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The Least Developed Countries Report

Are services the new path to structural transformation?

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Note

The term “dollars” ($) refers to United States dollars unless otherwise specified.

The term “billion” signifies 1,000 million.

The term “ton” signifies metric ton, i.e. 1,000 kilograms.

Annual rates of growth and change refer to compound rates.

Use of a dash (–) between dates representing years, e.g. 1981–1990, signifies the full period involved, including the initial and final years. A slash (/) between two years, e.g. 1991/92, signifies a fiscal or crop year.

Throughout the report, the term “least developed country” (LDC) refers to a country included in the United Nations list of the least developed countries (see classifications hereafter).

The terms “country” and “economy”, as appropriate, also refer to territories or areas.

Tables

Two dots (..) indicate that the data are not available or are not separately reported.

One dot (.) indicates that the data are not applicable.

A dash (–) indicates that the amount is nil or negligible.

Percentages do not necessarily add up to totals because of rounding.

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Classifications

The least developed countries

In the present report, unless otherwise specified, the least developed countries are classified according to a combination of geographical and structural criteria. The small island least developed countries that are geographically in Africa or Asia are therefore grouped with Pacific islands, to form the island least developed countries group, given their structural similarities. Haiti and Madagascar, which are regarded as large island States, are grouped with the African least developed countries. The resulting groups are as follows:

African least developed countries and Haiti: Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Togo, Uganda, United Republic of Tanzania, and Zambia.

Asian least developed countries: Afghanistan, Bangladesh, Cambodia, Lao People's Democratic Republic, Myanmar, Nepal and Yemen.

Island least developed countries: Comoros, Kiribati, Solomon Islands, Timor-Leste and Tuvalu.

Other groups of countries and territories

Other groups of countries and territories include the following:

Developed countries and territories: Albania, Andorra, Australia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands (Kingdom of the), New Zealand, North Macedonia, Norway, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Holy See, Bermuda, Gibraltar and Greenland.

Other developing economies: For analytical purposes and statistical convenience throughout this report – including in the overview, main text, annexes, references, figures, boxes, maps and tables, as well as infographics – the use of the term "other developing economies" refers to countries, territories and areas that are classified as developing economies by UNCTAD (see https://unctadstat.unctad.org/EN/Classifications.html) and are not among the least developed countries.

What are the least developed countries?

Number of countries in 2025

In 2025, the following 44 countries are designated by the United Nations as the least developed countries: Afghanistan, Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, the Niger, Rwanda, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, the Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Yemen and Zambia.

Status reviewed every three years

The list of the least developed countries is reviewed every three years by the Committee for Development Policy, a group of independent experts that reports to the Economic and Social Council of the United Nations. Following the review, the Committee may recommend, in its report to the Economic and Social Council, countries for addition to the list or the graduation of current countries from the category. In 2017–2020, the Committee undertook a comprehensive review of the criteria for least developed countries, which were further refined in 2023. The resulting revised criteria were first applied at the triennial review in 2024.

The following criteria and thresholds for inclusion in the least developed country category or for graduation from the category were applied at the 2024 review:

(a) An income criterion, based on a three-year average estimate of the gross national income per capita in United States dollars, using conversion factors based on the World Bank Atlas methodology: The threshold for inclusion and graduation is based on the thresholds of the World Bank low-income category. For the 2024 triennial review, the threshold for inclusion was set at $1,088 or less; the threshold for graduation was set at $1,306 or more.

(b) A human assets index, comprising a health subindex and an education subindex: The health subindex has the following three indicators: under-5 mortality rate, maternal mortality ratio, and prevalence of stunting. The education subindex has the following three indicators: lower secondary school completion rate, adult literacy rate, and gender parity index for lower secondary school completion. All six indicators are converted into indices using established methodologies with an equal weight. For the 2024 triennial review, the thresholds for inclusion and graduation were set at 60 or below and 66 or above, respectively.

(c) An economic and environmental vulnerability index, comprising an economic vulnerability subindex and an environmental vulnerability subindex: The economic vulnerability subindex has the following four indicators: share of agriculture, forestry and fishing in gross domestic product; remoteness and landlockedness; merchandise export concentration; and instability of exports of goods and services. The environmental vulnerability subindex has the following four indicators: share of population in low elevated

coastal zones, share of population living in drylands, instability of agricultural production, and victims of disasters. All eight indicators are converted into indices using established methodologies with an equal weight. For the 2024 triennial review, the thresholds for inclusion and graduation were set at 36 or above and 32 or below, respectively.

At each triennial review, all countries in developing regions are reviewed against the criteria. If a non-least developed country meets the established inclusion thresholds for all three criteria in a single review, it may become eligible for inclusion. Inclusion requires the consent of the country concerned and becomes effective immediately after the General Assembly takes note of the recommendation of the Committee for Development Policy. No recommendations were made for inclusion at the triennial review in 2024.

To graduate from the least developed country category, a country must meet the established graduation thresholds of at least two of the criteria for two consecutive triennial reviews. Countries that are highly vulnerable, or have very low human assets, are eligible for graduation only if they meet the other two criteria by a sufficiently high margin. As an exception, a country with a per capita income that is sustainably above the income-only graduation threshold, set at three times the graduation threshold ($3,918 for the 2024 triennial review), becomes eligible for graduation, even if it does not meet the other two criteria.

Graduation from the least developed country category

The following eight countries have graduated from the least developed country category:

- Botswana, December 1994
- Cabo Verde, December 2007
- Maldives, January 2011
- Samoa, January 2014
- Equatorial Guinea, June 2017
- Vanuatu, December 2020
- Bhutan, December 2023
- Sao Tome and Principe, December 2024

In the past, the Committee for Development Policy has recommended graduation from the least developed country category for several countries. Bangladesh, the Lao People's Democratic Republic and Nepal are scheduled for graduation in 2026; and Solomon Islands is scheduled for graduation in 2027.

At the 2024 triennial review, Rwanda, Uganda and the United Republic of Tanzania were found to have met the graduation thresholds for the first time. All three countries met two of the three criteria, namely the economic and environmental vulnerability index criterion and the human assets index criterion. These countries are scheduled to be considered again in 2027 and, if they meet the criteria for a second time, could be recommended for graduation.

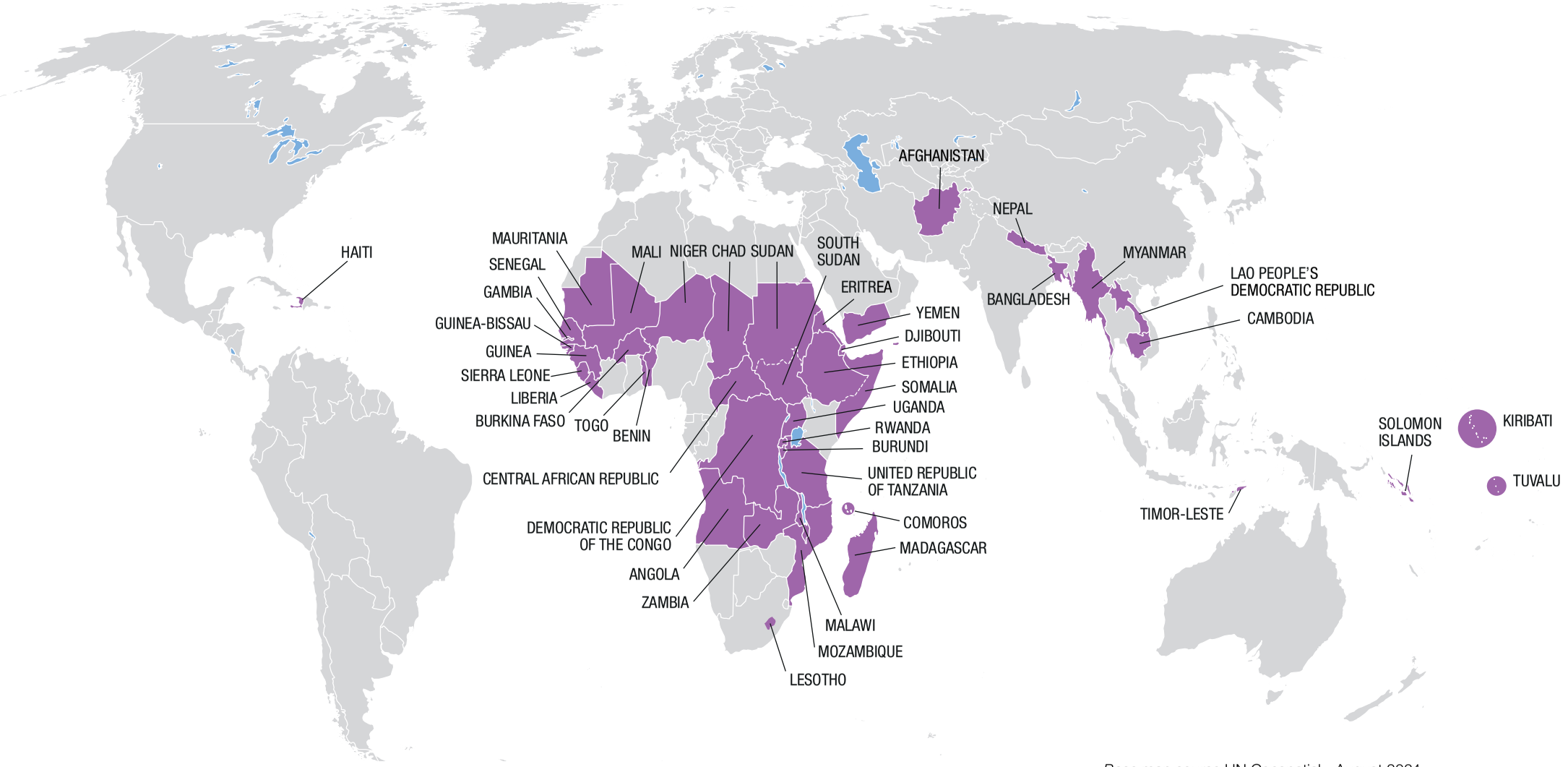
Kiribati and Tuvalu were recommended for graduation in 2018 and 2012, respectively, but the Economic and Social Council deferred a decision on their graduation. In resolution 2024/7, the Economic and Social Council, recalling its decision in 2021 to defer the consideration of the graduation of Kiribati and Tuvalu to 2024, further decided to consider their graduation at a later date.

At the 2024 triennial review, the Committee for Development Policy decided to defer its decision on the graduation of Myanmar and Timor-Leste to 2027.

Least Developed Countries (LDCs)

44 countries

Africa 32, Asia 8, Caribbean 1, Pacific 3



Base map source UN Geospatial - August 2024

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Abbreviations and acronyms

ADB	Asian Development Bank
AfCFTA	African Continental Free Trade Area
AI	artificial intelligence
ASEAN	Association of Southeast Asian Nations
ATAG	Air Transport Action Group
B2B	business-to-business
BaTIS	Balanced Trade in Services Dataset
BPO	business process outsourcing
DDS	digitally-deliverable services
DEFA	Digital Economy Framework Agreement (ASEAN)
EAC	East African Community
ETD	Economic Transformation Database
FATS	Foreign Affiliates Statistics
FDI	foreign direct investment
fintech	financial technology
GATS	General Agreement on Trade in Services
GDP	gross domestic product
GSMA	Global System for Mobile Communications Association
ICT	information and communications technology
IT	information technology
ILO	International Labour Office
IMF	International Monetary Fund
IOT	input–output table
ISIC	International Standard Industrial Classification of All Economic Activities
ITU	International Telecommunication Union
KIFC	Kigali International Financial Centre
LDC	least developed country
ODE	other developing economy
OECD	Organisation for Economic Co-operation and Development
PAL	Port Autonome de Lomé
PIA	Plateforme Industrielle d'Adetikopé (Togo)
PPP	purchasing power parity
R&D	research and development
SADC	Southern African Development Community
SMEs	small and medium-sized enterprises
STRI	Services Trade Restrictions Index
TEU	twenty-foot equivalent unit
TFP	total factor productivity
TISMOS	Trade in Services by Mode of Supply
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
WTO	World Trade Organization

Foreword

The global economy is undergoing a profound transformation, characterized by the growing dominance of services in both employment and value creation. For the least developed countries, this shift offers new opportunities to diversify and modernize their economies. Yet it also raises a pivotal question: can a dynamic services sector become a driver of structural transformation – or will existing global asymmetries deepen their marginalization?

This is the central question of *The Least Developed Countries Report 2025: Are Services the New Path to Structural Transformation?* The report examines the growing weight of services in least developed country economies, their expanding role in trade and the conditions under which services can – and cannot – deliver development results.

The findings are sobering. Services currently account for nearly half of the gross domestic product of the average least developed country. Yet services-led growth has not translated into broad-based development. Average per capita growth in the least developed countries was just 1 per cent last year. Too much of employment remains concentrated in low-productivity, informal activities – work that sustains survival but does not build prosperity. The least developed countries must absorb 13.2 million new job seekers every year until 2050. Working poverty remains widespread. The challenge is not just more jobs, but also better ones.

The gaps are stark. Labour productivity in the median least developed country is 11 times lower than in the median developed economy. Tourism accounts for a third of least developed country services exports, yet elevated revenues often fail to translate into substantial employment, local value addition or transformative structural change. And in digitally deliverable services – the most dynamic segment of global trade – the least developed countries account for just 0.16 per cent, the lowest share since records began. The digital economy is booming, but largely outside the least developed countries.

The report is clear: services can reinforce industrialization, expand trade and enhance competitiveness, but only when supported by coherent national strategies and an enabling global environment. Without both, the same forces that create opportunity will deepen exclusion.

For services to become an engine of transformation, the least developed countries need integrated strategies that combine investments in physical and digital infrastructure with human capital development, regulatory reform and targeted support for high-value sectors. Policies must deepen linkages between services, manufacturing and agriculture, fostering synergies that drive productivity and innovation. And measures to upgrade traditional services and improve job quality are essential to ensure inclusivity.

Global cooperation will be decisive. Enhanced trade preferences, technology transfer, concessional finance and capacity-building can help the least developed countries to overcome structural constraints. Regional integration, through the African Continental Free Trade Area and similar initiatives, offers platforms to scale trade in services. At the multilateral level, UNCTAD can ensure that rules governing services trade, electronic commerce and the digital economy preserve the policy space these countries need.

As we reach the midpoint of the Doha Programme of Action, the imperative is clear: services must become part of a broader agenda for structural transformation. This is not only a national priority for the least developed countries; it is a test of the global trading system's capacity to deliver broad-based development.

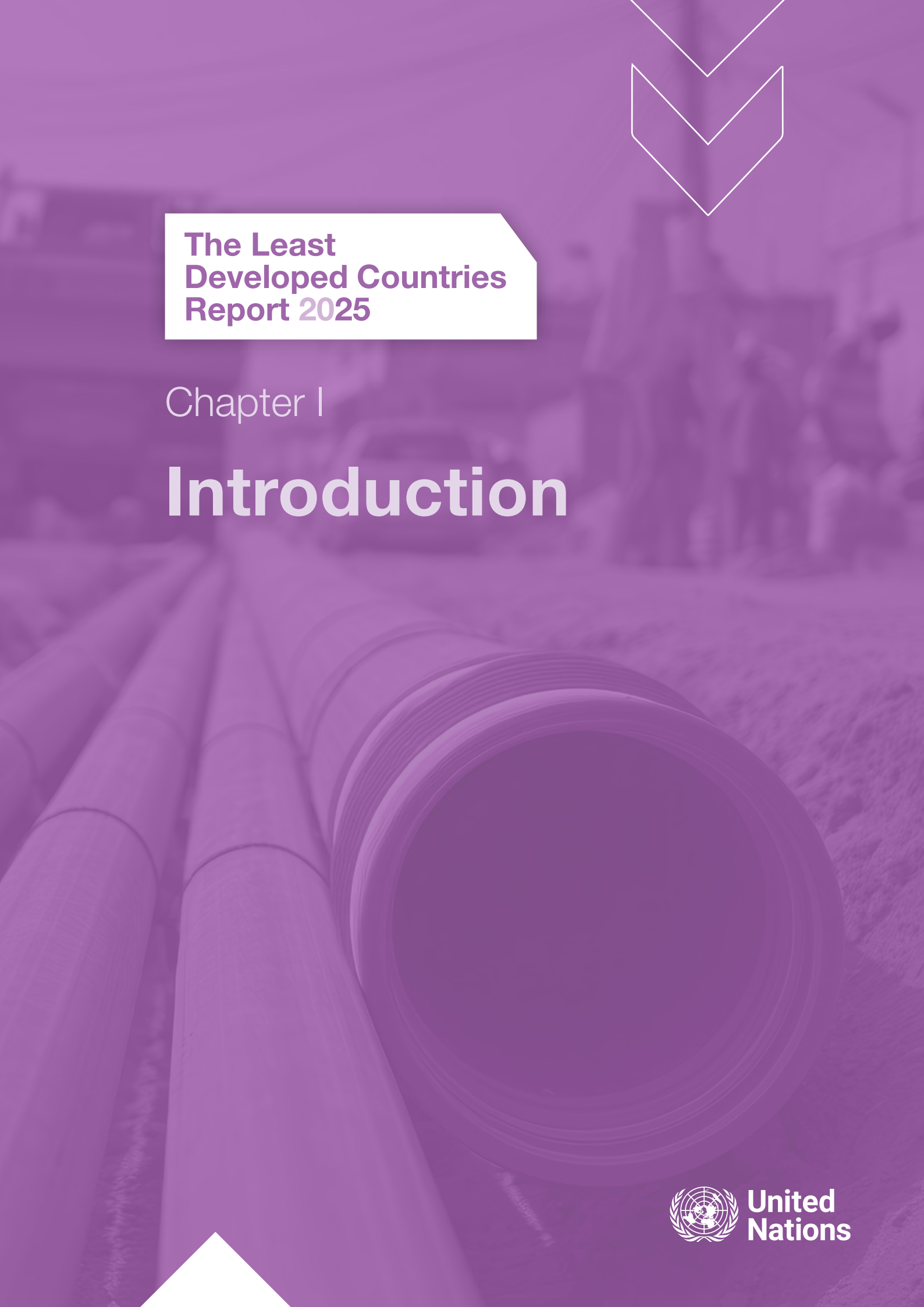
UNCTAD stands ready to support the least developed countries and their partners in turning this vision into reality.

Rebeca Grynspan
Secretary-General of UNCTAD

The Least Developed Countries Report 2025

Chapter I

Introduction



United Nations

From the start of the twenty-first century, the discourse on development and development policies has increasingly emphasized services as the main leverage for developing countries – including least developed countries (LDCs) – to accelerate their growth and development. This reasoning holds that a focus on strengthening and expanding different services sectors allows developing countries to transform the structure of their economies, modernize their productive activities, accelerate economic growth, and thereby achieve considerably higher levels of well-being. Such reasoning has accelerated, especially with the expansion of the digital economy.

For 250 years, in countries that have been successful in radically transforming their economies, industrialization has been the pathway to structural transformation, with the continuous expansion of higher value added sectors of economic activity, economic diversification and higher levels of income. More recently, however, industrialization has been questioned in terms of accessibility and even desirability. The are several reasons for this, as recalled below.

First, on a global scale, technological change has rendered manufacturing more capital- and skill-intensive, with plants requiring larger scales to be economically viable (UNCTAD, 2024; Rodrik, 2014). On one side, this raises barriers to entry by new operators and producers, whether companies or countries. The intensifying use of robots and digital technologies tends to attenuate the job-creating potential of manufacturing and the sector's capacity to absorb excess labour (typically low-skilled) being freed in agriculture (UNCTAD, 2016, 2017a; Hallward-Driemeier and Nayyar, 2018). At the same time, rising capital intensity and automation significantly weaken a comparative advantage of developing countries – and especially LDCs – which has traditionally been their labour costs (UNCTAD, 2003).

Second (and partly related to these major developments), manufacturing has become increasingly concentrated in a few countries, especially China and India (UNIDO, 2024).

Third, in a context of globalization, these technological and economic developments have led to heightened worldwide competition in goods markets, whether international markets (where developing countries' industries are competing to place exports) or domestic ones (where domestic producers are confronted with heightened import competition).

Fourth, traditional industrialization has led to environmental degradation on both a local and global scale, due to factories' large-scale emission of pollutants and greenhouse gases leading to degradation of air, soil and water (UNCTAD, 2021a, 2021b, 2024; UK Aid and UNCTAD, 2020; Edeme et al., 2024; Hodu Ngangnchi et al., 2024). This has produced adverse consequences for human health and environmental quality (Intergovernmental Panel on Climate Change, 2022; The Lancet Commission on Pollution and Health, 2022).

The consequences of these developments are that entry barriers into manufacturing for latecomer countries have become considerably higher and industrialization has become an increasingly difficult route for latecomer countries to follow in their quest for structural transformation. Manufacturing export-led growth, which was the route taken by most successful industrializers in the twentieth century, is seen as an increasingly difficult – if not impossible – path to follow (Baldwin, 2024a). By the same token, it is argued that traditional industrial policies are no longer effective, realistic or worth pursuing (UNCTAD, 2024; Bartelme et al., 2025; Irwin, 2023; McKenzie, 2023; Altenburg, 2013).

Under these circumstances, the new thinking suggests low-income countries – including LDCs – to concentrate their efforts on services and attenuate or even forsake the struggle for industrialization (World Bank and WTO, 2023; Nayyar et al., 2021; Baldwin and Forslid, 2023).

Industrialization long drove transformation, **but rising costs, automation and competition now challenge its feasibility**

Digital technologies enable developing countries **to join global service value chains and transform economies**

These are seen as the feasible and realistic alternative for latecomer countries to follow in order to achieve their ultimate development goals (UNCTAD, 2017b). The arguments given for this alterative development path – and attendant policies – are manifold, as briefly summarized below:

- Services have collectively become the largest sector of economic activity worldwide, since at present they account for some two thirds of world output. In the same vein, services have become the largest generator of jobs globally.
- Services are the sector where the most dynamic forms of structural transformation is happening in the more advanced economies and, increasingly, also in developing economies (UNCTAD, 2017b, 2017c, 2019; Monga and Lin, 2019).
- Manufacturing-led export growth is declining, while services-led export growth is booming, in both lower-middle-income and upper-middle-income countries (UNCTAD, 2024; Baldwin, 2024b).
- Services are the main destination of global flows of foreign direct investment (FDI) (UNCTAD, 2025).
- Services have become the most dynamic segment of international trade, expanding at a faster pace than that of goods since the late twentieth century. This presents developing countries with opportunities for raising their exports and reaping the benefits traditionally associated with greater integration into international trade (WTO, 2019).
- The services sector is presented as having lower entry barriers to new countries, companies and even individuals that emerge in the market, as it has lower capital costs, lower infrastructure requirements (e.g. in terms of transport and energy) and lower skills requirements as compared with typical manufacturing plants. Therefore, in developing countries, micro, small and medium-sized services enterprises start exporting earlier than manufacturing firms (WTO, 2019).
- Services overall, or at least several services sectors, present some of the development potentials previously associated with manufacturing, especially the capacity to generate a large number of jobs (and thus absorb excess labour freed from agriculture).
- The more modern services sectors quickly incorporate technological advances and therefore contribute to increases in overall labour productivity, and act as a hub for technology diffusion throughout the economy, through backward and forward linkages with other economic sectors (manufacturing and agriculture, as well as among different service subsectors). Therefore, services can be a lever for technology diffusion, and overall economic growth and development, analogous to the role that manufacturing had played in traditional industrialization experiences (UNCTAD, 2017b, 2017a).

The surge and diffusion of a new generation of general-purpose technologies – including Internet, cloud computing and artificial intelligence – have brought about the emergence of the digital economy (UNCTAD, 2017a). It has transformed the services economy and opened up considerably wider possibilities for enhanced international trade in services. The new development thinking argues that developing countries can connect to global services/digital value chains and achieve a new type of structural transformation. The basis for this is that the emergence of the digital economy has multiplied the economic impact of services, especially through the following mechanisms:

- Technological changes have significantly expanded the tradability of different types of services which traditionally had been considered as non-tradable (WTO, 2019). They have lowered

costs, expanded modes of supply and delivery, and lowered barriers to participation in international trade.

- The global diffusion of these new technologies has significantly reduced technological barriers to international trade in services, especially intermediate services. There is great demand for these services in developed countries, which opens space for emerging exporters, including those in developing countries (UNCTAD, 2017b, 2017a; Baldwin, 2024b).
- The new technological configuration has broadened the scope of sales and export markets to a virtually global scale, thereby obviating the traditional challenges of limited domestic markets to generate economies of scale. Consequently, emerging operators or suppliers have become economically viable (UNCTAD, 2017a; WTO, 2019).
- Service export-led growth is the development strategy that an increasing number of developing countries have taken, and this represents the way forward for most developing countries, including LDCs (UNCTAD, 2017b, 2024; Baldwin, 2024a).

Beyond global trends, the new recommendations given to low-income developing countries – including LDCs – are also in line with structural change trends that are actually taking place in LDCs. A few of these countries have followed a path that to some extent resembles the classical industrialization route, where a significant part of the rural exodus of the workforce has been absorbed by a growing manufacturing sector. This has been the case – to a certain extent – in some Asian LDCs (such as Bangladesh, Cambodia, Myanmar and Nepal). However, the majority of LDCs have undergone "premature de-industrialization" or even "pre-industrial deindustrialization" (Rodrik, 2016; Tregenna, 2015, 2016), as the share of manufacturing in both employment and output has declined, even though these countries had not previously experienced meaningful industrialization, in a process that took place at low levels of income and development. In these countries, the major process of structural transformation has been excess labour freed by agriculture being absorbed by the urban tertiary sector. This has been a new pattern of structural transformation, quite distinct from the traditional one (UNCTAD, 2014, 2020; Sen, 2023).

The policy implication of this collective reasoning is that LDC Governments and their development partners should view the services sector – and especially digital development – as a priority pillar of economic policy. The priorities would then be for LDCs to liberalize trade in services internationally; modernize their domestic regulatory frameworks for services sectors, so as to adapt them to ongoing global economic and technological evolutions; align with international regulatory standards; target digital skills development; and broaden connectivity (UNCTAD, 2017b, 2017a; World Bank and WTO, 2023).

In spite of the enthusiasm generated in international policymaking circles by this new approach of development thinking, there is no agreement on this proposed direction for development policies and strategies. Critically, the reasoning and policy thinking exposed above seem to suffer from some shortcomings.

First, the reasoning often extrapolates trends from developed countries or more advanced developing economies to countries at the lower rungs of development. Therefore, it does not adequately take into account that structural conditions are markedly different in LDCs, in terms of capital and skills endowments, infrastructure, sectoral composition of productive sectors, etc.

Second, although there is undoubtedly a new pattern of structural transformation taking place in most LDCs, it does not necessarily mean that it is the most conducive to these countries' reaching their development goals, as attested by the very mixed growth and development record of this group of countries since the establishment of the LDC category (UNCTAD, 2021c).

Most LDCs face premature de-industrialization, with labour **shifting from agriculture to low-productivity services instead of manufacturing**

Third, debates and policy discourses often present the services sector as a bloc and therefore do not make the necessary differentiation required by the strong heterogeneity of the services sector, both within countries and among them. This diversity means that the technology and skill intensity of different services (sub) sectors, and their growth and development potential, vary significantly within and among countries at different levels of development.

Therefore, the rationale, arguments and evidence presented by the new development thinking must be critically examined in the light of the specific structural conditions of LDC economies and of these countries' developmental needs. The objective of *The Least Developed Countries Report 2025* is to unpack the reasoning behind the arguments for the reorientation of development strategies, and analyse the current state and recent trends of the services economy in LDCs. This enables a critical assessment of whether the conditions for the emergence of services sectors represent a sufficiently powerful lever for the structural transformation of their economies, which, as *The Least Developed Countries Report* series has long argued, is a sine qua non for them to reach their development goals (e.g. UNCTAD, 2014, 2021c). The present report draws on evidence informed by the performance, strengths and limitations in LDC economies, with a view to helping policymakers in LDCs and in their development partners gauge the real opportunities and navigate potential pitfalls of a radical policy shift in favour of services.

To answer this line of questioning, the report starts by highlighting the performance of the services sector in meeting the dual challenge of generating more and better jobs and accelerating productivity growth in LDCs. It shows that there are strong complementarities and synergies between services and industry, but that so far services have been a residual absorber of labour rather than a dynamic engine of productivity growth in LDCs (chapter II).

The report then analyses the patterns of trade in services of LDCs. It shows that these countries' exports are strongly concentrated in traditional sectors that are related to tourism, such as travel and transport. At the same time, it provides evidence that LDCs largely missed the global surge in international trade in the more modern and dynamic sector of business services and knowledge-intensive services, including digitally-delivered services (chapter III).

The report then presents a series of case studies which reveal how several LDC Governments have targeted specific service sectors (finance, tourism, logistics and transport), hoping that these sectors can leverage the structural transformation of national economies. These strategies are having different degrees of success and developmental impact, and they incur risks, of which policymakers need to be aware of (chapter IV).

The report concludes by recalling the overall lessons of the analysis and distilling policy priorities that are most likely to accelerate the structural transformation of LDCs (chapter V). There is not a choice between services and industry; rather, they need to be developed in tandem and the services sector needs to develop broad and deep linkages with other economic sectors (such as agriculture and industry), as well as among different services subsectors. This requires broad-based development policies and clear industrial policies to guide the process. Having the services sector well embedded into the national economy is the basis for expanding exports, by reaping existing opportunities in international markets. This in turn requires actively engaging in international trade negotiations at the bilateral, regional, continental and multilateral levels. LDC development partners need to support LDCs in this trajectory, not only by widening their market access in a meaningful way, but especially by providing much more proactive and decisive support to LDC service producers' developing and upgrading their productive capacities.

The report finds that services absorb labour but lack productivity dynamism, **offering limited support for structural transformation in LDCs**

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The Least Developed Countries Report 2025

Chapter II

Services in the structural transformation process of least developed countries

United Nations

A. Structural transformation pathways for the least developed countries

The populations of the least developed countries (LDCs) are growing rapidly. At the same time, structural economic challenges persist, making it difficult for these countries to fully leverage their growing labour forces. Hence, going forward, LDCs face the dual challenge of generating more and better jobs for their growing working-age populations and accelerating economic growth to reduce poverty and improve living standards. A critical question is whether — and how — LDCs can harness the growing role of services to tackle the dual challenge.

1. Introduction

Structural transformation refers to the reallocation of economic activity from low-productivity sectors, such as subsistence agriculture, to higher-productivity sectors, including manufacturing and services. Such productivity-enhancing structural change can also take place within these broad sectors: for instance, when labour moves from lower-productivity services such as retail to higher-productivity services such as finance. This process is fundamental to economic development, as it facilitates productivity gains, employment creation, growth in real incomes and overall economic diversification. In the context of LDCs, structural transformation is particularly critical, due to the pressing need for inclusive and sustained economic growth. Many LDCs remain heavily reliant on traditional, small-scale agriculture, a sector characterized by low productivity, vulnerability to climate shocks, and limited capacity for income generation. Consequently, shifting economic activity towards higher value added sectors is essential to fostering resilient and sustainable development. In line with this, the Doha Programme of Action for the Least Developed Countries underscores the critical role of structural transformation in the development process of the LDCs.[1]

Historically, the industrialization pathway has been central to structural transformation, with manufacturing serving as the primary driver of economic modernization. The manufacturing sector traditionally offered economies of scale, opportunities for technological learning, and higher labour productivity compared with agriculture and traditional services. In many successful development experiences, such as the East Asian economies of China and the Republic of Korea, industrialization facilitated rapid productivity growth, job creation and technological upgrading. One key advantage of the manufacturing sector is that it typically employs a significantly greater share of low-skilled workers than does the services sector (Hallward-Driemeier and Nayyar, 2018; UNCTAD, 2018). This feature is especially

[1] The term "structural transformation" appears 15 times across the Doha Programme of Action for the Least Developed Countries for the Decade 2022–2031.

critical in LDCs where a large portion of the workforce lacks higher education.[2] Another significant benefit of manufacturing is that manufactured goods are tradeable, meaning growth is not constrained by the size of the domestic market, which is small in many LDCs. Furthermore, it has been argued that there is unconditional convergence in manufacturing (Rodrik, 2013), meaning that it tends to catch up with advanced economies regardless of domestic policies, institutions or initial conditions. However, recent analysis has challenged the empirical validity of the latter point and found that, while aggregate labour productivity has converged across countries, productivity in agriculture and services has converged only slowly, and manufacturing has actually experienced divergence (Herrendorf et al., 2022). One contributing factor appears to be differing dynamics between formal and informal production, the latter being particularly prevalent in LDCs. Taken together, the literature indicates that sectoral convergence is sensitive to data coverage and economic composition, and services can be an important means of convergence.

A growing body of research has highlighted the phenomenon of premature deindustrialization (Rodrik, 2016; UNCTAD, 2016), a trend where economies deindustrialize at lower levels of income compared with historical patterns observed in advanced economies. Labour-saving innovation and technological change, such as automation, have been shown to lead to a declining demand for low-skilled workers in manufacturing (Acemoglu and Restrepo, 2019). If there are limits to the substitutability of low-skilled workers for skilled labour and capital, this technological change, originating largely in advanced economies, could also lower the absorptive capacity of the manufacturing sector in developing countries (Rodrik, 2022). Such a trend would have significant implications for LDCs, as it raises concerns about the viability of traditional industrialization as a development strategy.

Despite the recognized importance of structural transformation, many LDCs have struggled to leverage structural change to boost development (section II.B). The persistent dominance of agriculture and informal services in employment patterns underscores the slow pace and limited impact of transformation in these economies. This highlights the need to explore a broader set of development pathways – including both manufacturing and services – tailored to each country's unique context, capabilities and opportunities.

In recent years, there has been growing recognition of the potential role of the services sector in driving structural transformation. Services differ from goods in important ways and span a wide spectrum of activities (box II.1). The expansion of services – particularly in high value added areas such as information technology, finance and business services – offers new opportunities to achieve economic diversification and productivity growth. However, the challenge remains to ensure that the services sector develops in a way that supports broader economic transformation and employment generation, rather than reinforcing patterns of informality, low productivity and inequality.

[2] In the average LDC, 75 per cent of the labour force have basic or less than basic education. Simple average based on labour force surveys and household surveys from various years for 39 LDCs with available data in ILOSTAT; the latest available year for each country was used. Education levels are classified according to the 2011 version of the International Standard Classification of Education (ISCED). Less than basic means no schooling or only early childhood education; basic includes primary and lower secondary education.

Box II.1.
What are services?

The term "goods and services" is frequently used in statistical frameworks of national accounts and international trade. While the distinction between goods and services appears intuitively clear, an exact definition is not trivial. The 2025 edition of the System of National Accounts states that goods are "physical, produced objects, over which ownership rights can be established and whose ownership can be transferred", while services are "the result of a production activity that changes the conditions of the consuming units or facilitates the exchange of products or financial assets" (United Nations et al., 2025).

There are some products where these definitions do not yield a clear-cut distinction. For instance, so-called knowledge-capturing products such as software or music are often treated as services in statistical frameworks when delivered digitally, although they can also be classified as goods when distributed on physical media.

Goods and services can be delivered or consumed together, such as when dining at a restaurant. In this scenario, both tangible goods (food and beverages) and intangible services (such as preparation of the food and service by the waitstaff) are provided. Services can be consumed directly by consumers, but also be used as an input by businesses, such as when logistical or financial services are provided to an industrial firm.

There are different ways to categorize services. For instance, services can be divided into market services, such as retail trade and financial services, and non-market services, such as public administration and education. Another categorization is based on the intensity of knowledge required: knowledge-intensive services such as information technology, professional services, and research and development; and less knowledge-intensive services such as personal care and maintenance services. Producer services and consumer services are another categorization, where producer services support business operations, and consumer services are directly provided to individuals and households. A further distinction is made between traded services, which can be delivered across borders (e.g. consulting), and non-traded services, which are location-bound (e.g. local transport). However, digitalization increasingly blurs these boundaries, enabling some traditionally non-traded services to be delivered remotely. In the fourth revision of the International Standard Industrial Classification of All Economic Activities (ISIC), services sectors cover sections G to U (United Nations, 2008), as outlined in the table below.

In addition to these categorizations, it is important to distinguish between classification systems based on the nature of economic activity, such as ISIC, and those based on the nature of transactions, such as the balance of payments framework. While ISIC is used to classify productive activities within an economy – such as gross domestic product (GDP), employment, and productivity, which are the focus of chapter II – the balance of payments framework is designed to record all cross-border economic transactions, including trade in goods and services, income flows and financial transfers. A discussion of the balance of payments classification, as it applies to international trade in services, is introduced in chapter III, where the focus shifts from structural change within economies to external trade flows.

Services span a wide spectrum of activities across all areas of the economy

ISIC, Revision 4, services sectors

Section	Description
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence; compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other service activities
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
U	Activities of extraterritorial organizations and bodies

Source: UNCTAD.

As LDCs navigate the structural transformation process, understanding how services can offer additional avenues for growth is critical. This chapter highlights the dual challenge of employment generation and growth acceleration faced by LDCs, providing a critical lens through which structural transformation pathways need to be assessed. It explores the evolving landscape of services in LDCs, and analyses the opportunities and challenges associated with services-led structural change. In this chapter, "services-led" refers to a process in which the expansion and upgrading of services sectors – such as transport, finance, and information and communications technology (ICT) – play a central role in driving economic growth and structural transformation. Crucially, this approach is not viewed as an alternative to industrialization, but as a complementary pathway that works in close synergy with manufacturing and other productive sectors. By enhancing productivity, enabling value addition and supporting the competitiveness of goods-producing industries, services can reinforce and accelerate broader development goals. From this analysis, the chapter draws policy recommendations for harnessing the full potential of services for development. By doing so, it contributes to the ongoing debate on the pathways to structural transformation in LDCs and the role of services in shaping the future of these economies.

2. The dual challenge ahead: Generate employment and accelerate economic growth

Despite a gradual decline in fertility rates, population growth in LDCs remains steep, due to demographic momentum, high birth rates relative to global averages and improved child survival rates. Consequently, LDCs face immense challenges in generating sufficient employment to meet the needs of their expanding populations. The population of the current 44 LDCs has increased from 315 million in 1970 to an estimated 1.22 billion in 2025,[3] which corresponds to an average annual growth rate of 2.5 per cent over this period. By 2050, the LDC population is expected to reach 1.95 billion (figure II.1), an increase of 60 per cent within 25 years.

Furthermore, the young demographics of LDCs will drive rapid growth in their working-age populations (15–64 years of age), projected to rise by 76 per cent, from 702 million in 2025 to 1.23 billion in 2050 – at which point it will make up 20 per cent of the global working-age population.[4] At current labour force participation rates,[5] LDC economies will face an average of 13.2 million new job seekers per year from 2025 through 2050.[6] The largest projected average annual increases in the labour force are in the Democratic Republic of the Congo (1.9 million), Ethiopia (1.8 million), and the United Republic of Tanzania (1.4 million).

LDCs will face **13.2 million new job seekers** per year from 2025 to 2050

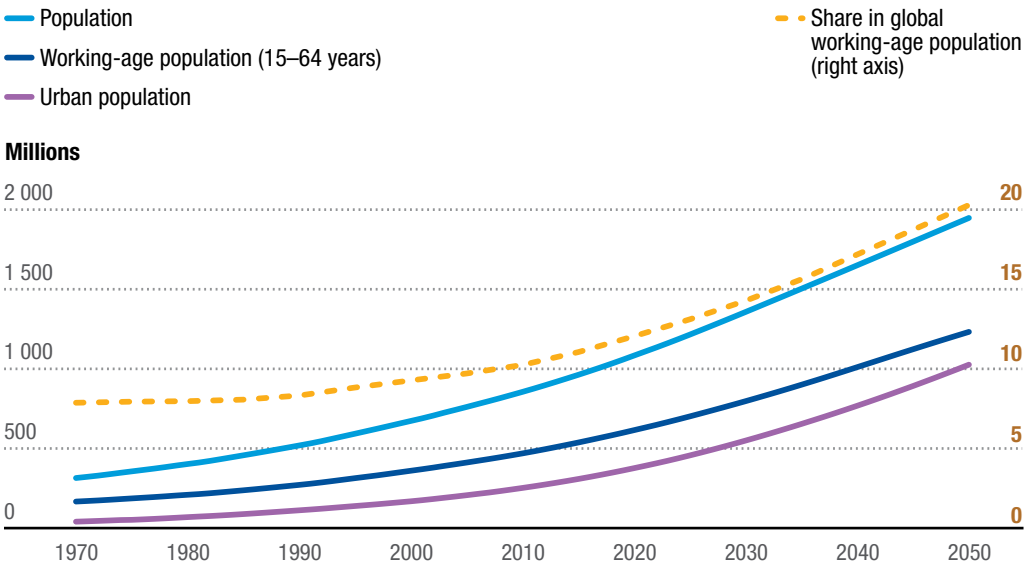
[3] Population data used for calculations in this chapter are from the UNCTADstat database.

[4] See annex table II.A1 for data for all LDCs.

[5] The labour force participation rate is defined as the proportion of the population 15–64 years of age that is employed or actively seeking employment.

[6] Calculation based on country-specific labour participation rates for 2025 from ILOSTAT and population data from the UNCTADstat database. Labour force participation rates of Kiribati and Tuvalu are missing.

Figure II.1.
The least developed countries face demographic pressures



Source: UNCTAD calculations based on the UNCTADstat database (accessed 10 March 2025).

