The services sector accounted for two-thirds of economic growth in emerging market and developing economies (EMDEs) over the past three decades. In 2019, it accounted for more than half of gross domestic product (GDP) and employment in EMDEs. The sector consists of a wide range of activities, ranging from high-skilled offshorable services, such as information and communications technology (ICT) and professional services, to low-skilled “contact” services, such as retail and hospitality. The pandemic disrupted provision of many low-skilled contact services, which typically require face-to-face interactions between providers and consumers. Provision of high-skilled offshorable services was the least affected, owing to the use of digital technology that enabled remote delivery. Increased digitalization has improved prospects for scale economies and innovation in the services sector that the need for physical proximity and the lack of opportunities to augment labor with capital previously constrained. Policies to support the diffusion of digital technologies could therefore further raise the growth potential of the services sector. Policies to improve market access for, and skills in, ICT and professional services could ease important constraints on growth opportunities in these high-skilled offshorable services that have best withstood the pandemic. The same holds true for policies, including regulatory reforms, that promote investment in low-skilled contact services, such as transportation, which have important linkages with the wider economy.

Introduction

The services sector is large and has been the main source of global economic growth over the past three decades. Services accounted for 66 percent of global output growth and 73 percent of global employment growth between 1995 and 2019 and for 63 percent of global output levels and 57 percent of global employment levels in 2019. While the services sector represented a somewhat lower share of economic activity in emerging market and developing economies than in advanced economies, the difference was small. Even in EMDEs, services made up for 60 percent of output and 52 percent of employment in 2019.

The services sector is diverse. First, it includes high-skilled offshorable services (information and communications technologies, finance, and professional services) that have been internationally traded much like goods since the ICT revolution in the 1990s. Second, it includes generally low-skilled contact services (transportation, hospitality, retail, personal services, arts, entertainment and recreation, and administrative and support) that have typically required physical proximity of providers and consumers. Many services from both these categories provide important inputs for non-services-

Note: This chapter was prepared by Gaurav Nayyar and Elwyn Davies.
sector activity. For example, transportation and logistics services form the infrastructure for international trade in agricultural commodities and manufactured goods, while ICT services are increasingly central to data-intensive production processes. Third, it includes a group of social services (education and health) that are largely publicly provided and therefore not a focus of this chapter.

The pandemic has dealt uneven blows to services activity. Social-distancing regulations and precautions against the spread of the virus have hit provision of low-skilled contact services, such as transportation and hospitality, particularly hard. But provision of high-skilled offshorable services, such as ICT and professional services, has been much less affected owing to their amenability to home-based work.

The increased digitalization that firms have implemented to cushion the impact of the pandemic’s disruptions can be leveraged to boost growth in the services sector. Baumol (1967) and Hill (1977) argue that the services have limited potential for leading growth because they typically require a simultaneity of production and consumption that precludes economies of scale. In other words, the need for face-to-face interactions between providers of services and consumers inhibits opportunities for the former to serve demand beyond the local market. They also point out that services have less scope for capital-deepening and innovation than does manufacturing. Increased digitalization, however, enables greater scale and innovation in the services sector. The resulting productivity benefits, in turn, can boost overall economic growth owing to the important linkages between the services sector and other parts of the economy.

Against this backdrop, this chapter addresses the following questions:

• How has the services sector shaped global economic growth over the past three decades?

• How has the pandemic affected the services sector?

• How can digitalization enhance the services sector’s growth as countries recover from the pandemic?

• Which policies can help harness the services sector’s growth potential?

It presents several novel findings. First, although the services sector has led economic growth over the past three decades in both advanced economies and EMDEs, the composition of services sector growth differs significantly between the two groups. While low-skilled contact services make a similar contribution to GDP growth in the two groups, the contribution of high-skilled offshorable services increases with per capita income levels. Thus, high-skilled offshorable services account for about one-third of GDP growth in advanced economies, compared with 15 percent in EMDEs, and for one-half of employment growth in advanced economies, compared with 11 percent in EMDEs. This matters because lower dependence on (1) export growth relative to growth in domestic demand and (2) total factor productivity growth relative to the
growth of labor and capital inputs has characterized the growth of low-skilled contact services.

Second, the pandemic has had an uneven impact on the growth of the services sector. Low-skilled contact services reliant on face-to-face interactions with consumers, such as accommodation, food, and transportation services, have been among the most adversely affected sectors, even though there are now signs of recovery. But high-skilled offshorable services, which tend to be amenable to remote work though digital delivery, such as ICT and professional services, were among the sectors least adversely affected, and output and investment have even grown in some—especially ICT services.

Third, the increase in digitalization during the pandemic augurs well for growth prospects in the services sector. Among high-skilled offshorable services, there is a new momentum; the share of digitally deliverable ICT and professional services in total services exports of EMDEs increased to 50 percent in 2020 from 40 percent in 2019. Among low-skilled contact services, streaming platforms such as Netflix and YouTube have increasingly enabled providers of arts and entertainment services to export their creative content to international markets at low cost. Even in regard to services in which physical proximity remains important, intangible capital associated with digitalization has increased opportunities for scale economies. For example, e-commerce platforms have enabled retailers and restaurants to reach customers beyond their local neighborhoods. Additionally, ICT and management practices have facilitated the standardization of production across many establishments.

Fourth, appropriate policy interventions can better enable countries to leverage the potential of the services sector to drive economic growth. Policies to support the diffusion of digital technologies in EMDEs, for example, can bring particularly high returns because of the lack of digitalization in the services sector. The share of firms using email to communicate with clients was less than one-third in several EMDEs as recently as 2018. Investing in ICT infrastructure, updating regulatory frameworks (including those relating to data), and strengthening management capabilities and worker skills can all boost the adoption of digital technologies. Countries can also promote the expansion of high-skilled offshorable services by reducing barriers to international trade and taking measures to improve skills. Last, but not least, countries can support investment and implement regulatory reforms that foster the revival of low-skilled contact services, such as transportation, that can be large employers and important enablers of growth in the wider economy.

This chapter makes several contributions to the literature. First, it presents stylized facts about the role of the services sector in overall economic growth over the past three decades. This presentation draws on and complements a growing literature on structural change and productivity growth in EMDEs that highlights the changing contributions of the manufacturing and services sectors (Fan, Peters, and Zilibotti 2021; Kinfemichael and Mahbub Morshed 2019; McMillan and Rodrik 2011; Nayyar, Hallward-Driemeier, and Davies 2021; Rodrik 2016). The main innovations here are the growth
decompositions: Services subsectors are explored; the demand-side contributions of
domestic demand, exports, and government consumption are compared; and the supply-
side contributions of the growth of factor inputs and total factor productivity are
examined.

Second, it analyzes how the pandemic has affected prospects for services-led growth by
tracing patterns of recovery and assessing future growth opportunities linked to the
acceleration of digitalization. By making a systematic assessment by services subsector,
this analysis builds on a spate of recent studies that examine the effects of the pandemic
on growth and distribution (Apedo-Amah et al. 2020; Beraja and Wolf 2021; Chetty et
al. 2020), as well as the literature on how the digital economy is expanding
opportunities to boost productivity.

Third, it discusses policy options and priorities for leveraging the services sector’s
potential for boosting economic growth after the pandemic. This adds to the policy
discussion in Nayyar, Hallward-Driemeier, and Davies (2021) by focusing on
developments since the pandemic. Policies considered include the reform of regulatory
barriers and the promotion of skill development for both high-skilled offshorable and
low-skilled contact services.

