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Cross-Border Investment

Recent Trends in Foreign Direct Investment

Inward Foreign Direct Investment

Global foreign direct investment activity saw an uptick in 2021; however, the momentum could taper off amid the growing headwinds.

After a significant dip in investment activity in 2020, global foreign direct investment (FDI) recovered strongly in 2021.³⁸ Based on estimates from the United Nations Conference on Trade and Development (UNCTAD), total inward FDI expanded by 64.3% in 2021 after declining by 35.0% in 2020.³⁹ This put FDI inflows back to pre-pandemic levels, amounting to about \$1.6 trillion in 2021, nearly 7% higher than 2019 levels.

Significant merger and acquisition (M&A) deals helped boost global FDI activity. International project financing also picked up on the back of infrastructure-related stimulus packages. However, as the global economic backdrop has dimmed, global FDI may be on an unsustainable trajectory, and inflows for 2022 are expected to be more modest. The Russian invasion of

Ukraine has weighed on the global economy, causing several chokepoints in food and fuel supply. The invasion also compounds supply chain drags resulting from the pandemic flare-up in the second and third quarters (Q2 and Q3) of 2022, especially in the People's Republic of China (PRC).

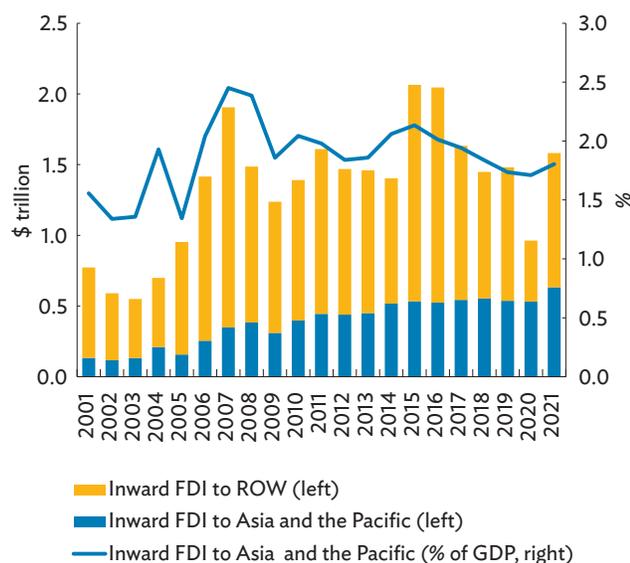
Asia and the Pacific showed resilience despite the challenges, while pent-up demand and reinvested earnings drove FDI growth in developed economies.⁴⁰

Foreign investment into Asia reached a new peak in 2021, amounting to \$633.0 billion. This translates to a 19.1% expansion from the previous year (Figure 3.1). Asia's share in global inward investment slid to 40.0% in 2021 from 55.2% in 2020, as investment into economies outside Asia rebounded more dramatically. FDI into economies outside Asia reached \$949.3 billion in 2021, more than double the investment receipts in 2020. Large intakes of reinvested earnings, underpinned by low financing costs and government support, were observed in developed economies, particularly the United States (US) (UNCTAD 2022a).

³⁸ For discussions on recent FDI trends, this chapter analyzes standard balance of payments data along with firm-level data by mode of entry (greenfield investment and mergers and acquisitions).

³⁹ 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.

⁴⁰ Asia and the Pacific consists of 49 member economies of the Asian Development Bank (ADB). The composition of economies for Central Asia, East Asia, the Pacific and Oceania, South Asia, and Southeast Asia subregions are outlined in ADB. Asia Regional Integration Center. Economy Groupings. <https://aric.adb.org/integrationindicators/groupings>.

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

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

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 2022); International Monetary Fund. World Economic Outlook April 2022 database. <https://www.imf.org/en/Publications/WEO/weo-database/2022/April> (accessed April 2022); and United Nations Conference on Trade and Development. World Investment Report 2022 Statistical Annex Tables. <https://worldinvestmentreport.unctad.org/annex-tables/> (accessed June 2022).

Large, reinvested earnings drove FDI growth in the US, making the world's largest economy the top destination for global FDI in 2021.

At the economy level, the US was the top destination globally, amassing \$367.4 billion in FDI in 2021. Reinvested earnings in the economy reached \$200 billion—the highest ever recorded (UNCTAD 2022a) (Table 3.1). Besides the US, other large recipients of FDI in 2021 outside of Asia are Canada (\$59.7 billion), Brazil (\$50.4 billion), South Africa (\$40.9 billion), Mexico (\$31.6 billion), and Germany (\$31.3 billion).

Despite persistent lockdowns through the pandemic, the PRC was the second most attractive FDI destination globally in 2021, with receipts of \$181.0 billion (up 21.2% from 2020) spurred by inflows into the services and high-tech sectors. Other developing Asian economies were also among top destinations, and investment into these economies also grew in 2021. Excluding the PRC, FDI into developing Asia, which groups 45 economies in Asia, grew 13.7% in 2021 to \$398.8 billion. Among these economies, Hong Kong, China (\$140.7 billion); Singapore (\$99.1 billion); and India (\$44.7 billion) were top destinations.

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

Global	2021	2020	Asia	2021	2020
United States	367.4	150.8	People's Republic of China	181.0	149.3
People's Republic of China	181.0	149.3	Hong Kong, China	140.7	134.7
Hong Kong, China	140.7	134.7	Singapore	99.1	75.4
Singapore	99.1	75.4	India	44.7	64.1
Canada	59.7	23.2	Australia	25.1	16.7
Brazil	50.4	28.3	Japan	24.7	10.7
India	44.7	64.1	Indonesia	20.1	18.6
South Africa	40.9	3.1	Republic of Korea	16.8	8.8
Mexico	31.6	27.9	Viet Nam	15.7	15.8
Germany	31.3	64.6	Malaysia	11.6	3.2

Source: ADB calculations using data from United Nations Conference on Trade and Development. World Investment Report 2022 Statistical Annex Tables. <https://worldinvestmentreport.unctad.org/annex-tables/> (accessed June 2022).

Meanwhile, FDI in advanced Asian economies rose by 70.4% to \$53.2 billion in 2021, with Australia and Japan among the top destinations. FDI inflows to Australia increased by 50.0% to \$25.1 billion, while inflows to Japan more than doubled to \$24.7 billion.

Global greenfield FDI and M&A deals have recovered in 2021, surpassing 2019 estimates in some regions.

Firm-level investment activity provides a detailed look into the recovery of global FDI.⁴¹ Greenfield projects and M&A deals recovered in 2021 despite the persistence of restrictions due to the coronavirus disease (COVID-19) pandemic. Greenfield investments grew by 23.5% in 2021—reaching \$891.5 billion—after contracting by 27.3% in 2020. In some regions, greenfield investments returned to pre-pandemic levels. In North America, inflows reached \$339.0 billion, 40.3% higher than 2019 inflows. Meanwhile, greenfield FDI in the European Union and the United Kingdom (EU+UK) amounted to \$224.5 billion, 26.3% higher than in 2020 and 9.1% higher than in 2019 (Figure 3.2a).

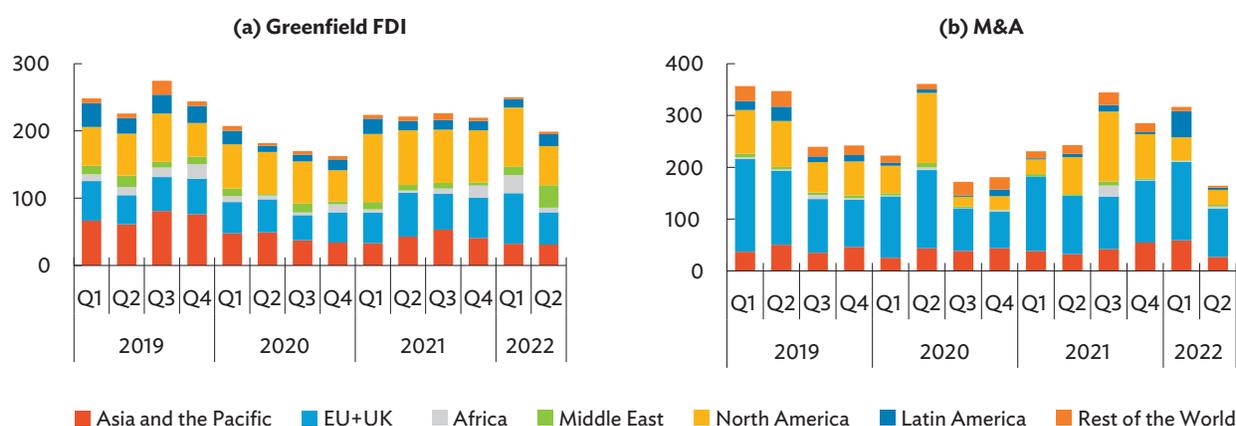
M&As overall grew by 17.8%, with global deal values totaling \$1.1 trillion. Similarly, strong recovery in some regions propelled deal values to pre-pandemic levels. Transactions in Africa reached \$22.9 billion in 2021, 35.8% higher than the 2019 estimates. North American economies also saw a large increase in M&A deals, amounting to \$319.5 billion in 2021—up 37.0% from 2020 and up 7.5% from 2019 (Figure 3.2b).

Both global greenfield investment and M&As were resilient in the first half of 2022. Greenfield FDI reached \$449.1 billion in the first half of 2022 (0.8% more than in the first half in 2021), while M&As logged \$481.2 billion in deal values in the same period (1.6% more than in the first half of 2021).

After major setbacks due to the pandemic, greenfield investment in Asia grew modestly in 2021.⁴²

After dipping in 2020, both greenfield investment and M&As in Asia recovered in 2021. Greenfield FDI in the region totaled \$169.7 billion in 2021, translating to

Figure 3.2: Quarterly Global Inward Foreign Direct Investment—Firm-Level (\$ billion)



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

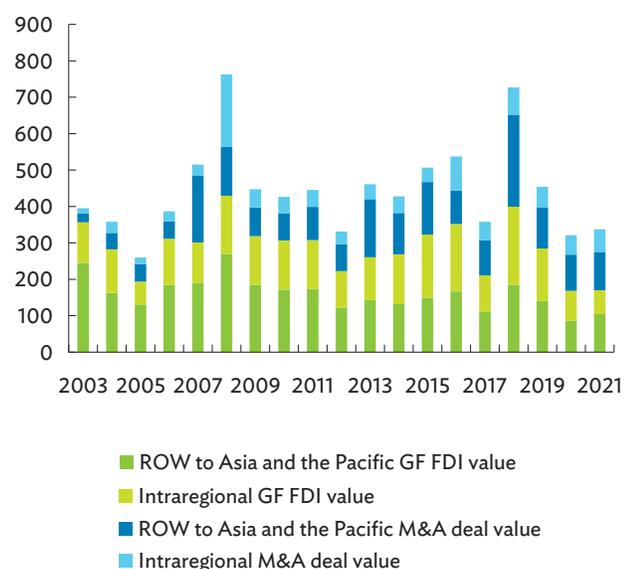
Sources: ADB calculations using data from Bureau van Dijk, Zephyr M&A Database; and Financial Times. fDi Markets.

⁴¹ 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 (greenfield FDI) and the purchase of existing assets (M&As).

⁴² The methodology for data compilation and coverage has been updated. For more information, see Box 3.1 and Chapter 8: Statistical Appendix.

a modest 0.8% growth on the previous year's inflows. While intraregional greenfield investment slid by 20.6%, significant inflows from extraregional sources cushioned the impact as investment from these economies grew by 21.3%. Meanwhile, M&A deals in Asia grew by 10.1% in 2021, reaching \$167.8 billion. Intraregional transactions drove growth, posting a 20.0% increase in 2021 from \$53.2 billion in 2020. Deals from economies outside Asia reached \$103.9 billion—a 4.9% increase from 2020 (Figure 3.3).

Figure 3.3: Foreign Direct Investment by Mode of Entry—Asia and the Pacific, Firm-Level (\$ 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.

Gains in East Asian economies drove the modest growth in Asia's inward greenfield investment; however, a more strained global landscape weighed on greenfield FDI in the first half of 2022. Meanwhile, M&As in the region helped buoy recovery.

Although greenfield FDI in the region had started to recover in Q2 2021, inflows still were not near their 2019 levels as sustained bottlenecks due to the

COVID-19 pandemic continued to weigh on projects and investment. Despite this, investment in the region recovered for the whole of 2021, largely due to higher inflows to East Asian economies. Greenfield investment in the subregion grew by 34.3% in 2021, equivalent to \$65.4 billion. Those gains contrasted with large losses in South Asia (down 30.2%), Central Asia (down 18.8%), and the Pacific and Oceania (down 11.2%) (Figure 3.4a).

