, when measured by value-added terms, there were 21 economies with a growth rate in intra-regional exports higher than that of inter-regional exports.

¹ For our subsequent analysis, 25 economies were given particular attention: China, Indonesia, India, Japan, South Korea, Taiwan Province of China, Bangladesh, Malaysia, the Philippines, Thailand, Viet Nam, Kazakhstan, Mongolia, Sri Lanka, Pakistan, Laos, Brunei, Bhutan, Kyrgyzstan, Cambodia, Maldives, Nepal, Singapore and Hong Kong Special Administrative Region of China and Australia out of Asia.

To summarize, it can be concluded that whether it is in terms of gross exports or value added, the interdependencies among the 25 economies through service trade increased, and the growth rate for intra-regional trade exceeds that for inter-regional trade (see Table 4.1). Notably, indirect value-added trade in

services has played an important role in strengthening the links among the economies. Thus, a deeper analysis of the role of the service industry from the perspective of final demands and production fragmentation is called for.

Table 4.1 Service Exports of 25 Selected Economies (in Gross Terms and Value Added Terms) in 2019 (USD100 million, %)

Economies	Gross Exports in Services						Value Added in Services Trade					
	Gross		Intra-region		Inter-region		Value Added		Intra-region		Inter-region	
	Amount	AAGR	Amount	AAGR	Amount	AAGR	Amount	AAGR	Amount	AAGR	Amount	AAGR
Australia	877	4.7	423	6.5	454	3.3	1,444	4.6	774	5.4	671	3.7
China	4,689	5.2	675	3.3	4,013	5.5	9,055	8.1	2,114	9.2	6,941	7.8
Indonesia	111	-3.6	75	0.7	36	-9.1	361	1.0	199	3.7	161	-1.5
India	1,444	0.3	275	4.4	1,170	-0.5	2,059	3.5	506	6.6	1,552	2.7
Japan	1,526	-2.5	279	-0.9	1,247	-2.8	2,912	-0.7	1,018	1.1	1,894	-1.6
Korea, Republic of	850	5.1	348	6.6	502	4.1	1,580	4.4	721	6.5	859	2.9
Taiwan, China	796	5.1	281	6.6	515	4.3	804	3.4	336	4.8	469	2.6
Bangladesh	61	11.9	2	18.1	59	11.7	138	9.1	17	14.0	121	8.6
Malaysia	409	2.1	82	0.1	327	2.6	617	4.0	185	5.6	433	3.4
The Philippines	489	11.0	163	8.2	326	12.7	431	8.3	157	7.3	274	8.9
Thailand	1,013	12.2	464	11.9	549	12.5	1,107	10.8	560	11.7	547	9.9
Viet Nam	695	22.8	146	9.8	549	31.6	772	23.6	231	16.8	542	28.2
Kazakhstan	186	3.6	9	2.3	178	3.7	230	2.2	33	2.9	197	2.1
Mongolia	19	12.1	3	10.8	16	12.4	22	12.3	9	13.3	13	11.7
Sri Lanka	60	6.4	13	7.0	47	6.2	61	6.0	15	8.0	46	5.4
Pakistan	59	2.2	26	3.9	33	1.1	77	1.4	29	3.9	49	0.2
Laos	13	23.0	3	17.3	11	25.0	13	20.1	4	17.9	10	21.1
Brunei	6	-0.7	5	-0.5	1	-1.5	5	-2.5	4	-2.1	2	-3.5
Bhutan	3	8.5	1	6.2	2	11.1	2	7.6	1	6.5	1	8.8
Kyrgyzstan	7	9.2	2	9.8	5	8.9	8	7.9	2	10.5	6	7.1
Cambodia	44	11.1	6	7.9	38	11.7	35	12.0	7	13.5	28	11.7
Maldives	34	7.7	5	9.0	28	7.4	21	7.4	5	9.9	16	6.8
Nepal	11	5.3	6	5.7	6	5.0	9	4.6	5	5.4	5	3.8
Singapore	2,680	7.7	537	8.3	2,144	7.6	1,747	7.7	462	8.7	1,286	7.4

(continued)

Economies	Gross Exports in Services						Value Added in Services Trade					
	Gross		Intra-region		Inter-region		Value Added		Intra-region		Inter-region	
	Amount	AAGR	Amount	AAGR	Amount	AAGR	Amount	AAGR	Amount	AAGR	Amount	AAGR
Hong Kong SAR, China	1,862	4.3	304	3.7	1,558	4.5	1,397	4.4	277	5.7	1,120	4.1
Total	17,946	4.5	4,133	5.4	13,813	4.3	24,910	5.4	7,670	6.5	17,240	4.9

Source: Based on ADB's 2020 version of the World Input-Output Table.

Note: The AAGR refers to the average annual growth rate between 2010 and 2019.

Table 4.2 and Table 4.3 show the main results of the value-added decomposition of final goods (and/or services) and manufacturing exports respectively. First, we briefly explain these two tables.

Table 4.2 shows the total final demand of the 25 economies in 2019 and the total demand for service output. In addition, the demand for foreign services is presented, which is divided into intra-regional demand and inter-regional demand. Note that the total final demand is directly obtained from the World Input-Output Table of ADB, while the demand for services is based on value added estimates, that is, the services value added is obtained by decomposing the total final demand into its various components. In sum, through Table 4.2, we could understand the integration of services trade in the Asian countries from the perspective of final demands. Further, the value added of the manufacturing exports of the above 25 economies is decomposed, and the services value added embodied in it is picked out and reported in Table 4.3. Through proper interpretation of

the data in Table 4.3, we could gain some insights about the extent of Asian economic integration from the perspective of the division of labor in manufacturing industry.

The last row of Table 4.2 shows that the total final demand of the 25 economies in 2019 was USD29,659.9 billion, of which the demand for the service output (value added) was USD19,350.5 billion. For the service output demand, USD2197.9 billion was inter-regional. The AAGR for 2010-2019 for the final demand was 5.8 percent, for service output was 6.2 percent, and for foreign services was 7.0 percent, respectively. It is observed that in the aggregate final demand, the growth rate of demand for services is higher than that of the demand for goods, while the growth rate of demand for overseas services is higher than that of the demand for local services. As a result, the share of the intra-regional demand for services in demand for foreign services was 34.9 percent in 2019, declined by 1.3 percentage points as compared to 2010.

Table 4.2 Demand and Composition of Services of 25 Selected Economies in 2019 (USD100 million, %)

Economies	Final Demands		Demand for Services			Demand for Foreign Services		
	Amount	AAGR	Amount	AAGR	Amount	AAGR	Outside Share	Intra-region Share
Australia	12,708	0.6	10,194	1.1	1,143	3.6	62.2	37.8(-1.3)
China	142,324	10.8	86,786	13.0	8,514	10.0	74.5	25.5(-7.0)
Indonesia	11,092	4.9	6,634	6.1	729	4.7	53.3	46.7(1.2)
India	28,652	5.6	17,880	6.5	1,662	4.9	67.6	32.4(4.4)
Japan	50,762	-0.5	38,222	-0.7	2,822	4.0	58.6	41.4(5.3)

(continued)

Economies	Final Demands		Demand for Services			Demand for Foreign Services		
	Amount	AAGR	Amount	AAGR	Amount	AAGR	Outside Share	Intra-region Share
Korea, Republic of	15,420	5.2	10,608	5.7	1,679	6.8	66.2	33.8(-1.5)
Taiwan, China	5,308	3.2	3,721	3.2	727	4.2	64.8	35.2(-3.4)
Bangladesh	3,109	11.4	1,932	11.6	208	10.1	35.6	64.4(6.6)
Malaysia	3,334	5.3	2,042	5.5	552	4.8	58.3	41.7(7.4)
The Philippines	4,027	7.9	2,566	9.0	502	12.9	56.5	43.5(-1.5)
Thailand	5,062	4.9	3,215	6.5	540	1.8	60.3	39.7(-0.1)
Viet Nam	2,416	8.2	1,114	8.2	594	15.7	48.8	51.2(-1.5)
Kazakhstan	1,494	2.5	999	2.8	177	1.5	77.4	22.6(1.3)
Mongolia	136	6.8	70	7.1	29	13.1	56.0	44.0(-0.3)
Sri Lanka	889	5.0	583	5.3	68	3.8	37.3	62.7(2.6)
Pakistan	2,749	4.7	1,548	4.9	181	6.1	49.8	50.2(6.9)
Laos	195	12.7	112	14.2	31	23.6	41.7	58.3(-2.7)
Brunei	126	4.8	74	4.2	25	9.4	71.1	28.9(-7.4)
Bhutan	29	4.3	16	4.8	5	3.5	52.3	47.7(-6.0)
Kyrgyzstan	94	5.3	55	6.1	17	4.9	68.5	31.5(6.6)
Cambodia	272	10.0	149	12.8	35	12.0	33.3	66.7(10.6)
Maldives	56	10.5	38	9.2	14	8.6	59.7	40.3(4.3)
Nepal	350	7.0	188	7.7	48	11.8	32.9	67.1(1.9)
Singapore	2,501	5.0	1,682	4.4	674	9.0	59.1	40.9(4.5)
Hong Kong SAR, China	3,491	5.3	3,076	6.0	1,004	5.4	46.6	53.4(4.6)
Total	296,599	5.8	193,505	6.2	21,979	7.0	65.1	34.9(-1.3)

Source: See Table 4.1.

Note: The AAGR refers to the average annual growth rate between 2010 and 2019; The numbers in parentheses in the column of "Intra-regional Shares" are the changes in the share in 2019 relative to the share in 2011.

The last row of Table 4.3 gives the gross exports of the manufacturing industry, the value-added content of the service industry, and the value-added content of the foreign service industry, which were universally lower than the total final demand, and the value-added content of the service industry and the demand for foreign services value added in the last row of Table 4.2. Furthermore, the corresponding AAGR for each of the three sub-components were also

lower. However, in view of the overall foreign service value added included in the export of manufacturing industry, the share of the intra-region service value added was 41.3 percent, an increase of 2 percentage points compared to 2010. Comparing Table 4.2 with Table 4.3, it could be found that the 25 economies have strengthened the intra-regional trade with each other through in service trade, and this positive trend is the result of increased participation of the service

industry in the production fragmentation of the manufacturing industry in the region.

Table 4.3 The Services Content and Composition of the Manufacturing Export in Selected Asian Economies in 2019 (USD100 million, %)

Economies	Gross Goods Exports		Services Content		Overseas Services Content			
	Amount	AAGR	Amount	AAGR	Amount	AAGR	Outside Share	Intra-region Share
Australia	714	-1.0	250	1.4	46	1.9	62.4	37.6(2.6)
China	20,917	4.8	6,558	8.0	887	1.5	64.2	35.8(-0.7)
Indonesia	1,633	3.5	338	3.8	94	5.3	58.0	42.0(-4.2)
India	2,797	7.2	930	8.9	186	7.5	71.0	29.0(1.6)
Japan	7,333	1.5	2,028	1.5	395	5.2	60.8	39.2(2.8)
Korea, Republic of	5,678	2.3	1,477	3.4	519	3.0	59.9	40.1(-1.9)
Taiwan, China	3,108	1.9	542	1.1	312	1.6	45.8	54.2(5.6)
Bangladesh	400	11.0	115	9.9	31	18.5	46.4	53.6(-6.2)
Malaysia	1,836	1.2	502	3.1	172	-1.4	56.6	43.4(9.5)
The Philippines	569	6.6	116	4.5	52	12.9	50.8	49.2(1.0)
Thailand	1,555	3.8	476	4.3	142	0.8	58.9	41.1(-0.2)
Viet Nam	1,197	12.3	270	14.9	119	13.8	40.9	59.1(1.8)
Kazakhstan	153	1.4	34	4.0	4	5.2	81.6	18.4(-0.2)
Mongolia	4	11.0	1	12.2	0	16.5	51.4	48.6(1.5)
Sri Lanka	61	-0.6	13	-0.2	3	-3.8	38.3	61.7(10.5)
Pakistan	168	1.5	30	0.7	5	4.9	54.5	45.5(3.0)
Laos	10	16.4	2	20.0	0	13.6	32.2	67.8(24.6)
Brunei	29	-2.0	2	-0.8	1	5.3	69.6	30.4(5.5)
Bhutan	1	0.1	0	-0.8	0	0.8	42.1	57.9(2.5)
Kyrgyzstan	13	3.3	2	6.8	1	-0.6	58.3	41.7(13.2)
Cambodia	67	13.7	13	13.0	8	14.7	18.9	81.1(20.9)
Maldives	1	22.0	0	27.5	0	21.6	66.4	33.6(-17.2)
Nepal	4	3.2	1	1.0	0	5.7	32.3	67.7(-0.1)
Singapore	2,026	3.7	515	4.3	285	1.5	57.0	43.0(6.0)
Hong Kong SAR, China	167	0.8	83	0.7	67	2.9	51.7	48.3(2.7)
Total	50,439	3.6	14,299	5.4	3,330	2.8	58.7	41.3(2.0)

Source: See Table 4.1.

Note: The AAGR refers to the average annual growth rate between 2010 and 2019; The numbers in parentheses in the column of “Intra-regional Shares” are the changes in the share in 2019 relative to the share in 2011.

The above analysis is based on the 2019 data. At present, the COVID-19 has brought a serious impact

on global economy. Without effectively controlling the pandemic around the world in the next one or

two years, it will be difficult to predict whether service trade can continue to maintain the interconnection between economies. For one thing, if the growth of the world economy were stagnated or even into a recession, it would be difficult to expect the (very likely) negative demand shock to do any good to the growth of service trade. Especially in the context of the ongoing pandemic, direct trade in services such as tourism is hit particularly severely. In contrast, the indirect service trade involved in the fragmentation of manufacturing industry is affected to a lesser extent. Under normal circumstances in the past, indirect service trade itself is an important factor driving the rapid development of global service trade. During the pandemic, it is also the key to maintain the sound flows of service trade, the international division of labor (or trade in tasks), and the interconnections of the world economy.

In fact, with an ever finer division of labor in manufacturing, trade in producer services can help connect the scattered low-cost and high-efficiency manufacturing production links to form a competitive

manufacturing (global) value chain. At the same time, these service links themselves are also important elements in creating value, and even in the construction, formation or control of the global value chain. Equally important, whether an economy can provide high-efficiency services is an important factor in whether its manufacturing industry can maintain its participation in the global value chains. In the case that it is difficult to reduce the cost of manufacturing and production links, the improvement of the efficiency of the service industry is of particular importance.

4.2 Development of Digital Trade in Asia

At present, an extensive and profound "digital revolution" is underway globally. In the field of international trade, the international division of labor continues to extend from the physical world to the digital world, and digital trade¹ has become increasingly important.