Informal employment continues to be persistent and widespread in LDCs

In addition to the growth of the population and labour force in LDCs, urbanization introduces further socioeconomic dimensions. The share of the urban population in LDCs has almost tripled, from 12.9 per cent in 1970 to 37.6 per cent in 2025, and is expected to rise to 52.7 per cent in 2050. This means that, between 2025 and 2050, an additional 570 million people will live in cities in LDCs. While urban areas in LDCs are expanding, they are not always creating jobs at the necessary scale. In 2020, the median urban unemployment rate in LDCs was 10.3 per cent, more than three times the rural unemployment rate of 2.8 per cent,[7] [8] suggesting urban–rural duality in labour market outcomes, consistent with the Harris-Todaro model, which predicts that migration may continue despite urban unemployment, due to perceived higher expected incomes in cities (Harris and Todaro, 1970).

In 2020, urban unemployment was higher for 38 out of 42 LDCs for which there were data, and in 8 LDCs, the spread between urban and rural unemployment rates was larger than 10 percentage points.[9] Many urban migrants end up in informal, low-productivity employment (UNCTAD, 2014), and urban infrastructure struggles to keep pace with population growth. Without growth in the number of decent jobs in cities, LDCs risk experiencing rising urban unemployment and social instability (UNCTAD, 2013). Urban unemployment has a significant gender dimension, with women often facing higher joblessness than men, due to structural barriers and social norms. Youth unemployment is also notably high in urban areas, driven by factors such as limited entry-level opportunities, skills mismatches and barriers to labour market entry. In 2020, for example, the female urban unemployment rate exceeded that of men in 35 out of 42 LDCs with available data, while

[7] However, lower rural unemployment figures mask underemployment, particularly in subsistence agriculture, which is a common feature in many LDCs.

[8] Calculation based on ILOSTAT modelled estimates.

[9] These are Angola, the Democratic Republic of the Congo, Eritrea, Haiti, Nepal, Somalia, South Sudan and Timor-Leste.

the unemployment rate of urban youth (15–24 years of age) exceeded that of rural youth in 39 out of 42 LDCs with available data.

Informal employment – including self-employed workers, unpaid family labour and employees in unregistered firms – continues to be persistent and widespread in LDCs. The median share of informal employment (Sustainable Development Goal indicator 8.3.1) in LDCs is 89.5 per cent.[10] This presents a challenge, as informal firms are generally small, less productive and less likely to grow or innovate compared with formal firms (La Porta and Shleifer, 2014; UNCTAD, 2018). This means that, while the informal sector provides a safety net for those excluded from formal jobs, the persistence of large informal sectors in LDCs limits overall development by constraining productivity growth and the expansion of employment. Moreover, the combination of widespread informality and urbanization that fails to generate sufficient decent jobs weakens a country's fiscal capacity. Informal firms and workers typically operate outside the purview of the tax system, making it difficult for Governments to generate domestic revenue. For instance, according to Organisation for Economic Cooperation and Development (OECD) data for 24 LDCs, the average tax-to-GDP ratio in 2022 was just 14.6 per cent, compared with 19.5 per cent in other (non-LDC) developing economies (ODEs) and 34.9 per cent in developed economies.[11] This revenue shortfall undermines the ability of authorities to invest in housing, transport, sanitation and public utilities, which are essential for sustainable urban development.

Hence, a critical challenge for LDCs consists in the expansion of the quantity and quality of employment opportunities for their increasing labour forces and growing cities, in the absence of which a large share of new labour market entrants in LDCs will be forced into informal, low-productivity employment, exacerbating poverty and inequality. The persistently high working poverty rates in many LDCs (table II.1) underscore the urgent need not just for more jobs, but for better-quality employment that offers higher wages and improved working conditions.

A second key challenge for LDCs is to accelerate economic growth to address widespread poverty and meet development objectives. Current growth rates in LDCs remain far below the 7 per cent annual per capita real GDP growth called for in Target 8.1 (Sustainable Economic Growth) of Sustainable Development Goal 8 (Decent Work and Economic Growth). In 2024, none of the LDCs met the 7 per cent target, and the average per capita growth rate in LDCs corresponded to just 1 per cent. Sluggish output growth, together with rapid population growth, led to negative per capita GDP growth rates in 12 out of 44 LDCs in 2024. LDCs are also falling behind ODEs in terms of GDP per capita. From 1990 to 2024, the average GDP per capita in LDCs fell relative to that of ODEs, decreasing from 27.6 per cent to 17.0 per cent of the ODE average (figure II.2). The persistent gap in economic performance between LDCs and ODEs highlights the urgent need to boost growth in the former.

LDCs face the dual challenge of generating more and better jobs while ensuring sustained economic growth

[10] Calculation based on ILOSTAT data available for 34 LDCs. See annex table II.A2 for data for all available LDCs.

[11] Calculation based on OECD revenue statistics.

Table II.1.
Millions work yet remain poor in the least developed countries
Percentage of employed people living below $2.15 purchasing power parity (PPP) per day, 2024

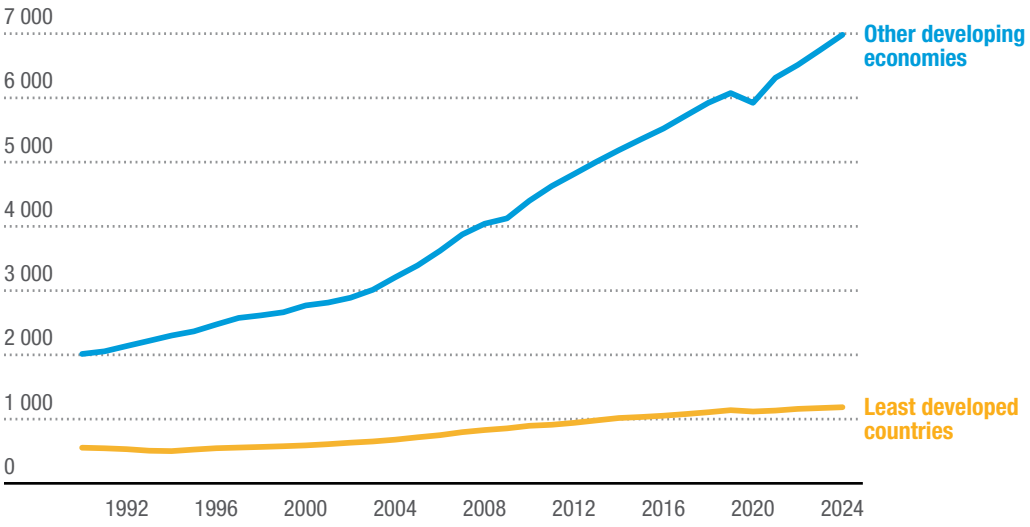
Country	Working poverty rate
Angola	31.5
Bangladesh	2.6
Benin	9.2
Burkina Faso	23.9
Burundi	58.1
Cambodia	14.1
Central African Republic (the)	65.7
Chad	29.2
Comoros (the)	14.8
Democratic Republic of the Congo (the)	72.8
Eritrea	31.2
Ethiopia	14.3
Gambia (the)	12.3
Guinea	12.6
Guinea-Bissau	21.6
Haiti	31.2
Lao People's Democratic Republic (the)	6.0
Lesotho	25.1
Liberia	27.5
Madagascar	77.6
Malawi	67.9
Mali	22.0
Mauritania	3.0
Mozambique	70.2
Myanmar	2.8
Nepal	0.2
Niger (the)	42.0
Rwanda	32.5
Senegal	10.4
Sierra Leone	27.3
Solomon Islands	30.7
Somalia	63.2
Timor-Leste	16.0
Togo	14.9
Uganda	35.3
United Republic of Tanzania (the)	39.8
Yemen	48.2
Zambia	59.9
LDC average	**30.7**

Source: UNCTAD based on ILOSTAT modelled estimates (accessed 18 July 2025).
Note: Data for Afghanistan, Djibouti, Kiribati, South Sudan, the Sudan and Tuvalu are missing.

In summary, LDCs face the dual challenge of generating employment at an unprecedented scale while ensuring sustained economic growth to eradicate poverty. The need for employment-intensive growth in the LDCs is not new, and has been discussed in a previous edition of this report (UNCTAD, 2013). The following sections analyse how and to what extent the services sector can contribute to addressing the dual challenge, highlighting its potential to foster both employment generation and economic growth in LDCs.

Figure II.2.
The least developed countries are falling behind in terms of output per capita

GDP per capita (Dollars at constant 2015 prices), 1990–2024



Source: UNCTAD calculations based on the UNCTADstat database (accessed 18 July 2025).

B. The role of services in structural transformation pathways

Recent employment and output trends show the growing importance of the services sector in LDC economies. However, the rise of services in LDCs has generated employment primarily in low-productivity and less knowledge-intensive services segments. At the same time, there are increasing links between manufacturing and services, and no indication of a deindustrialization of the global economy. Hence, a broad-based, balanced policy approach appears advisable that aims at developing services alongside manufacturing and strengthening linkages between sectors.

1. The rise of services in the least developed countries

The structural composition of economies undergoes change along their development trajectories. This change can be analysed through the lens of value added and employment,[12] key indicators that reveal the extent to which economic activity is reallocated across sectors, and how this reallocation contributes to productivity and economic growth. This section examines trends in sectoral shifts of value added and employment, and highlights why structural change patterns observed in LDCs have so far failed to address the dual challenge outlined in section II.A.

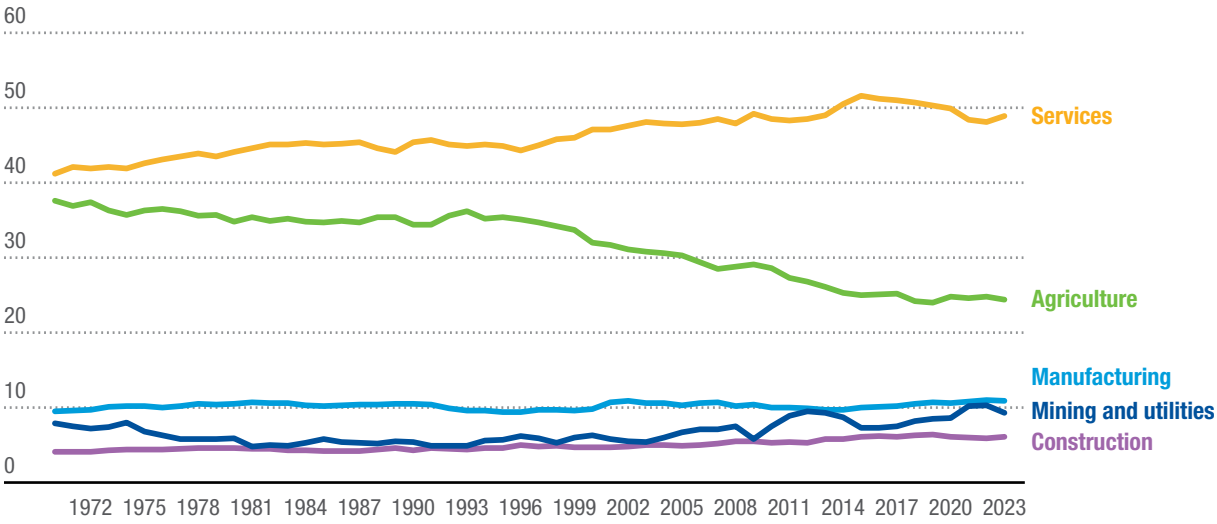
Since 1970, the change in the composition of value added in the average LDC has been characterized by a decrease in the weight of the agriculture sector and an increase in the weight of the services sector, while the share of manufacturing has remained virtually unchanged (figure II.3). In 2023, services was the largest contributor to value added, accounting for an average share of 48.9 per cent of GDP, followed by agriculture with 24.4 per cent, manufacturing with 10.9 per cent, mining and utilities with 9.3 per cent, and construction with 6.1 per cent. In other words, structural change in LDCs has favoured services growth rather than industrialization.

There are, of course, exceptions to this general trend (figure II.4). These notably include Bangladesh, Cambodia, Haiti and Myanmar, whose shares of GDP provided by manufacturing in 2023 were 23.1 per cent, 27.7 per cent, 25.2 per cent and 25.8 per cent, respectively. However, the manufacturing sector in all these countries is heavily concentrated in the garments and textiles sector.[13]

[12] Structural change can also be examined through shifts in the composition of foreign trade – particularly exports – as discussed in chapter III.

[13] This concentration is particularly strong in the export sector. The share of textiles and clothing (divisions 65 and 84 of the fourth revision of the Standard International Trade Classification) in total exports of manufactured goods in 2023 for Bangladesh, Cambodia, Haiti and Myanmar was 92.8 per cent, 52.1 per cent, 90.4 per cent and 60.6 per cent, respectively, according to data from the UNCTADstat database.

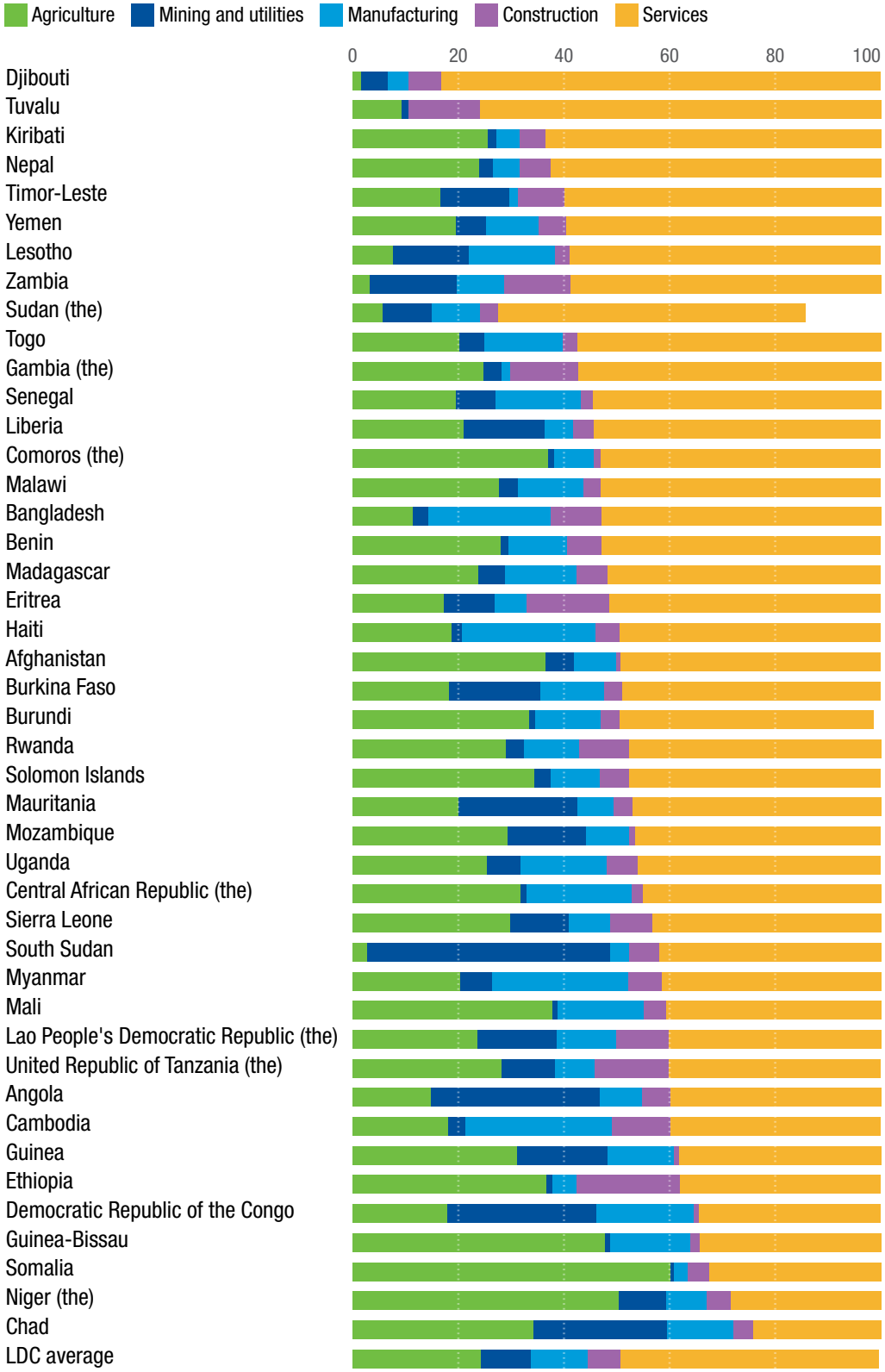
Figure II.3.
Rise of services instead of industrialization in the least developed countries
Value added by economic activity (percentage of GDP), 1970–2023



Source: UNCTAD calculations based on the UNCTADstat database (accessed 22 July 2025).
Note: Group simple averages.

This narrow specialization limits broader industrial diversification and makes these economies more vulnerable to sector-specific shocks, such as changes in global demand, trade policies or input costs. For seven other LDCs, the manufacturing share in output in 2023 was in the range of 15 to 20 per cent. In 39 out of 44 LDCs, the services sector was the largest contributor to GDP, while in 4 it was the agriculture sector, and in 1 the mining and utilities sector.

Figure II.4
Services make up the largest share of gross domestic product in most least developed countries
Value added by economic activity (percentage of GDP), 2023

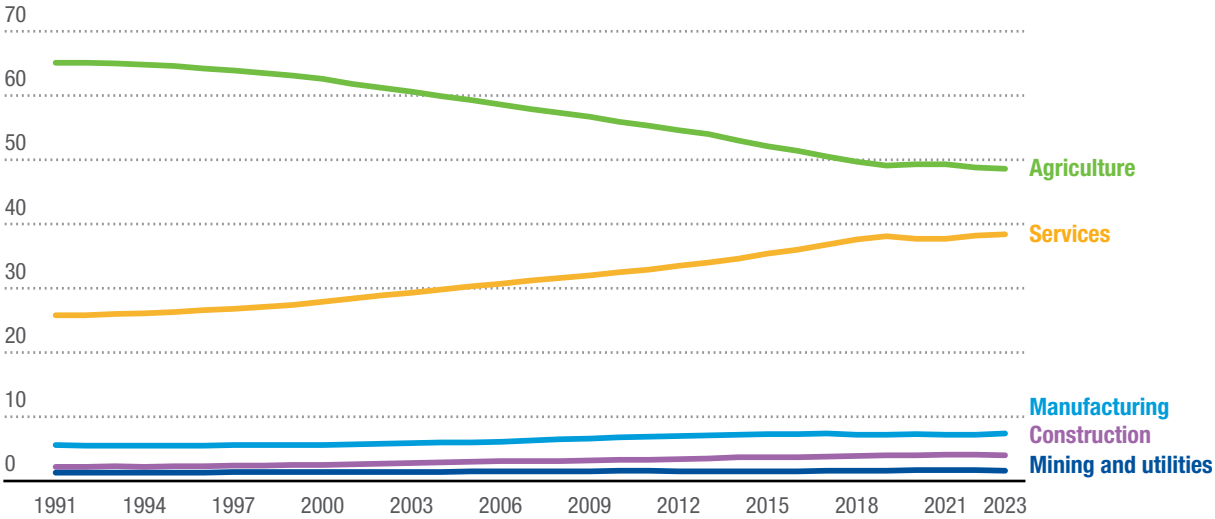


Source: UNCTAD calculations based on the UNCTADstat database (accessed 22 July 2025).

Average employment shares in LDCs have mirrored the trend in value added shares, with a consistent decrease of the share of agriculture accompanied by an increase of the share of services, while the share of manufacturing has stagnated (figure II.5). A major contrast with the evolution of output is that, despite this shift, agriculture remains the largest employer in the average LDC, accounting for 48.6 per cent of employment in 2023. The services sector follows with 38.4 per cent, manufacturing with 7.4 per cent, construction with 4.0 per cent, and mining and utilities with 1.7 per cent. The last figure underscores the limits of the extractives sector to contribute to addressing the employment challenge in LDCs, the majority of which are commodity-dependent developing countries (UNCTAD, 2023).

As is the case with value added shares, average employment shares mask substantial differences between individual LDCs. In 2023, the share of services in total employment in LDCs ranged from 11.9 per cent in Burundi[14] to 92.9 per cent in Djibouti, and the share of manufacturing ranged from less than 1 per cent in Djibouti to 22.9 per cent in Lesotho (figure II.6). The high services employment share in Djibouti is clearly linked to its role as a logistics hub and the importance of its port and related infrastructure (chapter IV), combined with a low share of arable land, which limits agricultural activity. Similar reasons may explain the relatively high services employment shares in Yemen (60.2 per cent) and Somalia (56.1), the LDCs with the second and third highest levels, respectively. LDCs with relatively low shares of services (below 30 per cent) include agrarian economies such as Burundi and Madagascar, but also LDCs with large extractives industries such as Chad, the Niger and South Sudan. Among the 42 LDCs with available data, the services sector was the largest employer in 18 countries, whereas agriculture remained the dominant source of employment in the remaining 24 countries.

Figure II.5.
Services employment is on the rise in least developed countries
Employment by sector (percentage), 1991–2023

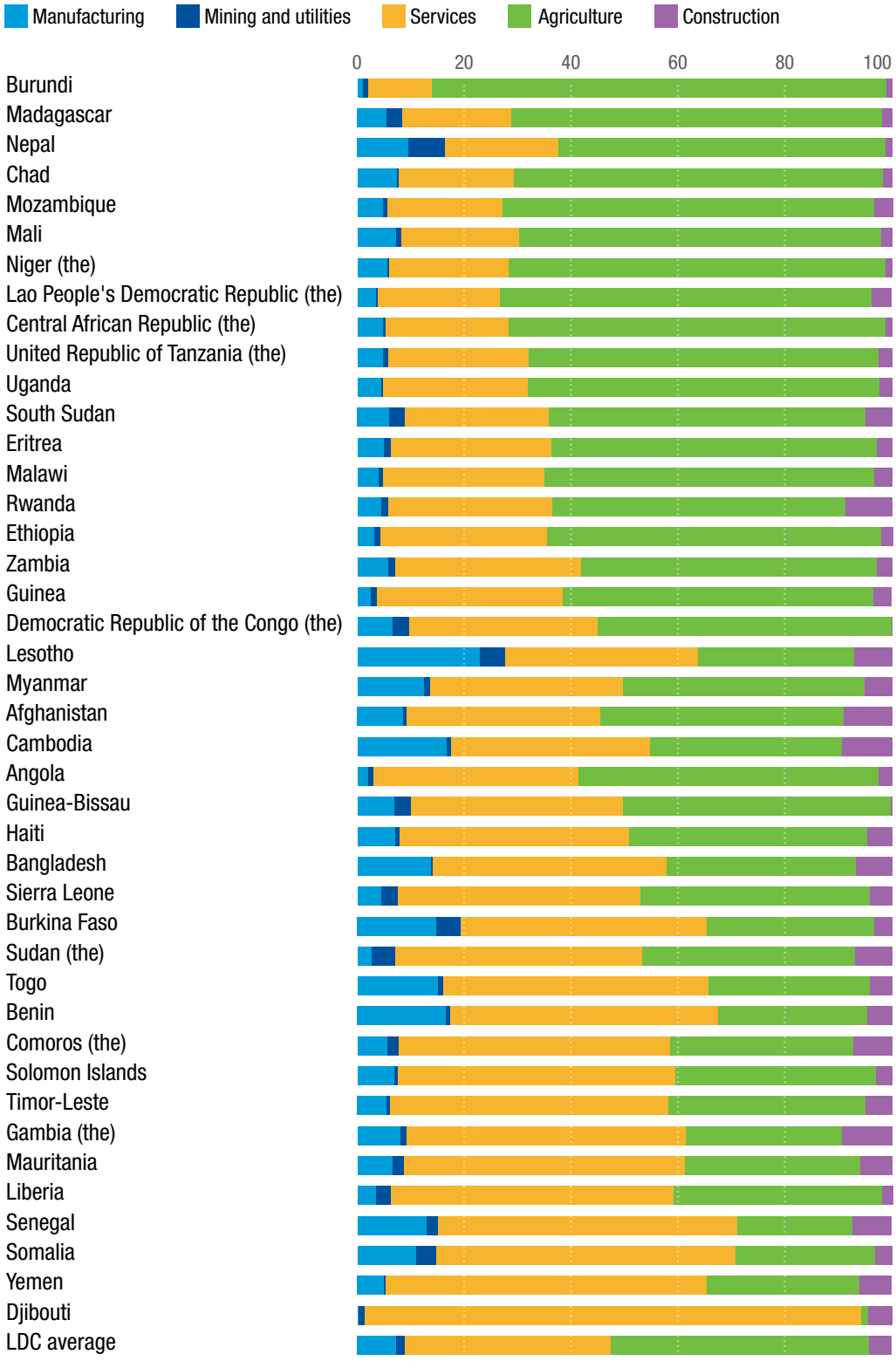


Source: UNCTAD calculations based on ILOSTAT modelled estimates (accessed 24 March 2025).
Note: Group simple averages. Data for Kiribati and Tuvalu are missing. Data for the Sudan are missing for 2023.

[14] Burundi is an outliner among LDCs, with Madagascar having the second lowest employment share in services at 20.5 per cent.

Figure II.6.
Agriculture remains a larger employer than services in the majority of least developed countries

Employment by economic activity (percentage of total employment), 2023



Source: UNCTAD based on ILOSTAT database (accessed 24 March 2025).
Note: Data for Kiribati and Tuvalu are missing. Data for the Sudan are for 2022.

Employment patterns differ significantly between LDCs as a group, ODEs and developed economies (table II.2). In the average developed economy, the services sector is the largest employer, accounting for a share of 70.7 per cent in 2023, followed by manufacturing with 13.6 per cent and agriculture with 6.4 per cent. In ODEs, the services sector is also the largest employer, with an average share of 60.7 per cent in 2023, followed by agriculture with 18.3 per cent and manufacturing with 10.0 per cent. In the average ODE, the employment share of the manufacturing sector has slightly declined, from 12.6 per cent in 1991 to 10.0 per cent in 2023, while the opposite is the case for the average LDC, where the share of manufacturing has increased, albeit from a low base, from 5.6 per cent in 1991 to 7.4 per cent in 2023.

Table II.2.
Employment patterns differ between least developed countries and other country groups
Shares in total employment (percentage), 1991–2023

	Agriculture			Manufacturing			Services		
	1991	2010	2023	1991	2010	2023	1991	2010	2023
Least developed countries	65.1	55.9	48.6	5.6	6.8	7.4	25.8	32.5	38.4
Other developing economies	29.4	22.6	18.3	12.6	10.4	10.0	49.1	56.5	60.7
Developed economies	13.9	8.7	6.4	21.5	14.6	13.6	55.3	66.9	70.7

Source: UNCTAD calculations based on ILOSTAT modelled estimates (accessed 24 March 2025).

Beyond broad sectoral comparisons, there are significant differences between LDCs, ODEs and developed economies when it comes to the distribution of employment across services subsectors. In this context, it is important to note, however, that the available data – ILOSTAT modelled estimates – on subsectoral services employment often aggregates a diverse range of economic activities and occupations with varying levels of complexity. Consequently, identical subsectoral employment shares can result from different distributions of employment within subsectors. These variations can lead to discrepancies in key indicators such as productivity. Table II.3 [15] summarizes the sectoral disaggregation of services employment data available in ILOSTAT modelled estimates, and categorizes services into knowledge-intensive, less knowledge-intensive, and non-market sectors, following the classifications in Sorbe et al. (2018) and UNCTAD (2020). In this classification, trade, accommodation and food services, and other personal services are considered less knowledge-intensive, while transport and communication, financial services and business services are categorized as knowledge-intensive. Public administration, education and health – typically provided largely by the public sector – are classified as non-market services.

Services span a diverse range of **activities and occupations**

[15] For clarity and efficiency, the short descriptions in table II.3 are used to refer to (groups of) services subsectors throughout the chapter, unless stated otherwise.

Table II.3.
Services span a wide spectrum of activities across all areas of the economy

Short description	Sections (ISIC, Revision 4)	Knowledge intensity
Transport and communication	H and J	Knowledge-intensive
Financial services	K	Knowledge-intensive
Business services	L, M and N	Knowledge-intensive
Trade services	G	Less knowledge-intensive
Accommodation and food services	I	Less knowledge-intensive
Other services	R, S, T and U	Less knowledge-intensive
Public administration	O	Non-market services
Education	P	Non-market services
Health	Q	Non-market services

Source: UNCTAD with knowledge intensity groupings according to Sorbe et al. (2018).
Note: Sorbe et al. (2018) is a study on OECD countries for which separate data for ISIC section H (transport and storage) and section J (information and communication) are available. There, section H is classified as less knowledge-intensive and J as knowledge-intensive. However, ILOSTAT modelled estimates include only the aggregated category H + J, which here is classified as knowledge-intensive, following the approach in UNCTAD (2020).

Services employment is concentrated in a narrow set of sectors in LDCs

As a general point, figure II.7 highlights that the services sector in LDCs is more concentrated than in other country groups. The Herfindahl–Hirschman Index for the distribution of employment across services sectors is 0.21 for LDCs, 0.14 for ODEs and 0.13 for developed economies.[16] Therefore, the services sector in LDCs is more concentrated than in other country groups, reflecting limited diversification.

The largest services subsector in all country groups is trade services (section G of ISIC). However, while this sector employed 38.9 per cent of service workers in the average LDC in 2023, the share was substantially lower in ODEs and developed economies, with average shares of 26 per cent and 18.8 per cent, respectively.

In the subsectors transport and communication (ISIC sections H and J), LDCs and ODEs had an identical employment share of 10.9 per cent on average, while developed economies had a somewhat larger share of 13.2 per cent. The point regarding subsectoral employment distribution must be restated here, as this subsector encompasses a wide range of occupations, from basic roles such as taxi drivers to highly specialized positions such as software engineers.

When it comes to services employment shares in accommodation and food services (ISIC section I), there are no large differences between country groups. In LDCs, this subsector employed 6.1 per cent of services workers on average in 2023, while the average shares for ODEs

[16] The Herfindahl–Hirschman Index is calculated by summing the squared employment shares of all services sectors, where each share is expressed as a proportion of the total; higher Herfindahl–Hirschman Index values indicate higher concentration in fewer subsectors. An alternative measure of concentration would be the coefficient of variation that expresses the standard deviation of services employment shares as a percentage of their mean; higher coefficient of variation values indicate higher concentration. The coefficient of variation for LDCs, ODEs and developed economies is 96 per cent, 53 per cent and 39 per cent, respectively.

and developed economies were 8.7 per cent and 6.7 per cent, respectively.

While the financial services subsector (ISIC section K) is a minor employer in all country groups, its average share is substantially larger in ODEs (3.1 per cent) and developed economies (4.2 per cent) than in LDCs, with 1.6 per cent.

Business services (ISIC sections L, M and N) features particularly strong disparities between LDCs and other country groups. In LDCs, this subsector employed 5.5 per cent of service workers on average in 2023, while the average shares for ODEs and developed economies were 9.7 per cent and 14.2 per cent, respectively.

Public administration (ISIC section O) employed an average of 6.9 per cent of service workers in LDCs in 2023, while the average shares in ODEs (11.3 per cent) and developed economies (9.4 per cent) were substantially larger.

The average share of education (ISIC section P) in services employment is similar across country groups, with 9.4 per cent in LDCs, 10.6 per cent in ODEs and 11.5 per cent in developed economies. Here it should be noted that, while the range of activities in this subsector is circumscribed more narrowly than in other services subsectors, it encompasses primary, secondary and higher education, so that differences in the subsectoral distribution of activities across educational levels can give rise to differences in productivity, wage levels and skill compositions.

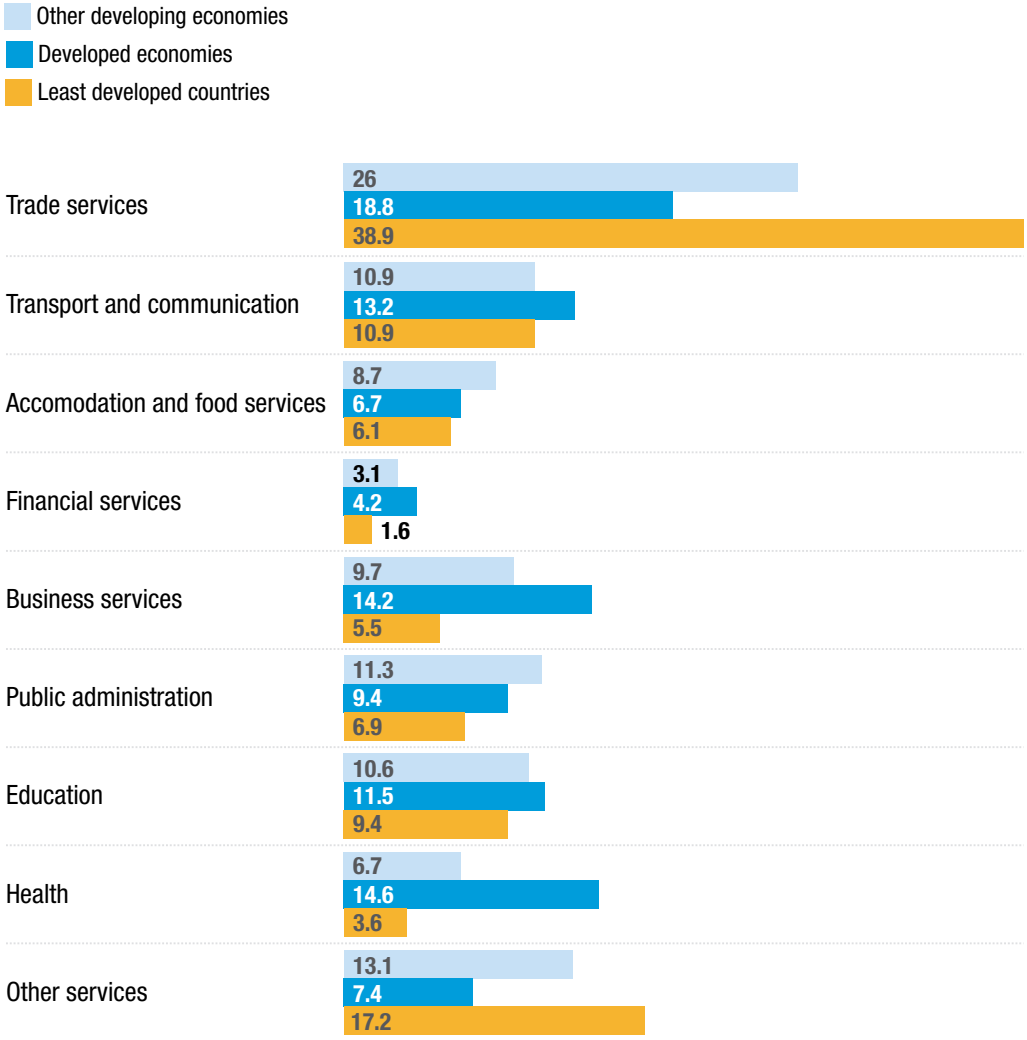
In health services (ISIC section Q), there are large differences across country groups, with an average share of 3.6 per cent in LDCs, but 6.7 per cent in ODEs and 14.6 per cent in developed economies.

Other services (ISIC sections R, S, T and U), includes the creative economy and sports, but also various repair activities, activities of membership organizations such as trade unions, activities of households as employers of domestic personnel, and personal services such as cleaning and hairdressing. This subsector was the second largest services employer in the average of LDCs, with a share of 17.2 per cent, but was substantially smaller in the average of ODEs (13.1 per cent) and developed economies (7.4 per cent).

In summary, trade services are the largest employer of services in LDCs, accounting for an average share of 38.9 per cent of services employment in 2023. This subsector is classified as less knowledge-intensive, and is characterized by low average education levels: 77.1 per cent of workers in trade services have only basic or less-than-basic education. The subsector is also highly gendered – in 2023, 45.5 per cent of all female services workers in LDCs were concentrated in trade services, compared with 32.6 per cent of men. These patterns indicate the prevalence of low-productivity, informal employment in this subsector, which, coupled with comparatively small employment shares in more knowledge-intensive activities, constrains the potential contribution of services to structural transformation and long-term growth in LDCs unless specific actions are taken (discussed in the final section of this chapter).

Women in LDCs face greater concentration in services employment

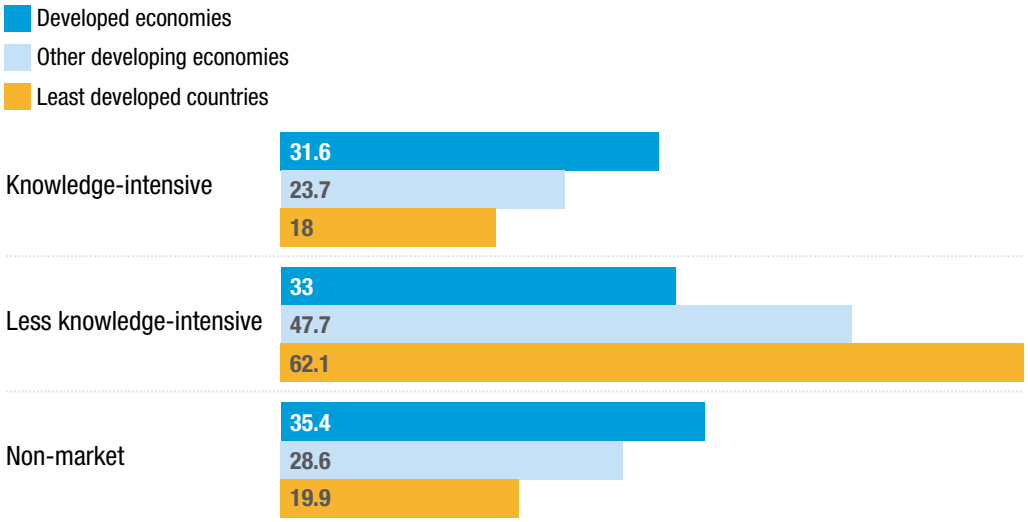
Figure II.7.
The services sector is highly concentrated in least developed countries
Employment by services subsector (percentage of total services employment), 2023



Source: UNCTAD calculations based on ILOSTAT database (accessed 24 March 2025).
Note: Simple group averages.

Differences in relative employment shares between country groups also translate into differences at the level of knowledge intensity. Again, there are substantial differences between LDCs and other country groups. In LDCs, less knowledge-intensive sectors employ the bulk of service workers, with an average share of 62.1 per cent in 2023 (figure II.8), which is much higher than in ODEs (47.7 per cent) and developed economies (33.0 per cent). The opposite is the case for knowledge-intensive services sectors, which only account for a share of 18.0 per cent in LDCs, but 23.7 per cent in ODEs and 31.6 per cent in developed economies. These service employment patterns are strongly gendered, with 77.5 per cent of female service workers in the average LDC employed in less knowledge-intensive sectors in 2023, compared with 50.0 per cent of male service workers, and just 6.8 per cent of female service workers in knowledge-intensive services compared with 26.6 per cent of male service workers.

Figure II.8.
Less knowledge-intensive sectors employ the bulk of service workers in least developed countries
Employment by knowledge intensity (percentage of total services employment), 2023



Source: UNCTAD calculations based on ILOSTAT database (accessed 24 March 2025).
Note: A definition of the sector classifications is provided in table II.3.

Overall, in LDCs, the share of service workers is lower than in other country groups in sectors that are indicative of modern economic activities, such as financial services and business services, and services sectors that contribute to human capital (health and education). On the contrary, the two largest service subsectors – trade services[17] and other services – which jointly account for an average share of 56 per cent of service employment in LDCs, while also encompassing a spectrum of activities, are more suggestive of low productivity "traditional" services occupations, such as in retail trade. As a consequence, the bulk of service workers in LDCs is employed in less-knowledge intensive services sectors.

An analysis of average education levels across services sectors reinforces this pattern and highlights clear disparities between country groups (table II.4).

In trade services – the largest services sector in LDCs – an average of 34.5 per cent of workers have less than basic education, and 42.6 per cent have only basic education. In contrast, just 18.1 per cent have intermediate education and only 6.2 per cent possess advanced education. In ODEs, by comparison, a significantly higher share of workers in trade services hold intermediate (39.5 per cent) and advanced (15.3 per cent) qualifications. A similar trend is observed in other services – the second largest services sector in LDCs – where 34.6 per cent of workers have less than basic education and 44.2 per cent have only basic education. Only 18.9 per cent of workers in this sector in LDCs have intermediate education and 6.9 per cent have advanced education. In contrast, ODEs display a considerably higher proportion of workers with post-basic education levels in these sectors. The smallest educational gap between LDCs and ODEs is found in financial

[17] An analysis of a global harmonized household survey database shows that, in developing countries, the share of workers with no or only primary education is highest in trade services and in accommodation and food services (Nayyar et al., 2021).

services and the education sector, where the share of workers with intermediate and advanced education is more comparable.

In LDCs, women employed in the two largest services subsectors – trade and other services – tend to have lower education levels than their male counterparts. In trade services, 83.6 per cent of female workers have only basic or less than basic education, compared with 73.7 per cent of men. In other services, the gap is similar: 85.6 per cent of women have no more than basic education, versus 78.4 per cent of men. These figures highlight not only women's higher concentration in trade services and other services, but also their relatively lower educational attainment within those services sectors.