The remainder of the chapter is organized as follows. The second section quantifies how
the services sector has shaped economic growth over the past three decades. The third
section analyzes how the pandemic has affected the services sector’s growth. The fourth
section examines the potential of digitalization to increase growth in the services sector.
The fifth section identifies policy priorities to leverage this potential to drive stronger
overall economic growth. The final section presents conclusions.

How has the services sector shaped economic
growth?

A general feature of economic development is structural change in national economies.
The pioneering work of Fisher (1935), Clark (1940), Chenery (1960), and Kuznets
(1971) observed a common pattern of change in the relative sizes of the agricultural,
industrial (or manufacturing), and services sectors among industrial or advanced
economies in the course of their development. In the early stages of development, the
agriculture sector had the dominant share in both output and employment. Subsequently,
as industrialization proceeded, the agriculture sector’s share fell off, and the industrial (or manufacturing) sector’s share rose. Once countries industrialized and
reached an advanced stage of economic development, the industrial sector’s share also
decided, and the services sector’s share increased. Interestingly, growth in EMDEs over
the past three decades has not conformed to this pattern. Even though most of these
economies are in relatively early stages of development, the services sector has offset
much of the decline in the share of the agricultural sector in both GDP and
employment.

However, there are important differences across services subsectors. Three categories
may be distinguished. First, ICT, finance, and business services comprise a group of
high-skilled offshorable services. Second, there is a group of low-skilled contact services that are not offshorable. However, some are traded internationally through either their linkages with goods (cargo transportation and wholesale trade) or tourism-related travel (accommodation and food). Education and health services (social services) comprise a third group. High-skilled offshorable and low-skilled contact services differ in two particularly important economic respects. First, lower dependence on export growth, as opposed to growth in domestic demand, has generally characterized growth in the output of low-skilled contract services compared with high-skilled offshorable services. Second, growth in the output of low-skilled contact services has generally been based less on growth of total factor productivity, as opposed to growth of physical capital and labor inputs, than growth in the output of high-skilled offshorable services. High-skilled offshorable services have expanded less in EMDEs than in advanced economies.

Services and structural transformation

Between 1991 and 2019, the services sector’s share of total employment in EMDEs increased from 39 to 51 percent, offsetting almost the entire decline in agriculture’s share, with little change in the share of industry (figure 7.1.A). Similarly, the services sector’s share of GDP rose from 47 percent to 58 percent, offsetting a substantial decline in the share of agriculture together with a smaller decline in the share of industry (figure 7.1.B). These rising shares of the services sector in employment and GDP reflect its central role in driving economic growth in EMDEs over the past three decades. Thus, the services sector accounted for more than half of both employment growth (figure 7.1.C) and value-added growth (figure 7.1.D) between 1991 and 2018 across EMDEs.

In the past, the increasing share of the services sector in employment and GDP in industrial countries was attributed, at least in part, to rising relative prices of services that resulted from lower productivity growth than in industry (Baumol 1967). Labor productivity in the services sector could not be readily increased, either through innovation and capital accumulation, owing to the “intrinsic role of labor,” or through economies of scale, because the intensity of face-to-face interactions constrained providers of services from reaching consumers beyond the local market.

This past characterization of the services sector is less relevant for EMDEs today. Labor productivity in the services sector between 1995 and 2018 showed growth similar to, or higher than, that in the industrial sector in four of the six EMDE regions—Latin America and the Caribbean (LAC), the Middle East and North Africa (MNA), South Asia (SAR), and Sub-Saharan Africa (SSA; figure 7.1.E). Only in the East Asia and Pacific (EAP) and Europe and Central Asia (ECA) regions—where export-led manufacturing has been the cornerstone of economic growth—did the growth of labor productivity in industry exceed that in services, as was the case in advanced economies.

1 The relatively large contributions of export growth and total factor productivity growth to the growth in the output of high-skilled offshorable services have, nevertheless, been smaller than their contributions to the growth of manufacturing output.
FIGURE 7.1 The services sector and structural transformation

In recent decades, the services sector’s share in output and employment has increased, and the sector has made larger contributions to both employment and output growth than agriculture or industry in both advanced economies and EMDEs. Labor productivity growth in services has been at least similar to that in industry in four out of the six EMDE regions. The services sector has contributed to overall labor productivity growth both through productivity growth within the sector and through the shift of labor to services from the lower-productivity agricultural sector.

A. Shares of individual sectors in employment

B. Shares of individual sectors in value added

C. Contributions of individual sectors to employment growth, 1995-2019

D. Contributions of individual sectors to value-added growth, 1995-2019

E. Labor productivity growth in services compared with that in manufacturing, 1995-2018

F. Contributions of individual sectors to labor productivity growth, 1995-2018

Sources: Nayyar, Hallward-Driemeier, and Davies (2021); World Bank.
Note: EMDEs = emerging market and developing economies; LICs = low-income countries.
A. Sample includes 35 advanced economies, 143 EMDEs, and 26 LICs. Data are until 2019.
B. Sample includes 31 advanced economies, 140 EMDEs, and 23 LICs. Data are until 2020.
C. D. Sample includes 30 advanced economies, 116 EMDEs, and 21 LICs. Bars represent an individual sector’s contribution to growth, averaged over 1995-2019.
E. AEs = advanced economies; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa.
F. E. Bars represent labor productivity growth attributed to each sector, as well as to employment movements from the agriculture sector to the industry and service sector, for the period 1995-2018.
Furthermore, between 1995 and 2018, labor productivity growth in services in all EMDE regions except MNA exceeded that in advanced economies, implying narrowing productivity gaps. This provides encouraging evidence that services growth has been contributing to EMDEs’ catch-up in respect to per capita incomes with advanced economies. It is also consistent with evidence of unconditional convergence of productivity across countries: Countries starting from lower labor productivity in the services sector experienced faster productivity growth between 1975 and 2012 than those with higher initial labor productivity in that sector (Enache, Ghani, and O’Connell 2016; Kinsemichael and Mahbub Morshed 2019).

These trends in labor productivity growth, combined with the changing sectoral shares of employment, underlie the contribution of the services sector to overall labor productivity growth. This growth reflects within-sector gains in productivity as well as between-sector gains as the labor force shifts from low- to high-productivity sectors. Thus, productivity growth within the services sector contributed more than productivity growth within industry to aggregate productivity growth in all EMDE regions other than EAP in the past three decades. Furthermore, although the relative contribution of the between-sector component did not exceed one-third in any region, in each case the bulk of it came from the increasing share of services in total employment (figure 7.1.F).

Increased productivity-enhancing growth opportunities in the services sector include new opportunities for larger-scale production, innovation (including through mechanization), and spillovers through linkages with other sectors—characteristics typically associated with manufacturing-led growth. For example, digital electronic content has made ICT services more storable, codifiable, and transferable and therefore more scalable. Similarly, innovation through research and development since the 1990s has been largely concentrated in ICT multinationals owing to software patents (Branstetter, Glennon, and Jensen 2018). ICT services have also increasingly benefited other sectors as data analytics have improved the quality and efficiency of production processes.

The heterogeneity of the services sector

The services sector comprises a wide range of economic activities. They can be grouped according to the levels of skills that they involve and their amenability to being offshored and internationally traded. Three groups may be distinguished: high-skilled offshorable services, low-skilled contact services, and social services.