Table 4.4 Classification and Interpretation of Digital Trade

Digital Trade	Industry Category	Specific Explanation
	Insurance Services	Insurance carrier and related activities; direct insurance (aviation insurance, life insurance); auxiliary insurance, etc.
	Financial Services	Direct charge financial services, financial intermediary services and other financial services, etc.
	Charges for the Use of Intellectual Property	Franchise rights and trademark usage fees, the right to use survey research results, copy and use computer software, the right to use audio-visual products, educational services, etc.
	Telecommunications, Computers and Information Services	Software, social media, communications, data processing services (cloud computing), satellite positioning and other information services, etc.
	Other Commercial Services	Other business services delivered via the Internet, such as scientific and technical support services, other management consulting services, etc.

Note: Sources: The information is collected from the practice of the US government agency US Bureau of Economic Analysis, USBEA (2016).

Digital trade has been growing rapidly. According to the White Paper on Digital Trade Development (2020) issued by the CAICT, global digital service exports in 2019 reached USD491.47 billion, accounting for 52.0 percent of service exports and 12.9 percent of

all exports. Before 2018, digital trade in Asia has gradually awakened, and with the continuous breakthroughs in digital technology and the emergence of high-tech companies in Asia, digital trade formats and application scenarios in Asia have gradually flourished. Today, the

¹ At present, digital trade mainly refers to digitized service trade, which mainly includes the following categories: (1) insurance services; (2) financial services; (3) charges for the use of intellectual property; (4) telecommunications, computers and information Services; (5) other commercial services. The details are shown in Table 4.4.

development of digital trade in some Asian economies has been at the forefront of the world. At the same time, Asia has also gave birth to and nurtured some technology unicorn companies, which continue to promote the development of digital trade in Asia. The outbreak of the COVID-19 pandemic has also catalyzed the digitalization of Asian trade. The digital transformation of various economies and companies has created huge opportunities for the development of digital trade in Asia. Digital trade has enhanced the economic vitality and development momentum of the Asian region, and has greatly promoted the economic and social development of Asia. Moreover, digital trade has also enhanced the interconnection among Asian economies, thereby enhancing the potential for cooperation among Asian members. At the same time, the digital connection in the Asian region makes inter-regional trade cooperation smoother and more extensive, which to a certain extent strengthens the resilience and depth of regional economic development.

4.2.1 Forces behind Rapid Development

Digital trade practices in Asia have developed rapidly, and Asian digital trade formats still have relatively vigorous vitality against the background of global unilateralism and the COVID-19 pandemic. Digital trade is mainly manifested in digital products and services, as well as emerging and transformative digital technologies and other content, such as applications, software, video services, AI, IoT, and big data. The UNCTAD data shows that computer services exports from Asia in 2019 were approximately USD172.1 billion, accounting for 31.52 percent of the world's total, with a growth rate of 12.21 percent; in terms of communications services exports, Asia's exports in 2019 were approximately USD25.8 billion, accounting for about 28.85 percent of the world's total, with a growth rate of 11.03 percent; in terms of information service exports, Asia's exports in 2019 were about USD4.8 billion, accounting for about 11.34 percent of the world's total, with a growth rate of about 12.85 percent. The above data fully demonstrates that digital trade in Asia has developed well overall. From the perspective of specific application scenarios, digital trade in Asia also has diversified and rapid development. For example, in the financial field, Asian technology and finance continue to make

breakthroughs, and the digital level of trade finance is rapidly increasing; in the realm of life, online entertainment such as online video, game and music has further developed. Asia's use of subscription services including live broadcasts is becoming more and more intensive. Asian consumers' demand for live broadcast and streaming media services has shown explosive growth; and in the field of traditional life, online medical care, online education and online consulting have also ushered in a wider range of applications.

The vigorous development of digital trade in Asia is mainly due to the development of Asia's digital economy, large population, and the active governance of various economies. Digital trade is the result of the continuous evolution and development of the digital economy and the natural extension of the international trade field. With the continuous popularization of digital infrastructure such as the Internet and smart terminals, the growth of the digital economy in Asia has performed well globally. Asia, especially the Asia-Pacific region, has gradually transformed from a digital factory that relies on cheap labor to a digital center that relies on innovative industries. The digital economy has become an important factor in the economic growth and development of the Asia-Pacific region. Correspondingly, digital trade in Asia has also gained rapid development. According to the *Sea of Electronic Economy in 2020: Southeast Asia's Full Speed Development* released by Temasek, Google, and Bain Consulting, the growth of digital trade in the six economies of Southeast Asia (Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam) has increased, expanding from 260 million Internet users in 2015 to 500 million users in 2020. The dense population of Asia provides a broad market support for the development of digital trade. With nearly 60 percent of the world's population, Asia has a large number of densely populated developing and middle-income countries, such as India, China, and Indonesia. These countries have a high absolute number of users. As the Internet penetration rate further increases, greater digital trade market potential will be released. In turn, it promotes the development of digital trade in Asia. Finally, the governments of Asian economies actively promote digital trade governance, which has greatly promoted the development of digital trade in Asia. Internet

providers in Asia are increasingly finding that with the regulation of their business behaviors supervision and rules are more unified, open and transparent, and digital trade activities in Asia are correspondingly more active.

4.2.2 Sub-regions and Economies Varied in Development

The development of the total volume of digital trade in Asia has not solved the problem of regional internal structural imbalance, and there remains a large gap in the development of digital trade among Asian economies. The development of digital trade is highly dependent on the development of digital infrastructure and is closely related to the scale of the digital economy. Although the overall digital economy in Asia has grown rapidly and is second only to US in terms of the scale of the digital economy, the Digital Gap in Asia is still evident. On the one hand, the geographical area of Asia is huge, and the internal countries are different in many aspects. Due to the influence of national culture and habits, some Asian countries lack basic digital experience and have certain technical anxiety, which eventually formed a psychological gap between users and digital technology/trade; on the other hand, the comprehensive national economic strength determines the digital infrastructure owned by civil society. Some economies in the Asian region still have physical barriers to access basic digital devices such as computers, smartphones and the Internet. The gap also limits the development of digital trade. Specifically, information and communication technology (ICT) is an important infrastructure supporting the scale of digital trade and the continuous development of the digital economy. However, there are still many areas within the Asian region that have not built a good digital infrastructure, including some countries in Central Asia and South Asia.

In the context of the Digital Gap in the Asian region, the divide in the development of digital trade within Asia is correspondingly large. According to data from UNCTAD, the export of computer services from South Asia and East Asia is relatively high in the Asian region. In 2019, the computer services exports of South Asia and East Asia were USD63.8 billion and USD62.9 billion respectively. West Asia and Southeast Asia's computer service exports were much lower. In 2019, the digital trade volume measured by computer

service exports was USD24 and USD21.1 billion, accounting for only about one-third of South Asia and East Asia. Digital trade volume in Central Asia was even smaller. From the perspective of growth rate, East Asia's digital trade exports grew the fastest in 2019, up to 16 percent, while the growth rate of Southeast Asia was only 2 percent.

In addition, the gap in the development of digital trade within Asia is not only reflected at the regional level, but also at the level of individual economies. Taking the export of computer services as an example, the six economies of India, China, Singapore, the Philippines, Japan, and South Korea each had over USD1 billion's exports in 2019. Among them, India and China reached USD61.8 and USD51.3 billion. However, the remaining all Asian economies do not exceed USD1 billion. This shows that the gap in the development of digital trade within Asia is indeed large. Among the many economies in Asia, Singapore is a global trade and financial hub. Highly developed in the practice and governance of digital trade, Singapore is at the forefront of digital trade in Asia and the world. For example, SWIFT¹ signed a Memorandum of Intent (MOI) with the Information and Communication Media Development Authority of Singapore (IMDA) to accelerate the digitalization of global trade, and cooperated with multiple international partners to develop an interoperability framework, TradeTrust, to facilitate the development in different communities seamlessly and effectively exchange digital trade documents between them, thereby improving trade efficiency.

4.2.3 Business Segments Grew Unevenly

As a special kind of service trade, the development of digital trade is closely integrated with digital technology. From the perspective of business format, it can be divided into two parts: one is information technology service trade, including software, social media, search engines, communications, cloud computing, satellite positioning, etc., and the other is digital content service trade, including financial insurance, intellectual property, digital media, digital entertainment, digital learning, digital publishing, etc. Accordingly, digital trade can be further summarized simply as computer services, communication services, information services, financial services, and charges

¹ SWIFT=Society for Worldwide Inter-bank Financial Telecommunication.

for the use of intellectual property. Digital trade in Asia as a whole has a relatively stable growth. Asia's digital trade not only shows differences at the geographic area level, but also has certain differences in the specific format of digital trade. According to data from UNCTAD, computer services exports in Asia are the most prosperous, accounting for about one-third of the world's total exports, followed by communications services exports, which accounted for USD25.8 billion in 2019, accounting for approximately world exports. 28.85 percent of the total, the export growth rate reached 11.03 percent, and from a specific country point of view, India, China, Singapore, Japan, Indonesia, Australia and Thailand had good performance in the export of communication services. Compared to the export of computer services and communication services in Asia, Asia is slightly weaker in exports of intellectual property, information services, and financial services.

Intellectual property include trademark use rights, software, and audiovisual product use rights. It is an important area of digital trade. Asian exports in this area accounted for 19.50 percent of the world exports in 2019, and Asian growth in this area in 2019 is relatively slow, only 3.7 percent. Among them, the major contributors to the export of intellectual property royalties mainly exist in East Asia, with Japan, Singapore, South Korea and China as good performers in this field.

In terms of information service exports, digital trade relies on huge cross-border data flows. One of

the important manifestations is the export of information services. The information service export in Asia had a relatively low development level. In 2019, its exports accounted for only about 10 percent of the world's total, specifically USD4.8 billion. It can be seen that Asian digital trade still has huge development potential for growth in the information industry. South Korea's information service exports are far ahead in Asia. Singapore and Japan also have relatively good development, but the information service trade of other Asian countries all have yet to be improved.

In terms of financial services, Asia saw emergence of some means and applications to address digital finance and made good progress. Asia has long supported digital and automated transformation, and financial service exports in Asia are still worth looking forward to. For example, the trade finance network Voltron was renamed Contour and has chosen to base in Singapore and started commercial operations; Standard Chartered Bank invested Linklogis, China's blockchain supply chain platform. In addition, Asia saw increased use of digital payment. According to the World Payment Report 2020 released by Capgemini Research Institute, the Asia-Pacific region surpassed Europe and North America in 2019 to become the leader in non-cash transactions, reaching USD234.6 billion. It was expected to reach USD493.2 billion in 2023. Due to the increase in the use of smart phones, digital wallets and QR code¹ payments, China, India, and Southeast Asian economies will become the main drivers in the digital payment field.

Forces Behind Digital Trade in Asia²

(1) Advances in Digital Technology Lead Digital Trade in Asia

The development of digital trade requires strong digital technology support, and with the in-depth development of digital trade, digital technology also needs to be continuously updated and iterated. "TradeTech" refers to digital technology that is highly related to international trade. It will use the innovations of the fourth industrial revolution to promote the development of trade activities. It is highly related to digital trade. At present, TradeTech mainly includes blockchain and IoT, AI, financial technology (FinTech) and 5G³, etc. At present, digital technology in Asia continues to advance, and TradeTech has a good foundation for development. Asia has a strong digital innovation vitality. Research on technological innovation has always been a priority for countries such as Singapore, New Zealand, South Korea and China. Moreover, Asia has sufficient venture capital to support technological innovation and entrepreneurship. In terms of venture capital investment, China is second only to US in the world. At the same time, Asia's venture capital accounts for about

1 QR code=Quick Response code.

2 World Economic Forum (WEF). Mapping TradeTech: Trade in the Fourth Industrial Revolution. December 2020.

3 5G here means 5th generation wireless network.

half of the world's total. It is one of the most important sources and destinations for venture capital in the fields of virtual reality, autonomous driving, 3D printing, and AI. For example, China, Japan and South Korea are using Information technology (IT) to continuously create new products and services.

The ongoing development of TradeTech is leading the digital trade evolution in Asia. First of all, the Internet, as the base, has played an important role in the service revolution and promoted the development of digital trade in Asia, such as finance, logistics, and education services. In addition, the Internet has simplified trade and supply chains in the Asian region, greatly improving the efficiency of trade. The Singapore government has launched a networked trade platform, which aims to become a one-stop platform for logistics companies, suppliers, financial institutions, and customers to conduct observation and analysis, and manage tasks related to digital trade. Secondly, blockchain technology can greatly promote the digitization of trade finance. It can be used to make "smart contracts" to replace paper documents in trade finance, achieve real-time visibility, and provide secure, digital and decentralized document exchange platform, thereby reducing trade risk. Asian authorities are leading blockchain projects. The Hong Kong Monetary Authority (HKMA) launched the blockchain-based trade finance platform "eTradeConnect", which aims to digitize trade documents and digitize the trade finance process; the Monetary Authority of Singapore (MAS) participated in the development of a blockchain-based Global Trade Connection Network (GTCN), which aims to build a cross-border blockchain infrastructure to help reduce the cost of trade financing.

AI involves multiple cognitive technologies such as computer vision, natural language, and virtual assistants. It has great advantages in analyzing data and recognizing patterns. It can identify the legality of transactions in trade and detect trade flows, and will be widely applied in future digital trade. In terms of AI development and application, China has made the development of AI one of its important strategies; South Korea and Singapore are also promoting AI capacity building at the national level; Turkey has established an AI-based Easy Export platform to provide potential exporters proposals for the main target market, and then evaluate its export products; Singapore also launched the Trade AI Engine project with Standard Chartered Bank, which is a joint solution developed in cooperation with IBM¹, aiming to improve the efficiency of trade operations and strengthen operations control, thereby enhancing the customer's experience in handling trade documents, and the program is currently mainly implemented in Asia. Finally, 5G will also greatly promote the development of digital trade in Asia. The next-generation wireless network 5G is characterized by large-scale machine communication, enhanced mobile broadband, and reduced latency. The deployment of 5G will significantly improve the experience of online services. Greatly promote digitized service trade, bringing trade efficiency improvements to retail, entertainment, education, medical and other fields. Digital trade volume in Asia will further increase with the deployment of 5G.

(2) Digital Technology Companies Promote Digital Trade in Asia

Digital technology companies are driving the development of digital trade. Asia has a good foundation for nurturing digital technology companies. Sufficient venture capital in Asia has given birth to many digital technology companies, including a large number of technology unicorn companies, which have created many digital trade application scenarios. At the same time, thanks to the dense population in Asia, new digital technologies have a wide market space for promotion and development, and digital technology companies are more likely to survive. Importantly, compared with the government's role in promoting digital technology, enterprises are the main force of technological innovation driven by market principles. For example, according to the Asia-Pacific Digital Trade: 2020 and beyond, published by the Asian Trade Center, it reports R&D companies headquartered in Japan, South Korea, China's Taipei and Chinese mainland account for about 70 percent of the world's top AI patents, which has greatly promoted the development of digital trade in Asia.

