The Least Developed Countries Report 2025

Chapter III

Trade in services

United Nations

Services are integral to the evolution of global trade, yet the growth trajectory remains markedly uneven between developed and developing economies. Global services trade is increasingly dominated by knowledge- and technology-intensive sectors, exacerbating disparities and risking greater marginalization of least developed countries (LDCs). The rapid proliferation of digitally-deliverable services underscores the critical need for advanced skills, technological innovation and investment in infrastructure, areas where LDCs face substantial barriers that impede their developmental progress. Currently reliant on transport and travel for services exports, LDCs are highly susceptible to external shocks, underscoring the urgency for strategic diversification into emerging digital services. Strengthening synergies between services and manufacturing, alongside targeted capacity-building, is essential for LDCs to harness opportunities from services, achieve structural transformation, and navigate the risks of global technological and economic shifts.

A. Introduction

Services are fundamental to modern economies, influencing both domestic and international trade. There are significant growth and development potential from strategically leveraging the service sector's dynamic role in driving economic diversification, job creation, trade and investment (UNCTAD, 2025f). Services act as vital inputs to other industries either as activities within firms or embedded inputs in goods produced and sold, fostering inter-industry linkages and contributing significantly to trade in value added. Such dynamic linkages are critical for structural change, innovation and enhancing the capacity of other industries to develop new products (UNCTAD, 2017b, 2017d; Rodrik, 2018).

Chapter II examines the crucial role services play in the economic transformation of LDCs, and why the strength of their linkages with other economic sectors varies significantly across countries. It analyses in depth the most important structural features of services in the LDCs, and highlights the dominant role of informal, low-productivity employment in the sector. Besides providing a safety net for those excluded from formal employment, informal services contribute to reducing poverty, but their impact on economic growth is often limited. In the same vein, services produced by the informal sector are less productive, and unlikely to grow significantly – for example, retail trade that represents the bulk of the urban economy in LDCs. However, the services sector can play a transformative role when it integrates with and supports production in other economic sectors, such as mining, manufacturing and agriculture (UNCTAD, 2018a).[1]

[1] For a description of the services classification used in this chapter and the relationship to trade, refer to the definitions in box 1 in chapter 1 of UNCTAD (2015).

Many developing economies are leveraging both traditional, location-specific services and emerging digitally-deliverable services (DDS) for trade. However, the rise in DDS is marked by an uneven trend with a concentration of digital services trade among developed economies and other developing economies (UNCTAD, 2024d). In contrast, LDCs rely on a narrow range of less dynamic services for export, while a larger portion of their services are produced and consumed domestically.[2] Also, the main drivers of services exports differ significantly between LDCs and other economies, particularly developed economies. For instance, while the surge in global services trade is dominated by ICT and business-oriented services, LDCs lag in both investing and trading in these high-growth sectors (UNCTAD, 2023c, 2024c).

The present chapter examines how LDCs can benefit from the global surge in services trade, which is largely driven by digital knowledge-intensive services. It analyses major trends in services trade to identify opportunities for the LDCs. It uses a case study of specific LDCs that have consistent input-output data to estimate key trade indicators, including the services intensity of production, the services embodied in exports, and the services trade linkages and/or complementarities with manufactured goods exports. Unlike chapter II, which focuses on the role of services in boosting employment, economic growth and structural transformation, this chapter's primary goal is to pinpoint the factors that influence LDCs' performance in services trade. It emphasizes the need for the LDCs to diversify into high-value dynamic sectors and address the significant barriers they face in doing so. It explores ways to improve LDCs' services trade performance, and enhance the synergy between services and goods exports. In addition, the chapter addresses risks from overreliance on low-productivity services, a trend that contrasts the growing importance of DDS, which constituted 41.1 per cent of LDCs' total services trade deficit in 2024.

Services have various classifications, depending on the framework of analysis. In the balance of payments, for example, the emphasis is on cross-border transactions and financial flows between a country's residents and non-residents. For services, this means recording exports and imports based on who provided the services and where they are located. In contrast, the system of national accounts focuses on domestic production, specifically on the value added created by a producer within a country, regardless of who the services are sold to (box III.1). In addition, the International Standard Industrial Classification of All Economic Activities (ISIC) classifies services based on their primary economic activity, to provide a more detailed structure of the production side of the national accounts.

[2] The term non-tradable services is used in this chapter to refer to services that are inherently difficult to export, either because of their location-specific nature or type of business entity producing them. This distinction has implications on what is included or excluded from international trade in services. For a detailed explanation, please refer to box III.1.

Box III.1.
Services classification in the system of national accounts and international statistics on services trade

Definition of services trade

The General Agreement on Trade in Services (GATS) definition of services trade is broader than the definition according to the balance of payments, and takes into account the modes of supply or simply the territorial presence of the supplier and consumer at the time of the transaction (article I.2 of GATS (WTO, 2015)). The four modes of supply in article I refer to:

- Mode 1 – cross-border supply, which typically covers the supply of services from one territory of one country to another;
- Mode 2 – consumption abroad, which accounts for services supplied in the territory of one country to the service consumer of another country;
- Mode 3 – commercial presence, which accounts for services supplied by foreign businesses established in the territory of another country;
- Mode 4 – the presence of "natural persons", which accounts for services supplied through the presence of a foreign natural person in the territory of another country.

Measuring trade in services

The United Nations Statistical Commission adopted the revised Manual on Statistics of International Trade in Services in 2010. The manual was developed to provide guidelines and recommendations on how to track and measure international transactions in services.

The classification of the services sectors included in the international services trade statistics follows closely the Manual on Statistics of International Trade in Services 2010 (United Nations, 2012), and the Balance of Payments and International Investment Position Manual (IMF, 2010). The former utilizes two main building blocks for describing international supply of services – namely, transactions between residents and non residents – and the supply of services through the operation of foreign affiliates based on foreign affiliates statistics (FATS).

The classification of services trade sectors is not directly comparable with services in the system of national accounts, because the latter emphasizes the flow of resources in production and the distribution of income and consumption, whereas the former focuses on transactions and the residency of the transactors. However, a strong concordance between the system of national accounts and FATS is needed to align the services nomenclature in the national income with balance-of-payments data.

The main services categories include transport (air, sea and other transport); travel (business and personal); communications services (postal and courier services and telecommunications); construction; insurance services; financial services; computer and information services; royalties and license fees; other business services; personal, cultural and recreational services; and government services. Transport services – which are further disaggregated into passenger, freight and other – include space transport, rail transport, inland waterway transport, pipeline transport and electricity transmission, as well as other supporting and auxiliary transport services in the extended balance-of-payments classification of services. The concordance with the ISIC categories for foreign affiliates is not direct, although all ISIC categories are included, such as divisions 75 (veterinary activities), 95 (repair of computers and personal and household goods) and 99 (undifferentiated goods- and services-producing activities of private households for own use). Further harmonization and improvements for descriptive and analytical purposes of services are provided in the Central Product Classification.

Sources: IMF (2010); United Nations (2012); WTO (2015); and UNCTAD (2024a).

The rest of the chapter is organized as follows. Section III.B examines services trade patterns. It explores how the services trade patterns of the LDCs align with and respond to global trends, and identifies which services are crucial for their competitiveness. Section III.C analyses the factors that explain the divergence in services export performance among countries. It offers insights on how digital technologies and innovation have impacted the services trade globally, and how LDCs can improve their performance in emerging services sectors. Recognizing the critical role of non-tradable services in the economic development of LDCs, section III.D assesses the potential for a complementary relationship between services trade and merchandise trade. Finally, section III.E provides a summary of the chapter's key findings.

B. Services trade patterns

This section analyses global services trade patterns, with a particular focus on LDCs. It compares the trends in services exports of LDCs with those of other economies, and highlights differences in specialization between LDCs and the comparators. The structural decomposition of services trade before and after the COVID-19 pandemic shows why it is crucial to adopt targeted strategies for high-potential services subsectors. This approach would allow LDCs to capture a larger share of the expanding global services markets.

1. Global trade in services

Services are becoming an increasingly important part of global trade, with the share of services in total exports growing from an average of 18 per cent in 2005–2009 to 22 per cent in 2019–2023, according to UNCTAD's UNCTADstat database. From 2021 to 2023, global services exports grew by an average of 15 per cent, outpacing goods, which grew by 11 per cent. Global trade momentum levelled off in the fourth quarter of 2024 due to shifting policies and geopolitical tensions. Despite this slowdown, services trade remained resilient, growing by 9 per cent for the year – reaching 23.9 per cent of global trade – significantly outpacing the 2 per cent growth in goods trade.

The leading services sectors in world services trade in 2024 were travel (19.7 per cent) and transport (16.8 per cent). These were followed by a diverse group of other services, which collectively accounted for 60.2 per cent of global services trade. Among these were telecommunications, computer and information services (14.2 per cent); professional and management consulting services (11.2 per cent); technical, trade-related, and other business services (9.7 per cent); financial services (8.8 per cent); charges for the use of intellectual property (6.2 per cent); insurance and pension services (2.7 per cent); research and development (3.1 per cent); construction (1.3 per cent); and personal, cultural and recreational services (1.4 per cent).

The growing importance of digitally-deliverable services

The strategic importance of high-value, knowledge-intensive services in services trade also emerged during the COVID-19 pandemic. The growth in services trade is largely attributed to the rise in DDS, such as financial services, and telecommunications, computer and information services, which thrived even during recent economic crises, including the COVID-19 pandemic (UNCTAD, 2023c). The global trade in DDS reached $4.9 trillion in 2024, a significant increase from $4.5 trillion in 2023.

The strategic importance of DDS still holds, despite the pandemic's impact, which saw their share in total services trade dropping from 68 per cent in 2020 to 60 per cent in 2022, as the composition of total services trade shifted – possibly due to the rebound in travel and transport, as well as other components of services trade that were affected by COVID-19.[3] These services could be crucial for the trade performance of LDCs, provided the countries address binding constraints including their state of digital infrastructure and related technologies; quality of policy and regulatory frameworks; and human capacity. Globally, DDS are increasingly subject to restrictive policies and regulatory measures that might also be hindering LDCs' integration into digital services trade (IMF et al., 2023). Addressing these issues is key to improving the services trade performance of LDCs, especially in modern services linked to ecommerce and the digital economy, which could trigger substantive developmental impacts to these countries.[4]

Commercial presence is the most dominant mode of supply of services globally

The latest data from the World Trade Organization's (WTO) Trade in Services by Mode of Supply (TISMOS) database show that commercial presence (mode 3) was the dominant mode of supplying services globally in 2022, accounting for 56.1 per cent of transactions (figure III.1). This was followed by cross-border supply (mode 1) at 34.7 per cent, and consumption abroad (mode 2) at 8 per cent. The least utilized mode of supply was the presence of natural persons (mode 4), which accounted for just 1.2 per cent. The two leading services sectors at the global level had very different primary modes of supply. Transport services were mainly delivered through the cross-border mode (55 per cent), while tourism and travel were overwhelmingly supplied through consumption abroad (79 per cent). The third-largest category – telecommunications, computer and information services – was primarily delivered via commercial presence (64 per cent), though a significant portion (34 per cent) was also supplied through crossborder transactions.

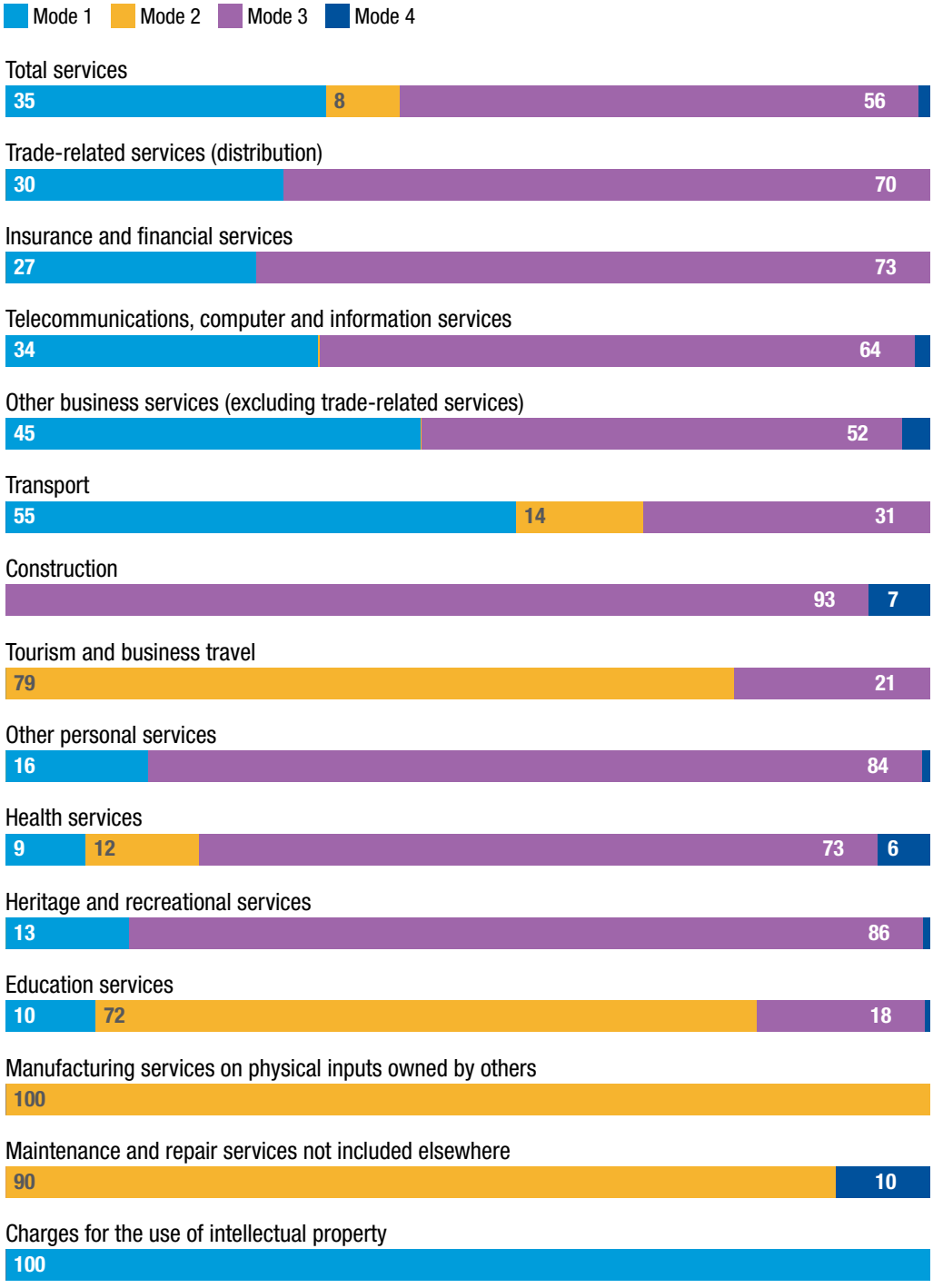
Services trade is concentrated among a few economies. Developed economies accounted for over two thirds of services exports at $6.2 trillion in 2024 (70.1 per cent), with other developing economies contributing $2.6 trillion (29.3 per cent). The top 10 developing economies accounted for 21 per cent of the global trade in services in 2024.[5] None of these were LDCs (UNCTAD, 2023b). In 2024, the services exports share of the top 10 developing countries had dropped to 17.2 per cent, with Malaysia replacing Brazil in the group.

[3] Unless otherwise stated, most of the analysis in this chapter is based on data from UNCTADstat international trade in services data by individual economies and by trading partners, which is the result of the common work of UNCTAD and the WTO. The direction of services trade data is based on the WTO–Organisation for Economic Co-Operation and Development (OECD) Balanced Trade in Services (BaTIS) data set, while that on modes of supply for services trade relies on the WTO Trade in Services by Mode of Supply (TISMOS). To avoid confusion, only trade shares are reported in the relevant sections where BaTIS and TISMOS have been used, since they are built upon statistical frameworks that are characteristically different from UNCTADstat.

[4] E-commerce is defined as the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders (UNCTAD, 2024c). The distinctive feature is that the goods and services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online.

[5] These are China; India; Singapore; the United Arab Emirates; Türkiye; Hong Kong, China; Thailand; Taiwan Province of China; Mexico; and Saudi Arabia. Except for Türkiye, the same economies, together with Brazil, were among the top 10 developing economy importers of services in 2023.

Figure III.1.
Establishing a commercial presence is the leading mode for exporting services globally
(Percentage of total services exports by mode of supply)



Source: UNCTAD secretariat calculations based on data from WTO, TISMOS data set (accessed October 2025).

2. Least developed countries' services export trends

LDCs remain on the periphery of global services trade

The global pattern of services trade seems to suggest that services could lead the future of globalization, as services exports growth outstrips that of goods. Consistent with this global trend, LDCs' services exports grew by an average of 13.5 per cent in 2022–2024, while their goods exports grew by 5.6 per cent during the period. However, for the LDCs, services suffered a deeper setback (33 per cent) compared with goods (5.6 per cent) in 2020 (table III.1). The share of services in LDCs' exports fell sharply from a peak of 20 per cent in 2019 to 15 per cent in 2020 and contracted further to 13 per cent in 2021. Although it has rebounded to 16 per cent by 2024, this recovery is slow compared to the steep, pandemic-induced decline.