The first group, high-skilled offshorable services, comprises ICT, finance, and professional, scientific, and technical services that employ a smaller share of workers in

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2 Under the United Nations International Standard Industrial Classification of All Economic Activities, the broad categories of services include, among others, wholesale and retail trade; accommodation and food; transportation and warehousing; ICT services; financial services; real estate; professional, scientific, and technical services; public administration and defense; education and research; health services; arts, entertainment, and recreational services; administrative and support services; and other social, community, and personal services (United Nations 2008). Mining; utilities such as electricity, gas, and water; and construction are typically classified within “industry,” together with manufacturing.
manual task-intensive occupations and that involve tasks more amenable to offshoring (figure 7.2.A). These services are more offshorable because they rely less on face-to-face interactions with customers and suffer less from losses in quality when delivered remotely. Other firms often also use them as intermediate outputs in the domestic economy, creating opportunities for domestic as well as international trade. For instance,
three-fourths of the output of professional services constituted intermediate inputs in other sectors in 2015 (figure 7.2.B).

The second group, low-skilled contact services, relies more on manual labor and are less amenable to offshoring. This group includes transportation; hospitality; wholesale trade; arts, entertainment, and recreation; retail trade; administrative and support services; and personal services. Some of these services—notably transportation, hospitality, and wholesale trade—are highly traded internationally (figure 7.2.C). Transportation services and wholesale trade are often intermediate inputs into internationally traded goods. In contrast, hospitality services—accommodation and food provision—are mostly traded through “consumption abroad” owing to tourism-related travel (figure 7.2.D).

The third group, social services, consists of education and health services that are both relatively skill-intensive and less amenable to offshoring. This group of services is outside the focus of this chapter, since they are largely provided by the public sector.

Low-skilled contact services accounted for about one-third of GDP growth between 1990 and 2019 in each major country group—advanced economies, EMDEs, and low-income countries (LICs). Social services made a similar contribution to overall GDP growth over the past three decades, at about 15 percent, in each of these groups. However, the contribution of high-skilled offshorable services to GDP growth increased with levels of per capita income, ranging from 10 percent in LICs to 15 percent in EMDEs and almost 30 percent in advanced economies (figure 7.3.A).

High-skilled offshorable services also made a larger contribution to employment growth between 1990 and 2019 at higher levels of per capita income, with that contribution ranging from 4 percent in LICs to 11 percent in EMDEs and more than 50 percent in advanced economies. In contrast, the contribution to employment growth of low-skilled services, at about 40 percent, was similar across LICs, EMDEs, and advanced economies (figure 7.3.B).

The nature of services-led growth

The contribution of demand-side factors

The output of a sector caters either to intermediate demand from other sectors in the domestic economy or to final demand, which comprises domestic private consumption and investment, government expenditure, and exports. Among the components of final demand, domestic private demand plays the largest role in many low-skilled contact services, accounting for one-half of output in retail trade and three-fourths of output in hospitality services (figure 7.3.C). The need for physical proximity between providers of services and consumers has typically constrained international trade in these services (Hill 1977). Among low-skilled contact services, exports play a larger role in transportation and wholesale trade, where they are linked to trade in goods.

Exports also have quite a large share in final demand for some high-skilled offshorable services, such as professional services and ICT, in which digital electronic content has
FIGURE 7.3 Employment, value added, and productivity in services subsectors

High-skilled offshorable services and low-skilled contact services have both made key contributions to the growth of value added and employment in advanced economies, while low-skilled services have played a larger role in EMDEs. High-skilled offshorable services tend to be more closely linked to other sectors through input sales, more export-oriented, and more productive. Their growth is also more closely linked to improvements in productivity.

A. Sectoral contributions to value-added growth

Sources: European Commission; Groningen Growth and Development Center (GGDC), World Input-Output Database (WIOD); Nayyar, Hallward-Driemeier, and Davies (2021).

Note: EMDEs = emerging market and developing economies; LICs = low-income countries; TFP = total factor productivity.

A. Bars represent the average contribution of individual sectors to value-added growth between 1990 and 2018. Sample from the GGDC/United Nations University-World Institute for Development Economics Research (UNU-WIDER) Economic Transformation Database includes 6 advanced economies, 39 EMDEs, and 6 LICs.

B. Bars represent the average contribution of individual sectors to employment growth between 1990 and 2018. Sample from the GGDC/United Nations University-World Institute for Development Economics Research (UNU-WIDER) Economic Transformation Database includes 6 advanced economies, 39 EMDEs, and 6 LICs.

C. Shares of intermediate and final demand

D. Contributions of growth of labor, capital, and TFP to output growth in advanced economies

E. Labor productivity compared with that in manufacturing

F. Total factor productivity compared with that in manufacturing

Sources: European Commission; Groningen Growth and Development Center (GGDC), World Input-Output Database (WIOD); Nayyar, Hallward-Driemeier, and Davies (2021).

Note: EMDEs = emerging market and developing economies; LICs = low-income countries; TFP = total factor productivity.

A. Bars represent the average contribution of individual sectors to value-added growth between 1990 and 2018. Sample from the GGDC/United Nations University-World Institute for Development Economics Research (UNU-WIDER) Economic Transformation Database includes 6 advanced economies, 39 EMDEs, and 6 LICs.

B. Bars represent the average contribution of individual sectors to employment growth between 1990 and 2018. Sample from the GGDC/United Nations University-World Institute for Development Economics Research (UNU-WIDER) Economic Transformation Database includes 6 advanced economies, 39 EMDEs, and 6 LICs.

C. "Intermediate consumption" measures sales to other sectors, based on WIOD data from 42 countries for 2014.

D. Based on the European Union KLEMS database because of constraints on data availability in EMDEs.

E-F. Productivity in the manufacturing sector in the same country is normalized to 1 (red line). Data are from 56 countries, including 35 EMDEs, for the latest available year between 2010 and 2017.
made them more storable, codifiable, and transferable. Because the constraint of physical proximity between consumers and providers has become less binding, professional services now have trade costs comparable to those in manufacturing industries (Gervais and Jensen 2019). Yet even these services have a considerably lower share of exports in final demand than do manufactured goods. This may be attributable to a range of policy impediments that have constrained services trade. Government consumption matters most in education and health services, which are often publicly provided.

Intermediate domestic demand—sales to producers in other sectors of the domestic economy—matters greatly for many services, accounting for more than half the output of both high-skilled offshorable services and some low-skilled contact services, such as transportation, wholesale, and administrative and support services (figure 7.3.C). The resulting links with other goods-producing (tradable) sectors also mean that services might be exported indirectly.

Value added by services accounted for 43 percent of world exports in 2009, up from 31 percent in 1980. In fact, more than two-thirds of the growth in services value added in exports between 1995 and 2011 was due to an increase in services embodied in other exports rather than services exported directly (Heuser and Mattoo 2017). This suggests that services such as transportation, telecommunications, finance, and business services have increasingly been used as intermediate inputs in the production and export of goods. In France, Germany, Italy, the United Kingdom, and the United States, services contribute more than half the total value added embodied as inputs in exports. Even in China, often viewed as predominantly an exporter of manufactured goods, more than a third of the value added in its exports comes from services (World Bank 2020). Furthermore, there is evidence that services embodied as inputs improve the productivity of downstream manufacturing (Arnold et al. 2015). These forward linkages highlight the important enabling role that many services play.