Table II.4.
There are substantial differences in workers' education levels across services sectors and country groups

Share of employment (percentage) by education level, various years

Sector	Country group	Education level			
		Less than basic	Basic	Intermediate	Advanced
Trade services	Least developed countries	34.5	42.6	18.1	6.2
	Other developing economies	12.1	36.4	39.5	15.3
	Developed economies	0.9	15.4	57.1	28.4
Transport and communication	Least developed countries	27.4	45.4	20.0	9.7
	Other developing economies	10.3	33.7	40.1	21.4
	Developed economies	0.7	10.3	46.7	44.0
Accommodation and food services	Least developed countries	36.3	43.3	23.0	8.2
	Other developing economies	12.7	38.2	41.1	14.3
	Developed economies	1.1	21.2	59.7	20.1
Financial services	Least developed countries	12.7	21.3	31.4	56.2
	Other developing economies	2.7	13.7	35.2	58.6
	Developed economies	0.5	3.5	28.8	69.5
Business services	Least developed countries	25.5	32.1	27.3	27.6
	Other developing economies	6.2	27.1	35.0	35.8
	Developed economies	0.7	9.1	35.2	56.5
Public administration	Least developed countries	14.3	28.4	33.2	27.6
	Other developing economies	6.3	22.7	36.9	39.7
	Developed economies	0.5	5.8	37.3	57.7
Education	Least developed countries	8.6	12.8	36.2	45.8
	Other developing economies	3.6	11.0	26.5	63.3
	Developed economies	0.2	4.3	22.7	73.4
Health	Least developed countries	14.6	21.3	31.4	37.9
	Other developing economies	5.1	18.3	33.6	48.3
	Developed economies	0.5	8.0	40.7	52.1
Other services	Least developed countries	34.6	44.2	18.9	6.9
	Other developing economies	15.5	40.6	35.4	15.1
	Developed economies	2.0	13.3	48.2	39.3

Source: UNCTAD calculations based on ILOSTAT database (accessed 24 March 2025).
Note: Group simple averages. Data are based on labour force surveys and household surveys from various years; the latest available year for each country was used. There are data for 34 LDCS, 74 ODEs and 44 developed economies. Education levels are classified according to the 2011 version of the International Standard Classification of Education. Less than basic means no schooling or only early childhood education; basic includes primary and lower secondary education; intermediate includes upper secondary education and post-secondary non-tertiary education; and advanced includes short-cycle tertiary education, bachelor's, master's and doctoral levels.

Informality is another critical aspect, as it is particularly widespread in the services sector of urban areas in LDCs. Survey data for nine available LDCs among the World Bank Informal Sector Enterprise Surveys, which are representative at city level, show that the bulk of informal establishments in urban areas are in the retail sector (table II.5). Furthermore, the small size of informal establishments is striking across sectors, but in particular in retail trade. For instance, in the 23 cities shown in table II.5, one-person establishments made up an average of 56 per cent of retail businesses – higher than in other services (47 per cent) and manufacturing (50 per cent). This indicates that a substantial share of the urban informal economy in LDCs is composed of independent vendors operating at a small scale, often in low-capital, low-margin activities. This has important implications for the overall productivity of the services sector in LDCs, as discussed in the following section. Furthermore, in 15 of the 23 cities shown in table II.5, the majority of informal retail workers were women. This is in line with an International Labour Organization report that shows that women tend to be overrepresented in informal employment in trade services, which includes retail (International Labour Organization, 2023).

Retail trade represents the bulk of the urban informal economy in LDCs

Table II.5.
Retail trade represents the bulk of the informal economy in cities in least developed countries

Share of informal establishments (percentage) and average number of workers, various years

	Retail		Other services		Manufacturing	
Country/city	Share	Average number of workers	Share	Average number of workers	Share	Average number of workers
Bangladesh						
Chittagong	71.1	1.3	17.4	1.7	11.5	1.7
Cox's Bazar	66.2	1.9	14.0	2.3	19.9	2.0
Dhaka	79.8	1.4	12.6	2.2	7.6	2.3
Cambodia						
Battambang	73.1	1.6	25.3	1.4	1.6	2.0
Phnom Penh	71.2	1.3	27.0	1.2	1.7	1.5
Siem Reap	67.3	1.7	31.2	1.6	1.5	2.0
Sihanoukville	68.2	1.1	31.0	1.2	0.8	3.0
Central African Republic (the)						
Bangui	74.8	1.3	13.3	1.8	11.9	1.6
Berberati	75.9	1.3	5.1	1.5	19.0	1.3
Lao People's Democratic Republic (the)						
Pakse	77.3		12.5		10.2	
Vientiane	68.1	2.0	14.3	2.0	17.6	4.8

Country/city	Retail		Other services		Manufacturing	
	Share	Average number of workers	Share	Average number of workers	Share	Average number of workers
Mozambique						
Beira	79.5	1.1	16.7	2.8	3.8	
Maputo	82.2	2.3	11.2	2.0	6.7	3.5
Nampula	69.1	1.7	9.8	1.3	21.1	1.5
Somalia						
Bosaso	63.3	1.6	8.3	2.1	28.4	1.8
Mogadishu	65.2	1.8	4.7	3.3	30.1	2.1
Sudan (the)						
Khartoum	63.5	1.5	10.3	4.4	26.2	1.8
Omdurman	61.0	1.5	21.7	2.0	17.3	2.0
Port Sudan	56.0	1.5	24.1	2.0	19.8	1.6
United Republic of Tanzania (the)						
Dar es Salaam	79.2	1.4	13.7	1.4	7.2	1.5
Zambia						
Kitwe	84.7	2.5	10.4	3.5	4.9	3.3
Lusaka	78.7	1.5	12.2	1.7	9.1	1.9
Ndola	68.6	1.9	10.6	1.9	20.8	2.1
Average of included cities	**71.5**	**1.6**	**15.5**	**2.1**	**13.0**	**2.1**

Source: UNCTAD calculations based on World Bank Informal Sector Enterprise Surveys database, available at https://www.enterprisesurveys.org/en/enterprisesurveys (accessed 02 April 2025).
Note: Average number of workers corresponds to the survey item "average number of workers during a regular month (last year)".

2. Services and labour productivity trends in least developed countries

Labour productivity refers to the amount of output produced per unit of labour, typically measured as output per worker or output per hour worked. Since labour productivity is closely related to GDP per capita – the latter is the product of the former and the employment-to-population ratio[18] – enhancing labour productivity is crucial for economic growth and the improvement of living standards in LDCs. This significance is highlighted in the Sustainable Development Goals framework, specifically target 8.2, which aims to "achieve higher levels of economic productivity through diversification, technological upgrading and innovation, with a focus on high value-added and labour-intensive sectors". Indicator 8.2.1 measures the annual growth rate of real GDP per employed person, i.e. labour productivity.

Labour productivity has three determinants. First, capital intensity, measured as the capital-to-labour ratio, reflects the extent to which workers are equipped with physical assets such as tools, machinery and equipment. A higher capital intensity generally enhances productivity by enabling workers to perform tasks more efficiently, reduce manual effort and leverage advanced technologies. Second, human capital – encompassing workers' education, skills and health – plays a crucial role in determining labour productivity. A healthier and more educated and skilled workforce is better able to perform tasks efficiently, adapt to new technologies and contribute to innovation. Investment in education and vocational training, alongside improvements in healthcare and working conditions, can enhance human capital and, in turn, labour productivity. Third, total factor productivity (TFP), also known as the Solow residual, captures efficiency gains that cannot be attributed to capital or labour inputs. TFP reflects advancements in technology, improvements in managerial practices and organizational processes, as well as institutional factors such as governance and regulatory efficiency.

Over the past three decades, labour productivity in LDCs has not increased at the speed required to drive meaningful GDP per capita growth and development. In the period 1991–2024, the median real labour productivity measured in constant prices and using purchasing power parities (PPPs)[19] in LDCs increased from $5,430 to $8,579, which corresponds to a compound annual growth rate of 1.4 per cent (figure II.9). In 2024, the labour productivity level in the median ODE was more than 5 times higher ($45,134) while it was more than 11 times higher in the median developed economy ($100,487). It is important to note that labour productivity levels differ substantially across LDCs. In 2024, this spectrum ranged from $1,916 in Burundi to $40,163 in Djibouti. Moreover, labour productivity growth in LDCs was more volatile than in ODEs and developed economies, with the average standard deviation of annual growth rates at 5.4 per cent, compared with 5.0 per cent and 3.4 per cent, respectively. Such volatility may reflect heightened vulnerability to external shocks, such as commodity price swings or global demand fluctuations, as well as weaker institutional and structural capacities to sustain steady productivity gains over time.

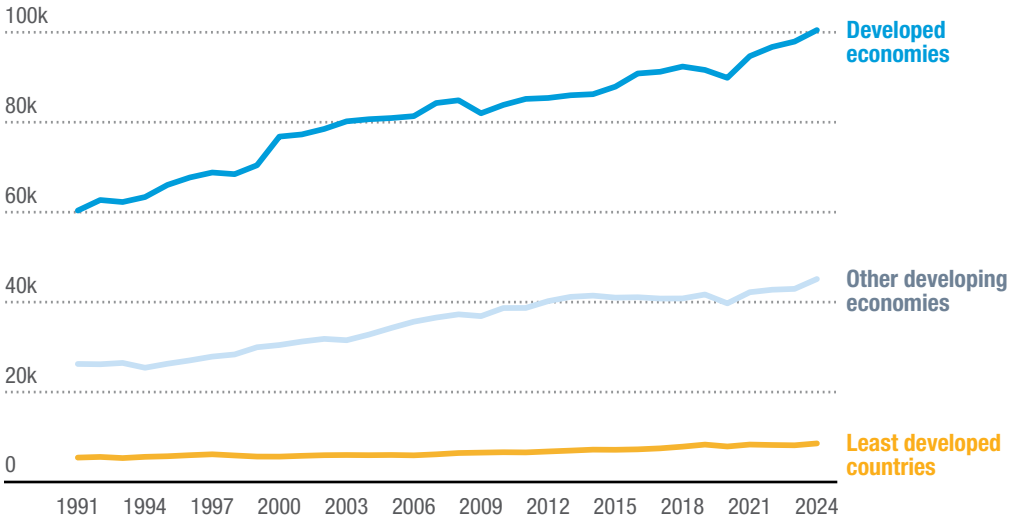
Labour productivity in LDCs has not increased at the speed required to drive meaningful growth

[18] Measured at $\frac{GDP}{population} = \frac{GDP}{L} \times \frac{L}{population}$, where L equals employment and $\frac{GDP}{L}$ equals labour productivity.

[19] As countries measure GDP in domestic currencies, cross-country comparisons of GDP and GDP-based quantities such as labour productivity require currency conversions. PPPs are better suited than nominal exchange rates in such cross-country comparisons, as they correct for price differences between countries. This is particularly important when countries at different stages of development are compared, as higher-income countries tend to have higher price levels than lower-income countries do.

Figure II.9.
Labour productivity is not growing at the required speed in least developed countries

GDP per worker (constant 2021 international dollars at PPP), 1991–2024



Source: UNCTAD calculations based on ILOSTAT modelled estimates.
Note: Group medians. Data for Kiribati and Tuvalu are missing.

Intrasectoral productivity gains are necessary given the large gap between productivity levels in LDCs and other economies

Economy-wide (or aggregate) labour productivity is determined by both the productivity levels in and employment distribution across different sectors. It is thus calculated as the weighted sum of sectoral labour productivity levels, where each sector's contribution is determined by its share of total employment. Hence, economy-wide labour productivity growth can result from productivity gains within individual sectors, as well as from productivity-enhancing structural change, which occurs when labour shifts from lower-productivity sectors to higher-productivity ones.[20]

Both channels of productivity growth are crucial for LDCs. On the one hand, intrasectoral productivity gains are necessary and possible in view of the large gap between productivity levels in LDCs and ODEs and developed economies. The persistently high working poverty rates in many LDCs can only be overcome if there is productivity growth within sectors, enabling higher wages and improved working conditions. In this context, it has been shown that firms with higher labour productivity pay higher wages (Berlingieri et al., 2018). On the other hand, structural change is crucial for labour productivity growth in LDCs, as their economies feature substantial differences in productivity levels across sectors. In particular, in many LDCs, agriculture is the least productive sector, but employs large shares of the labour force (section II.B.1).

It is important to note that cross-country differences in aggregate labour productivity levels do not imply uniform productivity gaps across sectors. For instance, it is possible that a country's manufacturing sector is far behind the global productivity leaders, but that its services sectors are much closer to the frontier. Such differences are relevant, as they indicate the potential for within-sector growth in specific sectors.

[20] If labour moves from higher-productivity sectors to lower-productivity sectors, structural change can also have a negative effect on economy-wide labour productivity.

A detailed comparison of sectoral labour productivity levels between LDCs and other country groups is challenging, due to data limitations, particularly the absence of appropriate sector-specific PPP conversion factors.[21] However, recently, the Productivity Level database (Inklaar et al., 2023) of the Groningen Growth and Development Centre (GGDC) has been updated to include relative prices at sectoral level, including for 12 LDCs,[22] 33 ODEs and 39 developed economies. While this data set covers only about a third of the 44 current LDCs, it can be used to generate rough estimates of the gaps of differences in sectoral labour productivity levels between LDCs and other country groups, and illustrate the role of services sectors in this context.[23]

Table II.6 shows median labour productivity levels across services subsectors and other sectors of the economy for LDCs and other country groups, which highlights three important points with respect to the potential of services to address the dual challenge.

First, among all services subsectors, the largest gap between current labour productivity levels in LDCs and ODEs is in financial services. This contrasts with the relatively small educational gap in the same sector, suggesting that differences in the quality of education, as well as factors beyond education – such as technology, infrastructure or regulatory environment – play a significant role in driving productivity differences. Moreover, the financial services sector is, by far, the smallest in terms of employment shares across country groups, thus limiting the sector's potential for employment generation and as a driver of economy-wide productivity growth.

Second, among all services subsectors, the productivity gap between LDCs and developed economies is widest in trade services, highlighting the sector's considerable long-term potential for productivity growth. Since trade services also represent the largest source of employment within the services sector in LDCs, improvements here could generate significant aggregate productivity gains, thereby contributing to the growth dimension of the dual challenge. However, because trade services account for a higher share of services sector employment in LDCs compared with ODEs and developed economies, the scope for further employment expansion within the sector may be limited. Instead, the sizeable productivity gap suggests untapped potential for within-sector transformation. This could be achieved not only through productivity gains at the firm level, but also via intrasectoral structural change – namely, a shift in employment and output toward higher-productivity segments such as wholesale trade, and away from lower-productivity segments such as retail and repair services.

Third, the productivity gap between LDCs and developed economies is greater in manufacturing than in any services sector, pointing to substantial long-term growth potential in the sector. As LDCs currently exhibit a lower share of employment in manufacturing compared with ODEs and developed economies, the sector holds promise, not only for driving productivity gains, but also for expanding employment, particularly in labour-intensive, value added areas such as agroprocessing or light manufacturing.

[21] Most available PPP estimates are designed for aggregate price levels and consumer purchasing power, rather than sector-specific producer price differences. This makes it difficult to accurately compare productivity across industries, as sectoral cost structures may vary widely between countries. For example, a country with low consumer prices may still have high manufacturing input costs.

[22] These are Bangladesh, Cambodia, Ethiopia, the Lao People's Democratic Republic, Malawi, Myanmar, Nepal, Rwanda, Senegal, the United Republic of Tanzania, Uganda and Zambia.

[23] There are four differences in how ISIC Revision 4 (United Nations, 2008) codes are grouped into sectors between this data set and the employment data presented in table II.3. First, in the Productivity Level database, trade services also include accommodation and food services. Second, the Productivity Level database treats real estate as a stand-alone sector. Third, the Productivity Level database includes information and communication in business services, rather than grouping it with transport services. Fourth, the Productivity Level database groups public administration, education and health as government services.

Table II.6.
Labour productivity levels and growth potential vary across services sectors
Value added per worker (constant international dollars, PPP adjusted), 2017

Sector	Least developed countries	Other developing economies	Developed economies	Multiplier to other developing economies	Multiplier to developed economies
Services					
Trade services	6 288	16 616	56 903	2.6	9.0
Transport services	16 188	44 481	50 094	2.7	3.1
Business services	30 219	45 067	65 082	1.5	2.2
Financial services	31 084	102 382	167 570	3.3	5.4
Other services	8 799	24 266	45 781	2.8	5.2
Government services	26 480	56 931	94 829	2.1	3.6
Other sectors					
Agriculture	675	4 640	33 890	6.9	50.2
Mining	4 597	56 058	76 573	12.2	16.7
Utilities	33 336	118 673	93 885	3.6	2.8
Manufacturing	5 613	15 728	66 159	2.8	11.8
Construction	69 187	127 686	198 234	1.8	2.9

Source: UNCTAD calculations based on Groningen Growth and Development Centre Productivity Level database, available at https://www.rug.nl/ggdc/productivity/pld/releases/pld-2023 (accessed 19 March 2025).
Note: Group medians. Real estate is not included due to missing data points and outliers.

To assess sectoral labour productivity trends over time and across countries, a comparison between growth rates rather than levels can be used, which is generally easier and more reliable, because growth rates are measured as percentage changes and do not require currency conversions or PPP adjustments.

The following analysis is based on data in the GGDC/United Nations University-WIDER Economic Transformation Database (ETD) (Kruse et al., 2023), which contains data on value added at constant prices and persons employed for 12 sectors for the period 1990–2018. The data set covers 51 countries, among which are 15 LDCs,[24] including all 12 LDCs that are also in the Groningen Growth and Development Centre Productivity Level database, 33 ODEs and 3 developed economies. It employs the same sectoral grouping as the Productivity Level database.

Over the period 1990–2018, the compound annual growth rate of aggregate labour productivity growth rates of LDCs included in ETD was 3.3 per cent, and thus larger than in the average ODE, at 2.1 per cent. These growth rates differ from those based on the ILOSTAT data shown in figure II.10, primarily due to the fact that they are based on a smaller country sample, including 15 rather than 42 LDCs. Also, the period covered by ETD data is shorter than in figure II.10.

Cross-checking the data sets by calculating labour productivity growth rates for the 15 LDCs and time period available in ETD based on ILOSTAT data yields a compound annual growth rate of 3.2 per cent, indicating a reasonable degree of consistency across data sets.

[24] These are the 12 LDCs listed in footnote 21 plus Burkina Faso, Lesotho and Mozambique.

It must be noted that the LDCs included in ETD are those with higher average productivity growth in the past three decades. For instance, the compound annual growth rate of the 27 LDCs included in ILOSTAT but not ETD was 0.44 per cent in the period 1990–2018, thus substantially below the 3.3 per cent of the 15 LDCs included in ETD. A similar pattern is observed among ODEs, where those included in ETD had a higher compound annual productivity growth rate of 2.1 per cent, compared with just 1.4 per cent for those included in ILOSTAT but not in ETD. Hence, the comparisons between LDCs and ODEs shown in table II.7 should be seen as a comparison of the better performers in each group.

For the analysis of sector labour productivity trends, the period 2010–2018 is considered, as many countries, especially LDCs, had extremely low employment levels in key services sectors such as finance and business at the beginning of the time series in 1990, which would bias growth rates if the entire time series were considered. First, an analysis of sectoral labour productivity growth in the period 2010–2018 reveals that the labour productivity in trade services, the subsector employing the largest share of service workers in LDCs, grew at a compound annual growth rate of only 0.1 per cent – i.e. almost stagnated – and was slower than in agriculture and manufacturing (table II.7). Also, trade services productivity growth was substantially higher in ODEs, at 1.9 per cent. Second, among market services, labour productivity growth was fastest in business services and financial services, highlighting the potential of these sectors to generate value added and decent jobs. Growth in other services in LDCs was 1.0 per cent, only a third of the 3.1 per cent recorded in ODEs. And growth in transport services was slightly negative, at 0.2 per cent in LDCs, while it grew at 1.5 per cent in ODEs.

These trends underscore several key points. First, a sole focus on services-led development may not be sufficient to drive overall productivity growth, particularly if employment expansion is concentrated in low-productivity services sectors, as is currently the case in many LDCs. Second, the slow productivity growth in these sectors suggests the need for targeted policies to enhance efficiency, skills development and technological adoption. Third, the healthy productivity growth rates in financial services and business services in LDCs, which are close to the average productivity growth rates observed in ODEs, underscore the potential of these sectors as catalysts for higher value added, better-quality jobs and knowledge spillovers, provided that LDCs can expand access to these sectors and strengthen the skills and infrastructure they require. Fourth, the stark differences in productivity growth between LDCs and ODEs across the same services subsectors indicate that international competitiveness and integration into higher-value segments are lagging in many LDCs, but also suggest opportunities for future growth. Fifth, the divergence between employment and productivity growth across sectors highlights the importance of a balanced development strategy that fosters both structural transformation and productivity improvements across industries.

Data suggest substantive productivity dispersion among services firms in LDCs

Table II.7.
Labour productivity growth rates vary across services sectors
Compound annual growth rates, 2010–2018

Sector	Least developed countries	Other developing economies
Services		
Trade services	0.1	1.9
Transport services	-0.2	1.5
Business services	1.2	1.4
Financial services	2.2	2.6
Other services	1.0	3.1
Government services	1.8	1.5
Other sectors		
Agriculture	3.0	2.6
Mining	0.0	1.4
Utilities	2.7	1.9
Manufacturing	1.2	1.5
Construction	2.3	1.2

Source: UNCTAD calculations based on ETD, available at https://www.rug.nl/ggdc/structuralchange/etd/ (accessed 20 March 2025).
Note: Group simple averages. Real estate is not included due to outliers. Developed economies are not shown as there are only three developing economies in the data set.

The persistently low levels of labour productivity and sluggish intrasectoral productivity growth in services sectors that employ the bulk of service workers in LDCs underscore deeper structural challenges. A closer examination of the three core drivers of productivity growth – human capital, capital intensity and total factor productivity (TFP) – reveals that LDCs face significant shortfalls across all dimensions (table II.8). Understanding the specific constraints within each of these areas is critical to identifying effective policy levers for accelerating productivity and supporting sustained economic development.

Taken together, the three indicators presented in table II.8 provide complementary evidence that LDCs continue to face persistent human capital constraints. LDCs lag in terms of education and health, which is hardly surprising, as these are among the criteria used to define the LDC category. Consequently, there is a substantial gap between LDCs and ODEs in the Human Assets Index, which is a composite index including both health and education indicators. The human capital index from the Penn World Tables, which accounts for average years of schooling and estimated returns to education, underscores these discrepancies. The World Bank's human capital index – a composite index that evaluates the future productivity of a child born today by assessing health and education outcomes, including survival rates, schooling years and learning quality – also highlights the substantial gap between LDCs and ODEs. Moreover, a recent study confirms the existence of significant gaps in basic skills and student achievements across countries, with LDCs scoring substantially lower than ODEs[25] (Gust et al., 2024).

[25] UNCTAD calculation based on data included in Gust et al. (2024).

Table II.8.
There is room for improvement across labour productivity drivers in least developed countries
Human capital index, capital-to-employment and TFP, various years

		Least developed countries	Other developing economies	Developed economies
Human capital	**Human Assets Index (2024 triennial review data set)**	59.6	88.0	
	Human capital index (2019, Penn World Table)	1.75	2.70	3.42
	Human capital index (2020, World Bank)	0.40	0.55	0.72
Capital stock per employed person (2023, constant 2021 dollars, PPP-adjusted)		24 864	183 833	524 717
Total factor productivity level at current PPPs (2019, United States of America=1)		0.36	0.64	0.77

Source: UNCTAD calculations based on United Nations Committee for Development Policy Secretariat, Triennial review data set 2000–2024, available at https://www.un.org/development/desa/dpad/least-developed-country-category/ldc-data-retrieval.html (accessed 3 December 2025); Penn World Table version 11.0, available at https://www.rug.nl/ggdc/productivity/pwt/ (accessed 19 March 2025); and World Bank World Development Indicators database (accessed 19 March 2025).

Note: Group simple averages for human capital and TFP, group medians for capital stock per employed person. Country coverage varies by indicator. The Human Assets Index is a composite indicator combining health metrics (such as under-5 mortality, maternal mortality and undernourishment) with education metrics (such as secondary enrolment and adult literacy). The Penn World Table's Human Capital Index is constructed from average years of schooling and estimated returns to education. The World Bank's Human Capital Index estimates the productivity of a child born today based on education quality and health indicators. While the Human Assets Index highlights deficits in foundational human assets, the Penn World Table index captures the quantitative schooling gap, and the World Bank index shows how quality and health shortfalls limit future productivity.

There is ample empirical evidence of the link between human capital and capital per worker, on the one hand, and growth on the other (Barro, 1991; Mankiw et al., 1992; Rossi, 2020). Human capital and capital per worker account for a substantial share of labour productivity differences across countries (Hall and Jones, 1999). Several studies have focused on skills and other workforce-related indicators, finding a robust relationship between cognitive skills and growth (Hanushek and Woessmann, 2012), and establishing that skill-intensive industries grow faster in terms of value added and employment in countries with a more skilled labour force (Ciccone and Papaioannou, 2009). A recent literature review that also includes replications with updated data series finds that human capital is an important determinant of income differences between countries (Rossi, 2020).

The gap in capital intensity between LDCs and ODEs is particularly striking. While in 2023 the average capital stock per employed person in LDCs was $24,864, the figure for the average ODE was more than seven times higher at $183,833. The gap between LDCs and developed economies is even larger, with the latter having a capital intensity more than 20 times larger than the former.

Average TFP values show that productivity differences exist between LDCs and other country groups beyond those explained by factor intensities. As is the case for capital per worker, the gap between LDCs and ODEs is larger than between ODEs and developed economies. Such TFP differences have been shown to account for a substantial portion of cross-country income variations (Jones, 2016). Numerous studies have examined cross-country differences in TFP, arguing that a technology–skill mismatch, which limits the ability of countries to fully benefit from technological advances, may be a key factor behind cross-country productivity differences (Acemoglu and Zilibotti, 2001), and finding that misallocation of resources such as capital and labour within firms lowers TFP (Hsieh and Klenow, 2009). Digital technology adoption, on the other hand, has been found to raise TFP (Cusolito et al., 2020).

One factor contributing to slower productivity growth in services within LDCs could be firm size. There is a rich empirical literature that establishes a link between firm size and productivity across different contexts (Berlingieri et al., 2018; OECD, 2025; UNCTAD, 2018). In a contribution particularly relevant to the LDC context, single-person establishments tend to be less efficient than larger ones, potentially because they are often created as a form of subsistence by individuals unable to find employment in the job market (Liedholm and Mead, 1987). In a study on African manufacturing sectors, large firms were found to have higher productivity levels and were more likely to survive (Van Biesebroeck, 2005). A broad study based on World Bank Enterprise Survey data shows that large firms tend to have higher levels of labour productivity than small and medium-sized enterprises, mostly due to their higher capital-to-labour ratio, but partially also driven by higher TFP (Ciani et al., 2020). Furthermore, firm data from LDCs reveal a significant positive correlation between firm size and labour productivity growth (UNCTAD, 2018).

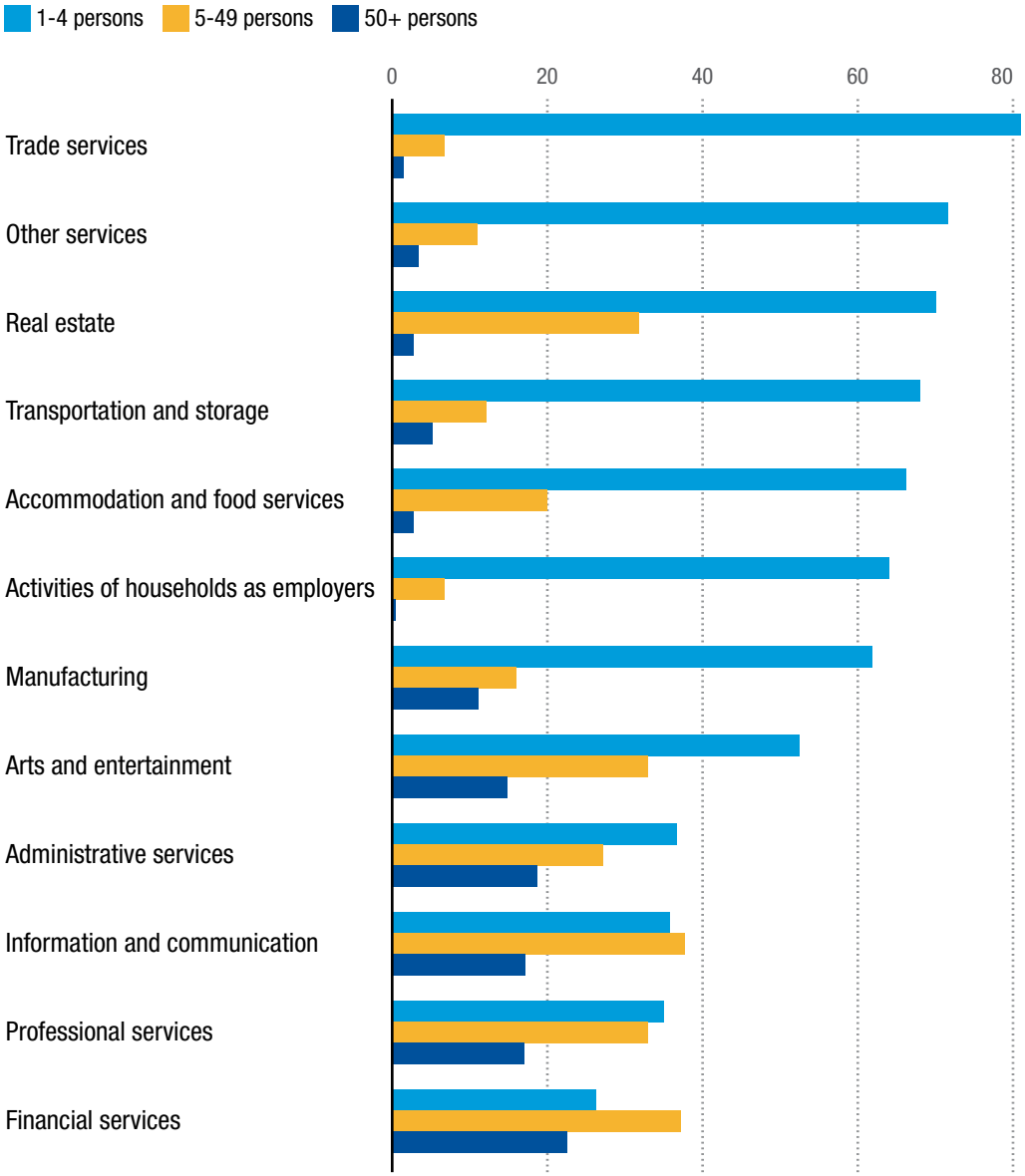
In LDCs, the largest services sectors **tend to be made up of the smallest firms**

These findings would imply that sectors in which a higher share of labour is employed in small firms would feature lower labour productivity growth. The International Labour Organization Labour Force Survey data available for 29 LDCs indicate that this is the case. On average, the employment distribution across firm sizes in LDCs is skewed towards smaller firms in services sectors with the largest employment shares (figure II.10). For instance, trade services, the largest services sector in LDCs, has the highest proportion of firms with 1-4 employees (82 per cent). In contrast, while 11 per cent of employment in manufacturing falls into the category of firms with more than 50 employees, this is true for only 1 per cent of employment in trade services firms. This confirms findings of a previous study, including both formal and informal firms, that shows that services firms are smaller than manufacturing firms across countries and development stages (Bento and Restuccia, 2017). There is also evidence suggesting that the skill intensity is lower in small firms than in large firms, and positively associated with GDP per capita (Gottlieb et al., 2024).

Another factor impacting productivity differences across countries, sectors and firms is technology and innovation. The link between technology adoption and productivity has been demonstrated in numerous studies. For instance, the adoption of digital technologies has been shown to be associated with productivity at the firm level, including for services (Gal et al., 2019). The rise of digital infrastructure and technologies has been shown to have enhanced TFP in the Chinese services sector (Cao et al., 2024). A recent survey of the literature on the impact of the use of artificial intelligence on labour productivity and TFP finds that, in particular, firms with more skilled workforces and firms in services could enhance productivity through the use of artificial intelligence (UNCTAD, 2025a).

Figure II.10.
The bulk of service workers in least developed countries is employed by small firms

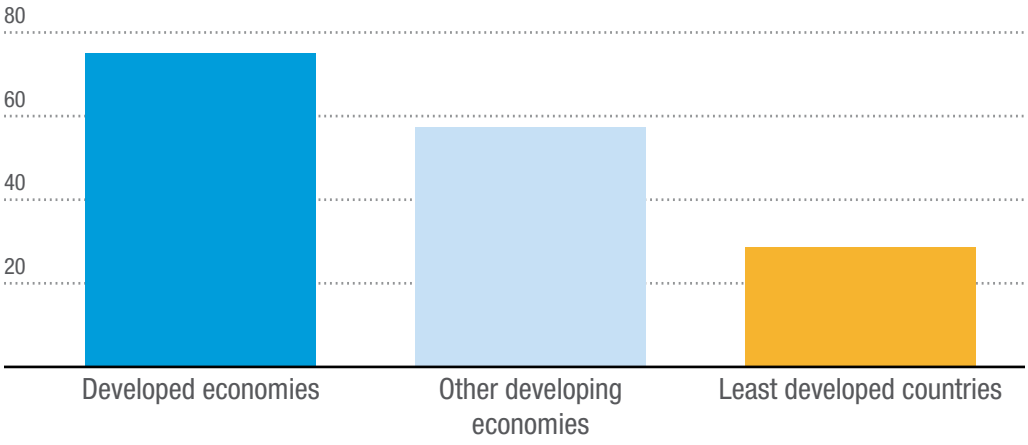
Employment by sector and firm size



Source: UNCTAD calculations based on ILOSTAT Labour Force Statistics database (accessed 24 March 2025).
Note: Simple averages for 29 LDCs for which labour force survey data are available in ISIC Revision 4 (United Nations, 2008). Data are for the latest available year for each country. The percentages do not add up to 100 as not all survey participants state firm size.

LDCs lag in ICT, as shown by the ICT score of the Productive Capacities Index, which estimates the accessibility and integration of communications systems within the population, based on fixed-line and mobile phones users, Internet accessibility and server security (figure II.11). This gap poses a significant challenge to their ability to harness technology and innovation for productivity improvements.

Figure II.11.
Least developed countries lag in technology development and readiness
ICT score of the Productive Capacities Index, 2024



Source: UNCTAD calculations based on UNCTADstat database (accessed 3 December 2025).

3. Potential and limits for services development in least developed countries

To evaluate the potential of the services sector in enabling LDCs to address the dual challenge of creating more and better jobs while accelerating per capita GDP growth, it is essential to consider emerging trends in the global economy. Equally important is an in-depth understanding of how services interact with and support other sectors through productive linkages, which can amplify development outcomes across the broader economic landscape.

Services in the global economy

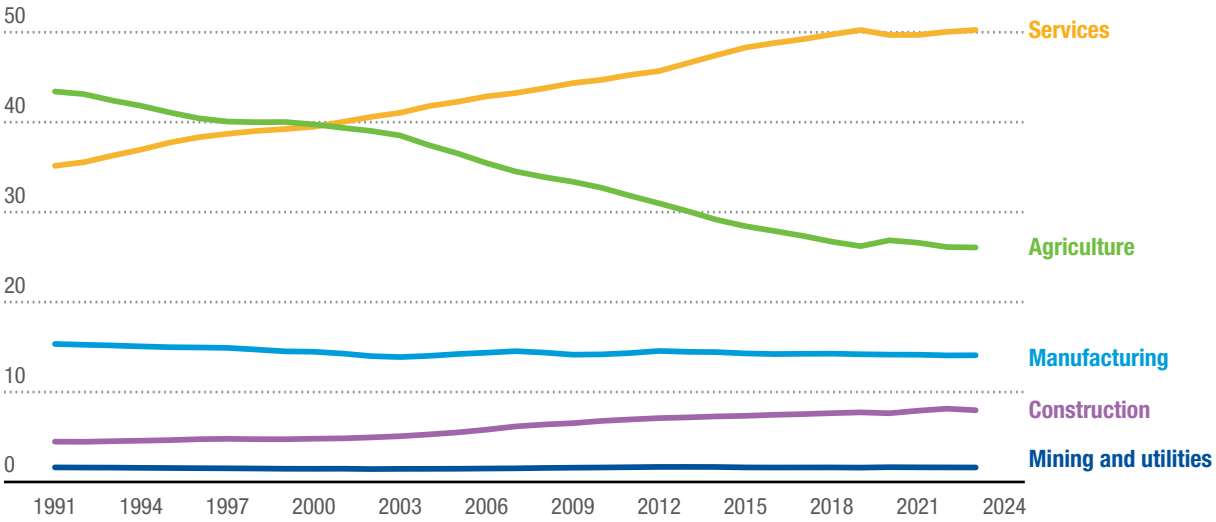
The global economy is not deindustrializing

LDC employment patterns have followed a trend similar to the global economy. While the share of agriculture in global employment has followed a downward trend over the past three decades, the share of the services sector increased (figure II.12). The share of the manufacturing sector has remained roughly constant, standing at 14.1 per cent in 2023. These figures are consistent with a recent study (Lautier, 2024). Hence, the rise of services was not accompanied with deindustrialization of the global economy (UNCTAD, 2016).

Furthermore, an analysis of employment shares in the global services economy reveals a notable persistence in its composition (figure II.13). The largest services subsector, trade services, accounted for 27.4 per cent of all services sector workers worldwide in 2023. Between 1991 and 2023, the average annual change in employment share across all services subsectors ranged from -0.1 to +0.14 percentage points, indicating relative stability in their contributions. Over this period, the most significant increase occurred in business services, which rose from 5.4 per cent to 9.9 per cent of total services employment. Conversely, the largest decline was observed in public administration, where the share dropped from 10.9 per cent to 7.7 per cent.

Overall, employment in the global services economy remains concentrated in subsectors with relatively low labour productivity, such as trade services. In contrast, subsectors characterized by high labour productivity, such as financial services, represent a much smaller proportion of total services employment (3.2 per cent of service workers in 2023).

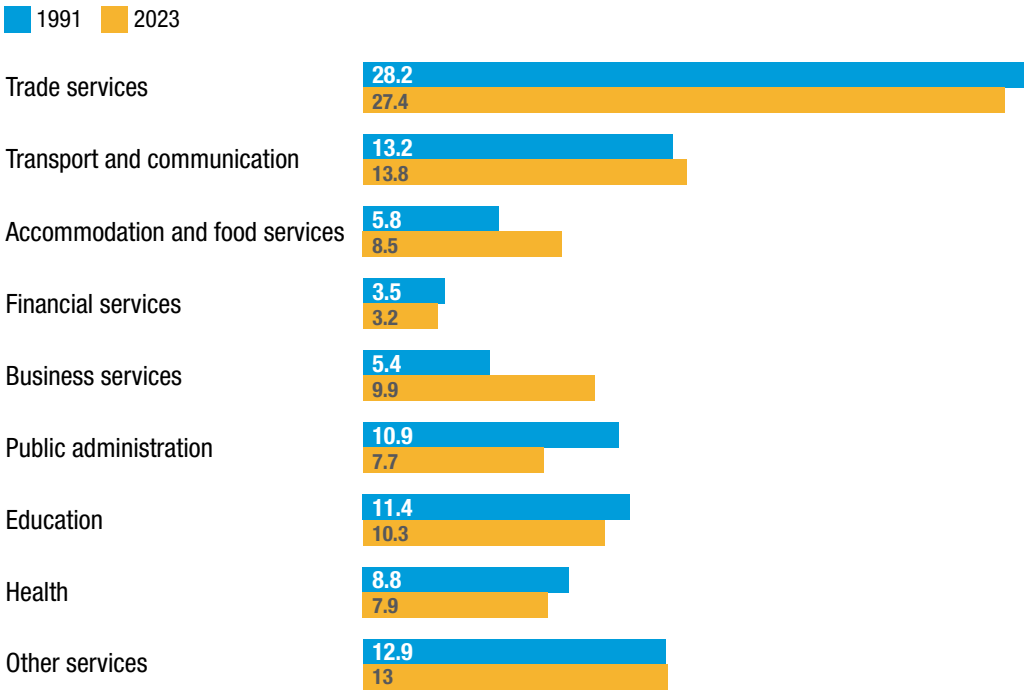
Figure II.12.
Rise of services but stable manufacturing employment in the global economy
Shares in total employment (percentage), 1991–2023



Source: UNCTAD calculations based on ILOSTAT modelled estimates.

As shown in the previous section, this pattern is particularly pronounced in LDCs, where lower-productivity services sectors tend to generate large numbers of jobs, while high-productivity services activities do not absorb large numbers of workers.

Figure II.13.
There is persistence in the composition of the global services economy
Shares in services employment (percentage), 1991–2023



Source: UNCTAD calculations based on ILOSTAT modelled estimates.

Services linkages across productive sectors

Services such as healthcare, education and entertainment can be consumed by individuals, providing immediate value and enhancing quality of life. In addition to direct consumption, services also play a crucial role as inputs in production and delivery processes along the value chains of other sectors, including manufacturing (box II.2). Moreover, services can directly enhance productivity across the economy by strengthening human capital, such as through education and health services.

Box II.2.
The servicification of manufacturing

The manufacturing sector has experienced a significant transformation in recent decades, characterized by the increasing integration of services – a phenomenon known as "servicification". This trend reflects a shift from traditional manufacturing models focused solely on product fabrication to more complex systems where services play a pivotal role throughout the production process. Servicification refers to the growing importance and incorporation of services in manufacturing activities. It encompasses various dimensions – including input services such as research and development, design, logistics and information technology – that are utilized during the manufacturing process; in-house services produced and consumed within manufacturing firms such as maintenance, quality control and administrative support; and bundled services sold alongside manufactured goods, including after-sales support, training and consultancy (Miroudot and Cadestin, 2017). This integration signifies that manufacturing firms increasingly rely on both external and internal services to enhance efficiency, innovation and customer satisfaction.