Table III.1.
Growth rates of LDCs' services exports and imports
(Percentage)

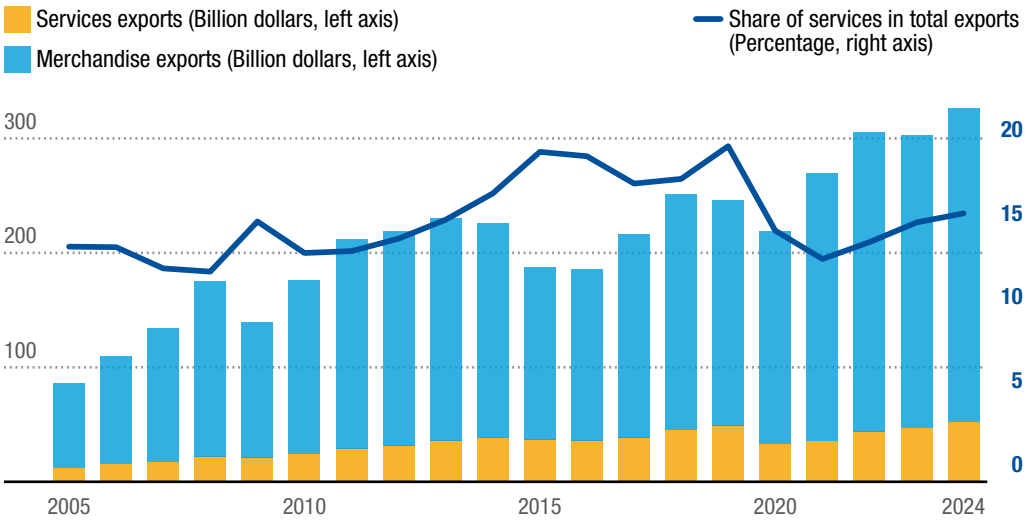
	Exports					Imports				
Year	Services exports total	Goods-related services	Transport	Other services	Travel	Services exports total	Goods-related services	Transport	Other services	Travel
2019	8.5	63.8	7.0	7.2	6.0	-3.7	65.4	1.6	-12.6	2.3
2020	-33.4	-11.4	-16.4	-7.4	-64.2	-9.8	18.7	-10.3	4.2	-51.7
2021	9.4	-3.2	24.9	3.2	5.8	10.8	-17.1	21.5	-1.1	18.1
2022	22.0	22.9	24.2	-0.5	60.4	18.7	0.2	21.9	4.7	72.5
2023	7.1	-25.3	3.3	-5.6	32.5	-0.2	-19.0	-6.6	6.4	13.2
2024	11.5	-6.6	13.1	7.0	15.8	11.4	-2.1	6.2	19.2	11.2

Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

LDCs are on the periphery of global services trade, with their share in world services hovering below 1 per cent. Although in nominal terms the value of LDCs' services exports rose from $12.1 billion in 2005 to $38.8 billion in 2014 (figure III.2), their share in global services trade only increased from 0.44 per cent to 0.73 per cent during the period. From 2014 to 2019, LDCs' services exports grew rapidly, reaching to $49.1 billion in 2019, but the average share in global services trade was just 0.72 per cent. This was mainly due to the heavy reliance on low value-added services, with travel and transport dominating their services exports (UNCTAD, 2025a).

The immediate and prolonged effects of the COVID-19 pandemic hit LDCs particularly hard. Their services exports are heavily concentrated in travel and transportation, both of which were severely impacted by the pandemic. As a result, services exports dropped to $32.7 billion in 2020 and their share in global services exports contracted from 0.77 per cent in 2019 to 0.61 per cent.

Figure III.2.
Services are gradually contributing a larger share to total exports of least developed countries



Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

The COVID-19 shock continues to weigh on the services exports of least developed countries

From 2015 to 2019, world services exports grew by an annual average of 4 per cent. LDCs posted the fastest growth, at 5.2 per cent, compared with other developing economies (5 per cent) and developed economies (3.6 per cent), but this dynamism was interrupted by the COVID-19 pandemic. The post-COVID-19 period saw a strong global recovery in services exports, which surged from $5.3 trillion in 2020 to $8.9 trillion in 2024. Other developing economies experienced a much faster recovery, with an average annual growth of 18.3 per cent from 2021 to 2024, compared with 12.5 per cent for LDCs and 12 per cent for developed economies.

By 2021, developed economies' services exports valued at $4.7 trillion had already surpassed their pre-pandemic level ($4.5 trillion) recorded in 2019. In contrast, LDCs' services exports remained below the 2019 peak, which was their best performance since 2005. They experienced a slower recovery from the pandemic's economic impact compared with the rest of the world, due to a number of inherent structural weaknesses within their economies, concentration of their services exports in sectors exposed to external shocks, deficiencies in physical infrastructure, the low level of technological capacities, and the quality of interlinkages within and across sectors (UNCTAD, 2021a).

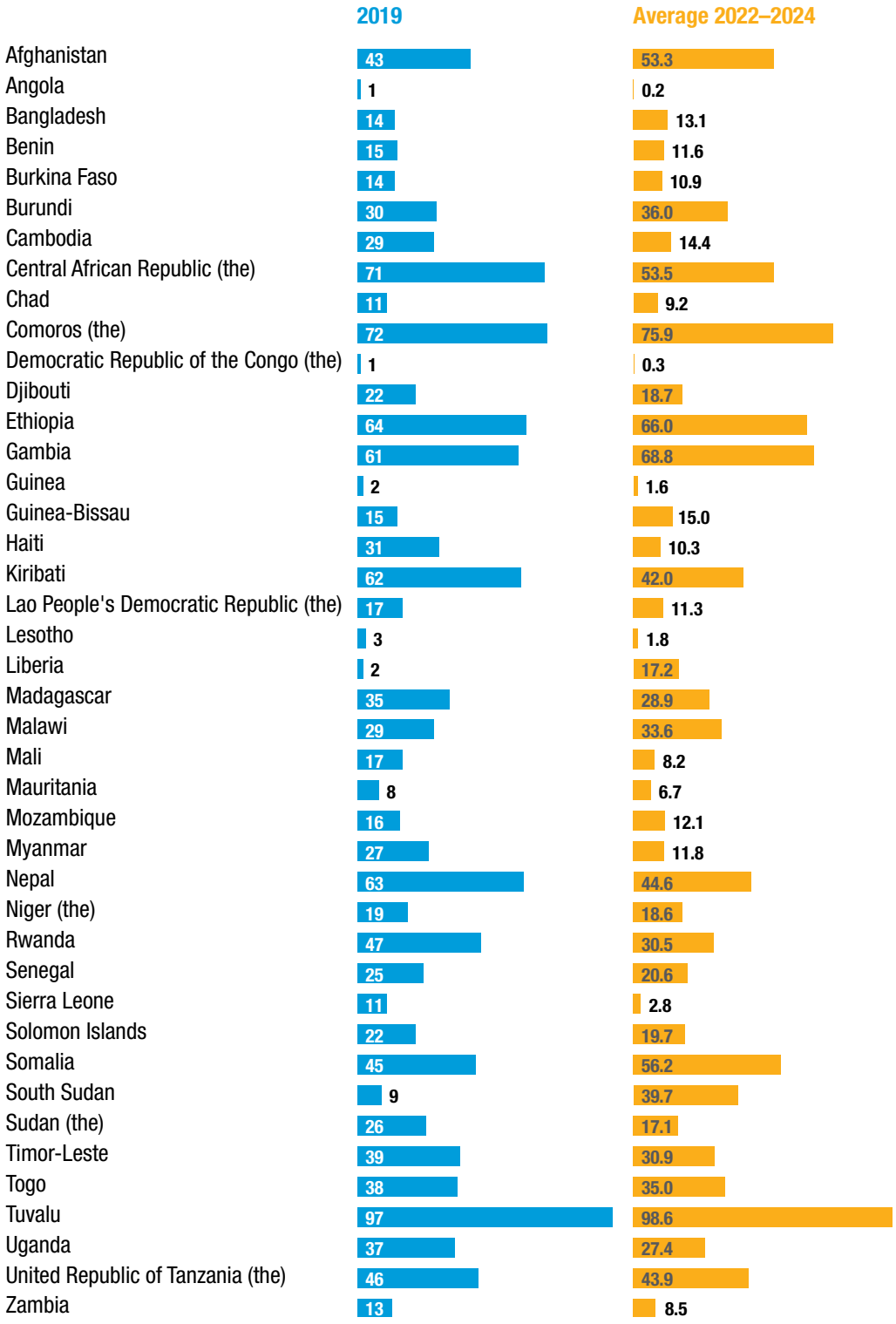
LDC services exports recovered in nominal value from $43.7 billion in 2022 to $52.1 billion in 2024. Despite this recovery in absolute terms, their share in the global services trade fell to 0.59 per cent, confirming that LDCs are losing ground relative to the rest of the world's services trade as their recovery from the pandemic has been much slower. This is largely due to their limited participation in knowledge-intensive and digitally traded services (UNCTAD, 2025a).

Merchandise exports followed different paths. After sharp falls in 2019 and 2020, they bounced back strongly, growing by $47.9 billion in 2021 and $28.3 billion in 2022. The recovery was short-lived, however, as merchandise exports contracted by $6.3 billion in 2023. This decline can be attributed to falling commodity prices, reduced consumer demand from the cost of living crisis, and heightened geopolitical tensions (WTO, 2024b). Although still growing slower than services, merchandise exports showed significant momentum in 2024, with UNCTAD data showing a 7 per cent increase ($17.9 billion) compared to 2023, bringing the total merchandise export value up to $274 billion. The Annex shows the evolution of the share of services in total LDC exports from 2011 to 2023.

The recovery in services trade was marked by uneven trends among the LDCs. The majority (31) saw their services share in total exports declining in 2022–2024 compared with 2019 (figure III.3). From 2020 to 2022, the services exports of 23 LDCs collectively fell by $12.4 billion. The hardest hit were Myanmar ($4.3 billion), Cambodia ($3.8 billion), Nepal ($1 billion) and the Lao People's Democratic Republic ($773 million). Other LDCs – including Haiti, Angola, Madagascar, Mali and Uganda – also experienced significant reductions in services exports relative to their usual trends. While the services exports of the remaining LDCs (21) collectively rose by $6.7 billion, this growth was highly uneven. During the pandemic, several countries – including Bangladesh, Mozambique, the Niger, the Sudan and Yemen – experienced individual significant yearly losses.

The services exports from the Niger, the Sudan and Yemen have declined due to a combination of factors, including conflict, political instability and external shocks. The services exports of Bangladesh faced a significant decline (22.5 per cent) in 2023, following a period of recovery. According to UNCTADstat, the initial shock of the COVID-19 pandemic caused a modest drop of just 3.1 per cent in 2020. A combination of economic factors and a slowdown in global demand for manufactured goods – especially garments, a key export – contributed to a 22.5 per cent fall in services exports in 2023. Related services, such as transport and travel, were impacted by the depressed global demand. In addition, modern services, particularly ICT and business process outsourcing, have also struggled to sustain progress, despite being some of the emerging services exports for the country. Going forward, the Government's goal is to reverse the decline in services export earnings — especially from non-factor services (transport, travel, telecommunications, and business) — by unlocking Bangladesh's high potential in these areas (Bangladesh, 2020).

Figure III.3.
The services share in total exports declined in 33 least developed countries in 2022–2024 compared with 2019
(Percentage)



Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

Services exports are concentrated in a few least developed countries

Services exports are concentrated in a few LDCs. United Republic of Tanzania (13.3 per cent), Bangladesh (12.8 per cent), Cambodia (9.5 per cent), Uganda (4.6 per cent) and Nepal (3.5 per cent) accounted for 43.7 per cent of the services exports of the LDCs with data in 2024.

In 2024, travel services were dominant services exports for Cambodia (73.4 per cent), Uganda (61.5 per cent), the United Republic of Tanzania (56.2 per cent), and Nepal (41.4 per cent). The services sector of Bangladesh was driven by other services (62.6 per cent), with government goods and services (24 per cent), technical and trade-related services (13.8 per cent), telecommunications, computer and information services (10.5 per cent), construction (6.4 per cent), professional and management consulting services (3.4 per cent), and financial services (2.9 per cent) as the main subcomponents. Other significant services exports of Bangladesh in 2024 were transport (20.7 per cent) and travel (6.6 per cent).

Despite this concentration, services play a critical role in the economies of many other LDCs. In 2023, they accounted for over 10 per cent of the gross domestic product (GDP) in Djibouti, Eritrea, the Gambia, Somalia and South Sudan. In addition, services contributed between 5 per cent and 10 per cent of GDP in Afghanistan, Cambodia, the Central African Republic, the Comoros, Solomon Islands, the Lao People's Democratic Republic, Madagascar, Rwanda, Senegal, the United Republic of Tanzania, Togo and Tuvalu (figure III.4).

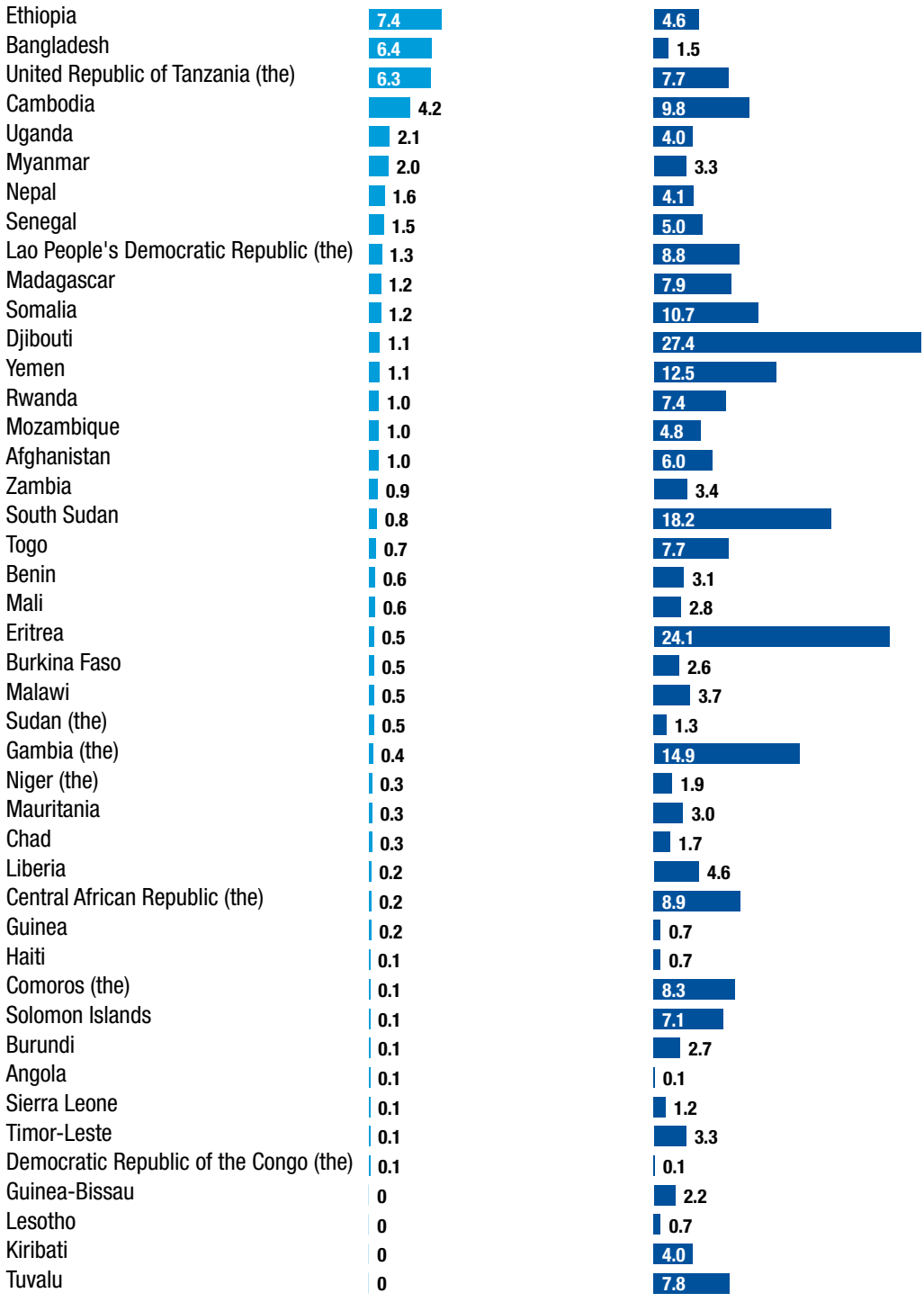
Transport and travel are the main services exports from least developed countries

Travel services include what is commonly referred to as tourism (i.e. personal travel for leisure), but also travel for other purposes, such as business, and personal reasons, such as health and education. Transport encompasses all services related to moving people and goods, including all supporting and auxiliary services. This category also includes postal and courier services.[6]

In 2024, travel and transport services accounted for 36.9 per cent ($19.2 billion) and 31.7 per cent ($16.5 billion), respectively, of LDCs' services exports (figure III.5). The combined share of these services increased from 66.2 per cent in 2015 to 68.5 per cent in 2024, indicating further concentration. In contrast, services exports at the global level and for other developing economies are more diversified. The share of transport and travel services in world services exports fell from 42 per cent in 2014 to 37 per cent in 2024. The shares of these services in total services exports of developed economies and other developing economies closely matched world shares, reflecting a shift in global services trade towards more business-oriented modern services.

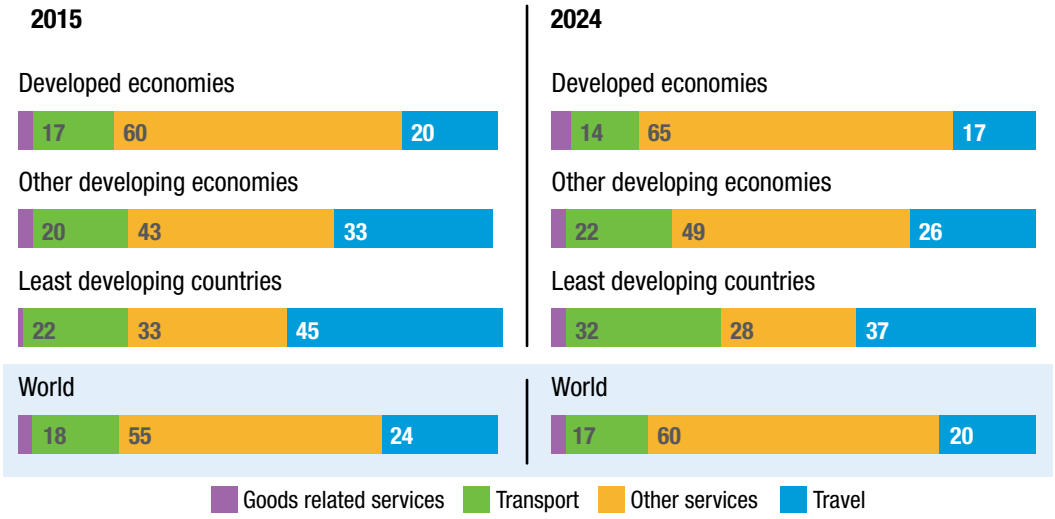
[6] The WTO-UNCTAD Trade in Services Data Set is based on the Balance of Payments and International Investment Position Manual (BPM6),which classifies international travel into two main categories based on the purpose of the trip: business travel and personal travel. Tourism as commonly understood is closely linked to personal travel, especially other personal travel other than for health and education purposes that aligns with the common definition of tourist travel for leisure, holidays and recreational purpose. Transport includes all transport services involving the carriage of people and objects from one location to another, as well as related supporting and auxiliary services.