The contribution of supply-side factors

The growth of output can be decomposed into the contributions of the growth of factor inputs, such as capital and labor, and the contribution of the growth in the productivity of these factors, known as total factor productivity (TFP). Estimates based on data for 15 European Union countries indicate that growth of factor inputs, particularly labor, accounts for most of the growth of output in most services subsectors between 1991 and 2018 (figure 7.3.D). The low, even negative, contribution of TFP growth may reflect, at least in part, Baumol’s “cost disease” hypothesis. Baumol (1967) argued that the productivity of many services sector activities cannot be readily increased through innovation because of their inherently labor-intensive nature. With technological progress in other sectors, the prices of manufactured and agricultural products would tend to fall relative to the price of services, leading to an increasing share of services in total output.3

3The challenges of measuring outputs and inputs in the services sector also raise concerns about the mismeasurement of productivity (Nayyar, Hallward-Driemeier, and Davies 2021).
However, high-skilled offshorable services have contradicted Baumol’s hypothesis, with higher labor productivity than in manufacturing. Labor productivity in financial services is 3.5 times higher than that in manufacturing in EMDEs (and about 2.5 times higher in advanced economies), while labor productivity in ICT services is about 2 times higher in EMDEs (and 1.3 times in advanced economies) (figure 7.3.E). Labor productivity in professional services is below that in manufacturing, but TFP—which corrects for differences in physical capital—is slightly higher than that in manufacturing (figure 7.3.F). Low-skilled contact services tend to have lower labor productivity and TFP than manufacturing.

However, productivity gains still occur in regard to low-skilled contact services. Fan, Peters, and Zilibotti (2021) show that productivity gains have characterized the growth of such contact services—employing large numbers of low-skilled labor—in India over the past three decades. Furthermore, firm-level data from Côte d’Ivoire, North Macedonia, Moldova, and Vietnam show that productivity growth in firms across several low-skilled contact services during their initial years often exceeds productivity growth in manufacturing firms (Aterido et al. 2021).

The relatively large contribution of capital accumulation to output growth in the services sector reflects increasing investments, including through foreign direct investment (FDI). For example, outward FDI from the U.S. in high-skilled offshorable services outpaced that in manufacturing between 2011 and 2020 (figure 7.4.A). Furthermore, employment in U.S. foreign affiliates (outward FDI) increased across all services groups, while employment growth in manufacturing remained more stagnant (figure 7.4.B), despite increasing investment.

How has the COVID-19 pandemic affected the services sector’s growth?

In previous recessions, the services sector was resilient despite sharply contracting manufacturing activity (figure 7.5.A). However, this resilience was lacking during the pandemic (figure 7.5.B). In fact, the economic contraction following the coronavirus disease 2019 (COVID-19) pandemic was particularly salient for the services sector (Apedo-Amah et al. 2020; Chetty et al. 2020; OECD 2021; World Bank 2022).

Unlike in previous downturns, the consumption of durable goods was resilient, but the consumption of many services declined owing to lockdown measures and increased caution among consumers (Tauber and Van Zandweghe 2021). This unusual shift in consumption patterns may carry implications for the ongoing recovery: Whereas reduced spending on durables in earlier downturns might just have represented postponed spending, consumers are less likely to catch up on reduced services spending (Beraja and Wolf 2021).

4Foreign direct investment is the most prevalent “mode” of trade in services (“mode 3” under the General Agreement on Trade in Services framework).
However, the pandemic has not had a uniform impact on the services sector across either subsectors or countries. It has had particularly severe effects on many services in the low-skilled contact services group, especially those most reliant on face-to-face interactions, such as accommodation, food, and transportation services. But the high-
skilled offshorable services group, consisting of ICT, professional, and financial services, has generally withstood the pandemic as well as, if not better than, manufacturing, largely because digitalization has helped to make these services amenable to remote delivery and home-based work. Even among some low-skilled contact services, the pandemic has accelerated digitalization, including in countries where the use of digital technologies was low.

Patterns of impact and recovery

Differences across services subsectors

Overall, the pandemic had a somewhat larger impact on output in the services sector than in the manufacturing sector. In 2020, the services sector had a lower growth rate than manufacturing in more than half (87) of the 157 countries for which sectoral value-added data are available (World Bank 2021). In 136 countries, value added of the services sector fell in 2020, compared with 116 countries where there was a decline in that of manufacturing (figure 7.6.A).

However, the overall impact of the pandemic conceals considerable heterogeneity among the various services groups. In the low-skilled contact services group, hospitality (accommodation and food services) and transportation services were the most negatively affected. Gross value added in these sectors declined by 40 and 21 percent, respectively, in the year to April 2020 in a representative group of EMDEs for which data from national accounts are available (figure 7.6.B). Estimates based on data from firm surveys similarly indicate that the largest negative impacts on sales in 2020 and 2021 occurred in accommodation, food services, and transportation (figure 7.6.C), together with “other” services (including personal services). Negative impacts in these sectors continued through 2021 in EMDEs (figure 7.6.D), but some recovery became visible in advanced economies (figure 7.6.E). The concentrated impact of the pandemic contrasts with the more-even effects of the global financial crisis and associated recession across services subsectors.

Similar patterns can also be seen in FDI inflows into EMDEs (figure 7.6.F). For most services subsectors, announced greenfield FDI was lower in 2020 and 2021 than pre-pandemic levels, with the largest declines being in hospitality and “other” services (including personal services). High-skilled offshorable services performed slightly better, although both professional services and financial services saw significant declines. ICT services were the only group that saw an increase in greenfield FDI—of one-third between 2019 and 2021.

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5 In classifications of economic activities, personal services are often grouped under “other services” (under International Standard Industrial Classification Revision 4, this corresponds to section S).

6 For example, in the United States, in the first quarter of 2009, subsectoral impacts in the services sector ranged between -11 percent (for retail and wholesale) and -6 percent (for ICT). In the first quarter of 2020, U.S. services subsectoral impacts ranged from -47 percent (for hospitality) to +1 percent (for ICT).
FIGURE 7.6 The impact of COVID-19 across sectors

Data from national accounts and firm-level surveys indicate that the coronavirus disease 2019 (COVID-19) had negative effects on output in both services and manufacturing and larger effects in services in about half of all countries. But they varied significantly among services subsectors. Hospitality and transportation were the most negatively affected in both EMDEs and advanced economies. FDI also decreased in most services subsectors, with the exception of ICT, which saw growth in value added and investment, as well as FDI, during the pandemic.

A. Value-added growth in manufacturing versus that in services, 2019-20

B. Change in value added by services subsector, April 2020 compared with April 2019

C. Change in sales as reported by firms

D. Value added by sector in EMDEs

E. Value added by sector in advanced economies

F. Greenfield FDI in EMDEs

Sources: Financial Times, fDi Markets; Haver Analytics; UN World Tourism Organization; World Bank.

Note: EMDEs = emerging market and developing economies; FDI = foreign direct investment; ICT = information and communications technology.

A. For each individual country in the scatterplot, vertical axis reports percent change in services value added, whereas horizontal axis presents percent change in manufacturing value added.

B. A, E & H = administration, education, and health.

C. The change in sales reported by firms is a conditional value based on a regression of the change in sales on sector, size, month of interview, and age. Sample from the World Bank COVID-19 Business Pulse Surveys and Enterprise Surveys includes 47 countries (countries with data for three waves). Weights have been applied such that every country carries an equal weight.

F. Greenfield FDI from the fDi Markets database represents the value of new announcements, relative to 2019.
The intensity of face-to-face interactions and amenability to remote work

The importance of physical proximity in delivering services in different subsectors is correlated with the pandemic’s adverse impact on sales. Such low-skilled contact services as hospitality took the biggest hit, reflecting their high dependence on face-to-face interactions and the limited possibilities for remote or home-based work. In many countries, hospitality is also highly dependent on tourism-related international travel, which declined significantly; the UN World Tourism Organization estimates a decline of 97 percent at the height of the pandemic (figure 7.7.A).

In contrast, the ICT subsector—which part of the high-skilled offshorable services group—was the least adversely affected, being more amenable to home-based work. In EMDEs, output of ICT services grew by 20-25 percent in 2020, while other subsectors contracted or stagnated. Among EMDEs for which data are available, Ghana and Türkiye saw the largest expansion of ICT services (figure 7.7.B). As mentioned earlier, ICT is also the only services subsector that has seen positive investment growth, with FDI in ICT in EMDEs growing by a third between 2020 and 2022.

