3 Cross-Border Investment

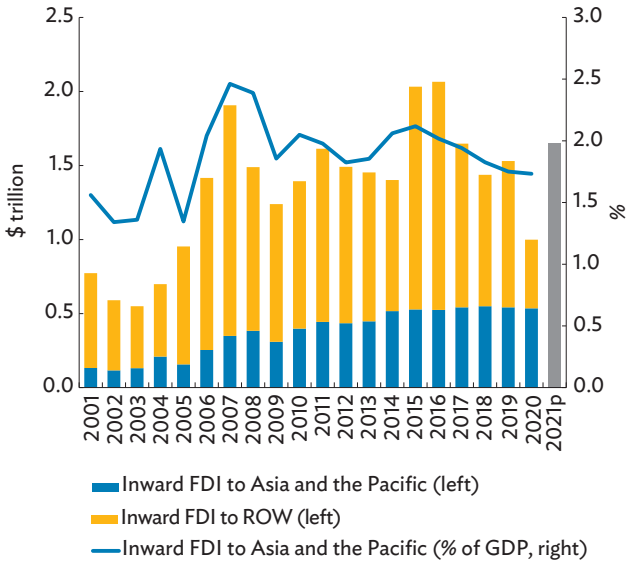
Recent Trends in Foreign Direct Investment

Inward Foreign Direct Investment

The COVID-19 pandemic continued to weigh on global inward investment activity in 2020; however, investment is expected to have picked back up in 2021 and to continue growing in 2022.

The ongoing global coronavirus disease (COVID-19) pandemic weighed down foreign direct investment (FDI) in 2020.[24] From $1.5 trillion in 2019, FDI slipped by over a third in 2020 to less than $1 trillion based on balance of payments data from the United Nations Conference on Trade and Development (UNCTAD).[25] This brings about a new trough for FDI, with 2020 estimates about 20% lower than in 2009, in the wake of the global financial crisis. Developed economies felt most of the pinch in 2020, as FDI in those economies fell by roughly 58%. Meanwhile, FDI to developing economies inched up by 8%. Despite the gloomy scenario for 2020, preliminary estimates for 2021 show strong recovery in global FDI, while prospects for 2022 remain generally positive (Figure 3.1) (UNCTAD 2022).

Figure 3.1: Total Inward Foreign Direct Investment—Balance of Payments



FDI = foreign direct investment, GDP = gross domestic product, p = preliminary, ROW = rest of the world.

Note: The bar for 2021p plots preliminary estimates for global inward FDI from the United Nations Conference on Trade and Development's Global Investment Trend Monitor, No. 40.

Sources: ADB calculations using data from ASEAN Secretariat. ASEANstats Data Portal. https://data.aseanstats.org (accessed July 2019); CEIC Data Company; Eurostat. Balance of Payments. https://ec.europa.eu/eurostat (accessed July 2021); International Monetary Fund. World Economic Outlook April 2021 database. https://www.imf.org/en/Publications/WEO/weo-database/2021/April (accessed April 2021); and United Nations Conference on Trade and Development. World Investment Report 2021 Statistical Annex Tables. https://worldinvestmentreport.unctad.org/annex-tables/ (accessed July 2021).

[24] For discussions on recent FDI trends, this chapter analyzes standard balance of payments data, as well as firm-level data by mode of entry (greenfield investment and mergers and acquisitions). For more information on the differences between the two and the data compilation methods used, please see Annex 3a.

[25] The UNCTAD World Investment Report excludes the Caribbean financial centers from its total estimate. These include Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, British Virgin Islands, the Cayman Islands, Curaçao, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Saint Maarten, and the Turks and Caicos Islands.

Globally, the United States (US) remained the largest recipient of FDI in 2020 (Table 3.1). However, foreign investment to this economy declined 40.2%. The People's Republic of China (PRC), the second-largest recipient, received $149.3 billion in FDI flows. Other Asian economies also proved to be attractive destinations for global foreign investment: Hong Kong, China (up 61.7% from 2019); Singapore (down 20.7% from 2019); and India (up 26.7% from 2019) were among the top-five destinations for FDI globally.

Among Asia and Pacific economies, foreign investors also flocked to Australia (down 48.6% from 2019); Indonesia (down 22.2% from 2019); Viet Nam (down 2.0% from 2019); Japan (down 29.5% from 2019); the Republic of Korea (down 4.3% from 2019); and Taipei,China (up 6.8% from 2019).

East Asia and Southeast Asia remained top destinations of global FDI in 2020, accounting for over 80% of Asia's total inward FDI. East Asia remained the largest recipient of foreign investment in Asia and the Pacific, with 55.7% of global FDI flowing into the region, while Southeast Asia received 25.4% of Asia's inward FDI. South Asia received 13.0%; the Pacific and Oceania, 4.4%; and Central Asia, 1.5%.

Intraregional inflows amounted to $287.9 billion in 2020, down 2.9% from 2019. Despite this, the intraregional share remained relatively high at 53.7%. East Asia benefited most, with 61.3% of intraregional flows entering the subregion in 2020. Southeast Asia followed, with roughly one-fifth of intraregional investment flowing into the region that year.

Despite strong recovery in global mergers and acquisitions (M&As) in the third quarter of 2020, overall firm-level activity suffered as COVID-19 heavily affected greenfield investment. Meanwhile, the first half of 2021 hints at recovery in greenfield investment and stability in M&A globally.[26]

Global greenfield activity took a back seat in 2020. While third- and fourth-quarter estimates showed some signs of recovery, global flows for the whole of 2020 were still more than $200 billion lower compared with 2019. The effects of the pandemic resulted in further decline, bringing total global greenfield investment to roughly half of that in 2018. Despite this, global greenfield activity showed signs of further revival in the first half of 2021, compared with 2020.

Table 3.1: Top 10 Destinations of Foreign Direct Investment—World and Asia and the Pacific ($ billion)

World	2020	2019	Asia and the Pacific	2020	2019
United States	156.3	261.4	People's Republic of China	149.3	141.2
People's Republic of China	149.3	141.2	Hong Kong, China	119.2	73.7
Hong Kong, China	119.2	73.7	Singapore	90.6	114.2
Singapore	90.6	114.2	India	64.1	50.6
India	64.1	50.6	Australia	20.1	39.2
Luxembourg	62.1	14.8	Indonesia	18.6	23.9
British Virgin Islands	39.6	39.1	Viet Nam	15.8	16.1
Germany	35.7	54.1	Japan	10.3	14.6
Sweden	26.1	10.1	Republic of Korea	9.2	9.6
Brazil	24.8	65.4	Taipei,China	8.8	8.2

Source: United Nations Conference on Trade and Development. World Investment Report 2021 Statistical Annex Tables. https://worldinvestmentreport.unctad.org/annex-tables/ (accessed July 2021).

[26] Firm-level estimates are computed using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets. The firm-level data presented in this chapter capture information on the creation of new assets (new greenfield FDI) and the purchase of existing assets (M&A).

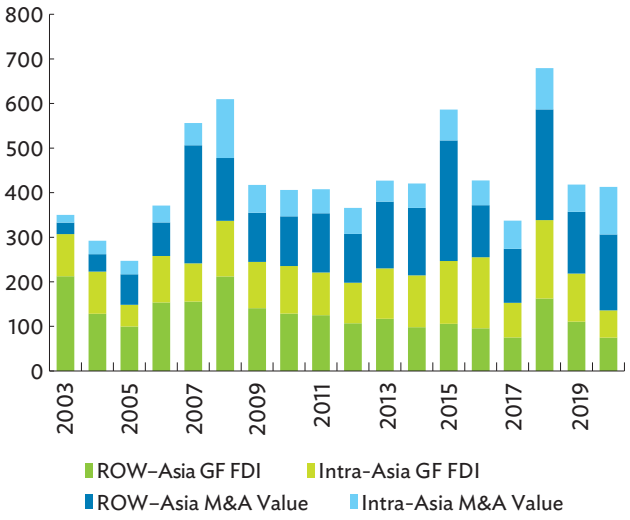
Much of the increase happened in North America and Latin America, cushioning declines in Asia and the Pacific and in the European Union plus the United Kingdom (EU+UK). In addition, stable M&A activity continued in the first half of 2021. Global inward M&A amounted to $688.0 billion in the first half (H1) of 2021, slightly higher than total M&A value for H1 2019. Large gains in M&A deals in the EU+UK (up $87.8 billion) were offset by losses in the Middle East (down $73.1 billion), North America (down $69.8 billion), and Asia and the Pacific (down $14.3 billion) (Annex 3b).

FDI in Asia and the Pacific declined in 2020, with greenfield investment falling 37.9%. Meanwhile, M&A recovered after a crunch in 2019. While declines in 2020 were more moderate than in 2019, some economies in Asia and the Pacific were heavily affected.

FDI in Asia and the Pacific weakened 1.3% in 2020, with noteworthy changes in composition (Figure 3.2). Greenfield FDI to Asia and the Pacific continued to drop, by 37.9% in 2020 after declining 35.4% the previous year. Given the sizable economic gains greenfield investment could bring to host economies through job creation, technological spillovers, and transfer of managerial skills among others, the recent trend calls for renewed attention by policy makers in the region to identify and ease potential bottlenecks in attracting greenfield investments. In contrast, M&A deal value recovered in 2020 after a crunch in 2019. The value of M&A deals rose 38.7% to $277.0 billion in 2020, compared with the 41.4% decline in 2019. Meanwhile, intraregional FDI dipped only slightly in 2020. Project and deal value declined 1.3% in 2020, as a 74.1% increase in M&A deal value cushioned the 43.6% decline in greenfield FDI.

Falling investments from the Cayman Islands, Indonesia, and Singapore were the largest sources of decline in FDI to Asia and the Pacific from 2019 to 2020. During that year, Indonesia's investment to Asia and the Pacific weakened by $13.5 billion to $10.8 billion, while Singapore's investment waned by $11.4 billion to $17.4 billion. The dip in total deal and project value is moderate in 2020 compared with 2019; however, some economies were still heavily affected. Viet Nam was most shaken by declining FDI to Asia and the Pacific in 2020, with foreign investment to the economy declining by $26.3 billion. Sri Lanka was hit the next, as its inward FDI fell by $23.7 billion in 2020, followed by the PRC (down $17.7 billion), Thailand (down $11.1 billion), and the Philippines (down $10.8 billion).

Figure 3.2: Foreign Direct Investment by Mode of Entry (Firm-Level Activity)—Asia and the Pacific ($ billion)



FDI = foreign direct investment, GF = greenfield, M&A = merger and acquisition, ROW = rest of the world.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

A decrease in project and deal volumes in 2020, coupled with some recovery in value in the latter half of the year, resulted in an increase in average project and deal sizes in Asia and the Pacific.

FDI in Asia and the Pacific dipped slightly in 2020; however, the average size of deals and projects mostly increased that year (Table 3.2). Overall, average project and deal size increased by 4.0%, from 2019 to 2020, while greenfield projects grew 2.4%. M&A deals were also larger in 2020, as average deal size increased by 17.7% from $41.2 million in 2019 to $48.5 million in 2020. By industry, deals and projects in the primary sector were smaller in 2020, as the average size declined by 53.5% for greenfield projects, by 9.1% for M&A deals, and by 69.4% in total.

Table 3.2: Average Project and Deal Size by Sector—Asia and the Pacific ($ million)

				Greenfield FDI			M&A			Total		
Year	GF	M&A	Total	MFG	PRI	SRV	MFG	PRI	SRV	MFG	PRI	SRV
2019	67.2	41.2	51.6	70.9	1,066.1	34.2	45.1	52.3	38.6	57.6	312.2	37.1
2020	68.8	48.5	53.7	91.6	495.5	41.5	64.4	47.5	41.3	73.4	95.4	41.3

FDI = foreign direct investment, GF = greenfield, M&A = merger and acquisition, MFG = manufacturing, PRI = primary, SRV = services.

Note: "Total" refers to the sum of greenfield capital expenditure and M&A deal values. Average project and deal size equals greenfield project value and M&A deal value in Asia and the Pacific divided by number of projects and deals.

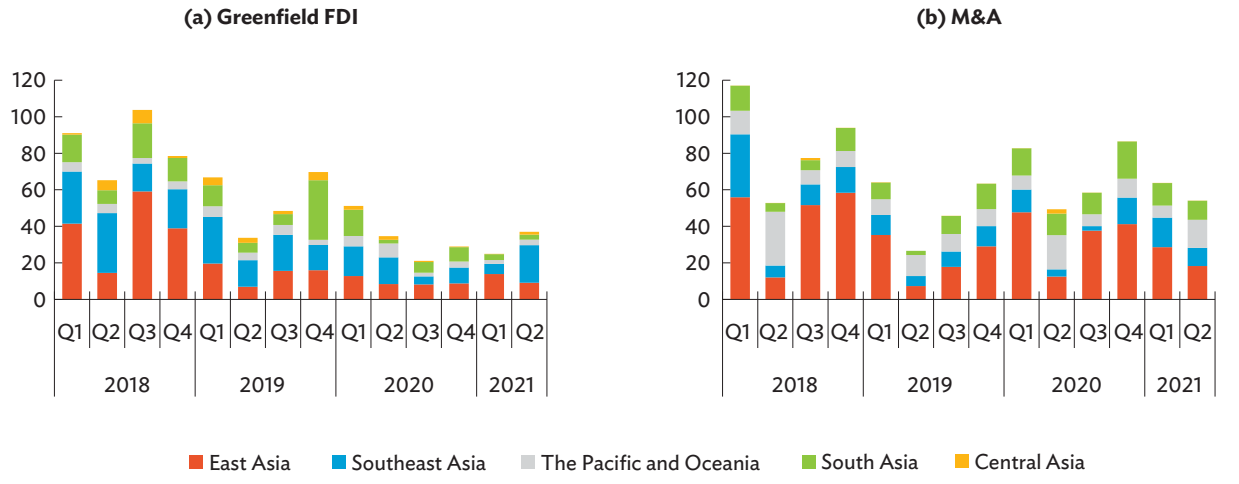
Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Like global trends, M&A to Asia and the Pacific started to recover in the third quarter of 2020, while greenfield FDI inched back up in the fourth quarter. Meanwhile, the first half of 2021 showed stability in M&A in the region.