Figure III.4.
Services exports were concentrated on a few least developed countries in 2023



Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

Figure III.5.
Travel and transport dominate the services exports of least developed countries
(Percentage)



Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

In 2024, world exports of transport services were valued at $1.5 trillion, with other developing economies contributing $572 billion and developed economies accounting for $895 billion. Travel services exports totalled $1.7 trillion globally, with developing economies accounting for $1 trillion and developed economies contributing $671 billion. Despite travel and transport services making up LDCs' main services exports, their combined global contribution to trade in these services was only 1.1 per cent in 2024. This suggests that, among other factors, improving the LDCs' export performance of these services and diversifying into other services could be key in reducing the global trade disparities.

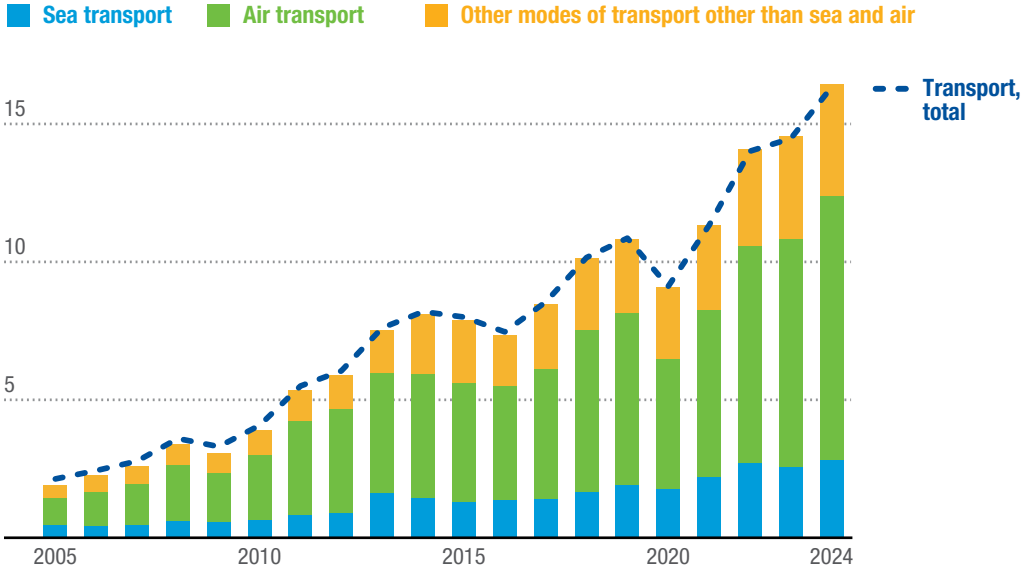
The largest portion of LDCs' transport services was from air transport, which generated $9.5 billion, or 57.9 per cent of the total in 2024 (figure III.6). The subsector's exports saw a period of strong growth, from $2.4 billion in 2010 to $6.2 billion in 2019, achieving an average annual growth rate of 12.1 per cent.

While the pandemic caused a temporary dip to $4.7 billion in 2020, air transport exports quickly rebounded, reaching $6.1 billion in 2021 and $7.9 billion in 2022.

The air transport subsectors – freight and passenger – responded very differently to the pandemic and recovered at varying paces. Driven by the return of travel demand, the passenger sector demonstrated a robust recovery, averaging 36 per cent annual growth from 2022 to 2024 and tripling in value compared to 2020, although initially it plummeted by 56.9 per cent in 2020. In stark contrast, air freight transport initially surged by 74.4 per cent in 2020 compared to 2019 and another 37.1 per cent in 2021 compared to 2020. It then significantly slowed to 3.2 per cent in 2022, peaking at $1.8 billion (23 per cent of total air transport). This was followed by a sharp decline by 21.9 per cent in 2023 as the air transport sector continued to adjust to post-pandemic dynamics.[7]

[7] The grounding of passenger flights added to the shortage of air cargo capacity. At the same time, a maritime backlog and a surge in demand for specific goods, such as personal protective equipment and consumer goods, added pressure on airfreight, leading to soaring airfreight volumes.

Figure III.6.
Air transport is the largest component of transport services exports of the least developed countries
(Billion dollars)



Note: Discrepancies in the total and the components are due to revisions, missing components or unreported data.

Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

It is estimated that air transport supported more than 6 million jobs in LDCs, and generated $3.8 of economic activity in other sectors for every dollar of its own gross value added in 2023. These figures are based on three key channels of spending: operational spending by airlines, airports and civil aircraft manufacturers; the aviation sector's procurement of goods and services in the local economies; and wage payments within the aviation sector and its supply chain (ATAG, 2024). Air passenger services is the largest segment of all transport modes, accounting for 39 per cent of transport services in 2022. The Air Transport Action Group (ATAG, 2024) projects a 6.7 per cent annual growth in air traffic in LDCs between 2023 and 2043, provided there is sustained investment in the aviation sector and related services, including infrastructure, airport operations, retail and tourism.

Separately, other modes of transport (excluding sea and air) grew steadily, increasing from $0.9 billion in 2010 to $4.1 billion in 2024. Passenger and freight transport, which are dominated by road, are projected to continue rising up to 2050 in LDCs such as Bangladesh, Chad and Zambia, in part due to economic growth and investment in infrastructure, including rail transport (Tjandra et al., 2024). Investment in regional road and railway transit networks may also boost regional integration and trade, especially the Programme for Infrastructure Development in Africa and the International Agreement on the Asian Highway Network (United Nations, 2003).

Between 2008 and 2019, travel services exports more than doubled, from $10.1 billion to $20.6 billion (figure III.7). However, the COVID-19 pandemic severely impacted the sector, causing a sharp 64.2 per cent contraction to $7.4 billion in 2020. The recovery has been slow, and by the end of 2023, LDCs' travel services were 19.5 per cent below the pre-pandemic level and closed 2024 6.7 per cent below the 2019 level. Reliance on a few source

markets such as Europe and North America for the African LDCs and Haiti – as well as China, India and other Asian countries for the Asian LDCs – makes them vulnerable when there are disruptions affecting the primary source markets. While the outlook for travel remained positive in 2021–2023, the momentum of the recovery was severely hampered by several factors, including: (a) the rising cost of living, which also increased travel expenses; (b) the fading of pent-up travel demand from the pandemic; and (c) economic uncertainties that have affected the aviation sector, leading airlines to offer shorter booking retention periods and less flexibility in options (World Travel and Tourism Council, 2023). There is a need for the LDCs to diversify the source markets and tourism niches, including through better linkages between travel services and other domestic activities.

Travel is distinguished between business and personal travel. Business travel includes travel for the acquisition of goods and services by border, seasonal and short-term workers, and other business travel; while personal travel is subdivided into three categories: health-related, education-related, and other (than health and education). Personal travel other than for health and education is by far the largest component of travel services exports in LDCs, but this was almost reversed during the pandemic in 2020 and 2021. The recovery in 2022 reflects a return to the long-term structure, with the reopening of borders, and recreational travel reverting to normal trend. The resumption of global travel and the strong, pent-up demand for tourism have had positive impacts on tourism, but the cost-of-living crisis, and a shift in consumer preferences after the pandemic shock, have kept demand modest, to the detriment of tourism-dependent LDCs.

The post-pandemic period has seen a decline in both health and education travel exports. Health-related travel exports decreased by almost half, from $93 million in 2020 to $48.9 million in 2022. Education-related travel exports also experienced a sharp decrease, from $243 million in 2021 to $113 million in 2023. Health-related travel recovered slightly, to $65.5 million in 2023, but the outlook for education-related travel remained pessimistic, as health risks and concerns about travel restrictions lingered even after the pandemic (UNCTAD, 2023a).

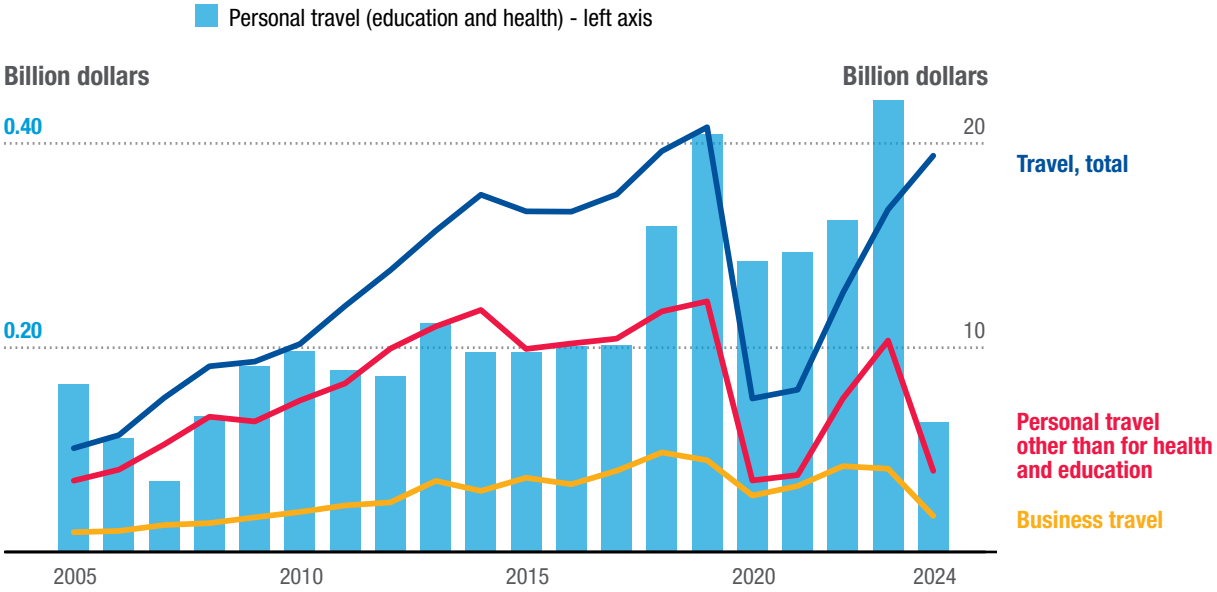
Government goods feature prominently in services exports of least developed countries

Other services was the third largest category of services exports from LDCs in 2024, accounting for 27.9 per cent (figure III.5). Within the category, government goods and services represented 33.1 per cent, while other business services accounted for 28.5 per cent.[8] "Technical, trade related, and other business services", which is one of three components of other business services, accounted for 19.3 per cent of the total of "other services" as defined above, while professional and management consulting services accounted for 8.6 per cent, while research and development was less than 1 per cent.

Government goods and services account for government activities abroad. As such they tend to be non-market transactions and less sensitive to price fluctuations or market conditions. They are, therefore, expected to have limited spillover effects on the productive capacities of LDCs, although their value includes some goods supplied by businesses. They cover: (a) goods and services supplied by and to enclaves, such as embassies, military bases and international organizations; (b) goods and services acquired from the host economy by diplomats, consular staff and military personnel located abroad, and their dependents; and (c) services supplied by and to Governments, and not included in other categories of services (according to the metadata in in UNCTAD, UNCTADstat database).

[8] The other business services consist of research and development (R&D); professional and management consulting services; and technical, trade-related and other business services.

Figure III.7.
Least developed countries' travel services recovered strongly from the pandemic, but all personal travel categories have declined since 2023



Note: According to UNCTADstat, travel credits cover goods and services for own use or to give away acquired from an economy by non-residents during visits to that economy. These would be counted as travel exports by the reporting country. On the other extreme are travel debits, which cover goods and services for own use or to give away acquired from other economies by residents during visits to these other economies.

Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

3. Transient opportunities in key business sectors

For the LDCs, the value of other services exports increased from $11.6 billion in 2013 to $15.2 billion in 2019 (table III.2). A detailed breakdown shows that the two largest subcomponents – other business services, some of which are discussed in the next paragraph; and telecommunications, computer and information services – diverged, with the latter contracting from $3.1 billion in 2013 to $2.4 billion in 2019, while the former grew from $2.9 billion to $4.7 billion in the same period. Technical, trade-related and other business services dominated the other business services, contributing $2.4 billion in 2013 and $3.8 billion in 2019. Between 2013 and 2024, the other services grew at an average annual rate of 4.4 per cent, but there were considerable year-on-year variations. The subsector contracted by 8.7 per cent in 2023, indicating a significant decline in demand for the related services following the COVID-19 pandemic. For instance, technical, trade-related and other business services declined by an average of 10 per cent in 2020–2023, before recovering by 13.8 per cent in 2024 compared to the 2023 value.

At the global level in 2024, research and development (R&D); professional and management consulting services; and technical, trade-related, and other business services were valued at $2.1 trillion, accounting for 40 per cent of "other services" exports. The exports of these services by developed economies reached $1.5 trillion (while for other developed economies it was $579 billion). The former included $278 billion in R&D; $991 billion in professional and management consulting services; and $862 billion in

technical, trade-related and other business services. For LDCs the exports of these services were valued at just $4.2 billion. Professional and management consulting services ($333 billion); and technical, trade-related, and other business services ($205 billion) were the bulk of the other business services of other developing economies, while for LDCs, technical, trade-related and other business services ($2.8 billion) were the main component of other business services exports, followed by professional and management consulting services ($1.3 billion).

Government goods and services constituted the largest share (33 per cent) of other services in 2024, a notable drop from 39.7 per cent in 2019 (table III.2). Other key sectors were telecommunication, computer, and information services (22 per cent), and technical, trade-related and other business services (19 per cent). Professional and management consulting services (8.6 per cent), construction (7 per cent) and financial services (5.6 per cent) were also significant in the category.

The construction sector in the LDCs faces significant volatility, due to the cyclical nature of infrastructure projects and fluctuations in external financing for the projects. Despite this, the sector's exports experienced a pre-pandemic boom, soaring from $707 million in 2017 to $1.1 billion in 2019. Although construction exports contracted by about 7.4 per cent in 2020, they rebounded strongly to average $1.4 billion in 2021–2023, before sliding to $1 billion in 2024. Most of these exports come from Asian LDCs, with Bangladesh in the lead. Before the pandemic, several other LDCs showed promise – including Afghanistan, Burkina Faso, Myanmar, Senegal and Uganda – which individually accounted for between 7 per cent and 15 per cent of the total LDC construction exports. Burkina Faso (8 per cent) and Uganda (7 per cent) continued to increase their shares of LDC construction exports since 2021.

Table III.2.
Government goods and services and other business services are the main subsectors of other services exports of least developed countries

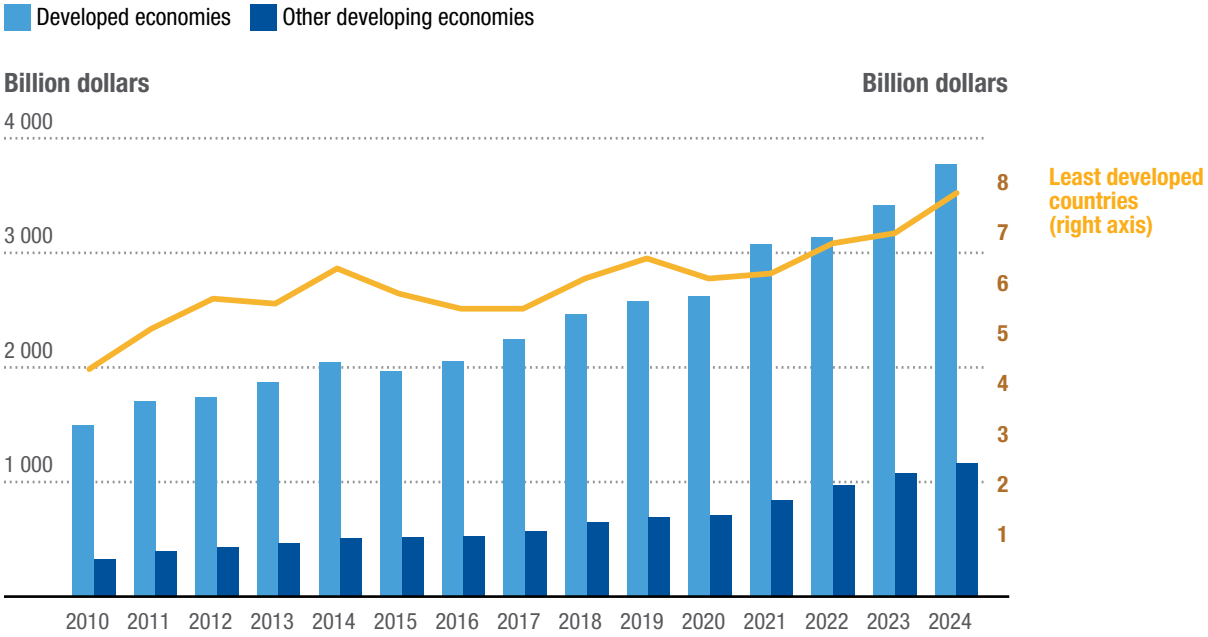
Year	Other services	Construction	Insurance and pension services	Financial services	Charges for the use of intellectual property not included elsewhere	Telecommunications, computer and information services	Other business services: R&D; professional and management consulting services; technical, trade-related and other business services	Personal, cultural and recreational services	Government goods and services
	Export value in billions of dollars	Percentage of the other services category							
2005	4.9	4.2	1.9	3.2	2.1	13.4	22.3	0.2	52.6
2006	7.0	3.0	1.1	2.7	22.0	13.5	18.5	0.2	38.9
2007	6.6	3.7	1.5	3.9	1.1	16.7	27.3	0.4	45.4
2008	9.2	8.4	1.1	4.3	1.7	15.5	27.3	0.5	41.3
2009	9.1	10.0	1.4	4.2	1.8	17.7	28.5	0.8	35.8
2010	9.8	13.2	1.2	3.4	0.2	20.2	26.7	0.4	34.9
2011	11.6	14.9	1.5	4.5	0.4	22.1	23.5	0.6	34.9
2012	11.7	11.3	4.9	4.5	0.7	23.2	23.7	0.7	31.5
2013	11.6	5.0	2.1	3.2	0.7	27.0	24.8	0.7	36.9
2014	12.9	9.2	1.7	4.2	0.9	24.4	27.1	0.8	31.8
2015	12.0	7.2	2.5	3.6	0.9	24.5	23.1	1.4	37.0
2016	11.6	5.7	2.6	4.2	0.6	23.7	24.4	1.3	37.9
2017	12.0	5.9	2.3	3.8	0.5	19.9	30.0	1.1	36.7
2018	14.2	7.0	2.2	4.1	0.5	17.1	28.6	0.9	39.7
2019	15.2	7.2	2.0	3.6	0.5	15.8	30.7	0.9	39.7
2020	14.1	7.3	1.5	3.7	0.4	15.6	32.2	0.8	38.4
2021	14.5	10.4	1.4	4.2	0.4	17.7	26.2	2.0	37.0
2022	14.4	10.1	1.1	4.5	0.4	18.0	27.0	1.2	37.2
2023	13.6	9.6	1.4	5.3	0.4	20.5	26.1	1.0	35.0
2024	14.6	7.0	1.2	5.6	0.3	22.3	28.5	1.2	33.1

Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

Digitally deliverable services have significantly altered the landscape of services trade

At the global level, DDS are a crucial component of trade in services, accounting for 56 per cent of its total in 2024, which is slightly below the level reached in 2020 (63 per cent). Developed economies are major contributors, accounting for $3.8 trillion (76.4 per cent) of global DDS exports in 2024. LDCs played a minor role, with only $8.1 billion in DDS exports, representing just 0.16 per cent of global DSS exports in 2024. Other developing economies more than doubled their DDS exports, from $516 billion in 2014 to $1.2 trillion in 2024 (figure III.8).