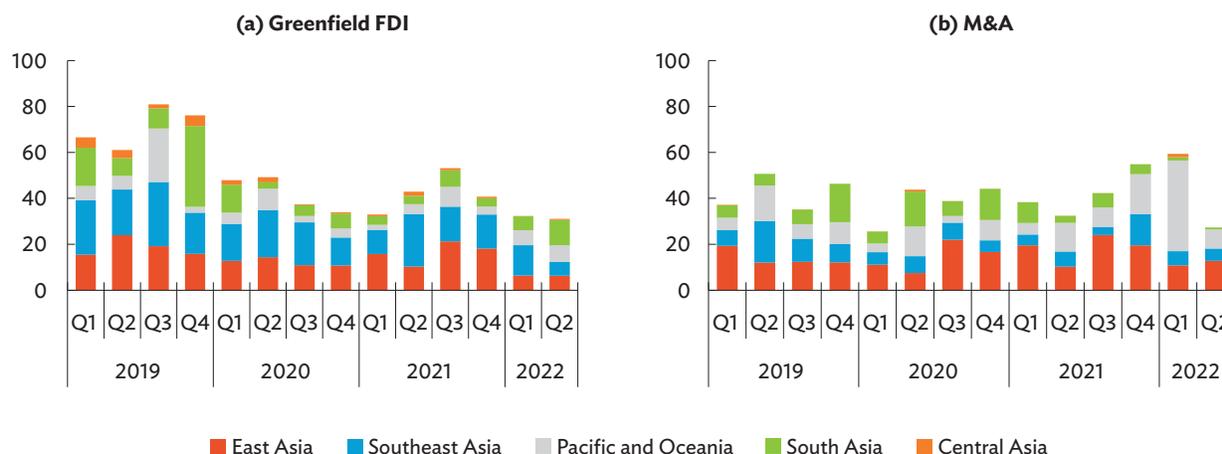
Meanwhile, M&As in Asia declined between Q4 2020 and Q2 2021 (Figure 3.4b). Despite ending 2020 down 10.0%, deals in Asia broadly returned to pre-pandemic levels in 2021, reaching \$167.8 billion in value. Increased investment in the Pacific and Oceania (up 52.6%), East Asia (up 28.1%), and Southeast Asia (up 12.6%) helped offset large declines in Central Asia (down 87.7%) and South Asia (down 44.4%).

Despite an overall uptick in greenfield investments in 2021, FDI in Asia slowed in the first half of 2022. Project values reached \$63.4 billion, 16.4% lower than investments in the first half of 2021. Renewed lockdowns in the PRC and global economic headwinds have weighed anew on greenfield investments. Meanwhile, M&As in the region were more resilient, as deals grew by 22.5% in the first half of 2022 to \$86.6 billion.

The US was the largest source of increased FDI to Asia. FDI from the US grew by \$15.3 billion between 2020 and 2021, reaching \$85.3 billion. Australia also increased investments in the region, with FDI reaching \$13.0 billion in 2021 from \$3.9 billion in 2020. The Republic of Korea (up \$7.0 billion); Taipei, China (up \$6.7 billion); and Germany (up \$6.3 billion) were also among top sources of increased investment in the region.

Malaysia benefited most from larger foreign investment in Asia (Table 3.2). In 2021, FDI into the economy expanded by \$17.8 billion to \$26.2 billion, due to recovery in greenfield investment. Investment in New Zealand also rebounded in 2021 (up \$9.5 billion) after declining by \$3.5 billion in 2020. The Republic of Korea (up \$8.1 billion), Japan (up \$8.1 billion), and the PRC (up \$8.0 billion) were also top recipients of increased greenfield FDI and M&As.

Figure 3.4: Quarterly Inward Foreign Direct Investment—Asia and the Pacific, Firm-Level (\$ 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.

Table 3.2: Top Recipients of Increased Foreign Direct Investment in Asia and the Pacific, Firm-Level

Destination	2021 (\$ billion)	2020 (\$ billion)	Change (\$ billion)	Share in Asia's Total Increase in FDI (%)
Malaysia	26.2	8.5	17.8	105.8
New Zealand	14.3	4.8	9.5	56.7
Republic of Korea	13.7	5.6	8.1	48.1
Japan	28.1	20.0	8.1	48.0
People's Republic of China	63.9	55.9	8.0	47.7
Papua New Guinea	6.5	0.0	6.4	38.3
Hong Kong, China	24.5	18.5	6.0	35.7
Singapore	25.2	20.7	4.5	27.1
Thailand	5.4	2.8	2.6	15.7
Taipei, China	8.6	5.9	2.6	15.7

FDI = foreign direct investment.

Notes: Shares to Asia's total increase in FDI may read as greater than 100 since economy-level changes may be either largely positive or largely negative. When summed, all changes in the economy level would equal Asia's overall change, and the percentages would total 100%. Values are based on the sum of greenfield FDI and merger and acquisition deals.

Sources: ADB calculations using data from Bureau van Dijk, Zephyr M&A Database; and Financial Times, fDi Markets.

The manufacturing and tertiary sectors accounted for over 90% of Asia's total FDI.

FDI in Asia headed mostly toward manufacturing and the tertiary sector, with both accounting for 95% of total FDI into the region. Greenfield FDI in manufacturing accounted for 53.7% of total investment in Asia in 2021. Meanwhile, about two-thirds of Asia's M&As was in

the tertiary sector, largely consisting of service-related industries (Figure 3.5).

Greenfield FDI into Asia's manufacturing sector went primarily into the manufacture of semiconductors. Investments in this segment reached \$37.4 billion in 2021, comprising 41.0% of total greenfield FDI in manufacturing that year. Electronic components

received the second-largest greenfield FDI in 2021, with \$19.2 billion in investments (11.3% of total greenfield FDI). As for M&As, finance and insurance-related services logged \$28.3 billion worth of deals, roughly 17% of total M&As in the region. The information sector also proved to be attractive for investments, with \$24.3 billion in M&As (14.5%).

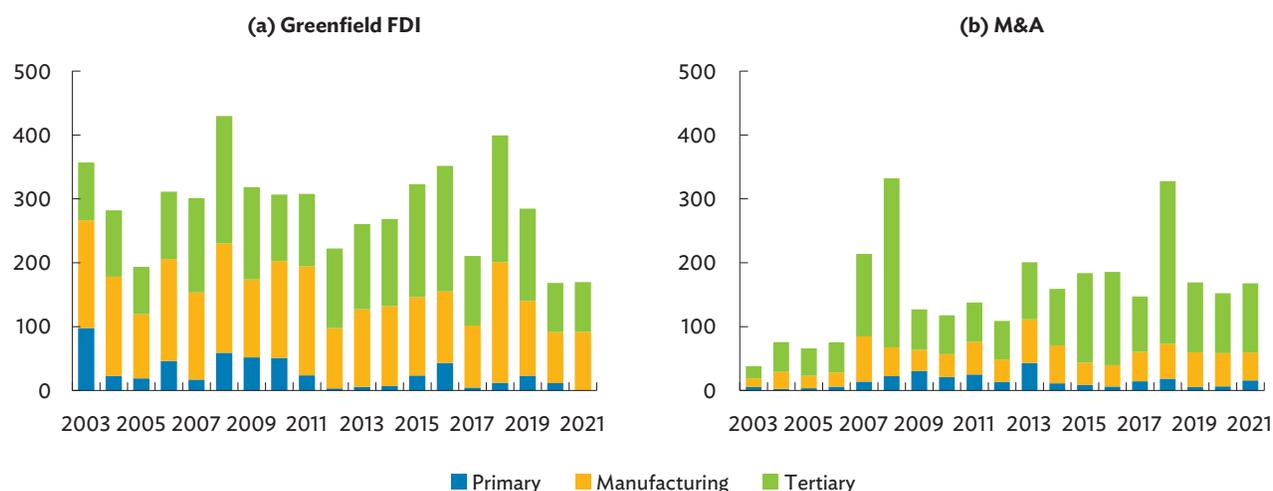
Despite the increase in total values, the average project or deal size in Asia decreased by \$2.2 million in 2021 (Table 3.3). While trends across sectors and modes of entry were mixed, overall estimates indicate smaller deal and project sizes. On average, greenfield projects in the region were \$5.5 million smaller than in 2020, while the average M&A deal in the region was \$0.8 million smaller. By sector, the value of deals and projects declined by \$11.1 million in the primary sector, \$8.1 million in the manufacturing sector, and \$0.4 million in the tertiary sector.

Modest gains in activity generated more greenfield jobs in Asia in 2021.

While job creation and greenfield FDI have yet to return to pre-pandemic trends, 2021 saw greenfield projects in Asia increasing employment (Figure 3.6a). They created about 518,000 jobs, 18.1% more than in 2020. Much of that growth is due to greenfield projects funded from outside the region, which generated around 329,000 jobs in 2021 (up 30.7%).

The easing of pandemic-related restrictions revitalized activity in more labor-intensive sectors (Figure 3.6b). Jobs in manufacturing and the tertiary sector rebounded in 2021, with jobs generated in tertiary sectors growing by 21.9% after declining by 49.2% in 2020. Meanwhile, manufacturing-related greenfield jobs grew by 17% in 2021 after an almost 51% contraction in the previous year.

Figure 3.5: Total Inward Foreign Direct Investment to Asia and the Pacific by Sector—Firm-Level (\$ 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.

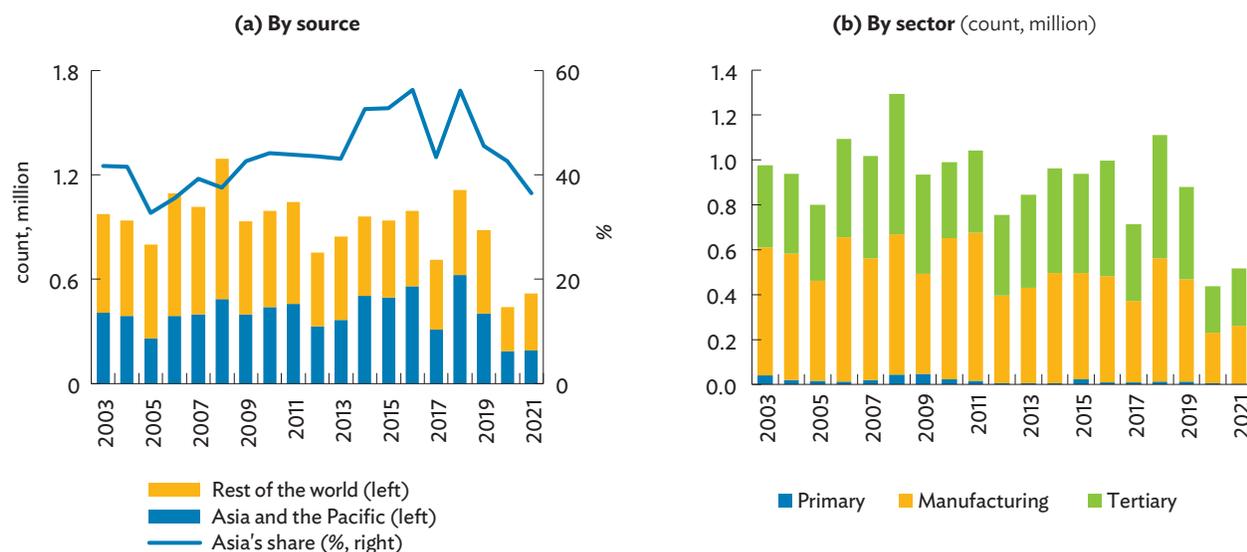
Table 3.3: Average Project and Deal Size by Sector—Asia and the Pacific (\$ million)

Year	GF	M&A	Total	Greenfield			M&A			Total		
				PRI	MFG	TER	PRI	MFG	TER	PRI	MFG	TER
2020	67.1	15.7	26.2	481.3	90.5	48.0	22.6	25.0	12.8	58.5	44.5	19.1
2021	61.6	14.9	24.1	21.9	100.0	42.9	49.3	15.7	13.3	47.3	36.4	18.7

GF = greenfield, M&A = merger and acquisition, MFG = manufacturing, PRI = primary, TER = tertiary.

Note: Average project (deal) size equals greenfield capital expenditure (M&A deal value) in Asia and the Pacific divided by number of greenfield projects (M&A deals).

Sources: ADB calculations using data from Bureau van Dijk, Zephyr M&A Database; and Financial Times, fDi Markets.

Figure 3.6: Inward Greenfield Foreign Direct Investment Job Creation—Asia and the Pacific

Sources: ADB calculations using data from Bureau van Dijk, Zephyr M&A Database; and Financial Times, fDi Markets.

Intraregional investment activity continued to dip and East Asia emerged as the main source of intraregional FDI.

After a sustained 30% decline in 2020, intraregional FDI slid by just 4.7% in 2021, and amounted to \$129.3 billion in 2021, based on firm-level data. Intraregional greenfield investment continued to decline, reaching only \$65.4 billion in 2021—down 20.6% from 2020. Meanwhile, intraregional M&A deals saw a 20.0% growth between 2020 and 2021.

