PART II

Introduction

Part II of this report consists of a range of case studies examining the experience of developing countries in leveraging foreign direct investment (FDI) to stimulate and facilitate global value chain (GVC) participation and upgrading. It includes both qualitative and quantitative case studies.

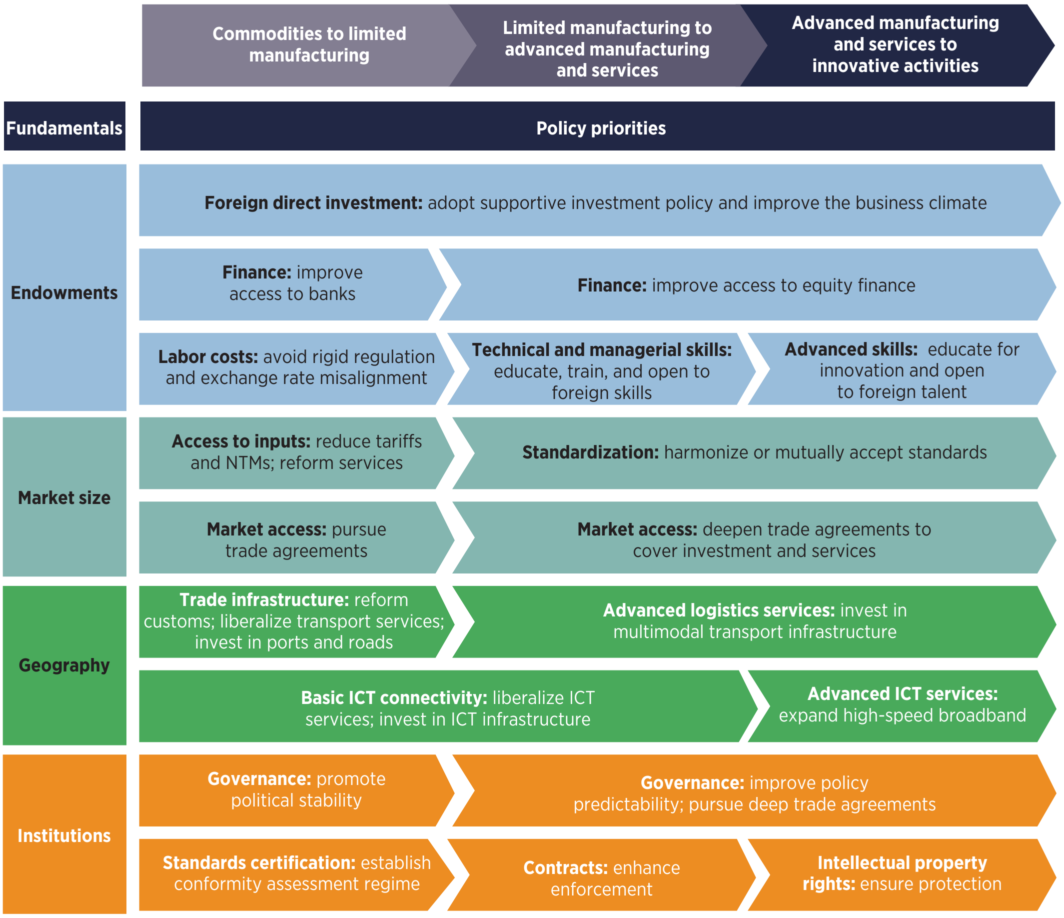
Qualitative case studies: Examples of approaches to foreign direct investment-led global value chain participation

Policy makers have a wide range of policy tools with which to stimulate GVC participation but often do not know how best to prioritize and sequence them. The 2020 World Development Report found that GVC participation is strongly determined by four elements: factor endowments (access to FDI, capital, labor, and skills), market size (for both inputs and sales), geography (proximity to and cost for trading with major production hubs), and institutions (including macroeconomic and political stability) (World Bank 2020). Each of these elements can be influenced in part by public policies. Yet, as illustrated in figure I.1, this leaves a wide range of possible areas in which policy makers can intervene. Addressing all or some of these policies simultaneously would be overwhelming for even the most capable governments. But guidance on how policy makers might choose to prioritize and sequence interventions to best facilitate GVC participation is limited.