Several factors have contributed to the rise of servicification. Technological advancements in ICTs have enabled more efficient integration of services into manufacturing processes. The fragmentation of production across borders, facilitated by global value chains, necessitates services such as logistics, coordination and quality assurance to manage complex supply chains. Increasing consumer expectations for customized solutions and comprehensive support have prompted manufacturers to offer bundled services with their products. Additionally, firms use services to differentiate their offerings, adding value beyond the physical product to gain a competitive edge.

Services and manufacturing are mutually reinforcing: while manufacturing growth spurs demand for services inputs, advances in these services, in particular knowledge-intensive ones, enhance manufacturing productivity, driving co-evolution between the two sectors.

The integration of services into manufacturing has several implications. Firms that adopt servicification strategies often experience improved profitability, employment growth and sales expansion (Crozet and Milet, 2017). The use of services such as research and development and design can lead to product innovation and process improvements, thereby enhancing overall productivity. Moreover, manufacturers that incorporate services are better positioned to participate in global value chains, as services facilitate coordination and add value to exported goods.

Despite its significance, measuring servicification poses challenges. Traditional trade statistics often underreport the value of services embedded in manufactured goods, leading to an underestimation of servicification levels. The intangible nature of services makes it difficult to track their flow across borders and within firms. Distinguishing between goods and services in statistical classifications can be problematic, especially when they are bundled together. Addressing these challenges requires the development of more refined data collection methods and analytical frameworks that capture the intertwined nature of goods and services in modern economies. Existing databases and initiatives – such as the OECD-World Trade Organization Trade in Value Added (TiVA) database and Input–Output tables, the Asian Development Bank's Input–Output tables and World Bank Enterprise Surveys – are steps in the right direction, but coverage remains limited for most LDCs.

The servicification of manufacturing represents a fundamental shift in the industrial landscape, where services are integral to the production, delivery and enhancement of manufactured goods. This trend reflects the evolving nature of manufacturing, where value creation increasingly depends on the seamless integration of services. As economies continue to develop, understanding and facilitating servicification will be crucial for fostering innovation, competitiveness and sustainable growth in the manufacturing sector. For LDCs, servicification offers opportunities to integrate into manufacturing value chains without fully replicating traditional industrialization paths. However, capturing these benefits requires upgrading service capabilities, such as logistics and ICT, so that they can both meet manufacturing demand and tap into productivity gains from closer integration.

Source: UNCTAD.

Available data highlight the important role of services inputs to manufacturing, but also show that these cross-sectoral links vary substantially between countries. The OECD Input–Output tables contain data for 41 developed economies, 30 ODEs and 5 LDCs.[26] Across three measures, the manufacturing sector of the five LDCs displays a lower level of linkages to the domestic services sector than for ODEs and developed economies (table II.9). The first is services output per unit of manufacturing final demand, which indicates how many units of domestic services gross output are generated, directly and indirectly, when final demand for manufacturing rises by one unit. The second is services value added per unit of manufacturing final demand, an income measure indicating how much domestic services-sector value added (including wages, operating surplus, and taxes less subsidies) is embodied in one unit of manufacturing demand. The third is the services share of domestic value added, which allocates the total domestic value added generated by manufacturing final demand, and reports the fraction accruing to services. All three are computed on a domestic basis (excluding imports) and aggregated across manufacturing subsectors using their shares in total manufacturing final demand as weights.

In 2020, manufacturing in LDCs exhibited weaker linkages to domestic services than in both ODEs and developed economies (table II.9). On average across LDCs, services output per unit of manufacturing demand was 0.17, compared with 0.31 in ODEs and 0.32 in developed economies. Services value added per unit was 0.10 in LDCs versus 0.18 in both ODEs and developed economies. The services share of domestic value added averages 14 per cent in LDCs,

[26] These are Bangladesh, Cambodia, the Lao People's Democratic Republic, Myanmar and Senegal.

compared with 25 per cent in ODEs and 28 per cent in developed economies, signalling a smaller slice of the domestic income generated by manufacturing demand accruing to domestic services. There is notable dispersion within LDCs – services-output multipliers range from 0.08 in Cambodia to 0.22 in Bangladesh, with services value added per unit from 0.05 to 0.16, and the services share from 9 to 20 per cent – suggesting scope for upgrading even within the LDC group. These results imply that, in LDCs, manufacturing–domestic services linkages are weaker than in other country groups, and manufacturing sectors in LDCs tend to rely on weaker domestic services backbones.

Countries with more densely interconnected production networks – measured through input–output linkages among industries – tend to exhibit higher productivity levels (Bartelme and Gorodnichenko, 2015). Manufacturing growth can drive services sector productivity through linkages (UNCTAD, 2016). However, as cross-sectoral linkages differ across countries, so does the degree to which services productivity moves in tandem with other parts of the economy. Table II.10 shows pairwise correlations between the average annual growth rates of sectoral labour productivity for market services and other sectors in LDCs and ODEs, with data in the ETD for the period 1990–2018. These correlations do not imply causality, but are indicative of differences in the strength of cross-sectoral integration.

Trade services show strong positive correlations with transport services, business services and manufacturing in both LDCs and ODEs. These results are in line with a previous study that examined productivity linkages for a sample including 64 developed and developing economies (Herrendorf et al., 2022). These sectors could be thought of as an interconnected cluster of productive activities generating value added by combining services with industrial production. The fact that there are strong, positive correlations across all sector pairs within this productive cluster strengthens this impression. The correlation for the trade services–manufacturing link is substantially stronger in ODEs than in LDCs, which could be a reflection of weaker linkages, as highlighted above, but also be explained by a larger prevalence in LDCs of informal, small-scale and low-productivity retail activities without productive links to other sectors.

Table II.9.
Manufacturing-services linkages are weaker in least developed countries
2020

	Domestic services output per unit of manufacturing final demand	Domestic services value added per unit of manufacturing final demand	Domestic services share of total value added generated by manufacturing final demand (percentage)
Bangladesh	0.22	0.16	20
Cambodia	0.08	0.05	9
Lao People's Democratic Republic (the)	0.16	0.10	14
Myanmar	0.18	0.08	10
Senegal	0.19	0.12	16
LDC average	**0.17**	**0.10**	**14**
ODE average	**0.31**	**0.18**	**25**
Developed economies average	**0.32**	**0.18**	**28**

Source: UNCTAD calculations, based on OECD Input-Output tables and domestic Leontief inverse tables, 2023 release, available at https://www.oecd.org/en/data/datasets/input-output-tables.html.

There are also strong, positive correlations between financial services, business services and transport services, as well as a sizeable positive correlation between financial services and trade services in both LDCs and ODEs. This highlights the importance of linkages among services sectors.

A notable difference between LDCs and ODEs is that, in LDCs, correlations between "other services" and any other sector are generally substantially weaker than in ODEs. This may reflect generally stronger cross-sectoral linkages in ODEs compared with LDCs. However, it could also be driven by differences in the internal composition of the "other services" sector. As noted earlier, this category includes a diverse range of activities – from personal and household services to creative arts and entertainment – some of which may be closely linked to other sectors, while others function more independently.

For both country groups, the correlations between agriculture and most other sectors are weak. This suggests that this sector is often weakly integrated into the broader economy in LDCs — an indication of economic dualism. Interestingly, in LDCs, but not in ODEs, agriculture exhibits a sizeable, negative correlation with trade services. This pattern may suggest that gains in agricultural labour productivity lead to labour reallocation from rural areas to cities, where workers are primarily absorbed into the lower-productivity segments of the trade services sector. The negative correlation between agriculture and mining productivity growth in LDCs could be explained by a similar mechanism, whereby agricultural productivity gains release unskilled workers that move to the lower-productivity tier of mining, in particular small-scale artisanal mining.

It is important to note the strong, positive correlations between manufacturing and all market services sectors, except for "other services", where this correlation is weak for LDCs. The correlation with trade services is notably higher in ODEs (0.82) than in LDCs (0.63). For transport services, the correlations are relatively similar, at 0.64 for LDCs and 0.68 for ODEs. In contrast, the correlation with business services is stronger in LDCs (0.74) than in ODEs (0.62), while for financial services, the values are comparable – 0.63 for LDCs and 0.61 for ODEs. These patterns suggest that, overall, manufacturing is closely integrated with market services in both country groups, reflecting mutual productivity-enhancing linkages. This finding is in line with literature that has found strong empirical links between progress in reforms in services sectors such as banking, telecommunications, insurance and transport and productivity in manufacturing (Arnold et al., 2016).

Overall, the interdependence between services and other sectors underscores the need for a comprehensive policy approach – one that goes beyond strategies solely focused on manufacturing or services. Recognizing the increasingly blurred boundaries between sectors, particularly the strong linkages between manufacturing and market services, is essential for fostering sustainable productivity growth. Policies aimed at industrial upgrading should therefore also target services sector development, especially in areas such as logistics, finance, business services and digital infrastructure, which play a critical role in supporting production, innovation and value chain integration. In this context, a siloed policy approach risks overlooking key complementarities, and may limit the potential for broad-based economic transformation. A coordinated strategy that promotes both manufacturing and high-productivity services can generate synergies, improve competitiveness, and create more resilient and diversified economies.

Moreover, the persistence of low productivity across large segments of the services sector in LDCs points to a structural challenge: while the sector absorbs labour – often displaced from agriculture or unable to find manufacturing jobs – it does so largely in low-value, informal and non-tradable activities.

The interdependence between services and other sectors **calls for a broadbased approach** to structural transformation policies

This dynamic mirrors concerns about a "services-based low-productivity trap", in which employment shifts to services occur without corresponding productivity gains, particularly in economies with weak structural linkages (Rodrik, 2016), thereby limiting the sector's contribution to broad-based growth and structural transformation.

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Table II.10.
Cross-sectoral productivity links vary across services sectors
Pairwise correlations of average annual growth rates of sectoral labour productivity, 1990-2018

	Trade services		Transport services		Business services		Financial services		Other services		Agriculture		Mining		Manufacturing	
Sector	**LDCs**	**ODEs**	**LDCs**	**ODEs**	**LDCs**	**ODEs**	**LDCs**	**ODEs**	**LDCs**	**ODEs**	**LDCs**	**ODEs**	**LDCs**	**ODEs**	**LDCs**	**ODEs**
Trade services	1	1	0.70	0.67	0.58	0.70	0.49	0.45	0.31	0.58	-0.40	-0.03	0.29	0.24	0.63	0.82
Transport services	0.70	0.67	1	1	0.70	0.48	0.63	0.66	0.26	0.42	-0.14	0.06	0.38	0.36	0.64	0.68
Business services	0.58	0.70	0.70	0.48	1	1	0.66	0.56	0.25	0.47	-0.03	-0.09	0.11	0.26	0.74	0.62
Financial services	0.49	0.45	0.63	0.66	0.66	0.56	1	1	0.16	0.46	-0.05	-0.08	0.07	0.44	0.63	0.61
Other services	0.31	0.58	0.26	0.42	0.25	0.47	0.16	0.46	1	1	-0.07	0.14	0.32	0.32	0.08	0.63
Agriculture	-0.40	-0.03	-0.14	0.06	-0.03	-0.09	-0.05	-0.08	-0.07	0.14	1	1	-0.42	0.23	0.02	0.06
Mining	0.29	0.24	0.38	0.36	0.11	0.26	0.07	0.44	0.32	0.32	-0.42	0.22	1	1	0.41	0.46
Manufacturing	0.63	0.82	0.64	0.68	0.74	0.62	0.63	0.61	0.08	0.63	0.02	0.06	0.41	0.46	1	1

Source: UNCTAD calculations based on ETD, available at https://www.rug.nl/ggdc/structuralchange/etd/ (accessed 20 March 2025)

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C. Summary and policy considerations

The potential of the services sector to drive development in LDCs can only be meaningfully assessed within the broader context of structural transformation and through the lens of the dual challenge of employment generation and accelerated growth. As LDCs continue to face demographic and socioeconomic pressures, the services sector is increasingly vital to their development trajectories. However, leveraging this potential requires a nuanced understanding of the heterogeneity of services, including informal, low-productivity segments as well as high value added activities, and the diverse roles services play, from absorbing low-skilled workers to providing productivity-enhancing inputs.

In LDCs, the growing weight of services in employment since the early 1990s has been primarily driven by the expansion of lower-productivity segments of trade services and the broad "other services" category. Many firms in these sectors are small, operate informally and exhibit limited productivity growth. Available enterprise survey data suggest that small-scale retail activities often represent the bulk of the urban informal economy in LDCs. This pattern underscores a core challenge of structural transformation in LDCs: while the share of employment in services has increased, it has not been accompanied by commensurate improvements in productivity or job quality.

Although labour shifts out of agriculture – traditionally the sector with the lowest labour productivity –contribute to a rise in aggregate productivity, the sustainability of this process is questionable if workers are primarily absorbed into low-productivity, informal service activities. For structural transformation to generate lasting gains, the movement of labour must ultimately progress beyond low-productivity services into higher-productivity activities within the services sector and beyond.

To address this, policies should focus on accelerating productivity growth across services sectors by strengthening human capital accumulation and skills development, improving the business environment for service firms, and enhancing linkages between services and other productive sectors.

Employment and value added dynamics suggest that there are substantial productivity dispersions across firms within the services sector of many LDCs. In this context, policy should focus on identifying and addressing the structural factors that contribute to these disparities – such as uneven access to finance, infrastructure, digital technologies and skills. Supporting the upgrading of low-productivity firms – while enabling the growth of more dynamic, high-productivity service providers – can help narrow these gaps and improve overall sector performance. In this context, strategies for digital inclusion can play an important role. Furthermore, targeted support for innovation, entrepreneurship and business development services can enhance firm capabilities and promote productivity growth.

The interdependence between services and manufacturing offers opportunities for **productivity growth, diversification and job creation**

A broad-based policy approach is needed to promote **services alongside manufacturing and strengthen their linkages**

Strengthening human capital is critical for enhancing productivity, fostering innovation, and increasing the absorptive capacity of firms and economies. In this context, targeted investments in early childhood development, vocational training and higher education – combined with reforms to improve education quality – are indispensable for enhancing productivity. Furthermore, empirical evidence underscores the role of workplace-based learning in skills development and human capital accumulation. This suggests that the current distribution of employment across sectors has long-term implications for workforce capabilities, making it essential to promote labour reallocation into sectors with stronger learning and skills accumulation potential.

The increasing interdependence between services and other sectors – particularly manufacturing – offers significant opportunities for productivity growth, economic diversification and job creation in LDCs. Services such as logistics, finance and business services are becoming essential inputs for manufacturing competitiveness, enabling firms to participate more effectively in global value chains. Strengthening these linkages is critical to maximizing productivity spillovers and building integrated value chains that support structural transformation. In this context, domestic firm-to-firm linkages also play a role, as recent research based on enterprise survey data has shown that spillovers exist in ICT adoption from formal to informal firms (Jolevski et al., 2025).

Opportunities in manufacturing continue to exist for LDCs, as global trends indicate that there is no generalized deindustrialization. The growing servicification of manufacturing – where services are increasingly embedded in production, distribution and innovation – offers new entry points for LDCs to integrate into global value chains through both goods and services. As such, industrial and services development should be treated as mutually reinforcing components of economic transformation. Seizing these opportunities requires coherent and coordinated policies across trade, investment, skills development and innovation systems.

Urban development strategies should also be integrated with services sector upgrading to ensure that the growing urban workforce is absorbed into productive and decent employment. In this context, interventions that focus on the demand side of labour markets can also help to strengthen the absorptive capacity of services sectors (Rodrik and Sandhu, 2024).

For the services sector in LDCs to modernize and enter into a new phase of productivity growth, it is also necessary to strengthen financial sector development and technology transfer that directly support the capital needs of higher-value service industries such as logistics, finance and ICT. In this context, Governments in LDCs can act as enablers and coordinators of structural transformation in the services sector. This includes not only direct investment in infrastructure and digital ecosystems, but also the creation of conducive regulatory environments and institutional support mechanisms. Targeted public investment can catalyse capital accumulation in strategic services sectors. For instance, investing in broadband infrastructure and digital public goods – such as e-payment systems and cloud computing – can improve productivity across sectors. In this context, foreign direct investment could also play an important role, as evidenced by a 23 per cent rise in greenfield activity in the digital economy of LDCs in the period 2020–2024 (UNCTAD, 2025b).

Access to finance also remains a key constraint in many LDCs. In this context, mobile solutions can play an important role. For instance, in Mozambique, there are now three interoperable mobile money operators, which also give access to savings and other financial services, including among informal vendors.

As of 2023, 93.2 per cent of the adult population of Mozambique had an active mobile money account, up from 68.5 per cent in 2022 (Government of Mozambique, 2024). Mobile money platforms have been established in a number of LDCs. These include MTN Mobile Money, which is available in Benin, Guinea, Liberia, Rwanda, Uganda and Zambia, and Tigo Pesa in the United Republic of Tanzania. They have similarly increased financial inclusion by providing accessible digital financial services to underserved populations, including informal sector workers. From 2023 to 2024, active mobile money accounts in the United Republic of Tanzania increased by 17.5 per cent to 60.75 million, and digital loan accounts doubled to 193 million, 61.9 per cent of which were owned by women (Bank of Tanzania, 2024).

While large informal sectors are likely to persist in LDCs, as they also exist in other developing countries, there are successful examples showing that simplifying formalization processes can encourage some informal firms to formalize their activities. For instance, in Benin, the Government launched a one-stop digital platform for business registration in 2020. Since the digital platform was launched, the number of new registered businesses has sharply increased. For instance, between 2019 and 2022, the number of new business registrations more than doubled, from 27,379 to 56,579, while new business registration for young people (18–30 years of age) more than tripled, from 7,416 to 23,312.[27]

While rapid urbanization in LDCs puts a spotlight on economic trends in cities, an average share of 60 per cent of the population in LDCs was still living in rural areas in 2024.

Hence, the dual challenge of job creation and economic growth cannot be expected to be met in urban centres alone. It is also crucial to leverage the potential of the rural non-farm economy, including the rural services sector, for structural transformation. Non-farm income has been shown to comprise a significant share of rural income and employment in developing countries (Lanjouw and Lanjouw, 2001). Growth of the rural economy has been shown to be crucial for poverty reduction (Ravallion and Datt, 1996), and productivity gains in agriculture are often more effective in reducing poverty than in other sectors (Ivanic and Martin, 2018). Thus, the rural non-farm economy plays an important role for economic growth and poverty alleviation in LDCs (UNCTAD, 2015).

The rural services sector – including education, healthcare, transport, communications, business services and financial services – is not only a source of direct employment, but also a critical enabler of broader development. In Rwanda, for example, the expansion of community health services has not only improved health outcomes, but has created tens of thousands of jobs for rural health workers, two thirds of them women.[28] In Bangladesh, the rapid growth of rural mobile banking services, such as bKash, has provided financial access to millions of previously unbanked rural citizens, facilitating savings, remittances and small enterprise growth.[29] Digital infrastructure can also play a transformative role for the rural non-farm economy by enabling farmers to access weather forecasts, market prices and agricultural extension services in real time.

[27] UNCTAD, "Benin triples number of companies opened by youth in 2022", 5 April 2023, available at https://unctad.org/news/benin-triples-number-companies-opened-youth-2022.

[28] Republic of Rwanda, "Social Transformation", n.d., available at https://www.gov.rw/highlights/social-transformation; UNICEF, "Community Health Workers: Unsung heroes in the fight Against Polio in Rwanda", 26 October 2023, available at https://www.unicef.org/rwanda/stories/community-health-workers-unsung-heroes-fight-against-polio-rwanda.

[29] International Finance Group, World Bank Group, "bKash's Success Establishes Mobile Financial Services in Bangladesh", n.d., available at https://www.ifc.org/content/dam/ifc/doc/mgrt/bkash-case.pdf.

Furthermore, reliable rural transport services can not only help to expand rural markets for local goods, but also strengthen human capital, by improving access to schools and health facilities.

The gender-based amplification of services sector employment patterns in LDCs presents a critical policy challenge. Women not only often face higher urban unemployment, but are also disproportionately concentrated in low-productivity, often informal services subsectors such as trade services and the other services category, which together accounted for more than two thirds of female service workers in the average LDC. These patterns suggest that targeted interventions – such as improving women's access to education and skills development, and facilitating entry into higher-value service activities – are needed to ensure that the rise of services in LDCs does not deepen existing gender inequalities.

Another consideration in the context of the specific characteristics of services-led structural transformation in LDCs is with regard to its impacts on inequality. It has been shown that, as the services employment share increases, inequality tends to follow a U-shaped curve à la Kuznets – i.e. initially there is an increase in inequality, in particular in countries at early stages of structural transformation such as LDCs (Baymul and Sen, 2020). Another study showed that services expansion in India was fundamentally rooted in real productivity gains, in particular in consumer services, but that the improvements of living standards associated with these gains were unevenly shared, favouring richer urban groups (Fan et al., 2023). In this regard, it is important to ensure that the gains of structural change are evenly shared, and that the most vulnerable groups of society are protected.

As global services become more digitally intermediated and knowledge-intensive, LDCs that invest in forward-looking skills and innovation capabilities will be best positioned. In this regard, it is crucial to address the mismatch between labour force skills and the evolving demands of modern, digitally driven services. Expanding services with potential for higher value added – such as ICT-enabled services, logistics and finance – requires access to digital skills, innovation ecosystems and institutional support systems. Basic digital literacy – alongside competencies such as data analysis, coding, digital marketing and cybersecurity – can open new pathways for employment and entrepreneurship.

Governments play a vital role in overcoming existing barriers by investing in targeted capacity-building programmes, innovation hubs, digital incubators and vocational training, all of which can foster local entrepreneurship and strengthen service ecosystems. Emphasis should also be placed on inclusive digital skills development, ensuring that women and rural populations are not left behind. In this respect, gaps remain significant across LDCs, where women are 42 per cent less likely to use mobile Internet than are men, and rural populations are 50 per cent less likely to use mobile Internet than are urban populations (GSMA, 2022). The rapid emergence of Rwanda as an ICT-enabled services hub is a case in point. Through initiatives such as the Digital Ambassadors Programme, which has trained over 5,000 youths to deliver digital literacy to rural communities, Rwanda has significantly expanded basic digital inclusion. Another example is the mHub initiative in Malawi, which offers digital skills and entrepreneurship training for women-led rural businesses.

Technology transfer mechanisms can further enhance capital intensity by facilitating the adoption of modern service delivery models. Partnerships with foreign firms, regional service providers or diaspora entrepreneurs can bring in not only capital but also operational know-how and platforms. For example, in Senegal, the adoption of mobile-based financial services such as Orange Money has allowed even informal microenterprises to streamline transactions and access broader markets.

Finally, it is important to acknowledge that analysing the services sector in LDCs is complicated by the limited availability and quality of relevant data. Strengthening statistical capacity – especially in the collection, classification and disaggregation of services-related data – is therefore essential. Improved data systems would support more informed policymaking, enable effective monitoring of structural transformation, and guide the design of targeted interventions to fully harness the sector's potential.

This chapter's analysis of services in the structural transformation process of LDCs provides the foundation for the next chapters. Chapter III examines services trade performance, with a particular focus on digitally deliverable services and the structural challenges LDCs face in capturing value. Chapter IV builds directly on these themes by exploring sectoral strategies and the emergence of service hubs, which concentrate infrastructure and enterprise activity in strategic locations, fostering innovation and productivity. It highlights how targeted investments in logistics, tourism, finance and technology-enabled services can catalyse structural transformation, while also underscoring the risks and trade-offs involved. Across all chapters, the dual challenge of employment generation and growth remains central, reinforcing the need for coherent, inclusive policies that foster sectoral linkages and align sectoral development with broader transformation goals.

In LDCs, women are overrepresented in low-productivity services, **highlighting the need for policies improving skills and access to higher-value jobs**

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Annex

Table II.A1.
Demographic trends in the least developed countries

Country (group)	Population, 2025 (thousands)	Average annual population growth rate, 2025–2050 (percentage)	Average annual growth rate of the urban population, 2025–2050 (percentage)	Average annual growth rate of the working-age population, 2025–2050 (percentage)
Afghanistan	43 844	2.3	3.9	2.9
Angola	39 040	2.6	3.2	3.1
Bangladesh	175 687	0.8	2.1	0.9
Benin	14 814	2.0	3.0	2.5
Burkina Faso	24 075	1.8	3.4	2.4
Burundi	14 390	2.1	4.5	2.7
Cambodia	17 848	0.8	2.6	0.9
Central African Republic (the)	5 513	2.7	3.9	3.5
Chad	21 004	2.5	4.4	3.0
Comoros (the)	883	1.6	2.8	1.9
Democratic Republic of the Congo (the)	112 832	2.7	3.8	3.3
Djibouti	1 184	1.0	1.3	1.1
Eritrea	3 607	1.8	3.1	2.3
Ethiopia	135 472	2.1	4.0	2.5
Gambia (the)	2 822	1.7	2.4	2.3
Guinea	15 100	1.8	3.1	2.4
Guinea-Bissau	2 250	1.7	2.6	2.2
Haiti	11 906	0.8	1.7	1.1
Kiribati	136	1.2	1.9	1.4
Lao People's Democratic Republic (the)	7 873	0.9	2.3	1.1
Lesotho	2 363	0.9	2.5	1.4
Liberia	5 731	1.8	2.7	2.3
Madagascar	32 741	2.0	3.3	2.4
Malawi	22 216	2.1	4.3	2.6
Mali	25 199	2.5	3.6	3.1
Mauritania	5 315	2.3	3.2	2.8
Mozambique	35 632	2.3	3.7	3.0
Myanmar	54 851	0.3	1.7	0.2

Country (group)	Population, 2025 (thousands)	Average annual population growth rate, 2025–2050 (percentage)	Average annual growth rate of the urban population, 2025–2050 (percentage)	Average annual growth rate of the working-age population, 2025–2050 (percentage)
Nepal	29 618	0.6	2.6	0.9
Niger (the)	27 918	2.6	4.6	3.3
Rwanda	14 569	1.8	3.8	2.2
Senegal	18 932	1.9	2.9	2.3
Sierra Leone	8 820	1.5	2.7	2.0
Solomon Islands	839	1.8	3.1	2.1
Somalia	19 655	2.6	3.7	3.2
South Sudan	12 189	1.6	3.7	2.1
Sudan (the)	51 662	2.0	3.4	2.5
Timor-Leste	1 419	1.2	2.3	1.7
Togo	9 722	1.9	3.1	2.2
Tuvalu	9	0.4	1.0	0.3
Uganda	51 385	2.1	3.9	2.8
United Republic of Tanzania (the)	70 546	2.5	3.9	2.9
Yemen	41 774	2.1	3.5	2.7
Zambia	21 914	2.2	3.4	2.7
LDCs total (first column) and averages	**1 215 299**	**1.9**	**3.3**	**2.3**

Source: UNCTAD calculation based on UNCTADstat database.

Table II.A2.
Labour market characteristics and trends in the least developed countries

Country (group)	Average annual increase of labour force, 2025–2050 (thousands)	Labour force participation rate, 2025 (percentage)	Sustainable Development Goals indicator 8.3.1 – proportion of informal employment in total employment, various years (percentage)
Afghanistan	375	38.3	86.1 (2021)
Angola	725	76.5	92.2 (2022)
Bangladesh	754	65.0	84.2 (2023)
Benin	212	76.8	96.3 (2022)
Burkina Faso	207	48.0	95.2 (2023)
Burundi	228	79.1	
Cambodia	100	83.9	89.4 (2019)
Central African Republic (the)	107	73.7	

Country (group)	Average annual increase of labour force, 2025–2050 (thousands)	Labour force participation rate, 2025 (percentage)	Sustainable Development Goals indicator 8.3.1 – proportion of informal employment in total employment, various years (percentage)
Chad	288	60.2	96.9 (2018)
Comoros (the)	7	52.8	88.8 (2021)
Democratic Republic of the Congo (the)	1862	65.9	
Djibouti	3	33.6	50.5 (2017)
Eritrea	50	80.5	
Ethiopia	1836	69.0	85.2 (2021)
Gambia (the)	24	48.6	84.1 (2023)
Guinea	139	52.6	
Guinea-Bissau	23	62.5	94.8 (2022)
Haiti	64	66.5	
Kiribati			59.9 (2023)
Lao People's Democratic Republic (the)	43	68.8	
Lesotho	14	59.4	80.9 (2019)
Liberia	76	77.7	89.7 (2017)
Madagascar	510	86.4	96.1 (2022)
Malawi	307	67.3	
Mali	409	70.8	95.4 (2022)
Mauritania	48	41.8	89.4 (2019)
Mozambique	643	79.0	95.7 (2015)
Myanmar	51	59.7	81.0 (2020)
Nepal	77	42.3	81.6 (2017)
Niger (the)	522	73.2	98.5 (2022)
Rwanda	158	65.7	84.3 (2024)
Senegal	174	51.9	95.1 (2022)
Sierra Leone	73	54.4	93.1 (2018)
Solomon Islands	12	85.8	
Somalia	167	34.8	82.5 (2019)
South Sudan	140	74.6	
Sudan (the)	370	37.9	94.4 (2022)
Timor-Leste	12	66.5	80.6 (2021)
Togo	96	59.1	92.3 (2022)
Tuvalu			20.2 (2022)
Uganda	887	82.1	95.2 (2021)
United Republic of Tanzania (the)	1354	84.9	
Yemen	289	33.6	
Zambia	276	59.7	83.8 (2023)
LDC total (first column) and medians	**13,712**	**65.8**	**89.5**

Source: UNCTAD based on data from ILOSTAT modelled estimates (labour force and labour force participation rate) and ILOSTAT Sustainable Development Goals labour market indicators (informal employment).
Note: The labour force participation rate is defined as the proportion of the population 15–64 years of age that is employed or actively seeking employment.

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.

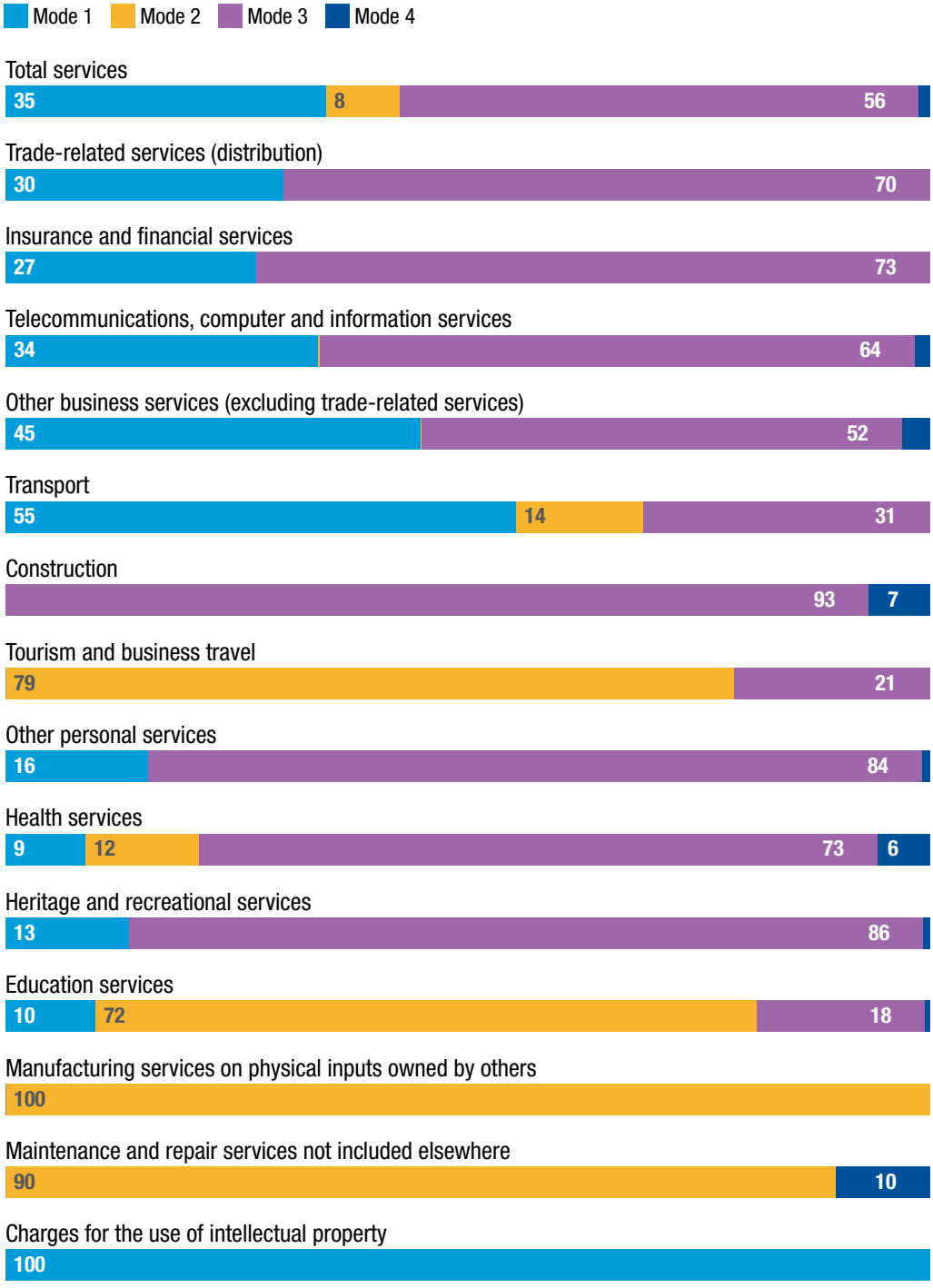
Services trade is concentrated among a few economies. Developed economies accounted for over two thirds of services exports at $6.2 trillion in 2024 (70.1 per cent), with other developing economies contributing $2.6 trillion (29.3 per cent). The top 10 developing economies accounted for 21 per cent of 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)

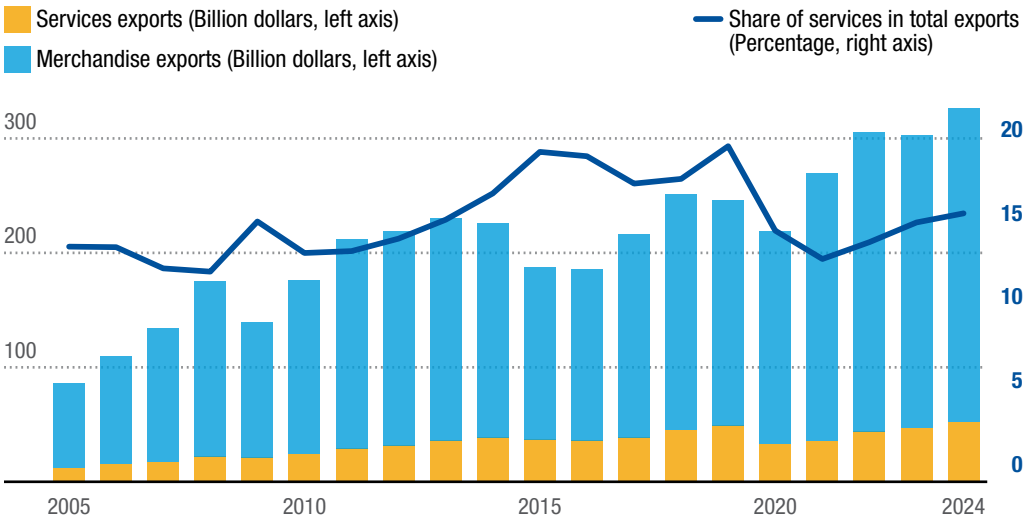
	Exports					Imports				
Year	Services exports total	Goods-related services	Transport	Other services	Travel	Services exports total	Goods-related services	Transport	Other services	Travel
2019	8.5	63.8	7.0	7.2	6.0	-3.7	65.4	1.6	-12.6	2.3
2020	-33.4	-11.4	-16.4	-7.4	-64.2	-9.8	18.7	-10.3	4.2	-51.7
2021	9.4	-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).

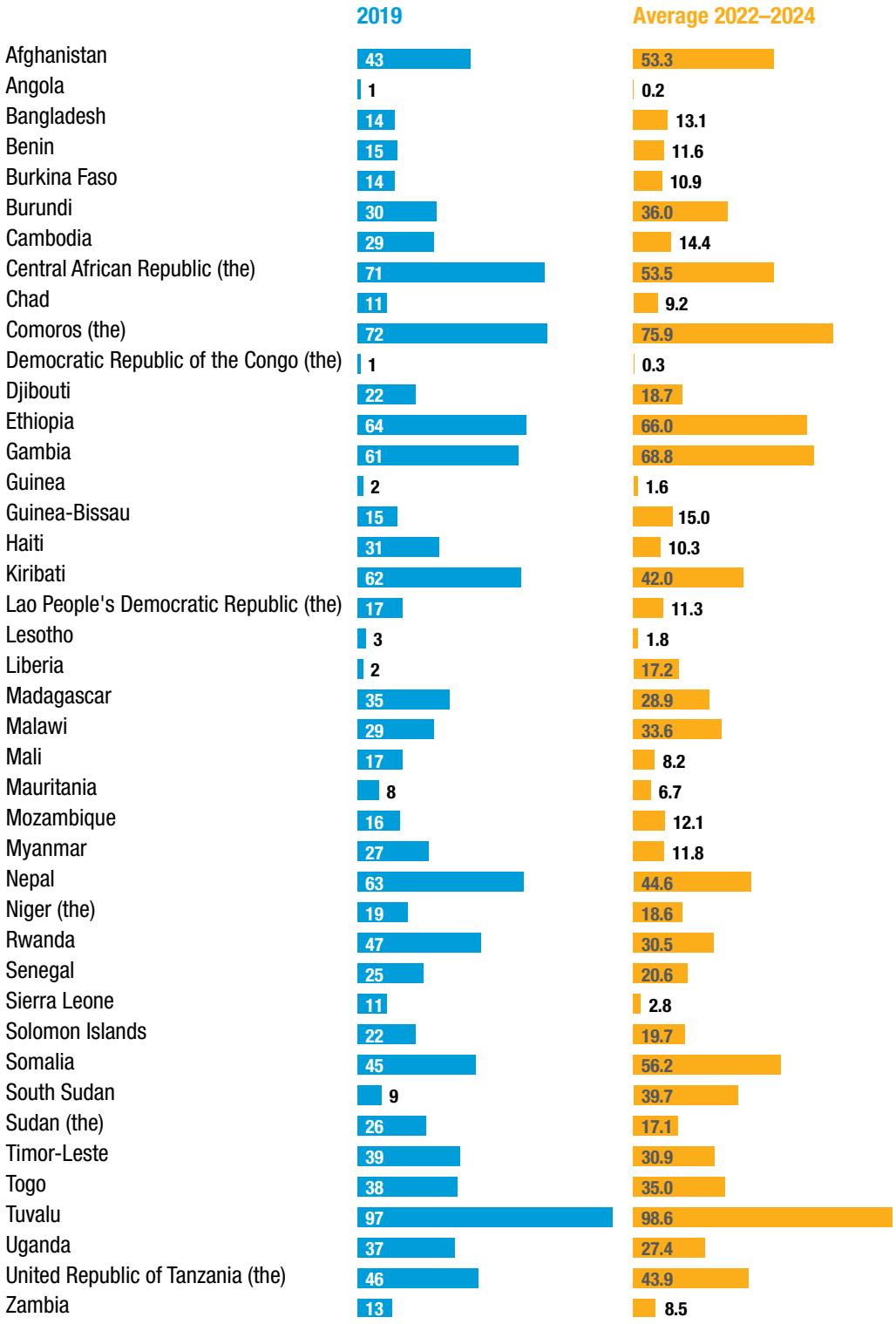
LDC services exports recovered in nominal value from $43.7 billion in 2022 to $52.1 billion in 2024. Despite this recovery in absolute terms, their share in the global services trade fell to 0.59 per cent, confirming that LDCs are losing ground relative to the rest of the world's services trade as their 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).