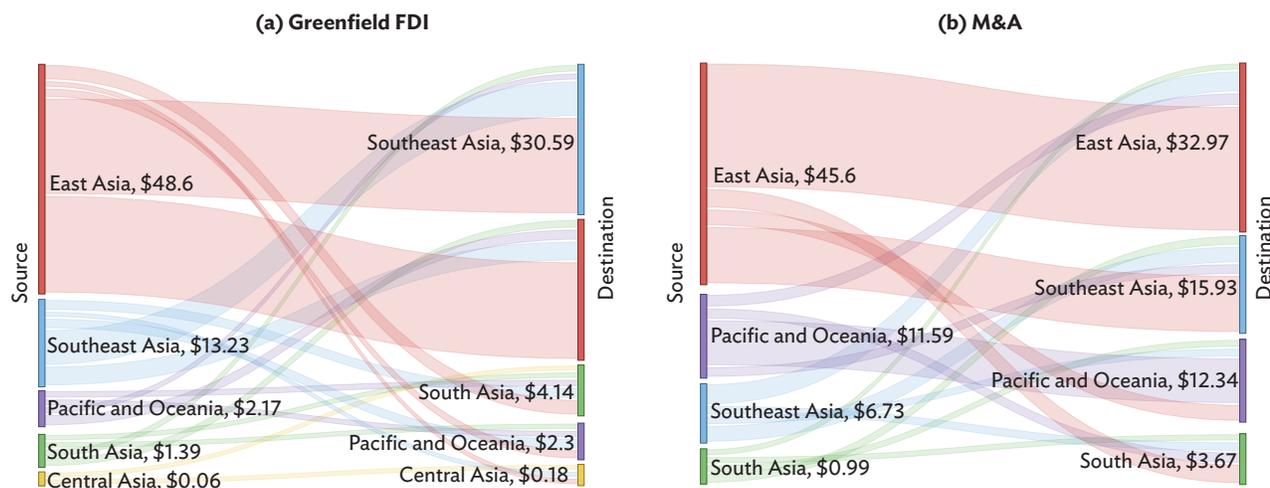
Intraregional FDI primarily came from East Asia and headed largely toward East Asia and Southeast Asia (Figure 3.7). Intraregional greenfield investment from East Asia, totaling \$48.6 billion in 2021, flowed largely into East Asia (\$22.8 billion) and Southeast Asia (\$22.5 billion). Meanwhile, Southeast Asia injected roughly \$13 billion in greenfield FDI to the region, with the majority going to Southeast Asia (\$7.4 billion) and East Asia (\$3.4 billion) (Figure 3.7a). East Asia was also the top source of intraregional deals in 2021, with \$45.6 billion coming from the subregion (Figure 3.7b). Meanwhile, the Pacific and Oceania became the second-largest source of M&A deals in 2021, with nearly \$12 billion coming from the subregion.

Foreign Investment Trends by Business Activity

Greenfield investment by business activity complements the perspective on FDI sector allocation.⁴³

Together with sector classification, firm-level data from fDi Markets provide information on greenfield projects by business activity, which complement the analysis of a sector classification system. Business activity is defined as the actual function of the operation. In this case the project, not the company, is classified, allowing the identification of upstream and downstream activities in the value chain where multinationals are more actively investing. Examples of business activities include research and development (R&D), information and communication technology (ICT) and internet infrastructure, logistics, manufacturing, and technical support centers. The business activity shows how different functions are mapped out and can drive the location of a project and the sector.

⁴³ fDi Markets uses a proprietary industry classification system. Each project is classified according to its cluster, sector, sub-sector and business activity. This provides information on the different industries a firm is actively investing in.

Figure 3.7: Intraregional Foreign Direct Investment—Asia and the Pacific, Firm-Level, by 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.

While most greenfield investment heads toward manufacturing, recent years have seen an uptick in other business activities.

Manufacturing-related activities have historically attracted the bulk of Asia's greenfield investment, accounting on average 41% of the total between 2017 and 2021. However, recent years have seen the emergence of other business activities in inward FDI. Investment in electricity-related activities increased globally, also in Asia, representing on average 13% of the region's greenfield FDI from 2017 to 2021. Other targeted business activities by multinational firms were construction (13% on average during 2017–2021); logistics, distribution, and transportation (6%); sales, marketing, and support (5%); and business services (5%) (Figure 3.8). Among these activities, the increase in electricity investments in Asia was most notable, with average investments over the period 2017–2021 tripling (\$32.4 billion) when compared with 2003–2007 (\$11.6 billion). This also reflects a global trend with renewable energy investments becoming more dominant. As of 2021, renewable energy had outpaced oil and gas as the largest recipients of FDI globally.

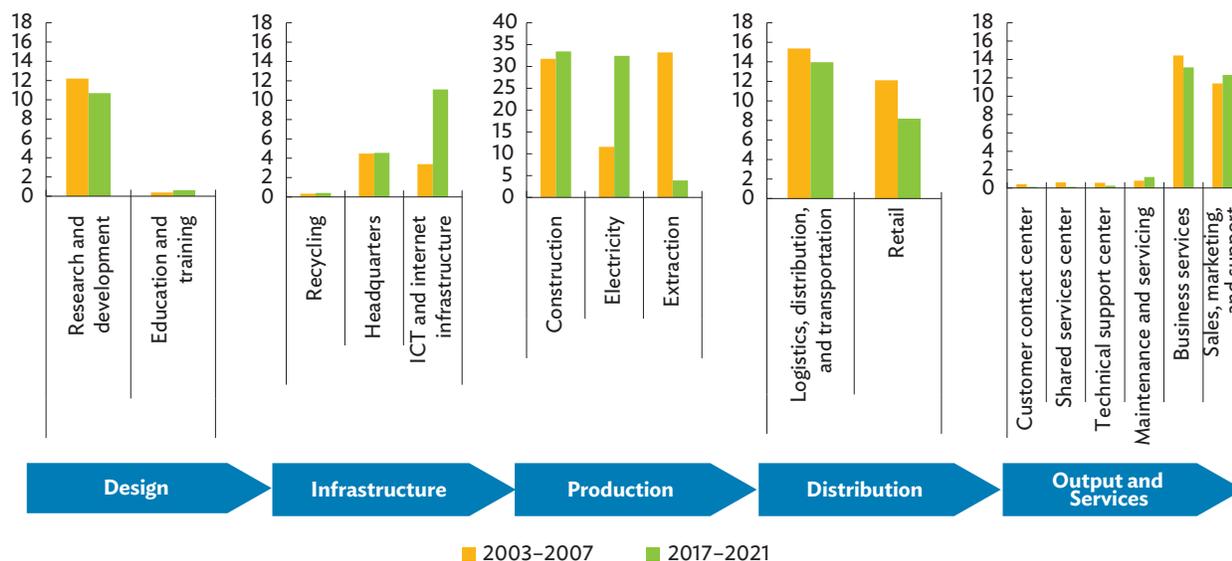
Investment in some activities also decreased, particularly in extraction-related activities. In 2003–2007, investments in Asia's extraction activities recorded an annual average of \$33.2 billion a year. This decreased to an average FDI of \$3.9 billion in the last 5 years.

Trends in FDI Concentration

While global FDI has been historically concentrated, recent years have seen a gradual wider spread.

Concentration of inward FDI flows by source (or investor) economy and economic sector may be an indicator of diversification opportunities but also external vulnerabilities. The distribution of FDI sources and sector destination is generally associated with diversification of the economic base (Odusola 2018, UNESCAP 2012). This view holds that the economy's ability to attract FDI from multiple economy sources and distribute the inflows among sectors will determine the progress in advancing underdeveloped sectors that in turn can broaden the economic drivers. FDI source diversification is also linked with export market

Figure 3.8: Greenfield Investment in Asia and the Pacific, by Selected Business Activity—2003–2007 versus 2017–2021 (annual average, \$ billion)



ICT = information and communication technology.

Note: Excludes greenfield investment in manufacturing, which accounts for the largest investment share among business activities.

Source: ADB calculations using data from Financial Times. fDi Markets.

diversification (Pham et al. 2021; Shin 2010) and is deemed to promote resilience to external shocks (Sanghi and Johnson 2016; Shin 2010) much like the effect of cross-border bank lending source diversification (Lapid, Mercado, and Rosenkranz 2021).

Regional concentration indexes by investor show overall historically moderate to high concentration, with recent estimates pointing to a slight decline (Figure 3.9).⁴⁴ Despite concentration easing over the last 2 years, some Asian economies remain vulnerable, especially when relying on inflows from a narrow base of investors. This is the case of economies such as Armenia, Cambodia, and Uzbekistan, in contrast to more diversified economies such as the PRC, Singapore, or Viet Nam.

Global average concentration by source economy peaked at 0.293 in 2005 and has remained above 0.25 (Figure 3.9a). However, the last couple of years saw some moderation. From 2020 to 2021, bottlenecks brought about by the COVID-19 pandemic highlighted

the need to diversify investment and production bases, which may have resulted in easing concentration over those years. In 2021, concentration by source economy was lowest among Asian economies, with an average index of 0.181. This implies that Asian economies generally rely on a larger number of investment partners, and therefore may be more insulated from risk of volatile FDI flow or investor withdrawal. This was exemplified during the pandemic, as FDI into Asia remained relatively robust despite the global downturn.

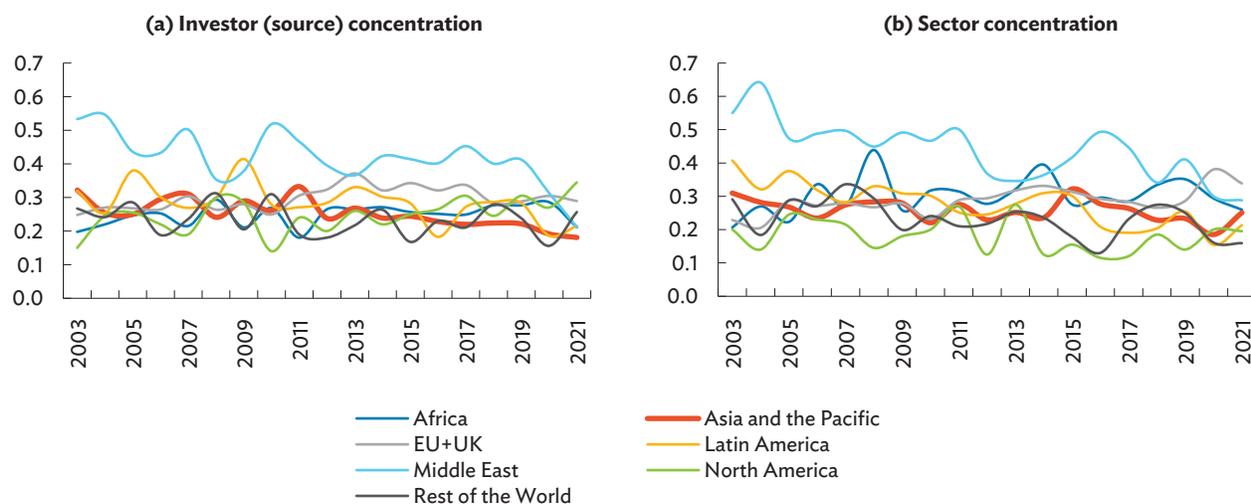
Meanwhile, average global sector concentration also exhibited similar trends (Figure 3.9b). Sector concentration was elevated between 2003 and 2019, peaking at 0.341 in 2008. This indicates that some economies may be reliant on inflows to a few specific sectors and therefore more susceptible to disruptions or risks in FDI to those sectors. Sector concentration was highest in the EU+UK in 2021. Economies in the Middle East also exhibited higher measures of sector concentration that year. In Asia, sector concentration

⁴⁴ In this chapter, the measure of concentration, using the Herfindahl–Hirschman concentration index as featured in Lapid, Mercado, and Rosenkranz (2021), aims to examine the distribution of FDI inflows for a host economy by investor (economy) and economic sector. Values range from 0 to 1, with 0 indicating no concentration and 1 indicating high concentration. Based on current consensus, values larger than 0.25 already indicate a high concentration.

fluctuated between moderate and high over the years; estimates for 2021 show an elevated average of 0.251. Some Asian economies relied on investment in a less varied array of sectors, which was the case in Armenia, Cambodia, Georgia, and Fiji.

Overall, Asia's FDI concentration by investor and by sector remains moderate and relatively stable in comparison with other regions.

Figure 3.9: Foreign Direct Investment Concentration Index—Firm-Level Investment



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

Notes: The FDI concentration index was computed using the Herfindahl–Hirschman market concentration index, as featured in the paper by Lapid, Mercado, and Rosenkranz (2021). Values range from 0 to 1, with 0 indicating no concentration and 1 indicating high concentration. Based on current consensus, values larger than 0.25 already indicate a high concentration. Regional values are computed using the arithmetic mean of economies in each region.

Sources: ADB calculations using data from Bureau van Dijk, Zephyr M&A Database; Financial Times, fDi Markets; and Lapid, Mercado, and Rosenkranz (2021).

Box 3.1: Key Changes in Firm-Level Data Compilation

The coverage and compilation process for firm-level data were updated to better capture investment flows from multinational corporations. This updated data set was used for *Asian Economic Integration Report 2023: Trade, Investment, and Climate Change in Asia and the Pacific*. For details on the methodology and updates, see Methodological Note and Update—Firm-Level Data in Chapter 8: Statistical Appendix.