There is no blueprint for strengthening GVC participation: countries have adopted different approaches to attracting FDI based on their comparative advantages and target GVCs. Strategies for integrating into GVCs often bundle policies to improve the business environment, link up with global lead firms, and make it less costly to produce and trade products for a selected GVC sector or segment. The type of strategy used is partly based on a country's income level. GVC characteristics may also help identify high-priority market or government failures, and therefore illustrate which strategy is most conducive to stimulating GVC participation.

The five qualitative case studies (chapters 6 to 10 of this report) identify several successful examples of governments implementing such strategies and policy packages for integrating their countries into GVCs. Through a literature review, five distinct approaches were identified through which countries managed to leverage FDI to stimulate GVC participation and upgrading. These cases were selected to illustrate these different approaches for five different GVC archetypes, and cover low-income, lower-middle-income, and upper-middle-income countries (figure I.2). Each case study describes the specific strategy and the mix of policy instruments used to strengthen that country's GVC participation by attracting FDI, helping domestic firms internationalize, or both.

FIGURE I.1 Examples of national policy to support global value chain participation



Source: World Bank 2020.
Note: ICT = information and communication technology; NTMs = nontariff measures.

- **Kenya** shows how pioneering foreign investment helped create a route to international markets for local firms in *horticulture*. Supplier relationships with multinational corporations (MNCs) exposed local firms to global product standards and certification and helped such firms master the required processes and technologies.
- **Honduras** used special economic zones and international trade and investment agreements to develop its *textile and apparel industry*. The combination of new infrastructure, regulatory flexibility, and lower trade costs helped boost investor confidence and attract export-processing FDI.
- **Malaysia** used targeted investment promotion, incentives, and facilitation to attract "superstar" firms and help jump-start its *electrical and electronics (E&E) industry*. Evolving linkages and incentive programs supported cluster development and a gradual shift toward higher-value-added activities.
- **Mauritius** shows how FDI liberalization and alliances with MNCs helped expand and upgrade its *tourism industry*. Local companies engaging in such partnerships

FIGURE I.2 Qualitative case studies included in the report and their strategic approaches

Case study	Chapter 6: Kenya—Supplying to multinationals exposed local firms to international horticulture markets	Chapter 7: Honduras—Using maquilas and international agreements to boost the garment industry	Chapter 8: Malaysia—Attracting superstar firms in the electrical and electronics industry through investment promotion	Chapter 9: Mauritius—Partnering with foreign firms to upgrade the tourism industry	Chapter 10: Korea, India and China—Investing outward helped digital firms develop and complete
Strategic approach	Use MNC-supplier linkages to help local firms meet global product standards	Invest in SEZs, and use trade and investment agreements to attract export-processing FDI	Use targeted investment promotion, incentives, and facilitation to attract global lead firms	Partner with foreign firms to help expand and upgrade an existing, viable industry	Promote outward FDI and invest in human capital and R&D to help domestic firms develop and compete globally

Lower-income countries → Prevalence of use, based on country's income level → *Higher-income countries*

Source: World Bank elaborations on the literature and qualitative analysis.
Note: FDI = foreign direct investment; MNC = multinational corporation; R&D = research and development; SEZ = special economic zone.

acquired management expertise and new technology to strengthen their brand, diversify their products, and reach new export markets.