Greenfield investment perked up in the second half of 2020, growing by 37.4% between the third and fourth quarters, due largely to gains in South Asia and Southeast Asia (Figure 3.3a). Despite this, greenfield investment into Asia and the Pacific was relatively modest in the first half of 2021. After sliding by 14.7% in the first half of 2020, greenfield FDI declined even further by 27.7% in the same period in 2021. The $1.8 billion increase in FDI to East Asia did little to cushion declines in the rest of the subregions, particularly substantial ones in South Asia (down $10.4 billion) and the Pacific and Oceania (down $8.3 billion). Economy-wise, Sri Lanka was most affected by decreased greenfield investment in Asia and the Pacific, with greenfield FDI into the economy declining by 95.6% in 2020 (Table 3.3a). Viet Nam (down 81.9%) and the PRC (down 42.7%) were also among those most affected.

M&As in Asia and the Pacific, in contrast, performed better overall (Figure 3.3b). M&A in the region increased by 18.4% in the third quarter and even further by 48.2% in the fourth quarter. East Asia benefited most from the increased deal activity. M&A in Asia and the Pacific continued to be relatively stable in the first half of 2021.

Figure 3.3: Quarterly Inward FDI into Asia and the Pacific by Mode of Entry—Firm-Level Activity, Q1 2018–Q2 2021 ($ billion)



FDI = foreign direct investment, M&A=merger and acquisition, Q = quarter.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed September 2021).

Table 3.3: Most Affected Asian Destinations of Changes in Total FDI

Destination	(a) Greenfield FDI 2020 ($ billion)	2019 ($ billion)	Change ($ billion)	Change (%, 2019 versus 2020)	Share to Asia's Total Decrease in FDI (%)
Sri Lanka	1.1	24.9	–23.8	–95.6	28.7
Viet Nam	5.1	28.0	–23.0	–81.9	27.7
People's Republic of China	25.9	45.3	–19.3	–42.7	23.3
Philippines	0.5	10.7	–10.2	–95.3	12.3
Bangladesh	0.7	5.7	–5.0	–88.0	6.0
Kazakhstan	0.8	5.4	–4.6	–85.0	5.6
Pakistan	0.1	3.5	–3.4	–97.5	4.1
Malaysia	6.4	8.9	–2.5	–28.0	3.0
Thailand	1.3	3.4	–2.1	–61.0	2.5
Uzbekistan	3.1	4.7	–1.7	–35.1	2.0
Destination	**(b) M&As 2020 ($ billion)**	**2019 ($ billion)**	**Change ($ billion)**	**Change (%, 2019 versus 2020)**	**Share to Asia's Total Increase in FDI (%)**
Japan	41.9	7.2	34.7	479.3	44.9
India	58.3	34.7	23.6	68.2	30.6
Hong Kong, China	31.6	14.1	17.5	124.0	22.6
Singapore	20.8	9.3	11.5	123.3	14.9
Australia	39.4	32.5	6.9	21.1	8.9
Azerbaijan	2.4	0.0	2.4	...	3.0
People's Republic of China	57.4	55.8	1.6	2.9	2.1
Malaysia	3.1	2.7	0.4	16.1	0.6
Papua New Guinea	0.5	0.2	0.3	183.5	0.4
Taipei,China	3.3	3.2	0.1	2.2	0.1

FDI = foreign direct investment, M&A = merger and acquisition.

Notes: For shares to Asia's total increase or decrease in FDI, some values may be greater than 100 as economy-level changes may be largely positive or largely negative. When summed, all the economy-level changes would equal Asia's overall change, and percentages would total 100%.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Deals amounted to $117.8 billion in that period and—though 11% lower than deal values recorded in the first half of 2020—hints at continued recovery, with levels in that period almost 30.0% higher than that of the first half of 2019. Japan benefited most from the increased deals in Asia and the Pacific (Table 3.3b). The economy attracted $41.9 billion in deals in 2020, more than five times as much as it did in 2019. Meanwhile, India and Hong Kong, China also attracted more deals in 2020, with M&As in India growing by 68.2% and those in Hong Kong, China doubling between 2019 and 2020.

Asia's primary sector was hit most in 2020, with a 75.8% decline in greenfield investments. On the flip side, M&A in the manufacturing sector featured the strongest growth, increasing by 51.0%. Overall, services and manufacturing showed more resilience in 2020.

Asia's sectoral data confirm global trends observed in FDI. On the one hand, greenfield investment, which is typically aimed at input and labor-intensive sectors, declined in all three economic sectors in 2020.

The primary sector suffered the largest loss and decreased by 75.8%, followed by a 28.6% loss in manufacturing, and a 20.2% decline in services (Figure 3.4a). On the other hand, M&A deals recovered in all sectors in 2020, with manufacturing seeing the largest growth (51%), followed by primary sector (36%) and services (31%). All modes of entry considered, total investment in Asia's primary sector amounted to $23.2 billion, a 61.9% decline between 2019 and 2020. In contrast, total FDI in manufacturing to the region grew by 3.6% in 2020, while total FDI in services rose by 14.4%.

At the economy level, Sri Lanka was most affected by the decreased FDI in the primary sector (Annex 3c). Investment in the economy's primary sector slipped to only $145.2 million in 2020, a 99.4% decline from the previous year. Meanwhile, Japan benefited from strong investment into the manufacturing sector, reaching $35.7 billion, four times larger than in 2019. In the services sector, FDI increased most in India, going from $25.6 billion in 2019 to $59.7 billion in 2020.

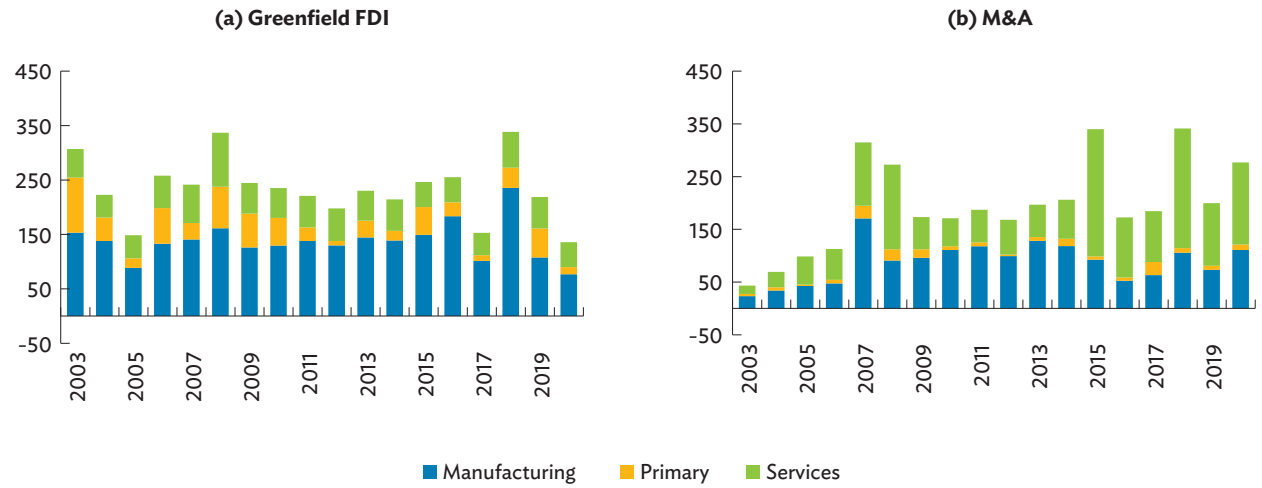
Intraregional sectoral data paint a similar picture, with greenfield FDI declining and M&A deal values recovering in all sectors. Intraregional greenfield FDI suffered most in the primary sector, where investment declined 89.5% compared with 2019. In contrast, intraregional M&A in the primary sector totaled $4.6 billion in 2020, roughly 2.6 times the level observed in 2019.

Jobs created by greenfield investment continued to decline in 2020, affecting the primary sector most.

Apart from lower levels of greenfield FDI, the decline in greenfield projects also resulted in lower job creation in Asia and the Pacific (Figure 3.5a). After falling by 29.7% in 2019, jobs created by greenfield FDI in the region continued to plunge in 2020. This represents a 44.9% deterioration compared with the estimated 625,470 jobs created by greenfield projects in 2019.

Greenfield projects from the US became the largest source of decreased job creation in Asia and the Pacific in 2020. After generating roughly 146,000 jobs in 2019, US greenfield projects created 67,000 jobs less in 2020. Jobs created by greenfield projects from the PRC also declined significantly in 2020. On the recipient side, India, the PRC, and Viet Nam were most affected by the decreased greenfield job creation in Asia and the Pacific, with jobs generated by greenfield projects in those economies decreasing by 179,000 in 2020.

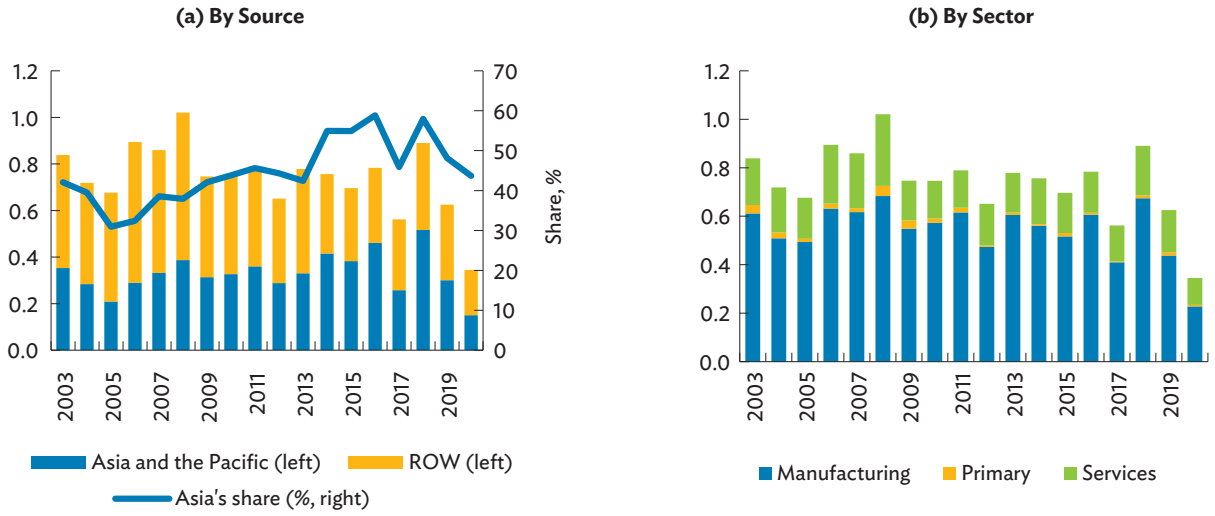
Figure 3.4: Total Inward Foreign Direct Investment to Asia and the Pacific by Sector—Firm-Level Activity ($ billion)



FDI = foreign direct investment, M&A = merger and acquisition.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Figure 3.5: Inward Greenfield FDI Job Creation—Asia and the Pacific (count, million)



FDI = foreign direct investment, ROW = rest of the world.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Together, these economies accounted for 63.7% of the total decline in Asia's job creation due to greenfield FDI.

Greenfield jobs in Asia and the Pacific declined across all economic sectors in 2020 (Figure 3.5b). While relatively small, Asia's primary sector was most affected, with jobs created by greenfield investment in that sector sliding by 53.6%. Job creation in the manufacturing sector was also negatively impacted, falling by a further 48.0% in 2020 after declining by 35.1% in 2019.

Outward foreign direct investment

As with global inflows, the persisting effects of the COVID-19 pandemic negatively affected global outward investment in 2020, based on balance of payments data.