In general, firms engaged in services activities dependent on face-to-face interactions between providers and consumers, such as hospitality, experienced the largest decline in sales (figure 7.7.C). Similarly, firms engaged in activities that are more amenable to home-based work typically experienced smaller declines in sales. This applies to ICT, financial services, and professional services—all high-skilled offshorable services (figure 7.7.D).

The transportation sector, which is moderately dependent on face-to-face interactions between providers and consumers and among the least amenable to home-based work, has been adversely affected too. This holds not only for passenger transportation services, but also for freight transport, which has been affected not only by border closures but also by impacts upstream in the manufacturing sector, which led to reductions in the capacity of freight transportation. Given the important linkages between freight transportation and goods-producing sectors, this has contributed to prolonged supply chain disruptions.

Since 2020, hospitality and transportation services have experienced partial recoveries, attributable, at least in part, to the phasing out of government restrictions on in-person gatherings and travel. Yet continuing restrictions and social-distancing precautions mean that full recovery has some distance to cover. For example, at the end of 2021, international tourist arrivals were still two-thirds lower than before the pandemic. Furthermore, recovery has been slower in EMDEs than in advanced economies. Thus, while hospitality services in the U.S. in the third quarter of 2021 were about 8 percent lower than in the same quarter of 2020, they were close to 40 percent lower in a group of EMDEs for which data are available.

 Except in the cases of takeaway and home delivery services, physical proximity has remained central to their provision.
Different sectors fared very differently through the pandemic. ICT services, for example, grew in many EMDEs, while tourism-related sectors declined. The need for face-to-face interactions and the possibility for remote delivery explain part of these differences. Sectors relying on face-to-face interactions in the delivery of services fared worse during the pandemic, while those amenable to home-based work—even if traditionally relying on face-to-face interactions (for example, financial services)—fared better.

The advent and growth of digitalization

The adoption of digital technologies has increased during the pandemic. The World Bank COVID-19 Business Pulse Surveys and Enterprise Surveys show that nearly 44 percent of businesses globally started or increased their use of digital technologies and that 29 percent invested in digital technologies during the initial months of the pandemic (Apedo-Amah et al. 2020). Even as restrictions were relaxed and firms experienced fewer adverse impacts from the pandemic, firms continued to report increases in the use of digital technologies (figures 7.8.A and 7.8.B).

The adoption of digital technologies was higher in services than in manufacturing, agriculture, mining, construction, and utilities. In these non-services sectors, only roughly one-third of firms reported an increase in the use of these technologies. There
were also differences across service subsectors. The largest proportions of firms increasing the use of digital technologies were reported in high-skilled offshorable services, including financial services (61 percent in late 2021) and ICT services (60 percent in late 2021).  

Use of digital technologies has also increased in some low-skilled contact services. The share of firms in accommodation, food services, and retail trade—services that are among the most dependent on face-to-face interactions—that started or increased their use of digital technologies was 35-45 percent in the most recent (late 2021) survey round. In fact, these services have seen the largest accelerations in digitalization during the pandemic. In fact, the largest change among all industries in the percentage of firms increasing the use of digital technologies between the first and second waves of the survey, at 14 percentage points, was in food preparation and accommodation services. Data for increases in investment in digital technologies show similar patterns. This investment in digitalization reflects adjustments in business models. For example, digital platforms enabled restaurants to offer their food services outside their premises during the pandemic through home-delivery and takeaway meals.  

In sum, the pandemic has affected high-skilled offshorable services, which digital technologies permit to be delivered remotely, less adversely than low-skilled contact

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8 Firms’ investment in digital technologies shows similar patterns across sectors. About 40 percent of firms in ICT and financial services; 25 percent in wholesale and retail trade, food preparation, and accommodation services; and 20 percent in agriculture, mining, construction, manufacturing, and transportation made investments of this type.

9 For example, in the United States, food delivery apps reported that their revenues more than doubled in 2020 (Sumagaysay 2020).
services, which rely more on face-to-face interactions with customers and have little scope for remote delivery. Among the former group, ICT services have actually experienced positive growth since the beginning of the pandemic. However, even firms in low-skilled contact services have increased their use of, and investment in, digital technologies at a faster pace than firms in manufacturing and agriculture. Furthermore, firms report that they have continued to increase digitalization even since pandemic-related restrictions have been relaxed.

How can digitalization transform opportunities for future services sector growth?

The acceleration of digitalization during the pandemic augurs well for growth prospects in the services sector. In particular, it has shown how digitalization can expand opportunities for scale economies and innovation that dependence on face-to-face interactions between providers and consumers and limits to combining labor with physical capital previously hampered. Even before the pandemic, increased digitalization had expanded these opportunities, albeit mostly for high-skilled offshorable services and a limited number of countries. The recent acceleration raises the question of how much potential the benefits of digitalization may have to spread more widely in the services sector.

Digitalization and exporting opportunities in the services sector

High-skilled offshorable services

The ICT revolution has, since the 1990s, enabled the offshoring of ICT and professional services to lower-cost destinations. Much as in global value chains for manufactured goods, the production of these services is fragmented across countries, as in the case of, for example, preliminary architectural designs and tax returns being put together in one country and finalized and delivered to customers in another (World Bank 2020). The inverse relationship between the share of cross-border delivery (mode 1 trade) in total exports of ICT and professional services and per capita GDP reflects this labor cost arbitrage. Providers of services in EMDEs in which substantial proportions of the population have English-language skills, such as Ghana, India, and the Philippines, have particularly benefited (figure 7.9A).

The rapid expansion of bandwidth with the fifth-generation (5G) technology standard for broadband cellular networks is expected to further increase the quality of data streaming. And new collaborative digital platforms such as Skype for Business, Slack, Trello, and Basecamp have enhanced the remote (digital) delivery of global innovator services. These digital platforms are associated with a new form of online outsourcing for office and other professional services, whereby low search costs enable clients to contract

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10Freund and Weinhold (2002) provided the earliest assessment of the relationship between digital technologies and trade in services, finding that the growth in U.S. exports of services to and imports of services from a partner country increased by 1.1 percentage points as internet penetration in that country increased by 10 percent.
third-party individuals as freelancers. Developing economies have the edge in exporting these services through digital platforms (Baldwin and Dingel 2021).

Based on data from five of the largest English-language online outsourcing platforms between June 2017 and October 2020, the Oxford Internet Institute’s iLabour Project estimates that much of the global demand for online outsourcing during that period came from high-income countries, while two-thirds of all online freelancers were in
EMDEs. As of 2021, approximately one-quarter of freelancers were based in India and another quarter in Bangladesh and Pakistan. In per capita terms, the big EMDE suppliers were Bangladesh, Costa Rica, Pakistan, Sri Lanka, and several countries in Eastern Europe (figure 7.9B). Suppliers in Eastern Europe likely benefit from their integration with the European Union market, while those in South Asia leverage the advantage they derive from English being the preferred language for business transactions. This pool of online freelancers is likely to widen geographically as the importance of knowledge of the English language diminishes with the diffusion of artificial-intelligence-enabled machine translation (Baldwin 2019; Brynjolfsson, Hui, and Liu 2019).

The share of digitally deliverable services in total services exports increased steadily between 2005 and 2019 in both EMDEs and advanced economies. The fact that this average share in EMDEs increased from 40 to more than 50 percent in 2020 alone (figure 7.9C) indicates the robustness of these services during the COVID-19 pandemic.