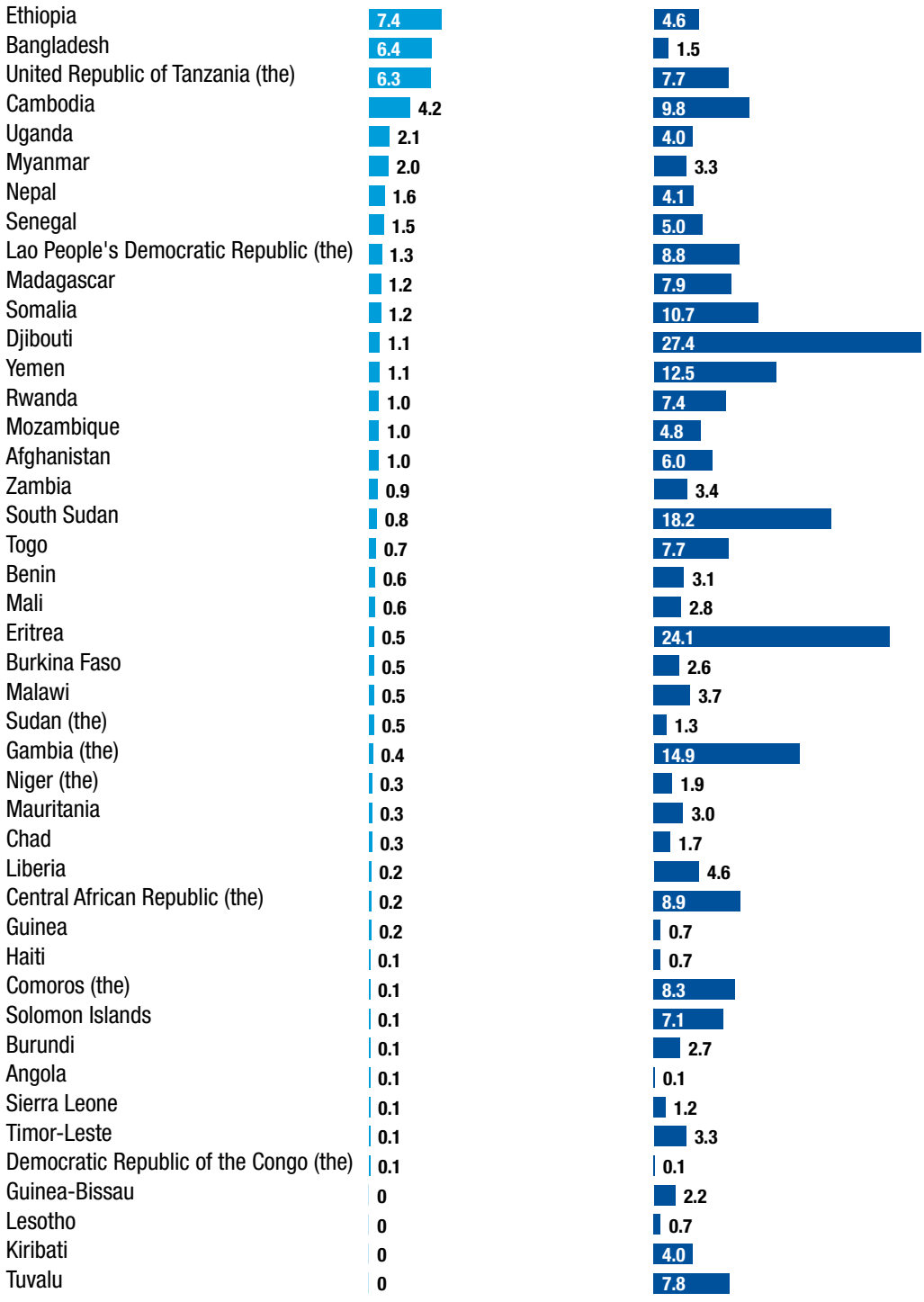
Transport and travel are the main services exports from least developed countries

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.

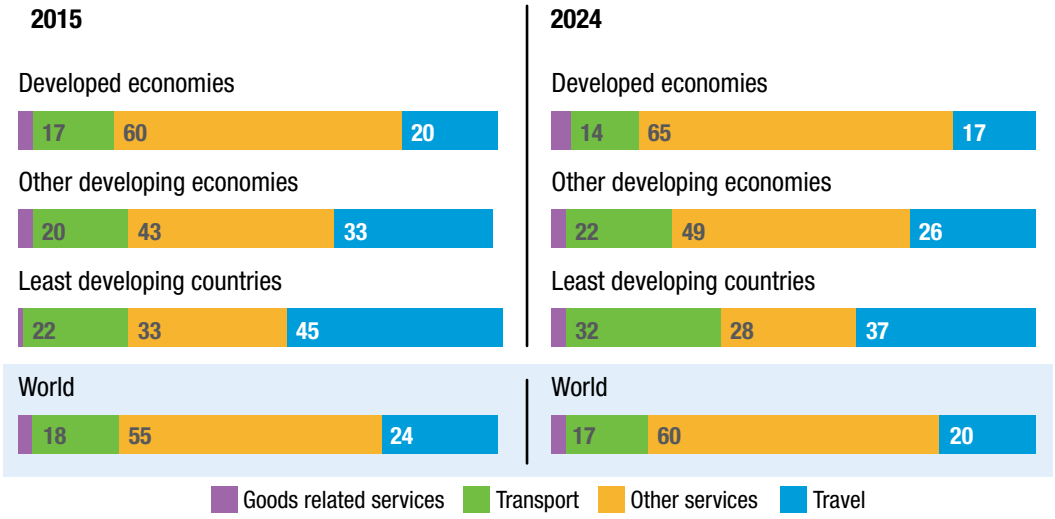
[6] The WTO-UNCTAD Trade in Services Data Set is based on the Balance of Payments and International Investment Position Manual (BPM6),which classifies international travel into two main categories based on the purpose of the trip: business travel and personal travel. Tourism as commonly understood is 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.

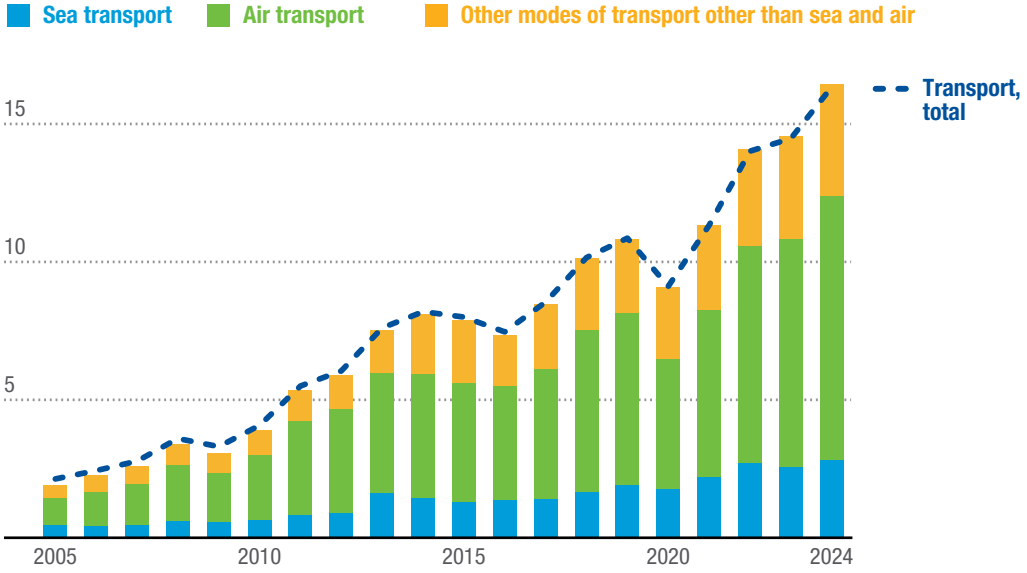
The largest portion of LDCs' transport services was from air transport, which generated $9.5 billion, or 57.9 per cent of the total in 2024 (figure III.6). The subsector's exports saw a period of strong growth, from $2.4 billion in 2010 to $6.2 billion in 2019, achieving an average annual growth rate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

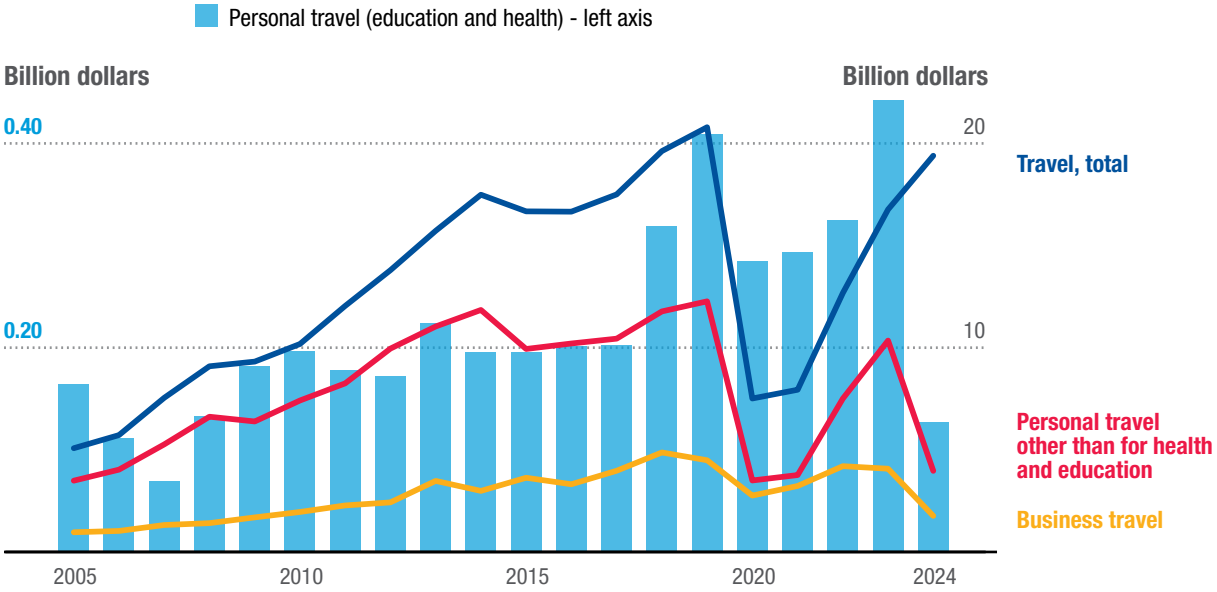
Government goods feature prominently in services exports of least developed countries

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

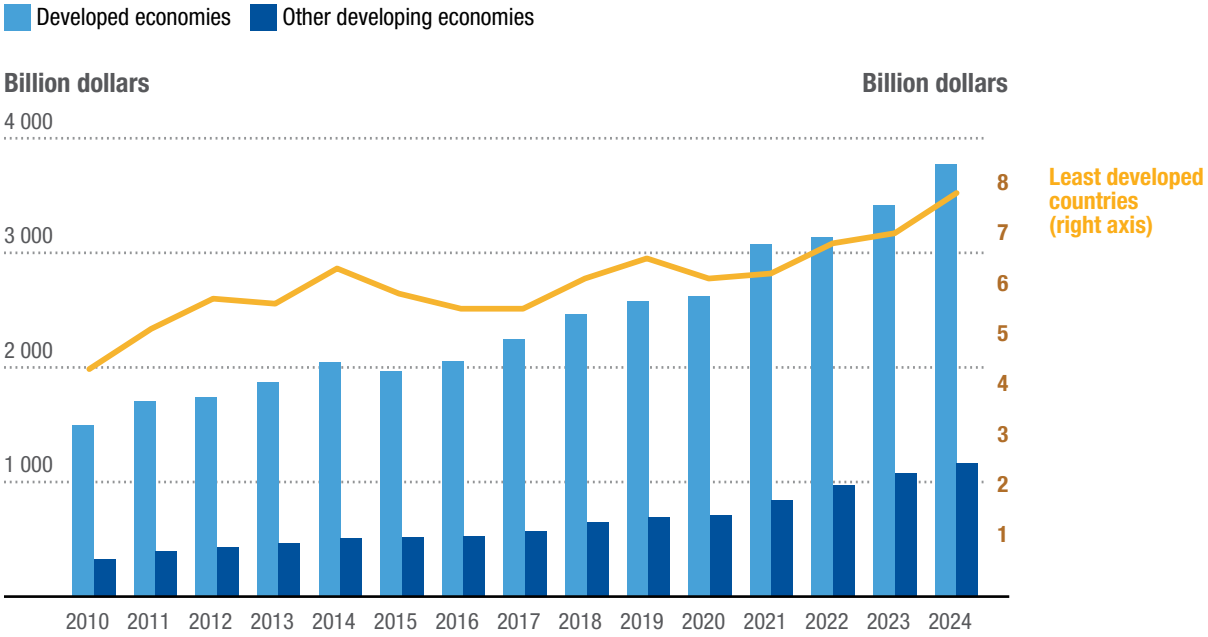
Year	Other services	Construction	Insurance and pension services	Financial services	Charges for the use of intellectual property not included elsewhere	Telecommunications, computer and information services	Other business services: R&D; professional and management consulting services; technical, trade-related 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.

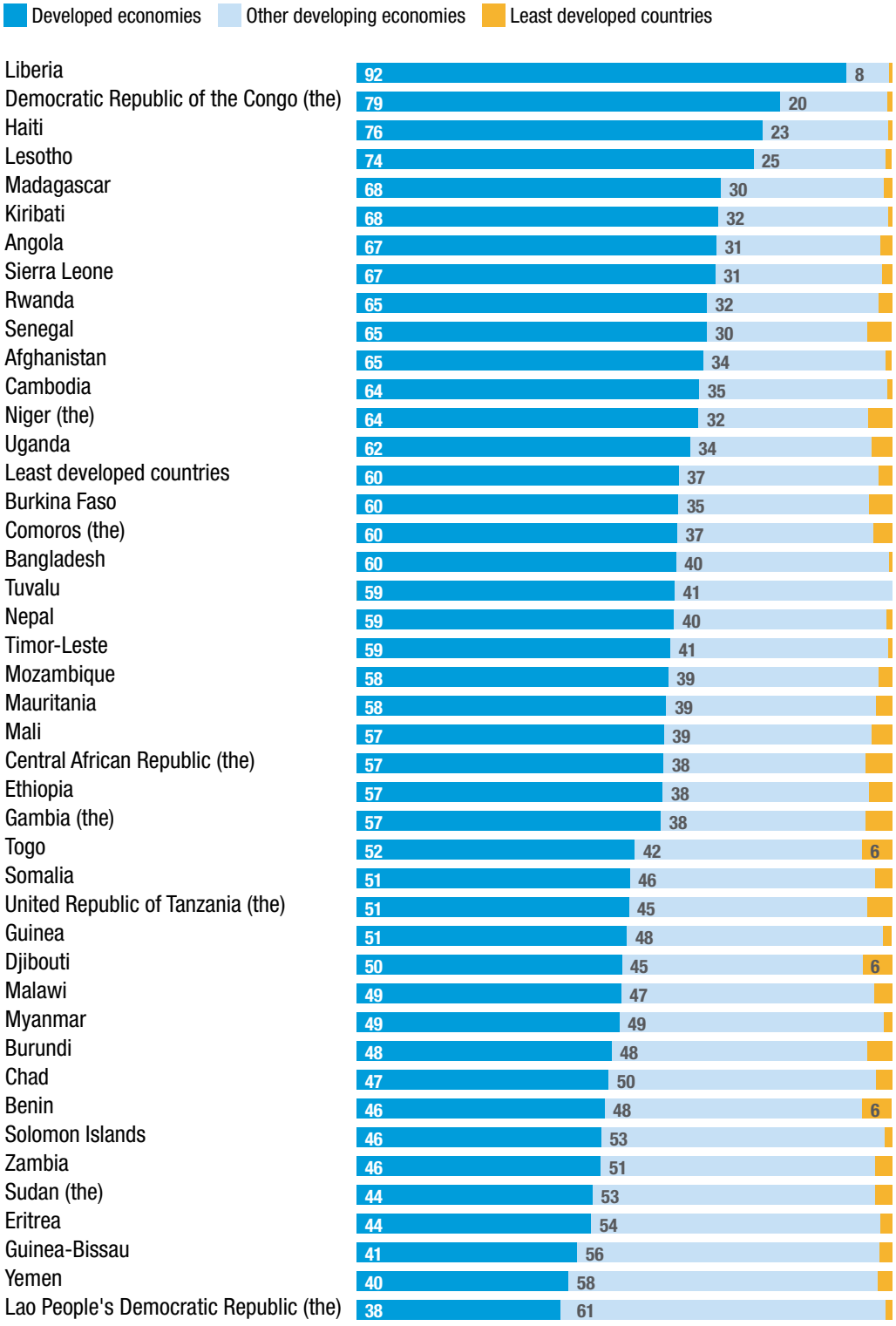
Source: WTO and OECD (2025).

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

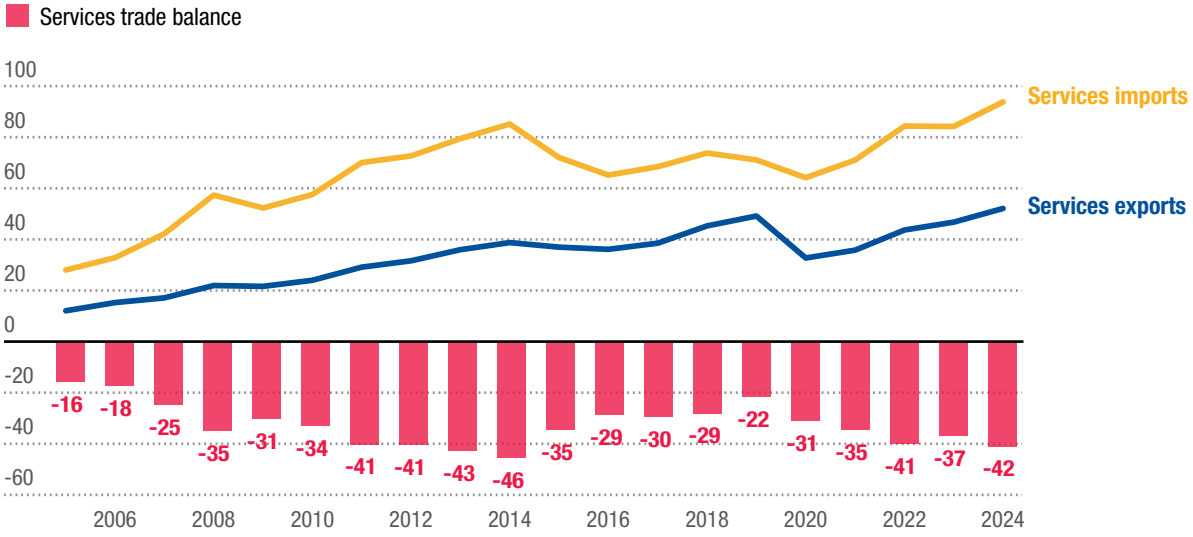
Globally, services trade has accelerated since the COVID-19 pandemic, mirroring the global economic recovery fuelled by renewed demand for goods and services. For the latter, the recovery focused on services that had been restricted by travel restrictions, alongside a rise in essential services that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

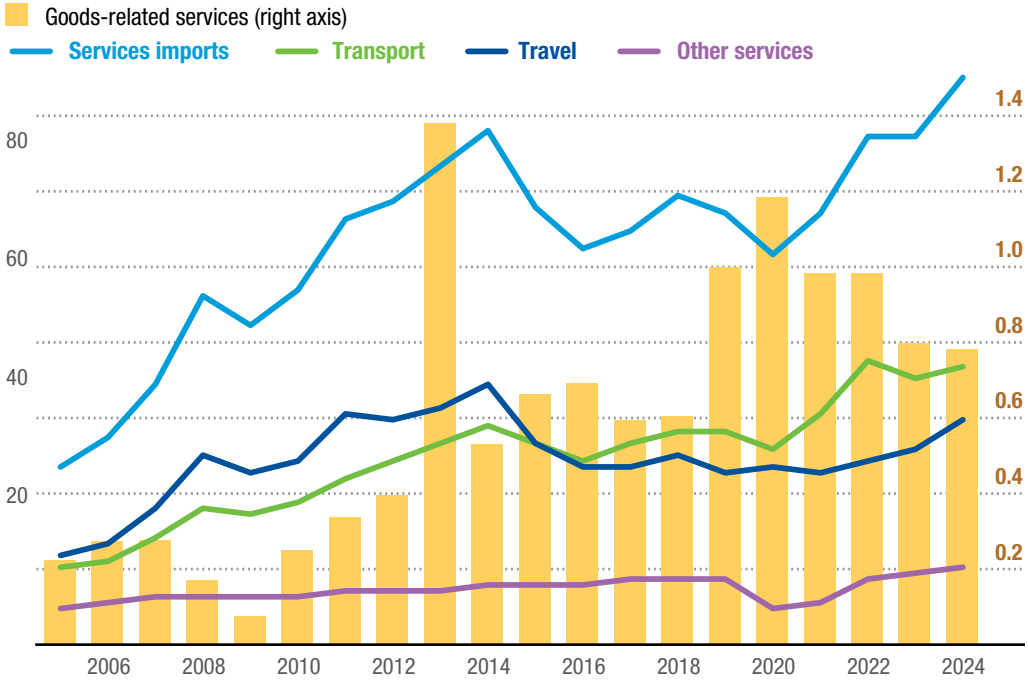


Source: UNCTAD secretariat calculations based on data from the WTO–UNCTAD Trade in Services Data Set (accessed October 2025).

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)



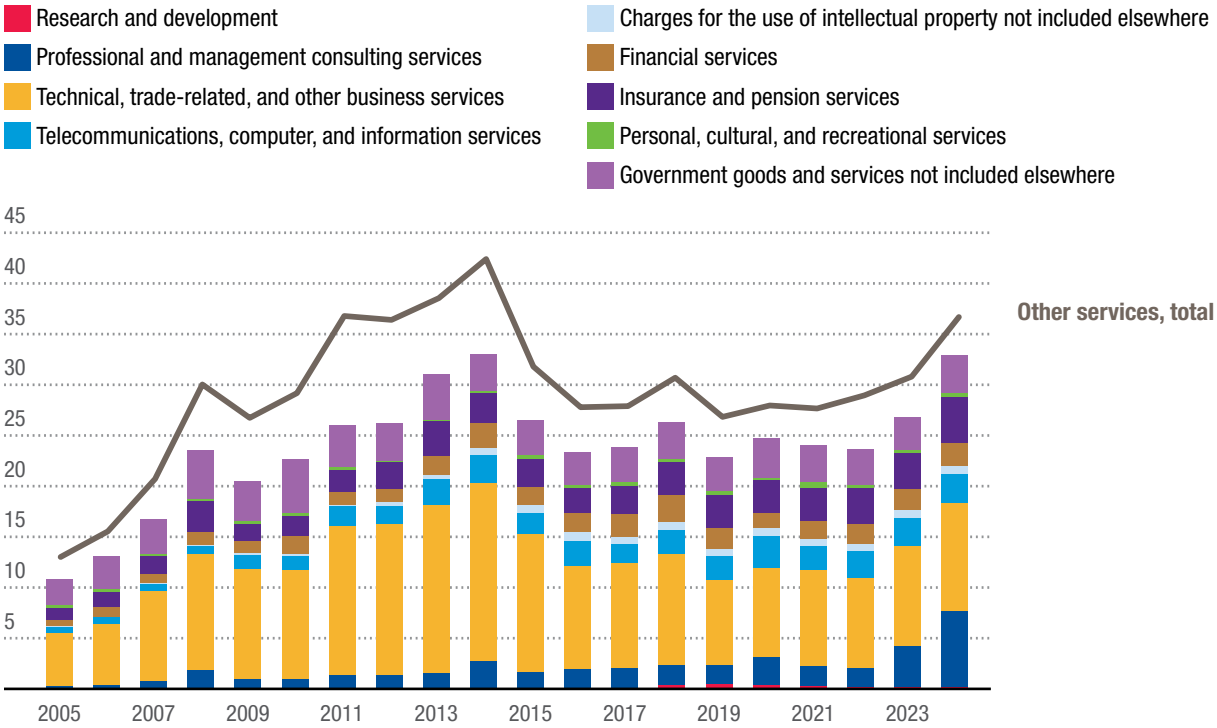
Source: UNCTAD secretariat calculations based on data from the WTO-UNCTAD Trade in Services Data Set (accessed October 2025).

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

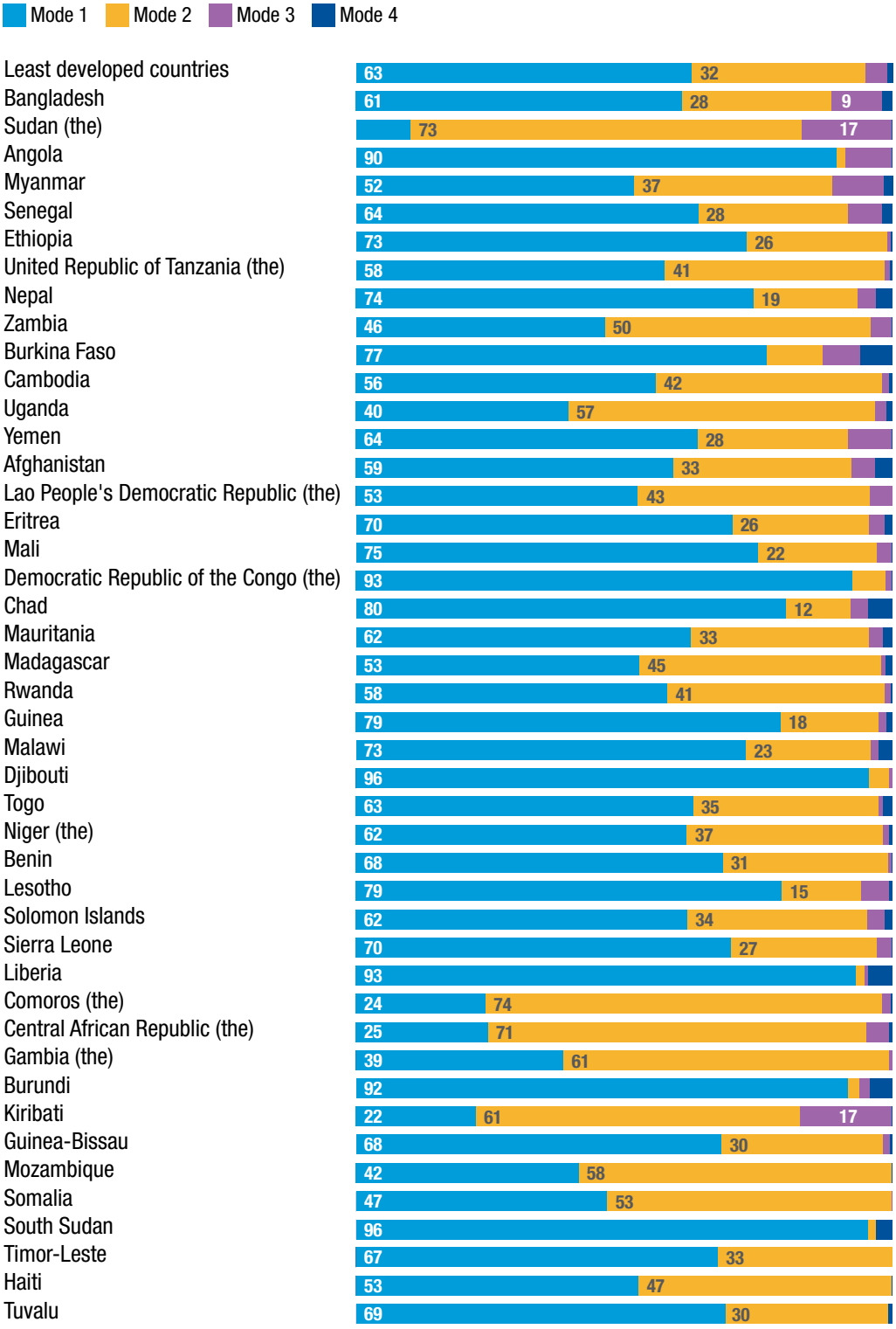
The latest available data show that cross-border supply is the main mode of supply for LDCs, accounting for 58.3 per cent of services exports by LDCs in 2022, while consumption abroad (mode 2) was second at 34 per cent (figure III.13). Commercial presence (mode 3) accounted for 6.8 per cent, while presence 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).

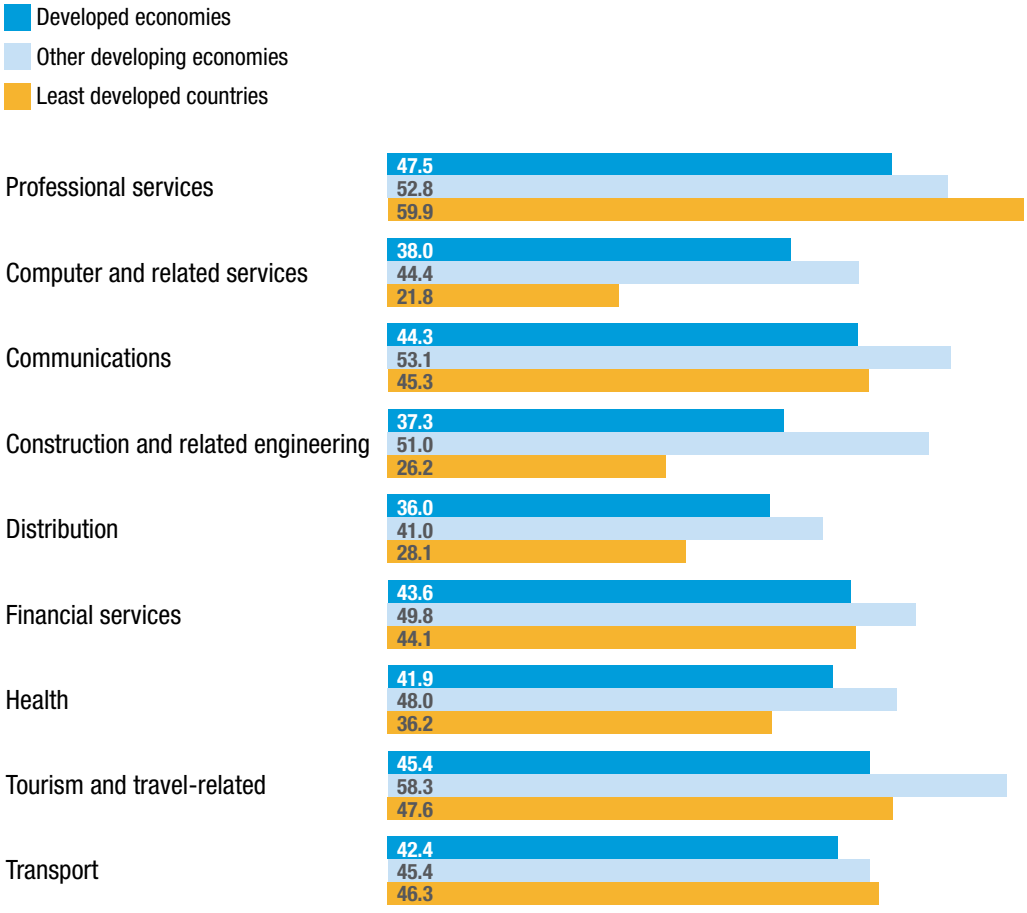
As highlighted under policies above, regional digital trade agreements are essential for breaking down barriers to digital trade. They create predictable and transparent rules that help LDCs build the capacity to navigate complex regulations and develop niche market opportunities (UNCTAD, 2024b). For 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.

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

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.

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.

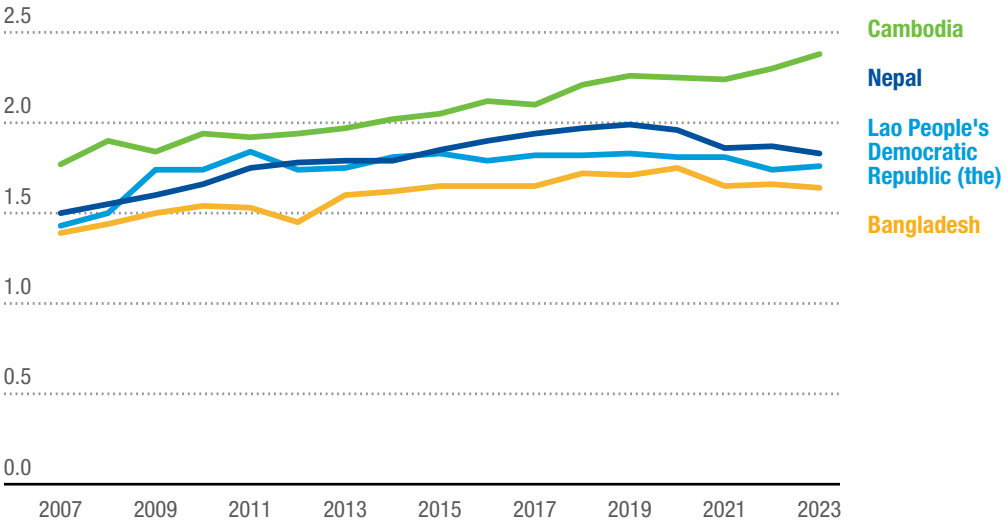
(b) Diversification into higher-value services: The countries may have to move beyond traditional services and develop more sophisticated, high value services that can be used directly by manufacturing and other productive sectors.

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

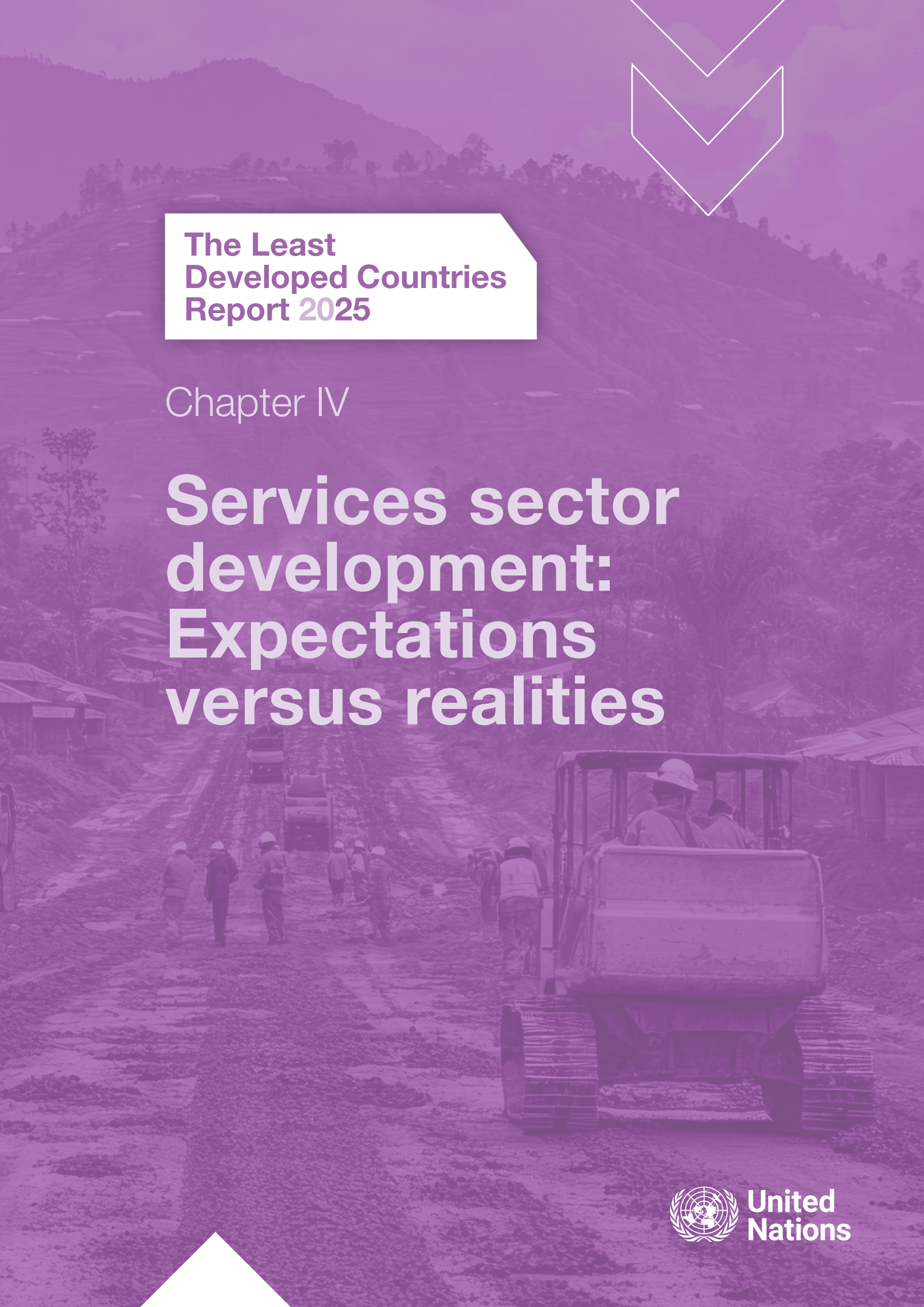
	2019	2022	2023	2024	Average 2022–2024
Bangladesh	13.9	14.1	12.8	12.6	13.1
Mozambique	16.3	12.0	12.0	12.3	12.1
Myanmar	27.0	12.2	11.3		11.7
Benin	14.8	12.9	10.2	11.6	11.6
Lao People's Democratic Republic (the)	16.9	4.7	13.7	15.6	11.3
Burkina Faso	14.2	10.0	12.2	10.5	10.9
Haiti	30.5	7.3	13.3		10.3
Chad	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).

The Least Developed Countries Report 2025

Chapter IV

Services sector development: Expectations versus realities



United Nations

A. Services: A growing pillar in least developed country development approaches?

This chapter assesses recent policy developments in least developed countries (LDCs) to find clues of policy shifts that signal that policymakers are broadening their perspective beyond the manufacturing industrialization pathway to grow productive and export-oriented services sectors as the preferred pathway to structural transformation and jobs creation.

1. The role of services in least developed country development strategies

The current landscape and underlying trends

To assess policy shifts and the growing role of services in the development of least developed countries (LDCs), the analysis focuses on business process services, financial services, logistics, tech-enabled services, tourism and transportation. These sectors reflect efforts by LDCs to find new ways to address the complex and interconnected challenges of sustainable development. Their selection aligns with regional priorities outlined in frameworks such as the African Continental Free Trade Area (AfCFTA) (financial services, business services, communications, transport and tourism); the Association of Southeast Asian Nations (ASEAN) (financial services, telecommunications, maritime and air transport, construction, tourism and business services); the Pacific Agreement on Closer Economic Relations (PACER) Plus; and the Pacific Island Countries Trade Agreement (PICTA) (tourism, transportation and business services).[1] Sector-specific patterns, risks and challenges are explored, followed by comparative case studies.

Case study countries were selected based on recent hub ambitions expressed in policy documents or official statements, with one hub strategy per country considered (except for financial services).[2] LDCs increasingly adopt hub strategies to drive job creation, revenue and economic diversification. These strategies often combine spatial planning, infrastructure investment and regulatory reform to create regional growth centres.[3] Similar to industrial clusters (box IV.1), hubs can foster specialization, innovation and productivity.[4]

[1] AfCFTA and ASEAN are the reference regional visions for African and Asian LDCs, respectively. The Parties to the Agreement of PACER Plus include Kiribati, Solomon Islands and Tuvalu. The Parties to the Agreement of PICTA include Solomon Islands and Tuvalu.

[2] Hub strategies are not necessarily a recent trend. For instance, the national strategy for the emergence of Senegal for the period 2014–2018 states the objective to position Dakar as a regional industrial logistics hub and a multi-service and tourist hub. This chapter targets development strategies from the 2020–2025 period.

[3] See case study in section A2 on the Kigali Financial Centre, which targets transforming Kigali city into a financial centre.

[4] Niche services sectors can be led by innovation-minded entrepreneurs facilitated by capabilities and infrastructure accumulated over time, agglomeration effects, favourable time zones or strategic geography, as seen in Silicon Valley for technology and London for finance (Mollan and Michie, 2012; Hackford, 2019).

Box IV.1.
The power of clusters: Driving economic growth and innovation

Popularized by Michael Porter in the 1990s, the cluster approach has been widely adopted by developing countries as a catch-up strategy. It focuses on concentrated geographic development to foster knowledge exchange, innovation and productivity. Clusters – whether in manufacturing, finance or technology – serve as incubators for specialization and capability-building. At the geographic level, they often outperform other regions economically and socially, and can serve as a spatial planning tool to address regional disparities.

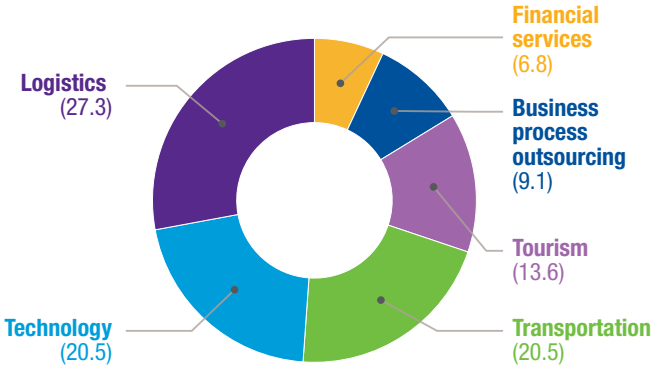
Manufacturing hubs (such as special economic zones and industrial parks) are the most recognized, but the model applies across sectors.

When supported by strategic policies and strong linkages to the broader economy, clusters and hubs can drive structural transformation, innovation and inclusive development, but need to be supported by targeted policies to establish linkages with the wider economy beyond static gains or enclave growth.

Source: Davis et al. (2023); OECD (2001).

Available data (figure IV.1) suggest that LDC policymakers are prioritizing logistics hubs,[5] leveraging maritime ports often interconnected with transportation hub strategies focused on transit corridors, export zones, rural development and inland dry ports. These efforts jointly support export-led goods trade growth and regional integration. Technology hubs – driven by goals to expand Internet access, harness youth potential, and promote e-commerce and e-government – are also popular. Fewer countries explicitly target tourism and financial services hubs, with only six and two countries, respectively, adopting explicit strategies.

Figure IV.1.
Least developed countries prioritize logistics hubs
Rate of adoption of services sector hub frameworks among least developed countries (Percentage)



Source: UNCTAD calculations based on publicly available national development plans and strategies.

[5] Transportation refers to the physical movement of goods, while logistics encompasses the broader management of goods and information flows across the supply chain (UNCTAD, 2021a). However, this distinction is often blurred in LDC hub strategies. For the purposes of this chapter, maritime port-linked strategies are referred to as logistics hubs, and dry port or road network strategies as transportation hubs.