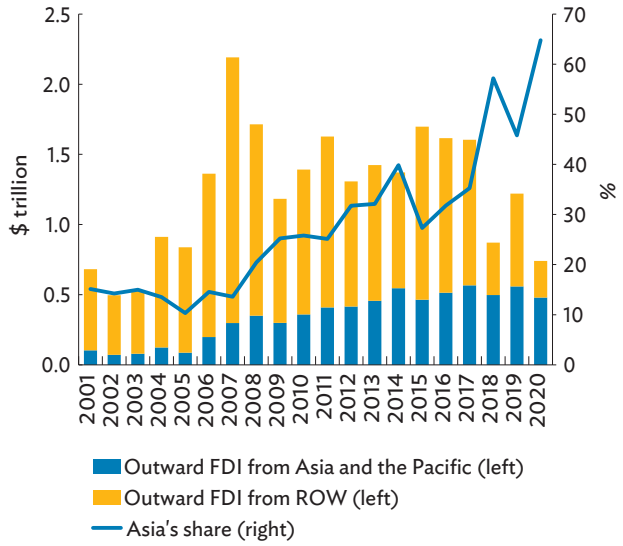
Global outward FDI also decreased in 2020, based on UNCTAD's balance of payments data. FDI outflows amounted to $739.9 billion in 2020 globally, a 39.4% decline from the previous year's $1.2 trillion (Figure 3.6). The dampened global economic activity due to COVID-19 resulted in the gloomy outturn. Non-Asian investors seemed to take a more cautious stance, as foreign investment from these economies declined by 60.6%. Meanwhile, investment from Asian economies slid by 14.2% from 2019. Globally, Asia and the Pacific emerged as the leading investing region worldwide, accounting for nearly 65% of global outward investment.

Both globally and in Asia and the Pacific, the PRC emerged as the largest investor in 2020, followed by Luxembourg and Japan (Table 3.4). Investment from these three economies accounted for half of the total outward investment in 2020.[27] Among Asian economies, Hong Kong, China; the Republic of Korea; and Singapore were also among the top investors from the region. Together, the top-five Asian investors accounted for 86.7% of Asia's total outward investment.

Within the region, annual outward FDI from East Asian economies experienced the largest fall, notably from Japan. FDI from Southeast Asia also dipped in 2020, largely due to drops from Singapore and Malaysia. Both South Asia and Central Asia experienced moderate dips in outward FDI.

[27] Investments from Luxembourg and Hong Kong, China, as well as similar financial centers, may be from another counterparty.

Figure 3.6: Global Outward Foreign Direct Investment by Source—Balance of Payments



FDI = foreign direct investment, ROW = rest of the world.

Source: United Nations Conference on Trade and Development. World Investment Report 2021 Statistical Annex Tables. https://worldinvestmentreport.unctad.org/annex-tables/ (accessed July 2021).

Based on global firm-level data, outward activity shows recovery in the third and fourth quarters of 2020 for greenfield FDI and for M&A.

Firm-level data show that global outward greenfield investment recovered in the third and fourth quarters of 2020, mainly through investments from North America, Latin America, and the EU+UK. Increased outward greenfield investment ushered in the first half of 2021. Meanwhile, M&A outflows saw stronger growth than greenfield projects during this period, outpacing levels recorded during the same quarters in the previous year. During the first half of 2021, a decline in deals from Asia and the Pacific by $119.3 billion resulted in lower M&A investments globally, but still close to the $391 billion quarterly average for M&A since 2018 (Annex 3d).

Quarterly data show an uptick in greenfield investments and M&A from Asia and the Pacific in the fourth quarter of 2020.

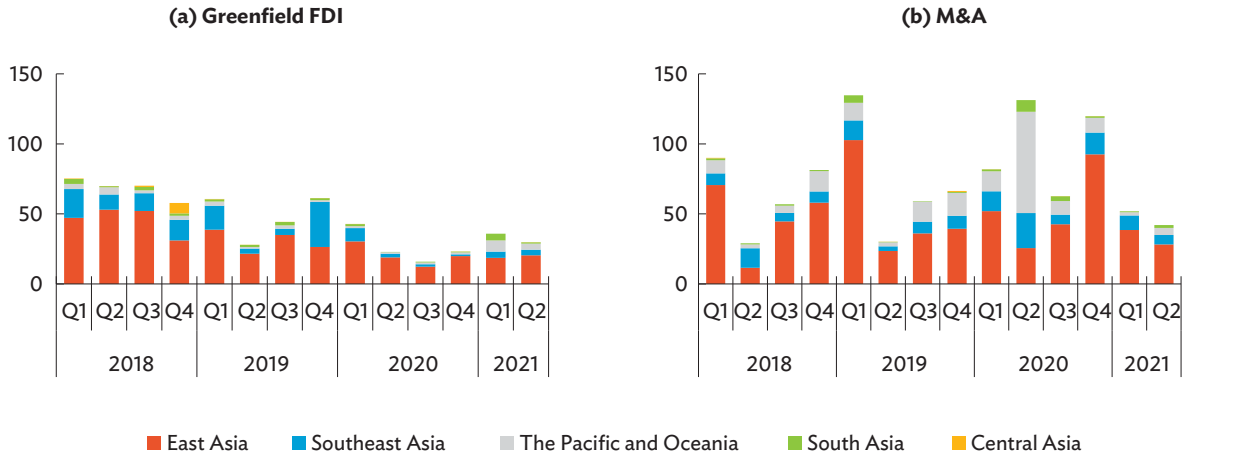
Quarterly data suggest that greenfield investment from Asia and the Pacific dipped in the third quarter of 2020 and recovered in the fourth quarter (Figure 3.7a). A more stable trend in greenfield investment was observed between the first halves of 2020 and 2021. M&As from Asia and the Pacific, on the other hand, peaked in the second and fourth quarters of 2020 (Figure 3.7b). Broad recovery in M&A deals from Asia and the Pacific in 2020, particularly in the primary and services sectors, helped offset further losses in greenfield FDI. After strong M&A outflows from Asia and the Pacific in 2020, deals from the region in the first half of 2021 were stable, yet below the levels observed the previous year.

Table 3.4: Top 10 Sources of Foreign Direct Investment—World and Asia and the Pacific ($ billion)

World	2019	2020	Asia and the Pacific	2019	2020
People's Republic of China	136.9	132.9	People's Republic of China	136.9	132.9
Luxembourg	34.5	127.1	Japan	226.6	115.7
Japan	226.6	115.7	Hong Kong, China	53.2	102.2
Hong Kong, China	53.2	102.2	Republic of Korea	35.2	32.5
United States	93.6	92.8	Singapore	50.6	32.4
Canada	78.9	48.7	Thailand	8.4	16.7
France	38.7	44.2	Taipei,China	11.8	14.3
British Virgin Islands	44.2	42.3	India	13.1	11.6
Germany	139.3	34.9	Australia	9.3	9.2
Republic of Korea	35.2	32.5	Indonesia	3.4	4.5

Source: United Nations Conference on Trade and Development. World Investment Report 2021 Statistical Annex Tables. https://worldinvestmentreport.unctad.org/annex-tables/ (accessed July 2021).

Figure 3.7: Quarterly Outward FDI from Asia and the Pacific by Mode of Entry—Firm-Level Activity, Q1 2018–Q2 2021 ($ billion)



FDI = foreign direct investment, M&A = merger and acquisition, Q = quarter.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed September 2021).

While global FDI rebounded in 2021 based on preliminary balance of payments estimates, some headwinds remain, especially with the moderate recovery of greenfield investment and M&A in the first half of 2021. This is particularly important to developing economies, which tend to benefit more from greenfield investment projects. Other external factors may hamper global FDI growth in the short term, including potential pandemic flare ups, restrictive FDI measures, and disruptions to global value chains (GVCs). The entwined relationship between GVCs and FDI also underscores the importance of embedding an FDI perspective in policy measures to foster GVC participation (Qiang, Liu, and Steenbergen 2021; Box 3.1.)

For Asia and the Pacific, investment prospects were generally favorable in 2021 with some downside risks still on the horizon. FDI inflows to the region started to pick up steam in the first few months of 2021. M&A in Asia and the Pacific, which showed signs of recovery as early as the third quarter of 2020, remained stable in the first half of 2021. FDI toward other sectors beyond manufacturing proved resilient in the wake of the COVID-19 pandemic (see this chapter's Special Topic). As such, investment in the region's digital sectors—such as in information and communication technology (ICT) —is expected to remain robust in 2021 and support further inflows.

Continued investment in high-tech industries in East Asia and Southeast Asia, as well as India, may also support FDI growth in the region. However, Asia's prospects for 2021 are not without headwinds. Greenfield investment, which had been sensitive to the effects of the COVID-19 pandemic, remained weak in Asia and the Pacific in the first half of 2021. This is apparent in industries requiring intensive labor and equipment, such as coal, oil, and gas; chemicals; and renewable energy. Investment in these labor-intensive industries may remain weak in the medium term, as well as in international tourism, where the recovery remains fragile.

Special Topic: Foreign Direct Investment in Digital Services

Introduction

While foreign direct investment is driven by multinational enterprises to access new markets and tap new resources, digitalization is fundamentally transforming how some industries operate and invest overseas. The expansion of digital technologies is modifying the structure of GVCs and role of foreign affiliates in them. It is also prompting multinationals to revisit their business models and how they conduct their investments, affecting both the volume

and direction of investment, and bringing a new range of investing actors. The impact of digitalization goes beyond companies' investment decisions. It also involves the type of goods or services they produce and the use of digital tools to improve production and distribution processes. As in the case of manufacturing, investment on services could be increasingly affected by the increasing adoption of digital technologies.

Digitally intensive multinationals are helping shape production networks and allocate investment. Such companies have increased their presence worldwide, with 6 out of 20 of the largest global multinationals in 2020 and 7 out of the 20 largest Asian multinationals in digitally driven sectors. Many digital multinationals outpace traditional ones in total assets, sales, and number of employees. They also have a different profile in liquidity and intellectual property. More importantly, their drivers of investment and international footprint are different, as they do not aim at securing physical resources and can service customers from any location.

National investment policies are gradually adapting to these evolving business models. Attracting FDI to the digital economy, sometimes referred to as "digital FDI," has emerged as a strategy for increasing productivity, technology transfer, and job creation. Digital FDI is also deemed to help economies and companies boost their digital capabilities. Policies to attract digital FDI are usually associated with three main pillars: investment in new digital activities (e.g., software development), investment in the adoption of digital services (e.g., telemedicine), and investment in digital infrastructure. Digital services FDI refers mainly to this second subcomponent of digital FDI. While some national investment frameworks in Asia and the Pacific consider services FDI an important pillar, the perspective on digital services is relatively new. In general, digital development strategies and national digital plans do not take into account an investment dimension when designed.

This section examines the trends and policy framework for FDI in Asia's digital services sectors, based on the conceptual framework presented in the theme chapter of this report. The first part provides a synopsis on the distinctive features of digital multinationals. The second presents the main trends in digital services FDI in Asia and the Pacific. The third part compares Asia's foreign investment restrictions in digital services in relation to other sectors. The final part explores how Asia's investment policy frameworks can adapt to and seize the potential of digital services in the region.

Digital multinational enterprises: What is different?

To better understand the linkages between multinational enterprises and the digital economy, UNCTAD (2017) introduced a classification of companies based on the digital intensity of their activities. Two main categories are defined in this configuration: the first, digital multinational enterprises, includes digital platforms, digital solutions, and e-commerce to create markets and deliver digital products and services; and the second, ICT multinational enterprises, focuses on building and creating core telecommunications and digital connectivity. One salient characteristic of digital multinational enterprises is the higher proportion of foreign sales to foreign assets, compared with traditional multinational enterprises. These differences reflect how the operational nexus between multinational enterprise sales and physical presence is transformed by digitalization (Casella and Formenti 2018, Satyanand 2021). Foreign affiliates of digital multinational enterprises also tend to retain a large part of their revenues overseas in the form of cash or cash equivalents, often as unremitted foreign earnings. This makes digital multinational enterprises more prone to maximize from corporate tax structures in the jurisdictions where they locate. A third important feature of digital multinational enterprises is their relatively lower impact on job creation. Evidence in Asia and the Pacific suggests that FDI has higher spillovers on job creation in manufacturing, followed by primary industries, and last by service industries (ADB 2018a).

The modest footprint of digital multinationals in physical assets and employment underscores how their investment drivers may differ from other firms. Traditional FDI drivers such as access to natural resources, lower labor costs, or market size may not be necessarily relevant for investment allocation in the context of digital FDI and digitally deliverable services.

Trends in FDI in digitally deliverable services in Asia and the Pacific

Over the past two decades, Asia's share of services FDI has remained relatively stable, accounting for 32% of total inward FDI to the region, and with nearly two-thirds of the investment entering through M&A deals against greenfield projects. This allocation by sector and entry mode is comparable to other regions. As the digital content of services increases and digital multinational enterprises become major providers of digital products and services, this investment structure may have changed in recent years.

To estimate the trends and composition of Asia's FDI into digitally deliverable services, this section builds on the conceptual framework introduced in the theme chapter and proposes a concordance between sector classifications of services trade statistics with firm-level foreign investment data. A correspondence between the Extended Balance of Payments Services Classification and the International Standard Industrial Classification was used (Table 3.5). This allows assessment of firm-level data from fDi Markets and Zephyr, which use classification based on the North American Industry Classification System.