**Low-skilled contact services**

In the area of low-skilled contact services, streaming platforms such as Netflix and YouTube have enabled providers of arts, entertainment, and recreation services from EMDEs to export their creative content to international markets at low cost. And COVID-19 has provided an impetus for performing artists to devise new ways of sharing their talents with audiences virtually. Even in low-skilled contact services in which in-person delivery has remained important, digital tools have boosted export opportunities. Digital platforms that reduce the costs of searching for, matching, tracking, and verifying information (Goldfarb and Tucker 2019) are particularly relevant here. The digital platforms that travelers and businesses are increasingly using for transactions in accommodation and transportation services are good examples. These digital tools may help less traditional destinations overcome information obstacles and reduce travel costs and thereby attract more visitors. Indeed, countries with higher business-to-consumer internet use have also had higher levels of international tourist arrivals (figure 7.9D). Analyzing population-wide internet use in origin countries and business-to-consumer internet use in destination countries, Lopez-Cordova (2020) finds that digital platforms have boosted the demand for international tourism services in Africa.

**Digitalization and innovation in the services sector**

**High-skilled offshorable services**

In the case of high-skilled offshorable services, innovation has occurred largely through the accumulation of ICT capital: computer equipment, telecommunications equipment, computer software, and database assets. Since the 1990s, among member countries of the Organisation for Economic Co-operation and Development, the largest increase in the share of tangible ICT capital in total capital has been in the financial and professional services subsector (figure 7.10.A).
The diffusion of digital technologies has also been associated with accumulation of intangible capital—not only computer-related software and data, but also intellectual property acquired through research and development and design, as well as company competencies such as branding, firm-specific training, and business process engineering. Here too, at least in the United States, the largest shares of intangible capital in firms’ investment have been in ICT, finance, and professional services (figure 7.10.B). The accumulation of intangible capital in these high-skilled offshorable services is likely to increase further given that artificial-intelligence-driven machine learning algorithms have dramatically increased predictive power in many cognitive tasks such as problem solving, speech recognition, and image recognition (Nayyar, Hallward-Driemeier, and Davies 2021).

**Low-skilled contact services**

The share of intangible capital in investment is also higher than in manufacturing in several low-skilled contact services, such as commerce and hospitality. For example, in member countries of the Organisation for Economic Co-operation and Development in 2018, hospitality and retail trade had the highest share of businesses with a website allowing online ordering, and almost all services subsectors had higher rates than manufacturing (figure 7.11.A). The increasing sophistication of ICT, through the advent of artificial intelligence and machine learning, among other drivers, is likely to spawn complementary investments in intangible capital (Brynjolfsson, Rock, and Syverson 2021). While ICT services stand out as the services subsector having the largest share of firms using machine learning algorithms, the diffusion of these technologies is
as widespread across many low-skilled services as in manufacturing, if not more so (figure 7.11.B).

New or improved company competencies that accompany digitalization offer similar opportunities for organizational and marketing innovation among low-skilled services. For example, in 2018, most services subsectors had higher shares of firms that introduced new methods for product placement (figure 7.11.C) or new methods for organizing external relations (figure 7.11.D) than manufacturing, and the shares were not very different in low-skilled services than in high-skilled offshorable services.

Increased digitalization and related investments in intangible capital bring opportunities for innovation and productivity gains in low-skilled contact services in three main ways. First, they enable improvements in the efficiency of internal business processes, such as
inventory management, accounting practices, marketing, and payments. For example, big data analytics can increase the efficiency of transportation services by making it possible to track shipments in real time, while improved and expanded navigation systems may help route trucks more efficiently on the basis of current road and traffic conditions (World Bank 2020). Second, ICT-related investments can compensate for missing and scarce skills. For example, ICT apps enable Uber drivers to function with limited geographic knowledge and numeracy skills. Third, the expansion of company competencies associated with digital technologies, such as marketing and branding, facilitates the scaling up of low-skilled contact services that are less amenable to remote delivery. For example, restaurant chains have invested in ICT and management practices that help determine optimal staffing, daily food purchases, and new menu items for individual restaurants. This standardization of production over many establishments has enabled restaurants and retail stores to scale up by replicating the same production process in multiple locations near consumers (Hsieh and Rossi-Hansberg 2020).

The adoption of basic ICT in the services sector across EMDEs

Despite the diffusion of digital technologies, the use of basic ICT such as computers and email, which is positively associated with countries’ per capita incomes, is far from widespread in EMDEs. In many EMDEs, less than one-third of firms used email to communicate with clients as recently as 2018 (figure 7.12.A). The share of firms with their own websites was even lower (figure 7.12.B).

The positive relationship between the share of firms using email and countries’ per capita incomes is much stronger in respect to low-skilled contact services (where it is similar to that of the manufacturing sector) than in respect to high-skilled offshorable services (figure 7.12.C). Firms in retail and hospitality services in EMDEs still rely mostly on manual processes for a range of business functions. For example, in Senegal, 60 percent of such firms use manual costing most frequently for pricing, 80 percent use manual selection most frequently for merchandising, and 62 percent use handwritten records for inventory management (Cirera et al. 2020a). In Senegal, the sophistication of the most widely used technologies across a range of business functions, including business administration, marketing, and inventory management, is similar for firms in retail trade and firms in apparel manufacturing (Cirera et al. 2020b). The share of firms having their own websites is also positively related to countries’ per capita incomes, with the relationship being more similar across sectors (figure 7.12.D).

What policies can best harness the services sector’s growth potential after the COVID-19 pandemic?

To build on the momentum of digitalization in the services sector, and for the services sector’s growth potential to be fully harnessed, policies can play a useful role. First, policies can be used to support the adoption of digital technologies across the services sector, including through promoting investment in ICT infrastructure, reforming regulatory frameworks, and strengthening firms’ capabilities. Policies can play an
especially important role for EMDEs and smaller firms because the greater intensity of digitalization among advanced economies and larger firms during the pandemic has widened the digital divide between countries and firms (Cirera, Comin, and Cruz 2022).

Second, policies can help promote the revival of some low-skilled contact services that the pandemic has hit hardest. The revival of travel-related transportation and hospitality is likely to benefit from the expansion of pandemic-related health services. Supporting infrastructure investments and regulatory reforms in transportation and related distribution services can further help recovery and lay the ground for minimizing supply chain disruptions in the future. Third, policies can be designed to promote the further growth of high-skilled offshorable services that have shown greater resilience to the pandemic, by removing barriers to market access and improving the skills of the workforce.
Supporting the adoption of digital technologies

The use of digital technologies contributed to the resilience of firms in the pandemic. Firms with higher prepandemic levels of technological sophistication saw larger increases in sales during the pandemic and were also more likely to increase their use of digital technologies (Comin et al. 2022). While new technologies have recently been spreading to EMDEs and LICs faster than in the past, only a small share of firms at the technology frontier adopt them (Comin and Mestieri 2018).

Policies that support widespread adoption of the most basic digital technologies in EMDEs can lay the foundation for firms to leverage software applications, digital platforms, and even more advanced machine learning algorithms. But policies supporting investment in broadband infrastructure, while necessary, are not sufficient for greater uptake of digital technologies. In addition, regulatory frameworks must be updated to expand market access, and policies to strengthen worker and management skills are also needed (Cirera and Maloney 2017). Precise policy requirements will vary among countries and across different services subsectors. For example, management practices tend to be particularly weak (but to have the most potential for improvement) among firms in low-skilled contact services, while advanced digital skills matter most in regard to high-skilled offshorable services. Updating regulatory frameworks governing digital markets is especially relevant in regard to high-skilled offshorable services, as technology giants have increasingly dominated markets for these services.