Figure III.8.
Developed economies and other developing economies are major players in digitally-deliverable services trade



Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

LDCs' exports of DDS are characterized by slow, unstable growth, causing them to fall behind in a key global trade segment. The average annual DDS exports increased moderately from $5.7 billion in 2010–2014 to $7.1 billion during 2020–2024. LDCs also struggled when other economies accelerated. Notably, they experienced a 7 per cent decline in 2020 (down from $6.8 billion in 2019) during a period when the global trade in DDS was booming. This decline points to a missed opportunity to gain a stronger foothold in the international market of modern services. The LDC recovery was significantly weaker (2 per cent) in 2021, compared to the robust 17 to 18 per cent growth of developed and other developing economies, respectively. Although DDS exports of LDCs surged briefly (10 per cent in 2022), the erratic pattern continued in 2023 when they posted 2 per cent growth, followed by another 10 per cent rise in 2024. Overall, the LDCs' share in global DDS trade is in freefall, dropping from a peak of 0.28 per cent in 2012 to just 0.16 per cent in 2024.

The sectoral composition of DDS exports varies across economy groups, reflecting differences in the relative importance of key services subsectors. At the global level, the largest sector of DDS in 2024 was telecommunications, computer and information services, accounting for 25 per cent. This was followed by professional and management consulting services (20 per cent) and financial services (16 per cent) (table III.3). Other important sectors were charges for the use of intellectual property (11 per cent) and R&D (6 per cent). As leaders, developed countries' sectoral composition of DDS mirror the global structure, with telecommunications, computer and information services accounting for 24 per cent, following by professional and management consulting services (17 per cent).

Table III.3.
Telecommunications, computer and information services were the leading digitally-deliverable services in all economy groups in 2024

	World	Developed economies	Other developing economies	Least developed countries
Digitally-deliverable services in billion dollars	**4948.1**	**3778.6**	**1161.3**	**8.1**
	Percentages of digitally-deliverable services			
Insurance and pension services	4.8	4.5	6.1	2.1
Financial services	15.8	17.3	10.9	10.1
Charges for the use of intellectual property not included elsewhere.	11.1	13.4	3.8	0.6
Telecommunications, computer, and information services	25.3	23.9	29.9	40.3
Research and development	5.6	6.3	3.3	1.0
Professional and management consulting services	20.3	17.4	29.9	22.0
Architectural, engineering, scientific, and other technical services	4.2	3.5	6.4	6.1
Trade-related services	2.9	2.9	3.0	7.8
Other business services not included elsewhere	7.7	8.7	4.5	9.0
Audiovisual and related services	1.4	1.5	1.0	0.5
Other personal, cultural, and recreational services: health services	0.3	0.2	0.8	0.2
Other personal, cultural, and recreational services: education services	0.2	0.2	0.2	0.1
Other personal, cultural, and recreational services: heritage and recreational services	0.3	0.3	0.4	0.2

Source: UNCTAD secretariat calculations based on data from WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

In contrast, DDS for LDCs were centred on telecommunications, computer and information services (40 per cent), professional and management consulting services (22 per cent) and financial services (10 per cent). A notable feature in LDCs was that trade-related services (7.8 per cent) far exceeded research and development (1 per cent) in 2024. Other developing economies also primarily focused on telecommunications, computer and information services (30 per cent); professional and management consulting services (30 per cent); and financial services accounted (11 per cent). However, there are fundamental differences between LDCs and developed economies regarding the density of digital infrastructure and connectivity. According to the International Telecommunication Union (ITU) ICT Development Index (IDI) for 2025, LDCs scores ranged from 25 (the global minimum) to 77 (the global average). With a global median score of 85, the data suggest that more than half of 164 economies included in the IDI 2025 were on track towards universal meaningful connectivity but that LDCs and other low-income economies were lagging (ITU, 2025).

The significance of DDS dominance in world services trade is highlighted by its increasing share in services exports of developed and other developing economies. UNCTAD's analysis shows that DDS accounted for 54 per cent of services exports of developed economies in 2015, and 61 per cent in 2024 (66 per cent in 2020). This highlights a strong and accelerating shift towards digital services in developed economies (UNCTAD 2022c, 2022d, 2022e).[9] Other developing economies also experienced a rise in their export share in DDS from 37 per cent in 2015 to 45 per cent of their total services exports in 2024.

For LDCs, by contrast, the share of DDS in their services exports has been volatile. After a steady decline from 19 per cent in 2010 to 13.9 per cent in 2019, the trend briefly reversed thanks to the boost in demand for related services during the pandemic which pushed the share up to 19.4 per cent in 2020. However, this increase was deceptive amidst an overall fall in exports of both services and goods. Moreover, the nominal value of DDS dropped by $483.6 million in 2020 compared to 2019. The share has fallen again, sliding to 18 per cent in 2023 and further to 16.6 per cent in 2024.

The growth of DDS in services trade is propelled by rapid technological advancements, particularly in telecommunications, computer and information services. Substantial investments in digital infrastructure; R&D, along with strong foundations in science, technology, and innovation have reshaped the landscape of services trade. These are knowledge- and technology-intensive sectors that are transforming how services are produced and traded globally.

This transformation has also changed the nature of services that are traded internationally, with previously non-tradable sectors – such as real-time consulting, e-learning and telemedicine – becoming accessible through various modes of services supply. In this regard, digital platforms and digital infrastructure are playing a crucial role in altering the tradability of services, and ushering in more players in the market. With a focus on DDS, developing countries including LDCs can now more easily engage in mode 1 (cross-border supply) (UNCTAD, 2022c).

> Digital infrastructure is enabling developing countries to participate more easily in cross-border services trade

[9] The top 10 developed economies accounted for $2.6 trillion of DDS exports in 2023. These are: the United States ($680.5 billion), the United Kingdom ($449.2 billion), Ireland ($340.1 billion), Germany ($264.7 billion), the Kingdom of the Netherlands ($201 billion), France ($185 billion), Luxembourg ($121.8 billion), Japan ($120.3 billion), Switzerland ($115.4 billion) and Belgium ($92.7 billion).

For example, among the top six DDS-exporting LDCs in 2024, telecommunications, computer and information services, which can be supplied by mode 1, were prominent in the DDS exports of Cambodia (86 per cent), Bangladesh (38 per cent), Nepal (26 per cent) and Uganda (17 per cent), while professional and management consulting services were dominant in the DDS exports of Nepal (45 per cent) and also important for Bangladesh (13 per cent).

The top six DDS-exporting LDCs show distinct diversity in their exports (table III.4). Bangladesh, Uganda, and Nepal feature a broad mix of services, including telecommunications, computer and information services, financial services, professional management and consulting services, other business services, and trade-related services. In contrast, Ethiopia's portfolio is more specialized, with the largest shares coming from architectural, engineering, scientific, and other business services (21 per cent), other technical services (20 per cent), and trade-related services (8 per cent).

Additionally, some services now feature multiple modes of supply, potentially opening avenues for employment creation in LDCs. For example, streaming services have enabled a transition from mode 4 (presence of natural persons) or mode 2 (consumption abroad) to mode 1 (cross-border supply of services), providing many entry points in subsectors such as professional and management consulting services, audiovisual and related services, and other personal services (health, education, and heritage and recreational) (UNCTAD, 2022c). However, LDCs face significant obstacles due to gaps in technologies which includes software and related physical infrastructure for telecommunications; policies, institutions, and regulatory frameworks; investment in the relevant services sectors as well as in knowledge and skills.

Table III.4.
Composition of exports of digitally-deliverable services of the top six exporting least developed countries in 2024
(Percentage)

	Bangladesh	Ethiopia	Senegal	Nepal	Cambodia	Uganda
Digitally-deliverable services exports in million dollars	**1824**	**507**	**469**	**433**	**363**	**290**
	Percentage of DDS export					
Insurance and pension services	0.6	-	-	2.4	1.1	5.0
Financial services	10.7	-	-	1.8	3.1	17.1
Charges for the use of intellectual property not included elsewhere	0.1	-	-	0.0	1.9	0.9
Telecommunications, computer, and information services	38.5	-	-	26.0	86.4	16.7
Research and development	1.2	-	-	0.3	-	-
Professional and management consulting services	12.5	-	-	44.8	-	-
Architectural, engineering, scientific, and other technical services	10.9	20.0	0.5	-	-	16.0
Trade-related services	6.4	8.0	0.5	-	7.2	14.8
Other business services not included elsewhere	19.2	21.3	1.6	-	-	28.2
Audiovisual and related services	0.0	-	-	4.2	-	-

Source: UNCTAD secretariat calculations based on data from WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

4. The concentration of services exports and markets

So far in this chapter, the UNCTADstat database of UNCTAD has been the main source of data for analysing services trade of the LDCs. However, for this section, the WTO-OECD Balanced Trade in Services (BaTIS) data set is used because it provides a more comprehensive picture of the LDC services trade by partner. It is important to note that the trade values in BaTIS are by definition balanced trade data, which are different from trade data reported in the WTO-UNCTAD Trade in Services Data Set (box III.2). The variations in methodologies and sectoral classifications mean that the two provide data that are statistically different.

Box III.2.
The Balanced Trade in Service (BaTIS) methodology

The Balanced Trade in Services (BaTIS) builds upon the reported services trade data from the WTO-UNCTAD Trade in Services Data Set and transforms it into a complete and consistent balanced trade matrix. This is based on the fact that reported trade data may have inconsistencies and gaps which may significantly limit their usefulness in analysing trade patterns among partner countries.

The process of balancing the data includes: (i) collecting raw bilateral trade data, as well as trade data with the 'world' as a partner; (ii) estimating missing trade data using various statistical methods such as derivation from reported trade of a partner country or applying a gravity model when no official statistics exist; and (iii) balancing the final trade matrix to ensure internal consistency, specifically, that reported exports and imports match at the aggregate (1- or 2-digit) service category level.

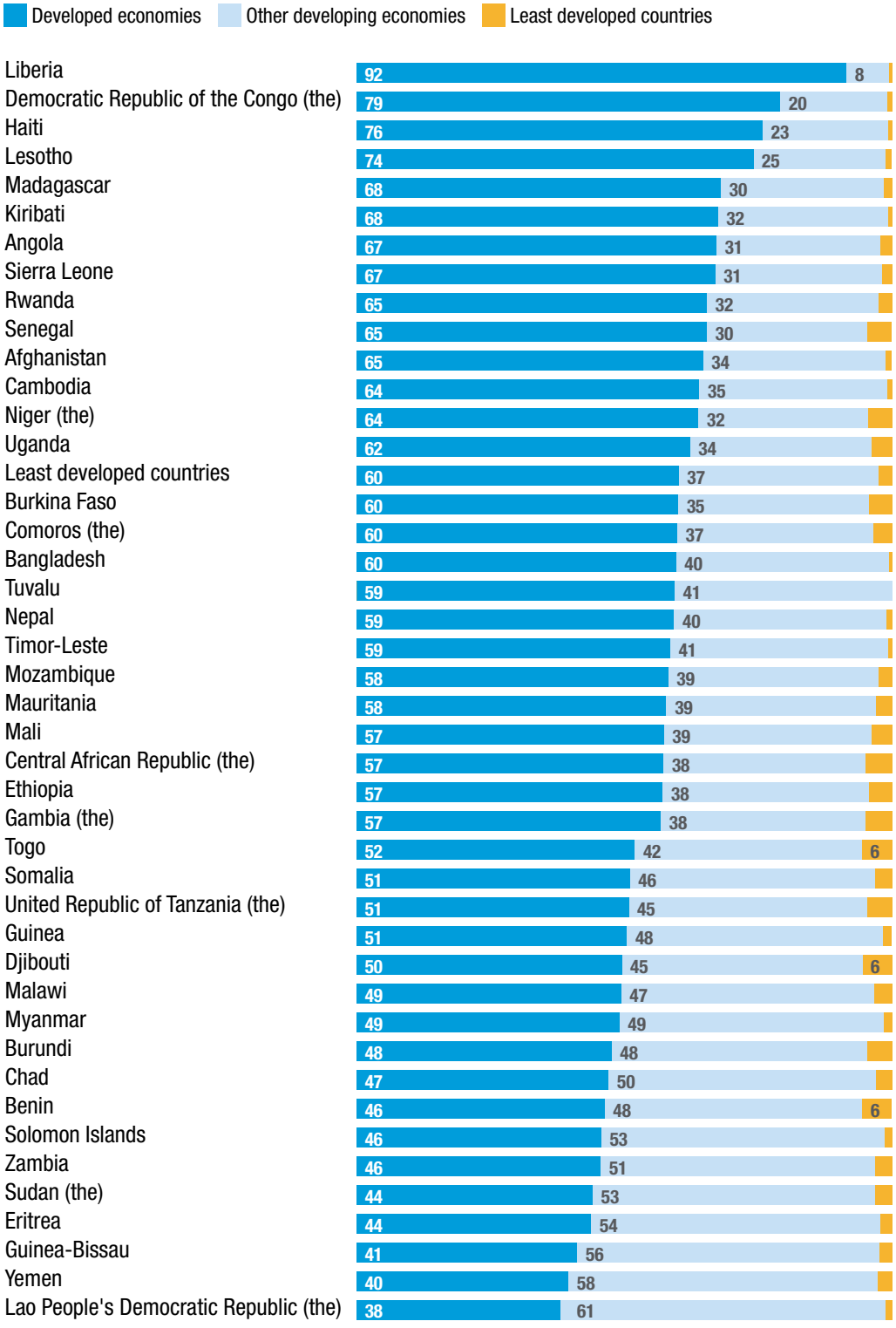
Source: WTO and OECD (2025).

With the above in mind, the direction of services trade reveals that LDC services trade is concentrated in just a few services and markets, revealing a high degree of dependency by LDCs on them. In 2023, 60 per cent of the services exports from LDCs went to developed economies, while other developing economies received 37 per cent, with the remaining 3 per cent traded among LDCs (figure III.9). Developed economies are the main destinations of travel and transport exports of LDCs, as they account for 54.40 per cent of travel and 56.76 per cent of transport exports, respectively. A significant portion of these services is traded with other developing economies: 45.5 per cent of travel services and 39.7 per cent of transport services. This pattern suggests an opportunity for LDCs to raise their market share in other developing economies by leveraging regional markets, such as the African Continental Free Trade Area (AfCFTA) and the Association of Southeast Asian Nations (ASEAN).

Eleven LDCs – Afghanistan, Angola, the Democratic Republic of the Congo, Haiti, Kiribati, Lesotho, Liberia, Madagascar, Rwanda, Senegal and Sierra Leone – directed at least 65 per cent of their services exports to developed economies. Among these, five countries – Afghanistan, Angola, the Democratic Republic of the Congo, Liberia and Senegal – ranked among the top 10 services exporters among LDCs, collectively accounting for 25.9 per cent of the total services exports of LDCs in 2023.

Transport services were the most significant export category to developed economies. They accounted for 62.2 per cent of the services exports of Liberia to these markets, 38.3 per cent of those of Lesotho, and 30.5 per cent for Haiti. In addition, Haiti predominantly exported travel services, which accounted for 58.6 per cent of its services exports to developed economies. Other LDCs with noteworthy travel services among their services exports to developed economies included Kiribati (49.6 per cent), the Democratic Republic of Congo (45.7 per cent) and Senegal (40.9 per cent).

Figure III.9.
Developed economies were the main export partners for the least developed countries in 2023
(Percentage of total services exports)



Source: UNCTAD secretariat calculated based on data from the WTO-OECD Balanced Trade in Services Data Set (accessed October 2025).

The LDCs that exported a larger proportion of their services to other developing economies than to any other economy group in 2023 are Benin, Chad, Eritrea, Guinea-Bissau, the Lao People's Democratic Republic, Myanmar, Solomon Islands, the Sudan, Yemen and Zambia. Notably, only Chad, the Sudan and Myanmar were included in the top 10 services exporters to other developing economies. Travel services (63.4 per cent) were the largest services component exported by the Lao People's Democratic Republic to other developing economies, followed by transport (27.3 per cent). Transport services were among the key services exports to other developing economies for Chad (51.3 per cent), Benin (41.9 per cent), Myanmar (34.5 per cent), Eritrea (37.9 per cent), the Sudan (25.5 per cent) and Yemen (23.2 per cent). For Solomon Islands, travel services accounted for 59.2 per cent of its services exports to developed economies and 77 per cent of its services to other developing economies.

Despite the concentration in a few services and markets, there were unique niches for some LDCs in 2023. For example, the largest component of the services exports of Sierra Leone to developed economies was insurance and pension services (29.5 per cent), followed by travel (22.9 per cent), and personal, cultural and recreational services (18.4 per cent). Telecommunications, computer and information services were among significant services exports to developed economies for Afghanistan (24.5 per cent) and Madagascar (15 per cent). Charges for the use of intellectual property (7.5 per cent) were also part of services exports of Madagascar to developed economies. Services exports of Guinea-Bissau (60.9 per cent) and Zambia (42.1 per cent) to developed economies consisted primarily of personal, cultural and recreational services. The exports of Zambia to other developing economies also consisted of 48.2 per cent travel, and 22 per cent transport services.