North American Industry Classification System 2017–International Standard Industrial Classification Rev. 4 concordance tables from Statistics Canada and the United States Census Bureau were then used to identify which services sectors would be tagged as digitally deliverable (Table 3.6). While the sectors identified as digitally deliverable services may not necessarily always be digitally delivered, estimates may provide an upper bound to the foreign investment directed to these sectors. In contrast to UNCTAD (2017), this exercise is done at the transaction level, matching information on deals and projects to an industry classification, rather than classifying multinational enterprises according to their digital content.

Table 3.5: Bridge Table for EBOPS 2010 and ISIC Revision 4

EBOPS Code	Description	TISMOS Code	Description	ISIC Code	Description
SA	Manufacturing services on input owned by others	SA	Manufacturing services on physical inputs owned by others		
SB	Maintenance and repair services not included elsewhere n.i.e.	SB	Maintenance and repair services n.i.e.		
SC	Transport services	SC	Transport	H	Transport and storage
SD	Travel	SDASDB3	Tourism and business travel	I	Accommodation and food service activities
SE	Construction	SE	Construction	F	Construction
SF	Insurance and pension services	SFSG	Insurance and financial services	K	Financial and insurance activities
SG	Financial services				
SH	Charges for the use of intellectual property n.i.e.	SH	Charges for the use of intellectual property n.i.e.		
SI1	Telecommunications services	SISK1	Telecommunications, computer, information, and audiovisual services	J	Information and communication
SI2	Computer services				
SI3	Information services				
SK1	Audiovisual and related services				
SJ1	Research and development services	SJXSJ34	Other business services (excluding trade-related)	L+M+N	Real estate; Professional, scientific, and technical activities; Administrative and support service activities
SJ2	Professional and management consulting services				
SJ3	Technical, trade-related, and other business services				

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Table 3.5: continued

EBOPS Code	Description	TISMOS Code	Description	ISIC Code	Description
		SK23	Heritage and recreational services	R	Arts, entertainment, and recreation
		SK24	Other personal services	S	Other service activities
SK2	Other personal, cultural, and recreational services	SDB1SK21	Health services	Q	Human health and social work activities
		SDB2SK22	Education services	P	Education
		SWSJ34	Total trade-related services (distribution)	G	Wholesale and retail trade; repair of motor vehicles and motorcycles
SL	Government goods and services n.i.e.				

EBOPS = Extended Balance of Payments Services, ISIC = International Standard Industrial Classification, TISMOS = Trade in Services Data by Mode of Supply.

Sources: Organisation for Economic Co-operation and Development, World Trade Organization, and International Monetary Fund (2019); and Wettstein et al. (2019).

Table 3.6: Digitally Deliverable Services—ISIC Revision 4, EBOPS 2010, and NAICS 2017

ISIC Revision 4		EBOPS 2010			NAICS 2017	
Code	Description	Code		Description	Code	Description
K	Financial and insurance activities	SF: Insurance and pension services			5241	Insurance
		SG: Financial services			52311	Corporate and investment banking
					523	Investment management
					522	Other (Financial services)
					52211	Retail banking
N	Admin. and support service activities	SH: Charges for the use of intellectual property, not included elsewhere			—	
J	Information and communication	SI: Telecommunications, computer, and information services	SI1	Telecommunications services	5152	Cable and other subscription programming
					5182	Data processing, hosting, and related services
					5179	Other telecommunications
					5151	Radio and TV broadcasting
					5174	Satellite telecommunications
					5171	Wired telecommunication carriers
					5172	Wireless telecommunication carriers
			SI2	Computer services	541513	Computer facilities management services
					541512	Computer systems design services
					541511	Custom computer programming services
					51913	Internet publishing and broadcasting and web search
					5415	Other (Software and IT services)
					541519	Other computer related services
					5112	Software publishers, except video games
					5112	Video games, applications and digital content
			SI3	Information services	51919	All other information services
		SK1: Audiovisual and related services			512	Motion picture and sound recording industries

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Table 3.6: continued

ISIC Revision 4		EBOPS 2010				NAICS 2017	
Code	Description	Code			Description	Code	Description
L, M, N	Real estate activities; Professional, scientific and technical activities; Administrative and support service activities	SJ1: Research and development services				—	
		SJ2:Professional and management consulting services	SJ21		Legal, accounting, management, consulting, and public relations	5412	Accounting, tax preparation, bookkeeping, and payroll services
						5411	Legal services
						54161	Management consulting services
			SJ22		Advertising, market research, public opinion polling	5418	Advertising and related services
		SJ3: Technical, trade-related, and other business services	SJ31: Architectural, engineering, scientific and other technical services	SJ311	Architectural services	5413	Architectural, engineering, and related services
				SJ312	Engineering services		
				SJ313	Scientific and other technical services	5614	Business support services
						5613	Employment services
						54162	Environmental consulting services
						5619	Other support services
						54	Professional, scientific and technical services
						5414	Specialized design services
			SJ32		Waste treatment and de-pollution, agricultural and mining services	562	Waste management and remediation services
			SJ33		Operating and leasing services	531	Real estate services
						532	Rental and leasing services
						5615	Travel arrangement and reservation services
R	Arts, entertainment, and recreation	SK2: Other personal, cultural, and recreational services				71311	Amusement and theme parks
						7132	Gambling industries
						712	Museums, historical sites, and similar
						7139	Other amusement and recreation industries
						711	Performing arts, spectator sports, and related
S	Other service activities					812	Personal services

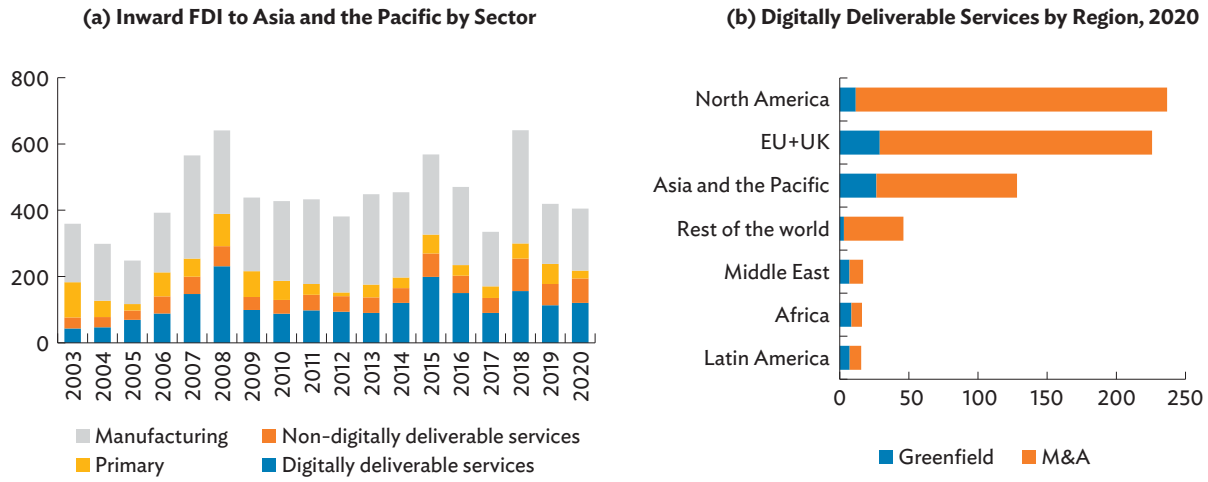
— = unavailable, EBOPS = Extended Balance of Payments Services, ISIC = International Standard Industrial Classification, IT = information technology, NAICS = North American Industry Classification System.

Sources: Bureau van Dijk. Zephyr M&A Database; Financial Times. fDi Markets (both accessed May 2021); Government of Canada, Statistics Canada. Industry classifications. https://www.statcan.gc.ca/en/concepts/industry; Government of the United States, United States Census Bureau. North American Industry Classification System. https://www.census.gov/naics/ (both accessed June 2021); and Wettstein et al. (2019).

Asia and the Pacific remains an important destination of digitally deliverable services FDI globally, with M&As as the preferred entry mode.

While manufacturing has historically captured the lion's share of Asia's inward FDI, receiving on average 53% of investments between 2003 and 2020, the participation of services FDI has been important and increased in recent years. On average, FDI to digitally deliverable services in Asia and the Pacific, which includes financial and insurance services, accounted for nearly 24% of foreign investment during this period (Figure 3.8a). Worldwide, the bulk of foreign direct investment on digital services tends to go through M&A as the main entry mode, with the EU+UK and North America capturing a significant proportion (Figure 3.8b). Between 2019 and 2020, and despite the significant impact of COVID-19 on delaying

Figure 3.8: Inward FDI—Firm-Level Activity ($ billion)



EU = European Union (27 members), FDI = foreign direct investment, M&A = merger and acquisition, UK = United Kingdom.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

or dissuading investment decisions, digital services FDI in both greenfield and M&A remained resilient. In 2020, Asia and the Pacific amassed $26.5 billion in digital services greenfield investment, against $29.4 billion the year before. Even more, M&A investment in digitally deliverable services increased from $90.8 billion to $101.7 billion over the same period.

East Asia and South Asia retained most of the foreign investment in digital services, both in greenfield and M&A.

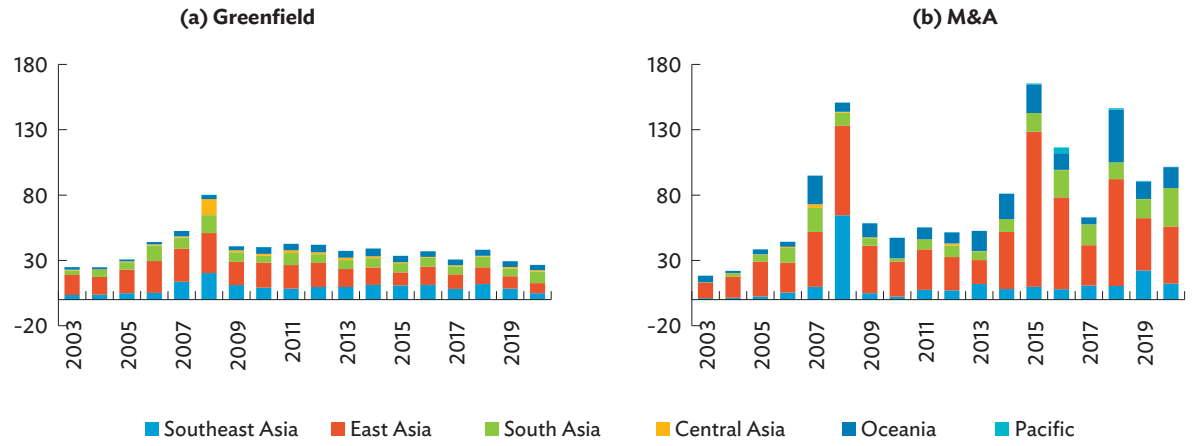
East Asia and South Asia remain the main destinations of digital services FDI in the region, with M&A deals superseding greenfield investments in recent years (Figure 3.9). In 2020, South Asia accounted for 33.8% of greenfield investment in Asia's digitally deliverable services, followed by 29.4% for East Asia. The main targeted sectors in 2020 included data processing and hosting services, corporate and investment banking, and software publishers. Greenfield investment into digital services sectors has fallen 5% since 2011. In contrast, inward investment through M&A is considerably larger and more volatile. Between 2019 and 2020, M&A investment in digital services in Asia and the Pacific increased by 11.9%, with East Asia receiving $43.7 billion and South Asia $29.4 billion in 2020.

Mirroring the trend for exports, digital services FDI was more resilient to the COVID-19 shock than non-digital services FDI.

Foreign investment in digital and non-digital services sectors in Asia and the Pacific evolved hand-in-hand for nearly a decade up to the COVID-19 crisis. While investment to digital and non-digital services sectors remained stable after the 2008 global financial crisis, the effect of COVID-19 on flows and mode of entry was different. Between 2019 and 2020, greenfield investment on digitally deliverable services decelerated by 9.7%, while non-digitally deliverable services FDI contracted a drastic 57.9%. In contrast, M&A remained strong and increased in both digital and non-digital services sectors. The broad acceleration of M&A in Asia and the Pacific has also benefited from external factors, including better growth opportunities, high profits, cheap credit, positive valuations, lower acquisition premiums and growing fintech demand, which has continued up to mid-2021.

Asian subregions experienced heterogenous impacts on digital services FDI since the beginning of the pandemic. While digital services FDI remained solid for most subregions in both greenfield and M&A, investment in non-digital services FDI fluctuated heavily. A fall in greenfield investment was most felt in Southeast Asia

Figure 3.9: Inward FDI in Digital Services by Subregion and Mode of Entry ($ billion)



FDI = foreign direct investment, M&A = merger and acquisition.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

(Figure 3.10a), whereas expansion in non-digital services via M&A largely benefited East Asia and South Asia. In general, multinationals engaging in exporting activities are more likely to use the greenfield mode of entry, while M&A is more common when domestic markets are targeted. The recent expansion in M&A activity could also reflect this primary interest from investors to tap new markets.