Data Coverage. Project type coverage in the firm-level data was expanded for new greenfield projects. Coverage now includes project expansions, especially those that result in new assets and jobs. Also included in the data

set is an indicator on project status (announced, opened, closed).

Sector Harmonization and Classification. The data set continues to use the North American Industry Classification System (NAICS) codes as basis for sector matching and merging. Previously, the sector classification of merger and acquisition data was converted into the proprietary classification of fDi Markets. In its current version, the greenfield classification is converted to NAICS codes first. The 2-digit NAICS codes are then used to create the 3-industry economic classification (primary, manufacturing, and tertiary).

Sources: ADB staff based on Bureau van Dijk, Zephyr M&A Database; Financial Times, fDi Markets; Government of Canada, Statistics Canada. <https://www.statcan.gc.ca/en/concepts/industry>; and Government of the United States, Census Bureau. <https://www.census.gov/naics>.

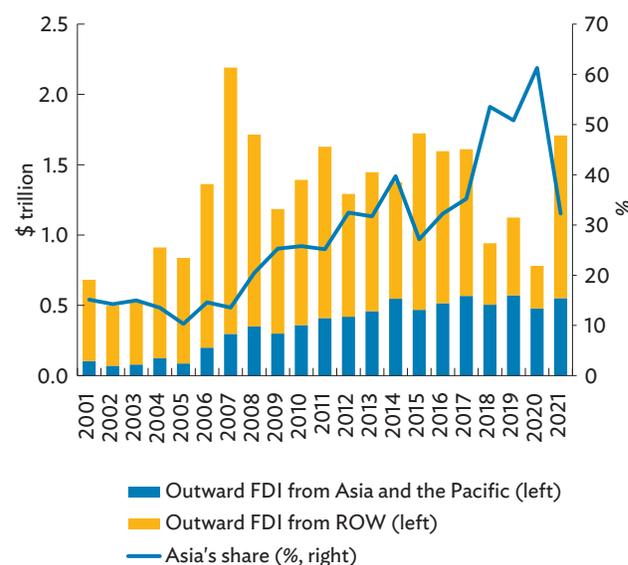
Outward Foreign Direct Investment

FDI outflows in 2021 saw renewed vigor as global outward investment reached \$1.7 trillion—the highest since 2015.

Outward foreign investment recovered in 2021 after a 3-year slump, with outflows from developed economies, particularly the EU+UK and North America, driving growth (Figure 3.10). Global outward FDI reached \$1.7 trillion in 2021, more than double that in 2020. Investment from Asia grew 15.3% to \$551.3 billion in 2021. Meanwhile, investment from other economies almost quadrupled between 2020 and 2021, from \$302.2 billion to \$1.2 trillion.

The US was the largest source of global investment in 2021, with \$403.1 billion in FDI flowing from the economy (Table 3.4). Germany followed, with \$151.7 billion in outward investment. Among Asian economies, Japan emerged as the top source of global investment. A total of \$146.8 billion flowed from Japan, 53.4% more than in 2020. This resulted in a large recovery in investment from advanced Asian economies, whose outward FDI expanded by 45.2% from 2020. The PRC came in a close second with \$145.2 billion in outflows, down 5.5% from 2020.

Figure 3.10: 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 2022 Statistical Annex Tables. <https://worldinvestmentreport.unctad.org/annex-tables/> (accessed June 2022).

Outward investment from other developing Asian economies continued to grow in 2021, reaching \$251.9 billion (up 15.3% from 2020). Increased FDI from economies such as the Republic of Korea (up 74.6% from 2020), Singapore (up 49.2%), and India (up 39.7%) contributed to this growth.

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

Global	2021	2020	Asia and the Pacific	2021	2020
United States	403.1	234.9	Japan	146.8	95.7
Germany	151.7	60.6	People's Republic of China	145.2	153.7
Japan	146.8	95.7	Hong Kong, China	87.5	100.7
People's Republic of China	145.2	153.7	Republic of Korea	60.8	34.8
United Kingdom	107.7	-65.4	Singapore	47.4	31.8
Canada	89.9	46.5	Thailand	17.3	19.0
Hong Kong, China	87.5	100.7	India	15.5	11.1
Russian Federation	63.6	6.8	Taipei,China	10.1	11.5
Ireland	62.0	-45.0	Australia	9.2	9.9
Republic of Korea	60.8	34.8	Malaysia	4.7	2.4

Source: ADB calculations using data from United Nations Conference on Trade and Development. World Investment Report 2022 Statistical Annex Tables. <https://worldinvestmentreport.unctad.org/annex-tables/> (accessed June 2022).

Outflows through greenfield investment and M&As recovered globally and in Asia.

Firm-level data also depict a vibrant backdrop for global outward investment. Outward greenfield investment recovered in most regions, with the Middle East posting the largest growth in 2021 (up 72.4%). M&As also broadly increased across regions in 2021, with deals from Africa increasing roughly tenfold to \$58.3 billion in 2021.

Investment from Asia was similarly upbeat in 2021, with overall greenfield investment from the region amounting to \$161.9 billion (up 6.4%) and M&A deals reaching \$171.5 billion (up 8.3%). South Asia posted the highest growth in greenfield investment, with its outward FDI tripling to \$13.0 billion. Meanwhile, M&A deals involving investment from Central Asia reached \$493.1 million, a remarkable gain from the previous year's \$0.7 million (Figure 3.11).

Asia's outward greenfield investment declined in the first half of 2022 to only \$67.5 billion, almost 30% lower than in the first half of 2020. Despite this, M&As from Asian economies almost doubled between the first half of 2021 and the first half of 2022. Much of that growth came from the Pacific and Oceania, where outward deals rose to \$76.8 billion in the first half of 2022, from \$5.8 billion in the first half of 2021.

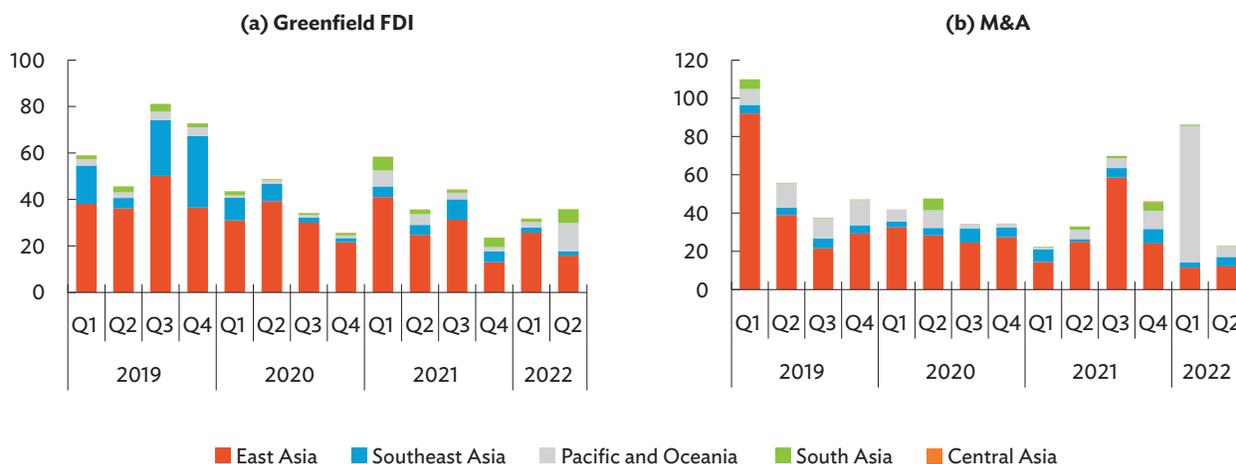
Despite the uptick in 2021, the dim global and political landscape in 2022 hinder investment prospects globally and in Asia.

Global and Asian FDI activity was resurgent in 2021. As the global economy started to emerge from the seemingly lasting effects of the pandemic, foreign investment started to regain strength, driven by renewed demand, government stimulus and support, and low financing costs. While investments such as in services, technology, and renewables are expected to remain robust, the effects of changes in the political and economic landscape in 2022 will likely be far-reaching.

The Russian invasion of Ukraine is expected to take a toll on FDI in 2022, compounded by reemerging surges and restrictions in relation to the COVID-19 pandemic. Investor sentiment may become more risk averse as a result, and greatly diminish global FDI flows. Global FDI inflows will likely taper in 2022 or remain flat at best.

FDI flows to Asia remained robust despite the pandemic flare-up in 2021, and the outlook for the region remains stable. Investment in the high-technology, information, manufacturing, and finance sectors remains high and will likely continue to buoy FDI. In addition, provisions for FDI in new and existing trade agreements, such as the Regional Comprehensive Economic Partnership, may complement efforts to promote investment in the region (Box 3.2).

Figure 3.11: Quarterly Outward Foreign Direct Investment—Asia and the Pacific, Firm-Level (\$ 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.

Box 3.2: Investment Provisions in the Regional Comprehensive Economic Partnership

The Regional Comprehensive Economic Partnership (RCEP) sets standards for cooperation among 15 participants in several areas, including investment. RCEP investment provisions reflect the trend in regional trade agreements and go beyond tariff reduction. Commitments in Chapter 10 (Investment) are similar to those concluded by the Association of Southeast Asian Nations (ASEAN) Comprehensive Investment Agreement. The main difference between RCEP and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) concerns dispute settlement.

RCEP investment provisions cover investment liberalization, protection, and dispute settlement. RCEP provides for most favored nation and national treatment as well as fair and equitable treatment before and after foreign investment is established. It prohibits performance requirements on technology transfer or royalties, with exceptions for least developed economies. The agreement also provides protection for transfer of funds, expropriation, and compensation similar to CPTPP.

The dispute settlement provisions of RCEP and CPTPP differ significantly. RCEP has no provisions for investor–state dispute settlement (ISDS). ISDS is included in most enforced international investment agreements and free trade agreements with investment provisions. An agreement to conclude a dispute mechanism within RCEP by 2025 has been reached. Yet, RCEP includes a state-to-state dispute settlement by which investors can recur revenue to their home state if a host state fails

its investment chapter obligations. This mechanism is less robust than CPTPP, which includes provisions on consultation and negotiation, the submission of claims to arbitration under International Centre for Settlement of Investment Disputes Convention or the United Nations Commission on International Trade Law Arbitration Rules, and sets standards for the selection and conduct of arbitrators and the payment of awards.

Overall, the value added of investment liberalization in RCEP appears to be small as investors are covered by international investment agreements. The absence of an ISDS means that investors have to seek protection through the ISDS in the ASEAN Comprehensive Investment Agreement, ASEAN–Australia–New Zealand Free Trade Area, and other international investment agreements. Market access commitments in RCEP are more restrictive than in CPTPP. While all RCEP members use negative lists to state their exemptions from the investment chapter, the schedules of reservations and nonconforming measures are extensive and apply to all members. Negative lists may also change. Overall, RCEP is expected to spur investment through enhanced investment protection and market access. It also gives stronger emphasis on intellectual property rights and digital services trust mechanisms—e.g., online consumer protection, digital personal information protection, transaction transparency, paperless trading, and electronic signature acceptability in e-commerce.

Source: ADB staff based on ADB (2022b).

Policy Focus: Investment Tax Incentives in Asia and the Pacific

Investment incentives have been at the core of investment policy in emerging economies. Recent discussions about the reform of international tax rules have paid special attention to tax incentives. This section examines the main features of investment tax incentives for Asia, linkages of incentives to domestic investment laws, and other investment policy dimensions. The section is divided into four parts. First, it explores how

investment incentives are contained or covered in investment laws. Second, the discussion delves into investment tax incentives in the region, describing their main features, including those beyond special economic zones, which were the focus of previous editions of the Asian Economic Integration Report (ADB 2015). It also discusses possible implications of new global tax rules and provides sector-based discussion on the role of regulatory incentives and other incentives to enhance FDI flows, before rounding off with some policy considerations.

Domestic Investment Laws and Investment Incentives

Much like international investment regimes, domestic investment laws have been pivotal to attract and direct foreign investment.

National investment laws can increase or diminish the regulatory risks and ultimately reflect the national stance on foreign investment. Incentives, being a key feature of investment laws, are also subject to governments' discretionary power. The manner by which investment incentives are used to guide investment flows by sector, geographic location, or firm size, can respond to different criteria and considerations (James 2009). While governments use a range of targeted policies, in general investment incentives comprise tax incentives, R&D incentives, financial incentives, and regulatory incentives.⁴⁵

Apart from incentives, investment laws also outline restrictive or facilitating investment measures by economic sector, territory, and other criteria.

A common practice in conveying to potential investors the sector restrictions is through the publication of positive and/or negative lists. The positive list includes sectors an economy promotes to foreign investors, while the negative list includes restricted sectors to foreign investment. These may or may not be stated in the national investment law.⁴⁶ In Asia, about 60% of the economies where data are available utilize a negative investment list (Hebous, Kher, and Tran 2020). The list is contained in the national investment law of only five economies (Table 3.5). None of the economies in the database indicated they would be publishing a positive list.

Recent Trends in Corporate Tax Incentives

Tax incentives are a critical component of investment regulations and among the most common policy instruments for attracting foreign investment.