2. Delivering additional value through hubs and spokes

Logistics and transportation

In developing countries, logistics improvements, especially roads and ports, have been shown to reduce trade costs by up to 15 per cent, enhancing competitiveness in global markets (Luttermann et al., 2020). The potential to enhance efficiency, reduce costs and time, modernize transportation modes, establish integrated digitalized logistics systems and foster low carbon practices is galvanizing LDC policymakers to gear their investments towards driving economic growth while generating an added boost through selling services to others.

Most LDCs are parties to several regional integration arrangements, making trade connectivity a top priority for them. A total of 30 LDCs are pursuing enhanced network linkages related to regional integration. Many coastal LDCs also serve as transit gateways for neighbours. Moreover, 16 LDCs are landlocked countries. For example, four out of the six Central Asia Regional Economic Cooperation Programme (11 member countries) corridors traverse Afghanistan. Accordingly, establishing logistics hubs, often tightly interconnected with the expansion of regional integration and international trade or transportation corridor infrastructure investments, has emerged as a distinct feature of economic and development strategies in LDCs.

Twelve LDCs (Djibouti, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Rwanda, Sierra Leone, the United Republic of Tanzania, Timor-Leste and Togo) have explicitly signalled the intention to establish logistics hubs. Of these countries, four also target establishing transportation hubs. A total of 9 LDCs seek to position themselves as transportation hubs, while 30 are investing in regional integration corridor or domestic transportation network infrastructure development. Countries such as Mali and Nepal have taken significant steps to establish inland logistics hubs.

Given that over 80 per cent of the volume of international trade in goods is seaborne, and the percentage is even higher for most developing countries (UNCTAD, 2024), maritime ports are a logical focus of services and infrastructure-led development. Djibouti, Mozambique and Togo are among LDCs whose maritime ports benefit from unique locational advantages, and which are the main catalyst for regional logistics corridors transiting freight. However, while contributions to gross domestic product (GDP) growth of port operations are significant, their contributions to job creation and structural transformation in the national economies remains less obvious.

The Port Autonome de Lomé (PAL) has ranked among the top 100 global ports by Lloyd's List since 2021 (Lloyd's List, 2021).[6] It is ranked the highest among LDCs in the UNCTAD liner shipping connectivity index, followed by Dakar (Senegal), Djibouti and Sihanoukville (Cambodia).[7] The ports' modernization boom in these LDCs involves large investments in infrastructure and technology by multiple funders (box IV.2). In terms of their development stages, the port of Djibouti can be categorized as a third-generation logistics node port, while Lomé and Maputo are second-generation ports.[8]

[6] Rankings in terms of the number of containers handled by a port annually expressed in twenty-foot equivalent units (TEUs) of incoming and outgoing containers.

[7] See UNCTADstat, available at https://unctadstat.unctad.org/datacentre/dataviewer/US.PLSCI. The port connectivity index measures how well container ports are connected to global maritime networks. Rankings are as reported for the third quarter of 2025.

[8] Port categorization by UNCTAD depends on factors such as service offerings, technological capabilities and integration with global supply chains. First-generation ports focus on basic cargo handling, while second-generation ports add warehousing, distribution and some value added services, with stronger regional logistics links. Third-generation ports are highly advanced, offering comprehensive logistics and supply chain services, and are fully integrated into global trade networks with sophisticated technologies.

PAL is the main port for trans-shipments, including vehicle importation, in the West Africa subregion. It is also the main port for the imports and exports of Burkina Faso and the Niger, and increasingly for the imports of Ghana and Nigeria. The value of transported freight via the Lomé-Ouagadougou (Burkina Faso)-Niamey (the Niger) transport corridor accounts for 72 per cent of the GDP of Togo (UNCTAD, 2023). PAL has contributed to a thriving freight transport sector which, however, remains largely informal and requires professionalization. The development of the logistics sector is hampered by urban congestion (PAL is a city port), deteriorating road infrastructure and insufficiently developed rail and airport infrastructure (Kodjo et al., 2025; UNCTAD, 2023). PAL is important for the mining exports of Togo (mainly phosphate, limestone and construction products), but the sector remains underexploited (UNCTAD, 2023).

The economy of Djibouti accelerated in the second half of 2024, driven by a surge in port activity that has placed the country at the heart of a shifting global trade landscape. According to the International Monetary Fund (IMF), port activity accounts for 80 per cent of variation in GDP growth in Djibouti (IMF, 2025c).

Port operations soared by 31.4 per cent year-on-year in the second half, propelled by a 239.5 per cent increase in trans-shipment volumes, as shipping companies diverted routes around the Red Sea conflict zone (World Bank, 2025a). The port mainly serves Ethiopian exports (primarily agricultural products, with coffee being the most significant). Exports from Djibouti remain low, as the economy is still largely informal. However, the economy has a high dependence on food imports, due to negative impacts on subsistence farming from elevated climate and natural disaster. Emerging free zones targeting manufacturing have yet to have a significant impact on the economy (box IV.2).

Modern, capital-intensive ports do not offer significant employment opportunities, so during the period 2015–2021, the transport sector generated less than 7,000 new jobs in Djibouti, with the most recent estimates of unemployment elevated at 39.7 per cent, while 47.6 per cent of the working age population was engaged in informal employment (Djibouti, 2025). To foster greater local participation in the logistics industry, a training centre specializing in port operations and the logistics sector was inaugurated in November 2024.[9]

The Port of Maputo plays a critical role in alleviating pressure on South African ports, allowing greater fluidity in regional trade.

[9] Available at https://african.business/2025/04/long-reads/port-sector-driving-wider-development.

Box IV.2.
Selected case studies on maritime logistics hubs in least developed countries

Djibouti: A strategic logistics hub in the Horn of Africa

Strategic position: Djibouti's Vision 2035 seeks to leverage the location of the country's port at the strategic Bab el-Mandeb Strait, through which some 30 per cent of global maritime traffic transits, to become an African economic and trade hub.

Annual handling capacity: The Djibouti Port network encompasses seven specialized terminals for different cargo types, equipped with advanced cranes, automated systems and storage facilities. It processes 1.2 million TEUs. In addition to Ethiopia, it is ideally located to serve the Common Market for Eastern and Southern Africa.

Recent major investments: Upgrade of Doraleh Multipurpose Port, costing $580 million, completed in 2017.

Future development: In addition to strengthening the integration of its port, airport, and road and rail logistics, Djibouti is integrating its port into a network of industrial free zones. The newest, Djibouti Damerjog Industrial Free Zone, represents more than $1 billion in investment, and by 2035 is expected to be home to oil depots, a refinery, a cement factory and a power station backed by an oil terminal.

Impact on trade performance: The impact on trade remains unclear. Djibouti faces difficulties in collecting and publishing its foreign trade statistics, with data on trade exports non-existent in 2022. This hampers any assessment of port development on trade performance.

Employment impact: Direct jobs (public and private) estimated at 6,500 in transport and logistics. In 2019, free zones accounted for 20 per cent to 25 per cent of total formal employment in the private sector.

Sources: Du Couëdic (2025); Port of Djibouti (2025); UNCTAD (2024); Ford (2024); Aden (2019); WTO (2022).

Togo: Leading logistics hub in West Africa

Strategic position: Togo aims to become a major logistics centre in West Africa, leveraging the strategic location of the Port Autonome de Lomé (PAL) on the Gulf of Guinea, which is the deepest port along the West African coast, and from which access to several West African capitals is possible within a single day. Main exports include agricultural products such as cocoa, coffee, cotton and palm oil, as well as phosphates and petroleum products. Imports consist of a variety of goods, including food and agricultural products, mineral fuels and oils, vehicles, machinery and consumer goods.

Annual handling capacity: Cargo volumes increased from 300,000 TEUs in 2013 to 2.2 million TEUs in 2022, becoming the busiest port in West Africa in TEU terms. It is projected to process up to 2.5 million TEUs annually by 2025. In 2017, almost 80 per cent of the total traffic in tons was comprised of trans-shipments.

Recent major investments: Investments of $380 million enhanced the port's capacity and infrastructure; and the establishment ($230 million) of Plateforme Industrielle d'Adetikopé (PIA), a new special economic zone, was completed in 2021.

Future development: Priorities are innovation; infrastructure modernization, including the expansion of container terminals and the integration of advanced shipping technologies, encompassing full digitization of cargo clearance procedures and electronic payment systems; and improving sustainable performance.

Impact on trade performance: Trade openness has been declining since the early 2010s, despite growing activity in the Port of Lomé.

Employment impact: PAL provides over 10,000 direct and indirect jobs. According to the port, PIA provides about 6,000 direct and indirect jobs, with the long-term goal of creating 35,000 jobs.

Sources: Ouedraogo (2024); FurtherAfrica (2023); World Bank (2024a); Bridge Africa Consulting (2025); PIA (2020); Supply Chain Outlook Magazine (2025); Edoh (2025); UNCTAD (2022); IMF (2024).

Mozambique: Strategic logistics hub in Southern Africa

Strategic position: Maputo Port in Mozambique leverages its strategic location on the Indian Ocean coast and proximity to South Africa.

Annual handling capacity: The port container terminal handles 170,000 containers per annum. In 2024, the port handled 30.9 million tons. It handles containerized cargo, dry bulk cargo and liquid bulk cargo. Transit cargo is mainly destined for South Africa, and several landlocked countries of the Southern African Development Community. Half of all chromium produced in South Africa is shipped through Maputo.

Recent major investments: The port concessionaire plans further infrastructure investments of $600 million over three years beginning in 2024, representing an almost 90 per cent increase in port capacity.

Future development: Up to $1.4 billion in further port upgrades.

Employment impact: The port employs around 10,000 direct and indirect workers, but supports many more through related industries such as transportation, logistics and services.

Sources: Club of Mozambique (2024); Global Business Council (2024); Ecofin Agency (2024); MPDC (2023).

A 2022 study estimated that, in addition to 33,815 job opportunities, and household income effects, the average annual impact of the upgrade and expansion of the Maputo Port could generate, on average, $605 million (nominal values) in fiscal revenue, and contribute $345 million (in constant 2018 prices) to GDP (Conningarth Economists and Standard Bank Mozambique, 2022). Increased fiscal space from port revenue could drive higher public expenditures on education and health.

Tourism

The tourism sector plays a traditionally prominent role as a source of foreign exchange and driver of export revenues in many LDCs. Four LDCs (Madagascar, Malawi, the Niger and Nepal) have explicitly signalled their intention to establish their countries as tourism hubs.[10] However, tourism is a priority development sector in many LDCs. Those implementing hub policies are not (yet) among the highest ranked LDCs by the 2024 Travel and Tourism Development Index, and Madagascar and the Niger do not feature among the 119 countries ranked by the index (table IV.1).[11] Although at different stages of development, tourism sectors in all LDCs receive policy attention and support as part of broader economic development strategies. In 2024, among the 34 LDCs with available data, travel and tourism contributed more than 5 per cent to GDP in 20 countries, with the top five tourism earners recording shares between 10 per cent and 19 per cent (figure IV.2a).

Especially for the countries targeting to position themselves as tourism hubs, the ability to source tourists from various locations, distribute and transfer them within and across various national tourism destinations, and have an effective tourism management and service function, will be critical to their realizing their hub ambitions. Underdeveloped marketing promotion, geographical isolation, inadequate tourism infrastructure, negative perceptions related to safety and health risks, and limited health and ancillary services are often major weaknesses for tourism sectors in most LDCs.

For example, despite internationally acclaimed biodiversity status, the tourism industry in Madagascar needs to overcome poor infrastructure (with the overwhelming majority of hotels rated at three stars and below), poor roads and expensive airline travel, due to limited international connections (World Bank, 2024b). According to the World Tourism Organization Database, France accounted for 69 per cent (compared with 57 per cent in 2010) of international visitors to Madagascar in 2021. Similarly, Southern Africa is the major source market for tourism in Malawi, with 73 per cent of the 431,999 visitors in 2021 sourced from its neighbours Zambia, Mozambique and Zimbabwe. India (43 per cent in 2021 compared with 19 per cent in 2010) accounted for the highest share of 614,869 international visitors to Nepal in 2021.[12]

[10] While it can be inferred that all countries aspire to position themselves as tourism hubs, articulating a clear strategy signals a commitment to a deliberate and coordinated approach. This entails greater emphasis on developing a unique selling proposition, substantial investment in infrastructure, the provision of high-quality services and amenities, and strategic marketing to establish a world-class destination.

[11] The index measures the set of factors and policies that enable the sustainable and resilient development of the travel and tourism sector, contributing to the development of a country (World Economic Forum, 2024).

[12] With uneven reopening of countries and other markets, 2021 figures may be influenced by the COVID-19 pandemic.

Table IV.1.
Travel and Tourism Development Index 2024 overall rankings

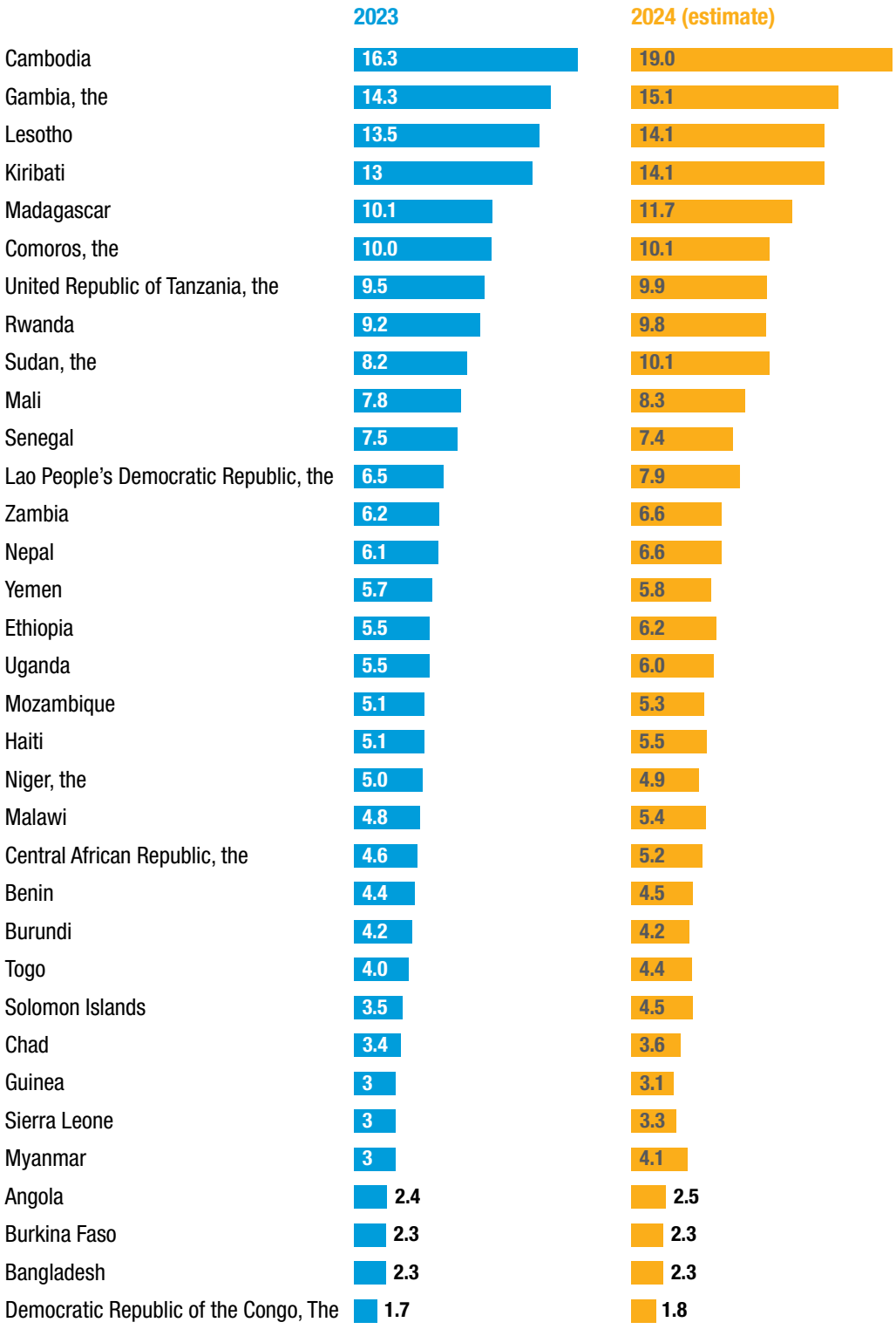
Economy	Rank	Change since 2019
United Republic of Tanzania, the	81	7
Cambodia	86	4
Lao People's Democratic Republic, the	91	2
Rwanda	93	6
Zambia	104	-2
Nepal	105	0
Senegal	107	2
Bangladesh	109	2
Benin	113	-1
Malawi	115	0
Angola	116	-2
Sierra Leone	118	0
Mali	119	0

Source: World Economic Forum, 2024.

As shown in figure IV.2b, high tourism export earnings do not necessarily correlate with significant job creation. The top five LDC tourism earners demonstrate a strong capacity to retain tourism revenue, yet tourism is not always the leading job creator in the economy. For instance, Cambodia, Kiribati and the Gambia rank high in both tourism revenue and employment, whereas Haiti, the Lao People's Democratic Republic and Nepal show relatively high employment figures, despite generating much lower tourism revenues.

Figure IV.2.
Tourism earnings and job opportunities show a complex relationship in least developed countries

(a) Tourism contribution to GDP, 2023 and 2024
(Percentage)

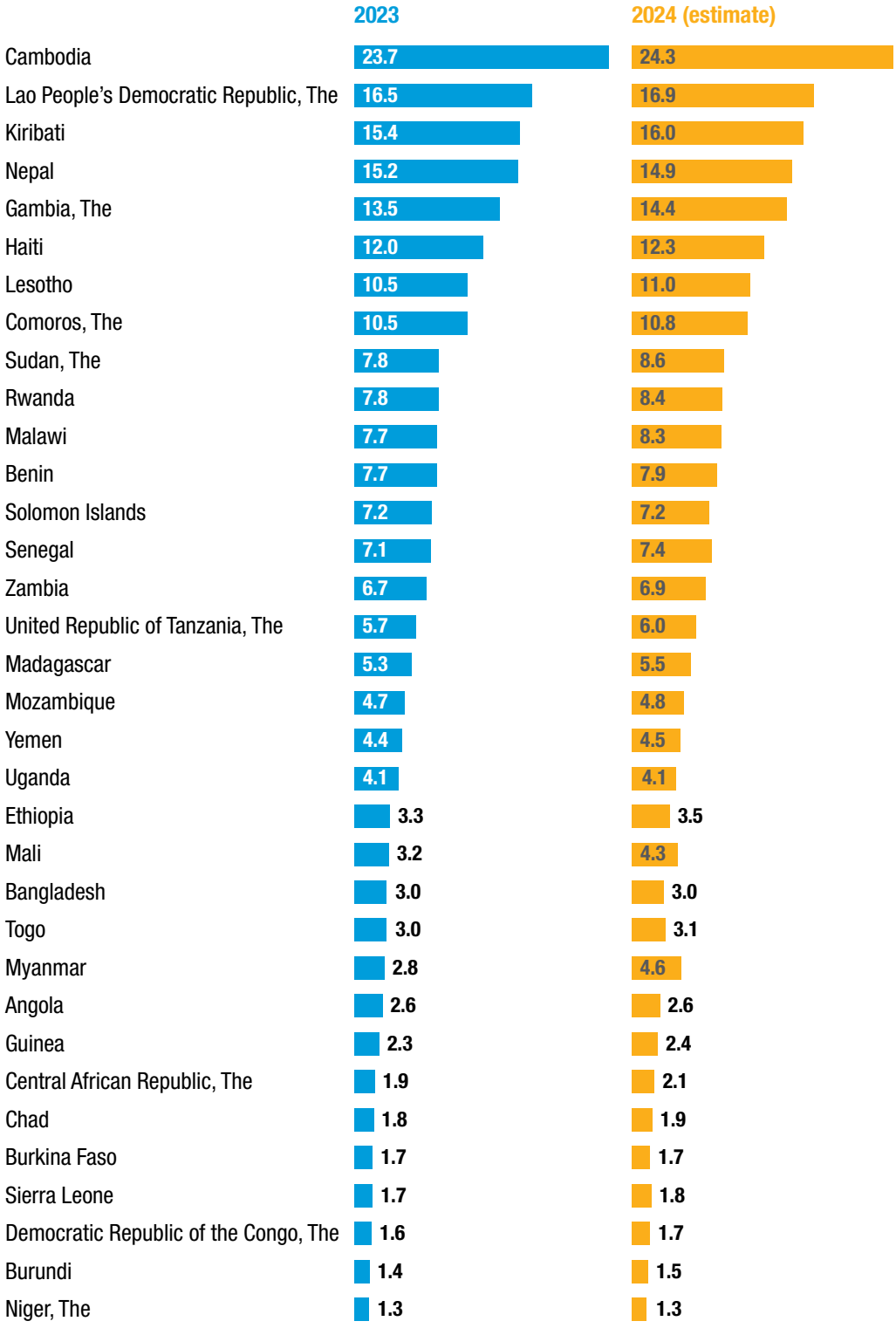


Source: UNWTO, 2024.
Note: Information unavailable for Afghanistan, Djibouti, Eritrea, Guinea-Bissau, Liberia, Mauritania, Somalia, South Sudan, Timor-Leste and Tuvalu.

Figure IV.2. *continued*

Tourism earnings and job opportunities show a complex relationship in least developed countries

(b) Share of tourism and travel jobs in total employment, 2023 and 2024
(Percentage)



Source: UNWTO, 2024
Note: Information unavailable for Afghanistan, Djibouti, Eritrea, Guinea-Bissau, Liberia, Mauritania, Somalia, South Sudan, Timor-Leste and Tuvalu.

Several factors contribute to the complex relationship between tourism revenue and employment. Certain segments of the industry – such as luxury hotels or high-end tours – can generate substantial income while employing relatively few people. Technological advancements and automation further reduce the demand for human labour (UNCTAD, 2025). Moreover, tourism jobs are often seasonal or part-time, meaning that even high revenue levels may not translate into a proportionate number of full-time equivalent jobs or widespread high wages. In some cases, a large share of tourism revenue may not remain in the local economy, especially when tourism operations rely heavily on imported goods and services, and foreign investors repatriate profits, weakening the link between tourism earnings and local economic impact, thus diminishing the sector's potential to generate foreign exchange.

A closer examination of leading tourism earners Cambodia and the Gambia reveals similarities and differences in fostering backward and forward linkages with contributions to structural transformation. In the Gambia, "sun and sand" tourism accounts for approximately 80 per cent of the sector, driven largely by a repeat and ageing European tourist demographic. Ecotourism and birdwatching have recently gained popularity. The Gambia has achieved high levels of local ownership in tourist accommodation, and strengthened the capacity of domestic stakeholders, including tourism professionals (see box IV.3), through supportive government policies. These include the 2005 Tourism Development Area initiative and tax incentives, provided by the Gambia Investment and Export Promotion Agency, which have encouraged local investment and community participation in tourism development. As a result, the country has transitioned from reliance on large international hotel chains to a more diversified and locally-driven tourism sector.

Furthermore, streamlined regulatory procedures and financial support for the construction and upgrading of hotels, lodges, transport infrastructure and essential services have created strong forward linkages with the local construction industry, while also stimulating demand for transportation, financial and telecommunications services.

The tourism sector in the Gambia predominantly attracts female workers, both skilled and unskilled, and offers substantial opportunities for micro and small enterprises. Although a 2018 survey (box IV.3) suggests that the sector's direct contribution to employment may be as low as 2 per cent – despite its notable share of GDP – estimates from the World Travel and Tourism Council indicate that tourism directly accounted for approximately 6.5 per cent of employment in 2019, rising to 17.1 per cent when indirect and induced effects are included. Tourism is also a key driver of foreign direct investment (FDI), having attracted over $45 million between 2017 and 2022 (World Bank, 2022a). Strong backward linkages with domestic agriculture and manufacturing span a wide range of local suppliers – including horticulture, meat, dairy, fruit juices, seafood, poultry, crafts, locally produced furniture, and cosmetics – highlighting tourism's potential to stimulate broader economic activity. Initiatives such as "Gambia is Good," launched in 2004 (box IV.3), have strengthened connections between tourism and the fruit and vegetable sector. More recently, the "Gambia's Good Market" initiative, launched in 2025, targets youth and women entrepreneurs, promoting home-grown products and services, and enhancing market access for small businesses in the tourism and creative industries.[13]

Tourism supports women, youth entrepreneurs and local value chains in the Gambia

[13] Available at https://x.com/ITCnews/status/1941134194719195474.

As with the Gambia, the economy of Cambodia is highly dependent on tourism. Prior to the COVID-19 pandemic, the sector experienced a period of rapid growth, with the number of international tourist arrivals reaching 6.6 million and tourism receipts totalling $4.9 billion – equivalent to 18.2 per cent of GDP – in 2019. When accounting for indirect impacts, the total contribution of tourism to GDP rose to 31.4 per cent, with employment impacts reaching 31.2 per cent (ADB, 2023).

As in the Gambia, tourism has strong forward linkages with infrastructure development. Although some estimates suggest that backward linkages with agriculture through the use of local inputs for food and beverage sales to tourists translated to about $1.6 million at the farm gate in 2013 (WTO et al., 2013), more recent sources suggest the sector since relies heavily on imported food products (Mao et al., 2014; Kanha, 2025). Traditional handicrafts – such as silk products, stone carvings and lacquerware – benefit from tourism markets, providing income opportunities for disadvantaged rural youth. Local ownership in tourist accommodations in Cambodia is substantial, with many establishments owned and operated by Cambodians. In 2019, the number of guesthouses and hotels increased by 16.9 per cent and 24.1 per cent, respectively. This high level of local ownership has helped distribute tourism's economic benefits domestically, but also amplified the sector's vulnerability to external shocks.

The pandemic caused tourism's GDP contribution to fall to 7.2 per cent in 2020 and 4.7 per cent in 2021, with employment declining by 21.7 per cent in 2020 (ADB, 2023). While the Ministry of Tourism projects 7.5 million foreign tourists in 2025 – up from 6.7 million in 2024 – recovery in tourism receipts remains sluggish. This is partly due to a shift in the composition of arrivals, with fewer air travellers and a growing share of tourists from ASEAN countries replacing high-spending Chinese visitors, whose numbers remain well below pre-pandemic levels (IMF, 2025a).

A combination of trade-offs between tourism revenue and job creation is likely present across all LDCs, as these economies increasingly pursue diverse tourism diversification strategies. Among these, ecotourism – alongside broader sustainable and high-end tourism – is the most widely favoured, with 38 LDCs actively seeking to develop these segments. Countries such as the Lao People's Democratic Republic, Rwanda, Timor-Leste and Vanuatu exemplify this trend. Some LDCs are exploring less conventional tourism niches. For example, in addition to ecotourism, Eritrea aims to position itself as a leading conference and cycling hub in Africa, targeting both business and sporting events. The Niger, while prioritizing domestic tourism, also seeks to become a centre for international events. In Ethiopia, a private investment firm recently announced plans to develop a multispecialty hospital complex in Addis Ababa, aimed at transforming the city into a medical tourism hub. [14]

[14] This illustrates how investment funds and some multilateral institutions increasingly promote private healthcare solutions. With reported estimates of $500 million and $1 billion in annual expenditure on international health services spent by Ethiopians and Nigerians, respectively, this private initiative is betting on existing demand from the local economy and the rest of the continent (MedEdge, 2024; Adeoye, 2023; Getachew, 2024). See also https://rohamedicalcampus.com/medical-campus/.

Box IV.3.
Resilient tourism: The path of the Gambia to recovery and growth

The Gambia has a high dependence on tourism, averaging 20 per cent of GDP and accounting for 48 per cent of exports prior to the COVID-19 pandemic. European countries account for up to 80 per cent of international arrivals. Proximity to Europe, combined with a reputation for pristine beaches and strong international flight connectivity, has traditionally attracted seasonal tourists seeking to escape the European winter. Between 2009 and 2019, leisure and business tourism segments grew by 269 per cent and 200 per cent, respectively. Marketing efforts have primarily been led by international tour operators, as government capacity to collect and utilize tourism data remains limited. As a result, most tourists purchase all-inclusive packages, with much of the tourism value chain captured by the tour operator and destination hotel. Nonetheless, out-of-pocket tourist spending – averaging around $304 per visitor on items such as food, shopping and excursions – accounts for roughly one third of the tourism value chain. This is higher than in comparable markets – such as Ethiopia, Mozambique and Uganda – where the availability of discretionary products is more limited.

According to a survey undertaken in 2018 by the Gambia Bureau of Statistics, Gambian ownership (62.1 per cent) is spread across all types of tourism accommodation establishments. However, the accommodation type (apartments) with the highest turnover had the highest levels of foreign ownership (56.9 per cent). Gambians similarly dominate ownership of ground tours (95.7 per cent), but 65.2 per cent of operators realized low turnover.

In 2020, the tourism sector experienced a sharp 62 per cent year-on-year decline in international visitor arrivals, falling below 1997 levels. This was accompanied by a $152 million drop in tourism receipts, equivalent to 9 per cent of GDP. The sector's contribution to GDP contracted by 52.8 per cent, while employment fell by 30.5 per cent. It is estimated that 94 per cent of the financial losses were absorbed by accommodation providers, with the remainder borne by ground tour operators, restaurants and beach bars. The resulting impact on employment was severe. By 2018, the sector was estimated to support over 41,800 direct and 65,500 indirect jobs – equivalent to 18 per cent of total employment.

In 2022, the Gambia secured a $68 million grant from the World Bank to support the Gambia National Tourism Policy Strategy 2021–2031. The strategy aims to build on the sector's previous achievements, address both existing and emerging challenges in the aftermath of the COVID-19 pandemic, and enhance overall competitiveness of the tourism industry.

Sources: UNCTAD (2017); Huma (2022); The Gambia (2018a, 2018b); GiEPA (2020); IMF (2025b); World Bank (2022b).

Financial services

Financial hubs[15] that specialize in cross-border financial activity, often located in small economies, have become a well-established feature of the global financial system. This trend is driven by factors such as geographic positioning, regulatory frameworks and tax regimes, which counterbalance the natural tendency of financial activity to concentrate in a few major global centres. The prominence of FDI in these cross-border hubs, frequently in the form of funds that transit with minimal local economic engagement, reflects the significant role of tax and regulatory considerations in shaping financial flows (Pogliani et al., 2022).

Developing a financial hub can yield significant economic benefits, as these centres attract investment and enable the efficient allocation of capital, thereby fostering growth and development.

Being a financial hub also enhances a city or country's integration into global markets, facilitating international trade and investment for local businesses. The concentration of financial services can generate substantial employment opportunities, not only within finance, but also in related sectors such as law, accounting and information technology. The convergence of finance and technology often positions financial hubs as centres of innovation, attracting top talent and driving the creation of new financial products and services.

While the overwhelming majority of LDCs (37 countries) focus on fostering financial inclusion, with the goal of poverty reduction,[16] just three LDCs explicitly aim to position themselves as financial hubs – namely, Djibouti, Rwanda and Senegal. Rwanda is the only LDC to have made significant progress in establishing its capital as a financial hub (box IV.4).

[15] Also referred to as financial centres.

[16] Financial inclusion initiatives often focus on household-level access, with limited spillover to productive enterprise financing.

Box IV.4.
Kigali International Financial Centre in Rwanda is setting a high bar for excellence

Officially launched in 2020, the Kigali International Financial Centre (KIFC) is the flagship initiative for Rwanda to position itself as a financial hub in Africa, aimed at attracting international investment and facilitating cross-border financial transactions. Rwanda has signed memorandums of understanding with financial centres in Luxembourg, Qatar, Astana (Kazakhstan), Jersey and Abu Dhabi (United Arab Emirates), fostering collaboration in areas such as financial expertise, financial technology (fintech) development and capacity-building. These partnerships enhance the role of KIFC by promoting international financial integration and knowledge exchange.

Within just three years of its establishment, KIFC rose to seventh place in the Middle Eastern and African Centres category of the Global Financial Centres Index, surpassing more established hubs such as Cape Town, Johannesburg, Nairobi and Lagos. Rwanda has also become the domicile for 25 investment funds, with sectoral targets set to reach 300 fintech companies and create 7,500 jobs by 2029.

KIFC debuted in the 30th edition of the Global Financial Centres Index ranked 83rd out of 116 centres in 2021 – a notable achievement for a newly launched financial centre. Since then, Kigali has climbed 11 places, to rank 72nd globally in the 37th edition, and is among the top five centres expected to gain global significance. In fintech, KIFC ranks 64th worldwide.

As of December 2024, the financial system of Rwanda comprised 696 regulated institutions, up from 664 in December 2023. These included 11 banks (commercial, microfinance, development and cooperative); 13 pension schemes (public and private); 18 insurers (covering life, non-life, microinsurance, captive, health maintenance organizations and mutual insurers); 434 community-based microfinance institutions; 78 foreign currency dealers; 37 payment service providers; 104 non-deposit-taking financial institutions; one stock exchange; and 1 credit bureau. Credit risk remains low across all subsectors. The banking sector – dominated by Pan-African groups, with the five largest banks holding 75.6 per cent of total banking assets – accounts for 67.5 per cent of the financial system's total assets. The insurance subsector is closely linked to the broader financial system, with 40.8 per cent of its assets invested in financial placements and equity, underscoring its role in financial stability and economic growth. Notably, the non-life segment represents 89.2 per cent of the insurance sector's total assets.

Sources: Z/Yen Group and China Development Institute (2025); Rwanda (2025b). Also see KIFC website, available at https://kifc.rw/ (consulted April 2025).

Rwanda's financial and insurance industries grow, boosting employment and contributing to economic development

In Rwanda, successive government-led policies have been instrumental in driving the structural transformation of the economy – from agriculture-based to services-led. Rwanda stands out as a successful early mover riding the financial services hub wave (box IV.4 and box IV.5). The country implemented its Financial Sector Development Programme (FSDP I) from 2008. The programme helped increase access to financial services from 47 per cent to 80 per cent of the population by 2017. KIFC was launched in 2020 under FSDP II.[17]

In 2024, the services sector grew by 10.3 per cent, contributing 5.1 percentage points to overall GDP growth, with financial services a growing component, representing approximately 3 per cent of GDP and accounting for an average of 5 per cent of services output between 2006 and 2022 (Vanguard Economics et al., 2024). The depth of the financial sector, measured by total assets as a share of GDP, increased from 64.3 per cent in December 2023 to 68.5 per cent in December 2024, highlighting its growing role in supporting economic development (Rwanda, 2025b). This expansion is being driven by efforts to mobilize savings, particularly long-term savings, and attract long-term capital for investment. The financial and insurance industries accounted for 0.8 per cent of total employment in 2024, with the number of people employed in these sectors rising from 22,000 in 2017 to 37,000 in 2024 (Rwanda, 2025a).

Strategic initiatives and supportive regulatory factors that explain the upward trajectory of KIFC are detailed in table IV.2.

Looking ahead, Rwandan authorities acknowledge financial services' heightened exposure to cyber risks from digitalization and the growing threat to financial stability from climate-related risks (Rwanda, 2025b). The microfinance subsector faces several challenges, including the transition to full automation and digitalization, as well as weaknesses in corporate governance and internal controls.[18] Non-deposit-taking financial service providers have become a key alternative lending channel, and are expected to play a significant role in curbing illegal lending practices and promoting formal credit access (Rwanda, 2025b). Growth in lending from these providers is driven by digital microlending, particularly float financing and lease agreements for electric motorbikes, which support the expansion of the transport sector and related entrepreneurial activity.

Overall, the efforts of Rwanda to establish Kigali as an international financial centre and fintech hub are showing promising results. The country's network of information exchange agreements on tax matters spans 151 jurisdictions, 20 bilateral double taxation agreements, and relevant East African Community regional agreements. The first peer review report by the Global Forum on Transparency and Exchange of Information for Tax Purposes[19] concluded that the legal and regulatory framework in Rwanda was satisfactory, though the banking sector's information-sharing practices needed some improvements (OECD, 2024).

[17] FSDP II comprises four main programmes: (a) financial inclusion; (b) developing financial institutions, markets and supporting infrastructure; (c) enhancing investment and savings to transform the economy; and (d) protecting consumers and maintaining financial stability. Available at https://www.minecofin.gov.rw/1/accountant-general-1-1-1.

[18] Launched in 2008 to promote financial inclusion, Rwandan Umurenge Savings and Credit Cooperative Organization (U-SACCOs) have evolved from community savings schemes into key players in the microfinance sector. They have fostered a culture of saving, credit management, entrepreneurship and investment. Despite their progress, concerns persist about their transition to formal banking. The Government is now consolidating and strengthening SACCOs, having completed the automation of 416 U-SACCOs in June 2024, with ongoing efforts to merge them into 30 District SACCOs (D-SACCOs) (Rwanda, 2025b; Diop et al., 2023).

[19] The report constitutes the Phase 1 review, which assesses only the adequacy of the existing legal and regulatory framework of Rwanda. The assessment of the practical implementation of the legal framework will be the focus of the Phase 2 review, to be launched by June 2027.

Table IV.2.
Strategic drivers behind the progress of the Kigali International Financial Centre

Strategic initiatives	
Attracting cross-border investments	Facilitating cross-border investments and financing across Africa. For example: $350 million Fund for Export Development in Africa established by AfreximBank; $250 million Virunga Fund created through a partnership between Qatar Investment Authority and the Rwanda Social Security Board; $10 million Angel Investment Special Purpose Vehicle registered in Kigali by the Dakar Network of Angel Investors; $2.2 billion cross-border payments firm Chipper, co-founded by a Ghanaian and Ugandan.
Building a domestic talent and skills base	Investing in developing local talent and skills to support the financial sector. This includes partnerships with educational institutions and professional training programmes.
Promoting Kigali as a financial destination	Strategic marketing and international partnerships.
Hosting major events	Organizing significant events that attract global attention, such as the Inclusive Fintech Forum.
Supportive regulatory factors	
Modern legal and regulatory framework	Rwanda has implemented a modern and innovative legal framework that supports financial operations, including a regulatory sandbox to encourage fintech solutions, as well as partnerships and educational initiatives such as the Rwanda Imbaraga SMEs Ecosystem (RISE), which facilitates the Bank of Kigali extending loans to RISE-certified small and medium-sized enterprises (SMEs).
Good corporate governance	Emphasizing strong corporate governance and compliance with international financial regulations.
Ease of doing business	A regulatory environment designed to help businesses set up and operate, including streamlined processes for registration and licensing and the Open Finance Framework, which facilitates data-sharing, enabling more inclusive financial services for SMEs.
Investment incentives	Extending various incentives to attract international investors, including tax benefits and other financial inducements.

Sources: Rwanda, 2025b. Also see KIFC website, available at https://kifc.rw/, consulted April 2025.

Box IV.5.
An integrated approach to fintech and technology startups
Rwanda optimizes the ecosystem for financial innovation

Following the launch of KIFC, Rwanda introduced its FinTech Strategy (2024–2029) to systematically and holistically develop the ecosystem needed to strengthen Kigali's position as a regional financial services hub. The strategy targets $200 million in fintech investments by 2029, and aligns with the Rwanda National Payment System Strategy (2018–2024), which promotes a cashless economy, expanded financial inclusion beyond payments, and advanced financial sector development.

The FinTech Strategy identified the majority of fintech firms in Rwanda as operating in payments, clearing and settlement services, and as fintech enablers (22 firms). Others are engaged in deposit lending (16), insurance (5), savings (5), capital raising/alternative finance (4), and crypto assets (1). Most firms operate in business-to-consumer (56 per cent) and business-to-business (36 per cent) segments, with the remainder serving government-to-consumer, business-to-government and consumer-to-consumer markets.

Existing interoperable payment platforms have supported innovation by enabling cost-effective integration between financial institutions and fintech firms. Fintech is widely credited with advancing financial inclusion. According to the National Bank of Rwanda's Financial Inclusion Dashboard, launched in March 2025, 90.2 per cent of the population was financially included as of 25 August 2025. The mobile payments ecosystem has grown rapidly, with retail digital transactions rising to 301 per cent of GDP in 2024, up from 179 per cent in 2023.

As of April 2025, StartupBlink reported 54 fintech firms operating in Kigali. Several notable companies have expanded into Kigali, including:

- Chipper Cash (founder origin Uganda, 2018) – cross-border payment solutions;
- Flutterwave (founder origin Nigeria, 2016) – online payments and money transfers;
- Ampersand (founder origin New Zealand, 2014) – electric motorcycle taxis and driver financing;
- KAYKO (founder origin Rwanda, 2020) – bookkeeping and accounting for small businesses;
- Viebeg (founder origin Kenya, 2012) – data-driven logistics for healthcare procurement.

The national and city-level startup ecosystem in Rwanda has become a key driver of competitiveness. In 2025, StartupBlink ranked five LDCs – Bangladesh, Senegal, Uganda, Rwanda and Somalia – among the world's top 100 startup ecosystems. Rwanda ranked 12th in Africa and 3rd in Eastern Africa. Given the relatively small domestic market, Rwandan startups are mainly oriented towards global markets. Public support includes tax incentives, accelerated equipment depreciation and intellectual property protection.

New initiatives such as the Centre for the Fourth Industrial Revolution (C4IR) – which promotes emerging technologies including artificial intelligence (AI), blockchain and Internet of Things (IoT) – and the roll-out of 5G in June 2025, have further strengthened the innovation infrastructure of Rwanda. While the startup ecosystem benefits from growing private sector and international support, challenges remain, particularly in infrastructure and access to early-stage funding.