Asian digital technology companies are constantly growing, and their role in digital trade is becoming more and more important. According to the 2019 Global Top 500 Unicorn Companies Development Report released by RUC, China, located in Asia, ranks first in terms of number of companies and valuation. From the perspective

¹ IBM=International Business Machines Corporation.

of Asia as a whole, Asian unicorn companies have risen strongly a total of 258 companies in Asia, accounting for 51.60 percent of the world's total, and their valuation exceeded the one-trillion-dollar mark, exceeding the sum of other regions. This is highly consistent with the gradual shift of the world's economic center of gravity to Asia. China, Japan, South Korea, and Singapore rank at the top of the most digitalized countries in the world. They have many outstanding digital technology companies and continue to build digital platforms for payment, logistics and finance. China's Alibaba is investing heavily in cloud computing technology; Baidu is also actively engaged in image and speech recognition technology, robotics, and big data research; Tencent is gradually establishing its own digital ecosystem, and its WeChat is the most obvious example, which promotes a wide range of commercial transactions and digital trade. Asian unicorn companies are constantly advancing the development of digital trade in Asia, and constantly linking Asia into a whole. These companies have a wide range of influence within Asia, and they continue to promote the development of trade within and between Asian countries through technological innovation. For example, Singapore's largest company by market capitalization is Sea, which provides three key Internet platforms, including Garena for online gaming and publishing, online shopping site Shopee, and a financial services department called SeaMoney, all in Asia with a vast market. It is a microcosm of an enterprise that promotes the development of digital trade in Asia.

4.2.4 COVID-19 Catalyzes Digital Trade

The COVID-19 pandemic has catalyzed the digitalization process in Asia and the world and has greatly promoted the development of digital trade. On the one hand, the sudden COVID-19 pandemic has caused severe physical isolation to social and economic activities, prompting economic industries to accelerate the "cloud relocation", and trade activities are no exception. In order to curb the spread of the pandemic, the travel restrictions and port closures adopted by various economies have forced people involved in global trade to work online and remotely and sign transactions in a virtual way, thus greatly increasing the volume of digital trade. On the other hand, digital trade is one of the most active sectors in the global economy. Digital freedom can minimize economic disruption and play a key role in responding to the COVID-19 pandemic. In addition to prevention and control the pandemic itself, in order to alleviate the economic shock caused by the pandemic, digital trade has gradually become the choice of countries and enterprises. And during the pandemic, companies saw huge digital trade opportunities, and the development of new business formats and new models can reduce the economic pain caused by the COVID-19 pandemic.

The pandemic's promotion of digital trade in Asia is mainly reflected in the digitalization of trade content and the digitalization of trade technology. In terms of the digitalization of trade content, the relevant blockade measures and trade interruptions caused by the pandemic have changed many long-standing business models, prompting Asian companies

to rapidly expand their digital capabilities and open up many new business models, which has accelerated the development of digital trade to a certain extent. Among the many business models spawned by the COVID-19 pandemic, remote online office, distance education, and telemedicine have grown the most. Digital technologies such as live broadcasts, online videos, and streaming media services enable people to work remotely in different countries, with greater security in the context of the pandemic. At the same time, this also provides more extensive service opportunities for some freelancers, such as writing, editing, legal, and graphic design service industries; during the pandemic, the demand for distance education has surged, and Asian countries have provided high-quality training and education digitally. This not only allows education to be maintained during the pandemic, but also greatly promotes the sharing of educational resources, thereby improving the overall quality of the labor force in Asia; finally, in the context of the proliferation of global public health problems, telemedicine has received great attention from Asian countries, and then welcome with rapid development. The WHO and Asian governments are actively encouraging telemedicine to slow the spread of the pandemic.

In terms of the digitization of trade technology, the "smart contracts" based on blockchain technology have further developed. The pandemic has made Asian countries deeply aware that the customs and all supply chain stakeholders urgently need to further digitize trade procedures and use more cutting-edge

digital technologies to respond the practical problems caused by the pandemic. By increasing the proportion of digital trade, more efficient connection and collaboration can be achieved, and the stability of trade data can be maintained; in addition, due to its technical characteristics, 3D printing has been faster in the physical partition caused by the pandemic. Although 3D printing has been growing relatively fast in the past 30 years, the application scenarios of 3D printing was not extensive enough, and its revenue accounted for a small proportion of global manufacturing revenue. The pandemic has increased the demand for 3D printing, especially the surge in 3D printing production of personal protective equipment. 3D printing can help solve the imbalance of supply and demand and supply chain delays caused by prevention and control measures, and has greatly promoted the development of digital trade during the COVID-19 pandemic.

4.3 Key Service Industry Analysis

This sections focuses on the interdependency analysis of the Asian tourism industry, as a key services industry. International tourist arrivals in the world were recorded 1.459 billion in 2019, reaching a historic peak and rising by 3.7 percent for 10 consecutive years of sustained growth. The Middle East (8.3 percent), Asia and the Pacific (4.1 percent) and Europe (3.9 percent) enjoyed above-average global growth (3.7 percent) in international tourist arrivals.

In line with the historical record of the international tourism market, international tourist arrivals in Asia and the Pacific also reached a record high of 361 million, ranking second only to the European region in the world. Southeast Asia arrivals increased by 7.7 percent, ranking first in Asia and the Pacific. The growth rate in South Asia was 7.5 percent, significantly lower than that in 2018 (18.8 percent).

International tourism receipts reached USD1487 billion in 2019, up 1.64 percent year on year. Asia and the Pacific receipts were USD444.6 billion, increased by 1.8 percent, accounting for 30 percent of global international tourism receipts. Northeast Asia was the only sub-region with negative growth in Asia and the Pacific, with a year-on-year growth of -2.71 percent in 2019. The growth rate in receipts of South Asia reached

7.77 percent, ranking first in Asia and the Pacific.

Below is an update of the indicators measuring the interdependence of the Asia and the Pacific tourist trade. The ten economies, as presented in the previous issues of this Report, were selected to demonstrate the interdependence of the Asian tourism trade. Figure 4.1 shows the dependence index which was constructed by calculating the ratio of international tourist arrivals from other Asian economies to the total international arrivals from the world. It is used to show the dependency of one economy's tourism market on Asia and the Pacific region.

In 2019, the dependence index of inbound tourism market for Hong Kong Special Administrative Region of China on Asia and Pacific surpassed that of Malaysia again, reaching 92.49, close to the 2018 level (See Table 4.5). The social unrest in Hong Kong Special Administrative Region of China had a huge impact on the tourism industry in 2019. Compared with 2018, the growth rate of international tourist arrivals in Hong Kong Special Administrative Region of China was -14.2 percent. The number of arrivals to Hong Kong Special Administrative Region of China from most Asian and Pacific economies mentioned in this section had a significant negative growth. Arrivals to Hong Kong Special Administrative Region of China from South Korea, Singapore, Malaysia and Taiwan Province of China had dropped by more than 20 percent, and arrivals from Chinese mainland had dropped by 14.2 percent. Only arrivals from Macao Special Administrative Region of China had positive growth.

From 2017 to 2019, the dependence index of Indonesia, Malaysia and Singapore on Asian tourism exports continued to drop (See Table 4.5). The decline of Indonesia was close to 10 percent. In 2019, Indonesia Ministry of Tourism and Creative Economy launched the tourism industry 4.0 policy to attract the millennials and road trippers. International tourist arrivals from Malaysia, Singapore and other countries had increased. However, due to the instability caused by natural disasters and the general election, Chinese tourists to Indonesia was 2.072 million in 2019, showing a negative growth, which was significantly lower than the 3.5 million expected by the Indonesian tourism department. On the contrary, South Korea's tourism dependence on Asian exports steadily increased at an annual rate of higher than 1 percent, reaching 83.36.

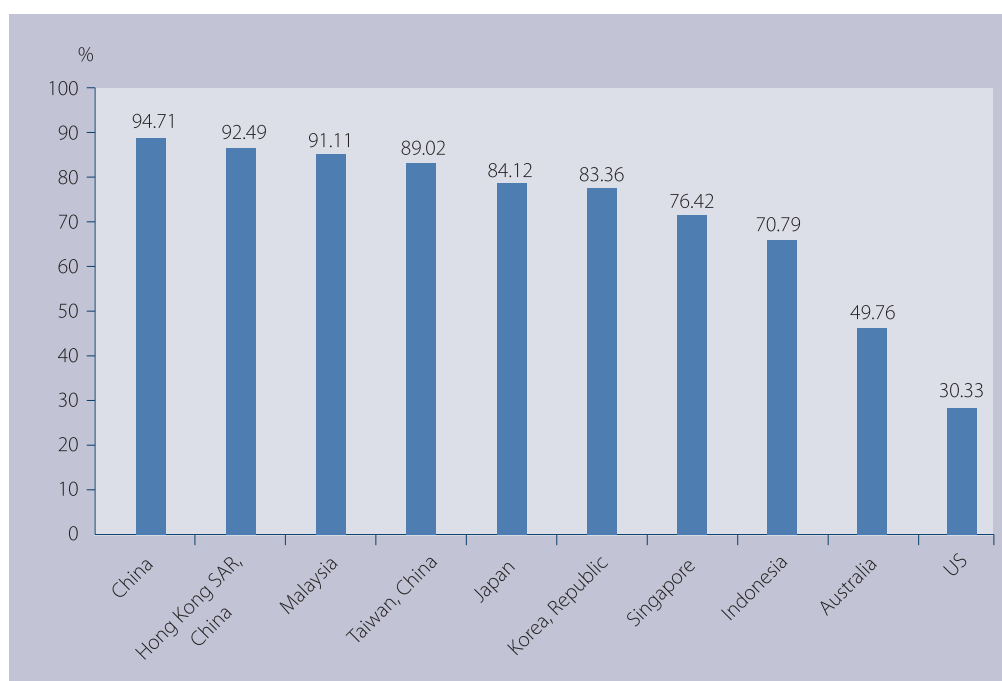


Figure 4.1 Tourism Dependence Index on Asia and the Pacific Region for Selected Economies in 2019

Source: Tourism official agency and statistical office of each economy.

Table 4.5 Tourism Dependence Index on Asia and the Pacific Region for Selected Economies, 2017-2019 (%)

No.	Economies	2017	2018	2019
1	China	92.45	91.25	94.71
2	Hong Kong SAR, China	92.01	92.62	92.49
3	Malaysia	92.55	91.24	91.11
4	Taiwan, China	89.26	88.97	89.02
5	Japan	84.00	84.60	84.12
6	Korea, Republic of	80.79	82.11	83.36
7	Singapore	77.47	76.90	76.42
8	Indonesia	79.44	71.48	70.79
9	Australia	51.63	49.73	49.76
10	US	31.53	29.77	30.33

Source: Same as Figure 4.1.

Table 4.6 Interdependence among Different Asian and the Pacific Economies in 2019 (%)

on B of A	CHN	MYS	HKG	SGP	KOR	JPN	IDN	TWN	USA	AUS
CHN (VF)	--	--	55.4	--	--	--	--	4.22	--	--
MYS (TF)	11.93	0	0	3.9	2.58	1.63	13.88	1.47	1.03	1.41
HKG (TF)	78.29	0.7	0	0.81	1.86	1.93	0.67	2.75	1.98	0.9
SGP (VF)	18.97	6.39	2.56	0	3.38	4.63	16.27	2.23	3.82	5.98
KOR (VF)	34.41	2.33	3.97	1.41	0	18.69	1.59	7.2	5.96	0.99
JPN (VF)	30.09	1.57	7.19	1.54	17.52	0	1.29	15.34	5.41	1.95
IDN (TF)	12.86	18.51	0.31	12.01	2.41	3.23	0	1.29	2.84	8.61
TWN (VF)	22.88	4.53	14.82	3.88	10.47	18.23	1.94	0	5.1	0.94
USA (TF)	7.01	0	0.38	0.46	5.69	9.29	0	1.24	0	3.27
AUS (TF)	15.38	4.02	3.26	4.73	2.98	5.18	2.23	2.09	8.88	0

Source: Same as Figure 4.1 and Table 4.5.

Note: “--” =figure or data not (yet) available; TF: international tourist arrivals at frontiers (excluding same-day visitors); VF: international visitor arrivals at frontiers (tourists and same-day visitors). China did not publish the data of different countries’ international tourist arrivals in 2019.

Table 4.6 shows the interdependence in international inbound tourists among different economies in Asia and the Pacific. There was no obvious change in the overall pattern of tourism export dependence among the economies. The neighboring economies are the main trading partners, which is the prominent feature of Asian tourism. International tourism market still maintained a high dependence on Chinese mainland. The dependence index of Hong Kong Special Administrative Region of China on Chinese mainland was 78.29. Malaysia's dependence on China set a new record, with nearly 12 percent of the inbound tourists came from Chinese mainland.

Focusing on the dependence of tourism export trade of seven economies on the Chinese market from 2017 to 2019 (See Figure 4.2), we could find the characteristics of “two rises and two falls”. The “two rises” refers to the increasing dependence index of Japan and Malaysia on the Chinese market; the “two falls” refers to the declining dependence index of Taiwan Province of China and US on the Chinese market. There were 1.2 million more Chinese tourists to Japan in 2019 than in 2018, at least partly due to

Japan's relaxation of visa conditions for Chinese tourists in 2019. In contrast, the number of Chinese mainland tourists to US dropped by 160 thousand in 2019 and continued declining. Violent crimes were increasing and many countries issued travel warnings to US in 2019. Moreover, trade frictions and frequent harassment discouraged Chinese tourists from US and tourism to US continued to cool down.

At present, the pace of COVID-19's global wreaking havoc has not slowed down, and each economy have adopted strict traffic control and restrictions on the flow of people. Under the “strictest international travel restriction order in history”, international tourism is facing unprecedented crisis, and its future is still uncertain. Taking the global air transport industry as an example, the report issued by the International Air Transport Association (IATA) pointed out that a net loss of USD118.5 billion was expected in 2020, with a 60.5 percent drop in passenger transport compared with 2019. The World Tourism Organization (UNWTO) pointed out that after the year in 2020, the global tourism industry would have dropped by 70 percent, back to the level of 1990.

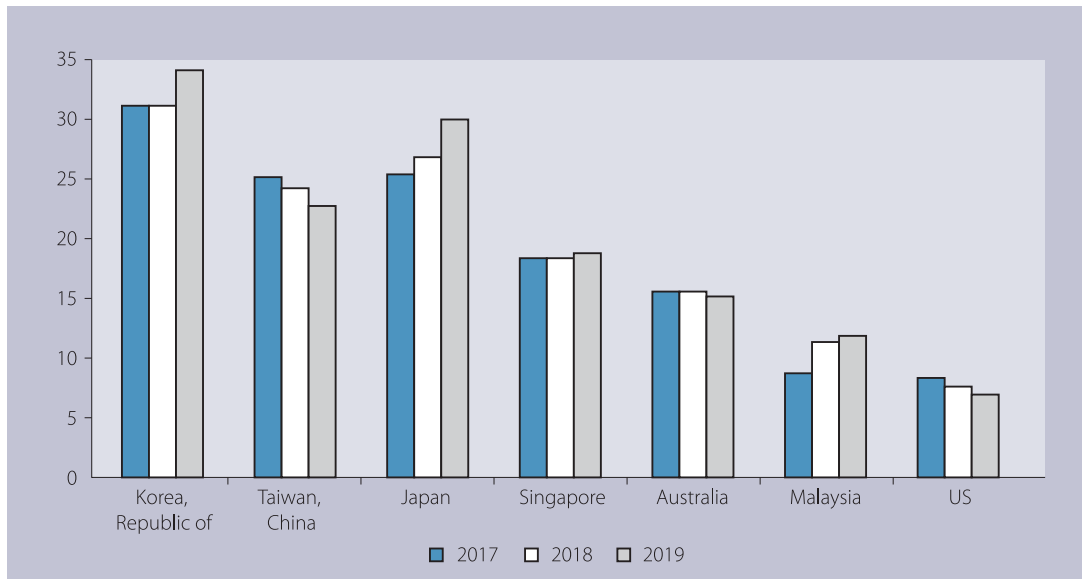


Figure 4.2 The Dependence Index of Tourism Exports on China for Each Economy, 2017-2019

Source: Same as the Figure and Tables above.