Services exports of Yemen to developed economies included R&D services (15.8 per cent), while services exports of Myanmar included professional and management consulting services (18.6 per cent). Services exports to developed economies from Chad (9.1 per cent), Myanmar (8.3 per cent) and Solomon Islands (10 per cent) included technical, trade-related and other business services. Despite their non-market character and lack of integration with the broader commercial services, government goods and services were significant for Eritrea (24.0 per cent), Solomon Islands (12.7 per cent), Chad (11.6 per cent), and Benin (10.8 per cent). The services exports of Kiribati to developed economies also consisted of 42.2 per cent in government goods and services, compared with 15.4 per cent for Rwanda, 10.8 per cent for the Democratic Republic of the Congo and 10.4 per cent for Senegal.

5. The trade deficit in services post-pandemic

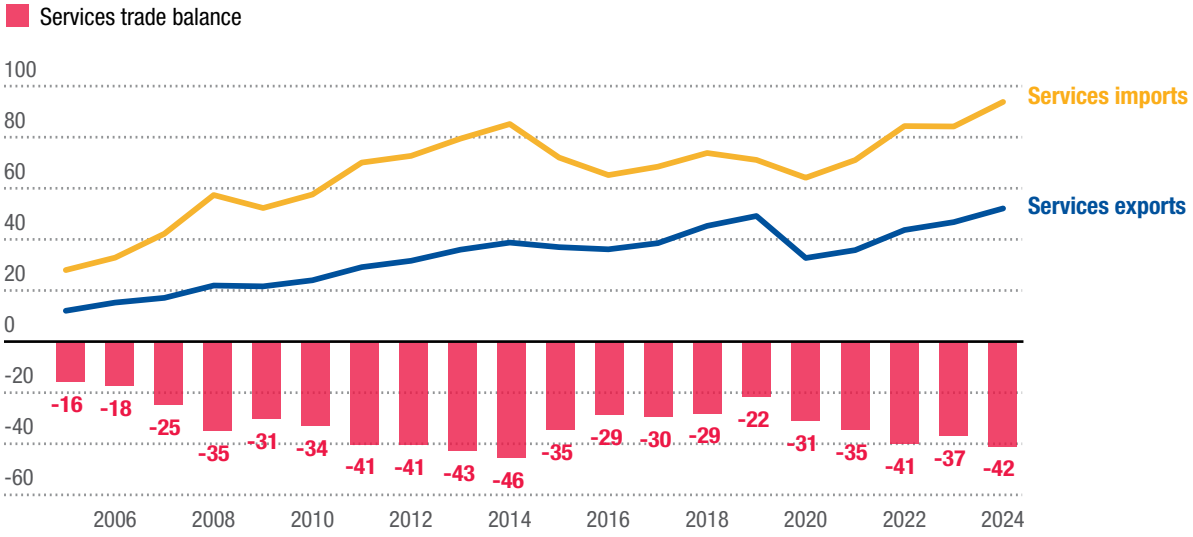
Globally, services trade has accelerated since the COVID-19 pandemic, mirroring the global economic recovery fuelled by renewed demand for goods and services. For the latter, the recovery focused on services that had been restricted by travel restrictions, alongside a rise in essential services that emerged despite the barriers that affected the physical movement of goods and services.

Despite this global trend, LDCs have a persistent services trade deficit. After nearly doubling from $22 billion in 2019 to $41 billion in 2022, the deficit contracted slightly to $37 billion in 2023, and the widened again to $42 billion in 2024 (figure III.10). LDCs' services imports reached $93.8 billion in 2024, exceeding the highest level of $85.1 billion, recorded in 2014. A key distinction for LDCs is that services imports in 2024 were mainly transport (48.2 per cent) and other services (38.8 per cent), consisting mainly of technical, trade-related, and other business

services (11.4 per cent), professional and management consulting services (7.9 per cent), insurance and pension services (4.9 per cent), government goods and services (4.0 per cent), telecommunications, computer, and information services (3.0 per cent), and financial services (2.4 per cent). Their exports, by contrast, were heavily concentrated in services highly vulnerable to crises, such as travel and transport. This structural imbalance, where exports are sensitive to physical movement, including of goods and other services, while imports are not, is a major factor contributing to the persistent services trade deficit of LDCs.

While LDCs' services imports fell to $64.1 billion in 2020 due to the pandemic, a significant decline began earlier in 2015 and 2016, with services imports dropping by 15.4 per cent and 9.5 per cent, respectively. This earlier downturn was primarily caused by a slowing global economy and falling commodity prices, which reduced demand for transportation and other commercial services.

Figure III.10.
Least developed countries have a persistent deficit in services trade
(Billion dollars)

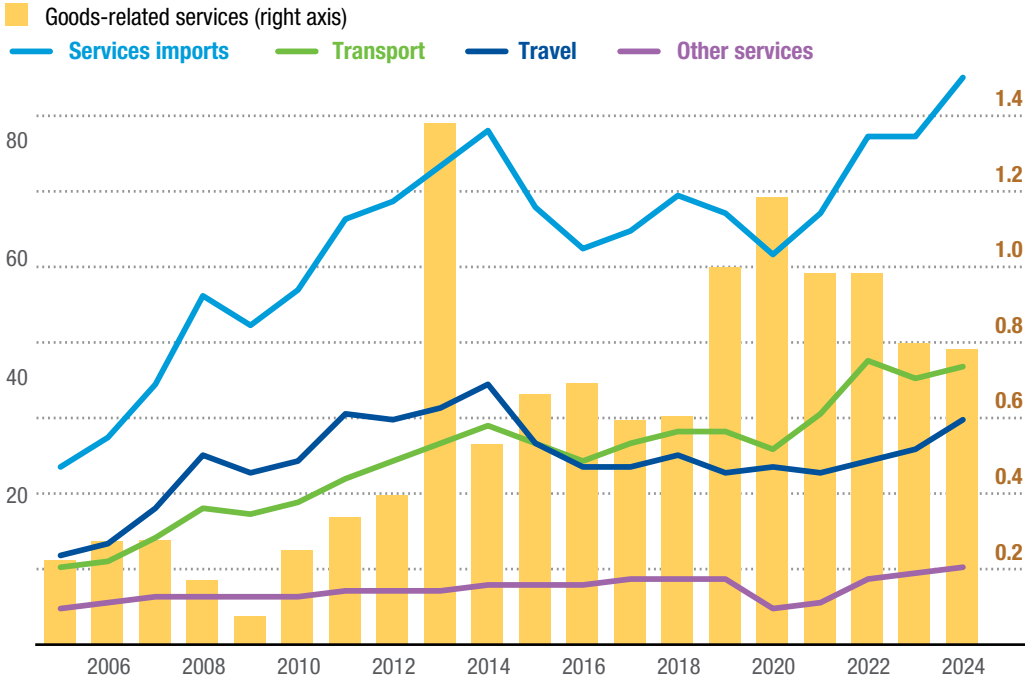


Source: UNCTAD secretariat calculations based on data from the WTO–UNCTAD Trade in Services Data Set (accessed October 2025).

Transport services imports exceeded other services for the first time in 2015, and they accounted for more than half of the services imports in 2021–2023.The rebound in services trade is significant for LDCs because it provides an opportunity for increased access to modern services, such as ICT, finance and other essential services that could be beneficial for building productive capacities. For example, LDCs' imports of other services such as professional and managing consulting services increased from 2.8 per cent of all services in 2021 to 7.9 per cent in 2024, while financial services increased marginally from 2.14 per cent of the total in 2021 to 2.43 per cent in 2024. The share of other services in total services imports declined from over 50 per cent before 2012 to slightly under 40 per cent in 2021–2024. Other business services averaged 18.2 per cent of the services imports in 2015–2019, but contracted to 16.5 per cent post the pandemic (2021–2024).

From 2005 to 2014, other services comprised the largest share of services imports by LDCs, which grew from $12.9 billion (45.9 per cent of total services imports) in 2005 to $42.1 billion (49.5 per cent) in 2014 (figure III.11). In 2020, there was an unexpected uptick of close to 17 percentage points in other services imports, which might be attributed to a 18.7 per cent rise in goods-related services associated with maintenance and repairs during extended downtimes caused by COVID-19 lockdowns. In addition, there was a 4.2 per cent increase in other services for reasons discussed further below.

Figure III.11.
Other services and transport are the main services imports by least developed countries
(Billion dollars)



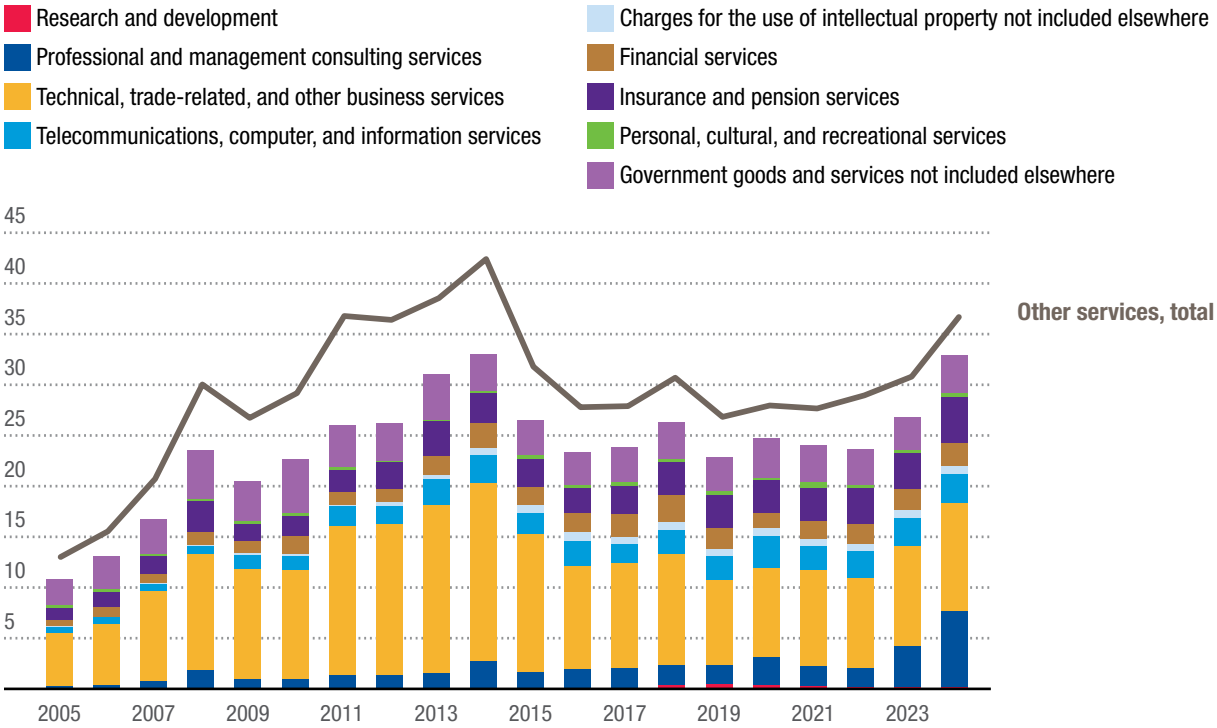
Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

From 2015 to 2024, LDCs imported mainly transport services, with air transport being the most significant. Air transport import bills fluctuated, initially declining from $6.4 billion in 2015 to $5.4 billion in 2016, then rising to $7.3 billion in 2018. Following a 4.5 per cent drop in 2019, the pandemic led to a dramatic 31.4 per cent decrease in 2020. The post-pandemic recovery is marked by a sharp rebound, with spending on air travel soaring by 37.7 per cent to $6.6 billion in 2021, and a further 40.3 per cent increase in 2022 to $9.2 billion, or 11 per cent of the total import bill of LDCs. Several LDCs saw air transport imports increase by more than 100 per cent in 2022, including Cambodia, the Gambia, Kiribati, the Lao People's Democratic Republic, Lesotho, Nepal, Solomon Islands, South Sudan and the United Republic of Tanzania. Others – such as Angola, Bangladesh, Haiti, Liberia, Madagascar, Mauritania and Zambia – saw their air transport imports increase to 80 per cent in 2022. Although air transport imports contracted by 2.4 per cent in 2023, it recovered strongly in 2024 by 11.9 per cent and remains a significant share (10.8 per cent) of the total services import for LDCs.

LDCs' imports of other business services are driven by a strong demand for technical, trade-related and other business services (figure III.12). Demand for modern services has been more diverse and growing since 2019, with services such as telecommunications, computer and information services; insurance and pension; finance; and professional and management consulting services becoming important in 2019–2024. However, government goods and services also represented a significant share of other services, averaging 12.3 per cent in 2021–2024.

The growth in ICT, finance and related services has pushed demand for intellectual property, which is primarily required to access technology and software. WTO-UNCTAD data indicates that the LDCs' imports of intellectual property increased from $147.4 million in 2009 to $772.5 million in 2014, peaking at $872 million in 2016. Although the figure receded to $772 million in 2024 and is relatively low compared with total services imports, it represents an average of 28.3 per cent of the amount spent on telecommunications, computer and information services in 2021–2024. More importantly, access to technology increases the capacity of the LDCs to utilize the services they are importing more effectively in the productive sectors, and for improving livelihoods of end users.

Figure III.12.
Imports of other business services by least developed countries are driven by a broad range of services, including technical, trade-related and other business services
(Billion dollars)



Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

6. The structure of services exports by modes of supply

The analysis in this section is based on the WTO Trade in Services by Mode of Supply (TISMOS) data to capture the structure of services exports by modes of supply, as defined in the General Agreement on Trade in Services (GATS) (box III.1). The TISMOS data set is unique because it includes mode 3 (commercial presence) data. Unlike traditional balance-of-payments data that track transactions between residents and non-residents for modes 1, 2 and 4, TISMOS uses Foreign Affiliates Statistics (FATS) to account for the activities of foreign-owned businesses in a host country. This overcomes a major limitation of the balance-of-payments data, providing a more complete picture of global services trade according to the GATS definition.[10] The TISMOS data set covers over 200 economies and regions for the period 2005–2022.

While different data sources for services trade may report varying values and categories, it's important to understand their distinct approaches. TISMOS is an analytical data set that measures all four modes of supply, including mode 3. This sets it apart from BaTIS, another analytical data set, which is designed to correct for "asymmetries" in bilateral trade by ensuring that a country's exports to a partner are consistent with the partner's imports. The WTO-UNCTAD Trade in Services Data Set, on the other hand, offers comprehensive coverage of economies and services categories, but does not break down trade by mode of supply or balance bilateral data.

Cross-border trade is the main mode of services supply for least developed countries

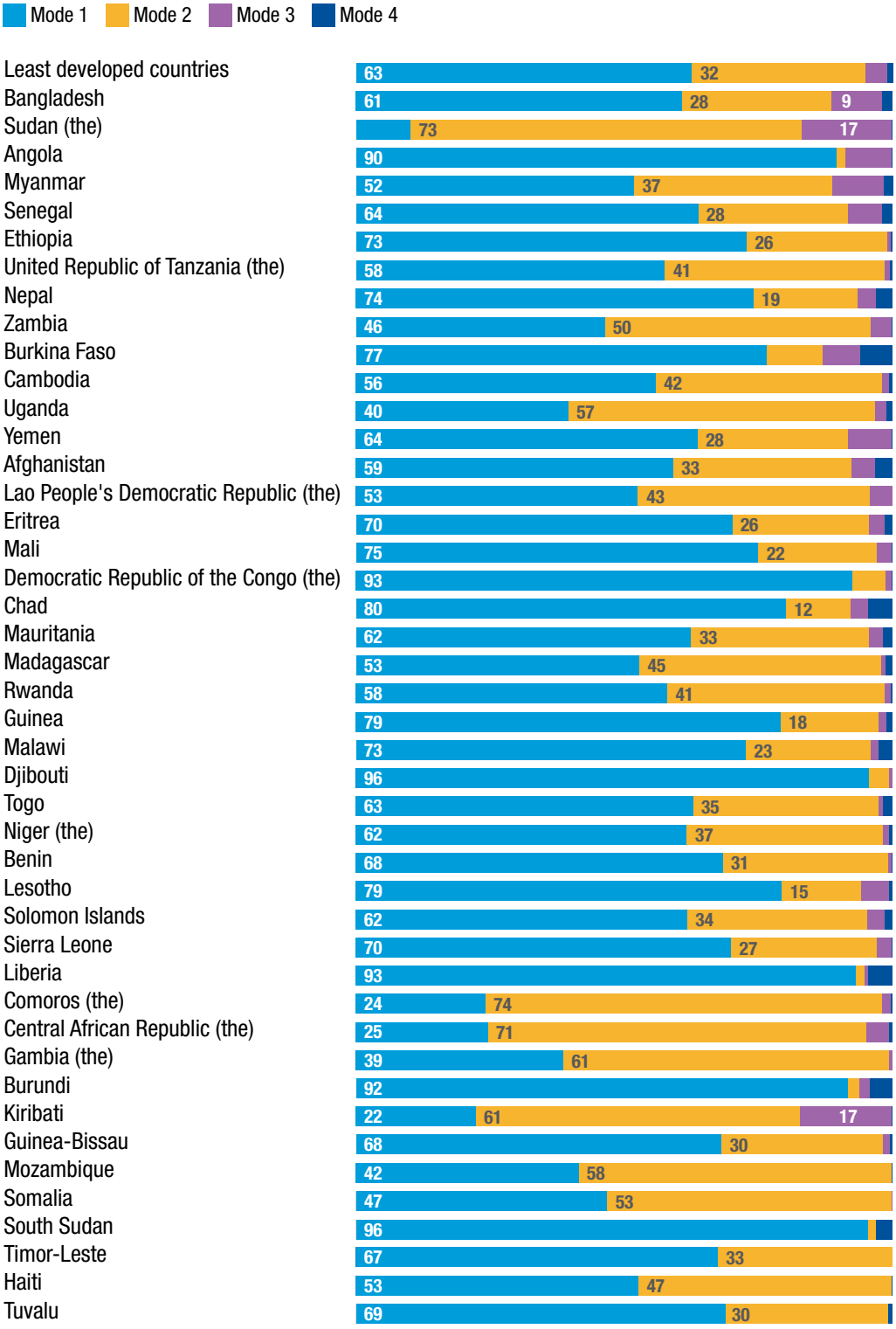
The latest available data show that cross-border supply is the main mode of supply for LDCs, accounting for 58.3 per cent of services exports by LDCs in 2022, while consumption abroad (mode 2) was second at 34 per cent (figure III.13). Commercial presence (mode 3) accounted for 6.8 per cent, while presence of natural persons (mode 4) was the least, at 1 per cent. This stands in sharp contrast to the world trend, where commercial presence (mode 3) is the dominant component of services trade.