Low corporate rates and incentives in the form of tax exemptions, tax allowances, tax holidays, duty exemptions, and accelerated depreciations, among other instruments, have been used to ease effective rates paid by domestic and foreign companies. Notably, tax incentives are not confined to firms operating in special economic zones. Generous tax incentives based on sector policies, geographic location, and other criteria make multinationals pay considerably lower rates.

The impact of taxes on foreign investment has long been a subject of empirical inquiry. Multinationals spend considerable resources on transfer pricing and other tax-planning techniques to minimize tax liabilities. Estimates of the elasticity of foreign investment given a change in corporate taxes range widely, although most studies suggest that the impact is significant (James 2009). More importantly, the effectiveness of incentives is linked to the environment where they are offered. A body of evidence casts doubt on the effectiveness of tax incentives as a sustainable mechanism for attracting and retaining investment. While tax incentives in theory can create new investments and economic activity, they may be also associated with lower corporate tax revenues (ADB 2022a; Kronfol and Steenbergen 2020).⁴⁷ Some evidence also suggests that tax incentives tend to be ineffective for greenfield investment as FDI is mainly motivated by access to large markets or resources (Andersen, Kett, and Uexkull 2017; Appiah-Kubi et al. 2021; Kinda 2014).

⁴⁵ The latter refer to administrative conditions offered by governments to foreign firms other than special fiscal (e.g., tax) or financial (e.g., subsidies) treatment (UNCTAD 2022b). Examples can include exemptions of environmental, health safety, or labor standards and stabilization clauses guaranteeing that existing regulations will not be amended to the detriment of investors.

⁴⁶ The procedural requirements can be different in putting up the positive and negative lists (European Commission 2016). In some cases, the lists are contained in other legislation or regulation and not in the national investment law itself.

⁴⁷ Estimates for a group of 109 economies indicate that a 10-percentage point increase in corporate income tax (CIT) incentives led to a decrease in CIT revenues of 0.35% of gross domestic product between 2009 and 2015 (Kronfol and Steenbergen 2020).

Table 3.5: Explicit Restrictions in Investment Laws—Selected Asia and Pacific Economies

Economy	Armenia	Azerbaijan	Bangladesh	Cambodia	China, People's Republic of	Georgia	Indonesia	Kazakhstan	Korea, Republic of	Kyrgyz Republic	Lao PDR	Maldives	Micronesia, Federated States of	Mongolia	Nepal	Pakistan	Papua New Guinea	Philippines	Tajikistan	Timor-Leste	Tonga	Turkmenistan	Uzbekistan	Vanuatu	Viet Nam	
Year of Enactment	1994	1992	1980	1994	2020	1996	2007	2003	2017	2003	2016	1979	1997	2013	1992	1976	1992	1991	2007	2017	2016	1992	1998	1998	2014	
Does the act prohibit investment in certain sectors/activities?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is there a positive list (i.e., listing of sectors open to investment)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
a) If yes, is this included in the act?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b) If no, is it provided in a regulation or other secondary instrument?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is there a negative list (i.e., listing of prohibited/restricted sectors)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
a) If yes, is it included in the act?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b) If no, is it provided in a regulation or other secondary instrument?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Legend:

Yes No not applicable

Lao PDR = Lao People's Democratic Republic.

Sources: Hebous, Kher, and Tran (2020); and World Bank (2020).

Corporate income tax (CIT) incentives are a significant component of investment packages.

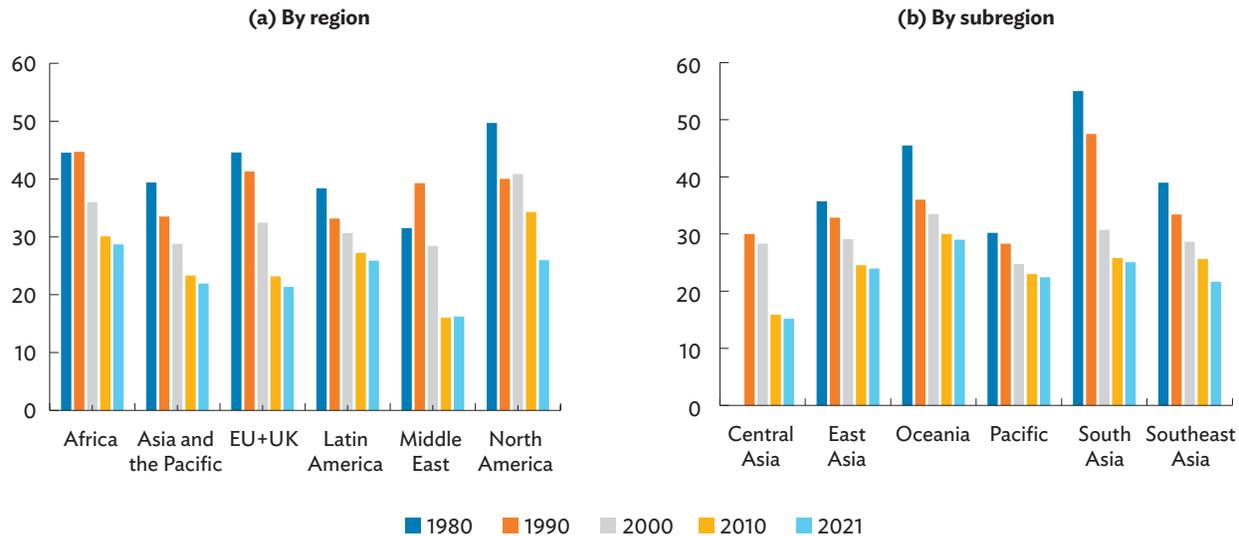
CIT may include tax holidays, tax rate reductions, investment tax allowances, tax credits, and other instruments. Already a couple of decades ago, a sharp decline was observed in corporate tax revenue in Organisation for Economic Co-operation and Development (OECD) member economies partly due to tax competition for FDI. Industrialized economies had typically reduced CIT and designed other incentives, such as R&D incentives, to attract multinational enterprises (MNEs). More recent data suggest that CIT rates have continued to decline globally (Figure 3.12). The downward trend is evident across different regions and Asian subregions in recent decades. On average, the prevailing CIT rates in Asia tend to be lower than in the other regions.

Asia's revenue from CIT as a proportion of output is similar to other regional blocs but higher than OECD member economies (Figure 3.13). In developing Asia,

CITs accounted for nearly 21% of tax revenues, in line with other developing regions and double the share in OECD economies (ADB 2022a). The region's revenue performance deteriorated marginally from about a decade earlier. Asia's average CIT revenue-to-gross domestic product ratio declined by about 30 basis points to 3.7% in 2019 from 4.0% in 2010. Of the 24 Asian economies in the sample, 10 economies saw their CIT ratios slide between 2010 and 2019.

Other incentives, beyond CIT incentives, are just as important in understanding the direction of investment policies.

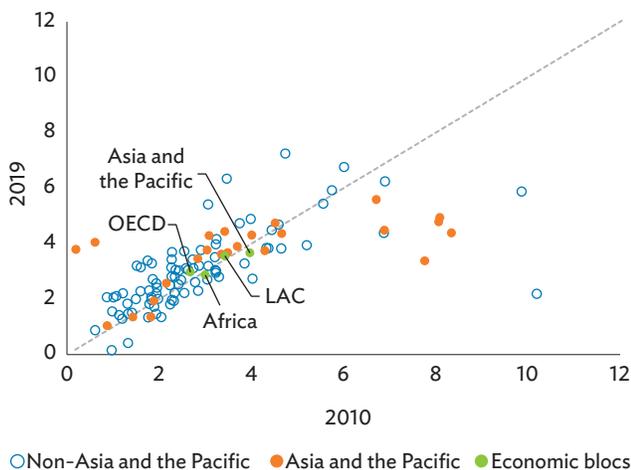
Beyond CIT reductions, tax competition extends to other incentives, including indirect taxes, import duties, and tax-related financial incentives. Of the 100 economies that have adopted investment measures related to taxation over the past decade, 90 have lowered taxes, introduced new tax incentives, or made

Figure 3.12: Average Statutory Corporate Income Tax Rate by Region and Subregion, 1980–2021 (%)

EU = European Union (27 members), UK = United Kingdom.

Note: Data for Central Asia are not available in 1980 while the data for Kazakhstan are only for 1990.

Source: Tax Foundation. Corporate Taxes database. <https://taxfoundation.org/publications/corporate-tax-rates-around-the-world/> (accessed August 2022).

Figure 3.13: Corporate Income Tax Revenue, 2010 and 2019 (% of GDP)

GDP = gross domestic product, LAC = Latin America and the Caribbean, OECD = Organisation for Economic Co-operation and Development.

Notes: The raw data refer to item 1200 in the database, i.e., taxes on income, profits, and capital gains of corporates. Data for economy groups refer to unweighted averages. The aggregate data for Africa, OECD, and Latin America and the Caribbean are as indicated in the source. The aggregate data for Asia and the Pacific are calculated by the authors.

Source: OECD. Global Revenue Statistics Database. <https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm> (accessed August 2022).

them more generous, bringing down the effective tax rate (UNCTAD 2022b). The use of non-CIT incentives differs in the region, even within a subregional agglomeration. In the Association of Southeast Asian Nations (ASEAN), for example, various forms of income tax holiday, capital equipment incentives, raw material and spare parts incentives, and loss carry forward are available to investors (Government of the Philippines, National Tax Research Center 2018). However, members differ in approaches to incentives for R&D, labor and training, reinvestment of earnings, and export duties.

While implementation of the new tax rules is still under discussion, economies in the region may need to review their use of investment tax incentives.

Efforts to tackle corporate tax avoidance concluded with a major reform of international tax rules.⁴⁸ The agreement aims to delimit, if not eliminate, offshore investment and tax competition on corporates and to

⁴⁸ The first pillar will reallocate taxing rights estimated at more than \$125 billion of profits to the market jurisdictions where consumers/users are located. The second pillar aims at reducing tax competition through a minimum corporate income tax of 15%, to be applied to multinationals with annual group consolidated revenues above €750 million.

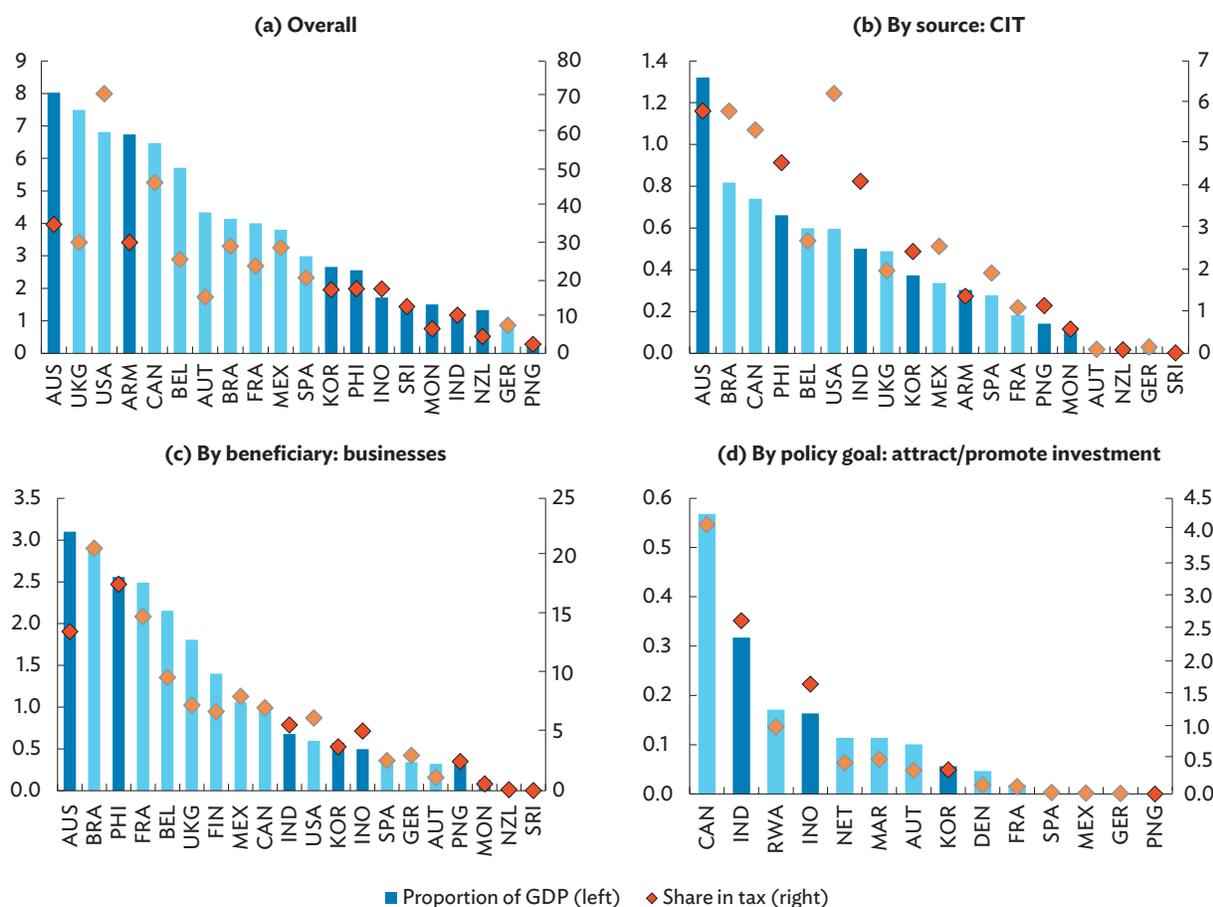
provide tax preferences for other policy areas, such as clean energy production. The implications of these measures for investment policy in the region are still to be seen. For example, where tax incentives target MNEs with a substantial impact on jobs or physical investments, they are less likely to be affected. As a first step, assessing the effectiveness of investment tax incentives may be important for aligning to new global tax rules. Certainly, the move to limit the role of tax tools to attract investment will need a rethink in the overarching policy, including revisiting fiscal stabilization clauses with tax incentives of certain agreements and investment contracts (Lassourd, Mann, and Redhead 2021). A balance between designing an effective foreign investment policy and limiting the use of tax incentives for investment will be critical.