The UNWTO issued the document of One Planet Vision for A Responsible Recovery from COVID-19. It proposed to revive tourism responsibly and recommended six action routes, namely public health, social inclusion, biodiversity protection, climate action, circular economy, governance and finance. At the same time, the UNWTO Global Tourism Crisis Committee, together with the tourism department, formulated Global Guidelines to Restart Tourism to the unprecedented challenge of the

COVID-19. Asian economies are also actively seeking to return to the right path. For example, Bali, Indonesia, began to receive domestic tourists from July 2020; Maldives began to receive foreign tourists and launched the "one island, one resort" policy, emphasizing the low-density tourism environment; China resumed cross-provincial group tour; Singapore launched travel insurance of the COVID-19 for foreign tourists in November 2020, which was considered to be a key innovation for industry recovery.

Chapter 5

FDI Integration in Asia

The inflows and outflows of FDI in Asian economies¹ showed robust performance in 2019. Especially, the inflows to China, ASEAN and India set up new records, while the outflows from Japan also increased sharply.

Asia itself is still the main source of foreign investment into Asia. From 2016 to 2019, the Intra-Asia dependence for the inward FDI had remained over 50 percent for four consecutive years, while the intra-Asia dependence for the outward FDI fluctuated from over 50 percent in 2017 and 2018 to below 50 percent in 2019. Consequently, the self-dependence of Asia's direct investment (inflow plus outflow) declined.

5.1 Current Status of FDI Integration in Asia

5.1.1 High Intra-Asia FDI Dependence

An economy's FDI interdependence index measures the extent of one economy's dependence on another in the FDI flows (inflows plus outflows) and is calculated as the share of the FDI flows with a particular economy in the total FDI flows with the world. An economy's FDI dependence on Asia is calculated as the ratio of FDI flows (inflows plus outflows) with the Asian economies in the total FDI flows with the world. FDI self-dependence on Asia measures the share of intra-Asia FDI flows as a percentage of the global FDI flows of all the Asian economies based on available data.

Table 5.1 shows the interdependence indices of

FDI for the selected economies (called reporters) on the partners in 2019. For the bilateral cross-border investment, Chinese mainland and Hong Kong Special Administrative Region of China had the highest dependence on each other. Chinese mainland's dependence on Hong Kong Special Administrative Region of China was nearly 70 percent for its total FDI flows (inflows plus outflows) while the dependence for Hong Kong Special Administrative Region of China on Chinese mainland was 45 percent. Singapore played an important role in facilitating the investment flows of India and Indonesia, as the dependence index of India and Indonesia was 29.11 percent and 22.12 percent respectively on Singapore in 2019.

China, Indonesia and Hong Kong Special Administrative Region of China showed high FDI flow dependence on Asia. China's FDI activities and sources of funding mostly concentrated in Asia. In 2019, its dependence on Asia was the highest among all the Asian economies at 83.73 percent, roughly the same as that in 2018. The dependence of Indonesia and Hong Kong Special Administrative Region of China on Asia rose to over 60 percent in 2019. India's FDI dependence on Asia exceeded 40 percent. With the exception of Japan, the dependence of major Asian economies on Asia all exceeded 30 percent.

The intra-Asian FDI flows tended to have a higher dependence on Hong Kong Special Administrative Region of China, ASEAN and Chinese mainland, with the dependence index at 16.11

¹ In this Chapter, we include Australia and New Zealand for their close trade connections with Asian economies.

percent, 11.76 percent and 9 percent, respectively. Asia's self-dependence in FDI flows, i.e., the share of Asia's intra-regional FDI flows out of total FDI flows to and from the world, was 47.83 percent in 2019, declined 9 percentage points from 2018. The decrease in Asia's self-dependence in FDI was due to the sharp decline of the intra-Asia outward FDI. From 2018 to 2019, the interdependence index of the outward FDI

decreased from 63.42 percent to 44.78 percent (see Table 5.4). That is to say, Asia had diversified the destinations of its outward direct investment. In 2019, Asia's dependence in its FDI flows on US was almost the same as that on Chinese mainland, increasing sharply from a negative value in 2018, mostly due to the increase of investment by the multinational enterprises (MNEs) from Japan.¹

**Table 5.1 Interdependence of FDI (Inward plus Outward),
Selected Asian Economies in 2019 (%)**

on Partner of Reporter (X)	Y	PARTNER														
		CHN	JPN	KOR	HKG	IND	AUS	IDN	SGP	ASEAN	RCEP (15) ^g	RCEP (16) ^h	ASIA	EU	USA	ROW
REPORTER	CHN	0	1.60	2.22	67.93	0.20	0.91	0.81	4.51	6.53	11.28	11.48	83.73	6.48	2.36	7.42
	JPN	5.70	0	1.15	1.58	1.77	4.10	2.95	5.99	13.21	24.26	26.03	28.58	27.85	21.93	21.64
	KOR ^a	8.01	2.99	0	5.98	0.29	0.88	1.27	4.38	13.29	27.09	27.38	35.56	24.01	21.58	18.85
	HKG ^b	45.35	-0.22	3.35	0	0.93	0.58	1.80	6.22	13.56	62.60	63.53	64.40	14.98	4.15	16.47
	IND ^c	0.54	5.44	0.79	2.33	0	-0.04	0.03	29.16	29.81	36.55	36.55	41.24	24.40	9.22	25.14
	AUS ^d	3.93	4.95	0.58	0.07	0.38	0	0.87	4.15	6.23	33.39	33.76	35.39	39.34	1.09	24.19
	IDN ^e	16.96	12.31	3.05	8.16	0.19	1.00	0	22.12	27.50	60.96	61.15	70.18	24.44	2.93	2.46
	SGP ^f	4.99	9.59	1.15	6.23	1.19	-1.10	-0.57	0	6.93	21.98	23.17	30.24	3.31	54.08	12.36
	ASIA	9.01	3.46	1.37	16.11	0.94	1.35	1.14	6.72	11.76	29.09	30.03	47.83	21.34	9.13	21.70

Source: Based on IMF Coordinated Direct Investment Survey (CDIS) database, and the data from the Statistical Bureaus of the individual country or region.

Notes: Inter-dependence Index for FDI of X on Y (FDIIXY) = FDI_{XY}/FDI_{WX}, FDI_{XY} = FDI inflow from Y to X and outflow from X to Y, FDI_{WX} = total global FDI inflow and outflow of economy X.

^{a b} e FDI data of South Korea, Hong Kong Special Administrative Region of China and Indonesia are calculated on IMF CDIS FDI stock data, which is the FDI stock of 2019 minus the FDI stock of 2018.

^c FDI inflows to India are the data of FDI equity inflows.

^d FDI data of Australia in 2019 come from the FDI stock of 2019 minus the FDI stock of 2018 from Australian Bureau of Statistics, according to the average exchange rate of AUD1 = USD0.847 in 2019.

^f FDI data of Singapore in 2019 come from the FDI stock of 2019 minus the FDI stock of 2018 from Singapore Department of Statistics, according to the average exchange rate of SGD1 = USD0.743 in 2019.

^g RCEP (15) refers to the 15 countries that have signed RCEP, namely ASEAN 10 countries, China, Japan, South Korea, Australia, New Zealand.

^h RCEP (16) refers to the 16 countries involved in RCEP negotiations, namely ASEAN 10 countries, China, Japan, South Korea, Australia, New Zealand, and India.

5.1.2 Steady Dependence on Asia for Inward FDI

The dependence of inward FDI measures the extent

of one economy's dependence on another in the FDI inflows and is calculated as the share of the FDI inflows from a particular economy (the partner) as

¹ UNCTAD, World Investment Report 2020, June 16, 2020, p.65.

a percentage of the total FDI inflows from the world to the reporter.

Table 5.2 shows the interdependence index of inward FDI for the selected economies in 2019. Hong Kong Special Administrative Region of China remained as the largest source of FDI inflows into Chinese mainland, at nearly 70 percent. Reciprocally, Chinese mainland was also the largest source of FDI inflows into Hong Kong Special Administrative Region of China and Indonesia in 2019. Singapore was the largest source of FDI inflows into India and Indonesia. Japan and South Korea largely depended on investment inflows from US and EU.

The FDI inflows into US from China turned positive in 2019 from negative values in 2017 and

2018, indicating that bilateral investment began to recover. China's dependence in its FDI inflows from US was at a low level of 1.94 percent in 2019, remaining more or less intact from 2018.

In 2019, US was the dominant investor to ASEAN. The dependence of ASEAN on other ASEAN countries' investments had slightly declined for three consecutive years from 2017 to 2019. For the 15-member RCEP (15), including ASEAN, China, Japan, South Korea, Australia and New Zealand, the intra-RCEP dependence in the inward FDI was 27 percent, with a slight increase over 2018. Including India in RCEP (16), the intra-RCEP dependence in the FDI inflows was 29 percent in 2019, up by 2 percentage points over 2018.

Table 5.2 Interdependence of Inward FDI, Selected Asian Economies and US in 2019 (%)

on Partner of Reporter (Y)	of Reporter (X)	PARTNER														
		CHN	JPN	KOR	HKG	IND	AUS	IDN	SGP	ASEAN	RCEP (15)	RCEP (16)	ASIA	EU	USA	ROW
REPORTER	CHN	0	2.69	4.01	69.71	0.02	0.31	0.01	5.50	5.70	12.75	12.77	84.96	5.29	1.94	7.80
	JPN	5.14	0	2.25	5.62	-0.01	1.13	0.10	3.91	8.08	16.60	16.59	25.31	18.45	38.80	17.44
	KOR ^a	1.45	8.03	0	13.37	-1.77	-0.93	-0.11	1.94	2.94	22.71	20.94	40.29	54.64	10.52	-5.45
	HKG ^b	37.23	-13.62	13.32	0	2.52	3.50	-0.10	7.71	16.93	57.36	59.88	64.20	13.69	22.18	-0.07
	IND ^c	0.33	6.45	1.58	1.39	0	0.06	0.02	29.36	29.85	38.27	38.27	40.95	24.91	8.45	25.69
	AUS ^d	16.71	27.71	2.81	-7.15	0.99	0	0.07	13.20	15.74	60.01	60.99	57.63	53.88	-56.80	45.30
	IDN	16.82	15.28	3.79	10.25	0.21	1.23	0	23.08	29.14	66.28	66.49	77.78	12.21	3.51	6.50
	SGP ^e	2.24	8.44	2.22	8.00	1.41	-0.91	0.67	0	2.81	14.75	16.16	25.67	-18.46	75.16	17.62
	ASEAN	5.67	12.68	1.59	6.91	1.26	1.70	0.35	9.94	13.93	35.50	36.76	31.41	10.07	15.23	43.28
	RCEP (15)	4.07	8.47	2.54	28.84	0.54	1.64	0.16	7.71	10.09	26.98	27.52	52.83	13.45	7.55	26.17
	RCEP (16)	3.63	8.24	2.43	25.64	0.48	1.46	0.15	10.23	12.39	28.29	28.78	51.45	14.78	7.66	26.11
	ASIA	5.47	6.59	2.79	22.20	0.87	1.63	0.12	9.13	11.57	28.19	29.06	52.93	15.68	7.60	23.79
	USA	1.63	14.74	2.04	0.29	0.02	6.20	0.02	1.12	1.00	25.70	25.72	26.32	40.75	0	32.93

Source: Based on IMF CDIS database and the data from the Statistical Bureaus of the individual country or region.

Notes: Inter-dependence Index for FDI Inflows of X on Y (IFDIIXY) = IFDIXY/IFDIWX, IFDIXY = FDI inflow from economy Y to X, IFDIWX = total global FDI inflow to economy X.

The negative value means the negative value of FDI inflow from economy Y to X, i.e., net outflow from economy X to Y.

a b FDI data of South Korea, Hong Kong Special Administrative Region of China are calculated on IMF CDIS FDI stock data, which is the FDI stock of 2019 minus the FDI stock of 2018.

c FDI inflows to India are the data of FDI equity inflows.

d FDI data of Australia in 2019 come from the FDI stock of 2019 minus the FDI stock of 2018 from Australian Bureau of Statistics, according to the average exchange rate of AUD1 = USD 0.847 in 2019.

e FDI data of Singapore in 2019 come from the FDI stock of 2019 minus the FDI stock of 2018 from Singapore Department of Statistics,

according to the average exchange rate of SGD1 = USD 0.743 in 2019

The inward FDI dependence on Asia for an individual economy is calculated as the ratio of one economy's FDI inflows from Asia to the total FDI inflows from the world.

In 2019, Chinese mainland, Hong Kong Special Administrative Region of China and Australia reached new record levels in their FDI inflows dependence on Asia, as shown in Table 5.3. Indonesia retained its over 70 percent dependence on Asia in FDI inflows. Since

its peak attained in 2016, ASEAN's dependence on Asia in the inflows had declined significantly for three consecutive years. RCEP also reduced its dependence on Asia in the FDI inflows in 2019.

The ratio of FDI inflows to Asia from Asian economies (out of world total) decreased slightly from the peak of 54.65 percent in 2017 to 52.93 percent in 2019, still the second highest since the global financial crisis in 2008.

Table 5.3 Inward FDI Dependence on Asia (for Selected Asian Economies), 2013-2019 (%)

Economies	2008	2013	2014	2015	2016	2017	2018	2019
China	61.50	80.51	82.75	82.80	78.67	83.56	76.97	84.96
Japan	14.91	53.95	65.65	--	23.57	31.42	50.86	25.31
Korea, Republic of	34.90	51.60	35.70	--	51.72	40.55	80.11	40.29
Hong Kong SAR, China	43.56	14.86	42.58	18.20	34.49	39.74	36.02	64.20
India	18.11	27.74	33.84	44.14	44.66	35.28	16.26	40.95
Australia	22.77	30.64	20.30	20.30	25.28	41.80	29.04	57.63
Indonesia	61.31	--	76.88	51.41	72.87	72.73	79.32	77.78
Singapore	21.12	24.47	38.50	85.80	8.87	15.87	28.27	25.67
ASEAN	--	49.41	44.61	55.76	58.81	52.77	40.05	31.41
RCEP (16)	--	56.32	54.04	61.08	56.25	58.22	57.64	51.45
ASIA	38.28	41.86	38.01	43.86	51.78	54.65	52.02	52.93

Source: Based on IMF CDIS database and the data from the Statistical Bureaus of the individual country or region.