Services from LDCs have traditionally relied on modes 1 and 2 channels. Exports through mode 1 grew steadily, from $19 billion in 2013 to $27.9 billion in 2022, driven by transport and travel-related services. Similarly, exports through mode 2 also experienced steady growth, rising from $15.5 billion in 2013 to $22 billion in 2019, on the back of steady interaction between tourism and travel-related services. However, the COVID-19 pandemic severely disrupted this trend through its impact on tourism and business travel. By 2020, services exports through mode 2 had dropped to $11.6 billion, with only a slight recovery to $16.3 billion by 2022.

[10] At the time of writing of this report, the TISMOS data set covered over 200 economies and regions for the period 2005–2022.

Figure III.13.
Cross-border supply is the most important mode of services export for least developed countries, followed by consumption abroad

(Percentage of total services exports by mode of supply)



Source: UNCTAD secretariat calculations based on data from WTO, TISMOS data set (accessed May 2025).

A total of 35 LDCs supplied most of their services via mode 1 (cross-border trade), while the remaining 9 had more exports in mode 2 (consumption abroad). A few LDCs had significant shares of services exported via the commercial presence mode of supply: Kiribati (25 per cent), the Sudan (25 per cent), Bangladesh (15 per cent), Myanmar (14 per cent), Yemen (14 per cent), Angola (13 per cent), Burkina Faso (11 per cent) and Senegal (10 per cent).

As previously highlighted, transport and travel are the main services exports of LDCs. The WTO TISMOS data also show that transport services accounted for 29 per cent of the services exports of LDCs in 2022. These services were primarily supplied through the cross-border mode (66.7 per cent) and consumption abroad (33.0 per cent), with only 0.23 per cent exported through commercial presence (mode 3). Liberia was the top exporter of transport services among LDCs, with a total share of 20.2 per cent, followed by Ethiopia (13.9 per cent), the United Republic of Tanzania (6.4 per cent) and Chad (6.3 per cent). In terms of specialization, Liberia had the largest share (27.6 per cent) of sea transport services, followed by Myanmar (10.7 per cent) and Chad (7.3 per cent). Ethiopia specialized in air transport services, accounting for 44.1 per cent of the LDC total in 2022.

Liberia and Ethiopia lead LDC transport services exports, specializing in sea and air transport

Tourism and business travel were the second-most important services exports after transport, accounting for 20.5 per cent of LDCs' services export total in 2022. These services were almost entirely supplied under mode 2 (consumption abroad), with only 0.06 per cent supplied by foreign services providers with commercial presence (mode 3). The dependence on mode 2 for travel and tourism exposes LDCs to external shocks, with the disruption to tourism likely to disproportionately impact LDC economies dependent on tourism. For example, the World Bank, World Development Indicators database shows that receipts from international tourism averaged 17.4 per cent of exports in LDCs in 2019, with exports from the Comoros (51.1 per cent), Ethiopia (46.5 per cent) and the Gambia (43.6 per cent) heavily dependent on tourism.

The extension of the LDC services waiver and granting new or better preferential market access to LDCs could be critical for their participation in the global services trade. Many of the preferences offered to LDCs are either very similar to the "most favoured nation" treatment or are in sectors where LDCs have little or no capacity. This is clear from the disconnect between what LDCs asked for in their 2014 "Collective Request" and the offers they received. LDCs specifically asked for greater market access for natural persons (mode 4), but most offers have focused on services where consumers travel abroad (mode 2) (UNCTAD, 2018b).

The potential role of digital technologies and e-commerce

Telecommunications, computer, information and audiovisual services were the other significant services exports by LDCs in 2022 (8.5 per cent). Services that could potentially be delivered digitally represented 17.7 per cent of LDCs' services exports in 2022. About 95 per cent of these services were supplied via the cross-border mode. However, LDCs face significant barriers accessing markets through this mode. For example, in information technology and DDS, local staffing and incorporation (mode 3) may be required with conditions on investment including local partnering. Effective market access would be needed for LDCs to benefit from cross-border trade in these services (mode 1), such as through the LDC services waiver, and new, improved preference offers or treatment of LDCs (UNCTAD, 2018b).

Telecommunications, computer, information, and audiovisual services are the focus of digital trade and e-commerce, which are driven by digital technologies and e-commerce platforms. However, the lack of supportive infrastructure needed to facilitate services trade may pose a challenge for many LDCs. Moreover, regulatory restrictions and other barriers persist in dynamic

markets that also have considerable market concentration. New rules and a variety of regulations on digital trade and e-commerce in various jurisdictions mean that developing countries should continuously adopt new measures, including taxation, in markets with increased complexity (UNCTAD, 2025b). These barriers means that they could be affecting not only services exports but also of the associated goods (UNCTAD, 2025e).

Mode 3 is predominant in services imports

In contrast to exports, LDCs primarily imported through the commercial presence of foreign services suppliers (mode 3), accounting for 47.9 per cent of total services imports, and via cross-border supply (mode 1), accounting for 40.6 per cent. Mode 2, consumption abroad, represented 9.5 per cent, while mode 4, related to the presence of natural persons, contributed just 1.9 per cent. The most significant services imports according to the TISMOS database were in the following sectors: transport (26.8 per cent); telecommunications, computer, information and audiovisual services (17.1 per cent); insurance and financial services (10.6 per cent); and other business services (excluding trade-related) (9.8 per cent), a broad category that includes mostly professional services such as R&D, legal and accounting services, and architectural and engineering services.[11]

In 2022, LDCs imported transport services primarily through cross-border trade (77.2 per cent) and consumption abroad (18.5 per cent). Commercial presence accounted for the remaining 4.3 per cent. Other business services (excluding trade-related) were nearly equally split between cross-border transactions (48.5 per cent) and commercial presence (46.4 per cent), with a small portion (4.8 per cent) categorized under mode 4. As LDCs build their productive capacities, they will likely import more professional services to fill gaps in skills and human capacity in specialized sectors of the economy. The effective import of such modern services is an important channel through which knowledge and technology transfer can be facilitated, and can unlock opportunities in global value chains of knowledge-intensive services sectors (UNCTAD, 2020).

Services imported through mode 1 were dominated by transport services (51 per cent), followed by trade-related (distribution) services (23 per cent). There was also significant cross-border trade involving technical, trade-related and other business services (12 per cent), as well as insurance and financial services (9 per cent), in 2022.

Commercial presence was the primary method of delivery (89.8 per cent) for telecommunications, computer, information and audiovisual services. This implies a notable footprint of foreign service providers in the sector, which are among the largest recipients of inward foreign direct investment in developing and transition economies (UNCTAD, 2017a). However, the gap in infrastructure investment is still high compared with the demand, particularly in rural areas.[12]

Cross-border supply and supply by natural persons were the other modes of supply for ICT and audiovisual services, accounting for 10 per cent and 0.2 per cent, respectively. The prominence of commercial presence in strategic sectors such as telecommunications and energy follows a

[11] This category includes a wide range of services such as R&D; professional and management consulting, legal, accounting, management, consulting and public relations; advertising, market research and public opinion polling; architectural, engineering, scientific and other technical services; waste treatment and de-pollution; agricultural and mining services; operating leasing services; other business services not included elsewhere; health; education; heritage and recreational; and other personal services. For more information about the TISMOS data set, see Wettstein et al (2019).

[12] For instance, in 2020, the number of active mobile subscribers per 100 people was 33 in LDCs, which is significantly lower than the developing country average of 65 and the global average of 75. Additionally, only 1 in 100 people subscribed to fixed broadband, far below the 34 per 100 people in developed countries and the world average of 15 (ITU, 2020).

growing trend in investments, with these services attracting increasing resources (UNCTAD, 2017a). The expansion of digital services alongside other infrastructure investments could be key in boosting economic activities in LDCs, especially in rural economies, and for extending digital services to underserved regions. However, effective domestic regulatory frameworks are needed to foster inclusive development and build trust in the fledgling digital economy (UNCTAD, 2022c).

Imports through mode 3 (commercial presence) are critical for enhancing domestic productive capacities for services that are essential intermediate inputs or entail knowledge and technology transfer through foreign direct investment. Telecommunications, computer, information and audiovisual accounted for 32 per cent of services imported through commercial presence of foreign service providers in 2022, followed by trade-related services (distribution) (26.9 per cent), and insurance and financial services (14.7 per cent). Construction (10.5 per cent), other business services (excluding trade-related) (9.5 per cent) and transport services (2.4 per cent) were also among the key imports through commercial presence. Although LDCs are relatively open to mode 3 (commercial presence) on these services, the digital economy faces different levels of market access liberalization by WTO members, which could make it challenging for LDCs' integration in the digital economy. Services such as data transmission, retrieval and processing are more stringently controlled than software implementation and installation. Additionally, new issues in international digital economy regulations have emerged, with a greater focus on data localization, investment governance, e-payments and fair competition (UNCTAD, 2025c).

Trade data analysed above also shows that LDCs are already quite open to importing services through commercial presence (mode 3) and cross-border delivery (mode 1). They have also been leveraging modes 1 and 2 for basic services such as transport and travel. However, more effective market access may be needed in priority areas such as modes 1, 3 and 4, especially with the rise of DDS.

C. Explaining the performance gap in services trade

The analysis in section III.B has established a distinct structural pattern in LDCs' services trade, characterized by a specialization in sectors with low entry barriers. To enhance their trade performance, LDCs could strategically realign their services specialization with global trends, while also focusing on building resilience in their current competitive export sectors, especially transport and travel services, which are highly vulnerable to external shocks. Modern services offer substantial benefits to the goods sector, particularly through digitally ordered trade and linked services delivered via the internet and other networks (UNCTAD, 2022d). Although LDCs currently have a minimal share of global services trade, their growth potential is significant, especially in modern services, because they are starting from a low base. This section addresses the key challenges, and outlines how LDCs can leverage the emerging opportunities.

1. The digital divide

The rise in digital trade and modern services, a trend that accelerated during the COVID-19 pandemic, has exposed the low participation of LDCs in the fastest-growing services sectors that are technology-, knowledge- and skills-intensive. While e-commerce has grown significantly, propelled by digital platforms and investment in the digital economy, data for developing economies are scanty, and non-existent for LDCs (UNCTAD, 2024c).[13] However, the WTO-UNCTAD trade in services data revealed some pockets of growth that have the potential for expansion. While telecommunications, computer and information services exports from the top 10 LDCs are still at a low volume, they have been expanding quickly. The top exporters in 2021–2023 are Bangladesh ($2 billion), Mali ($578 million), Senegal ($485 million), Ethiopia ($470 million), Madagascar ($455 million), Malawi ($454 million), Cambodia ($443 million), Djibouti ($282 million), Burkina Faso ($209 million) and Niger ($175 million). Excluding Mali, whose exports declined by an average of 4.6 per cent, Djibouti whose exports declined by an average of 0.1 per cent and Malawi, which experienced a modest 1.1 per cent growth between 2021 and 2023, five of the top 10 exporters had double-digit growth rates: Niger (11.8 per cent), Bangladesh (16.9 per cent), Madagascar (23.1 per cent), Burkina Faso (24.4 per cent), and Cambodia (43.6 per cent). and, while exports from Ethiopia grew by 7.1 per cent and those of Senegal by 9.2 per cent. This shows a great potential for growth in these sectors, more so because they are expanding their digital services from a low base.

As noted in section III.B, the shift to a digital economy is especially challenging for LDCs, due to their limited infrastructure and capacity to provide modern digital services. Access to the Internet, digital devices, applications and functionality of systems is part of the hard and soft infrastructure that could enable a business entity to adapt to the digital economy, and expand market opportunities through various modes of services supply, particularly modes 1 and 4.

[13] There are ongoing efforts by the UNCTAD Working Group on measuring e-commerce and the digital economy. For example, the UNCTAD Business-to-Consumer (B2C) E-commerce Index shows that less than 1 in 10 Internet users in LDCs shop online, compared with 8 in 10 in developed economies. However, some LDCs – such as Djibouti, Ethiopia, Guinea and Senegal – have registered substantive gains on the index, with rising Internet use and reliability of postal services driving e-commerce readiness (UNCTAD, 2022a).

In 2024, only 35.0 per cent of the population in LDCs had Internet access, compared with 67.6 per cent globally (ITU, 2024).[14]

The density in Internet infrastructure within these countries is highly uneven, with coverage concentrated in urban centres. This disparity means a significant portion of the population, particularly in larger countries, remains outside the reach of essential network coverage. There are large gaps in infrastructure and network coverage, especially in geographically larger countries. As a consequence, while 73 per cent of the population is within a 50-km radius of a backbone network, a much smaller 28 per cent is within the more accessible 10-km range (ITU, 2020). These access figures may also imply larger costs for provision of digital services in the LDCs.

Digital divides, skills gaps and language barriers limit LDC participation in the digital economy

Digital technologies and infrastructure gaps are not the only hurdles for LDCs. While modern technologies carry immense potential for economic growth and could reshape the labour market and create new self-employment opportunities, such as online freelancing and business process outsourcing for skilled workers and unemployed youth, a persistent digital divide and inadequate infrastructure make it difficult and costly for them to participate (ILO, 2022a). Beyond these issues, technical skills and language barriers – especially in rural areas – also limit technology adoption. This suppresses the participation of low-skilled workers in the digital economy, which in turn worsens inequalities (ILO, 2022b).

To capitalize on the growing opportunities in DDS, LDCs will need to implement specific policies to address core digital technology gaps, and strengthening the productivity link between the digital developments and industrial transformation in key sectors such as agriculture, manufacturing and other services.

A key priority is investing in robust digital infrastructure, including secure network servers and data centres. It also includes deploying affordable options such as fibre-optic networks and wireless systems in rural areas to improve last-mile connectivity. These measures are crucial for boosting access and unlocking the potential of rural economies (ITU, 2020). Although affordable mobile broadband may be more practical in the short term due to technical and cost reasons, aiming for cutting-edge technologies such as 5G may be advisable due to its high data capacity, which is essential for future growth (UNCTAD, 2021b).

The persistent digital readiness gap puts LDCs at risk of being left behind in the global economy. Policymakers need to be aware of how rapidly evolving technologies are widening this divide, particularly as the digital transformation requires entire systems to progress at a rapid pace. Therefore, differences in capacities, knowledge and investment in technology-intensive services between developed and developing economies contribute to the emerging patterns of specialization in services exports and how the benefits of trade are distributed (UNIDO et al., 2021). Fostering investment and support for development focused technology transfer could reduce the gaps in LDCs, particularly when such support is linked to stimulating trade – for example, licencing and joint ventures, technical assistance, digital skills development, knowledge sharing, and investment facilitation (UNCTAD, 2025c).

[14] This is also highlighted in the end-2024 estimates for key ICT indicators, available at https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ITU_regional_global_Key_ICT_indicator_aggregates_Nov_2024.xlsx.

Table III.5.
Least developed countries' Frontier technology readiness index compared with selected other economies, 2021

	Overall index	ICT	Skills	Research and development	Industry activity	Access to finance
Developed economies	0.78	0.79	0.71	0.47	0.75	0.74
Other developing economies	0.47	0.51	0.43	0.28	0.56	0.66
Least developed countries	0.19	0.20	0.18	0.11	0.42	0.42

Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

Despite some progress achieved in building foundational digital infrastructure in many developing countries, LDCs still lag significantly behind other countries. This is evident in their low scores on UNCTAD's Frontier technology readiness index, and its subcomponents. This index measures key areas such as:

(a) ICT deployment: The level of infrastructure, skills and capacity to use ICTs;

(b) Research and development: The capacity to generate new knowledge and expand the technological frontier;

(c) Industrial activity: The use and adoption of frontier technologies in ongoing industrial activities;

(d) Access to finance: The availability of funding to accelerate technology adoption (table III.5).[15]

2. The lack of skilled workforce

Another key challenge for the LDCs in unlocking the potential DDS is the lack of a skilled workforce. While LDCs may have a comparative advantage in labour-intensive sectors – such as tourism and the lower rungs of digital services, due to their low wages and abundant labour – they face significant shortages of skilled professionals in the specific fields required for modern digital services (UNCTAD, 2020). The advantage derived from demographic and lower costs in foundational digital services is undercut by substantial hurdles in infrastructure, skills, market dynamics, and widespread informality. The skills gap is a barrier to advanced higher paying services and limits the capacity of LDCs to supply both traditional and new digital services, thereby hampering their participation in the digital economy. Small- and medium-sized enterprises, which are crucial for creating jobs in LDCs, often struggle to adopt new technologies, not only due to the cost, but also because their employees lack the necessary skills and knowledge. This, in turn, prevents them from capitalizing on new business opportunities emerging with modern digital services.

The quality of the labour force also contributes to the growing disparity in labour productivity between advanced and developing economies. As noted in chapter II, the level of education in most

[15] The Frontier technology readiness index was developed by UNCTAD based on data and indicators from various sources, including the ITU, M-Lab, the United Nations Development Programme, the International Labour Organization (ILO), Scopus, Patseer and the World Bank. The range of the index is bounded by 0 (low readiness) and 1 (high readiness).

services sectors in LDCs is at a basic level, but modern services tend to create jobs for intermediate and higher-level educated workforces. The problem in LDCs is compounded by the structure of labour markets where skilled workers are often engaged in jobs requiring low or no skills for survival. This occurs when there is a mismatch between available labour and employment opportunities, often because of a lack of investment in technology and infrastructure, and a low employment elasticity of economic growth. According to the International Labour Organization (ILO), the problem is economywide and affected 78 million people (17.6 per cent of the labour force) in LDCs in 2019 (ILO, 2022a), wasting valuable human capital potential and decreasing the overall economic output. The implication for these countries is that the accumulation of skilled workers does not immediately translate into higher productivity of labour.