Investment Tax Incentives: Balancing Costs and Benefits while Addressing Redundancy

Investment tax incentives entail forgone revenues, thus should be effective in attracting the necessary investments to offset the cost.

The estimated total forgone revenue in a sample of Asian economies equals on average 2% of gross domestic product or 14% of tax revenue (Figure 3.14a). From this, the estimated forgone revenue related to CIT is on average above 2% of tax revenues, and in some economies close

Figure 3.14: Revenue Forgone in Corporate Income Tax and Investment in Selected Asia and Pacific Economies, 2019 (%)



ARM = Armenia, AUS = Australia, AUT = Austria, BEL = Belgium, BRA = Brazil, CAN = Canada, CIT = corporate income tax, DEN = Denmark, GDP = gross domestic product, GER = Germany, FIN = Finland, FRA = France, INO = Indonesia, IND = India, KOR = Republic of Korea, MAR = Morocco, MEX = Mexico, MON = Mongolia, NET = Netherlands, NZL = New Zealand, PHI = Philippines, PNG = Papua New Guinea, RWA = Rwanda, SPA = Spain, SRI = Sri Lanka, UKG = United Kingdom, USA = United States.

Notes: Latest available data for both revenues forgone as a percentage of GDP and tax are 2018 for India and Mongolia. The revenue forgone estimates represent the lost revenue due to items such as tax deductions, exemptions, and other tax expenditures. Estimates are based on the most recent government reports where actual data are reported. Darker bars and darker diamond markers both represent estimates for Asia and the Pacific.

Source: ADB calculations based on the Global Tax Expenditures Database. <https://doi.org/10.5281/zenodo.633421> (accessed September 2022).

to 4.5% (Figure 3.14b). For economies where data are available, the estimated forgone revenues from policies to promote/attract investment are also significant (Figure 3.14d). In the context of decreasing FDI flows, scrutiny on investment incentives has increased. Incentives are expected to be nonredundant, well-targeted, and based on robust cost–benefit analyses. They are justified when they correct market inefficiencies, support new industries, assist firms during downturns, and ultimately lead to additional revenue intake. They are also more effective if the infrastructure is adequate and the overall investment policy and climate are favorable (James 2009, Kronfol and Steenbergen 2020). When poorly designed, however, they can render the tax system less efficient by narrowing the tax base, undermining competition, and signaling to investors that the investment climate is not necessarily stable. Balance is particularly important in emerging economies, where tax regimes are usually complex.

Tax expenditure provisions linked to CITs figure prominently in investment packages offered by some Asian economies.

Where information is available, CITs constitute 26.3% of the total tax expenditure provisions in Asian economies,

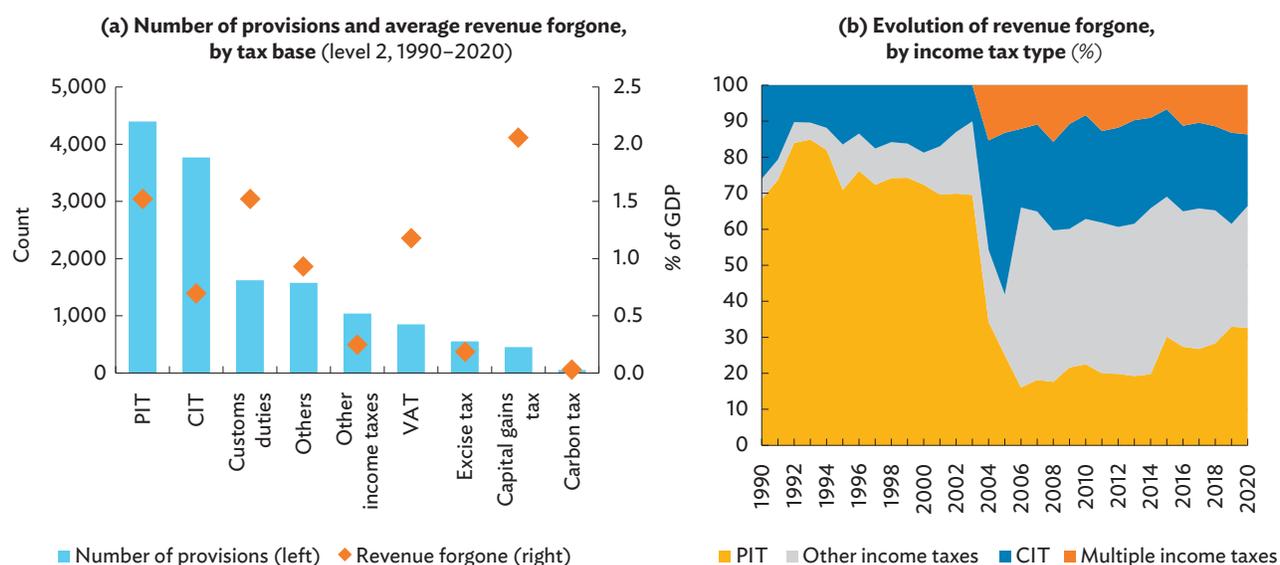
following 30.7% for personal income taxes (Figure 3.15a). Despite the volume of CIT-related relief measures in the region, the share of CITs in forgone revenue has remained stable after an important decline in the early 2000s (Figure 3.15b). From 2018 to 2020, the share of CITs in forgone revenue stood at about 23%. The stagnant CIT shares in tax expenditures suggest that the benefits for investors from such incentive may have become less attractive (Von Haldenwang, Redonda, and Aliu 2021).

Investment Tax Incentives in Asia

Asian economies have introduced many different tax-related investment measures in recent years.

Investment tax incentives have been commonly categorized either as CIT-based or other incentives (UNCTAD 2022b). CIT-based incentives can in turn be classified into two main categories: profit-based and expenditure (or capital investment) incentives. Profit-based incentives are based on earnings and therefore are more attractive for mobile investment, whereas expenditure investments are related to

Figure 3.15: Average Revenue Forgone by Tax Type—Selected Economies



CIT = corporate income tax, GDP = gross domestic product, PIT = personal income tax, VAT = value-added tax.

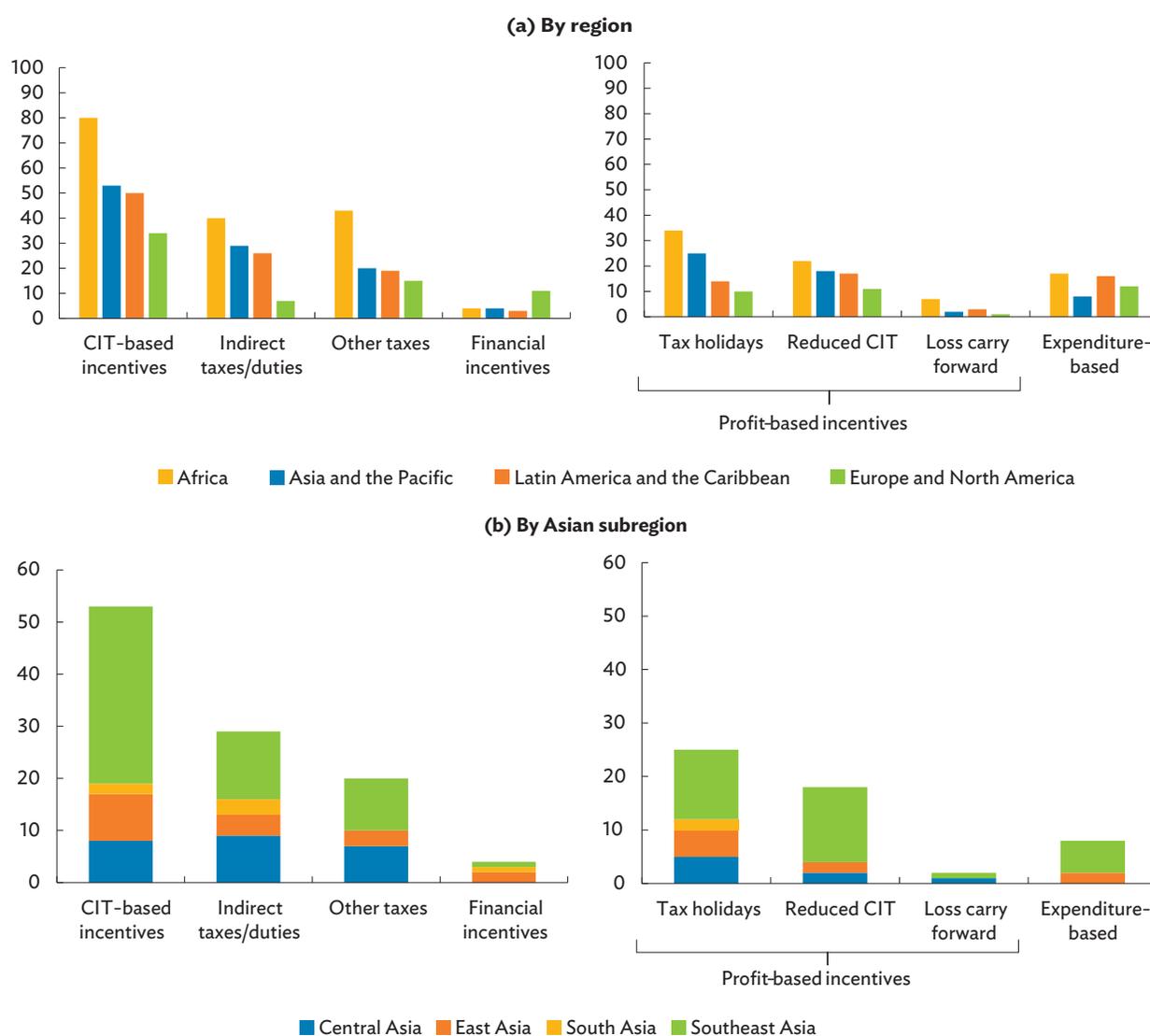
Notes: Latest available data for both revenues forgone as a percentage of GDP and tax are 2018 for Bhutan, India, and Mongolia. Estimates for panel (a) include Armenia, Australia, Bhutan, India, Indonesia, Kazakhstan, Mongolia, New Zealand, Pakistan, Papua New Guinea, the Philippines, the Republic of Korea, and Sri Lanka.

Source: ADB calculations based on Global Tax Expenditures Database. <https://doi.org/10.5281/zenodo.633421> (accessed September 2022).

capital investment. CIT incentives remain the most common instrument for attracting investment. In Asia, CIT incentives accounted for 50% of all tax-related investment measures over 2011–2021 (Figure 3.16a). Of the CIT-based instruments, tax holidays are the most common in Asia, representing 47% of tax-related investment measures, followed by reduced CIT rates. Notably, developed economies have a considerably lower number of tax incentives. Comparable data on

CIT incentives for Asian economies suggest that tax exemptions and allowances are commonly used in the region, especially in Southeast Asia (Figure 3.16b). According to the OECD tax incentive classification (OECD 2022), tax exemptions remain the most widely used instrument among developing economies. Meanwhile tax allowances are often used to target qualifying capital and current expenditures.

Figure 3.16: Investment Incentives By Type, 2011–2021 (count)



CIT = corporate income tax.

Sources: ADB calculations using data from UNCTAD and UNCTAD (2022b).

Design features of investment tax incentives determine their cost and effectiveness.

In the case of CIT rates, design features include, for example, the applicable rate, qualifying income, and time limitations. For tax exemptions, relevant design features relate to thresholds for exemptions and duration of the exemption. In the case of tax allowances or tax credits, design features may include the qualifying expenditures. Eligibility conditions are also important as they determine the beneficiary from the incentive. They may target a specific sector or industry, geographic location, ownership structure (e.g., minimum capital for domestic investors) or performance outcomes (e.g., exports, employment), among other factors.

While sector targeting remains a principle for tax incentives, these are broadly allocated.