Notes: "--" = Not available.

5.1.3 Fluctuated Dependence on Asia for Outward FDI

The dependence of outward FDI (OFDI) shows the importance of one investment destination for an economy. The index is calculated as the proportion of one economy's OFDI to a particular destination (its partner) in its total outward direct investment to the world.

Table 5.4 shows the index of outward FDI dependence (OFDI) of some Asian economies in 2019. Chinese mainland and Hong Kong Special Administrative Region of China had injected more than 80 percent and 60 percent, respectively, of their direct investment into Asian markets, still lower compared with 2018. Hong Kong Special Administrative

Region of China was the favorite destination for the Asian investors, receiving 12.48 percent of Asia's outward investment in 2019. Chinese mainland had the highest dependence on Hong Kong Special Administrative Region of China in its outward direct investment as two thirds of its outward direct investment went to Hong Kong Special Administrative Region of China.

Some recent events have affected the FDI outflow dependence on Asia. In 2016, pessimistic expectations about China's macroeconomic stability had triggered massive capital flights and the government quickly counteracted to tighten up the controls on capital account transactions. China's outward direct investment dropped from USD196

billion in 2016 to a value of USD117 billion in 2019, far below the pre-2016 level. The second major factor is the Sino-US trade conflicts that broke out mainly in the second half of 2018. The abusive adoption of national security argument toward the Chinese investment by the Trump administration had had discouraged Chinese investors. The third factor is the political instabilities that occurred in Hong Kong

Special Administrative Region of China in 2019. As a center of reallocating Chinese mainland's investments, political turmoil in Hong Kong Special Administrative Region of China had a negative impact on the regional pattern of investments. Consequently, the OFDI dependence on Asia fluctuated violently during the period.

Table 5.4 Interdependence Index for Outward FDI, Selected Asian Economies in 2019 (%)

on Partner of Reporter (X) \ (Y)		PARTNER														
		CHN	JPN	KOR	HKG	IND	AUS	IDN	SGP	ASEAN	RCEP (15)	RCEP (16)	ASIA	EU	USA	ROW
REPORTER	CHN	0	0.49	0.41	66.14	0.39	1.52	1.62	3.52	7.35	9.79	10.18	82.49	7.68	2.78	7.04
	JPN	5.78	0	0.99	0.97	2.04	4.55	3.37	6.30	13.97	25.40	27.44	29.06	29.25	19.41	22.27
	KOR	9.36	1.95	0	4.45	0.72	1.25	1.55	4.89	15.43	27.99	28.71	34.58	17.68	23.87	23.88
	HKG ^a	47.02	2.54	1.30	0	0.61	-0.02	2.19	5.92	12.86	63.67	64.28	64.44	15.24	0.44	19.87
	IND ^b	1.73	-0.09	-3.52	7.47	0	-0.55	0.11	28.10	29.60	27.14	27.14	42.79	21.61	13.45	22.15
	AUS ^c	1.31	0.28	0.12	1.55	0.25	0	1.03	2.30	4.28	27.92	28.18	30.82	36.35	12.97	19.86
	IDN ^d	17.54	0.12	0.00	-0.40	0.11	0.06	0	18.18	20.77	39.11	39.22	38.92	74.67	0.57	-14.16
	SGP ^e	11.92	12.50	-1.53	1.77	0.64	-1.57	-3.70	0	17.32	40.21	40.85	41.76	58.18	0.95	-0.89
	ASIA	11.12	1.59	0.52	12.48	0.98	1.18	1.74	5.28	11.87	29.63	30.61	44.78	24.71	10.05	20.45

Source: Based on IMF CDIS database and the data from the Statistical Bureaus of the individual country or region.

Notes: Inter-dependence Index for outward FDI of X on Y ($OFDI_{XY}$) = $OFDI_{XY}/OFDI_{WX}$, $OFDI_{XY}$ = FDI outflow from economy Y to X, $OFDI_{WX}$ = total global FDI outflow from economy X.

The negative percentage means the negative value of FDI outflow from economy X to Y, i.e., net inflow from economy Y to X.

^{a b d} FDI data of Hong Kong Special Administrative Region of China, India and Indonesia are calculated on IMF CDIS FDI stock data, which is the outward FDI stock of 2019 minus the outward FDI stock of 2018.

^c FDI data of Australia in 2019 come from the outward FDI stock of 2019 minus the outward FDI stock of 2018 from Australian Bureau of Statistics, according to the average exchange rate of AUD1 = USD 0.847 in 2019.

^e FDI data of Singapore in 2019 come from the outward FDI stock of 2019 minus the outward FDI stock of 2018 from Singapore Department of Statistics, according to the average exchange rate of SGD1 = USD 0.743 in 2019.

5.2 Outlook of Cross-Border Investment in Asia

Compared with the global average, cross-border investment in Asian economies recovered faster. Due to the impact of COVID-19, global direct investments in 2020 and 2021 were expected to shrink

dramatically. Global FDI inflows in 2020 fell by 42 percent, while FDI flows to developing Asia only dropped by 4 percent, mostly due to a rebound of financial flows to Hong Kong Special Administrative Region of China after unrests resulted in exceptional low values in 2019, and to stable FDI inflows to China and India.¹ China's FDI inflows and outflows both

1 UNCTAD, Global Investment Trend Monitor, Issue 38, January 2021.

grew in 2020 and China has become the largest FDI destination in the world. The stable development of China's economy will further increase its investment in Asia and the world. The cumulative Chinese FDI to the manufacturing industry in South Korea from January to December climbed up 37.0 percent to USD1.8 billion and FDI commitment to the service industry jumped 29.2 percent to USD3.6 billion in 2020.¹ In 2020, the non-financial direct investment in 58 BRI countries by Chinese enterprises reached USD17.79 billion, an increase of 18.3 percent year-on-year.² It is expected that cross-border investment in Asian economies will maintain a relatively stable growth in the near future despite of negative impacts caused by difficulties and uncertainties such as the global spread of COVID-19 pandemic and the continuation of Sino-US trade conflicts.

The implementation of investment stabilization and facilitation measures in Asian economies is conducive to the growth of cross-border investment. China's Foreign Investment Law came into effect in January 2020, creating a more market-oriented, legalized and international investment environment for foreign investors and foreign-investment enterprises. In October 2020, Indonesia adopted Job Creation Act, which will attract more foreign direct investment by

simplifying laws and regulations and reducing cumbersome procedures. Other Asian countries, such as South Korea, Singapore, Malaysia, and UAE, have also adopted policies and measures to ease and facilitate foreign investment. The investment and trade facilitation measures implemented by China and some Asian countries will further improve the investment and business environment, making Asia a favored investment destination.

The strengthening of regional economic ties in Asian economies is also conducive to the growth of direct investment in the region. The signing and gradual implementation of RCEP will promote the adoption of unified economic, trade and investment rules in the region, further reduce the transaction cost in the region, and attract investment from within and outside the region. It will further help enterprises of member countries to carry out an efficient layout of supply chains and industrial chains in the region, and accelerate regional economic integration. In 2019, intra-RCEP (15) dependence in foreign investment is close to 30 percent (see Table 5.2), but it is still relatively low compared to other major economic partnerships and has significant room for further growth.³

1 MOTIE, Press Release, "FDI pledged to Korea reach USD20 billion six years in a row", January 12, 2021.

2 Ministry of Commerce of China, <http://www.mofcom.gov.cn/article/tongjiziliao/dgz/202101/20210103033292.shtml>, January 22, 2021.

3 UNCTAD, Global Investment Trend Monitor, Issue 37 (RCEP Special Issue), November 2020.

Chapter 6

Financial Market Integration in Asia

Financial integration is a key component of Asia's regional integration. As the Asian economy grows rapidly, trade, production, and investment integration in the region lays the cornerstone for the continuous integration of the regional financial industry; greater interconnectivity within that regional financial industry, in turn, fuels various economic and trade activities and promotes economic integration in Asia. At the same time, financial integration in Asia is highly relevant to financial globalization. Policy spillover from major reserve-currency countries, international financial centers' position and influence, and the global allocation of capital are leading to a convergence of global financial conditions, high correlation between the international financial markets, and more pronounced herd behavior in capital flows. Taking lessons from the Asian financial crisis, Asian countries have implemented sound macro-economic policies, strengthened macro-prudential management, and promoted the building and opening of financial markets. They have remained resilient during the global financial crisis and benefited from financial globalization.

In response to the COVID-19 pandemic, governments dramatically increased fiscal spending and central banks injected large amounts of liquidity into the market, resulting in a sharp rise in government debts and asset prices. Financial globalization is going forward as most economies around the world are coping with an environment of

low inflation, low interest rates and low growth and high debts and high asset prices. International stock markets are rising and falling in phase as financial markets show greater linkage with each other. The correlation of monthly returns between S&P 500 and FTSE 100, Nikkei 225, and CSI 300 were 0.82, 0.67, and 0.34 over the past twenty years, but had risen to 0.84, 0.85, and 0.64 over the past two years.

In the post-pandemic era, three influencing factors—the slow recovery of global trade and investment, great uncertainties in global trade rules and frictions, and potential warping of capital flows due to financial regulation changes in major economies such as US—may nudge financial globalization increasingly toward financial regionalization. Asia, Europe, and other regions have been prioritizing the development of local financial markets and connection of financial infrastructures, which may further reinforce financial integration.

This chapter examines the degree of financial integration in Asia from three aspects: financial market openness in Asia, monetary cooperation and financial infrastructure connectivity, and the role of international financial centers.

6.1 Financial Market Openness in Asia

This section analyzes Asia's financial market openness based on the cross-border financial market portfolios data¹ from the IMF's Coordinated Portfolio Investment Survey (CPIS).

¹ Including the debt of all countries and equity investments with less than 10 percent ownership, but excluding FDI and cross-border debt or equity investments in reserve assets.

Table 6.1 Capital Outflow under Global Portfolios, 2017–2019 (USD million, %)

Economies	Global Portfolios Investment (Outflows)						
	Stock			Flow			
	2017	2018	2019	Growth in 2018		Growth in 2019	
China	497,735	497,957	645,981	223	0.04%	148,024	29.73%
Japan	4,106,257	4,068,775	4,610,836	(37,482)	-0.91%	542,061	13.32%
Korea, Republic of	424,647	464,979	572,011	40,332	9.50%	107,032	23.02%
Southeast Asia	1,450,918	1,426,707	1,708,570	(24,211)	-1.67%	281,862	19.76%
Central Asia	64,015	60,675	70,358	(3,339)	-5.22%	9,683	15.96%
Western Asia	419,854	428,522	520,109	8,667	2.06%	91,587	21.37%
Southern Asia	7,323	9,582	5,630	2,260	30.86%	(3,953)	-41.25%
Asia Total	8,777,608	8,634,220	10,078,927	(143,388)	-1.63%	1,444,708	16.73%
US	12,391,814	11,282,286	13,125,226	(1,109,528)	-8.95%	1,842,940	16.33%
EU15	25,539,866	23,730,346	26,996,369	(1,809,520)	-7.09%	3,266,023	13.76%
Global Total	62,000,753	58,875,740	66,636,897	(3,125,013)	-5.04%	7,761,157	13.18%

Source: CPIS, compiled by the author.

Table 6.2 Capital Inflow under Global Portfolios, 2017–2019 (USD million, %)

Economies	Global Portfolios Investment (Inflows)						
	Stock			Flow			
	2017	2018	2019	Growth in 2018		Growth in 2019	
China	1,158,037	1,177,199	1,427,607	19,162	1.65%	250,408	21.27%
Japan	2,631,344	2,481,903	2,765,505	(149,440)	-5.68%	283,601	11.43%
Korea, Republic of	664,791	599,321	651,329	(65,470)	-9.85%	52,007	8.68%
Southeast Asia	1,006,325	862,760	956,123	(143,565)	-14.27%	93,363	10.82%
Central Asia	27,702	23,044	28,508	(4,658)	-16.82%	5,465	23.72%
Western Asia	434,293	428,309	502,585	(5,984)	-1.38%	74,276	17.34%
Southern Asia	628,883	571,869	635,766	(57,015)	-9.07%	63,897	11.17%
Asia Total	7,231,599	6,787,002	7,753,310	(444,597)	-6.15%	966,308	14.24%
US	14,592,613	14,404,142	16,485,171	(188,471)	-1.29%	2,081,029	14.45%
EU15	25,246,840	23,587,399	26,571,531	(1,659,442)	-6.57%	2,984,132	12.65%
Global Total	62,000,753	58,875,740	66,636,897	(3,125,013)	-5.04%	7,761,157	13.18%

Source: CPIS, compiled by the author.

According to CPIS, global portfolio investments totaled USD66.6 trillion in 2019, up 13.18 percent from 2018, reversing the global investment decline in 2018 caused by the global economic slowdown and trade frictions. Notably, foreign financial portfolio investment from Asian countries and to Asian countries grew by 16.73 percent (see Table 6.1) and 14.24 percent (see Table 6.2), respectively, both higher than the 13.18 percent growth of global portfolio investment.

Within Asia, Japan had the highest absolute increase in capital outflows of global portfolio

investments (USD542.1 billion); the highest relative increase (i.e., growth rate) went to China (29.73 percent), Korea (23.02 percent), Western Asia (21.37 percent), and Southeast Asia (19.76 percent). Of the USD966.3 billion of capital inflows into Asia, Japan and China contributed USD283.6 billion (up by 11.43 percent) and USD250.4 billion (up by 21.27 percent), respectively. Southeast Asia, Western Asia, Southern Asia, and South Korea also emerged as favorable destinations for global capital in 2019, with growth rates hitting 10.82 percent, 17.34 percent, 11.17 percent, and 8.68 percent, respectively.

Table 6.3 Global Portfolio Investment Flows in 2019
Sources of Global Portfolio Investments in 2019 (Dollar Amounts) (USD million)

From \ To	Asia	EU15	North America	Others	Total Investment Received
Asia	1,678,652.2	1,886,162.6	2,633,657.6	1,554,837.7	7,753,310.1
EU15	1,875,925.6	15,200,397.0	5,087,741.7	4,407,466.6	26,571,530.9
North America	3,257,084.8	6,233,523.6	2,391,271.5	6,583,411.5	18,465,291.4
Others	3,267,264.6	3,676,284.3	4,995,477.9	1,907,736.0	13,846,762.7
Total Investment	10,078,927.3	26,996,367.5	15,108,148.7	14,453,451.8	66,636,895.2

Sources of Global Portfolio Investments in 2019 (%)

From \ To	Asia	EU15	North America	Others	Total
Asia	22	24	34	20	100
EU15	7	57	19	17	100
North America	18	34	13	36	100
Others	24	27	36	14	100

Source: CPIS, compiled by the author.