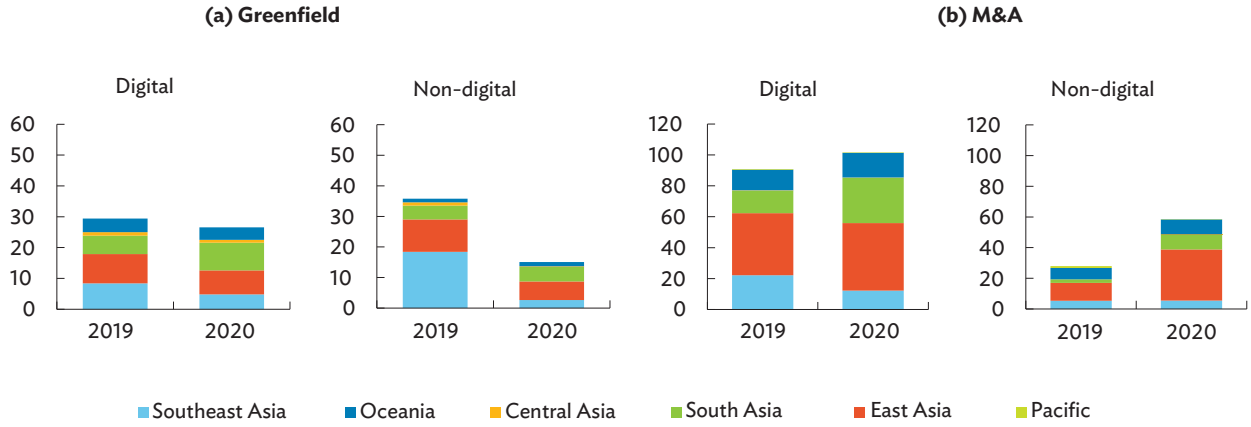
Inward FDI in digital services in Asia and the Pacific has been dominated by financial services; telecommunications, computer, and information services; and other business services.

From the service items defined as digitally deliverable (insurance and pensions; financial; intellectual property; ICT; other business services; and personal, cultural, and recreational; see theme chapter), the core of investments in Asia and the Pacific have been targeted at financial, ICT, and other business services (Figure 3.11). The growth in demand and importance in financial technology and digital payment platforms, as well as the necessary infrastructure to support financial and other digital platforms, likely led to their large shares. Financial services and ICT services may also remain major components of digitally deliverable services, as work arrangements and the nature of transactions during the pandemic have underscored their importance.

The share in ICT services sectors in Asia and the Pacific stands out, averaging 31% of digital services FDI since 2003, although it is lower than average shares in developed economies, including the EU+UK (38%) and North America (41%). Differences in FDI composition are also important among subregions. Financial services are predominant in Southeast Asia, East Asia, and the Pacific. South Asia and increasingly East Asia have attracted more FDI toward telecommunications, computer, and information services. FDI toward other business services sectors is more important for East Asia and Oceania. As one would expect, targeted FDI sectors by subregion reflect domestic needs and areas of specialization in digital services exports, notably large FDI volumes to ICT sectors in South Asia.

A small number of subsectors remained the main drivers of digital services FDI in 2020. Worldwide, companies in data processing, hosting, and related services were at the forefront of investment transactions for digitally deliverable services. Wired telecommunication carriers; investment management; and professional, scientific, and technical services were particularly important in North America, EU+UK, and Asia and the Pacific (Figure 3.12). Within Asia and the Pacific, the largest transactions went to South Asia, in the data processing, hosting, and related services. Retail banking, insurance, and software publishers (except video games) were the most active subsectors in East Asia.

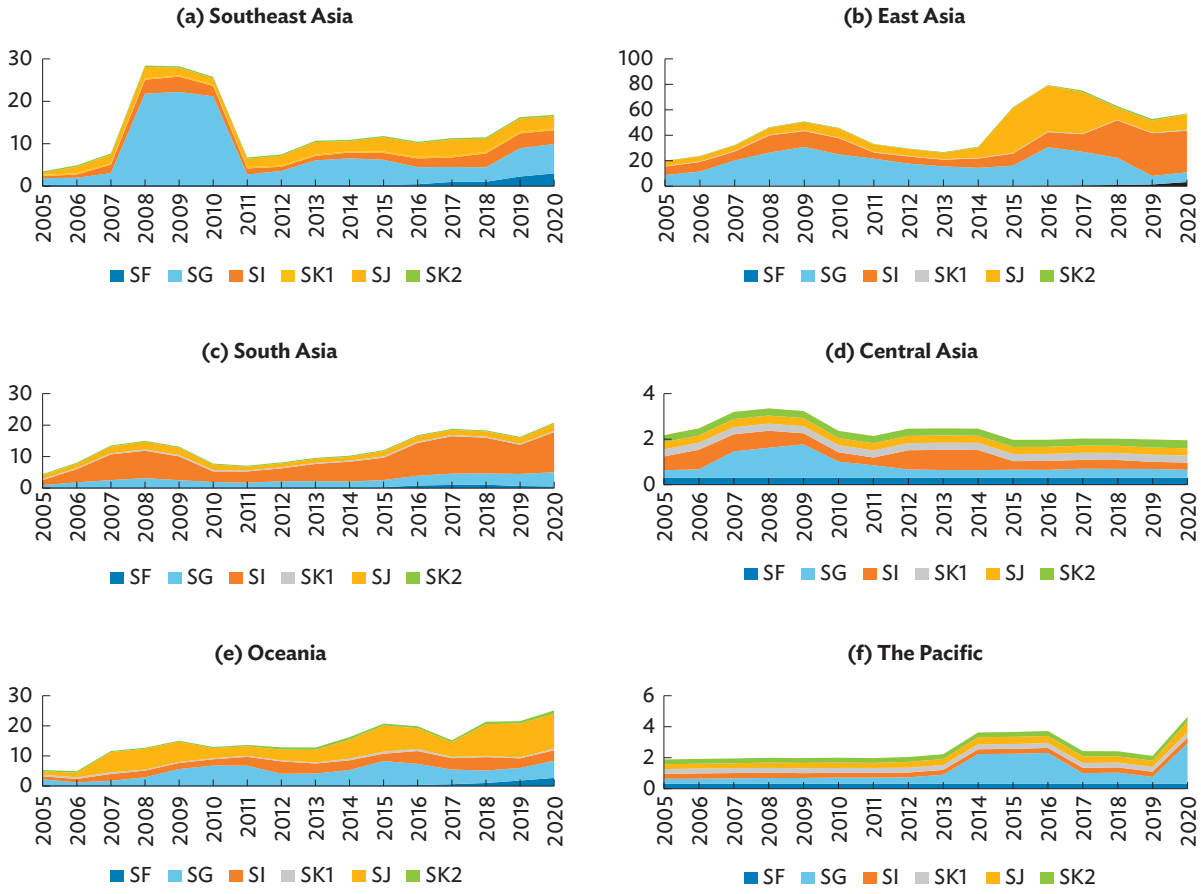
Figure 3.10: Digitally and Non-Digitally Deliverable Services FDI by Asian Subregion and Mode of Entry ($ billion)



FDI = foreign direct investment, M&A = merger and acquisition.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Figure 3.11: Inward FDI in Digitally Deliverable Services by Sector and Subregion ($ billion)



SF = insurance and pension services; SG = financial services; SI = telecommunications, computer, and information services; SJ = other business services (excluding trade-related services); SK1 = audio-visual and related services; and SK2 = other personal, cultural, and recreational services.

Notes: Series depicts combined greenfield and merger and acquisition investments (3-year moving averages) by subregion. Nomenclature following Extended Balance of Payments Services 2010 classification.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Figure 3.12: Top Digitally Deliverable Services FDI Subsectors, 2020 ($ million)

By World Region

(a) Greenfield

Subsector	Africa	Asia and the Pacific	EU+UK	Latin America	Middle East	North America
Data processing, hosting, and related services	927	6,741	7,376	2,102	1,543	1,383
Wired telecommunication carriers	4,193	310	7,296	1,371	723	465
Software publishers, except video games	476	3,244	3,003	351	1,707	4,011
Wireless telecommunication carriers	983	1,441	3,455	242	264	35
Retail banking	160	4,217	886	278	633	416
Corporate and investment banking	394	2,123	1,058	581	496	307
Custom computer programming services	28	1,381	999	360	153	731
Investment management	48	998	808	595	129	177
Insurance	43	1,757	165	178	121	9
Internet publishing and broadcasting and web search	188	463	623	54	27	163

(b) M&A

Subsector	Africa	Asia and the Pacific	EU+UK	Latin America	Middle East	North America
Data processing, hosting, and related services	214	13,571	43,174	3,051	5,985	37,306
Wireless telecommunication carriers	0	16,984	20,980	12	0	64,466
Investment management	666	12,871	14,198	348	174	52,282
Professional, scientific, and technical services	0	7,313	16,125	62	392	15,848
Insurance	328	13,767	14,975	2,938	0	4,708
Other (Real estate)	14	7,533	10,077	11	26	17,556
Software publishers, except video games	31	6,803	14,068	333	295	6,835
Retail banking	4,155	6,675	12,020	347	761	1,009
Custom computer programming services	1	1,475	11,953	1	1,421	3,755
Business support services	830	1,027	4,021	40	2	2,251

By Asian Subregion

(c) Greenfield

Subsector	Central Asia	East Asia	Southeast Asia	South Asia	Oceania	Pacific
Data processing, hosting, and related services	110	830	615	4,758	427	8
Retail banking	0	3,506	515	61	136	274
Software publishers, except video games	6	635	725	474	1,404	
Corporate and investment banking	31	766	633	480	214	203
Insurance	0	131	311	1,184	131	44
Wireless telecommunication carriers	612	0	268	458	103	71
Custom computer programming services	7	148	198	661	366	0
Investment management	32	434	421	17	94	35
Internet publishing and broadcasting and web search	0	25	128	30	279	
Professional, scientific, and technical services	8	87	82	136	103	18

(d) M&A

Subsector	Central Asia	East Asia	Southeast Asia	South Asia	Oceania	Pacific
Investment management	2	7,446	1,473	416	3,320	5,435
Wireless telecommunication carriers	0	511	42	15,801	629	112
Insurance	0	6,343	3,838	160	3,426	0
Data processing, hosting, and related services	0	8,500	1,359	2,799	913	0
Other (Real estate)	0	1,166	2,177	2,301	1,889	15
Professional, scientific and technical services	18	7,091	15	22	166	4
Software publishers, except video games	0	3,645	298	2,433	426	
Retail banking	54	653	1,210	3,272	1,472	15
Other (Financial services)	0	2,246	682	991	523	10
Business support services	0	337	472	126	20	687

EU = European Union (27 members), FDI = foreign direct investment, M&A = merger and acquisition, UK = United Kingdom.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Can FDI support digital services trade in Asia and the Pacific?

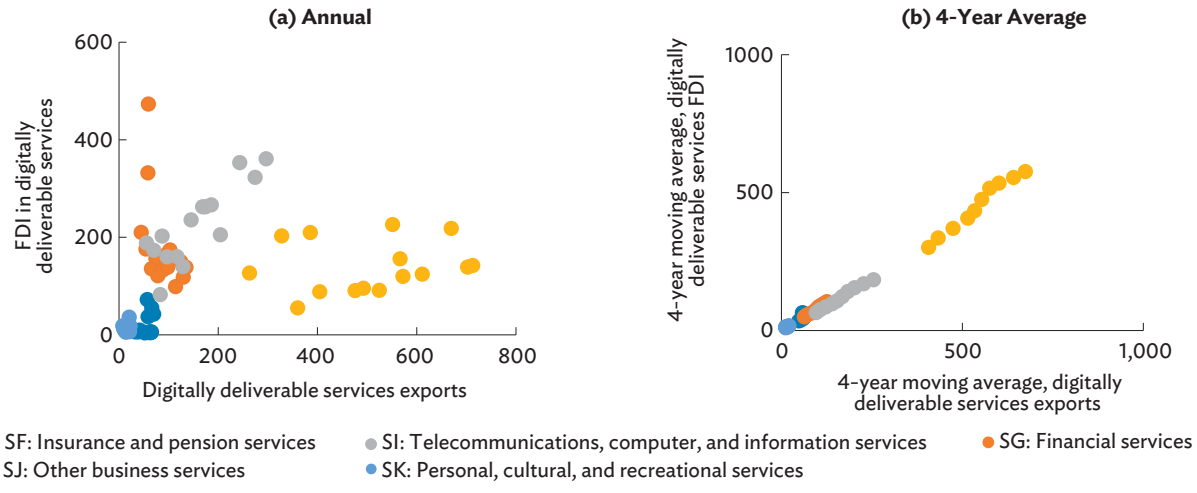
Multinational enterprises can be central to creating trade and investment linkages where they operate, setting up affiliates to expand their markets, through so-called horizontal FDI, or to outsource part of their business operations, favoring the development of production networks through vertical or GVC-FDI. The latter has been a driver in the Asia and Pacific region, where a network of investments underlies the rapid development of GVCs.

Within manufacturing GVCs, services have also played an important role as they facilitate the movement of goods and information, induce innovation, and contribute to diversification (Lodefalk 2017; Avendano et al. 2019). "Cost" services including logistics, ICT, insurance, and financial services, improve the coordination and efficiency of production processes, while "value" services can contribute to product differentiation and strengthen customer loyalty. Services can also be important for firms to overcome barriers to foreign market entry. By establishing affiliates, multinational enterprises provide services including distribution, maintenance, marketing, and monitoring. They allow companies to gain knowledge of local markets and networks.