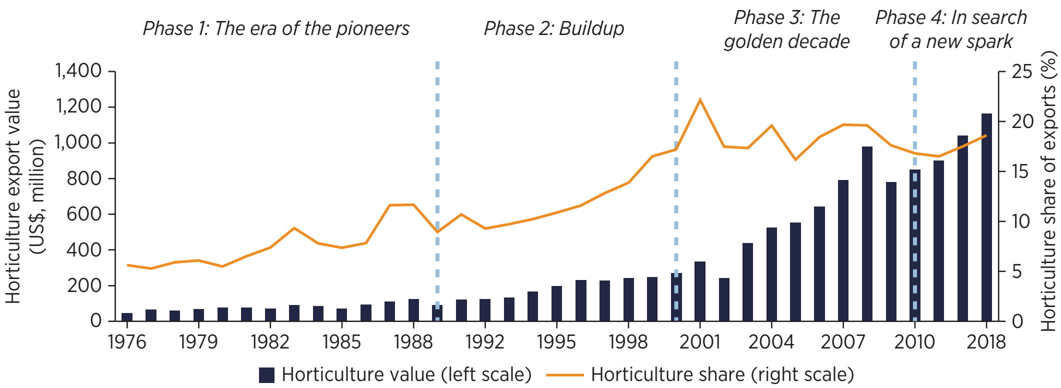
- **The Republic of Korea, India, and China** were able to integrate and upgrade in the *digital economy* GVC by combining outward foreign direct investment (OFDI) with investment in human capital and research and development (R&D). The availability of technical graduates and initial R&D investments were essential to establish domestic industries. Yet outward FDI helped leading domestic companies in these countries to acquire new technology, explore new markets, and compete internationally.

The discussion that follows briefly summarizes each case study; the case studies are presented in full in subsequent chapters.

Kenya (horticulture)

Kenya managed to promote horticulture exports in large part because pioneering FDI and foreign entrepreneurs jointly helped local farmers access the international market. They did so by fostering the three Ls: labeling (exposing firms to global product standards and certification), linking (developing lasting supply relationships with MNCs), and learning (helping firms master newly required processes and technologies). Initially, the Kenyan government was hands off, with limited policy intervention and an open FDI regime, but over time it established an enabling ecosystem of regulation, advocacy, and extension services.

FIGURE I.3 Kenya's horticulture exports, 1976–2018



Source: World Bank calculations based on United Nations Comtrade data.

Kenya's horticulture exports underwent four main phases (figure I.3). Initial horticulture production (flowers, fruits, and vegetables) was driven by FDI from a handful of foreign entrepreneurs with strong ties to markets in Europe, often through kin connections (phase 1). A wave of economic liberalization and increase in global demand triggered more foreign firms to shift horticulture production to Kenya. To meet demand, these foreign firms introduced contract farming schemes with training programs to ensure smallholder farmers could produce to global product standards (phase 2). Following efforts in linking farmers, both large exporters and smallholder contract farmers increased their supply to European supermarkets and experienced a rapid surge in export growth for flowers, fruits, and vegetables (phase 3). In more recent years, the sector began maturing and exports are strong (up to almost US$1.2 billion in 2018). Yet the sector also faces new challenges from increasing regional competition, growing climate risks, and changing consumer preferences and is now in search of a new spark (phase 4).

Selected lessons from Kenya for other countries

- Targeted efforts to link smallholder farmers to exporters and buyers can help raise the performance of local firms through export participation. Local suppliers were able to leverage their FDI relationships to access new customers (often through referral) or new export markets. About 50 percent of Kenyan agricultural firms became exporters as a result of first supplying a foreign-owned firm in-country.
- Direct transfers of innovative knowledge can increase value chain participation. Although foreign capital was important in launching the sector, over time, exposure to foreign demand, expertise, and technology became more important.

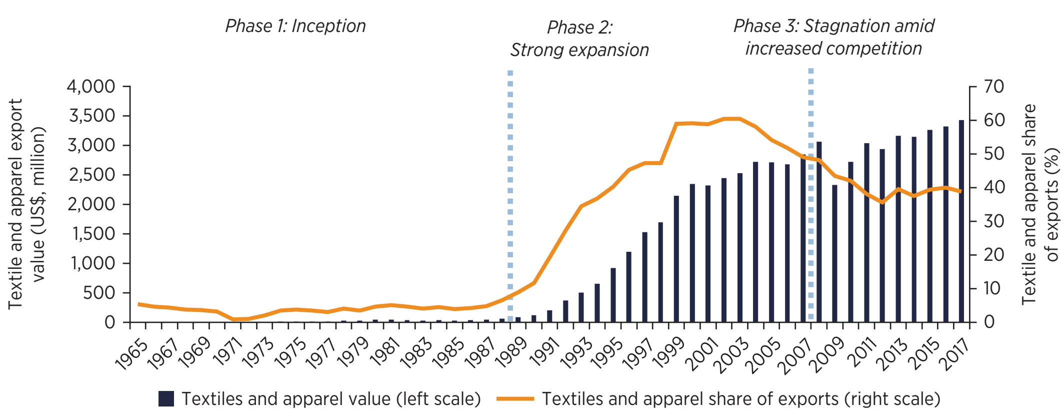
- Governments can sometimes best support an emerging sector by adopting a relatively hands-off approach with limited sectoral regulation and a liberal approach to FDI. Government support is most helpful for solving market failures that impede the development of key infrastructure and for providing an ecosystem for regulation, advocacy, support for training (for example, extension services), and R&D (seed development, for instance).