Source: StartupBlink (2025); Rwanda (2024, 2025b). Also see https://afr.rw/rwanda-launches-national-fintech-strategy-to-drive-growth-and-innovation-2/.

One of the key challenges facing the financial services sector in Rwanda is the limited availability of a skilled talent pool. Existing gaps in both technical and soft skills are expected to become more pronounced as Rwanda expands its international financial services offering (Vanguard Economics et al., 2024; World Bank, 2019b). Although Rwanda produces a significant number of finance and accounting graduates, the current skills base is not yet sufficient to support the development of a globally competitive financial centre. Non-specialist roles, such as administrative staff and cashiers, make up 57 per cent of the workforce, while specialized positions account for 40 per cent. The typical financial sector employee is a male undergraduate with less than five years of experience, and under 40 years old.[20] Projections indicate that by 2027, the sector will need to fill approximately 1,700 senior banking roles, 4,500 mid-level roles, and 5,000 non-specialist roles, all requiring tertiary education. Meeting this demand will be challenging: average years of schooling were just 4.9 in 2023 and the training system in Rwanda remains fragmented (UNDP, 2025; Vanguard Economics et al., 2024). To address these gaps, Rwanda is actively engaging its diaspora, particularly financial professionals based in Canada and the United States.[21] [22]

Rwanda faces challenges in moving from access to financial services towards full financial usage. The slow uptake of financial and insurance services in the domestic market, despite high levels of financial inclusion, limits the broader impact of the financial sector on the country's structural transformation. In agriculture, the lack of tailored financial products beyond agri-insurance[23] continues to hinder the development of diverse value chains (Rwanda, 2022). Only 19 per cent of farmers are banked, with 76 per cent relying on other formal (mainly mobile money) and informal financial services (AFR, 2024).

According to the Finscope Survey 2024, formal credit uptake rose slightly, from 22 per cent in 2020 to 24 per cent in 2024, while informal credit, mainly from family and friends, stood at 38 per cent (AFR, 2024). At just 22.61 per cent of GDP in 2024, domestic credit to the private sector has been declining since 2022, below the government target of 30 per cent of GDP.[24] Poverty remains the major constraint: in 2023, over half the population lived below the income poverty line, limiting their ability to save or access credit. To deepen the capital market and improve yields, the Government began issuing bonds with maturity periods of up to 20 years in 2023.[25]

Enabled by fintech (box IV.5), there has been a notable increase in the uptake of private financial products (particularly microinsurance) and pension schemes. These segments are growing, although most of the population remained uninsured in 2024.

Business process outsourcing

Companies increasingly outsource both customer-facing and internal functions to focus on core activities, while leveraging the specialized expertise of the business

[20] In 2023, the share of the population aged 25 years and older with secondary education was 20.5 per cent and 24.5 per cent for female and males, respectively (UNDP, 2025).

[21] Available at https://www.idiaspora.org/en/opportunity/finance-sector-technical-and-vocational-education-and-training-experts-diaspora.

[22] A report commissioned by the Government of Rwanda revealed that Rwanda loses ICT professionals to other countries around the world, including Canada. The report also notes that the most common title among such Rwandan professionals having a LinkedIn account was "founder", and a good number of them were self-employed. Available at https://rdb.rw/talent-insight-report/ict.pdf.

[23] The insurance market in Rwanda is at an early stage of development. Penetration is still low, even compared with some of its regional peers.

[24] Available at https://databank.worldbank.org/.

[25] Government bond yields serve as a benchmark for capital costs and long-term bank loans. Available at https://bkcapital.rw/IMG/pdf/bk_capital_investor_handbook.pdf.

process outsourcing (BPO) industry. BPO plays a vital role in both manufacturing and services, though its application and impact differ across sectors. Overall, BPO helps streamline production and logistics in manufacturing, while improving customer experience and operational efficiency in services (PwC, 2024).

The emergence of BPO firms in LDCs is closely tied to the implementation of digitalization and information and communications technology (ICT) policies, as illustrated by case studies of Bangladesh, Madagascar and Nepal (box IV.6). Expanded global Internet connectivity also creates a conducive environment for growth. BPO enterprises in many LDCs have gained global visibility.

The experience of Madagascar offers valuable insights into how competitive conditions can influence the trajectory of emerging industries. From having the fastest broadband in Africa in 2018 (AXIAN, 2018), the position of Madagascar declined by 2025, likely due to a combination of infrastructure limitations, affordability issues and policy challenges. According to the Speedtest Global Index, Madagascar ranked 13th in Africa by median download speed in 2025, falling short of the continent's top performers. Table IV.3 presents a comparative analysis of key Internet connectivity indicators in the case study countries, and these provide evidence of far more positive prospects for the BPO industry in Bangladesh. The data also underline the importance of latency, when comparing Internet speeds – although download and upload speeds are faster in Nepal compared with Bangladesh, latency in Bangladesh is low, meaning connectivity has a more responsive performance.

Connectivity quality crucially shapes the prospects of BPO and digital industries

The BPO industry in Bangladesh traces its origins to the launch of the "Digital Bangladesh" initiative in 2009 – a national vision aimed at transforming the country into a technologically advanced and digitally empowered society. By leveraging ICT, the initiative sought to improve governance, drive economic development, and enhance the overall quality of life for citizens.

Since then, the Government has continued to mainstream and update the vision through successive development strategies and plans. A key institutional driver has been the Bangladesh Computer Council, established under the Ministry of Posts, Telecommunications and Information Technology. The Council plays a central role in promoting ICT-related activities, formulating national ICT strategies and policies, setting standards for government ICT tools, and fostering human capital development in the sector.

The ranking of Bangladesh in the United Nations E-Government Development Index improved significantly, from 150th in 2012 to 100th in 2024.[26] The country's digital economy comprises three key components: a domestic market-oriented segment (e.g. e-commerce, F-commerce, and IT-enabled services); a global-facing segment (e.g. digital service exports and freelancing); and global digital platforms operating within Bangladesh (Rahman, 2023).

Catalysed by World Bank support, between 2012 and 2019, IT sector revenues and exports increased by $280 million and created 35,000 digitally-enabled jobs, with over one third going to women (World Bank, 2020b).

Current initiatives aim to further strengthen the digital ecosystem, including improving cybersecurity, training youth and professionals in emerging technologies such as AI and cybersecurity, promoting digital adoption among SMEs and strategic industries, and fostering innovation through research and innovation centres. In addition, an integrated, cloud-based system for government agencies to drive cost savings on IT investments and ensure continuity of essential services is envisaged.[27]

[26] Available at https://publicadministration.un.org/egovkb/Data-Center.

[27] Available at https://edge.gov.bd/.

Box IV.6.
Business process outsourcing sector growth: The cases of Bangladesh, Madagascar and Nepal

Bangladesh: International expansion and joint ventures

The BPO sector in Bangladesh has experienced rapid growth, evolving from a few hundred employees to over 50,000 within a decade, and becoming a vital component of the national economy. A total of 2,686 companies are listed as members on the Bangladesh Association of Software and Information Services website, reflecting the sector's expansion.

The industry services offered include data entry, customer support, telemedicine, medical transcription, web design and software development. One industry source states that, by 2022, Bangladesh had 200 call centre service providers, 4,500 registered software and ICT-enabled services companies, and over 500 other BPO firms. Bangladeshi services are competitively priced – up to 20 per cent cheaper than those in India and 30 per cent lower than in the Philippines. A key advantage is the country's large pool of skilled workers, including an estimated 600,000 freelancers in 2022, who collectively earned around $150 million through international payment gateways.

By 2022, approximately 30 Bangladeshi companies had established overseas offices in countries including the United States of America, the United Kingdom of Great Britain and Northern Ireland, Japan, Denmark, the Republic of Korea, Germany, the Netherlands, Australia and Canada. Not all companies are wholly locally owned. Some are operated through joint ventures with international partners.

Madagascar: Broadband Internet and competitive advantage

Madagascar briefly held the distinction of having the fastest broadband Internet in Africa in 2018, thanks to its early connection to the Eastern Africa Submarine Cable System providing a head start in fibre connectivity. This helped attract efficiency-seeking FDI from technology-intensive BPO companies. These firms provided telecommunications and data processing services to major international clients such as Air France, Amazon and Deliveroo. At its peak, the BPO sector generated an estimated $115 million in revenue, accounting for 1.6 per cent of GDP. In 2019, the sector employed around 15,000 people, with projections suggesting this could rise to 100,000 by 2030.

Up to 2020, BPO activities in Madagascar were largely concentrated in lower value added services such as call centres and back-office operations, with France representing 75 per cent of firms' sales, followed by the United States, Switzerland and Belgium. By 2023, the export-oriented BPO sector had grown to approximately 230 firms, and a niche segment focused on higher value added services – such as ICT, software development and AI – had begun to emerge, supported by a pool of well-qualified local software developers.

Flexible and remote work arrangements helped reshape the geographic distribution of job opportunities, encouraging the expansion of activities beyond the capital city. This shift has particularly benefited women, who occupy around 50 per cent of entry-level positions and nearly 40 per cent of management roles in the sector.

Nepal: Growth in economic activity and foreign currency reserves

ICT services exports have emerged as a key driver of GDP growth and foreign currency earnings in Nepal. In 2020, they accounted for 1 per cent of GDP and 2.9 per cent of foreign exchange receipts. By 2022, these figures had risen to 1.4 per cent and 5.5 per cent, respectively. ICT companies alone contributed 0.5 per cent to GDP and 2.2 per cent to foreign exchange inflows. Notably, one study found that freelancers outpaced ICT firms in 2022, contributing 0.8 per cent to GDP and 3.4 per cent to foreign exchange earnings. The BPO sector in Nepal serves both domestic and international clients.

Sources: BASIS (2022); World Bank (2019a, 2020a); FNCCI (2024); IIDS (2023); AXIAN (2018); Recom (2024).

Table IV.3.
Median broadband speeds and affordability: Comparative data on Bangladesh, Madagascar and Nepal

Country	Rank 2024	Median country download speed (Mbps)	Median country upload speed (Mbps)	Latency (ms)	Affordability (% of gross national income per capita)
Bangladesh	98	59.2	52.8	4	1.28
Madagascar	123	31.9	13.0	38	51.8
Nepal	89	78.6	62.2	5	7.19

Sources: Speedtest Global Index, available at https://www.speedtest.net/global-index; and ITU datahub, available at https://datahub.itu.int.
Notes:
1. Mbps stands for megabits per second.
2. ms in latency stands for milliseconds.
3. Lower latency means a faster, more responsive connection, while higher latency can cause delays, buffering and lag in online activities.

Key components of the operationalization of Bangladesh's Vision include:

1. *Comprehensive digitalization of government services,* supported by multi-billion-dollar investments in digital infrastructure and communications networks (BASIS, 2022; World Bank, 2020b).
2. *ICT capacity-building initiatives,* aimed at enhancing the digital competencies of the national workforce and strengthening the local ICT industry, with a particular focus on promoting ICT-enabled services (ITES) and BPO (BASIS, 2022; World Bank, 2020b).
3. *Regulatory reforms,* to support the evolving digital ecosystem (BASIS, 2022; World Bank, 2020b).

To stimulate industry growth, the Government offered tax exemptions and profit repatriation for ICT and ITES companies, and cash incentives for ICT/ITES exports. The ICT infrastructure includes 39 high-tech and ICT parks designed to attract investors (PwC, 2023).

Government-led digital initiatives have significantly contributed to workforce upskilling. The BPO sector has diversified foreign exchange sources in Bangladesh, reducing reliance on the ready-made garment industry and supporting structural transformation. The country's BPO firms offer an expanding range of services – from data entry and call centres[28] to property reservations, bookkeeping and ICT support – enhancing productivity for both domestic and international clients (Asad, 2022). Demand for ICT and ITES services also comes from the manufacturing sector, including garments, textiles and pharmaceuticals (BPO.com, 2021). The rise of BPO companies has triggered positive spillover effects across ancillary industries, creating new business opportunities for local enterprises, and contributing to broader socioeconomic development and structural transformation (Asad, 2022).

[28] A licence from the Bangladesh Telecommunication Regulatory Commission is required to operate a call centre in Bangladesh. When the Government began promoting the information technology-enabled services and business process outsourcing industry, it eased the cost of call centre licenses. Available at https://www.thedailystar.net/news-detail-36686 and https://www.bacco.org.bd/blog-details/burgeoning_local_demand_to_spur_call_centre_business.

As of 2025, Bangladesh ranks second only to India in global freelancing, with over 650,000 active freelancers, of which 96 per cent are under 30 years of age and 80.8 per cent are tertiary graduates, generating more than $500 million annually in foreign exchange (Jobbers, 2025).

Looking ahead, both established and emerging firms are embracing AI. The integration of home-grown AI solutions (Briones, 2025; Recom, 2024) suggests a shift in skill requirements rather than a net loss of jobs. However, a significant barrier for the export-oriented sector is the lack of formal English training, reported by around 60 per cent of freelancers (Alam et al., 2021). Infrastructure limitations – including unreliable power supply, limited high-speed Internet and poor telecommunications – continue to hinder growth. The tech parks and investments in submarine cable networks contribute to addressing these concerns (Yadav, 2024; Bangladesh, 2025).

Industry trailblazers

National productivity growth is often driven by a few firms that make a disproportionately large contribution to productivity growth in the overall economy (Mischke et al., 2025). This section presents a case study of Ethiopian Airlines and tech startup, ShopUp.[29] Ethiopian Airlines provides an example of an LDC enterprise that has strived to scale high-productivity models, optimize portfolios, enhance customer value and redesign operations through cost reduction. Similarly, ShopUp exemplifies a layered expansion-driven strategy underpinned by market fit and agility.

Ethiopian Airlines was one of the few global carriers to maintain profitability during the COVID-19 crisis (Nwokolo, 2025; DLD, 2025). Ethiopian Airlines management has implemented strategic vision, brokered effective partnerships, and made investments in technology and human capital, delivering sustained profitability (box IV.7). Revenue exceeded $7 billion in the 2023/2024 fiscal year, contributing 5.7 per cent to the GDP of Ethiopia and employing 19,000 people directly (DLD, 2025).

[29] ShopUp is a business-to-business (B2B) platform that manages the entire B2B value chain, from initial sales and marketing to complex operations and customer service.

Box IV.7.
Ethiopian Airlines: Strategic moves to diversify, increase productivity and drive profitability

Founded in 1945, Ethiopian Airlines has evolved into a major global player in the aviation industry. As a State-owned enterprise in a least developed country, it has consistently demonstrated profitability and resilience through strategic planning and effective management. It has long prioritized technological advancement and human capital development, having established the Ethiopian Aviation Academy in 1956, its own maintenance facility in 1957, and the first pilot school in Africa in 1964.

The airline has implemented three transformative strategic plans:

Vision 2010, launched in 2005, aimed to significantly expand operations and market presence by 2010.

Vision 2025, achieved eight years ahead of schedule, resulted in a fourfold increase in revenue and fleet size, and the transformation of the airline into a diversified aviation group. This expansion included aviation training; flight catering; maintenance, repair and overhaul; and ground services.

Vision 2035 sets ambitious targets: transporting 65 million passengers and 3 million tons of cargo annually, generating $25 billion in revenue, doubling its fleet from 140 to 271 aircraft, and expanding its destination network from 131 to 207.

Ethiopian Airlines maintains operational independence and employs an incentive-driven management approach. Its hallmark qualities – flexibility and rapid decision-making – have enabled it to navigate crises effectively. For instance, during the 1991 internal conflict, the airline swiftly relocated aircraft and operations to Nairobi to ensure service continuity. More recently – in response to revenue declines, inflation, high fuel costs and global supply chain disruptions due to COVID-19 – the airline pivoted towards cargo, hospitality, and maintenance, repair and overhaul services. It converted 25 passenger aircraft into freighters, delivered essential medical supplies across Africa and South America, and provided maintenance services to carriers in the Middle East and Africa – actions that helped sustain financial stability.

The airline's investment in cargo infrastructure has positioned it as the largest cargo operator in Africa, with facilities capable of handling up to 1 million tons annually. In 2024, the airline inaugurated a new e-commerce logistics hub in Addis Ababa to meet growing demand from African online shoppers and retailers, partnering strategically with Chinese e-commerce giants. The airline also engages in joint ventures with DHL to develop its cargo business, and with Boeing for aircraft parts manufacturing.

Ethiopian Airlines has expanded its global footprint through its membership in the Star Alliance since December 2011, enabling strategic partnerships and code-sharing agreements that enhance connectivity to over 1,300 airports in 195 countries. Regionally, its partnership with ASKY Airlines, based in Lomé, Togo, serves 28 destinations across 26 African countries.

Sources: Waters (2024); Xinhua (2024); DLD (2025); Nwokolo (2025); Ombonga (2020).

The airline contributes significantly to the economic transformation of Ethiopia through its substantial foreign exchange earnings, job creation and the high value added nature of its operations. The airline has also played a catalytic role in the development of related export industries, including floriculture and high-value agricultural products such as coffee. Ethiopia has also embarked on the initiative to manufacture sustainable aviation fuel, which will contribute to reducing Ethiopian Airlines' carbon footprint (RSB, 2021).

In 2024, Ethiopian Airlines announced plans to construct the largest airport in Africa in collaboration with the African Development Bank. The first phase, scheduled for completion in 2029, is designed to accommodate 60 million passengers annually and generate thousands of new jobs. Ultimately, the airport aims to handle up to 110 million domestic, international and transit passengers each year (Ethiopian Airlines, 2024; Insight, 2025). The new facility will be part of a broader airport city development, featuring hotels, office spaces, retail outlets and other amenities, with plans to connect it to the existing airport via a high-speed rail system.

Ethiopian Airlines also has a partnership with Pan-African carrier ASKY to establish a regional maintenance, repair and overhaul centre, and an aviation academy in Lomé, Togo (Bekele, 2016).

ShopUp (box IV.8) stands out as a model of good practice, having successfully navigated many of the common pitfalls that hinder startup success. A key factor in its success was the development of a scalable and modular platform.

Box IV.8.
ShopUp: Powering small retail in Bangladesh

ShopUp, launched in 2016, is one of the most successful tech startups in Bangladesh. Based in Dhaka, the B2B commerce platform empowers small and medium-sized neighbourhood retailers (serving 31 million people) by facilitating product sourcing and logistics services. Initially focused on leveraging integration with Facebook Messenger to help small businesses without credit card capabilities via Facebook (e-commerce) – by offering order management automation, promotional tools, and basic logistics support – by the end of 2019, it had expanded its offer to enable the shops to procure inventory easily via a mobile app (Mokam), with access to over 10,000 products directly from manufacturers. As the business matured, ShopUp expanded into logistics – first through partnerships and eventually establishing early in 2020 its own logistics company, REDX, focused on last-mile delivery and logistics infrastructure across Bangladesh. By early 2022, REDX had grown to over 250 delivery points across 493 subdistricts in 64 districts, establishing itself as one of the largest logistics firms in the country. This was swiftly followed by its working capital and credit service, Baki, delivered in collaboration with BRAC Bank and other microcredit institutions. This evolutionary path transformed ShopUp into a full-stack B2B commerce platform.

In 2020, ShopUp enhanced its technology assets and experienced talent through the acquisition of Voonik, an Indian fashion e-commerce startup. By 2024, the company transitioned into its profit-generating phase, and raised over $198 million across eight funding rounds. Funding milestones include raising the largest Series B investment ($110 million) achieved by a B2B commerce platform in South Asia.

In May 2025, ShopUp announced a strategic merger with Sary, a Persian Gulf region B2B marketplace creating the SILQ Group, targeting markets across the Persian Gulf and emerging Asia. According to the Group, the combined network of ShopUp and Sary has processed over $5 billion in transactions; facilitated over 100 million shipments, serving more than 600,000 retailers; and collectively disbursed over $750 million in embedded financing. The merger came with $110 million in funding led by Sanabil Investments (a wholly owned subsidiary of the Saudi Arabian $925 billion Public Investment Fund) and Peter Thiel's Valar Ventures.

Sources: Future Startup Team (2025); Zoonop (2025); *The Business Standard* (2021); *Dhaka Tribune* (2025); Kader (2019).

Startups often face a range of strategic, operational and market-related challenges, including poor product–market fit, unclear value propositions, lack of differentiation, inability to keep pace with innovation, overreliance on external funding without a clear path to profitability, and difficulties in scaling (either failing to scale or scaling prematurely). Many of these issues are compounded by limited leadership experience (Santisteban et al., 2023).

ShopUp's leadership proved to be a major asset. Its co-founders held degrees from reputable institutions in business administration, computer science and engineering, and brought substantial professional experience in corporate consulting, financial management and operations. This is particularly important, as venture capital tends to prioritize capable founders over promising business ideas (Eisenmann, 2021).

B. Understanding the risks and trade-offs in services sector development

Services already constitute a driving force shaping LDCs' economics. At the national level, LDC policymakers recognize the transformative potential of modern services to enhance efficiency and competitiveness as a vital complement to export-led growth and regional integration. They also comprehend the contributions of technology-enabled solutions, public service delivery to socioeconomic progress, inclusivity and the expansion of productive activities. However, policymakers need to strategically leverage services subsectors and recognize that technological advancements present both opportunities and risks. Policymakers have a critical role to play by proactively identifying and mitigating risks. Capitalizing on the current "services moment" will require essential preparatory steps involving thorough national-level assessments, careful weighing of trade-offs, and the formulation of risk mitigation strategies.

The risk landscapes that services and manufacturing sectors are exposed to are different. Recognizing these differences is essential for designing tailored and synergistic regulatory frameworks, as well as for implementing appropriate incentives and support programmes. This understanding also helps policymakers assess the costs and benefits of policy interventions, particularly in the context of designing, implementing and evaluating industrial policy initiatives. Failure to account for sector-specific risks may lead to costly policy missteps and ineffective outcomes.

For policymakers in LDCs, a key consideration is that government interventions, especially those involving public financial support, should be based on realistic expectations, and complemented by adequate investments in institutional capacity and ecosystem development. The following discussion highlights critical risks and tradeoffs in the development of modern services sectors, with relevance to the hub strategy case studies presented in the chapter.

1. Exploring the services risk landscape

Table IV.4 outlines a non-exhaustive set of identifiable risks in the services sectors examined. While some risks, such as cybersecurity vulnerabilities, may be cross-cutting and not exclusive to services, their nature and intensity are often more pronounced in service-based industries.

Services and manufacturing

The risk landscapes of the services and manufacturing sectors differ significantly, due to the intrinsic nature of their operations, market dynamics and external influences. Manufacturing is typically associated with higher capital intensity and operational risks, stemming from the physical complexity of production processes and vulnerability to supply chain disruptions. As a result, manufacturing risks tend to centre on operational continuity and physical infrastructure integrity.

In contrast, services sectors generally face lower barriers to entry, with many modern services requiring minimal physical assets. However, these lower barriers often lead to heightened competition, especially in environments shaped by rapid technological change. Although both sectors must adapt to technological advancements and growing cybersecurity threats, service industries face more immediate pressure

Table IV.4.
Services risk landscape

Services sector	Risks
Business processing services and technology	May not increase availability or quality of jobs
	May not increase availability of formal sector jobs
	Systemic infrastructure weaknesses
	Vulnerability to cybersecurity threats
Financial services	Heightened financial instability
	Financialization
	Rise in inequality
	Vulnerability to cybersecurity threats
	Political/macroeconomic instability
	Vulnerability to terrorism and crime
	Changing nature and scale of consumer risks
Logistics/transportation	Competition issues
	Sustainability and environmental risks (systemic infrastructure weaknesses)
	Vulnerability to supply chain disruptions/failures
	Customs and legal compliance issues
	Vulnerability to cybersecurity and terrorism threats
	Political and geopolitical disruptions
	Regulatory changes
	Aid dependence and indebtedness
Tourism	Aid dependence and indebtedness
	Sustainability and environmental threats
	Systemic infrastructure weaknesses
	Political and geopolitical disruptions
	National and global economic crises
	National and global epidemics
	Terrorism and crime
	Leakages

Source: UNCTAD secretariat compilation.

to integrate emerging technologies such as AI, automation and digital platforms, to enhance customer experience and operational efficiency. Customer-facing technologies (such as chatbots and mobile banking apps) make innovation cycles more visible and intensify the need to stay competitive. Consequently, services sectors tend to carry elevated risk profiles related to technology adoption, data privacy and digital platform reliability, all of which are critical to maintaining customer trust and satisfaction (Baldwin and Freeman, 2021). The rapid pace of digitization and platform competition places traditional service providers under pressure to adapt or risk obsolescence.

Moreover, certain services subsectors mirror the vulnerabilities seen in manufacturing-led export development, such as low-value export traps and dependence on FDI. For instance, as highlighted in the tourism case studies, tourism sectors in LDCs often rely heavily on foreign investment, and capture minimal value within the tourism value chain. Similarly, high-value services sectors typically require highly skilled workforces (as discussed in chapters II and III), which many

LDCs cannot yet supply at scale and have difficulty to retain. As a result, BPO services in LDCs tend to cluster around low-value activities such as call centres and data entry, which are particularly susceptible to automation. Emerging evidence suggests that, as AI substitution becomes more feasible, global demand for entry-level workers, even within complementary skill clusters, is contracting significantly (Teutloff et al., 2025). In the case of freelancers in Bangladesh who possess some skills that are complementary to AI, these skills span a wide wage spectrum. Similarly, for LDCs, there may be structural limits on the expansion of modern financial services – as evidenced by the KIFC case study.

Financing economic transformation

The development of services sectors in LDCs requires prior or concurrent investments in complementary infrastructure, institutional and regulatory capacity, and enabling ecosystems. These efforts are often supported by selective industrial policy instruments that come with high fiscal costs.

Big-push public investment programmes in LDCs, especially those involving hub strategies financed through external debt, often require significant fiscal adjustment to avoid unsustainable debt dynamics or to accommodate higher debt levels over the long term. Investments in education, essential for developing dynamic services sectors, typically yield productivity gains only after six to eight years (Buffie et al., 2020).[30] Without new sources of development finance, such as greater involvement from domestic and regional development banks or sovereign wealth funds,[31] trade-offs between short-term fiscal consolidation and long-term human capital development may be unavoidable.

The high public debt levels in some case study countries illustrate these challenges. For example, after two decades of State-led investment in large-scale infrastructure and public development projects, Ethiopia announced in 2024 a halt to all government-funded capital projects due to unsustainable debt accumulation (UNICEF, 2023).[32] High levels of spending on infrastructure development have also led to financial constraints in Togo, with two thirds of all government revenue used to service public debt in 2019.[33] Public debt stood at 78.7 per cent of the GDP of Rwanda in January 2025, prompting the Government to institute "economic shock therapy".[34]

Many LDCs pursue multiple hub strategies, often targeting similar services sectors, which risks international overcapacity – a classic fallacy of composition. In logistics, for example, countries need to carefully assess their competitive advantages. With over 100 ports along the West African coast, competition is fierce.

[30] According to Buffie et al. (2020), it takes more than 15 years before net national income, the private capital stock, real wages for the poor and formal sector employment surpass their counterparts in a programme that invests mainly in infrastructure.

[31] As of 2025, 13 LDCs had established sovereign wealth funds, though some (Benin, Guinea and South Sudan) remain uncapitalized, and the fund of Djibouti, created in 2020, was dissolved in 2025. The fund of Ethiopia, established in 2021, is now the largest in Africa, while Mozambique launched its fund in 2024. Available at https://www.swfinstitute.org.

[32] External borrowing financed major infrastructure investments in Ethiopia, including the Addis Ababa–Djibouti Railway, as well as projects in education, healthcare, manufacturing, urban development and digital infrastructure. While these investments contributed to growth and poverty reduction, they generated fewer jobs than expected, and exacerbated inflation and foreign exchange shortages (World Bank, 2025b). Debt pressures intensified due to the COVID-19 pandemic and other economic and political challenges. Ethiopia entered negotiations under the G20 Common Framework in early 2021, reaching only an agreement in principle with official creditors by March 2025. Private creditors, including bondholders, have so far resisted restructuring efforts (Endeshaw and Miriri, 2025; Vieira, 2025).

[33] Available at https://www.bmz.de/en/countries/togo/economic-situation-55910.

[34] Available at https://www.ohchr.org/en/press-releases/2025/05/rwanda-must-avoid-balancing-budget-backs-poor-un-poverty-expert#:~:text=Public%20debt%20reached%2078.7%25%20of,as%20%E2%80%9Ceconomic%20shock%20therapy%E2%80%9D.

Port Autonome de Lomé (PAL) faces strong rivals in Côte d'Ivoire, Ghana, Nigeria and Senegal, and must maintain cost-efficiency and speed to retain its edge.

UNCTAD analysis suggests that, in Mozambique, the Port of Maputo earns four to five times more than Sihanoukville port in Cambodia,[35] due to its strategic location along key Indian Ocean shipping lanes. It generates additional business in bunkering, trans-shipment and cargo handling, and its role in serving landlocked neighbours. Sihanoukville, by contrast, has fewer opportunities for ancillary services, because it lies off major East-West routes, with some Cambodian exports often routed through Viet Nam.

Achieving scale and meeting investment goals will depend on consistent capital inflows, sound governance and strategic positioning amid regional competition.

Employment, jobs and productivity

Services vary in skill and capital intensity, the scale of enterprises supplying them, and their potential for remote delivery (chapter II). Many service jobs are also more susceptible to automation (UNCTAD, 2025). One area requiring close policy attention is the growing platform economy, which has introduced new forms of work, such as gig and freelance jobs, offering flexibility but raising concerns about job security and worker benefits. Compared with their peers in developed countries, freelancers in developing economies face greater instability, weaker social protections and limited rights (ILO, 2022a; Spatari, 2019).

The case studies from Bangladesh and Nepal show that freelancers dominate the BPO sector, with similar trends emerging in Rwanda. While digital employment is not inherently informal, it can create new forms of informal work.

Digital work is often seen as a continuation of the informalization trend (ILO, 2022b). This trend is not confined to LDCs. In Indonesia, digital labour, defined as workers who use digital technologies and the internet for their primary work, has increased rapidly as a share of digital employment, accounting for nearly 40 per cent of the workforce in 2022 (World Bank, 2024c). This increase is associated more directly with the rise in digital platform-based jobs and within digital employment, a significant increase is noticeable in the informal sector – including individual contractors and those self-employed (World Bank, 2024c).

Understanding the distinction between digital labour and digital employment is critical for policymakers. Digital employment represents the formal, skill-intensive jobs that anchor expectations about the transformative potential of the services sector. These roles, such as in IT services, software development, digital marketing, and other tech-enabled fields, are characterized by structured employment relationships, social protections, and greater income stability. In contrast, digital labour largely consists of task-based, platform-mediated, and often informal work. Recognizing this difference is essential for designing policies that not only expand opportunities but also address vulnerabilities in the digital economy. The rise of self-employment – often attracting educated professionals, students and women – may heighten vulnerability and limit upward mobility in contexts of already-high informality in LDCs.

The ILO also notes shifts from standard employment to non-standard forms of employment (including forms like temporary work, part-time work, and disguised self-employment) within the formal sector, underpinned by practices whereby large pools of workers classified as independent contractors rather than employees are created by gig work and the platform economy (ILO, 2016).[36]

[35] UNCTADstat, available at https://unctadstat.unctad.org/datacentre/dataviewer/US.OceanServices.

[36] See https://www.ilo.org/topics-and-sectors/non-standard-forms-employment#:~:text=They%20include%20temporary%20employment;%20part,employment%20and%20dependent%20self%2Demployment.

While non-standard employment is not always a concern, it is largely associated with greater insecurity for workers who often share characteristics of informality such as lack of social protection and job security, making their work informal in practice despite operating in a formal economy. Examples of such practices span developed and developing countries (ILO, 2016; Apella and Zunino, 2018).

The fallacy in composition (UNCTAD, 2002) in services can lead to significant churn in employment and jobs. In India, rapid expansion of IT-enabled services in the 2010s has led to excess capacity and price competition, with firms in the IT-enabled business sectors tending to overestimate global outsourcing demand. Academic studies note that saturation in low-end BPO services caused wage stagnation and high attrition rates (Shenoy, 2016; Roy et al., 2024; Taylor et al., 2014). Similarly, the problem of tourism oversupply is recognized as a structural vulnerability in Southern Europe, creating high numbers of often precarious and low-paid positions, and potentially exacerbating labour shortages for local businesses (European Commission, 2025; European Labour Authority, 2024; Bürgisser and Di Carlo, 2023).

Entrepreneurship

While financial inclusion is widely seen as an enabler of entrepreneurship, significant barriers often prevent it from being transformative. Entrepreneurship growth does not always align with financial inclusion, even as household access to finance improves. Similarly, expanding access only to financial tools and fintech is insufficient because finance alone is not enough – entrepreneurial and financial skills, digital literacy, diversity in financial products and connectivity are also critical. A recent study finds that financial inclusion boosts entrepreneurship only after a certain threshold is reached (Logogye et al., 2025). Policymakers should deepen financial inclusion beyond basic access to unlock entrepreneurship potential and navigate risks in the fast-evolving digital finance space, including addressing gender disparities in financial inclusion and the widening gaps for those left behind (UNCTAD, 2018; World Bank, 2022c; Rampaul, 2025; Sanga and Aziakpono, 2023; Logogye et al., 2025).

Access to finance remains a major barrier to the growth of viable tech enterprises in LDCs. Many startups led by the youth or recent graduates lack capital and are not investment-ready. Moreover, traditional bank lending models are ill-suited to tech startups (UNCDF, 2019). In the absence of local investors, startups rely heavily on foreign capital, which may come with limited understanding of local contexts, and introduce structural and cultural biases, including gender disparities. A study of 44 fintech firms in Rwanda found that only seven foreign-owned startups secured growth financing, while most relied on bootstrapping (UNCDF, 2019).[37]

Access to finance remains a major barrier for tech startups, reinforcing inequalities in LDCs

The case study on financial services in Rwanda highlights a widespread disparity in developing countries of significant increases in financial account ownership while the use of credit remains low. In low- and middle-income economies, only about a quarter of adults used formal credit in 2024 (World Bank, 2025b). An additional 35 per cent relied on informal sources. Crucially, of the 15 per cent of self-employed adults who borrowed for business purposes, most also borrowed only informally (World Bank, 2025b). This highlights the need for better access to responsible, formal credit options and the potential of cash flow–based lending models that draw on digital payment histories to assess creditworthiness (World Bank, 2025b; UNCDF, 2019).

Equally important is for policymakers to consider entrepreneurship within existing firms (UNCTAD, 2018). Expectations of the transformative role of ICT and technology in LDCs are high, yet empirical evidence on technology adoption as a driver of

[37] Bootstrapping is the reliance on personal finances or the operating revenues of the new company.

productivity and structural transformation is cautionary. Despite hopes that LDCs can 'leapfrog' technologies, the first challenge is that unlocking ICT potential requires a gradual, costly transition for firms (UNCTAD, 2020). Digital transformation and leapfrogging rely heavily on tacit knowledge, which is a component of technological capability that is difficult to aggregate or disseminate (UNCTAD, 2020). It is also notable that the impact of digital platforms varies by type. "Aggregator" platforms, which connect existing service providers to consumers, generally boost productivity, profits, and employment for those firms. In contrast, "disruptive" platforms that introduce new competitors, often reduce incumbents' mark-ups, employment, and wages without significantly improving their productivity (World Bank, 2024c).

Accordingly, policymakers must realistically assess the capacity of modern IT and tech-enabled services to deliver on entrepreneurship and structural transformation goals. Importantly, innovators and entrepreneurs are not always the same – effective innovation policy should focus on building supportive ecosystems that reflect this diversity (Startup Graveyard, 2025; Kumar, 2025; UNCTAD, 2018). A targeted, ecosystem-based approach can help ensure that public support translates into economy-wide gains in sustainable innovation, productivity growth and social impact.

Regulatory and institutional capacity

As already discussed, opportunities in modern services sectors are neither guaranteed nor evenly distributed. It is also important for LDCs to exploit opportunities in the services sector to foster structural transformation and economic diversification. In OECD countries, for instance, platforms improve productivity, but the effects depend on competition and regulation (World Bank, 2024c), which suggests that the extent to which ICTs and tech-enabled services can drive transformative entrepreneurship and productivity in LDCs will, in part, depend on regulatory and institutional capacities because countries must pursue both liberalization and regulation (World Bank, 2024c). According to the International Telecommunication Union (ITU), while the number of land-locked developing countries (50 per cent of which are LDCs) with advanced ICT regulation has more than doubled since 2014, over half remain at early stages of regulatory development, limiting their ability to foster competition, attract investment, and adapt to emerging technologies. Moreover, implementation gaps are common, even where policies exist (ITU, 2025).

LDC Governments are constrained in their ability to support their services sectors because they themselves need to improve their readiness to engage in and benefit from the evolving data-driven digital economy (UNCTAD, 2021b). In 2021, less than half of all LDCs had data protection and privacy legislation in place (UNCTAD, 2021b). Even in terms of more traditional institutional capacities, LDC Governments face intensified complexities. For example, when it comes to strategic infrastructure, such as ports, there is the added challenge of complex political economy forces at play (box IV.9). Services sectors require stronger and more adaptable regulatory capacity than goods-producing sectors, due to their diversity in roles, modes of delivery and policy objectives (World Bank and WTO, 2023). This diversity demands flexible governance and data-driven policymaking to identify growth, investment and employment opportunities.

Governance of the labour market still largely centres on standard employment relations. It is believed that current social protection systems are not well equipped to address the challenges associated with digitalization (ILO, 2016, 2022b). Existing gaps in coverage could worsen in LDCs. That means policymakers in LDCs need to also adjust labour and tax policies to reflect shifts in employment, especially with the rise of ICT and freelance work.

LDCs risk revenue losses should their tax systems struggle to track remote digital workers. E-formalization[38] has the potential for harnessing new technological progress to achieve decent work and sustainable development.

Many middle and low-income countries, such as Cambodia, China, and the Philippines, have adopted e-formalization initiatives with the development of e-government being an important first step (ILO, 2022b).

Although Bangladesh has achieved much progress on the establishment of e-government, debates around taxing the digital economy highlight the tension between boosting the tax-to-GDP ratio and maintaining competitiveness (Rahman, 2023). Digitalizing tax and customs administrations should align with a country's context and the maturity of its revenue systems. Governments will need to adopt a strategic rather than opportunistic approach, making digitalization a core element of internal planning with clear policy objectives (World Bank, 2022d).

Box IV.9.
Threats from concentration and geopolitics in strategic infrastructure services

The rise of PAL is closely tied to trans-shipment strategies of global shipping lines, which also dominate port operations in West Africa. This has weakened the competitiveness of neighbouring ports and undermined regional hub development efforts, disadvantaging smaller operators. Between 2010 and 2020, the market share of small- and medium-sized shipping firms in West and Central Africa fell from 25 per cent to 15 per cent.

Slot-sharing arrangements have reinforced the dominance of the top three European shipping lines, extending similar concentration patterns to transport hubs. For example, DP World from the United Arab Emirates has expanded its control across trade corridors in Africa, Asia and Europe. These trends – enabled by concession agreements and the landlord model favoured by many LDCs to attract FDI and expertise – raise concerns about competition, State capture and geopolitical influence. They also facilitate monopoly profits and dampen motivation for the pursuit of efficiency and innovation.

Sources: Asia Manufacturing Review (2025); UNCTAD (2022); DP World (2025); Martin (2025); Africa Logistic Network (2018).

[38] E-formalization' refers to the application of new technology in public initiatives, programmes and policies to facilitate the transition from informal to formal employment (ILO, 2022b).

C. Summary and policy considerations

The case study analysis suggests that hub strategies in LDCs do not mark a full shift to services-led economies, but reflect a deliberate effort by policymakers to diversify and broaden development pathways, including boosting fiscal revenues. Investments in logistics hubs (Djibouti, Lomé and Maputo) and transport corridors enhance trade connectivity, support manufacturing and mining exports, and modernize infrastructure. In Djibouti, port investments are even enabling new manufacturing activity. In tourism, LDCs are diversifying into niche segments – such as ecotourism, high-end travel and conferences – to increase resilience and economic impact.

Some LDCs are also proactively developing high-value technology-enabled services supported by digital infrastructure and startup ecosystems. Rwanda and Bangladesh are pursuing policy-driven models focused on talent, incentives, regulation and integration. Strategic policies help address infrastructure gaps, skills shortages and financing constraints, making services sectors more attractive to investors. In contrast, some countries, such as Madagascar and Nepal, are seeing market-led growth in modern services and ICT exports, facilitated by earlier investments in digital infrastructure. Both market-led and policy-driven growth are essential. Market-led growth signals innovation and local ownership, while policy can scale new and emerging sectors through targeted support. The case studies show that services are not neglected in public policy. Home-grown champions such as Ethiopian Airlines and ShopUp (Bangladesh) demonstrate that LDC firms can scale through innovation and partnerships.

However, the case studies also show the difficulties LDCs face in fully leveraging the transformative potential of hub strategies, including from a lack of data to evaluate their policies. Rwanda stands out for tracking job creation and quality linked to its hub strategy, supported by improved statistical systems. In contrast, Bangladesh lacks comparable data, reflecting broader gaps in institutional capacity across LDCs.