While still undeveloped in comparison to manufacturing, GVCs in services sectors have become more important (Prakash and Shepherd 2021). However, the linkages through which FDI in services can support economies' exporting capacity in services need to be better understood. While services FDI can be seen as a substitute for services exports, more recent evidence suggests that services FDI is also associated with growth and tradability of goods and services exports. The experience in Asia and the Pacific suggests that about 14% of multinational enterprises with foreign affiliates in business services engage in international trade (ADB 2016).

In the context of digitally deliverable services, some evidence underlines the possible link between digital services exports and digital services FDI in Asia and the Pacific, in particular for sectors such as telecommunications, computer and information services, and other business services (Figure 3.13). The role of foreign investment in digital services is more visible in industries that require a threshold of digital infrastructure to operate, telecommunications being the clearest example (Gestrin and Staudt 2018). Regional investments to build up capacity in data processing, hosting, and related services also reflect the focus in the adoption of digital services and digital infrastructure. With firms increasingly targeting investment in digital sectors to expand or digitize their operations, it is expected that FDI to digital services will increase in coming years.

Figure 3.13: Digitally Deliverable Services in Asia and the Pacific—FDI versus Exports ($ billion)



FDI = foreign direct investment.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

To maximize the potential of digital services FDI in the region, additional aspects need to be considered, in particular the degree of statutory restrictions to foreign investment in digital services and the existing investment policy frameworks. These aspects are explored below.

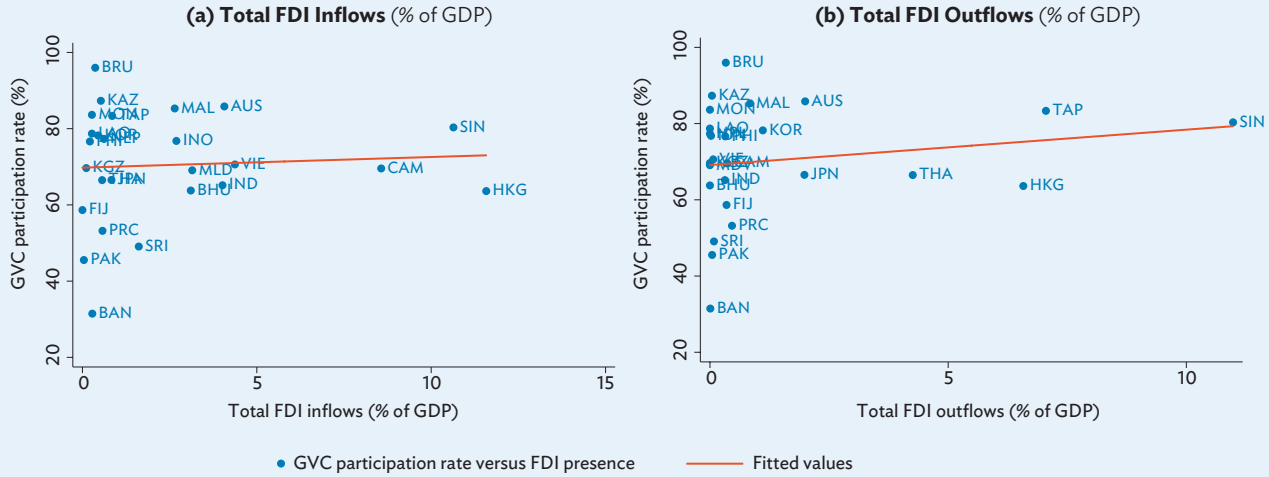
Box 3.1: The Reinforcing Role of Global Value Chain Participation and FDI—Prospects for Digital Services

Globalization and regional integration have enhanced the volume and nature of cross-border flows. Global value chains (GVCs) allow economies to specialize and participate in certain areas of production without having to wait for industries or industry segments to fully develop (Qiang, Liu, and Steenbergen 2021). GVC participation is also associated with inclusive growth, job creation, and poverty reduction (World Bank 2020). While GVCs generally flourish in industries in which production may easily be segmented (e.g., automotive, electronics, and garments), they have increasingly spread across other sectors, including services.

Efforts have been made to understand the drivers and mechanisms that affect GVC participation. Studies have shown that both economic factors (e.g., macroeconomic conditions, market size, industrialization) and structural characteristics (e.g., economy size, human capital development, trade and investment policies) affect participation in GVCs (Adarov 2021; Urata and Baek 2020). Foreign direct investment (FDI) is also associated with increasing GVC participation, with investment from multinationals playing an increasingly important role. Greenfield investment and mergers and acquisitions have become particularly important, as these involve initial FDI from lead firms looking to expand their market or inputs (ADB 2016; Andrenelli et al. 2019; Carril-Caccia and Pavlova 2018). Doing so may lower entry costs and entice these firms to involve their other GVC partners. Ultimately, the reinforcing nature of FDIs and GVCs has increased—as multinational enterprises tag in their partners, a fresh wave of investment also enters the economy (Qiang, Liu, and Steenbergen 2021).

Asia and the Pacific continues to be a major source and destination of global FDI. Relative to economic size, regional foreign investment represented 1.5% of gross domestic product (GDP) of inward FDI. The region is also a production hub, with its GVC participation rate standing at 65% in 2020. The relative size of FDI has been posited to be linked with GVC performance. Economies with a larger FDI stock relative to GDP tend to have a higher participation in GVCs and domestic value added in trade. This is the case for Asian economies, where GVC participation and FDI presence suggest a positive correlation, particularly for outward FDI (box figure 1). Financial centers such as Singapore and Hong Kong, China are high in both GVC participation and FDI presence. In contrast, commodity exporters such as Brunei Darussalam and Kazakhstan have high GVC participation rates with stronger forward linkages regardless of FDI presence (ADB 2021b).

1: Scatter Plots on GVC participation and FDI—Asia and the Pacific, 2020



AUS = Australia; BAN = Bangladesh; BHU = Bhutan; BRU = Brunei Darussalam; CAM = Cambodia; FDI = foreign direct investment; FIJ = Fiji; GDP = gross domestic product; GVC = global value chain; HKG = Hong Kong, China; IND = India; INO = Indonesia; JPN = Japan; KAZ = Kazakhstan; KGZ = Kyrgyz Republic; KOR = Republic of Korea; LAO = Lao People's Democratic Republic; MAL = Malaysia; MLD = Maldives; MON = Mongolia; NEP = Nepal; PAK = Pakistan; PHI = Philippines; PRC = People's Republic of China; SIN = Singapore; SRI = Sri Lanka; TAP = Taipei,China; THA = Thailand; and VIE = Viet Nam.

Notes: GVC participation rate is calculated as the ratio of the sum of "terms 2 to 16" to total gross exports based on the GVC decomposition methodology of Wang, Wei, Zhu (2013, revised 2018). Total FDI is calculated as the sum of greenfield FDI capital expenditure and merger and acquisition deal values.

Sources: ADB calculations using data from ADB. Multi-regional Input-Output Tables; Bureau van Dijk. Zephyr M&A Database; Financial Times. fDi Markets (both accessed May 2021); and decomposition methodology of Wang, Wei, and Zhu (2013, revised 2018).

continued on next page

Box 3.1: (continued)

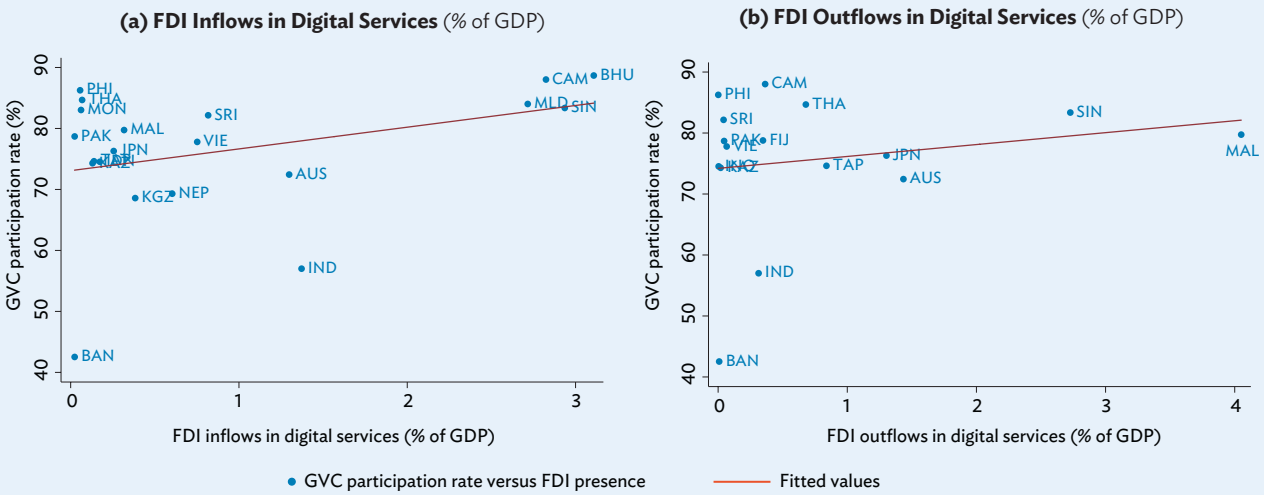
GVCs and Digital Services

Recent years have seen a shift in employment, output, and trade from agriculture and manufacturing to service industries. GVCs have also seen a rise in service-related industries, which may positively impact employment and overall economic development (ADB 2021a). A similar trend is observed in Asia's foreign investment inflows, where the share of services to total FDI has risen from 19.3% in 2003 to almost 49.0% in 2020.

In Asia and the Pacific, digital services are an important component of total foreign investment. Even in Asia's digital services, the reinforcing relationship of GVC and FDI is apparent (box figure 2). Bhutan, Cambodia, Maldives, and Singapore featured both high FDI presence and high GVC participation in digital services sectors. Growing FDI in those sectors could improve the region's trade and integration to international production networks through various channels. Advancements in information and communication technologies and digital platforms have reduced distance-based barriers in goods and services trade and allowed firms and businesses to integrate to global supply networks (ADB 2021a).

As GVCs and FDI are intertwined and digitalization continues, international investment policies should be mindful of these interdependencies. Recent protectionist policies in some economies, as well as policy responses due to the COVID-19 pandemic exemplify this dependence. Investment policy frameworks can benefit from a more thorough assessment on the linkages with GVCs, for example, through the development of sectoral clusters, analyzing the consistency between investment and trade regulations, and exploring FDI measures more aligned with "light-handed" industrial policies.

2: Scatter Plots on GVC Participation and FDI in Digital Services—Asia and the Pacific, 2020



AUS = Australia; BAN = Bangladesh; BHU = Bhutan; CAM = Cambodia; FIJ = Fiji; FDI = foreign direct investment; GDP = gross domestic product; GVC = global value chain; IND = India; INO = Indonesia; JPN = Japan; KAZ = Kazakhstan; KGZ = Kyrgyz Republic; MAL = Malaysia; MLD = Maldives; MON = Mongolia; NEP = Nepal; PAK = Pakistan; PHI = Philippines; SIN = Singapore; SRI = Sri Lanka; TAP = Taipei,China; THA = Thailand; and VIE = Viet Nam.

Notes: GVC participation rate is calculated as the ratio of the sum of "terms 2 to 16" to total gross exports based on the GVC decomposition methodology of Wang, Wei, Zhu (2013, revised 2018). Total FDI is calculated as the sum of greenfield FDI capital expenditure and mergers and acquisitions deal values. For GVC participation rate, sectors considered to be digitally deliverable were post and telecommunications; financial intermediation; real estate activities; renting of machinery and equipment and other business activities; and other community, social, and personal services. As a whole, these serve as an upper bound estimate.

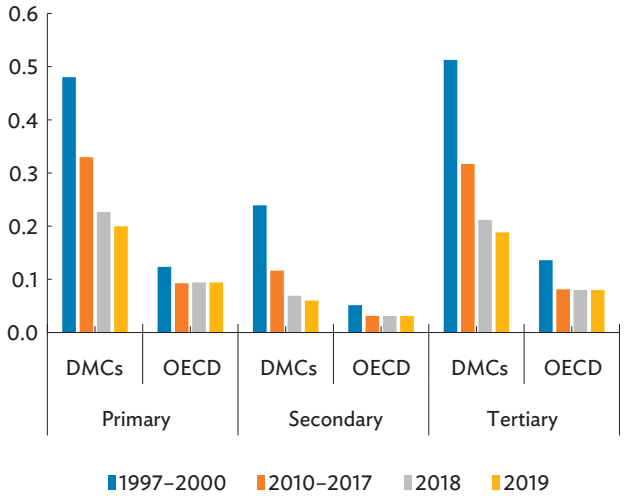
Sources: ADB calculations using data from ADB. Multi-Regional Input–Output Tables; Bureau van Dijk. Zephyr M&A Database; Financial Times. fDi Markets (accessed May 2021); and decomposition methodology of Wang, Wei, and Zhu (2013, revised 2018).