Honduras (textiles and apparel)

Honduras used a combined approach of establishing special economic zones (SEZs) (*maquilas*) and signing international trade and investment agreements to attract FDI and integrate the country into the global textile and apparel market. Maquilas were established as geographically limited enclaves with dedicated infrastructure, mostly private administration, and generous fiscal incentives to attract FDI. Preferential trade and investment agreements helped lower the cost of importing raw materials, enabled duty-free exports to the US market, and reduced political risk for foreign investors by providing investor protection guarantees.

The rise of Honduras's textile and apparel sector followed three phases (figure I.4). In the first phase, Honduras established the maquila program, but FDI and exports were limited. Beginning in the late 1980s, several policies helped increase exports and later FDI (phase 2). These policies included legal changes to the maquiladora regime in 1987, allowing domestic investors to invest in SEZs across the country; the signing of several trade and investment agreements; and the provision of key infrastructure and engaging in export and investment promotion. From the early 2000s onward, changes in global GVC configurations, emerging competition from Asia, and external shocks such as the 2007–08 financial crisis led to stagnating exports and FDI flows and exposed Honduras's vulnerability to supply shocks (phase 3).

FIGURE I.4 Honduras's textile and apparel exports, 1965–2017



Source: World Bank calculations using United Nations Comtrade data.

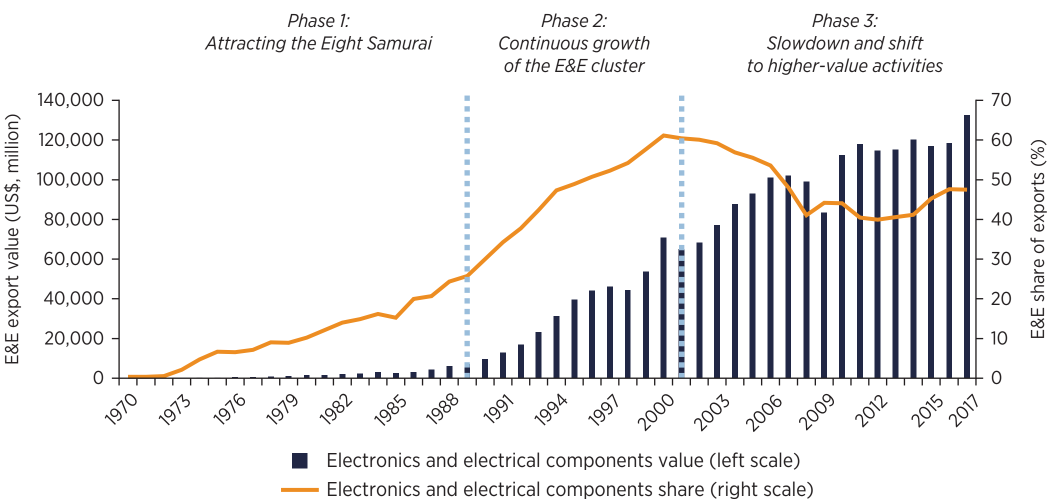
Selected lessons from Honduras for other countries

- SEZs can be a catalyst for attracting FDI. The increased volume of FDI in the mid- to late 1990s was triggered by the establishment of these geographically limited areas with high-quality infrastructure, regulatory flexibility, and generous fiscal incentives. Participation by domestic investors may bring in additional funding and help accelerate the development of SEZs. Supplier linkages between foreign investors and domestic companies may bring additional benefits.
- The implementation of trade and investment agreements within SEZs can help improve the competitiveness of the country in labor-intensive goods. International agreements reduced trade costs and increased investor confidence, thereby stimulating investments and access to export markets.
- Although SEZs can help attract FDI, they also risk creating a dual economy. SEZ rules of origin may curtail the ability to increase local content production, and SEZ incentives often exclude small and medium enterprises. Although some backward linkages developed in Honduras, closer ties between zones and the rest of the economy were prevented by a tax on local inputs to be supplied to the zones, thus encouraging imports. Focus on the zones also prevented broader attention to reforming and upgrading the entire economy.