Expanding access to digital infrastructure

Expanding access to the internet is crucial for the services sector. Hjort and Poulsen (2019) show that the arrival of internet cables in Africa predominantly benefited the services sector, spurring the formation of new firms and boosting productivity. Although many countries have been accelerating the rollout of internet access, reliable and affordable access to broadband internet is still not widely available in many EMDEs, and generally much less so than in advanced economies (figure 7.13.A). Fiber-optic cables now reach most countries, but there are big gaps across countries in the provision of “last mile” connectivity. To achieve widespread internet access, public investment may be needed to overcome market failures inherent in the private provision of internet infrastructure (essentially a public good). These failures stem from externalities (including network externalities) and costs that decrease with scale (tending to lead to natural monopolies). Policy interventions can also catalyze complementary private investment by ensuring enough competition between providers, targeting subsidies carefully, and enforcing appropriate performance requirements to ensure coverage in more remote and lower-income locations (World Bank 2021).

Reforming regulatory frameworks for digital markets

The regulation of digital markets also affects the incentives and ability to use digital technologies. Restrictions on digital trade tend to be more stringent, on average, in EMDEs than in advanced economies (figure 7.13.B). Competition authorities face new challenges in the regulation of digital trade in the services sector, particularly in regard to
FIGURE 7.13 Digital technology enablers

Broadband connectivity in EMDEs has increased considerably over the past decade, but it still lags that in advanced economies. Beyond access, relatively high restrictions on international trade in services and digital technology hamper use of digital technologies in EMDEs. The capabilities of firms and workers to adopt new technologies, reflected in management practices, tertiary education rates, and digital skills, are also weaker in EMDEs than in advanced economies.

A. Mobile broadband connections per 100 inhabitants

B. Digital trade restrictiveness index

C. Management practices index

D. Digital skills index

E. Tertiary enrollment rates

F. Services trade restrictiveness index

Sources: European Centre for International Political Economy (ECIPE); International Telecommunication Union (ITU); Nayyar, Hallward-Driemeier, and Davies (2021); World Bank; World Economic Forum. Note: EMDEs = emerging market and developing economies; LICs = low-income countries.

A. Sample from the ITU includes 37 advanced economies and 141 EMDEs in 2019.
B. The ECIPE’s Digital Trade Restrictiveness Index provides information on transparency of applied digital trade restrictions across 36 advanced economies and 28 EMDEs in 2017-18.
C. Covers 18 key management practices across 21 advanced economies, 17 EMDEs, and 3 LICs in 2018 or latest year for which data are available.
D. Sample from World Economic Forum includes 34 advanced economies, 71 EMDEs, and 6 LICs in 2019.
E. Sample includes 33 advanced economies, 70 EMDEs, and 7 LICs in 2019.
F. The World Trade Organization-World Bank Services Trade Restrictiveness Index covers five sectors (telecommunications, finance, transportation, retail, and professional services) and key modes of delivery across 22 advanced economies, 67 EMDEs, and 6 LICs in 2008.
high-skilled offshorable services. In this sector, many technology companies own valuable intangible assets (such as software, advertising space, and branding), which derive value from strong network effects and access to data. Ownership and portability of data, especially across international borders, raise issues of privacy and innovation. For example, content providers could place restrictions on the provision of some services to countries that inadequately protect intellectual-property rights (Hallward-Driemeier and Nayyar 2017).

Digital trade in services also poses new challenges for taxation. Traditional tax treaties tend to focus on the question of whether a firm has physical presence in a country. As a result, firms that have “presence without mass” in a particular country through digital business models can avoid significant taxation in that country, denying governments a growing source of potential revenue. International negotiations are seeking to address this issue, through possible formulas for minimum tax payments by multinationals that serve markets only virtually, among other options (World Bank 2021).

**Upgrading management and worker skills**

Low levels of use of digital technology stem partly from shortcomings in the capabilities of firms, at both management and staff levels. Sound management practices facilitate worthwhile change in production processes, including the adoption of new technologies, which can often be disruptive. Thus, management practices have played a role in the ways firms have, or have not, adapted to the pandemic. Firms with more structured management practices are more likely to adjust their product mixes or to adopt online work arrangements, in the services sector as well as other sectors (Grover and Karplus 2021). Firm-level surveys of the number and type of adopted management practices show that management practices in the services sector are weaker in EMDEs than in advanced economies (figure 7.13.C). Further, evidence for EMDEs and advanced economies shows that structured management practices are particularly uncommon among firms in low-skilled services, such as retail trade and hospitality (Nayyar, Hallward-Driemeier, and Davies 2021). Governments can support technological innovation and the adoption of structured management practices by addressing information failures at the management level—either through the direct provision of training and other business advisory services or through vouchers and awards (Bloom et al. 2013). ¹¹

Also important for increasing the adoption of digital technology are the skills of a firm’s labor force. Digital skills are weaker in EMDEs than advanced economies (figure 7.13.D). Many workers report that their lack of ICT skills is a constraint on employment and higher earnings. For example, about 40 percent of workers in Vietnam reported in 2013 that deficient ICT skills prevented them from finding a job or getting a better-paying job (Nayyar, Hallward-Driemeier, and Davies 2021). Remedying this

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¹¹ Not all firms are well positioned to take advantage of management training. Efforts to provide management training to informal enterprises have shown that only a few have the capabilities to use such training (or tap external consulting services) to raise performance significantly. See, for example, Anderson and McKenzie (2022).
type of skill deficiency is less of a priority in firms providing low-skilled contact services, in which basic knowledge of how to use a computer and email is generally sufficient. A skills agenda that is broader than basic information technology is needed for workers to embrace technological change, particularly in high-skilled offshorable services. Education, and particularly tertiary education—in which enrollment rates are lower in EMDEs than in advanced economies (figure 7.13.E)—plays an essential role in equipping workers with the cognitive skills needed for complex problem solving, critical thinking, and adaptability. Tertiary education systems can meet the demand for these skills by incorporating more general education in technical degree programs and facilitating lifelong learning through adult education programs (World Bank 2019). Tuition and training paid for by employers, or by households if access to finance is not a barrier, can supplement public investment in education and training at advanced levels.

Promoting the revival of low-skilled contact services

Investing in widespread rollouts of vaccination against COVID-19 and related health care services is particularly important to enable travel-related services, such as accommodation and passenger transportation, to operate safely again at prepandemic scale. The uneven recoveries of these services from the pandemic thus far—with stronger recoveries in advanced economies than in EMDEs and LICs—is attributable, at least in part, to differences in the pace of vaccine rollouts (World Bank 2022).

While the low vaccination rates in LICs primarily reflect procurement challenges, logistical challenges in vaccine distribution, including insufficient cold chain capacity, are also hampering efforts to scale up inoculations rapidly (Hall et al. 2021). These challenges need to be addressed. Furthermore, testing and access to treatment facilities will need to supplement vaccine rollouts, especially given the uncertainty about the possible emergence of more transmissible or more lethal variants of the coronavirus against which existing vaccines might offer insufficient protection. All this highlights the importance of investing in better health services systems, including through public-private collaboration.

Evidence suggests that countries most dependent on tourism, such as small island economies, often have among the lowest Global Health Security Index scores (AIIB 2020). Increased digitalization, building on the momentum provided by COVID-19, could improve the performance of health services in resource-constrained countries by supporting efforts to revamp health provider education, redesign platforms for care delivery, institute strategic purchasing and management strategies, and develop patient-level data systems (Nimako and Kruk 2021).