The problem of low labour productivity in the services sectors in LDCs has a significant gender dimension. The gender gap in mobile phone ownership in LDCs is 0.82, and access to mobile broadband, which has already surpassed half of the global population, is only 15 per cent of the LDC population (ITU, 2024). There are other indicators that point to a lower-than-average global level adoption of technology in the LDCs: only 28.7 per cent of females use Internet in LDCs, compared with 41.1 per cent of males (United Nations, 2025a). While youths are more likely to use the Internet, the percentage of people 15–24 years of age who use the Internet in LDCs is 27 percentage points less that the global average (79 per cent).

In the R&D subindex of the Frontier technologies readiness, LDCs also score less than half of developing countries and less than one third of developed economies, and are outperformed in all dimensions of the readiness index, including ICT, industry and finance (UNCTAD, 2025d). Narrowing these gaps is critical for the LDCs, more so because of the high population growth rate (2.4 per cent), which is higher than the global population growth rate (less than 1 per cent). In addition, half of the population of the African LDCs in 2023 was estimated to be younger than 19 years of age, while the median age in Asian LDCs was 26 years – suggesting a greater need for focus on youth, the quality of education and labour markets (United Nations, 2023).

Labour strategies would have to focus on skills and competencies and balancing the employment needs of industry and the job opportunities in the services sector. The core digital economy is founded on a broad and basic level of digital literacy and competence among citizens and firms, but more specialized and technical skills are required for productive digital tools for innovative business models to emerge. Understanding the different types of skills needed and how they apply to specific circumstances would help countries take advantage of digital technologies not just for e-commerce but also in relation to strategic operations and application in other productive sectors such as agriculture, and manufacturing (UNCTAD, 2017c). Economic diversification, and opportunities for the creation of new markets and industries could be enhanced by narrowing the technology gap and addressing the skills gaps more objectively through a convergence between industrial and science, technology and innovation (STI) policies, and fostering technological diffusion, learning and skill enhancement (United Nations, 2025c).

The quality of labour can be enhanced by investing in education and vocational training to build the human capital needed to leverage science, technology and innovation. This should also involve narrowing the education gap among the youth, as it is estimated that between 2018 and 2023, approximately 16.7 million children in LDCs were out of primary school annually. The primary education completion rate in LDCs has improved, from 57.8 per cent overall (59.4 per cent for girls) in 2015 to 66.5 per cent overall (70.1 per cent for girls) in 2024.

Meanwhile, the lower secondary school completion rate in LDCs in 2024 was only 44.6 per cent, a stark contrast to 71.4 per cent for Northern Africa and Western Asia, and 90.7 per cent for Eastern and South-Eastern Asia (United Nations, 2025a). Globally, the percentage of young people completing upper secondary school increased from 53 per cent in 2015 to 60 per cent in 2024, which also shows a slowing in progress compared with nine years previous to this period (United Nations, 2025b). Closing this education gap is a critical step towards developing a skilled workforce that can compete in the global digital economy.

3. The policy environment and regional contexts

Technology has transformed global services trade by turning many non-tradable services into tradable services, and expanding the ways services can be delivered, which has lowered barriers to trade. As noted in section III.B, services trade has shifted strongly towards DDS, with developed economies services holding a staggering 76.4 per cent share of DDS trade, compared with just 0.16 per cent for LDCs in 2024. In addition, DDS accounting for 61 per cent of developed economies' services exports, compared with 45 per cent for other developing economies. In contrast, for LDCs, DDS represent just 16.6 per cent of their services exports.

For LDCs to benefit from this global shift in services trade, there might be a need for a new generation of public policies, regulations and standards to govern the digital transition (UNCTAD, 2023c; Oloyede et al., 2023). To fully embrace the digital economy, industrial policy measures are needed to bridge the digital divide through, for example, public and private investment in the relevant digital sectors, integrating digitalization in strategic industrial zones development as a core pillar alongside other supportive infrastructure, incentivizing technology adoption, establishing digital innovation hubs and supporting business ecosystems as well as startups in the technology sector. Policies at the international level may need to address fragmentation and uncertainties from diverging national laws affecting digital trade including data protection laws and cybersecurity risks in e-commerce. The UNCTAD framework for e-trade and digital transformation also highlights the importance of private sector participation in the delivery of digital services (UNCTAD, 2022c).

Since DDS sectors are broad, the approach requires a comprehensive policy response that addresses various aspects of society. Countries could begin by strengthening policies, institutional capacities and entrepreneurship. Supply-side growth hinges on proactive government policies that effectively stimulate the potential of digital innovation across all sectors, including agriculture, manufacturing and services. Achieving this requires a holistic approach: from infrastructure and capacity development to coordination and coherence across numerous policy areas, such as trade, and investment (UNCTAD, 2022c).

Building trust and confidence is fundamental to the function of trade in DDS (UNCTAD, 2022c). Consumer protection, data privacy and protection, and cybercrime are the focus of many digital economy policies, but digital transformation requires a broader review of other aspects as well, including the ICT infrastructure and related digital services; payment systems; competition policies; and industry standards, regulation and laws governing e-trade and trade-related issues (UNCTAD, 2022b). UNCTAD data shows that only 57 per cent of LDCs (25 of 44) already have data protection and privacy legislation in place.[16] The UNCTAD eTrade for All initiative and eTrade Readiness Assessments have been crucial in assisting LDCs and other developing economies navigate the complexities of e-commerce

[16] UNCTAD database on Data Protection and Privacy Legislation Worldwide (accessed June 2025), available at https://unctad.org/page/data-protection-and-privacy-legislation-worldwide. Note that, as of January 2024, the LDCs category consisted of 44 countries.

and the digital economy. LDC development partners have an important role to play in assisting LDCs reach these policy goals.

It is also critical to promote multilateral dialogue on trade rules to ensure that the development of DDS in LDCs is not hindered by existing or future trade measures, especially with the rising volume of cross-border digital transactions (UNCTAD, 2022c). The success of DDS relies on two key pillars: market access and a robust digital ecosystem. Regional agreements – such as the Protocol to the Agreement Establishing the African Continental Free Trade Area on Digital Trade, and the ASEAN Agreement on Electronic Commerce – could guarantee small economies market access within their regions (African Union, 2024; ASEAN, 2019) (box III.3). Moreover. some countries are gaining valuable lessons from creating new national online marketplaces or upgrading existing e-commerce and e-payment systems to accelerate their integration into the global digital economy. For instance, Cambodia and Burkina Faso have prioritized skills development, information and public awareness to further support the growth of e-commerce sectors (UNCTAD, 2022b).

Box III.3.
Regional policy initiatives for the digital economy benefiting least developed countries

The Protocol to the Agreement Establishing the African Continental Free Trade Area on Digital Trade establishes harmonized rules and standards for e-commerce and other digital trade activities across Africa. Its focus is on promoting intra-African digital trade, enhancing interoperability of digital systems, and creating a secure, trusted online environment. It thus offers a direct path for African LDCs to strengthen their economies by:

- Lowering business costs: The Protocol creates common rules for e-signatures, secure e-payments and paperless trade, and thereby it makes it easier and cheaper for LDC businesses – particularly microenterprises and small- and medium-sized enterprises – to conduct cross-border transactions;
- Attracting investment: Its framework for digital identities, financial technology (fintech) and cybersecurity can attract private sector investment into LDC markets that are currently underserved;
- Increasing competitiveness: The Protocol helps create a single African digital market, which allows LDC producers to sell their goods to neighbouring countries without facing different regulations in each one.

The Digital Economy Framework Agreement (DEFA) in ASEAN will similarly grant Asian LDCs an environment through which unified digital trade rules will strengthen their integration in a robust digital market with common standards and rules.

Sources: African Union (2024) and ASEAN (2023).

4. Barriers to services trade

Services trade is dependent mostly on domestic policies in partner countries, and these rules often act as significant market access barriers in services sectors crucial for the economic development of LDCs. Such policies may directly impact LDCs' productive capacities, for example, through restrictions on technology, data flows and related goods, and they pose significant market access barriers in key areas. The Services Trade Restrictions Index (STRI), developed by the World Bank and WTO can be used as a tool to benchmark LDCs' policies against those of regional and other trading partners, and for identifying strategic development policy areas to align their services trade policy with their national development priorities.

STRI quantifies policy barriers to trade in services, and could serve as a roadmap for reforms, particularly those in trading partners, that would eliminate obstacles and facilitate the effective participation of LDCs in global services trade. Although the STRI is not available as an annual time series across all services categories and country groups,[17] it provides valuable information on measures affecting different modes of service supply. Its scores range from 0 (completely open) to 1 (completely closed, no service provision is permitted), which can then be converted to percentages. The final score is a weighted arithmetic average that aggregates various factors, including market entry conditions and operational conditions; and measures affecting competition, administrative procedures, regulatory transparency and other miscellaneous regulations (World Bank, 2024).

Analysis of STRI data reveals that, while all countries impose some restrictions, other developing economies generally have more restrictive policies. Restrictions have increased in computing, communications, construction and related engineering services, tourism and travel-related services, and health services, especially after the pandemic. From 2019 to 2024, other developing economies scored higher (i.e. they were more restrictive) on the STRI than other economies in seven out of nine service categories. In contrast, LDCs were more restrictive than other developing economies in only two sectors: transport and professional services. However, LDCs' policy environments were more open than those of developed economies for computer and construction services, as well as for distribution and health services (figure III.14).

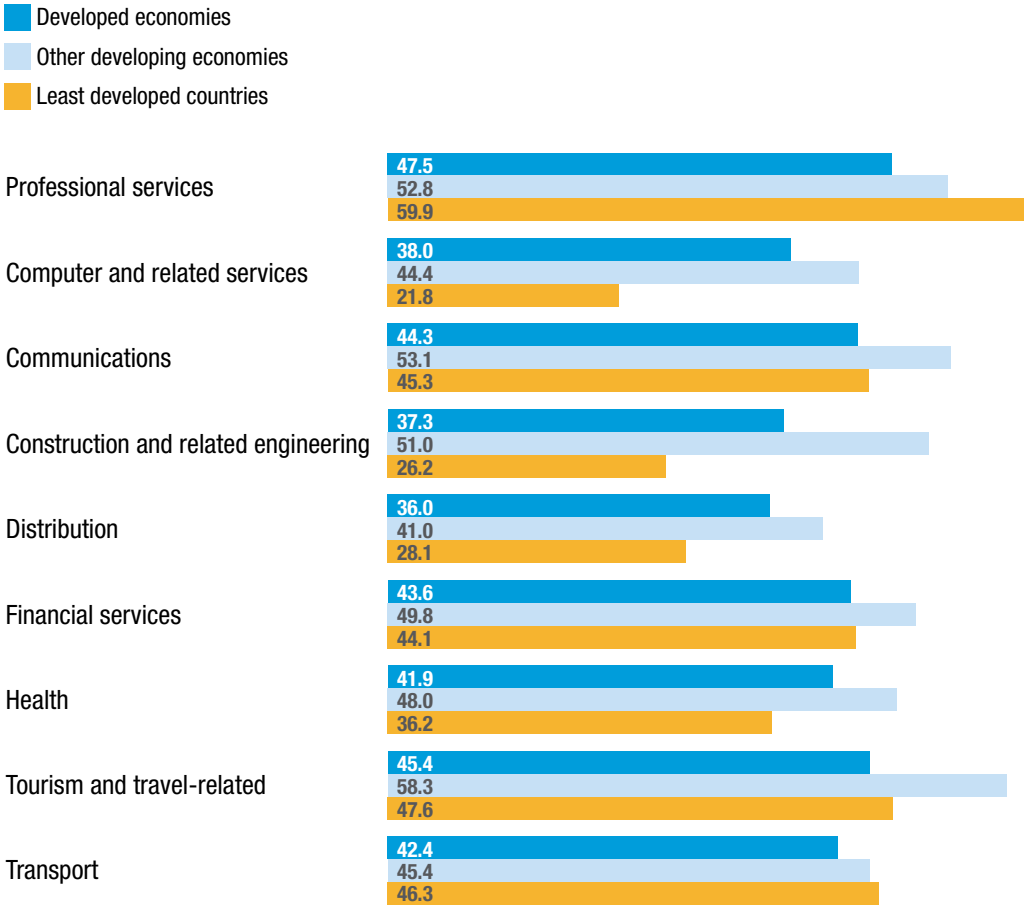
As highlighted under policies above, regional digital trade agreements are essential for breaking down barriers to digital trade. They create predictable and transparent rules that help LDCs build the capacity to navigate complex regulations and develop niche market opportunities (UNCTAD, 2024b). For example, the Protocol to the Agreement Establishing the African Continental Free Trade Area on Digital Trade, adopted by the African Union Heads of State and Government Summit on 17 and 18 February 2024, has enhanced chances to promote intra-African digital trade, and address common hurdles, such as interoperability of digital systems, and lack of security and trust in online market transactions. The Protocol reflects topical issues surrounding technological developments, data protection, cross-border data flows, consumer protection, cybersecurity and emerging technologies, including artificial intelligence (African Union, 2024).

In the Asia-Pacific, ASEAN has taken multiple steps to promote digital trade among its members, which include some LDCs (Cambodia, the Lao People's Democratic Republic, Myanmar and Timor-Leste). In 2019, it signed the ASEAN Agreement on Electronic Commerce,

[17] STRI data are collected through surveys for specific countries and services sectors, with the coverage expanding over time. However, as with many survey data, irregular updates and release of survey data imply that the latest available data may vary for countries and sectors. For details, see World Bank (2024). The data is available at: https://itip-services-worldbank.wto.org/STRIDashboard.aspx.

the region's first e-commerce agreement (ASEAN, 2019). Key elements include commitments to streamline e-commerce regulations, protect online consumers and harmonize technical standards where possible. For LDC members such as Cambodia and the Lao People's Democratic Republic, the Agreement provides a supportive regional policy context – for instance, encouraging the development of national ecommerce laws. Cambodia, for instance, passed its first e-commerce law in 2019 in line with ASEAN commitments. The Agreement also fosters capacity-building via ASEAN forums. ASEAN has equally adopted a Digital Integration Framework and the ASEAN Digital Masterplan 2025, which outlines strategic goals such as reducing the digital divide, securing digital data flows and enabling digital payments across the region. ASEAN is also in the process of negotiating a Digital Economy Framework Agreement (DEFA), slated for conclusion by 2025 (ASEAN, 2023).

Figure III.14.
Some developing economies have more restrictive policies in various services sectors
(Services Trade Restrictions Index rebased to a 0–100 scale, latest available)



Note: Latest available data, based on group averages.

Source: UNCTAD secretariat calculations based on data from WTO and the World Bank, Services Trade Policy Database (accessed June 2025).

At the global level, discussions on digital trade have been slow. However, there are ongoing efforts at various levels, such as the Joint Statement Initiative on E-commerce, which involves 91 WTO members, including five LDCs, as of June 2024.[18,19] Concerns remain over the focus on e-commerce, restrictions on data flows, and impact of the plurilateral approach which may weaken gains from multilateral agreements that have special treatment for LDCs, especially at the WTO (UNCTAD, 2021b, 2021c).

There is a need for clarity on how existing WTO mechanisms, such as flexibility in interpreting the GATS rules and scheduling service commitments, could help LDCs better integrate in the rapidly expanding global trade in services. Chapter V addresses some of these issues, and provides insights on the need for greater commitment from the international community in future WTO trade negotiations regarding the GATS services waiver and new international support measures that can benefit LDCs.

D. Services trade, structural change and economic development

The growth in services as economic activities, particularly tradable services, could have profound impacts on LDCs, both in terms of raising their national income and employment potential, as well as goods exports potential. Efficient services are a catalyst for the expansion of regional and global value chains – a phenomenal force for rapid integration when specialized services are at the centre of such trade. To verify how these relationships work in LDC, UNCTAD undertook an econometric study of a sample of LDCs using their input-output tables (IOTs).

1. The role of services trade in economic transformation

Chapter II highlighted the role of services in the production of manufactured goods in five LDCs, based on data from OECD input–output tables. For the present chapter, a competitive import input–output model is specified to test whether a symbiotic relationship exists between manufacturing and services in four case study LDCs. The sample size for this analysis was determined solely by the availability of data for four selected LDCs: Bangladesh, Cambodia, the Lao People's Democratic Republic and Nepal. Their IOTs were compiled using a unified methodology, standardized classification and common templates, as they participate in a programme by the Asian Development Bank that compiles supply and use tables and IOTs for its members.[20] The results and conclusions derived from this section cannot be generalized beyond the specific context and dataset utilized. They are indicative of the patterns observed and highlight potential interactions and relationships

The input-output data show that, in 2023, the primary drivers of exports for the Lao People's Democratic Republic were services, including utilities (36.3 per cent), which includes electricity, gas and water supply; and retail trade (excluding motor vehicles and motorcycles) (8.2 per cent).

[18] These are Benin, Burkina Faso, the Gambia, the Lao People's Democratic Republic and Myanmar.

[19] See the Joint Statement Initiative on E-Commerce, available at https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm.

[20] Information on the IOTs, the methodology and how the data are compiled is available at https://www.adb.org/what-we-do/data/regional-input-output-tables#accordion-1-0.

The country also had significant exports in mining and quarrying (20.9 per cent) and agriculture, hunting, forestry and fishing (10 per cent). Nepal also exported mainly services, including inland transport (21.3 per cent), post and telecommunications (17.8 per cent), and renting of machinery and equipment and other business activities (6.2 per cent).