Malaysia (electrical and electronics)

Malaysia used targeted investment promotion and facilitation to attract global lead firms and help jump-start its E&E industry. Building on a strong foundation (low-cost

FIGURE I.5 Malaysia electrical and electronics exports, 1970–2017



Source: World Bank calculations using United Nations Comtrade data.
Note: The "Eight Samurai" were Advanced Micro Devices (AMD), Clarion, Hewlett Packard (now Agilent Technologies), Hitachi Semiconductor (now Renesas), Intel, Litronix (now Osram Opto Semiconductors), National Semiconductor (now Fairchild Semiconductor), and Robert Bosch. E&E = electrical and electronics.

labor, basic technical capabilities, good English language skills, and political stability), Malaysia in the early 1970s combined active investment promotion, infrastructure provision, and incentives to attract a number of MNCs into its free trade zones. Successful linking programs and workforce development initiatives and evolving incentives programs supported the development of an E&E cluster in Penang and a gradual shift toward higher–value added activities.

Malaysia's E&E exports went through three main phases (figure I.5). In the early 1970s, proactive investment promotion with high-level political support and a competitive investment climate led to a few superstar firms locating in Malaysia, launching an incipient industry focused on labor-intensive, low-skilled production and assembly (phase 1). By the late 1980s, when a second wave of FDI entered the country, the E&E industry had become the largest generator of manufacturing employment, value-added activities, and exports in Malaysia, and an E&E cluster in Penang had formed. In the 1990s, the government strategy shifted toward developing supplier links, and about 2000 the E&E industry peaked in export and employment growth (phase 2). Subsequently, the emergence of China, the Philippines, and Vietnam as competitors began to take its toll, and several firms relocated out of Malaysia. At the same time, significant upgrading was achieved, facilitated by research grants to foreign companies and liberalization of visas for foreign professionals (phase 3).

Selected lessons from Malaysia for other countries

- If the minimum conditions for foreign investment are in place, active investment promotion can help attract superstar firms, which can jump-start the development of an industry. With an English-speaking, low-cost labor force complemented by the establishment of free trade zones and the provision of generous incentives, the foundation was in place in Malaysia in the 1970s.

- High-level political support and a solutions-oriented attitude by the government are critical for a successful investment promotion strategy. Information about investment conditions was backed up by a strong commitment to infrastructure provision and the removal of any disruptions to foreign investors' operations. This approach enjoyed high-level political support from the chief minister.

- Malaysia's experience also highlights the investment promotion benefits that can be derived from different levels of government complementing each other. In Malaysia, policy guidance at the federal level—in the form of planning and several incentive programs—was complemented by the proactive role of subnational agents who proved pivotal to attracting investors into the country.

- Incentives can be useful for attracting export-oriented FDI but need to be adjusted and eventually phased out with evolving development priorities. In the 1970s, incentives proved to be an important factor in attracting FDI to Malaysia into low-value-added, labor-intensive E&E GVC segments. In the early 1990s, both the tax holidays for pioneer industries and the investment tax allowance were made less generous, except for high-technology companies. After 1995, labor-intensive projects were no longer eligible for incentives and allowances unless they satisfied a set of narrow performance requirements.