Apart from addressing vaccination and other health-related issues, investment in infrastructure (through public-private partnerships, among other avenues) and measures to remove obstacles to competition and associated market distortions can minimize future disruptions in transportation and distribution services. Services trade faces significant regulatory barriers, which are generally higher in EMDEs than in advanced economies (figure 7.13.F). In low-skilled services, such as retail trade, there are both large EMDEs (such as Argentina, India, Indonesia, Malaysia, Thailand, and Vietnam)
and advanced economies (such as Belgium, Finland, France, and Greece) among those with the highest trade restrictions, and many have made little progress in reducing them in the past decade (Nayyar, Hallward-Driemeier, and Davies 2021). The pandemic has highlighted how disruptions in shipping, air transport, trucking, and distribution services at critical trade gateways and hubs can hinder activity in goods-producing subsectors (Celasun et al. 2022). In fact, transportation and distribution services are among the subsectors with the most intensive forward linkages to producers in other sectors—that is, with the largest shares of value added that provide inputs into economy-wide production (Nayyar, Hallward-Driemeier, and Davies 2021). Reducing regulatory restrictions in these upstream services can therefore bring cascading benefits to many downstream sectors. In India, for example, the productivity of downstream manufacturing firms increased following the liberalization of transportation services, through greater foreign direct investment in the 1990s as well as other means (Arnold et al. 2015).

Promoting the expansion of high-skilled offshorable services

High-skilled offshorable services are more amenable to remote delivery and, as a result, have better withstood the COVID-19 pandemic. These are also the services subsectors with the highest total factor productivity, implying that reallocation of resources toward them can raise an economy’s total output. In EMDEs, high-skilled offshorable services are 2.7 times more productive than low-skilled services, which account for two-thirds of total services employment. If the composition of the services sector in LICs matched that in advanced economies, overall services productivity would be 35 percent higher. Policy interventions that alleviate constraints on the growth of high-skilled offshorable services may therefore be beneficial.

On the demand side, policy measures could support the growth of trade in ICT, finance, and professional services (see chapter 6). These measures include the easing of trade restrictions. Professional services are among the most protected industries in both EMDEs and advanced economies (Borchert, Gootiiz, and Mattoo 2014). EMDEs stand to gain from liberalizing import restrictions. By allowing more imports of services, with associated foreign know-how and investment, these economies could raise competitive pressures, productivity, and innovation (Fernandes, Rocha, and Ruta 2021; World Bank 2020). Furthermore, trade agreements can provide opportunities for reciprocal reductions in barriers to services. Some progress has already been made through bilateral or regional trade agreements; more than 50 percent of all preferential trade agreements filed with the World Trade Organization through 2017 covered the services sector (Hofmann, Osnago, and Ruta 2019). In 2021, at the multilateral level, 67 World Trade Organization members concluded negotiations on a new set of rules aimed at slashing administrative costs and creating a more transparent operating environment for providers of services in foreign markets.

On the supply side, shortages of technical skills are an important barrier to the growth of high-skilled offshorable services. Education, particularly tertiary education, and
technical training are key to equipping workers with the advanced skills necessary to support such growth. Expansion of public-private partnerships could make tertiary education and training programs more responsive to changing industry demands. The use of private providers and incentive contracts (in which participant placement is a condition for payment) can help align incentives in improving the effectiveness of training programs. Having private sector actors involved in setting curricula can also help programs reflect the types of skills future employees will need. Links with industry are a feature of many tertiary education systems that are centers of innovation (World Bank 2019).

Conclusion

The development community’s focus on the export-led manufacturing model of growth can divert attention from the fact that the services sector has been the main driver of economic growth in EMDEs over the past three decades. Today, the services sector employs half of all workers in EMDEs. However, except for in the high-skilled offshorable services—ICT, finance, and professional services—increases in domestic consumption have fueled this services-led growth process more than exports, and the growth of factor inputs more than productivity growth. As a result, scale economies and innovation—which formed the basis for growth in the export-led manufacturing model—have been relatively limited in the services sector, especially in regard to low-skilled contact services that employ a large share of low-skilled labor in EMDEs. This has led to pessimism about the longer-term prospects of services-led growth.

At the onset of the COVID-19 pandemic, social-distancing regulations and precautions particularly affected low-skilled contact services—many of which are dependent on face-to-face interactions between providers and consumers. However, providers of services have responded by turning more to digital technologies, including those for online sales in low-skilled contact services in which in-person delivery remains important. Meanwhile digitalization has enabled high-skilled offshorable services to withstand the adverse effects of the pandemic by facilitating remote delivery.

Increased digitalization during the pandemic has provided new momentum to services-led growth and its prospects. For one thing, it has improved opportunities for international trade in services, not only in high-skilled offshorable services, but also, for instance, through streaming platforms that enable the remote delivery of arts, entertainment, and recreation services. For another, it has made possible new and greater efficiency gains: Digitalization can allow otherwise labor-intensive services to be combined with ICT and intangible forms of capital, reduce the importance of physical proximity in market transactions, improve business processes, and facilitate scaling up.

The use of even the most basic digital technologies in EMDEs, however, is far from widespread. To harness the potential of the services sector in shaping the recovery from the COVID-19 pandemic and strengthening future economic growth, policy makers in
EMDEs need to make the wider diffusion of digitalization a priority. Policies to promote digitalization include supporting investment in digital infrastructure, updating regulatory frameworks, and fostering the development of firms’ capabilities through education and training. The revival of low-skilled contact services, such as transportation and hospitality, will likely benefit from the expansion of vaccination rollouts and related medical services. Promoting infrastructure investment and regulatory reforms in such services as transportation, which shares important links with goods-producing sectors, is also likely to benefit the wider economy. Last, but not least, policies that improve market access and develop relevant skills can support the expansion of high-skilled offshorable services.

The prospect of long-term services-led growth will also depend on climate change considerations as countries aim to transition to net-zero emissions by 2050-60. The impetus for policy makers in EMDEs to enable structural transformation will be even stronger; agriculture is more vulnerable to changes in climate than nonagricultural sectors (Casey 2020), and rising temperatures are associated with lower shares of workers outside agriculture (Liu, Shamdasani, and Taraz 2019).

The intensity of greenhouse gas emissions varies by sector. In the United States, services produce less than 5 percent of total greenhouse gas emissions directly, and they have much lower direct emission intensities per dollar of output than do physical products (Suh 2006). However, large environmental impacts can be traced to consumption by services workers. Together, these workers account for half of all wages globally, with the highest share of highly paid workers of any sector (Greenford et al. 2020). Simulation models based on hypothetical carbon prices show the net-zero transition will have a limited impact on the shares of manufacturing and services in GDP (Chepeliev et al. 2022). There may also be important differences across services subsectors. On the one hand, travel-related services might contribute more to emissions because of their dependence on transportation. On the other hand, high-skilled offshorable services might contribute more to emissions through consumption, because the workers they employ tend to be more affluent.

The services sector can also play an important role in climate mitigation (reducing emissions of greenhouse gases) and adaptation (building resilience to climate change). For instance, financial services can play a fundamental role in mobilizing the resources needed for necessary climate-related investments (Grippa, Schmittmann, and Suntheim 2019). Similarly, engineering and environmental consulting services will likely be central to enabling energy efficiency improvements (World Economic Forum 2022). The global environmental consulting services market size is expected to almost double from $56.4 billion in 2021 to $93.6 billion in 2026 (TBRC Business Research 2022).

Future research can explore how structural change driven by the manufacturing and services sectors affects climate goals. Analyzing sectoral differences in vulnerabilities to climate change, intensity of emissions, and contributions to climate mitigation and adaptation could help clarify the contribution of the services sector to sustainable economic growth.
References


Falling Long-Term Growth Prospects