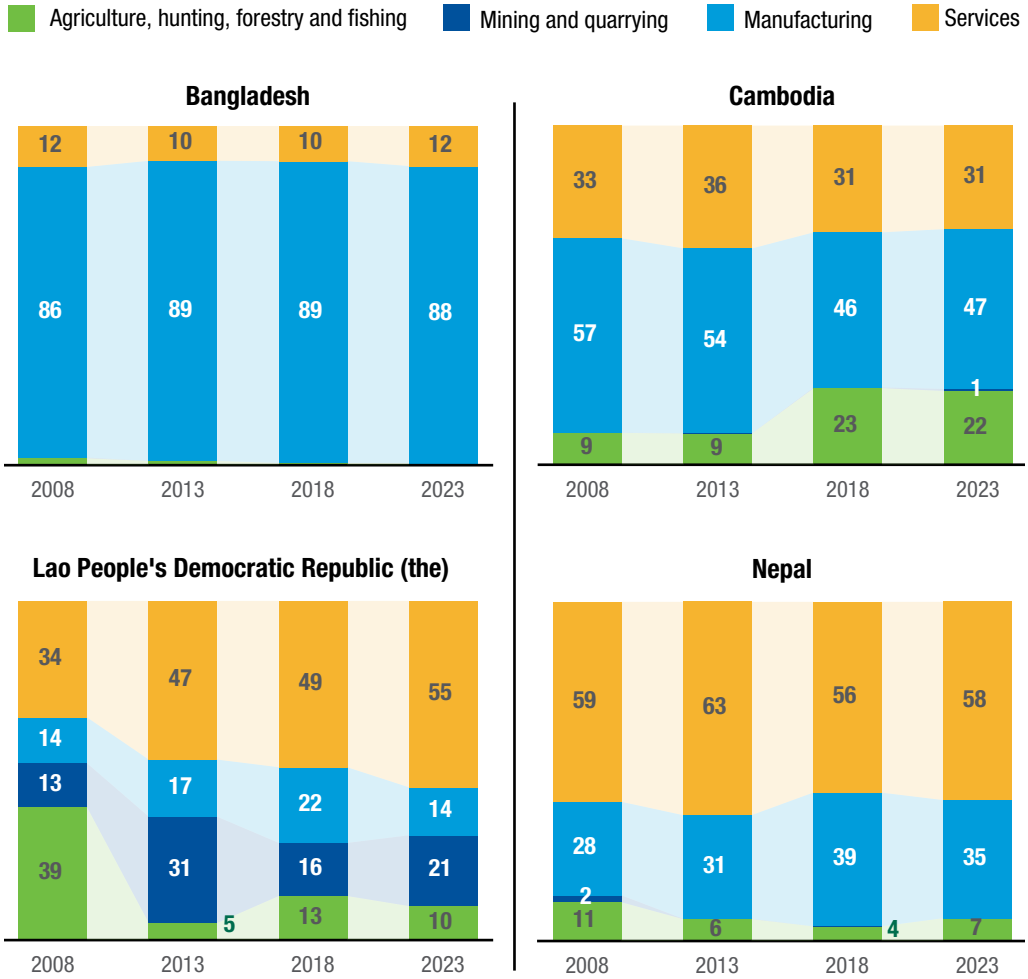
Both Bangladesh and Cambodia, by contrast, had exports dominated by manufactured goods in 2023. For Bangladesh, textile and textile products were the primary export, accounting for 74.4 per cent of its total exports. The country's main services exports were post and telecommunications, which accounted for 5.8 per cent. Cambodia also relied heavily on textile and textile products, which contributed 36.6 per cent to its total exports. However, its exports were more diversified, with significant exports from agriculture, hunting, forestry and fishing (21.8 per cent); wholesale trade and commission trade (12.7 per cent); and hotels and restaurants (8.4 per cent).

Since 2007, there has been a noticeable change in the export composition of three of the four LDCs. For example, for Cambodia, the share of agriculture, hunting, forestry and fishing in exports more than doubled, from just under 10 per cent in 2008 to over 20 per cent between 2018 and 2023. The most significant shift was in manufacturing. Although it remains the top export category, its share fell from 57.3 per cent in 2008 to 47.1 per cent of total exports in 2023 (figure III.15).

The Lao People's Democratic Republic also experienced a significant transformation in its export structure, with services becoming the main export. The share of services exports increased by from 34.3 per cent in 2008 to 54.9 per cent in 2023. During the same period, the contribution to exports of agriculture, hunting, forestry and fishing collapsed by 29 percentage points. Unlike the cases of Cambodia and the Lao People's Democratic Republic, the shift of Nepal was less dramatic but still significant. From 2008 to 2023, the share of manufactured exports rose from 27.6 per cent to 34.8 per cent, while agricultural exports decreased from 11.4 per cent to 6.7 per cent.

The IOT data also revealed a sharp increase in the share of services in imported intermediate inputs for two of the study countries. In the Lao People's Democratic Republic, the share jumped from about 11.4 per cent in 2018 to 30.9 per cent in 2019. By 2023, the share of services in imported intermediate inputs fell to 17.5 per cent in the Lao People's Democratic Republic, and to 7.1 per cent in Nepal. Services were also a significant portion in domestic intermediate inputs. They ranged from 29 per cent to 32 per cent in Bangladesh, Nepal and the Lao People's Democratic Republic, while Cambodia had a slightly lower share at 14 per cent.

Figure III.15.
Composition of exports based on input-output tables
(Percentage)



Source: UNCTAD secretariat calculations based on IOT data from the Asian Development Bank (accessed June 2025).

2. Complementarities between services and manufactured goods in trade

For an economy to undergo structural transformation, a mutually reinforcing relationship between the services sector and other industries is essential. Complementarities exist when an increase in the production and trade of one sector supports growth in another. For example, the export of manufactured goods such as transport equipment often requires complementary services such as engineering, logistics, maintenance and repair services. Similarly, the export of agricultural products requires warehousing, packaging and trans-shipment services to take products to final destinations.

Increased production of goods and other services is expected to have a positive impact on services exports, as it generates a greater intermediate demand for services. The direct effects of services estimated in the IOT analysis is therefore a catalyst for broader value chain integration. It accounts for the demand for services induced by the increased production and exports of other goods and services in which services are inputs.

Services often contribute to manufactured goods exports through embedded services. These are services that are an integral part of the manufacturing process and the final product itself, including pre-production services such as R&D, and post-production services such as warehousing, sales and distribution. It is expected that the growth of the manufactured goods sector directly drives demand for services, which in turn leads to a higher volume and value of services exports.

Manufactured exports drive structural transformation through strong linkages with services and other sectors

The competitiveness of manufactured goods exports depends on the quality of inputs used in its production including intermediate services inputs – both imported and domestic. It is expected that these inputs increase productivity and enhance the value of manufactured goods, while other services enhance the marketability of manufactured products internationally. The manufactured goods sector is also considered one of the key drivers of structural transformation through its linkages with other sectors. The impact of an increase in demand for manufactured exports boosts manufacturing production, which in turn increases the demand for intermediate inputs from other sectors, including services.

The results of the exercise show a multifaceted relationship between different economic sectors and services exports in the study countries. They indicate that there is a complementary relationship between manufacturing and services. Specifically, services exports are positively influenced by both services output and the manufacturing sector's output. This suggests that, as manufacturing production intensifies, it drives up demand for services, thereby boosting services exports.

While the overall relationship supports the assumption of complementarity between services and manufactured goods, the study also found a significant and negative relationship between services exports and the direct effects of services in production (from IOT estimates). This suggests that the initial, direct demand for services induced by an increase in production (and exports) of other goods and services grows slowly compared with the overall output of those other products. It likely implies that the increase in intermediate services has not kept pace with the growth of the rest of the economy – a result consistent with the findings in chapter II on services productivity.

The above suggests the need for a clear, policy-driven production linkage between services and other production sectors to leverage growth in both services and non-services sectors for trade. Closing the gap between services and other production sectors could assist countries to unlock dynamic linkages that benefit the entire economy, and thus promoting diversification, contrary to development paths that characterize commodity-dependent LDCs. It might be crucial to provide the basis for broad production linkages – including through providing transport infrastructure, business development and management services – as well as the technology required for upgrading and creating robust patterns of complementarity.

Gross output in all sectors of the economies of the four case study countries is relatively services-intensive. In the four economies, the indirect impact of the services sector on other industries was slightly more than proportional (multiplier greater than 1), a trend that was particularly on the rise in Cambodia and Nepal (figure III.16). Furthermore, even with a decline in intermediate service imports in Nepal and the Lao People's Democratic Republic, a larger share of services in output, and services competitiveness, were positively associated with an increase in services exports (ADB, 2017).

The analysis also highlights that services are a crucial driver for both manufactured goods exports and broader structural transformation of the countries included in the study.

The increasing services-intensity – the services embodied in manufactured goods – can significantly boost economic change. This is true for both domestic services embodied in manufactured goods. This implies that there is potential for the manufacturing sector to become more competitive internationally through a symbiotic relationship with higher-quality services sectors, which in turn boost services exports from these countries.

A robust services sector is needed for the sectorally balanced transformation to be a reality. This is dependent on several factors, including:

(a) Quality interlinkages: These include strong relationship and efficient inter-industry connections in terms of information, trade and resources. The better these connections, the more effective manufacturing can leverage specialized services.

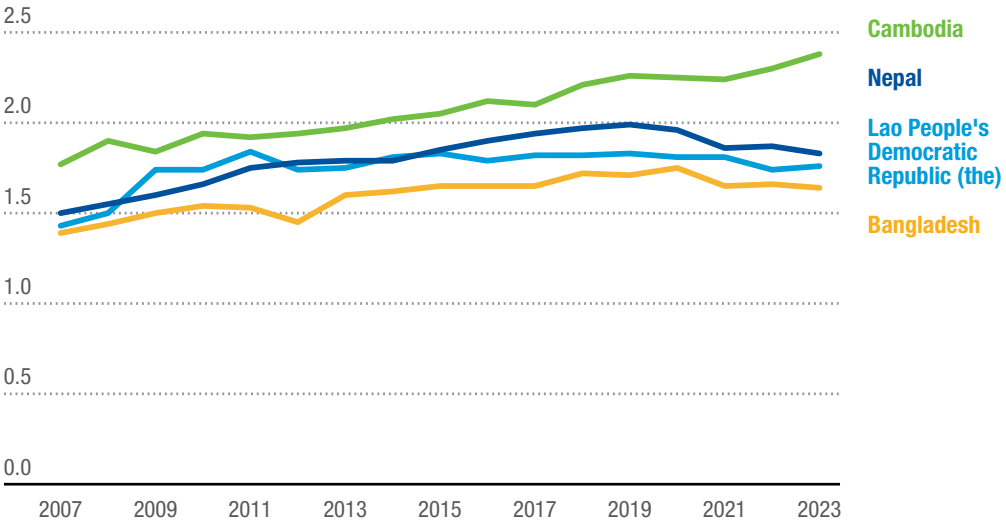
(b) Diversification into higher-value services: The countries may have to move beyond traditional services and develop more sophisticated, high value services that can be used directly by manufacturing and other productive sectors.

These two factors imply that manufacturing and services synergies can be enhanced by increasing embodied services in manufacturing services and boosting the production capacity in manufacturing sectors that boost services.

Further, while both domestic and imported services are crucial for the manufacturing sector, domestic homegrown services have a much stronger impact on manufactured goods exports.

The exercise yielded a finding of a negative relationship between the indirect impacts of services on manufacturing exports. In the context of the IOT data, this implies that, when manufacturing firms increase their exports, the ripple effects throughout the economy – the indirect impacts – do not lead to a greater demand for services. The implication here is that there is a weak link between manufacturing and services. The demand for services from the manufacturing sector may be limited to immediate input requirements of production. Services are likely being used for basic tasks such as transport or simple business services, but not for more complex, high-value activities that would create stronger, broader linkages.

Figure III.16.
A rising multiplier implies services are increasingly integrated in the domestic economies of selected least developed countries



Source: UNCTAD secretariat calculations based on IOT data from the Asian Development Bank (accessed June 2025).

For a robust complementary relationship to exist, an increase in manufacturing exports should create a widespread and growing demand for sophisticated services such as advanced logistics, marketing, R&D, and other advanced services. The negative relationship suggests that these deeper linkages are missing, indicating that the economies may lack the structural sophistication to fully integrate these sectors.

The services sector's increasing dominance in LDCs economies presents an opportunity for structural transformation if its expansion is strategically channelled. Services must evolve to supply the specialized, integrated, and innovative inputs — like transportation, research and development, and professional consulting — required by the industrial sector to create a dynamic, sustainable relationship between all parts of the economy (UNCTAD, 2013). However, this potential is constrained: impediments to services trade or regional disparities in service development—both within a country and internationally—can nullify the spillover effects, rendering services growth ineffective for overall sectoral advancement (UNCTAD, 2013, 2018c; Chen et al., 2023).

In the four Asian LDCs included in the study, services inputs play a role in boosting manufactured exports. A larger share of services inputs, relative to the manufacturing sector's total output, has a positive and notable effect on the export of manufactured goods. This finding highlights the importance of trade and industrial policies in strengthening the connection between merchandise and services exports. Additionally, strengthening domestic services capabilities will be important, as they have the potential to significantly drive manufacturing-led growth, as demonstrated in our analysis. In the case of Cambodia, for example, this synergy could be further enhanced. The country's trade policy already explicitly supports services, particularly tourism, alongside other key sectors (WTO, 2024a; Hollweg and Sáez, 2019;). However, a strong connection between services, manufacturing and other sectors is not always a given. Thus, weak intersectoral linkages may hinder the overall pattern of structural change, depending on country circumstances. Hence, the importance of policy action in order to address this shortcoming.

E. Conclusion

While the global trade in services has grown for all countries, including LDCs, the LDCs' growth has been in less dynamic sectors and from a very low starting point. Services exports are concentrated in a few LDCs, and a limited number of services sectors account for most of these service exports.

The primary service exports for LDCs are transport and travel. These were the sectors that were hit hardest during the COVID-19 pandemic, and remain susceptible to other crises, such as the recent cost-of-living crisis. This dependence on a few sectors makes LDC services exports particularly vulnerable to economic shocks. To strengthen their position, LDCs need to expand market access, particularly in transport, where they currently have a low competitive advantage. LDCs may have to proactively address international barriers to their services exports, such as restrictive visa requirements or non-recognition of professional qualifications in developed markets. At the same time, they need to balance strategic reforms to domestic regulations, and competition policies which are essential for efficiency, quality, and export capacity of their local services providers, with the developmental need to boost productivity in the services sector. The latter requires the effective use of the domestic policy space to boost the potential of the service sector alongside other sectors.

Government goods and services emerged as a prominent sector for services exports of LDCs. Unlike other developing and developed economies – which have successfully leveraged digitally-deliverable services such as telecommunications, computer services and financial consulting – LDCs are lagging behind. They are marginalized in high-value services due to a lack of skills, knowledge, technological capacity and capital. This technology gap is likely to increase the trade deficit in modern, digitally-driven services, further harming their competitiveness in global services trade. The main barriers to a digital economy and e-commerce in LDCs include insufficient ICT and other infrastructure, such as transport networks and energy. To bridge this gap, LDCs need to boost investment in technology development, including ICT infrastructure, energy, education and human capital.

LDCs have a long way to go to fully capitalize on the accelerating global services trade. However, by adopting the right set of strategic policies and receiving targeted international support, they can transform this trend into an opportunity for investment, job creation and broad-based growth. Crucially, some LDCs demonstrate the potential to strategically utilize services trade integration to bolster their industrial development. This is evidenced by the growing share of domestic services value added embedded in LDCs' manufactured exports. However, embedding services in industrial development strategies may require a new approach, and more finely targeted policies aimed at developing production capacity for final goods and services – such as revamping trade and industrial policies, along with targeted investments in both manufacturing and services, to create synergies (UNCTAD, 2013, 2021a).

Regional trade agreements – in particular, the Protocol to the Agreement Establishing the African Continental Free Trade Area on Digital Trade, and the ASEAN Digital Economy Framework Agreement (DEFA) – offer a glimpse of hope for the LDCs ready to embrace the digital economy and DDS trade. Ultimately, LDCs could modernize their service sectors by strengthening intersectoral links with agriculture, mining and manufacturing – the traditional cornerstones of their exports. This will require deliberate efforts in planning, identifying and building these connections to ensure sustained economic dynamism.

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Annex

Annex table.
Six least developed countries exported more services than merchandise in 2021–2023
(Services as a share of total exports)

	2019	2022	2023	2024	Average 2022–2024
Tuvalu	97.2	97.6	98.4	99.7	98.5
Comoros (the)	72.2	67.2	78.9	81.4	75.9
Gambia (the)	60.7	84.3	57.8	64.3	68.8
Ethiopia	64.3	63.8	68.1		65.9
Somalia	45.1	51.0	58.4	59.2	56.2
Central African Republic (the)	70.6	55.6	51.4		53.5
Afghanistan	42.8	50.6	56.1		53.3
Nepal	62.7	31.9	43.8	58.2	44.6
United Republic of Tanzania (the)	46.1	41.1	46.4	44.4	43.9
Kiribati	62.3	59.0	33.4	33.5	42.0
South Sudan	8.9	48.2	35.8	35.3	39.7
Burundi	30.3	30.0	36.1	41.9	36.0
Togo	37.6	34.7	35.9	34.3	35.0
Malawi	29.3	34.0	33.0	33.8	33.6
Timor-Leste	38.6	13.9	29.8	49.1	30.9
Rwanda	47.3	30.4	30.7		30.5
Madagascar	35.4	23.5	27.5	35.5	28.8
Uganda	36.8	34.0	24.8	23.3	27.4
Senegal	25.2	20.1	21.8	19.9	20.6
Solomon Islands	22.1	17.2	21.1	20.7	19.7
Djibouti	22.3	18.9	18.8	18.5	18.7
Niger (the)	18.8	24.0	18.9	12.9	18.6
Liberia	2.0	15.7	17.0	18.9	17.2
Sudan (the)	26.0	25.5	10.8	14.9	17.1
Guinea-Bissau	14.8	12.5	15.7	16.7	15.0
Cambodia	29.1	10.1	16.2	16.8	14.4

	2019	2022	2023	2024	Average 2022–2024
Bangladesh	13.9	14.1	12.8	12.6	13.1
Mozambique	16.3	12.0	12.0	12.3	12.1
Myanmar	27.0	12.2	11.3		11.7
Benin	14.8	12.9	10.2	11.6	11.6
Lao People's Democratic Republic (the)	16.9	4.7	13.7	15.6	11.3
Burkina Faso	14.2	10.0	12.2	10.5	10.9
Haiti	30.5	7.3	13.3		10.3
Chad	10.6	6.9	10.0	10.8	9.2
Zambia	12.6	7.5	8.2	9.8	8.5
Mali	17.4	8.2	7.8	8.4	8.2
Mauritania	8.3	7.5	6.8	5.7	6.7
Sierra Leone	10.5	2.2	3.1	3.2	2.8
Lesotho	3.2	1.9	2.0	1.5	1.8
Guinea	2.4	1.7	1.6		1.6
Democratic Republic of the Congo (the)	1.1	0.4	0.2		0.3
Angola	1.3	0.2	0.2	0.3	0.2

Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).