Mauritius (tourism)

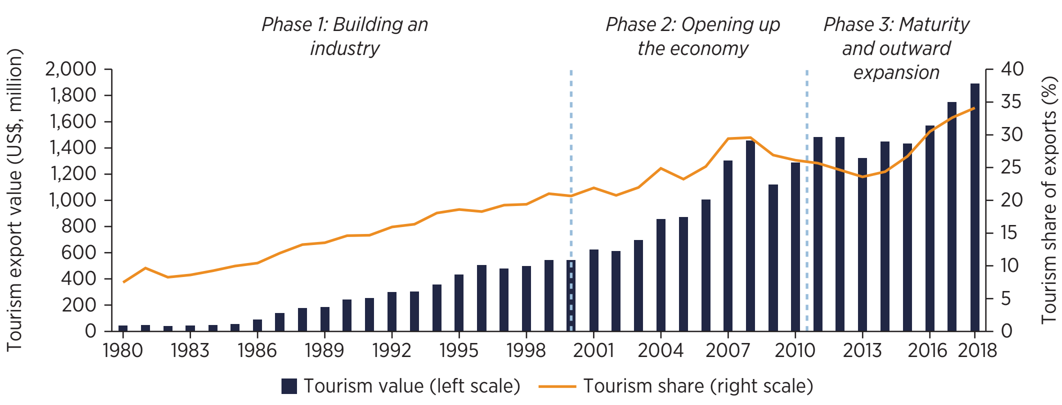
Mauritius leveraged FDI to significantly expand and upgrade its existing tourism industry. Liberalizing the tourism and aviation sectors and the creation of specific incentive schemes led to a surge in FDI inflows, a boom in the industry, and significant GVC upgrading. FDI helped diversify the tourism industry by creating new offerings such as golf tourism. Foreign-owned companies also offered training programs and helped domestic firms upgrade through transfer of skills, management expertise, and technology.

Mauritius's experience can be divided into three phases (figure I.6). In phase 1 (from the late 1970s to the early 2000s), Mauritius's tourism industry arose from investments in hotels by domestic sugarcane producers. The government facilitated the growth of a domestic tourism industry by providing basic infrastructure, ensuring air access through the national carrier, and marketing the country as an upscale tourism destination. FDI was permitted only in select segments (mainly hotels). Once the industry had become viable in the early 2000s, Mauritius opened up its economy in phase 2. FDI was liberalized and promoted, leading to a surge in FDI inflows. In phase 3, the sector matured, and domestic Mauritian companies have become outward investors to strengthen their brand and diversify their products. Both the opening of the economy and its outward expansion have significantly helped domestic firms upgrade, shifting to higher-value tourism and resulting in a steady increase in aggregate tourism exports.

Selected lessons from Mauritius for other countries

- A clear strategy is crucial to developing the tourism industry. Mauritius set out to become an upscale tourism destination in part by tightly regulating the industry (for example, by establishing a minimum number of rooms in hotels and minimum investment per room) and closely managing its growth. Initial control of the

FIGURE I.6 International tourism receipts in Mauritius, 1980–2018



Source: World Bank calculations using United Nations Comtrade data.

industry further helped develop local small and medium enterprises. In contrast to many other countries, there is a significant local presence in large luxury hotels, and many five-star hotels in Mauritius are locally owned and managed.