Available information indicates that investment tax incentives in Asia are spread across most economic sectors (Table 3.6). At the same time, while most economies target specific sectors or subsectors for eligibility, tax incentives are usually broadly defined. This is the case for manufacturing, where existing incentives cover most subsectors. In contrast to negative lists, few economies specify which sectors are eligible for tax incentives.

Table 3.6: Economies Providing Investment Tax Incentives with Sector Conditions

	Agri			Mining			Manufacturing														Other Sectors																
	Crops and animals	Forestry	Fishing	Coal	Crude petroleum and gas	Metal ore	Other mining	Food and beverage	Tobacco	Textile and apparel	Wood	Paper and publishing	Petroleum products	Chemicals and plastics	Pharmaceutical and biotechnology	Rubber and non-mineral	Basic and fabricated metals	Computer and electronics	Electrical equipment	Machinery and equipment	Motor vehicles	Other transportation	Other manufactures	Electricity	Water and waste	Construction	Wholesale and retail	Transport and storage	Tourism	Information and communication	Finance and real estate	Professional and scientific services	Education	Arts and entertainment	Other services		
Armenia																																					
Azerbaijan																																					
Brunei Darussalam																																					
Cambodia																																					
Georgia																																					
Indonesia																																					
Lao PDR																																					
Thailand																																					

Agri = agriculture, Lao PDR = Lao People's Democratic Republic.

Note: Blue squares indicate that the economy (y-axis) has at least one corporate income tax incentive with a sector.

Source: Celani, Dressler, and Wermenlinger (2022), based on OECD Investment Tax Incentives database, July 2021.

Special economic zones (SEZs) are special cases for the definition and granting of incentives.

SEZs are designated areas where governments facilitate investment through both tax and nontax incentives, infrastructure, and targeted sector programs. SEZs have played a key role in Asia's economic development (ADB 2015).⁴⁹ With more than 5,000 zones across the world as of 2019, SEZs have boosted the export sector, created jobs, and attracted foreign investment. SEZs also have been testing grounds for incentives and policies that have gone on to be implemented nationwide. Fiscal incentives have been considered an important feature of successful SEZs, specially for initial investments. They are useful to newly established firms, particularly in labor-intensive industries and at the lower stream of the industrial chain. They may also directly reduce production costs. However, institutional factors, such as an independent governing body and an enabling legal framework, have proved more important for investors. Lack of transparency in administration and governance of tax incentives in SEZs remains a challenge.

New Tax Rules and the Effectiveness of Investment Tax Incentives

New tax rules could offset the advantages of tax incentives for foreign investors.

The Pillar Two Model rules (also known as Global Anti-Base Erosion or GloBE rules) of the international tax agreement set agreed limits on tax competition and may limit the scope of jurisdictions to offer tax incentives (OECD 2022). While CIT rates in developing Asia are comparable to other regions and above the minimum tax rate of 15%, in practice multinationals pay considerably lower effective tax rates. In Asia, tax incentives for private investment are estimated to reduce effective tax rates on average by 8.6% (Wiedemann and Finke 2015). With the adoption of Pillar Two, eligible multinationals—those with a group consolidated revenue exceeding

€750 million—will be subject to top-up taxes in the economy where their Ultimate Parent Entity, typically the headquarters, are located. The effectiveness of the minimum tax will depend on several factors, including the determination of the effective tax rates and the extent and coverage of substance carve-outs.⁵⁰ Nevertheless, granting tax incentives to attract FDI would mean that part of this additional income would be taxed elsewhere. Indeed, under several existing tax incentive regimes, the residence economy collects tax that the source economy could have collected (Mullins 2022). Overall, the benefits of tax incentives will most likely be diminished.

Governments may therefore need to revisit their tax incentives to prevent the associated forgone revenue being taxed in another jurisdiction. They should reconsider and reform those incentives that may be inefficient. This requires a jurisdiction-specific analysis, as the impact of the GloBE rules, and policy responses, will vary between jurisdictions. Once the GloBE rules are in place, the use of investment tax incentives will still be possible, but they will need to be carefully designed and targeted (Box 3.3).

To remain attractive or to prevent MNEs from repatriating investments, developing economies may start offering other tax incentives.

New tax rules may discourage the use of CIT-related tax incentives since they are at the heart of harmful tax competition. However, they do not prevent some economies from considering other tax incentives besides corporate taxation, and outside of the new tax agreement. Measures not covered by new tax rules involve reductions in customs duties, indirect and value-added taxes, or payroll taxes. If governments change the composition of incentives without addressing key flaws on tax incentives for investment, the potential benefits of the new tax agreement for enhancing tax revenue may be limited.

⁴⁹ For a comprehensive analysis on the role and impact of special economic zones in the Asia and Pacific region, see ADB (2015).

⁵⁰ Substance carve-outs have now been replaced by the Qualified Domestic Minimum Top-Up Tax.

Box 3.3: Adapting Investment Tax Incentives to New Tax Rules

In response to the implementation of new tax rules, tax reforms need to prioritize incentives that carry the greatest risk of multinational enterprises being liable for top-up tax under the Global Anti Base Erosion (GloBE) rules.

Tax incentives are more likely to be affected where they are treated as reductions in Covered Taxes in the GloBE effective tax rate calculation. They include the majority of income-based and expenditure-based tax instruments, including preferential corporate income tax rates—through either reduced rates or exemptions—investment tax allowances or credits that seek to reduce taxable income or the tax liability on certain investments. In turn, narrowly targeted tax incentives to certain categories of income or expenditure or incentives that effectively limit tax benefits are likely to be less affected. Tax incentives targeted to specific types of income, such as intellectual property or export income, effectively limit a firm's share of total income subject to preferential tax treatment. Their impact is likely to be smaller.

Substance-based carve-outs will play a key role in determining the impact of the GloBE rules on tax incentives. If investments have high levels of substance or low levels of profit, they are to some extent less exposed to the GloBE rules. Certain refundable tax credits are generally less affected by the GloBE rules than

nonrefundable tax credits. The GloBE rules generally follow financial accounting in treating grants and qualified refundable credits as income of the recipient rather than a reduction in taxes. Accordingly, the provision of a grant or qualifying refundable tax credit will increase GloBE income instead of reducing Covered Taxes.

Tax incentives that defer tax payments into the future, such as accelerated depreciation, are generally unlikely to generate top-up taxes under the GloBE rules. Because they allow the firm to deduct these costs over a shorter period than their economic life, they lead to a reduction of taxable income in earlier years and therefore a deferral of taxation. The GloBE rules incorporate certain deferred tax adjustments so that, under a moderate tax rate and assuming no recapture is required, tax incentives such as accelerated depreciation and immediate expensing will not increase tax liability under the GloBE rules. For assets other than tangible assets, where the temporary differences last longer than 5 years, the GloBE Rules may affect the tax incentive.

Aside from the GloBE effective tax rate, the substance-based carve-out will play a key role in the use of tax incentives in a post-GloBE environment. Indeed, the top-up tax only applies to profits in excess of the substance-based carve-out.

Source: ADB staff using OECD (2022).

Fragmentation of the domestic legislation of investment incentives is a challenge for transparency and comparability.

Incentive provisions are often scattered across several laws, including the investment law, income tax law, or SEZ law. The governance structure of tax incentives usually involves several agencies and ministries, which limits transparency and accountability (Table 3.7). SEZ laws are often the primary legal framework for various incentives, including tax and land incentives. Well-defined SEZ laws could be a proxy for good incentive mechanisms, tailored to their objectives and industry policies (ADB 2015). Asian economies may need to assess their tax incentive structure more systematically

to get a good grasp of the potential impact of compliance with new international tax rules and map out the strategies on how to comply with these rules.

Incentivizing Green Investment

Incentives to attract capital for green and sustainable projects can be explored.

As stressed in the theme chapter of this report, enhancing the region's resilience to climate risks requires a steady stream of funding to adapt to and mitigate their impact. While regulatory (e.g. fines) and market-based (e.g. carbon tax) measures that deter activities related

Table 3.7: Investment Tax Incentives by Domestic Laws and Granting Authorities

(a) Legal basis of investment tax incentives, by regulating provision								(b) Granting authority of investment tax incentives									
	Armenia	Azerbaijan	Brunei Darussalam	Cambodia	Georgia	Indonesia	Lao PDR	Thailand		Armenia	Azerbaijan	Brunei Darussalam	Cambodia	Georgia	Indonesia	Lao PDR	Thailand
Tax Law									Ministry of Finance								
Investment Law									Ministry of Economy								
SEZ Law									IPA								
Sector Law									SEZ authority								
Regulations/decrees									Other ministry								
Other laws									Interministerial committee								

IPA = investment promotion agency, Lao PDR = Lao People's Democratic Republic, SEZ = special economic zone.

Source: Celani, Dressler, and Wermenlinger (2022), based on OECD Investment Tax Incentives database, July 2021.

Table 3.8: Examples of Green Incentives Used in Selected Asia and Pacific Economies

Economy	Cash Grants	Soft Loans	Tax Incentives
Australia			
China, People's Republic of			
Fiji			
India			
Japan			
Korea, Republic of			
Singapore			

Legend:

Yes

No information

Note: Only seven Asian economies are included in the database.

Sources: PwC Green Taxes and Incentives Tracker. <https://www.pwc.com/gx/en/services/tax/green-tax-and-incentives-tracker.html> (accessed October 2022); and Watkins et al. (2018).

to carbon emissions are important, so is improving the bankability of greener projects.⁵¹ Green incentives, defined as those that reduce harm to the environment,

broadly include cash grants, soft loans, and reduction in tax liabilities. Tax incentives and cash grants are commonly used as an instrument among a sample of selected Asian economies where information is available (Table 3.8). The use of soft loans in comparison is relatively more limited.

Tax incentives have been introduced on a broad list of activities in pursuit of green goals.

Australia offers incentives for land and water conservation, mine site rehabilitation, and investment in R&D; India has reliefs for green and clean technology and infrastructure; and the Republic of Korea gives away tax credit for R&D expenses on electric vehicle batteries (Table 3.8). Separately, OECD and ASEAN Secretariat (2021) note the implementation of a green procurement initiative in Malaysia (i.e., purchasing of green products and services) together with the green technology tax incentives like the green investment tax allowance and green income tax exemptions. Several Asian economies

⁵¹ Chapter 7: Theme Chapter—Trade, Investment, and Climate Change in Asia and the Pacific discusses in detail some environmental taxation options to contain carbon emissions.

also offer fiscal incentives to promote renewable energy (Akhtar, Zahedi, and Liu 2017).⁵²

Scaling up these mechanisms while maintaining fiscal discipline is nonetheless a challenge for many economies in the region. Incentives for pollution abatement as well as for R&D and investment in green technologies in the region, for instance, are still lacking (Khanna 2020). Further work is also needed to establish sound project performance monitoring frameworks, technically capable oversight institutions and project assessment standards, among others, to mainstreaming the investment support mechanisms.

The Role of Regulatory Incentives

Investment frameworks that spell openness to foreign investment encourage market competition.

A less restrictive investment environment is widely construed as a robust determinant of FDI inflows (Feng and Wang 2021; Ghosh, Syntetos, and Wang 2012; Sin and Leung 2010) even as the sensitivity can be amplified or muted by other factors (Adams 2009; Ullah and Inaba 2014). In examining the FDI-market competition nexus, the focus has been on the impact of FDI on market structure.⁵³ Higher competition brought about by the influx of foreign capital may yield efficiency gains for firms, facilitate technology transfer, and improve market conditions (e.g., lowering the cost of goods and services). At the same time, it can also entail easing out of local firms that cannot compete effectively with foreign entrants.⁵⁴

In the absence of appropriate guiding policies, FDI can contribute to market concentration. Indeed, market concentration increased in developing economies in the 1990s despite inflows in greenfield investment (UNCTAD 1997). More recent empirical studies show mixed outcomes of foreign entry in local industries in Asia. The entry of foreign capital has been associated to both lower concentration (Lundin et al. 2007) and higher concentration (Singh 2011). The competitive pressure from FDI may depend on factors such as the mode of entry, investment climate, and industry-specific factors. Consistency and coherence between policies are underscored to be important in achieving competition outcomes.

As digital sectors gain importance, sustained investment and healthy market competition in sectors like telecommunications are critical.

While internet service and penetration have improved in the region, investment in this space is still insufficient in many developing Asian economies.⁵⁵ Broadband and mobile internet penetration in the region in 2020 is almost as heterogeneous as it is globally (Figure 3.17). Active mobile broadband subscriptions per 100 inhabitants range from about 0.2 to more than 10, while fixed broadband subscriptions per 100 inhabitants range from less than 12 to over 339. Price dispersion is likewise far from negligible. The extent (or lack) of competition in telecommunications, even as the market is open to foreign investors, is an issue for many economies in the region (Box 3.4).