Sources: ADB staff based on Adarov (2021); Andrenelli et al. (2019); ADB (2021a, 2021b); Carril-Caccia and Pavlova (2018); Qiang, Liu, and Steenbergen (2021); Urata and Baek (2020); and World Bank (2021).

FDI regulations in Asia and the Pacific tend to be most restrictive in the services sector.

The potential of FDI to support the development of digital services sectors may have been hampered by regulatory restrictions to investment in these sectors, which have been dominant across the region. Discrimination against foreign investors in Asia and the Pacific remains high. The Organisation for Economic Co-operation and Development's (OECD) FDI Regulatory Restrictiveness Index, which covers statutory restrictions in 22 economic sectors, confirms that Asia's regulatory restrictiveness score on the services sector remains higher than OECD economies (Figure 3.14). While the pattern of restrictions between regions is similar, the extent of restrictiveness in Asia and the Pacific is considerably higher. Within economic sectors, regulatory environment in Asia and the Pacific is more welcoming to the manufacturing sector, against higher restrictions in services, with the possible hindering effects on market competition and higher service input costs. The decreasing trend in restrictions from 1997 to 2020 also reveals the pace of FDI facilitation reforms across many economies in the region, such as Indonesia, Malaysia, and Viet Nam.

Figure 3.14: FDI Regulatory Restrictiveness Index by Sector—Asia and the Pacific



DMC = developing member country, FDI = foreign direct investment, OECD = Organisation for Economic Co-operation and Development.

Source: OECD. FDI Regulatory Restrictiveness Index Data Set. https://stats.oecd.org/Index.aspx?datasetcode=FDIINDEX# (accessed September 2021).

FDI restrictions in Asia's digital services sectors have decreased over time yet remain relatively higher than non-digital services.

A glance at FDI restrictions in sectors associated to digitally deliverable services sectors in Asia and the Pacific suggests that, while decreasing, they remain high (Figure 3.15).[28] Entry restrictions in services sectors are predominant in the region in the form of foreign equity limitations, which impose restrictions in the ownership share of nonresidents. Other restrictions, in particular on foreign personnel and screening and approval, remain relatively low. Together with high restrictiveness levels, the effect of regulatory heterogeneity on FDI in Asian economies can also affect firms' investment decisions. Reductions in regulatory divergence on control regulations, antitrust exemptions, and entry barriers in networks and services, for example, could be critical for attracting FDI.

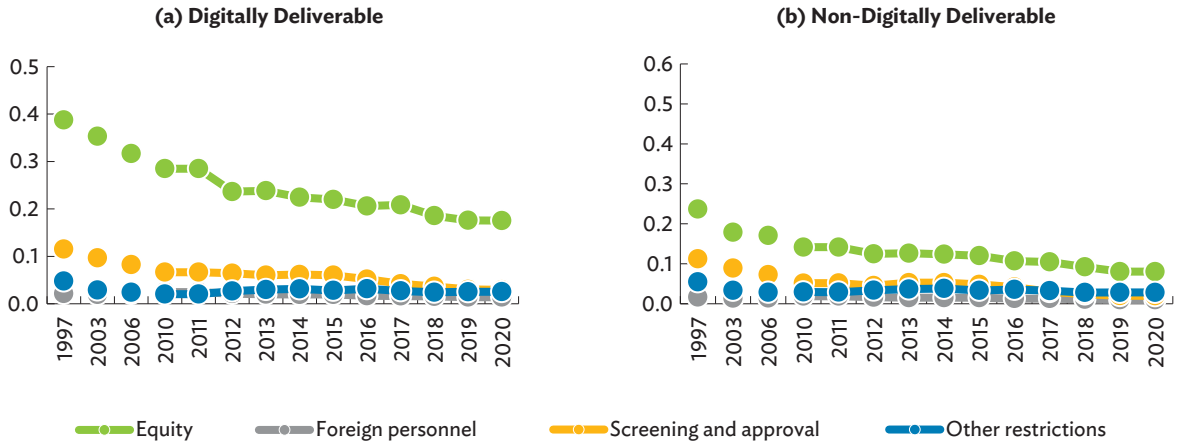
Within digitally deliverable services, radio and TV broadcasting, media, and legal services exhibit the highest level of FDI restrictions.

Important gaps are observed on FDI restrictiveness scores between Asian and non-Asian economies across most digital services subsectors (Figure 3.16a). In general, radio and TV broadcasting, media, and legal services are more restrictive of FDI globally, whereas gaps with Asia and the Pacific are more pronounced in telecommunications and business services sectors. Economies in Southeast Asia (e.g., Indonesia, Malaysia, the Philippines, Thailand, Viet Nam) and the PRC, for example, had high scores on these sectors. Restrictions in accounting, insurance, and financial services remain higher in Asia and the Pacific, but are considerably lower in these sectors.

By economy, FDI restrictions in services sectors in Asia and the Pacific are wide-ranging, with digital services being more restrictive overall (Figure 3.16b). Across most Asian economies, FDI restrictions on digitally deliverable services are consistently higher.

[28] For the purposes of this exercise, subsectors were identified based on classification and description available via the FDI Regulatory Restrictiveness Index from the OECD. See Annex 3e for the list of sectors identified as digitally deliverable.

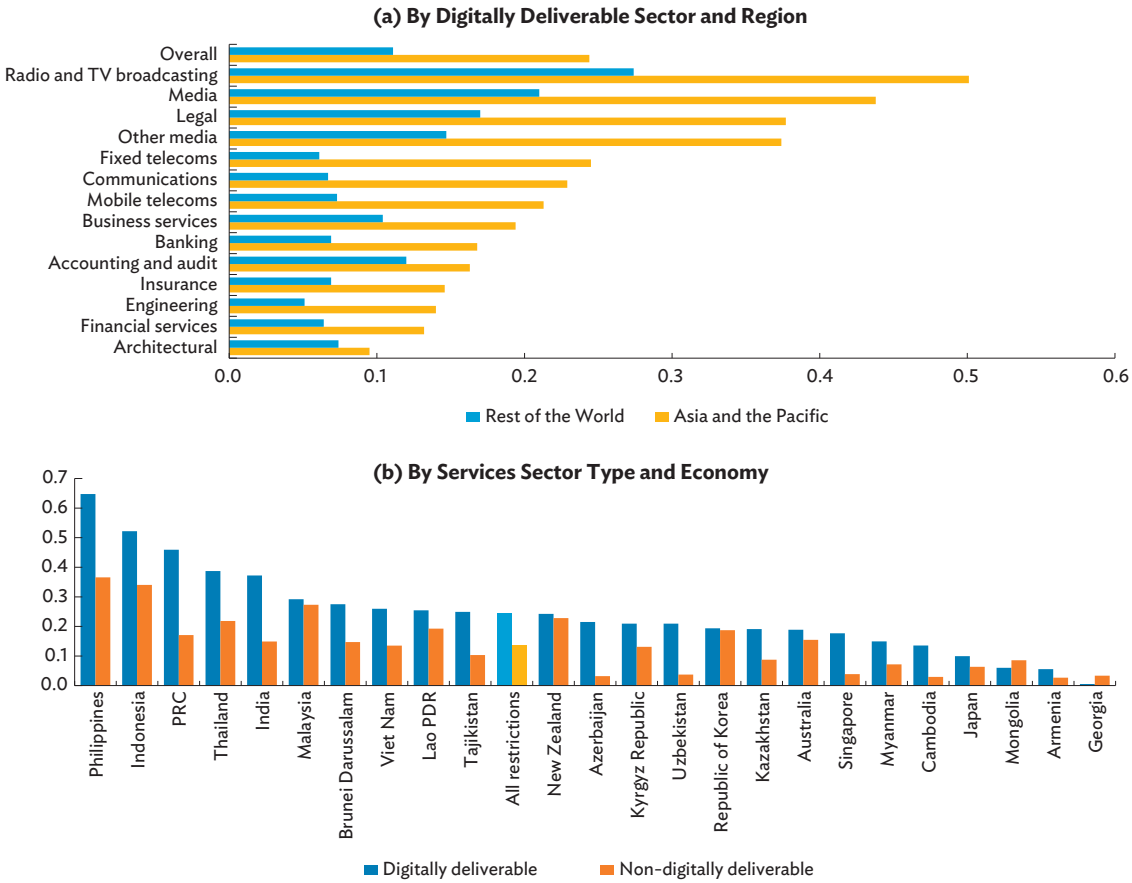
Figure 3.15: FDI Regulatory Restrictiveness Index by Type of Restriction—Asia and the Pacific



FDI = foreign direct investment.

Source: Organisation for Economic Co-operation and Development. FDI Regulatory Restrictiveness Index Data Set. https://www.oecd.org/investment/fdiindex.htm (accessed September 2021).

Figure 3.16: FDI Regulatory Restrictiveness Index in Digitally Deliverable Services, 2020—All Types of Restrictions



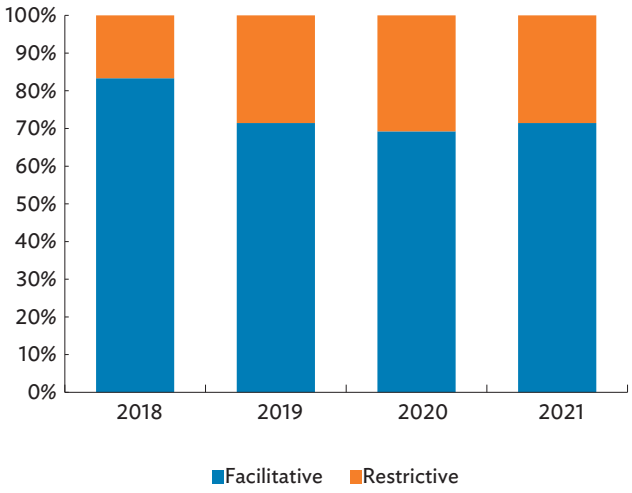
FDI = foreign direct investment, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Source: Organisation for Economic Co-operation and Development. FDI Regulatory Restrictiveness Index Data Set. https://www.oecd.org/investment/fdiindex.htm (accessed September 2021).

Exceptions to this are Australia, Japan, New Zealand, and the Republic of Korea, more broadly aligned with OECD principles of non-discrimination of international investment. FDI restrictions in non-digital services sectors, such as transport and tourism (e.g., hotels and restaurants), are generally lower.

In recent years, several economies in the region have introduced measures to ease FDI restrictions involving digital services sectors. For example, Viet Nam in 2020 introduced new criteria and tax incentives for high-tech investments in telecommunications, computer programming, and consultancy and related services. In 2021, India increased the FDI ceiling of insurance companies from 49% to 74% to direct investment toward the sector. The PRC has also abolished restrictions on foreign shareholding in joint venture life insurance companies. Indonesia, the Lao People's Democratic Republic, the Philippines, and Thailand have also introduced measures to facilitate FDI in strategically relevant sectors. Overall, the past few years showed more facilitative investment measures than restrictive ones implemented in Asia and the Pacific (Figure 3.17).

Figure 3.17: Recent Foreign Investment Measures in Digitally Deliverable Services in Asia and the Pacific



Note: Estimates for 2021 are based on information available as of 13 December 2021.

Source: ADB calculations based on data from Organisation for Economic Co-operation and Development. FDI Regulatory Restrictiveness Index. https://www.oecd.org/investment/fdiindex.htm (accessed September 2021); and United Nations Conference on Trade and Development. Investment Policy Hub: Investment Policy Monitor. https://investmentpolicy.unctad.org/investment-policy-monitor (accessed December 2021).

Adapting Asia's investment policy frameworks for digital services

The adoption of digital technologies and the gradual increase of cross-border provision of services may have implications for Asia and the Pacific and should be accompanied by active investment policies (Table 3.7). For economies in the region to leverage FDI into these sectors, investment policy frameworks must adapt and be embedded in development strategies of national digital plans and services. Factors influencing investment decisions such as physical infrastructure, regulatory frameworks, and ICT skills need to be taken into account in policies for the promotion and facilitation of investment (Eden et al. 2021). Some of these have been identified as limiting factors holding back FDI in digital services.

Improvements in the regulatory framework involve different areas of action. Many governments have defined digital development strategies with established cross-sectoral plans for developing digital infrastructure, strengthening e-government, and promoting ICT skills and competencies. However, often digital strategies in Asia and the Pacific and other developing regions do not systematically include an investment dimension with information on financing sources or policy instruments to facilitate investment (UNCTAD 2017). Information on investment needs should go beyond digital infrastructure. Also, policy measures for business development through FDI have been effectively used in the region for the promotion of digital services. These include digital clusters, targeted entrepreneurship programs, and digital special economic zones (Chapter 7: Theme Chapter—Advancing Digital Services Trade in Asia and the Pacific). Investment promotion agencies can be critical instruments to implement these models and align them with investors' expectations.