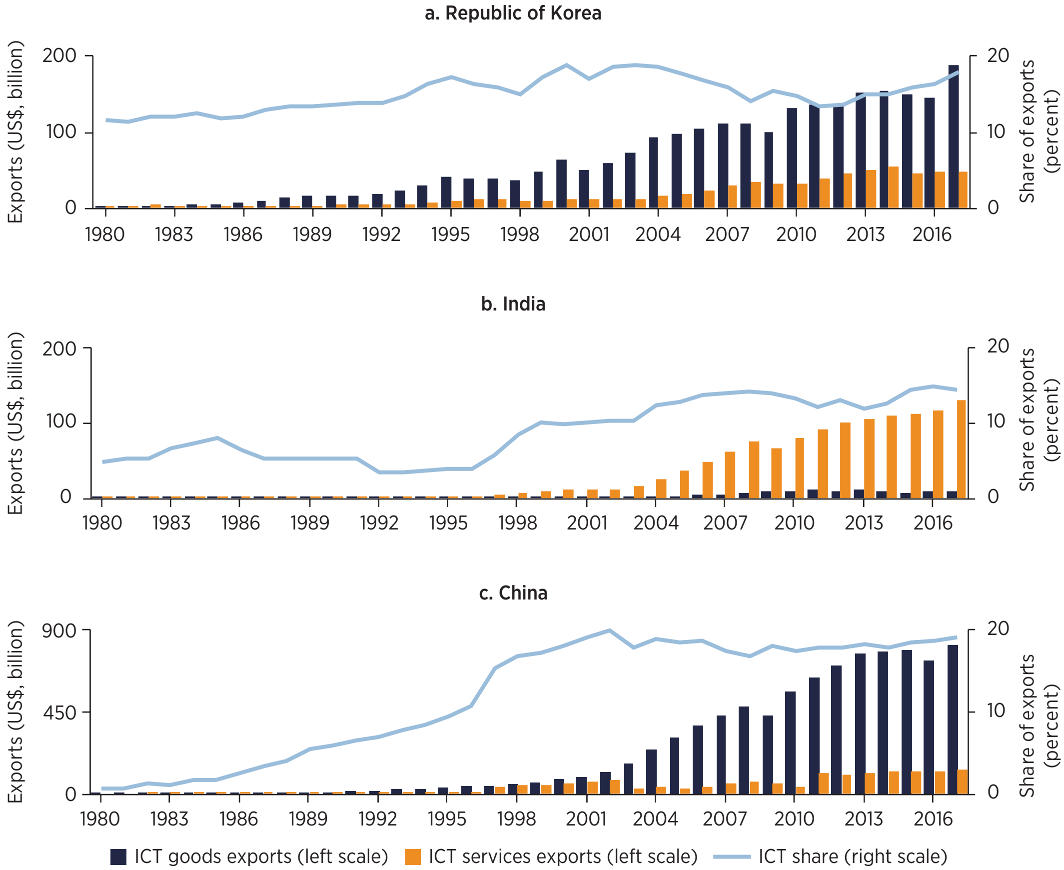
- The role of MNCs will depend on country-specific circumstances. Mauritius had sufficient domestic capital available from the sugar industry to channel into the tourism industry. Other low-income countries may not have the necessary capital and may need to rely on MNC equity to get the tourism industry started.
- FDI in this case helped diversify the tourism industry, promoted the upgrading of existing players, and helped reach new export markets (foreign tourist locations). Domestic firms benefited from equity partnerships, management contracts, and franchising arrangements with MNCs. This interaction with MNCs led to the transfer of skills, management expertise, and technology, and helped the industry gain access to new customer groups through the MNCs' global networks.

The Republic of Korea, India, and China (digital economy)

The Republic of Korea, India, and China were able to integrate and upgrade in the digital economy GVC by combining outward foreign direct investment (OFDI) with investment in human capital and research and development (R&D). The availability of technical graduates and initial R&D investments were essential to establishing domestic industries. However, OFDI then helped their leading domestic companies acquire new technology, explore new markets, and compete internationally. Korea and China also invested determinedly in R&D and provided proactive government support for OFDI using a combination of financial and fiscal measures, provision of information, development assistance programs, and international investment agreements, in addition to the overall liberalization of OFDI regulations. India established software technology parks and provided software export credit and credit guarantees.

As a result of these interventions, some firms from Korea, India, and China managed to expand and have become significant players in different segments of the digital economy GVC. Korea specialized in ICT goods (such as semiconductors, wireless communication devices, flat panel displays, and consumer electronics), with such exports growing from US$2 billion in 1980 to almost US$190 billion in 2017 (figure I.7, panel a). India specialized mainly in ICT services (most notably business process management), increasing such exports from about US$50 million in the late 1980s to US$10 billion in 2000, rising to US$130 billion in 2017 (figure I.7, panel b). China is increasingly active in both ICT goods (personal computers, mobile phones, televisions, drones) and ICT services (financial technology, e-commerce, internet platforms, digital content). In 2004, China surpassed the United States as the world's leading ICT goods exporter, with US$240 billion in ICT goods exports, rising to US$820 billion in 2017. The country's ICT services exports have also grown continuously, rising from about US$59 billion in 2000 to US$130 billion in 2017 (figure I.7, panel c).

FIGURE I.7 The exports of Korea, India, and China in the digital economy, 1980–2017



Source: World Bank calculations based on Atlas for Economic Complexity data.
Note: ICT goods are defined as standard international trade classification codes 75–77. ICT services include information technology and communication services. ICT = information and communication technology.