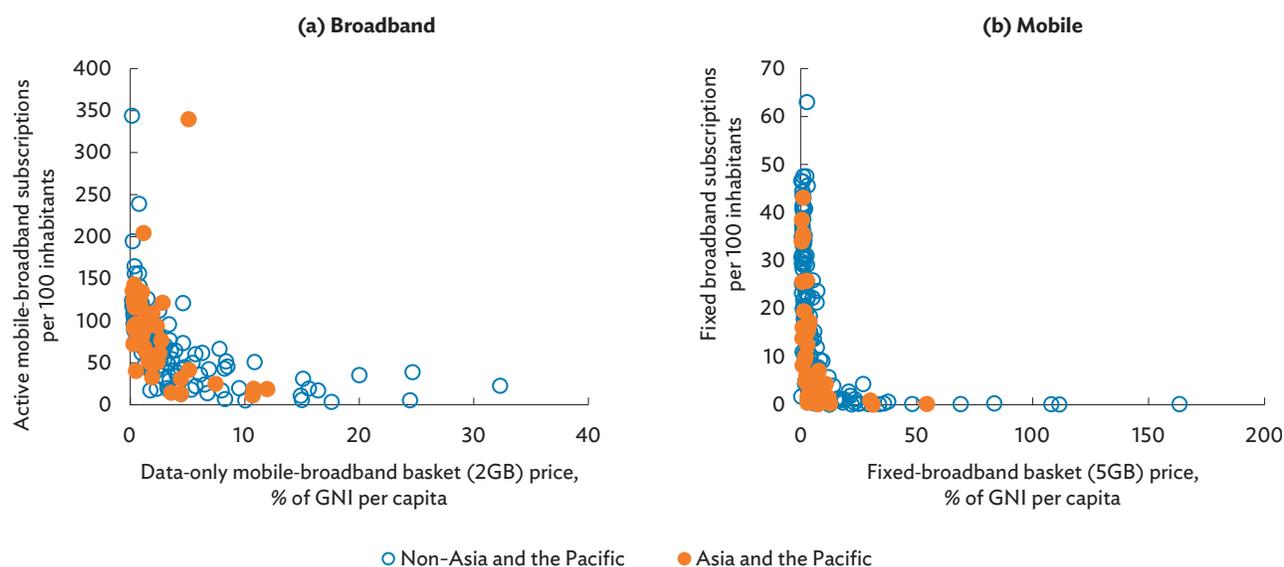
⁵² Table 3.3 of Akhtar, Zahedi, and Liu (2017) lists the policy support for renewable energy in Asian economies.

⁵³ Yet, the empirical literature is relatively silent on the role of market competition in attracting FDI.

⁵⁴ Other accompanying issues related to foreign competition include the possibility of locals giving up control of key national enterprises or even sectors to nonresidents; and the risk of giving nonresidents substantial access to the residents' data and strategic infrastructure or systems. As such, while evidence suggests that FDI can support economic growth and market contestability, governments are usually wary of fully opening up their economies to foreign capital (Schmidt and Pizzetti 2019).

⁵⁵ Examples of indicators are mobile-cellular subscriptions, individuals using the internet, fixed-broadband subscriptions, and mobile-broadband subscriptions.

Figure 3.17: Broadband and Mobile Subscriptions and Service Cost in 2020



GB = gigabyte, GNI = gross national income.

Source: International Telecommunication Union (ITU). ITU Statistics database. <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> (accessed September 2022).

Box 3.4: Competition in the Telecommunications Sector in Asia and the Pacific

Asian telecommunications markets tend to be dominated by two or three major players even if the market is open to foreign capital. Data for India, Indonesia, the Philippines, and Thailand show that the top two service providers in both the fixed broadband and mobile internet segments account for around two-thirds of the market (box table).

Incidentally, many of the largest service providers are partly owned by one or more foreign entities.^a This purports that foreign participation in a liberalized telecommunications market does not seem to erode the dominance of a few firms, if not reinforcing it altogether.

Mobile and Fixed Broadband Market Structures—Selected Asia and Pacific Economies

Economy	Market Share of the Top Firms	Base Data Sources
India	The top 2 firms account for 61% of the mobile phone market and 76% of the broadband market in the first quarter of 2020. The top 3 firms account for 88% of the mobile phone market and 95% of the broadband market in the first quarter of 2020.	Government of India, Department of Telecommunications (2022)
Indonesia	The top firm accounts for 85% of the fixed broadband market in 2020. The top 2 and top 3 firms account for 65% and 85%, respectively, of the mobile broadband market in 2020.	Giga, BCG, and ITU (2021)
Philippines	The top 2 firms account for 99% of the mobile phone market in the first quarter of 2022 and 80% of the broadband market in 2020.	GSMA (2022); Statista (2021)
Thailand	The top 2 firms account for 77% of the mobile phone market and 73% of the broadband market in the first quarter of 2021. The top 3 firms account for 97% of the mobile phone market space and 97% of the broadband market in the first quarter of 2021.	Rasmussen (2022)

Notes: Market share is in terms of subscribers unless otherwise indicated. The number of players in the mobile market in Thailand includes mobile virtual network operators.

^a Annex 3a shows the limitations to foreign participation in the telecommunications sector in selected Asian economies as of 2018.

Sources: ADB compilation based on Giga, BCG, and ITU (2021); Government of India, Department of Telecommunications (2022); GSMA (2022); Rasmussen (2022); and Statista (2021).

The proliferation of mobile virtual network operators (MVNOs) could change the role of FDI in the telecommunications sector.

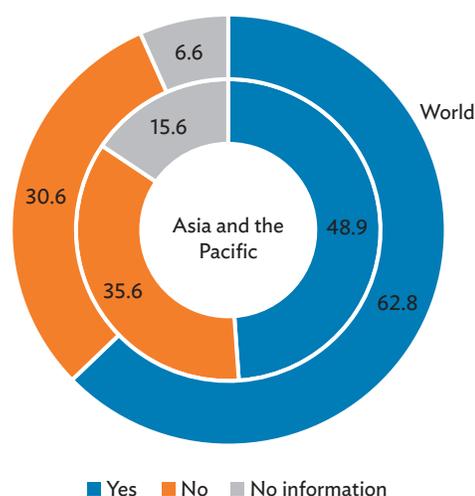
MVNOs, which the International Telecommunication Union (ITU) (2001) defines as those offering mobile services to end users but not having a government license to use their own radio frequency, are not necessarily new. While MVNOs have largely curated services for the business-to-consumer segment, they have now ventured into other segments and evolved toward data-centric services (Deloitte 2016; ITU 2022). In essence, MVNOs are alternative wireless service providers that buy network capacity and the right to use the network of a major mobile carrier and resell services bundled with other features, products, and contents. As they grow in importance outside of the traditional mobile network operators, MVNOs have also become attractive prospects for foreign capital.⁵⁶ To facilitate expansion, governments may consider rationalizing administrative control of entry for internet service providers and MVNOs.

Providing market entrants access to existing infrastructure can be a regulatory incentive to enhance FDI and broaden competition.⁵⁷

Infrastructure sharing can involve sharing of nonelectronic and electronic infrastructure. The mechanism can help lower capital and operating expenditure, improve services, hasten geographic rollout, and lower prices (ITU 2017), although the risk of partner conflicts and disputes calls for a robust set of regulations. Data from the ITU show that about half of Asian economies already have a regulatory framework for infrastructure sharing, against two-thirds globally (Figure 3.18). It is noted that the scale of potential socioeconomic benefits of infrastructure sharing has led some European economies to encourage this activity (GSMA 2012, 2021).

In these conditions, policies to incentivize infrastructure sharing and cooperation between market players in the region have ample merit (Cooper et al. 2020; Situmorang, Putri, and Rahmawati 2021; Venzon 2022).⁵⁸ Kushida and Oh (2007), having examined the cases of Japan and the Republic of Korea, also underscored the value of a strong lead bureaucracy that “compartmentalized the sector, orchestrated new competitors, and micromanaged the terms of competition” under certain conditions.

Figure 3.18: Regulatory Framework for Infrastructure Sharing in the Telecommunications Sector (%)



Note: There are 196 economies with data.

Source: ADB calculations using data from the International Telecommunication Union. <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> (accessed October 2022).

Additionally, the responsiveness of policies on M&As will be important in this context, considering that MVNOs rely on the strength of partnerships. As it stands, sizable M&A deals in the telecommunications space have been concluded in Indonesia, Malaysia, and Thailand

⁵⁶ The MVNO market is expected to grow at a rate of 7.54% from 2022 to reach a valuation of \$127.1 billion in 2029, and Asia and the Pacific is forecast to account for a substantial chunk of the pie (Bridge Market Research 2021).

⁵⁷ As purported by GSMA (2012), a regulator may approve sharing, actively encourage sharing, or mandate access, but the decision should be based on the competitive impact of infrastructure sharing and in line with sound regulatory practices such as transparency, efficiency, nondiscrimination, and independence.

⁵⁸ Voluntary network sharing is argued to be a vital long-term solution to lower the risks and cost of expanding 5G coverage in remote areas (GSMA 2021), and Kushida and Oh (2007) detail the use of incentives in the telecommunications sector in Asia.

(Boghani and Dholakia 2022). In light of the cost of upgrading the systems to 5G, it is likely that similar deals could soon materialize in other parts of the region (Fitch Ratings 2022a, 2022b). Notably, some OECD economies are imposing conditions that include the divestment of spectrum or facilities (e.g., towers) as part of the approval process of mobile network operator mergers. The objective is “to open possibilities for new mobile network operators or an undertaking from the merged player to offer wholesale access obligations” while looking for ways to keep the mobile market open for a fourth player.

Policy Recommendations

Tax incentives to foreign investors are a predominant feature in Asia. With the implementation of Pillar Two and a global minimum tax, it is critical for the region to assess their investment tax incentives and introduce the necessary tax reforms accordingly. In the short term, economies can reconsider introducing new tax incentives or entering into new tax stabilization agreements and investment agreements without assessing the impact of the GloBE rules.

Economies may reconsider incentives that are treated as reductions in Covered Taxes in the GloBE rules. They include the majority of income-based and expenditure-based tax instruments including preferential CIT rates, investment tax allowances or credits. Well-targeted tax incentives to specific types of income, such as intellectual property or export income, so as tax incentives that defer tax payments, such as accelerated depreciation, are less likely to be affected by the GloBE

rules. Economies may also consider substance-based carve-outs when designing future tax incentives, as investments with high levels of economic substance, i.e., with sufficient operations in physical assets and employees, will be less affected.

Developing member economies may also consider the introduction of a Qualified Domestic Minimum Top-Up Tax to ensure they collect top-up taxes in their jurisdictions that would otherwise be collected by other jurisdictions via the other charging provisions. The Qualified Domestic Minimum Top-Up Tax mechanism can ensure increasing tax revenues without any loss of competitiveness.

Beyond tax incentives, policy makers can further explore the applicability of regulatory incentives that favor certain project or sector characteristics. One example is the introduction of MVNOs in the telecommunications sector to promote infrastructure sharing. In green energy sectors, regulatory targets and standards to promote eco-design, good waste management practices, and patent protection duration have also been effective. Such regulatory measures can promote collaboration, co-investment, and sharing of resources. To be effective, these incentives require close collaboration between regulators and the definition of clear safeguards against binding disagreements between partners.

Regional cooperation will be crucial for developing Asian economies to arrive at a well-designed incentive structure, especially in light of the increased scrutiny on the extent by which tax incentives are used. ADB’s Asia Pacific Tax Hub provides an avenue to discuss policy options, direction, and sequencing for economies in the region.

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Annex 3a: Foreign Direct Investment Regulatory Restrictiveness in the Telecommunications Sector

Table 3a.1: Foreign Direct Investment Regulatory Restrictiveness, Telecommunications—Selected Asian Economies, 2018

Economy	Subsector	Comment
Brunei Darussalam	Fixed and Mobile	Foreign investment in telecommunication enterprises is limited to 51% of equity ownership.
Indonesia	Fixed and Mobile	Foreign investment in fixed and mobile telecommunication services is limited to 67% of equity interest.
Malaysia	Fixed and Mobile	The Autonomous Liberalization Policy, announced in April 2012, raised FDI limits up to 70% for both NFP and NSPs; ASPs are fully open to FDI (100% foreign ownership allowed).
Philippines	Fixed and Mobile	FDI in telecommunications is limited to 40%. FDI in internet access providers is permitted without restrictions as of 2018.
Thailand	Fixed and Mobile	Foreign investment in telecommunication business is limited to 49% of equity ownership, except for Type 1 licensed business. Type 1 services include internet access services, audio text, resale of public switched telecommunications; store-and-retrieve value-added services; and international calling cards. For the purposes of the OECD FDI Regulatory restrictiveness Index, it is assumed that all fixed telecommunication services and all mobile telecommunication services (except those related to Type 1 licensed business) are subject to the foreign shareholding limitation.
Viet Nam	Fixed and Mobile	Foreign ownership in fixed telecommunications services providing network infrastructure is limited to 49%; foreign ownership in non-infrastructure telecommunications providers is limited to 65%.

ASP = application service provider, FDI = foreign direct investment, NFP = network facility provider, NSP = network service provider.

Notes: Data are as of 2018. Information on Brunei Darussalam is from the 2017 data set.

Source: Organisation for Economic Co-operation and Development. ASEAN FDI Regulatory Restrictions Database. https://qdd.oecd.org/subject.aspx?Subject=ASEAN_INDEX (accessed October 2022).