An increasingly important area for FDI, particularly for digital services, is intellectual property rights. Surveys among technology and digital firms show that, together with data security and data privacy, copyright laws to protect intellectual property remain a priority when investing in new digital activities (Kowalski et al. 2015; WEF 2020). Building strong intellectual property protection is increasingly needed in the region, while acknowledging the different

Table 3.7: Investment Policy Frameworks for Enhancing Digital Services FDI

Key Domain	Policy Recommendation
Institutional and regulatory framework	Align investment policy with national digital strategies and national digital plans; investment promotion planning should thus be fundamentally entwined with investment policy planning.
	Create an interministerial body involving services, digital economy, and other relevant agencies to plan for and administer the digital services sector.
	Streamline regulatory barriers upholding digital services (e.g., phase out digital services taxes, facilitate adoption of e-financial services and digital payments, improve standards for e-health and remote education services).
	Implement sector regulations and independent supervision to ensure level playing field, competition, and investor protection.
	Strengthen intellectual property frameworks including legal framework for intellectual property rights.
International investment agreements	Include digital provisions in new international investment agreements that reflect economy commitments and regulations.
	Consider definition of investment provision in international investment agreements to cover intangible assets and other relevant assets for digitally intensive firms.
	Ensure regulatory convergence with multilateral investment and trade commitments and General Agreement on Trade in Services.
Skills and competencies development	Collaborate across sectors to provide integrated solutions for small and medium-sized enterprises or industries lacking trained workforce to lead transformations from the inside.
	Enhance digital skills in curriculums (e.g., computer skills, basic coding, digital reading).
	Talent and capability mapping to showcase specialized local capability for potential foreign direct investors.
	Investment in large-scale reskilling programs, collaborating with private sector players.
	Design online courses and flexible and affordable options for distance learning.
Digital infrastructure	Accelerate investments to improve international, national, and urban digital connectivity.
	Improve regional coordination for digital infrastructure investment.
	Digitize government services (e.g., online applications for permits, e-tax filing).
Clusters for digital services (innovation, financial instruments, entrepreneurship programs)	Enhance digital innovation hubs, incubators, and accelerators to promote business development plans, offer technological expertise and experimentation facilities for digital service investors.
	Consider fiscal incentives and strategic support to digital services sectors, particularly those investing in local innovation and job creation.
	In coordination with investment promotion agencies and other bodies, consider introduction of digital technology parks, software parks, innovation districts, and a digital free trade zone.

FDI = foreign direct investment.

Source: ADB compilation based on UNCTAD (2017), Satyanand (2021), Stephenson (2020), and World Economic Forum (2020).

models and levels of progress in this area (ADB 2021a). Knowledge-intensive services that are digitally deliverable, such as cloud computing, data analytics, software development or management or organizational knowledge may be increasingly dependent on solid intellectual property regulations to attract foreign investors. An investment policy framework for digital services should take these aspects into consideration.

At the international level, most international investment agreements in Asia and the Pacific still do not tackle issues related to digitalization or contain digital provisions. Considerations on the scope and definition of investment, for instance, may not consider the coverage of intangible assets for digitally intensive firms. As economies modernize their current international investment agreements, these aspects and consistency of the agreements, notably with regional trade agreements and the General Agreement on Trade in Services, will be increasingly important.

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Annex 3a: Notes on Data Sources and Compilation

Discussions of recent trends in this chapter use data on (i) foreign direct investment (FDI) based on standard balance of payments (BOP) data, and (ii) investment data based on firm-level activity. While both illustrate economy-level foreign investment and global trends, BOP data are supplemented by firm-level data as they help trace the mode of entry and the global ultimate ownership of the investment.

Balance of payments

Bilateral data on FDI based on the standard BOP definition are compiled from various sources. Data on net inflows are primarily obtained from national sources via the CEIC Data Company and, when unavailable, complemented by data from international or regional organizations such as the Association of Southeast Asian Nations, EuroStat, and the United Nations Conference on Trade and Development (UNCTAD). Missing data for some years are estimated using a gravity model. When combining data from these sources, first preference is given to data from national sources.

Firm-level activity

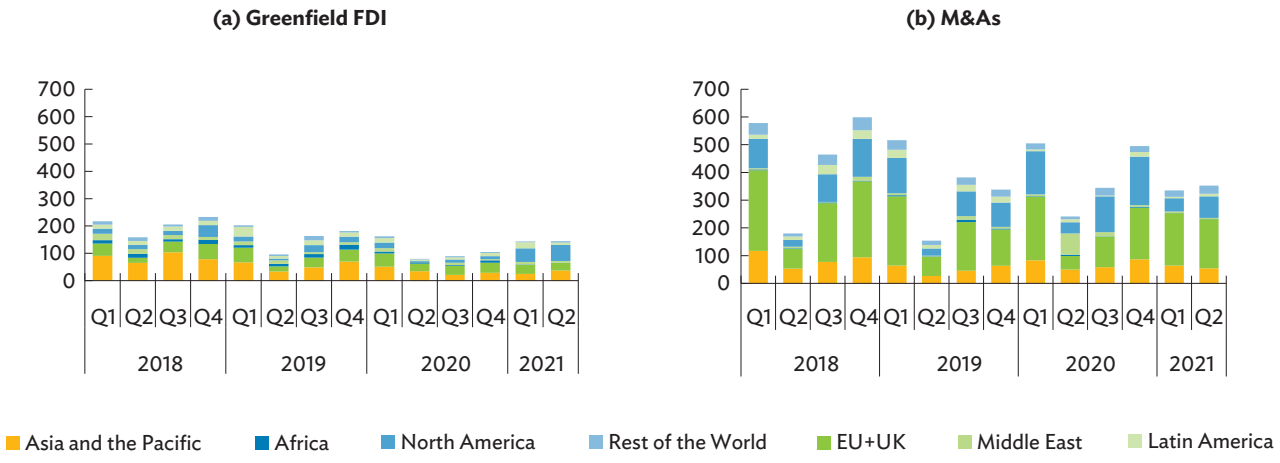
Data on firm-level activity is used to complement information supplied by the standard BOP data. Firm-level activity enables analysis by mode of entry, which can either be via greenfield investment—the creation of new assets—or via mergers and acquisitions (M&As)—the purchase of existing assets. Apart from differentiating between modes of entry, firm-level data also offers information on global ultimate ownership, shedding more light on the origins of the investment. Moreover, firm-level data also provides additional insight on the "economic activities of foreign affiliates and their importance to the host economy," as analyses of firm-level data allow host economies to assess the impact of investment from multination corporations (UNCTAD 2009).

This chapter uses data on greenfield investment from Financial Times' fDi Markets and M&A deals from Bureau van Dijk's Zephyr M&A Database. Data obtained from fDi Markets consists of announced new greenfield projects and excludes rumored projects. This data covers information on destination and source economies, project date, sectors, capital investment, project counts, and jobs generated. In case of data unavailability for capital expenditure or job creation, fDi Markets employs a proprietary algorithm to estimate those based on similarly sized projects.

Meanwhile, data sourced from the Zephyr M&A database covers completed M&A deals and covers information on the acquiror and its ultimate owner, the target company, sector classification code (using the North American Industry Classification System), deal type, completed date, and deal value. Similar to data from fDi Markets, Zephyr estimates unavailable deal values based on similarly sized deals. In addition, missing information on the economy of a target company or an acquiror's global ultimate owner is supplied via a reverse search using Bureau van Dijk's Orbis. Data from fDi Markets and Zephyr M&A database are then matched by economy, year, and subsector following the North American Industry Classification System.

More detailed information on estimation of missing data for BOP-based FDI, as well as for sector matching for greenfield investment and M&A, is available through the *Asian Economic Integration Report 2018: Toward Optimal Provision of Regional Public Goods in Asia and the Pacific* online annex on BOP-based FDI and firm-level activity (ADB 2018b).

Annex 3b: Global Quarterly Inward FDI, by Mode of Entry ($ billion)



EU = European Union (27 members), FDI = foreign direct investment, M&A = merger and acquisition, Q = quarter, UK = United Kingdom.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed September 2021).

Annex 3c: Most Affected Asian Destinations of Changes in FDI—Greenfield and M&A, by Sector

Manufacturing					
Destination	**2020** ($ billion)	**2019** ($ billion)	**Change** ($ billion)	**Change** **%** (2019 versus 2020)	**Share to Asia's total increase in FDI** (%)
Japan	35.7	8.5	27.2	319.8	412.8
Indonesia	20.1	7.6	12.5	165.7	189.9
Singapore	17.6	5.4	12.2	228.1	185.6
Republic of Korea	3.8	2.4	1.4	58.9	21.2
Cambodia	1.5	0.5	0.9	166.2	13.8

Primary					
Destination	**2020** ($ billion)	**2019** ($ billion)	**Change** ($ billion)	**Change** **%** (2019 versus 2020)	**Share to Asia's total decrease in FDI** (%)
Sri Lanka	0.1	23.9	-23.8	-99.4	63.1
Viet Nam	0.0	14.3	-14.3	-100.0	37.9
Bangladesh	0.2	5.2	-5.0	-97.0	13.3
Philippines	0.0	2.2	-2.2	-100.0	5.7
Republic of Korea	0.0	2.0	-1.9	-97.5	5.2

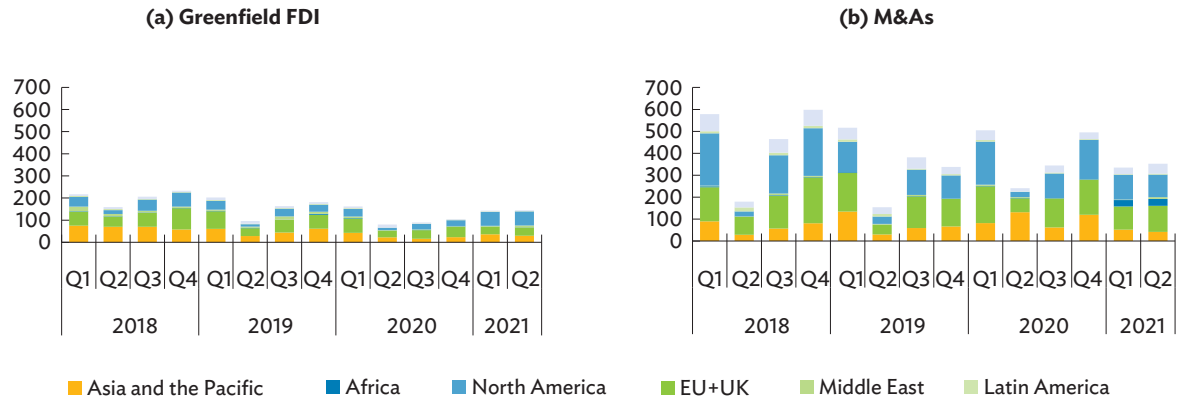
Services					
Destination	**2020** ($ billion)	**2019** ($ billion)	**Change** ($ billion)	**Change** **%** (2019 versus 2020)	**Share to Asia's total increase in FDI** (%)
India	59.7	25.6	34.0	132.8	133.6
Hong Kong, China	29.4	13.0	16.5	126.9	64.6
Japan	11.7	3.8	8.0	212.7	31.3
Australia	22.8	18.3	4.5	24.6	17.6
Malaysia	3.6	2.6	0.9	35.8	3.7

FDI = foreign direct investment, M&A = merger and acquisition.

Notes: For shares to Asia's total increase or decrease in FDI, some values may be greater than 100 as economy-level changes may be largely positive or largely negative. When summed, all the economy-level changes would equal Asia's overall change, and percentages would total 100%.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed May 2021).

Annex 3d: Global Quarterly Outward FDI by Mode of Entry ($ billion)



EU+UK = European Union including the United Kingdom, FDI = foreign direct investment, M&A = merger and acquisition, Q = quarter.

Sources: ADB calculations using data from Bureau van Dijk. Zephyr M&A Database; and Financial Times. fDi Markets (both accessed September 2021).

Annex 3e: List of OECD Services Sectors Identified as Digitally Deliverable

ISIC Rev. 4	EBOPS 2010	OECD FDI RRI Sectors
K: Financial and insurance activities	SF: Insurance and pension services	Insurance
	SG: Financial services	Financial services
		Banking
N: Administrative and support service activities	SH: Charges for the use of intellectual property, not identified elsewhere	*Data unavailable.*
J: Information and communication	SISK1: Telecommunications, computer, information, and audiovisual services	Communications
		Fixed telecommunications
		Media
		Mobile telecoms
		Radio and television broadcasting
		Other media
L, M, N: Real estate activities; Professional, scientific, and technical activities; Administrative and support service activities	SJXSJ34: Other business services (excluding trade-related)	Accounting and audit
		Legal
		Architectural
		Engineering
		Business services
R: Arts, entertainment, and recreation	SK2: Other personal, cultural, and recreational services.	*Data unavailable.*
S: Other service activities		

EBOPS = Extended Balance of Payments Services, FDI = foreign direct investment, ISIC = International Standard Industrial Classification, OECD = Organisation for Economic Co-operation and Development, RRI = regulatory restrictiveness index.

Sources: Bureau van Dijk. Zephyr M&A Database; Financial Times. fDi Markets (both accessed May 2021); Government of Canada, Statistics Canada. Industry classifications. https://www.statcan.gc.ca/en/concepts/industry; Government of the United States, United States Census Bureau. North American Industry Classification System. https://www.census.gov/naics/ (both accessed June 2021); OECD. FDI Regulatory Restrictiveness Index Data Set. https://stats.oecd.org/Index.aspx?datasetcode=FDIINDEX# (accessed September 2021); and Wettstein et al. (2019).