Selected lessons from Korea, India, and China for other countries

- To stimulate participation in the digital economy GVC, governments should first and foremost invest in their country's human capital. Investment in tertiary education in the areas of science, technology, engineering, and math is critical and will take time to bear fruit. The examples of Korea, India, and China show that such investment in building a large skills pool has, over time, established the foundation that gave domestic firms a competitive edge in this GVC.
- Proactive government support in R&D may also be needed to help domestic firms better understand and absorb existing technologies to engage in the digital economy. Through a wide array of policy instruments, particularly financial instruments, both Korea and China helped build the production and innovation capacity of local firms and enabled them to become leading R&D hubs. R&D also helps

prepare more competitive firms to internationalize and become outward investors and MNCs themselves.

- OFDI is an internationalization channel for the most competitive domestic firms. All three countries demonstrate a strong, positive link between rising OFDI and exports of ICT goods and services. Leading domestic firms often chose to invest in high-income countries to acquire strategic assets such as R&D and proprietary technology, globally recognized brand names, and established customer networks and sales channels. In parallel, they also invested in developing countries to establish production facilities. Such OFDI thus helped the more productive domestic firms further develop their technological capabilities, expand their production networks and markets, and compete on a global scale.
- For governments seeking to stimulate OFDI, liberalizing outward investment regulations is an essential first step. In addition, as shown for Korea and China, OFDI can be supported using a combination of financial and fiscal measures, the provision of information, development assistance programs, and international investment agreements.

Quantitative case study: A comparative analysis of firm dynamics in global value chains

The quantitative case study presented in chapter 11 of this report aims to show how novel data sets and methodologies can be used to analyze the dynamics of MNCs and domestic firms across GVCs. By using country-, firm-, and transaction-level data sets, the study aims to provide important new findings that can help policy makers better understand the dynamics of firms within GVCs and help design better sector-industrial strategies and approaches to stimulate their GVC integration.

Rwanda (low income) and West-Bengal, India (lower-middle income), were selected because of their income levels and access to detailed firm- and transaction-level data sets that include firm ownership, trade, and linkages. In both cases, FDI plays an important role in their GVC participation. Foreign firms are more likely to export and contribute a disproportionally higher share of exports. There is also a strong positive correlation at the sector level between FDI and that sector's export share, and at the firm level between being a foreign-owned firm and being an exporter.

Using firm- and transaction-level data, network analyses help illustrate interfirm relationships in selected value chains. This approach can show which types of firms (according to their ownership, size, and location) are engaging in GVCs as exporters and as suppliers. As such, it provides insights into the wide network of GVC actors, such as second-tier suppliers, that may be less easily observable with traditional stakeholder analysis. One downside to this approach, however, is that no data are available for firms not based within the country, so only the part of the GVC taking place within the country is observable. According to the network analyses, foreign firms in both case studies tend to be positioned at the end of domestic value chains because they are more likely to export. GVC participation across multiple sectors is dominated by a small number of foreign-owned firms.

The analysis also provides greater insights into how domestic firms and foreign firms interact in GVCs. Only the most productive firms manage to participate in GVCs. Three types of pathways are dominant in raising the probability that domestic firms will become direct exporters: MNC-supplier linkages, joint ventures between MNCs and domestic firms, and outward foreign investment. However, there are some important differences across GVCs. For example, whereas supply linkages appear most important in GVCs with higher product standards that require firm-level skills upgrading to accommodate (for example, in textiles, chemicals, and professional services), joint ventures are most important for sectors where local firms offer complementarities to foreign firms (such as speaking the local language or by being able to manage the complex, local regulatory environment. The overall difference in the *type* of firms that choose to export (direct GVC exporters, large firms diversifying into exports alongside domestic sales, or firms shifting from one export product into another) may further help shape the approaches to stimulating and facilitating GVC integration.

Note

1. A third planned case study, Turkey (higher-middle income), had to be dropped after COVID-19 (coronavirus) prevented access to its data laboratory.

Reference

World Bank. 2020. *World Development Report 2020: Trade for Development in the Age of Global Value Chains*. Washington, DC: World Bank.