Tabulating global portfolio investment flows in 2019 (see Table 6.3), we see that portfolio investments in Asia totaled USD7.75 trillion, of which USD1.68 trillion (22 percent) came from Asia itself, USD1.89 trillion (24 percent) from the EU15, USD2.63 trillion (34 percent) from North America (predominantly US), and USD1.55 trillion (20 percent) from the rest of the world. This

indicates that although North America and EU remained the leading investors in Asian financial assets—together accounting for 58 percent of the total—Asian investors also accounted for 22 percent of investments.

China is not only a beneficiary of financial cooperation between Asian countries, but also an

active contributor and leader. China is embracing greater financial openness by lowering the barriers to entry by foreign institutions and reducing or removing restrictions on foreign ownership ratio. With greater opening of its financial market in 2019, the

Chinese mainland accounted for a larger share (2.14 percent) of global investment than Hong Kong Special Administrative Region of China (1.15 percent), becoming a preferred destination for international capital.

Table 6.4 Foreign Portfolio Investments from China and into China, 2015–2019
China's Foreign Portfolio Investments (USD million)

	2015	2016	2017	2018	2019
Asia	80,964	119,099	188,160	187,803	270,161
EU 15	37,444	43,861	58,481	60,410	73,813
US	111,144	125,687	145,249	132,022	162,830
Total	280,830	359,659	497,735	497,957	645,981

Portfolio Investments in China (USD million)

	2015	2016	2017	2018	2019
Asia	491,041	457,765	572,387	541,895	616,907
EU 15	131,127	123,103	179,526	173,783	215,567
US	107,725	101,350	162,282	159,127	233,063
Total	817,520	833,451	1,158,037	1,177,199	1,427,607

Source: Same as Table 6.3.

As shown in Table 6.4 and Figure 6.1, foreign portfolio investments by China and into China have been generally increasing from 2015 to 2019. China's investment in rest of Asia is growing obviously faster than that in other regions.

Out of China's total foreign portfolio investment into the world (USD646 billion), 41.8 percent (USD270.2 billion) went to other Asian economies. And out of the world's portfolio investment into China (USD1.43 trillion), 43.2 percent (USD616.9 billion) were from other Asian economies. This demonstrates the importance of Asian financial market to China.

China's A-shares were officially included in an MSCI¹ index in June 2018. China has been speeding up its financial openness since 2019, through

initiatives such as launching the Shanghai-London Stock Connect. In market regulation, China has lifted the foreign ownership cap for banks and securities, futures, and fund management firms; eased requirements on shareholder qualifications such as asset size and years in operation; and granted foreign-funded firms national treatment in such areas as credit rating. According to the 2020 edition of the Special Administrative Measures (Negative List) on Foreign Investment Access to China, China has cleared its negative list on market entry to the financial industry. The ever-more open Chinese financial market is increasing its financial integration with Asia to promote financial globalization.

¹ MSCI=Morgan Stanley Capital International.



Figure 6.1 Trends of Foreign Portfolio Investments from China and into China, 2015–2019

Source: Same as Table 6.3.

6.2 Monetary Cooperation and Financial Infrastructure Connectivity in Asia

6.2.1 Monetary Cooperation in Asia

Asian economies have been enhancing monetary cooperation following the global financial crisis, including by ramping up currency swaps between central banks. In addition to the USD240 billion reserve pool for bilateral currency swap arrangement established under the Chiang Mai Initiative, the central banks of China, Japan, and India have all signed currency swap agreements with counterparts in other regional economies. In particular, Japan has

entered into approximately USD66 billion worth of currency swap agreements with countries including Singapore, China, Australia, and Thailand as well as local currency/USD swap agreements with countries like India. Since 2012, the Indian central bank has executed, with its counterparts in South Asian Association for Regional Cooperation (SAARC) member states, currency swap arrangements for domestic currencies, USD, and euro, at a total value of about USD2 billion. The PBOC has signed local currency swap agreements with 16 Asian countries including Japan, South Korea, Singapore, Mongolia, Qatar, Malaysia, Thailand, and Pakistan, with an aggregate value of more than RMB1,660 billion (USD240 billion).

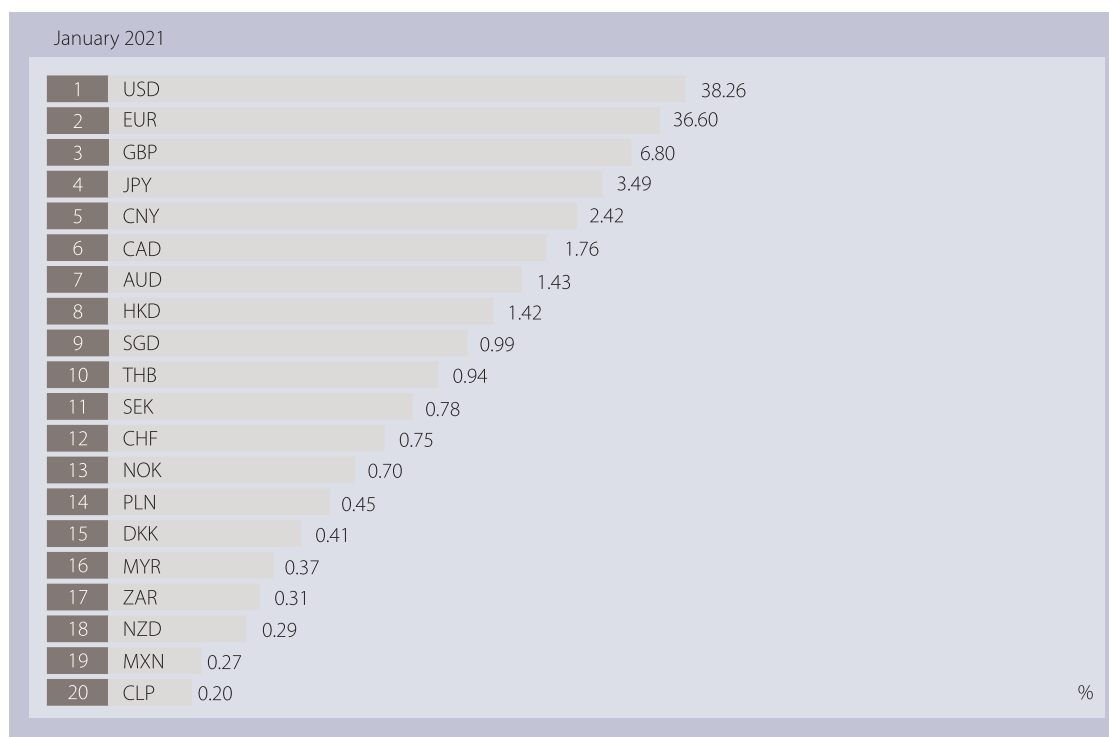


Figure 6.2 Ranking of Currencies in International Payments and Settlement

Source: SWIFT RMB Tracker, February 2021.

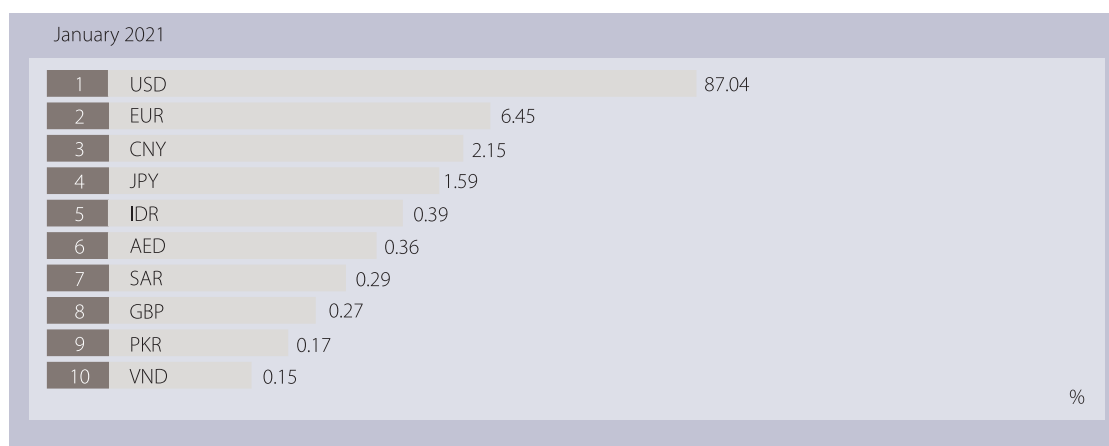


Figure 6.3 Ranking of Currencies in Global Trade Finance Market

Source: SWIFT RMB Tracker, February 2021.

Currency swap arrangements provide liquidity support to central banks in the balance of payments and promote the use of domestic currencies in the pricing and settlement of trade and investment among Asian economies. According to the latest data from SWIFT, in January 2021, five of the top ten

currencies for international payments and settlement were from Asia, namely Japanese yen (3.49 percent), Chinese yuan (2.42 percent), Hong Kong Dollar (1.42 percent), Singapore Dollar (0.99 percent), and Thai baht (0.94 percent) (See Figure 6.2). And of the top ten currencies in global trade financing, except for US

Dollar (87.04 percent), euro (6.45 percent) and British pound (0.27 percent), which ranked first, second, and eighth respectively, the remaining ones were all from Asian economies: Chinese yuan (2.15 percent), Japanese yen (1.59 percent), Indonesian rupiah (0.39 percent), UAE dirham (0.36 percent), Saudi Arabian riyal (0.29 percent), Pakistan rupee (0.17 percent), and Vietnamese Dong (0.15 percent) (See Figure 6.2).

6.2.2 Financial Infrastructure Connectivity in Asia

6.2.2.1 Market Connection

At their 2003 meeting, finance ministers of ASEAN+3 (members of the ASEAN plus China, Japan, and South Korea) committed to fostering an Asian bond market through infrastructure building. In 2010, a dedicated guarantee facility for domestic-currency bonds and an information website for Asian bonds were created along with efforts to harmonize bond market standards. In 2005 the BIS Asian Consultative Council,¹ in collaboration with the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), launched two Asian bond funds to promote the development of Asia's regional bond market.

In 2014, ASEAN initiated the ASEAN Banking Integration Framework (ABIF), with the goal that each member state would foster one or more Qualified ASEAN Banks (QABs) by 2020. In 2016 the Asia Region Funds Passport (ARFP), an initiative among Australia, South Korea, New Zealand, Singapore, Thailand, and the Philippines, started to be implemented with the support of the APEC.

In July 2015, Chinese Mainland and Hong Kong Special Administrative Region of China signed the Mutual Recognition of Funds agreement. In 2014, 2016, and 2017, Chinese Mainland and Hong Kong Special Administrative Region of China successively launched the Shanghai-Hong Kong Stock Connect, Shenzhen-Hong Kong Stock Connect, and Bond Connect to enable funds flow between the two capital markets. In January 2019, China issued the General Plan for Developing Guangxi Zhuang Autonomous Region into a Financial Gateway to ASEAN to enhance cooperation with ASEAN markets in securities, futures, and derivatives trading and promote connection of exchange markets and the mutual recognition of

stock exchange products.

In June 2020, PBOC, Monetary Authorities of Hong Kong Special Administrative Region of China and Macao Special Administrative Region of China launched the cross-border Wealth Management Connect scheme on a pilot basis in the Guangdong-Hong Kong-Macao Greater Bay Area. The scheme allows residents in the area to purchase qualified investment and wealth management products offered in Chinese Mainland, Hong Kong Special Administrative Region of China, and Macao Special Administrative Region of China through northbound and southbound trading.

To further attract international capital and promote mutual growth, in January 2017 a consortium composed of China Financial Futures Exchange, Shanghai Stock Exchange, Shenzhen Stock Exchange, Pak China Investment, and Habib Bank acquired a 40 percent stake in Pakistan Stock Exchange. In June 2017, the Shanghai Stock Exchange and Kazakhstan's Astana International Financial Centre Authority co-established the Astana International Exchange. Currently, the Abu Dhabi Global Market is working with stakeholders in China and UAE to jointly establish an international exchange that covers the Middle East and North Africa region. The proposed exchange aims to offer a wide range of instruments—stocks, bonds, securitized products, and derivatives—to global investors to facilitate local investment and financing by companies from both countries.

6.2.2.2 Cooperation on Payment Systems and Digital Currency

Official institutions and non-official enterprises in Asian countries have launched a variety of payment systems and services and are promoting regional payment and settlement interconnectivity. Among the major official cross-border payment systems in Asia are China's Cross-Border Inter-bank Payment System (CIPS), Singapore's Fast and Secure Transfers (FAST), the Singapore Quick Response Code (SGQR) jointly developed by the MAS and the Infocomm Media Development Authority, and the Unified Payments Interface (UPI) developed by the National Payments Corporation of India and regulated by the Reserve Bank of India. China's UnionPay is the largest bank-card organization in Asia in terms of network

¹ BIS=Bank for International Settlements.

coverage and card issuance volume. Alipay (China), Nium (Singapore), Paytm (India) and MOLPay (Malaysia) are the representative non-bank payment platforms in Asia.

Starting from 2020, the central banks of Asian countries have accelerated the development and implementation of their central-bank digital currencies (CBDC). The MAS's Project Ubin, now in phase 5, successfully linked up with Bank of Canada's Project Jasper in 2019, as a proof-of-concept for cross-border payment with CBDC. In January 2020 the HKMA and the Bank of Thailand jointly launched Project Inthanon-LionRock. Starting from March 2020, China's e-CNY project has been piloted in 11 areas in Chinese Mainland. In July 2020, the Bank of Japan released a research report which unveiled its CBDC research initiative. In February 2021 the Digital Currency Institute of PBOC, HKMA, the Bank of Thailand, and the Central Bank of UAE jointly launched the Multiple Central Bank Digital Currency Bridge (m-CBDC Bridge) project. The project aims to develop a proof-of-concept prototype and conduct research into distributed ledger technology (DLT) to enable 24/7 payment versus payment (PvP) settlement of cross-border transactions on CBDC pairs and facilitate foreign exchange in cross-border trades.

6.2.2.3 Infrastructure Financing Platforms and Institutions

To promote interconnectivity and infrastructure financing in Asia, since 2014, China, Hong Kong Special Administrative Region of China, and Singapore have set up the Silk Road Fund, the Infrastructure Financing Facilitation Office (IFFO), and Infrastructure Asia, respectively. December 2015 saw the creation of the Asian Infrastructure Investment Bank (AIIB) by 57 member countries, most of which are from Asia. This was followed up by the establishment of the Multilateral Cooperation Center for Development Finance (MCDF) in 2020. In 2018, the China Investment Corporation and five major Japanese financial groups including Nomura Securities and Daiwa Securities created the China-Japan Industrial Cooperation Fund, which invests in manufacturing, telecommunications, media, healthcare, and consumer companies in China, Japan, and third-party countries.

6.3 Role of Asian International Financial Center

This section explores the role of the major Asian financial centers in promoting financial integration in Asia. Financial centers can gather financial institutions and multinational corporations, attract a large number of financial talents and activate capital market transactions so that capital flow is promoted at a low cost and high efficiency. At the same time, talent, capital and technology resources form the large sale of financial industry. The outward diffusion constitutes the optimal configuration of regional financial resources and provides associated demand and capital spillover effect for economy of surrounding cities. For example, Shanghai, Beijing and Shenzhen of China attracted massive domestic and international capital, leading and forming the Yangtze River Delta, Beijing-Tianjin-Hebei and Pearl River Delta core city clusters; Hong Kong Special Administrative Region of China is always preferred as the city to go public for countries from various countries. Singapore is the portal for investment and financing in Southeast Asia; while Dubai becomes a window for international free trade of Middle East countries. It is through the agglomeration, diffusion and radiation of financial resources that international financial centers have advanced the financial integration of the Asian region. However, it is the connection and pivotal role to financial resources that makes the financial centers highly connected to the global capital markets. Changes in monetary, fiscal and financial regulatory policies outside Asia can have an impact on the development of financial markets in the region.

6.3.1 Six Asian Financial Centers Rank Top 10 around the Globe

In September 2020, Z / Yen and China Development Institute jointly released the 28th Global Financial Centers Index (GFCI 28). The Index ranked the world's 111 financial centers in terms of business environment, human capital, infrastructure factors, financial sector development and reputation. A total of 38 Asian cities were selected, accounting for 34.2 percent of the total. Among the top 10, 6 are from Asia, namely, Shanghai (3rd), Tokyo (4th), Hong Kong Special Administrative Region of China (5th), Singapore (6th), Beijing (7th) and Shenzhen (9th).

With respect to GDP volume (See Figure 6.4), in 2020, Tokyo ranked the top around the world with USD987.99 billion, nearly double of that of Beijing (USD523.23 billion) or Shanghai (USD560.88 billion), and 2.4 times of that of Shenzhen (USD410.14 billion), 2.8 times of that of Singapore (USD346.47 billion) or Hong Kong Special Administrative Region of China (USD346.76 billion).

Regarding the development speed, Beijing,

Shanghai and Shenzhen now are witnessing high speed with an annual average GDP growth rate of about 8 percent for the past 10 years; while Hong Kong Special Administrative Region of China and Singapore maintain the AAGR of about 3 percent-4 percent since 2010. Over the past decade, Tokyo has experienced a setback in its economy with GDP reduced from USD1.25 trillion in 2011 to USD987.99 billion in 2020.

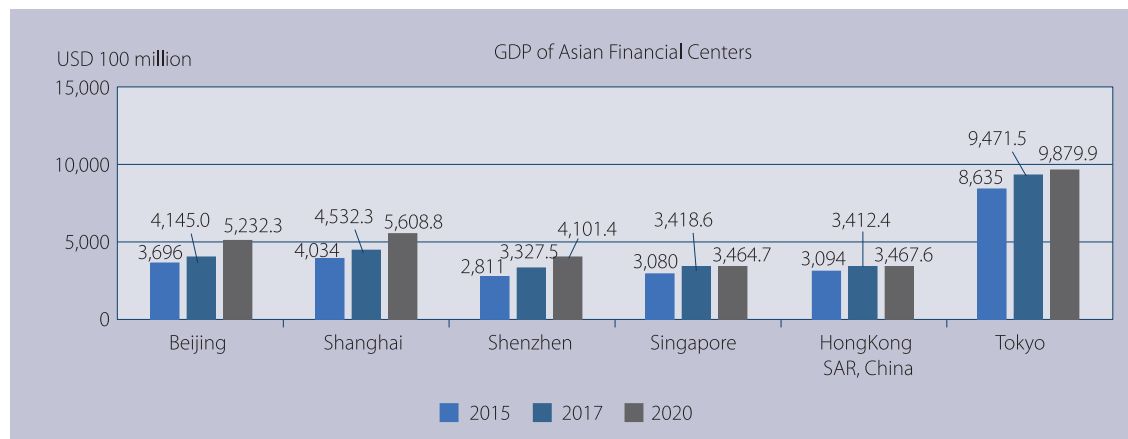


Figure 6.4 GDP of Asian Financial Centers¹

Source: Wind database, compiled by the author.

From the perspective of added value in the financial industry (See Figure 6.5), China realized the GDP of RMB101.5 trillion in 2020 and the domestic added value for the financial industry was RMB8.4 trillion, accounting for 8 percent in GDP; in addition, the proportion for Beijing, Shanghai and Shenzhen further rose to above 13 percent. Specifically, the value added of Beijing's financial sector accounted for 20.4 percent of GDP in the third quarter of 2020, up 6.7 percent from 2011, basically the same as that of international financial centers such as Hong Kong Special Administrative Region of China, New York and London.² The financial industry has gradually developed into the first pillar industry in Beijing, which

has a strong radiation and driving effect on the Beijing-Tianjin-Hebei region. In Shanghai, the value added of the financial sector accounted for 17.3 percent of GDP in 2019, up from 11.8 percent in 2011. In Shanghai, the added value of the financial sector accounted for 17.3 percent of GDP in 2019, up from 11.8 percent in 2011. In Shenzhen, the added value of the financial sector accounted for about 13 percent of GDP in the past decade, while in Tokyo, the added value accounted for about 8 percent. By comparison, the value added of the financial sector in Tokyo accounted for a relatively low proportion of GDP because its pillar industries were mainly retail trade, tourist catering and real estate.

¹ GDP for Singapore and Hong Kong Special Administrative Region of China in 2020 please refer to the Report forecast, Tokyo's GDP in 2020 is the data of 2019 for the city's data in 2020 was not available.

² The added value in the financial sector for Hong Kong Special Administrative Region of China reached 20.2 percent in 2019, that for London surpassed 18.6 percent in 2012, and 24.4 percent for New York in 2019.

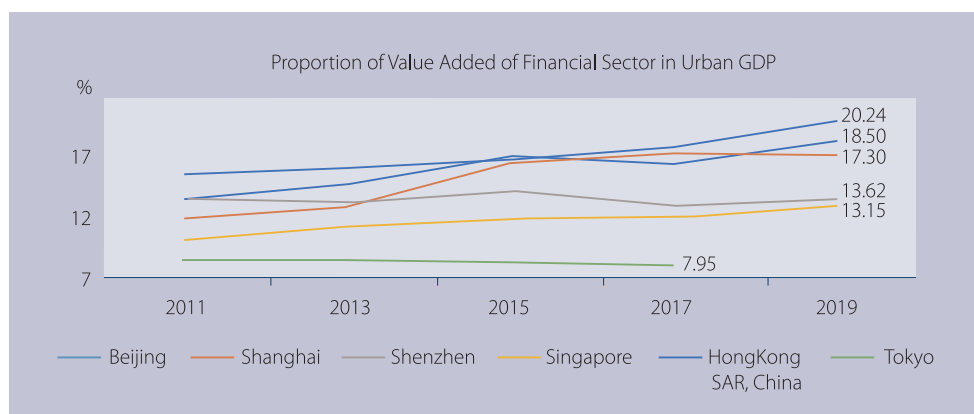


Figure 6.5 Proportion of Value Added of Financial Sector in Urban GDP

Source: Wind database, compiled by the author.

6.3.2 Financial Talents and Financial Institutions Agglomeration

"Competition in the financial industry is competition for talents". Asian financial centers have an obvious siphon effect on financial talents, and high-end financial talents have provided a continuous driving force for the development of the financial sector. According to the Human Capital Index 2020 released by the World Bank, Singapore, Hong Kong Special Administrative Region of China, Japan and South Korea were the top four in the world, while Macao Special Administrative Region of China ranked 7th and Chinese mainland ranked 45th. The index, which

measured years and quality of education, survival rates for children and adults and examination performance, shows that Asia's major economies lead the world in terms of education expense.

In 2019, there were 8.26 million people working in the financial industry on Chinese mainland, 645,000 in Beijing, 379,000 in Shanghai and 238,000 in Shenzhen, accounting for 15.3 percent of the total. There were more than 310,000 financial employees in Hong Kong Special Administrative Region of China, accounting for about 4 percent of the permanent population. Tokyo employed more than 400,000 people in finance in 2014 (See Table 6.5).

Table 6.5 Human Capital of Asian Financial Centers

City	Number of Financial Practitioners (10,000 people)	Permanent Resident Population in 2019 (10,000 people)	Human Capital Index in 2020 (ranking)
Beijing	64.5	2153.6	0.65(45)
Shanghai	37.9	2428.1	0.65(46)
Shenzhen	23.8	1343.9	0.65(47)
Hong Kong SAR, China	31.0	752.0	0.81(2)
Singapore	--	570.0	0.88(1)
Tokyo	40.0	1396.0	0.8(3)

Source: National Bureau of Statistics of China, Beijing Statistical Yearbook, Shanghai Statistical Yearbook and Shenzhen Statistical Yearbook, Census and Statistics Department and Singapore Department of Statistics, World Bank HCI, compiled by the author.

The agglomeration of financial institutions and transnational corporations has provided a large number of employment opportunities for financial

talents. In 2019, there were more than 1,600 licensed financial institutions in Shanghai, of which 517 were foreign financial institutions, accounting for 31

percent of the total. 758 regional headquarters of multinational companies and 475 foreign R&D centers were in Shanghai. One quarter of the Fortune Global 500 companies set up their regional headquarters in Shanghai, making it the city with the most headquarters of multinational companies in Chinese mainland. As of the first half of 2020, Beijing had more than 700 licensed financial institutions, accounting for 45 percent of the country's financial assets, and 27,500 state-level high-tech enterprises. There were more than 1,800 financial institutions of various types in Singapore, including 128 foreign banks, 191 insurance companies, 850 financial market service institutions and 287 asset management companies. Nearly one-third of the Fortune Global 500 companies had their Asian headquarters in Singapore, and more than 400 well-known multinational companies had their regional headquarters or offices in Singapore. Hong Kong Special Administrative Region of China had 2,800 insurance institutions, 225 banks and 8,900 other financial institutions in 2019.

Dubai and Abu Dhabi of UAE mainly rely on free trade zones to boost their financial sector. As of November 2020, UAE had over 44 free trade zones, most of which were located in Dubai and Abu Dhabi, with 58,600 companies operating in the zones. One of the most famous free trade zones is Dubai Multi Commodities Centre (DMCC), which has more than 10,000 enterprises with the total turnover exceeding 10 percent of Dubai's GDP. The Dubai International Financial Center (DIFC) of UAE is the largest and most developed financial center in the Middle East. 138 of the world's top 500 companies have registered their branches here, covering business in the Middle East and Africa.

Almaty and Astana (Nur-Sultan) are important financial hubs of the five Central Asian countries. Almaty is the financial center with the most financial resources in Kazakhstan, which is most convenient to develop business and attract investment. It is home to almost all of Kazakhstan's commercial banks, most of its insurance companies and pension fund companies. Astana is the capital of Kazakhstan. As of September 2020, Astana International Financial Center (AIFC) had attracted 545 companies from 42

countries around the world, with a cumulative investment of USD444 million and more than USD3.5 billion of intended investment.

Talent introduction and various preferential policies of local governments have created a good living and working environment for financial talents. For example, Hong Kong Special Administrative Region of China has carried out the Quality Migrant Admission Scheme to introduce top talents since 2006. Talents in financial and accounting service industries have always been more than 20 percent of the total quota of Hong Kong Special Administrative Region of China; Beijing permitted eligible venture and fund executives to directly acquire Beijing residency in 2018; Shenzhen enacted policies in February 2020 to support top financial talents to study and train abroad and fund college students to take internships in Shenzhen. Hong Kong Special Administrative Region of China has a personal income tax of up to 17 percent, while Singapore has a personal income tax of up to 20 percent, and there is no capital gains tax and no inheritance tax.

6.3.3 Stock Markets Are Sound and Rapidly Developing in Financial Centers

The stock exchanges located in East Asia and Southeast Asia, namely SSE, SZSE, HKEX, TSE, KRX and SGX are important venues for capital flows in the Asia-Pacific region and globally, leading the development of capital markets in Asia. Some regional exchanges in South Asia, Central Asia and West Asia, such as NSE and BSE, provide good financial support and guarantee for the development of the real economy in the regions. Under the 2020 pandemic, Asian major exchanges played a vital role in attracting global capital to Asia against the background of low interest rates and a weak dollar.

For listed companies, more than half of the global listed companies are located in Asia and the Asian proportion has increased from 42.6 percent in 2010 to 58.7 percent in 2020. China has the largest number of IPOs in the past ten years and three times number of new listed companies of US.¹ India, South Korea, Japan and Hong Kong Special Administrative Region of China were among the top 10 in the world in the past decade. In 2019, A-shares science and

¹ Over the past two decades, the number of listed companies in US has dropped from 8,000 to 4,000, while developed economies such as France, Germany and UK have followed the same trend.

technology innovation board was officially established, and A-shares pilot registration system was realized in science and technology innovation board and growth enterprise market board in 2020 so that IPO number of Shanghai Stock Exchange and Shenzhen Stock Exchange has reached 234 and 161 respectively. Driven by factors such as the return of China Concept Stock, IPO number of Hong Kong Stock Exchange in 2020 has reached 144. IPO number of Tokyo Stock

Exchange and South Korea Stock Exchange has reached 92 and 61. From the perspective of total quantity, numbers of listed companies in Tokyo Stock Exchange, Shenzhen Stock Exchange, South Korea Stock Exchange and Tokyo Stock Exchange are more than 2,000. Number of listed companies in Shanghai Stock Exchange and Singapore Exchange is 1,800 and 696 respectively.

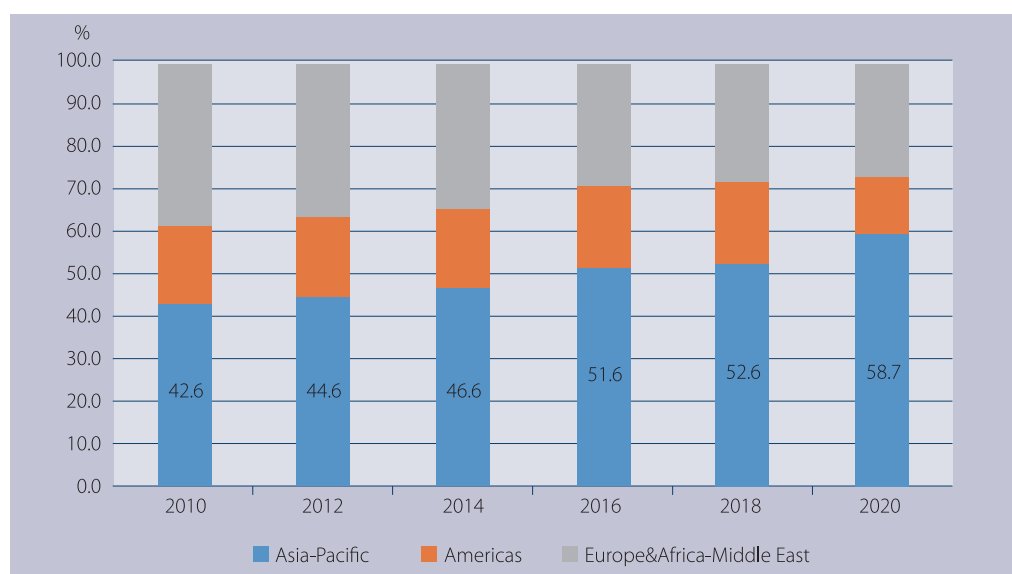


Figure 6.6 Proportion of Listed Companies in Asia

Source: World Federation of Exchanges.

In terms of fund-raising amount, SSE raised USD139.3 billion in 2020, an increase of 88.5 percent over 2019, ranking first in Asia (See Table 6.6). HKEX, SZSE, NSE, TSE and SGX ranked second to sixth respectively, all raising more than USD10 billion. The NSE in Mumbai was once the world's third largest exchange after the New York Stock Exchange and Nasdaq Stock Exchange. It raised USD32.4 billion in 2020, highlighting Mumbai's importance as the financial hub of South Asia.

In terms of total market value and trading volume, the trading volume of the SZSE reached

USD18.8 trillion and the market value USD5.2 trillion in 2020 with many blue-chip stocks on the main board. The SSE recorded a trading volume of USD12.8 trillion with a market value of nearly USD7 trillion. There were a large number of small-cap stocks actively traded on the SME and GEM boards. The total market capitalization of TSE and HKEX both exceeded USD6 trillion. However, the market capitalization and the annual trading volume of TSE were basically the same, while trading on the HKEX, which accounted for just half of its total market capitalization, had been sluggish.

Table 6.6 Data of Main Stock Exchanges in Asia in 2020

City	Stock Exchange	Listed Company Number	Number of IPOs	Fundraising Amount (USD billion)	Amount of Transactions (USD billion)	Total Market Value (USD billion)
Hong Kong SAR, China	Hong Kong Exchanges and Clearing Limited	2,538	144	95.9	3,145.2	6,130.4
Shenzhen	Shenzhen Stock Exchange	2,354	161	86.4	18,750.1	5,238.5
Busan	Korea Stock Exchange	2,340	61	4	5,221.9	2,176.2
Mumbai	National Stock Exchange of India	1,959	18	32.4	1,844.9	2,552.5
Shanghai	Shanghai Stock Exchange	1,800	234	139.3	12,830.5	6,976
Singapore	Singapore Exchange	696	6	10.8	271	652.6
Tokyo	Tokyo Stock Exchange	3,758	92	30	6,337.9	6,718.2

Sources: World Federation of Exchanges, compiled by the author.

Among other regional financial centers, the Kazakhstan Stock Exchange in Almaty has 122 listed companies with a total market capitalization of USD44.97 billion. Astana has more than 20 listed companies on the AIFC International Exchange (AIX), including CITICS, Renaissance Capital, CICC, SWHY, Wood, and Univer. It has attracted a total of USD291 million of equity funds, issued USD4.6 billion of private bonds and USD2.9 billion of public bonds. In 2019, the GDP of Almaty accounted for 20.9 percent of that of Kazakhstan. Financial institutions in Kazakhstan and neighboring countries such as the Commonwealth of Independent States (CIS) showed a tendency to gather in Almaty, with a greater influence.

Nasdaq Dubai in West Asia has 63 listed companies, with about 30 percent of its investors coming from the Middle East and Africa and another 30 percent from Europe. It has issued bonds worth USD10.1 billion for the Agricultural Bank of China (ABC), the Bank of China (BOC) and other Chinese companies. Dubai Mercantile Exchange (DME) is a major international energy futures and commodity exchange in Central Asia and the third largest crude oil benchmark in the world. The exchange trades an average of 5.97 million barrels of crude oil a day and more than 600 million barrels a year. It can transport

150,000-22 million barrels of Oman crude oil per month. The Dubai Gold and Commodities Exchange (DGCX) traded 20 million cleared contracts in 2020, with a notional value of more than USD826 billion and average daily asset turnover ranging from USD1.5 billion to USD4 billion.

6.3.4 Credit Business Scale of Financial Centers

In terms of credit scale (See Table 6.7), the total credit in Tokyo was close to USD200 billion, and that in Shanghai, Beijing and Hong Kong Special Administrative Region of China also exceeded USD100 billion in 2019, that in Shenzhen was USD86 billion and that in Singapore was USD51 billion. In terms of loan structure, the loans in Shanghai, Beijing and Shenzhen were mainly directed to the domestic market, with overseas loans accounting for about 2 percent-5 percent. Overseas loans in Singapore and Hong Kong Special Administrative Region of China accounted for 30 percent and 12 percent, respectively (See Table 6.8). With developed banking sectors, Singapore and Hong Kong Special Administrative Region of China have a large number of international banks, which are able to conduct credit business on a global scale and play an important role in international financing.

Table 6.7 Credit Scale of Financial Centers, 2015-2019

Credit Scale-All Loans (USD billion)					
	2015	2016	2017	2018	2019
Shanghai	850.1	903.3	993.8	1108.5	1155.5
Shenzhen	516.7	610.3	685.3	794.9	860.5
Beijing	932.5	959.9	1007.3	1066.3	1112.5
Singapore	425.9	430.0	484.3	490.2	510.4
Hong Kong SAR, China	972.1	1034.1	1192.1	1243.4	1329.6
Tokyo	1610.5	1848.1	1842.7	1938.8	--

Source: Statistics Bureau of Tokyo, CEIC database, Singapore Department of Statistics, Beijing Statistical Yearbook, Shanghai Statistical Yearbook and Shenzhen Statistical Yearbook, compiled by the author.

Table 6.8 Proportion of Overseas Loans of Financial Centers, 2015-2019

Overseas Loans/ Credit Scale (%)					
	2015	2016	2017	2018	2019
Shanghai	3.8	6.8	5.9	5.4	--
Shenzhen	5.7	5.6	5.1	5.1	4.1
Beijing	6.6	6.5	5.2	3.0	2.1
Singapore	12.8	12.7	12.6	11.8	12.0
Hong Kong SAR, China	30.3	29.7	30.1	29.4	30.0
Tokyo	--	--	--	--	--

Source: Statistics Bureau of Tokyo, CEIC database, Singapore Department of Statistics, Beijing Statistical Yearbook, Shanghai Statistical Yearbook and Shenzhen Statistical Yearbook, compiled by the author.

The credit/GDP ratio is the most correlated indicator in the Financial Centers Index 2020, which is usually used by scholars at home and abroad to measure the credit efficiency, so as to reflect the financial development of a city. By this measure, the credit/GDP ratio of Hong Kong Special Administrative Region of China exceeded 300 percent, the ratio of Shanghai, Shenzhen, Beijing and Tokyo all exceeded 200 percent, and that of Singapore was 137 percent (See Table 6.9). The BIS measured the ratio of non-financial

credit to GDP in its members each quarter. In the second quarter of 2020, it ranked Hong Kong Special Administrative Region of China, China, South Korea, Singapore and Japan, in descending order, all above the average for emerging economies and the world. India's credit/GDP ratio was 60 percent. It shows that the bank credit in the major financial centers is relatively developed, which creates a good business environment for the operation of enterprises.

Table 6.9 Credit of Financial Centers / GDP, 2015-2019

Credit/ GDP					
	2015	2016	2017	2018	2019
Shanghai	2.11	2.13	2.19	2.04	2.09
Shenzhen	1.84	2.08	2.06	2.17	2.21
Beijing	2.52	2.48	2.43	2.13	2.17
Singapore	1.38	1.35	1.42	1.31	1.37
Hong Kong SAR, China	3.14	3.22	3.49	3.44	3.64
Tokyo	1.87	1.91	1.95	2.01	--

Source: compiled by the author.

Table 6.10 Total Credit to the Non-financial Sector in the Country in Which the City is Located / GDP, 2019Q1-2020Q2

Economies	2019Q1	2019Q2	2019Q3	2019Q4	2020Q1	2020Q2
China	2.05	2.04	2.05	2.05	2.16	2.22
Hong Kong SAR, China	2.96	2.99	3.04	3.06	3.21	3.28
India	0.58	0.56	0.56	0.56	0.58	0.60
Japan	1.62	1.62	1.63	1.64	1.66	1.78
Korea, Republic of	1.89	1.92	1.94	1.97	2.01	2.07
Singapore	1.66	1.69	1.69	1.76	1.79	1.86
Emerging economies	1.43	1.43	1.40	1.44	1.44	1.54
Developed economies	1.61	1.64	1.62	1.65	1.64	1.74
All economies in the Report	1.54	1.56	1.53	1.56	1.56	1.66

Source: BIS database.

6.3.5 Booming Foreign Exchange Transactions and Wealth Management Business in Financial Centers

Global foreign exchange trading has been concentrated in several international financial centers for many years. According to a recent survey by the BIS, in April 2019, the foreign exchange trading of UK, US, Singapore, Hong Kong Special Administrative Region of China and Japan accounted for 79 percent of the global total (See Figure 6.7). Specifically, the foreign exchange trading of UK accounted for 43 percent of the global foreign exchange market, US accounted for 17 percent, Singapore and Hong Kong Special Administrative Region of China accounted for 7.7 percent and 7.6 percent, respectively, ranking the

third and fourth in the world. The Asia-Pacific region accounted for about 25 percent of the global total, and Hong Kong Special Administrative Region of China, Singapore and Tokyo accounted for about 20 percent of foreign exchange transactions. Singapore and Tokyo have seen a relative slowdown in growth since 2016, with their share falling slightly, and foreign exchange trading volume of Hong Kong Special Administrative Region of China has outpaced global growth. Exchange activities in Shanghai have significantly increased. Transaction amount has reached USD136 billion in 2019, increasing by 87 percent from 2016 (See Table 6.11). It became the worldwide eighth largest foreign exchange transaction center.

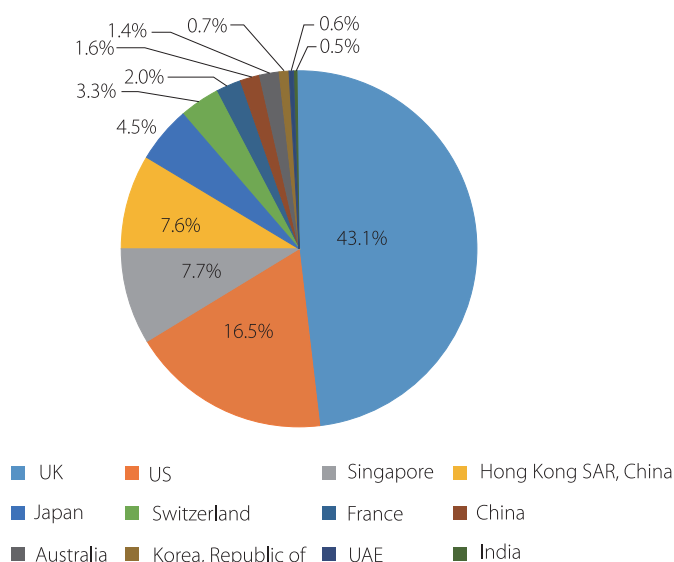


Figure 6.7 Proportion of Foreign Exchange Trading Volume of Major Economies in 2019

Source: BIS 2019 FX Survey.

Table 6.11 Foreign Exchange Trading Volume of Major Economies

Foreign Exchange Transaction Volume Statistics (USD billion)			
Economies	2013	2016	2019
UK	2,726	2,406	3,576
US	1,263	1,272	1,370
Singapore	383	517	640
Hong Kong SAR, China	275	437	632
Japan	374	399	376
Switzerland	216	156	276
France	190	181	167
China	44	73	136
Australia	182	121	119
Korea, Republic of	48	48	55
UAE	--	--	46
India	31	34	40

Source: BIS 2019 FX Survey.

Singapore is not only the largest foreign exchange trading center in Asia, but also the leading asset management and wealth management center in the Asia-Pacific region. As of October 2020, Singapore's assets reached SGD4 trillion, an increase

of 15 percent over 2019. 75 percent of the assets came from foreign countries and 69 percent were invested in the Asia-Pacific region. It is home to over 890 asset management institutions. In January 2020, the MAS launched the Variable Capital Company (VCC)

framework, which provides a flexible corporate structure for funds with both operational and cost advantages. It attracted more than 120 companies to register VCC within eight months. In addition, Singapore is Asia's leading private banking and wealth management center. Singapore ranked second in the world in the Deloitte International Wealth Management Centre Ranking 2018 and was the most favored offshore wealth center in Asia in a survey of private bankers. Singapore saw a fivefold increase in the number of family offices between 2017 and 2019. The loose investment environment and financial regulatory policies, abundant investment products and high-end wealth management talents have attracted high-net-worth individuals.

6.3.6 Asian Financial Center Leads the New Economy

By providing support to innovative companies with capital, talent, research and other important elements, Asia financial centers have created a good entrepreneurial ecology and become a fertile ground for breeding new economies and new business models. From the 2020 Hurun Global Unicorn List released in August 2020, 278 of the world's 586 unlisted companies (i.e., unicorns) founded after 2000 and worth more than USD1 billion were from Asia, accounting for more than half of the total number and

55 percent of the total value; more than 60 percent are located in Asian financial centers. Beijing has 93 companies, including Byte Dance, DiDi, Kuaishou and Jingdong Health. Shanghai has 47 unicorns, represented by companies such as Lufax and Ping An Medical Insurance Technology. Shenzhen also made the list with 20 companies, including WeBank, DJI Technology, UBtech, etc. Seoul has 9 such as Coupang and Woowa Brothers, Tokyo has 3 such as Preferred Network, and Singapore has 2 such as Trax.

Financial centers are the most important source of financing for unicorns, and the financial industry itself is the most likely area of breeding unicorns (with 31.0 percent). In terms of investment institutions, except for European and American VCs such as Tiger Fund, IDG Capital and Goldman Sachs, Asia's international financial centers have strongly supported the growth and operation of local VCs. Beijing has Sequoia Capital (China) and Hillhouse Capital, Shenzhen has Tencent Investment, Shanghai has Yunfeng Capital, Tokyo has Softbank and Toyota, Singapore has Temasek and Singapore Government Investment, and Qatar Investment Authority is located in Qatar. Financial services companies such as Ant Financial Services, Lufax, WeBank from China and Paytm founded in India rank top 20 of the global unicorns and are valued at over USD1.3 billion.

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The Report is divided into two parts, Part 1 is titled "Asian Economic Outlook" and is edited by Professor Zhang Yuyan. In terms of division of the writing, the Overview was written by Xu Xiujun, Chapter 1 was written by Feng Weijiang (1.1 and 1.2), Xiong Aizong (1.3 and 1.4) and Jia Zhongzheng (1.5), and Chapter 2 was written by Xu Xiujun (2.1 and 2.4), Jia Zhongzheng (2.2) and Xiong Aizong (2.3). Part 2 is on "Asian Economic Integration Progress", co-edited by Professor Lin Guijun and Vice President Cao Li, and the writing team included Cao Li (Overview), Pei Jiansuo and Zhang Meng (3.1), Deng Shizhuan (3.2), Wang Fei (4.1), Zhou Nianli (4.2), Sun Mengyang (4.3), Wang Chunrui (5), Liu Yan (6.1 and 6.2), and Tian Weixi (6.3). From the formulation to the conclusion of the Report, all members of the writing team worked diligently and cooperatively to ensure the smooth delivery of the Report with outstanding professionalism and enthusiasm.

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