Logistics hubs often face integration challenges. In many cases, port investments by concessionaires are not aligned with national development plans, weakening their transformative potential. For example, Lomé's port suffers from congestion due to poor coordination with municipal planning. Similarly, the Cambodian tourism sector needs stronger linkages to other parts of the economy, and other case study countries face infrastructure and connectivity constraints. UNCTAD analysis on the structure of employment and trends in employment by occupation in these countries suggests that, despite potential, services have yet to drive major employment shifts in LDCs. These constraints collectively weaken the contribution of services sectors to structural transformation in the LDCs.

Given infrastructure backlogs, coordinated investments must go beyond physical assets to include institutional capacity, public services and risk mitigation. Leapfrogging into high-value services requires prior investment in skills and digital infrastructure – elements that cannot be skipped. Piecemeal approaches risk undermining returns. Complementary policies are needed for hub strategies to catalyse structural change (table IV.5). A strategic focus on services is thus more complex than attracting low-skill manufacturing FDI, but still essential for balanced and sustainable development in LDCs.

Table IV.5.
Policy lessons for maximizing the growth-pulling role of hubs

Lessons	Implications for LDC policymakers
Integrate hubs into national and municipal development plans	Align infrastructure, urban planning and sectoral strategies to avoid bottlenecks and ensure smooth logistics.
Track outcomes systematically	Measure not only investment and output, but also jobs, wages, productivity gains and sectoral linkages.
Blend policy-driven and market-led growth	Support emerging high-value subsectors with targeted policies (incubators, training and finance), without stifling entrepreneurial dynamism.
Maximize spillovers	Link hub activities to domestic micro-, small and medium-sized enterprises and suppliers to avoid "enclave" effects.
Invest in leadership and governance	As Ethiopian Airlines and ShopUp show, strategic vision, operational autonomy and strong partnerships are decisive productivity drivers.

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Chapter V

Conclusions and policy discussion

United Nations

A. The role of services in the structural transformation of least developed countries

This report critically discusses whether services provide least developed countries (LDCs) with a new avenue towards a type of structural transformation that leads them to the achievement of faster economic growth, higher labour productivity, and superior earnings and standards of living for their population. More specifically, it considers whether services contribute to LDCs' attaining their broader development goals by offering a development path that is different from the traditional industrialization route followed by the vast majority of countries that have had the most successful historical development experiences over the last 250 years.

To consider this complex question, the report carefully builds the analytical elements for its conclusions briefly summarized hereafter. The analysis and arguments presented throughout this report show that services can play positive a role in the structural transformation of LDC economies, especially when they are complementary to other sector (especially manufacturing) and a balanced approach is adopted by development policies and strategies. However, for services to be able to play such a transformational role, it requires a radical change by its companies and workers towards higher value-added and more knowledge-intensive activities which establish dynamic forward and backward linkages with other economic sectors and within the services sector itself.

On the basis of this analysis, the report draws policy considerations discussed in the following sections of this chapter. Given the heterogeneity of the services sector itself and the differences of LDC economies in terms of endowments, specialization and institutional capabilities, the chapter does not try to establish a programme of action. Rather, it provides indications of how LDC policymakers – with the backing of their development partners – can bring about changes in the services sector so that it contributes to the growth-enhancing structural transformation of their economies.

1. Changes in the productive structure

The type of structural transformation that most LDCs have been undergoing has meant the transfer of labour from agricultural/rural activities to services activities (mostly urban). Chapter II shows that services are playing part of the role of manufacturing in traditional development trajectories, namely that of creating jobs that absorb excess labour freed from agricultural/rural areas (Sen, 2023). The bulk of the jobs that have been created in the tertiary sector have been in low-productivity activities in micro and small enterprises. The majority of these firms grow very slowly if at all, and have narrow scope for technological upgrading. This type of structural transformation has not been growth-enhancing, in contrast to the past experiences of successful structural transformation based on industrialization.

At the same time, many LDCs have experienced, to different degrees, the very incipient development of modern knowledge-intensive and high-value-added services, such as the commercial and cargo air transport industry in Ethiopia, the port services industries of Djibouti and Togo, the financial and banking services industries in Rwanda, and the tourism sectors of Cambodia and the Gambia.

The services sector as a whole thus presents in LDCs a picture of duality between large traditional and smaller more modern subsectors and activities. Moreover, the input-output linkages between services and other sectors (such as agriculture, mining and manufacturing), or among different services subsectors, tend to be weak in LDCs, contrary to more developed economies. This limits potential growth-enhancing dynamic technology and knowledge spillovers generated by services sectors.

2. Trade

The limitations of most LDCs' services sector contributions to domestic development are also reflected in their services trade structure, which is analysed in depth in chapter III. LDC services exports are concentrated by product and market. They are dominated by two traditional export sectors: travel and transport. LDC services imports, by contrast, are considerably more diversified than their exports. These countries acquire abroad a wide array of services, reflecting their limited productive capacities and, in several of these services segments, limited demand. Services subsectors can mirror the same low-value export traps and dependence on foreign direct investment as often does manufacturing-led export development.

There are incipient cases of exports of higher-value digitally-delivered services (DDS) (such as business services and research and development), but they represent a minor share of LDC total services exports, and are concentrated on just a few LDCs. The dualistic picture in production and employment mentioned above is thus reflected in the structure of LDCs' services exports. LDCs have largely missed this recent development, and incur growing trade deficits for these products, because of their low investment in technology and lack of specialized skills (UNCTAD, 2020a, 2017a).

3. Sectoral policies

LDC Governments have been actively taking policy initiatives and programmes to develop some (sub)sectors of modern services, driven by the vision of services-led development, as shown in chapter IV. These initiatives have had mixed results, both in terms of the success of the services sectors themselves and especially in terms of their impact on broader development and structural transformation of the domestic economy.

4. The way forward

Despite these mixed results, the existence of more modern high-value added and more knowledge-intensive services production and exports in most LDCs – small as they may be – shows that barriers to their establishment and growth are not insurmountable.

Strategies to strengthen the contribution of services to the structural transformation of LDCs include both domestic and international policies, especially those affecting international trade in services. The remainder of this chapter discusses the policy approaches and options most likely to diversify and upgrade the services sectors of LDCs, so that they provide an effective contribution to the structural, growth-oriented and development-geared transformation of LDC economies in the future.

B. Strategies and policies for the development of the services sector

The present shortcomings of the economic performance of services in LDCs and of their limited contribution to structural transformation imply that LDC policymakers – with the backing and support of their development partners – need to implement policies that address the root causes of this underperformance. For the tertiary sector to fulfil the high expectations that it will become a driver of growth-enhancing structural transformation of LDCs, a coherent set of policies and strategies is required, to be designed and implemented by LDC Governments, with the support of their development partners.

Services are productive sectors per se, and therefore require a capital base; human resources and skills; technological capabilities; tangible and intangible inputs from other subsectors (whether primary, secondary or tertiary), and from physical infrastructure (such as energy, communications and transport); and soft infrastructure, including institutional and regulatory frameworks in which to operate. This means that the level of services development in a country (e.g. the level of labour productivity in the tertiary sector, the degree of diversification of its productive base and export structure, etc.) depends to a large extent on the overall development of the economy's productive capacities and on the business environment. These tend to be major shortcomings of LDC economies, which explain the level of performance of their services sectors (as shown in chapter II).

Policies to cater for these shortcomings include, among others, investment in physical and soft infrastructure; investment in education and training for human capital and skills development; policies for science, technology and innovation (STI); macroeconomic policies; and policies for mobilizing financing for development (including official development finance and foreign direct investment, but also domestic resource mobilization). They are meant to address the "fundamentals" that hold back economic growth in developing countries (McMillan et al., 2017).

However, these are very costly and long-term investments, given the yawning development gaps of LDCs. For this reason, along with these broader development policies that affect the functioning of the whole economy, LDC Governments are advised to implement policies that target different segments of services. For instance, development of transport services requires the building or upgrading of infrastructure such as roads, bridges, ports and airports in given areas of the country, even before it is feasible to extend networks throughout the national territory. Similarly, broadband internet services are typically available in some areas of the country (primarily urban centres) before gradually expanding to the rest of the country.

The heterogeneity of the services sector means that services development policies vary considerably between different subsectors, and therefore need to be sector-specific. Nevertheless, for these policies and initiatives to have the most effectiveness, they should ideally follow the broad indications mentioned below.

1. Services as part of strategies for growth-enhancing structural transformation

To realize the potential for services to provide a meaningful contribution to the structural transformation of LDCs, it is necessary for policymakers to place the

tertiary sector within broader strategies for a growth-oriented type of structural transformation. The services sector has an important role to play in the development of productive capacities of LDCs. This happens in two main ways.

First, the tertiary sector is an economic sector on its own right, and can therefore be a generator of jobs and a source of output and productivity growth. As already mentioned, in most LDCs, it has played the first role, but not the second. So far, the LDC tertiary sector has been capable of creating jobs, but has provided only a marginal contribution to a growth-enhancing structural transformation of LDC economies. LDCs have not been able to follow a path similar to that of India, where the services sector has been able to generate a very large number of jobs since the mid-1980s, while achieving strong productivity growth (Fan et al., 2023).

Nevertheless, the tertiary sector provides LDCs with an opportunity to diversify their productive bases and their exports. It has therefore appeared as one of the routes to lead economies out of commodity dependence and thereby attenuate the external vulnerability of economies. Angola has striven to follow this path, with the support of UNCTAD (box V.1).

Box V.1.
UNCTAD support to the services sector of Angola

UNCTAD has been a key partner in the ongoing efforts of Angola to diversify its economy and strengthen its services sector, through a combination of technical assistance, policy analysis and capacity-building programmes. A flagship initiative is the European Union–UNCTAD Joint Programme for Angola: Train for Trade II, which was launched in 2017. Within this framework, UNCTAD has worked closely with Angolan institutions to design policies that enable the services economy to develop, including through a focus on transport, logistics and creative industries. These areas are vital for improving competitiveness, attracting investment, and linking Angola more effectively to regional and global value chains.

Specific outputs of Train for Trade II included a manual for trade negotiations on services (UNCTAD, 2020b), which has provided Angolan policymakers and negotiators with practical tools to participate more effectively in regional and multilateral trade discussions. In addition, an online course was delivered to trade officials and other stakeholders in Angola, in preparation for negotiations on trade in services within the context of the Southern African Development Community (SADC)–European Union Economic Partnership Agreement and African Continental Free Trade Area (AfCFTA). Furthermore, UNCTAD has supported Angola in its efforts to develop a national entrepreneurship strategy through a national entrepreneurship review (UNCTAD, 2024a).

The UNCTAD *Vulnerability Profile – Angola* (UNCTAD, 2023a) highlights the country's high dependence on oil exports, structural constraints in infrastructure and skills, and the urgent need to build resilience through diversification, including through development of the services economy.

Overall, the support of UNCTAD underscores the strategic importance of the services sector in the economic future of Angola. By combining policy advice, capacity-building and targeted sectoral initiatives, the partnership is helping Angola move towards a more diversified, resilient and inclusive growth path. This requires focussing on critical services sectors that provide important inputs to activities outside the oil sector (such as industry and agriculture) through a combination of domestic policy measures and well-prepared international trade negotiating stances.

Source: UNCTAD.

Second, another foundation of the important role that services can play in the development of LDC economies is the intensity and types of production linkages that the sector establishes with other economic activities, but also within the tertiary sector itself. UNCTAD has defined productive capacities as "the productive resources, entrepreneurial capabilities and *production linkages* which together determine the capacity of a country to produce goods and services and enable it to grow and develop" (UNCTAD, 2006a: 61, emphasis added). This means that the potential of the tertiary sector to provide a push to economic growth, development and strengthening of national productive capacities will be realized if the services develop wide and far-reaching forward and backward linkages with other sectors (especially agriculture and industry), but also among different subsectors of the tertiary sector. These include strong relationships and efficient inter-industry connections in terms of flows of information, trade and resources.

The present linkages between LDC services sectors and other economic activities are significantly weaker than in both other developing and developed economies, as shown in chapter II. This further limits the actual contribution of the tertiary sector to the growth and development of LDCs. One form of weak linkage with the domestic economy occurs when service activities develop as enclaves that are well connected internationally but weakly linked to the rest of the domestic economy. This happens quite often with some receptive tourist operations (such as hotels, resorts and conference centres), which rely largely on imported inputs (the so-called tourism leakages). Moreover, these institutions often provide most of the consumer goods and services supplied to their tourist clients, who therefore consume little from other domestic shops, restaurants, tour operators, etc. Another example of weak intersectoral linkages is when digital service producers (whether individuals or corporations) supply services mostly to foreign customers, but little or none to domestic customers. This is the case of many digital freelancers active in LDCs, who export their services directly to foreign customers. Apart from having very limited domestic production linkages, they often lack fiscal linkages, as quite often the services sales abroad are not or are only partially declared to national tax authorities. In these cases of enclave-type operations, the services sectors are well connected internationally, but have limited forward and backward linkages to the domestic economy. This means that their developmental impact is much lower than it could be.

Without deeper linkages, servicification cannot develop in LDCs, and therefore the development of services sectors cannot have the transformative impact it ideally should in order to positively contribute to growth-enhancing structural transformation. Especially critical sorts of linkages of services development ideally should be established with manufacturing, as analysed hereafter.

2. Services development and industrialization

National and international policymakers have become increasingly sceptical on the possibility of industrialization in LDCs, largely as a consequence of two long-run processes: (a) the experience of premature deindustrialization and "pre-industrial deindustrialization" undergone by most LDCs; and (b) the ongoing evolution of the global manufacturing industry, which has become increasingly concentrated on a few countries and more capital- and technology-intensive. This context also explains why these policymakers increasingly see services as the way for structural transformation of LDC economies, as mentioned in more detail in chapter I.

This situation does not, however, mean that the path of industrialization is closed to LDCs, or that they cannot hope to reap the positive economic and social side effects of industrialization (UNCTAD and UNIDO, 2011; Page, 2012; Szirmai et al., 2013).

Expanding productive services sectors enhances manufacturing inputs, efficiency, and global market integration

On the contrary, if LDCs are successful in expanding and modernizing their tertiary sectors – especially their most productive and dynamic segments – this will provide a useful complement to their industrialization efforts. Thanks to production linkages between services and manufacturing, the tertiary sector can provide manufacturing inputs such as transport, logistics, engineering, research and development, business services and finance. All of them provide essential inputs for manufacturing competitiveness, strengthen the efficiency and viability of manufacturing, and enable industrial firms to participate more effectively in global value chains. Moreover, forward linkages between services and manufacturing can be established through after-sales services, marketing, transport, etc., thereby improving the overall performance of manufacturing. The increasing interdependence between services and other sectors – particularly manufacturing – offers significant opportunities for productivity growth, economic diversification and job creation in LDCs.

Some good examples are given by a few LDCs that have been successful in developing manufacturing to some degree, such as Bangladesh, Cambodia, Nepal and Myanmar. Their process of industrialization has been accompanied by the concomitant development of business services such as transport and logistics, given their complementarity to manufacturing activities. Logistics hubs development shows high interdependencies with goods trade, as shown in chapter IV. In the case of Djibouti, by contrast, the impulse for the development of manufacturing activities has come from the strong growth of transport and logistics services around the country's ports. This has allowed the development of manufacturing activities of packaging production, light processing of incoming materials, food processing, marine products and auto parts assembly.[1] However, the development of such associated manufacturing activities does not necessarily take place in relation to logistics development, especially in the absence of active policy action. The absence of manufacturing activities associated with the port of Lomé is a case in point.

This bidirectional relationship between services and industry is also shown in the export performance of several LDCs. These have relatively strong performance in the exports of manufactured goods (such as those mentioned in the previous paragraph), and also have a comparative advantage in the export of goods-related services. The production and export of these goods requires substantial ancillary services, including storage, distribution, logistics and insurance, which are categorized under goods-related services. This interdependence ensures that growth in merchandise exports directly amplifies demand for associated services.

A good example of the successful implementation of policies for the complementary development of manufacturing and services – as well as the concomitant exports originating in both types of economic activity – is provided by Cambodia, which has benefitted from the active support and technical assistance of UNCTAD for different elements of its policies, for the development of productive capacities in manufacturing and services, and for the country's steering towards graduation out of the LDC category (box V.2).

[1] UNCTAD (forthcoming a) and Djibouti Ports and Free Zones Authority, "Djibouti International Free Trade Zone", available at https://dpfza.gov.dj/facilities/Free-trade-area/djibouti-international-free-trade-zone#:~:text=The%20project%20also%20creates%20major%20business%20opportunities,as%20food%2C%20automotive%20parts%2C%20textiles%20and%20packaging.

Box V.2.
UNCTAD support to the services sector of Cambodia

UNCTAD has been a long-standing partner in the efforts of Cambodia to strengthen its services economy and deepen integration into the global trading system. The UNCTAD Rapid eTrade Readiness Assessment (UNCTAD, 2017b) provided a comprehensive road map for developing the e-commerce ecosystem in Cambodia. This work catalysed the adoption of the National E-commerce Strategy in 2020, and by 2022, over 90 per cent of the recommendations of UNCTAD had been implemented. These reforms have supported the rapid growth of digital services, payments and logistics that are now central to the trade competitiveness of Cambodia.

As one of the pilot countries for operationalizing the WTO LDC Services Waiver, Cambodia benefitted from a detailed assessment by UNCTAD of its services export market opportunities, which helped identify priority subsectors and practical strategies for securing more effective market access (UNCTAD, 2020c).

Since Cambodia was designated pre-eligible for graduation by the Committee for Development Policy at its 2021 Triennial Review, UNCTAD has also supported Cambodia in navigating its transition from LDC status. The *Vulnerability Profile – Cambodia* identifies the main challenges Cambodia will face on the path to and beyond graduation, and proposes policy options to build resilience and sustain growth after LDC-specific support is phased out (UNCTAD, forthcoming b). This includes a diagnosis of structural change and productive capacities; analysis of exposure to the withdrawal of international support measures (e.g. trade preferences and other LDC flexibilities), and the trade-related adjustments this implies; and an action-oriented set of recommendations to anchor a national strategy for graduation with momentum.

Through its contributions to the Cambodia Trade Integration Strategy (UNCTAD, 2020d) and subsequent policy dialogues, UNCTAD has guided policymakers in integrating services, e-commerce and digital trade into the country's post-graduation trade strategy. Complementary initiatives in trade facilitation and connectivity – such as the roll-out of pre-arrival processing in Phnom Penh and Sihanoukville ports through the Automated System for Customs Data (ASYCUDA) programme – have reinforced the efficiency and resilience of services-linked supply chains.

Together, these interventions illustrate how the sustained engagement of UNCTAD has helped Cambodia, not only to identify and pursue new services export opportunities, but also to build the digital, regulatory and logistical foundations necessary for a more competitive and successful services sector.

Moreover, in the logic of the synergies between the development of services and manufacturing, since 2025 UNCTAD has also supported the country's upgrading of its manufacturing base through the training of government officials and the provision of advisory services on industrial policy.

Source: UNCTAD.

For LDC policymakers, the implication is that the development and improvement of the productive capacities of national services sectors does not need to be an alternative to industrialization; rather, they can (and in most cases should) be complementary. There is no dichotomy between services and industry in the future development path of LDCs. The implication is that industrial policies to be implemented by LDCs at present need to broaden their focus beyond the traditional role of fostering manufacturing growth (UNIDO, 2024) also to target the joint development of modern services that complement manufacturing.

The question for policymakers remains of the timing of competing priorities and the sequencing of sectors on which to concentrate financial, policy and institutional resources. Timing, sequencing and sectoral focus will necessarily differ among countries, according to their structural characteristics and opportunities open to them. LDCs need to move beyond traditional services and develop more sophisticated, high-value services that can be used directly by manufacturing and other productive sectors. There may be a need for clear, policy-nudged production linkages between services and other production sectors to leverage growth in both services and non-services sectors for trade.

Given challenging present starting conditions and the limited public and private resources available to LDC economies, vertical policies for the development of both manufacturing and services are necessarily selective, and need to target some segments of manufacturing and services. As mentioned earlier, these policies need to be implemented alongside measure to address the "fundamentals" that stymie growth. Suggestions of how to select (sub)sectors for targeting in manufacturing are given by a joint work of UNCTAD and the United Nations Industrial Development Organization (UNIDO) (UNCTAD and UNIDO, 2011), and are not discussed in this report, as they are not its focus. The following sections discuss the major considerations that can help LDC policymakers when designing policies for the development of specific services subsectors, as well as criteria that are useful in the selection of which ones to target.

3. Comprehensive strategies and policies for the tertiary sector

The heterogeneity of services sectors entails adopting different types of strategies and policies for different segments of the tertiary sector. That diversity means that there is a wide variance of the knowledge intensity, capital intensity, skills intensity and input requirements of services subsectors, and often within subsectors themselves (e.g. informal street vendors and online platform retail trade both belong to the retail trade sector). Moreover, the types of these inputs to the tertiary sector are often very subsector-specific (such as skills and material inputs). The implication is that services development policies vary considerably between different subsectors.

While this heterogeneity exists in services sectors globally, it is much more pronounced in LDCs, given the duality of their tertiary sector and the strong weight of the low-productivity and largely informal services activities in these countries. Policies to foster the development and upgrading of services activities and firms in LDCs need to be differentiated according to the structural characteristics of each (sub)segment of the tertiary sector, including, for example, types of firms and enterprises in which they develop; their degree of formalization; the types of products they produce; and their flows (of products, knowledge, technology, finance, etc.) with the international economy.

In the case of LDCs, sectoral policies should be differentiated especially for the following types of services: (a) low-productivity, essentially "non-tradable" services ("traditional services"); and (b) higher-value added and more knowledge-intensive services ("modern services"), including the digitally-deliverable services (DDS).

Policies for the development of these two broad categories of services are further discussed in sections C and D below.

The pitfall that needs to be avoided is that policymakers to focus on "modern"/ higher-value added services, thanks to their dynamism, export potential, knowledge content, higher-quality jobs, potential contribution to growth-enhancing structural transformation, etc. While such attention is warranted, it is important not to neglect the traditional low end of the services sector. This would mean neglecting a large part of the labour force, and would further entrench dualism and inequality.

Moreover, policymakers need to direct their attention not only to already existing services (sub)sectors, but also to those that they may aim at establishing and developing.

4. Selection of (sub)sectors to be targeted

The choice of (sub)sectors for promotion by LDC policymakers needs to take into account the countries' resource endowments (including human, natural and institutional resources), geographic situation, and geopolitical positioning. Chapter IV shows a variety of quite different (sub)sectors targeted by different LDCs, with different degrees of success and actual contribution to meaningful structural transformation. The sequencing of subsector to target should ideally be guided by how they best contribute to the overall process of structural transformation at any given point, paying particular attention to the forward and backward linkages that they can establish in different phases of the process of structural transformation.

When selecting modern services (sub)sectors to promote, LDC Governments are advised to give preference to the following features:

- How this (sub)sector relates to the remainder of the domestic economy, or how it can best contribute to structural transformation: This requires taking into account in each case its job-creating capacity (i.e. the quantity and quality of jobs the (sub)sector is expected to generate), its actual level of labour productivity and its foreseeable growth.
- The type of insertion into the domestic economy: Predominantly formal (preferred) or informal.
- (Sub)sectors that have the potential to deepen/enhance their value added, knowledge intensity and labour productivity.
- Potential to establish strong forward and backward linkages with other (sub) sectors, as well as their fiscal linkages.

Beyond these structural and domestic features of different services (sub)sectors, LDC policymakers also need to consider their export potential, e.g. by targeting (sub) sectors with actual or potential comparative advantages. Given the size and high growth potential of international services markets, trade policy plays a crucial role in the implementation of policies for the tertiary sector. This is true of trade policy at all levels, i.e. bilateral, regional and multilateral. Policies to boost services exports are discussed in section E below. Even in the case of export sectors, policymakers need to keep in mind the importance and desirability of the embeddedness of these sectors in the domestic economy, through solid linkages to other national (sub)sectors.

Whichever services (sub)sectors LDC policymakers decide to target for promotion, they need to consider the developmental impact of the development of each of them, in terms of job creation, wages, diversification, export potential, but also possibly productivity, and backward and forward linkages, among others. Ideally, the actual impacts achieved should be monitored and evaluated, which would allow for leveraging opportunities to maximize spillovers and avoiding (sub) sector enclave effects. It would also make possible implementing corrections in policy directions during the enactment of these plans, if necessary.

At the same time, authorities need to avoid being overly optimistic on the prospects and potential of the (sub)sectors they are targeting. This implies that they need to take into account their potential downsides and pitfalls. Examples include the risks of specialization at the lower rungs of global services value chains, excessive accumulation of foreign debt, financialization and heightened financial instability, increased dependence on foreign markets, etc., as shown in chapter IV. They also need to consider the trade-offs that are involved in any selective policy.

5. Setting up adequate regulatory frameworks

Regulatory frameworks are even more important in the tertiary sector than in other economic sectors, given the impact that the outputs of different services (sub)sectors can have on citizens' economic, social and health-related well-being (such as in health, education and retail services), as well as the systemic importance of some services (such as financial, information and communications technology (ICT) and energy services). Given the very high heterogeneity of services (sub)sectors, regulation must necessarily be specific to each one. Still, some elements that most regulatory frameworks for different services (sub) sectors should have in common include:

- Consumer protection.
- Ensuring there is competition in the supply of services.
- Respect for workers' rights, in both formal and informal activities, but also when working for platforms.
- Consideration of gender issues and the differential impact that sectoral development has on women.
- Integration and consistency of regulations with other policies, laws and international obligations.
- Measures to combat criminal activities.

Regulatory frameworks need to evolve together with the structure and productive capacities of the domestic sector in question, as well as the relevant international technological evolution. This requires flexibility and adaptability from regulatory bodies. Moreover, trade policy in services has a very close link to domestic legislation, which adds a layer of complexity to national services sector regulation (UNCTAD, 2016). For instance, policymakers need to balance the need for companies to collect and analyse data for innovation and efficiency gains, on the one hand, and the concerns of various stakeholders with respect to security, privacy, and movement and ownership of data, on the other (UNCTAD, 2017a).

Designing and implementing regulatory frameworks that give due consideration to the various elements mentioned above requires strong capacity and skills of policymakers and regulators. These are often not plentiful in many LDC policymaking institutions. Hence, the importance of investing in improving, strengthening and enhancing institutional capacity of LDC Governments in the regulation of different services (sub)sectors. UNCTAD services policy reviews serve as a toolkit to assist countries in assessing and devising an appropriate policy mix to improve services sector performance and provide regulatory mapping (UNCTAD, 2014).

C. Traditional services

The largest group of services segments in LDCs is made of low-productivity, low-skill services operating with a very limited physical and human capital base in micro or very small firms, and often in the informal sector, as shown in chapter II.

Often, these are non-tradable services. Although technology – especially ICT – has significantly widened the overall tradability of services, some services sectors remain outside the domain of international trade and have traditionally been termed "non-tradeable services". These non-tradable services comprise two main segments. The first is made of those services activities that require geographical proximity between production and consumption, such as construction-related services, (domestic) trade, local transportation, local retail, personal services and catering. They rely on local demand and supply rather than global markets.[2] In LDCs, the bulk of these services continues to be supplied by domestic agents. The weight of non-tradable services is considerably higher in LDCs than in other developing economies, and in developed economies. The second segment of non-tradable services consists of those services where institutional and practical reasons typically prevent services from being traded, such as the bulk of healthcare and education, or public services.

The first segment of “non-tradable” services absorbs the bulk of the excess labour (typically low-skilled) freed from agriculture, as did manufacturing in the classical experiences of successful development in the past (UNCTAD, 2024b). At the same time, tradable and more modern services activities do not have a comparable job-generating capacity in LDCs. Given the volume of jobs generated by non-tradable services, they play an important economic and social role in contributing to the stability of LDCs. Therefore, these jobs need to be preserved in the short-to-medium term. This poses a challenge to LDC policymakers: preserving (at least temporarily) the functions of these “buffer activities”, while pursuing productive and technological upgrading in the more growth-enhancing segments of the tertiary sector, with a view to achieving the growth-enhancing structural transformation of their economies. Policymakers, therefore, cannot afford to neglect the less productive and less growth-oriented segments of their tertiary sectors and focus solely on the modern segment of their tertiary sectors.

Typically, the majority of workers in the low-value added and low-skills segments of the services sector operating independently are “entrepreneurs by necessity” or “survivalist entrepreneurs” (UNCTAD, 2018). They operate autonomously because they cannot find actual jobs, which they would rather take if opportunities were available. For these workers, policymakers need to consider implementing social welfare policies to supplement the earnings of the working poor, as well as strengthening their education policies, so as to enhance the employability of these workers. Given the low skills level of the workers in these low-productivity sectors, who need to improve their labour productivity,

[2] Due to the difficulty LDCs face in attracting foreign direct investment to these sectors (UNCTAD, forthcoming c), the limited size of their domestic markets, the low level of diffusion of modern ICTs in LDCs, these services subsectors remain largely outside the sphere of international trade in services in LDCs, even considering mode 3 of the General Agreement on Trade in Services (GATS).Technically, however, virtually all services sectors are amendable to international trade, since even the bulk of what has traditional been considered as “non-tradable services” can be supplied domestically by foreign operators by means of their operations through commercial presence in the domestic market. This is what is considered as international trade in services through mode 3 (commercial presence) according to the GATS of the World Trade Organization (WTO).

training policies play a role in enhancing their contribution to overall economic performance. Policymakers can consider combining vocational training with "wrap-around" services, i.e. a range of additional assistance programmes for job seekers, in order to enhance the employability, retention and eventual promotion of less-educated workers (Rodrik and Sandhu, 2024).

Policymakers need to pay special attention to the gender aspects of traditional services sectors in LDCs. Chapter II shows that women are disproportionally affected by urban unemployment and more present in the informal sector. Table V.1 results from a more granular analysis of the traditional services sector in these countries and its gender dimension. It provides an indicative characterization of types of jobs carried out predominantly by women and men in traditional services in LDCs.

Table V.1
Selected non-tradable and low-productivity services jobs in least developed countries categorized by gender

Female-dominated jobs	Male-dominated jobs
Elderly and child care providers	Construction and manual labour
Domestic housekeeping and cleaning	Truck drivers and heavy equipment operators
Personal care services (beauticians, massage therapy)	Porters and loading / unloading workers
Home-based food vendors	Motorcycle taxis and informal transport
Informal online micro-traders	Informal taxi drivers / Rickshaw pullers
Informal education and tutoring	Informal repair services (mechanics, electricians)
Laundry and dry cleaning services	Waste collection and street sweeping
Personal and hospitality services (waitresses, hairdressers)	Security guards and janitorial staff
Small-scale retail vendors (kiosks, stalls)	Street vending and street hawking
Traditional handicraft vendors	Street performers and musicians

Source: UNCTAD, based on ILO (2009, 2018).

Several of the jobs mostly performed by men are closer to productive activities carried out in services subsectors such as transport, logistics and construction. These subsectors tend to expand rapidly in the early stages of structural transformation, given their potential strong linkages with other sectors such as industry and agriculture. These early stages are likely to create opportunities for productivity rise and transition to the formal sector in these activities, which is likely to benefit men disproportionately. By contrast, it is only at much later phases of the process of structural transformation – and at much higher income levels – that activities of the care economy expand in relative terms, creating more job opportunities and better earnings for its workers (Global Accelerator, 2023). During this later phase, women are likely to benefit more than men, given the gendered specialization profile indicated in table V.1.

These patterns suggest that during the early phases of structural transformation, policy interventions – such as improving women's access to education and skills

development, and facilitating entry into higher-value services activities – are needed to ensure that the expansion of the tertiary sector in LDCs does not aggravate gender inequalities.

Concerning the size of the firms operating in these services activities, the medium- to long-term objective of these policies is to foster the growth of firms so that they become economically viable by achieving economies of scale, are capable of strengthening their entrepreneurial and technological capabilities, and become more capital-intensive, while also generating jobs. These larger firms can thereby provide employment not only to workers already operating in these sectors, but also to the youths entering the labour force. Policymakers can provide incentives to established firms' expanding their job creation, either directly or by establishing linkages with domestic value chains (Rodrik and Stiglitz, 2024; Rodrik and Sandhu, 2024).

The capacity of larger firms to create jobs at scale (in spite of higher levels of labour productivity) is extremely important. It is a way of ensuring that these segments of the services sector continue to have the capacity to create jobs and absorb (excess) labour, which has proven a major economic and social buffer in the ongoing process of structural change.

From an entrepreneurial perspective, larger firms have better chances of survival and technological upgrading. Targeted entrepreneurship policies to enhance efficiency, skills development and technological adoption (including, to the extent possible, digitalization), and extension services/business development services need to be put in place or strengthened (UNCTAD, 2018).

Policies to improve the economic performance of low-skill, low-value added services activities should comprise measures to help these informal producers link with formal and more modern enterprises in the same sector, which creates opportunities for learning and knowledge spillovers, as firms still operating informally adapt to the forms of business operations of the formal sector.

UNCTAD has implemented the Business Linkages Programme to develop and strengthen business linkages between foreign multinational enterprises and domestic companies, especially small and medium-sized enterprises (SMEs) (UNCTAD, 2006b). The policies, programmes and instruments used therein can be adapted to foster linkages between formal companies and informal firms. This can be a means of favouring the flow of entrepreneurial and technological capabilities from the former to the latter, and be a stepping stone towards formalization.

In order to ensure the survival of firms initially in the low-productivity and/or informal segment of the services sector, policymakers are advised to assist in the enhancement of their technological capabilities. However, given their important role as job creators, it has been suggested that they invest in technologies that complement rather than replace low-skilled workers in services sectors. They can consider enabling less educated workers to do (some of) the jobs traditionally reserved for more skilled professionals and increase the range of tasks they can perform (Rodrik and Stiglitz, 2024; Rodrik and Sandhu, 2024).

Supporting low-productivity firms with technology can preserve jobs and enhance worker capabilities

An additional set of policy measures can aim to attract initially informal enterprises to the formal sector. This entails reaching out to informal enterprises and services providers by providing access to services (such as finance, extension and business development services, technical advice, skills development, entrepreneurship training and social protection for workers), which help them reach higher levels of productivity. It is important to ensure that the potential benefits of formalization exceed the costs inevitably associated with it (such as regulatory and administrative compliance, and taxes).

Such an approach to tackling informality is the opposite of adopting a punitive stance towards the informal sector. Moreover, while entrepreneurship policies geared towards these types of small-scale and often informal firms should help firms grow, it is also important to let firms fail if these policies and corporate efforts do not bear fruit after some time (UNCTAD, 2018).

D. Modern services

"Modern" and more knowledge-intensive services sectors in LDCs tend to have much higher labour productivity, and be relatively better integrated with the remainder of the economy than other segments of the tertiary sector, as shown in chapter II. This refers to subsectors such as financial and business services. They have the potential to provide productive inputs to all other sectors of economic activity – including manufacturing – in a way that raises the efficiency of these other sectors through intersectoral backward linkages. The same is true of the forward linkages that modern services sectors can establish with other economic sectors (such as transportation, delivery, marketing and sales). These intersectoral linkages can work as a lever for knowledge spillovers, thereby generating positive technological impacts on the broader economy.

The tourism sector lies somewhere in between traditional services and more modern services. First, it has both low-value added and low-productivity segments, and knowledge-intensive and technology-intensive segments. Second, it has long been one of the first services sectors to be targeted and developed by a large number of LDCs. Third, being potentially such an internationally connected sector, it is directly affected by ongoing developments in the international economy. For all these reasons, the sector deserves special attention from LDC policymakers (box V.3).

Box V.3.
Tourism

Tourism has traditionally been a preferred entry point for developing country services exports, thanks to lower entry barriers, relatively low capital and skills requirements, and the existence of some comparative advantages. This pattern has been observed in several LDCs. In particular, small island developing States (SIDS) and small economies have specialized in tourism as a means of diversifying their economy and boosting their services exports (see also Section A2 and box IV.3 in chapter IV). At present, tourism ("travel") is the most important services export category for LDCs as a group, and this is also true for 15 of these countries individually.

The tourism industry combines some capital-intensive segments (such as reservations) with labour-intensive segments (such as hospitality and tour guides), which generate the bulk of jobs in the industry and are typically less skill-intensive. It is in the latter segment that tourism has proven especially important in creating jobs, thereby contributing to absorbing the rapidly growing labour force, which is a major challenge of LDC economies. These lower segments of the tourism sector, apart from being an important source of job creation, have a stronger potential for creation or strengthening linkages with the domestic economy, as they can create demand for local goods and services suppliers – such as food and drink suppliers, suppliers of other goods and services to hotels and conference facilities, tour guides, tour operators, restaurants and shops, among others (UNCTAD, 2017c).

Moreover, tourism's exports tend to be concentrated in a few export markets, which account for the bulk of tourist arrivals. This is similar to exports of other services sectors, which tend to be geographically concentrated. A priority for the sector's development is the diversification of its export destinations (i.e. the countries of origin of tourists, including regional markets), as well as exploiting the potential of domestic tourism.

The sector's contribution to structural transformation should be strengthened by minimizing leakages and maximizing linkages to the domestic economy (including fiscal linkages), as a means of avoiding the possibility of tourism operations evolving as enclaves with limited impact on the domestic economy. A major route towards enhancing the contribution of tourism to the structural transformation of LDC economies is the development of productive capacities of agricultural, manufacturing and services (sub)sectors that supply products to the tourism industry (such as food and drink, furniture, electrical equipment, transport, catering and laundry, and ICT services, among others). Developing their own supply capacity and establishing stronger linkages with the tourism sector allow them to reduce leakages from the tourism industry.

Other measures to spur tourism development include the simplification of visa procedures, efforts to diversify source markets, investment in transport infrastructure and fostering local hospitality services suppliers to compete with international ones (UNCTAD, 2017c). This is yet another example of how policies and strategies for the development of specific (sub)sectors have their strongest development impact in LDCs if they are integrated within broader and coherent development strategies and policies aiming at structural transformation.

Policies for the tourism sector of LDCs should also aim to improve the social and environmental impacts of its operations. Policymakers are advised to follow the guiding principles for sustainable investment in tourism, jointly developed by UNCTAD and the World Tourism Organization (UNCTAD and UNWTO, 2025).

1. Knowlde-intensive services

The operation of knowledge- and skill-intensive activities is itself a manifestation of the transition of the economy towards more productive activities and sectors, and this is also true in LDCs. In fact, labour productivity in LDCs in these activities is similar to that in other developing economies (ODEs) (chapter II). However, in LDCs, the potential of these "modern" sectors to have ripple effects throughout the economy – and thereby contribute to structural transformation – is limited by two factors. The first is their small size, in terms of both output and employment, as compared with other services subsectors and with the domestic economy overall. As a result, their impact on overall labour productivity is limited by their reduced share of the labour force. Additionally, the potential impact of these "modern" services is also limited by the small size of the manufacturing sector in most LDCs. This is the sector which has major potential to establish forward and backward linkages with modern services sectors, and this two-way interaction is a major driver of economic growth and productivity increase. This process is taking place in both advanced developing and developed economies. This highlights once again how important it is for policymaking to place the development of services in the context of a broader strategy for the structural transformation of the economy, including some form of industrialization.

There are thus strong complementarities between industrial policies and policies for the development of the tertiary sector.

The development of "modern" sectors requires entrepreneurship policies geared towards knowledge-intensive sectors, which differ from those mentioned earlier, which aim at largely informal and low-value added activities. Policies for higher-value added services, if successful, will result in the creation of higher productivity and higher-earning jobs. The growth of these sectors will then make a stronger contribution to aggregate productivity than is currently the case. Expanding services with potential for higher value added – such as ICT-enabled services, logistics and finance – requires access to digital skills, innovation ecosystems and institutional support systems. Basic digital literacy – alongside competencies such as data analysis, coding, digital marketing and cybersecurity – can open new pathways for employment and entrepreneurship.

A useful instrument of enterprise policy is the establishment and running of forums that bring officials together with local tech entrepreneurs, ICT associations and civil society. Regular consultations help policymakers stay abreast of industry trends and needs, enabling agile adjustments to laws and regulations. This collaborative approach ensures that policies keep pace with technological change and market conditions. National services trade committees can be established as public–private platforms to guide strategy development, coordinate implementation and monitor progress. Effectively functioning committees have been associated with faster implementation of services trade reforms. More broadly, continuous dialogue between policymakers and the private sector has been an important element of development and enterprises policies in several developing countries that have been successful in their catch-up path (te Welde, 2013). Externally, the operation of such entities can enhance the bargaining power of atomized services suppliers vis-à-vis their international clients, and thereby somewhat reduce the power asymmetry between these actors of high-value added global value chains.

The expansion of high-value added services subsectors is likely to spur entrepreneurship in other economic activities. The development of the financial sector, for instance, is likely to contribute to releasing the constraint of the lack of access to finance, which is regularly pointed out as a significant constraint to enterprise development in LDCs (UNCTAD, 2018).[3]

2. Deigitally-deliverable services

The most dynamic segment of "modern" services has been digitally-deliberable services (DDS), which comprise part of the modern services discussed in the present section. Given their dynamism and growth potential, including for LDCs, they are discussed in further detail below.

DDS are the segments of the tertiary sector that have developed most rapidly, and experienced the most dynamic developments since the beginning of the twenty-first century. They are at the core of the emerging digital transformation. The development of the digital economy in LDCs could have far-reaching implications for their structural transformation. The backbone technologies that are at the basis of the digital economy are ICTs, cloud computing and, increasingly, artificial intelligence (AI). These are general-purpose technologies, which can therefore be applied in productive activities in virtually all sectors of economic activity (UNCTAD, 2019, 2025a). The gradual diffusion of these technologies throughout the economy has the potential to strongly boost labour productivity, efficiency and, thereby, earnings levels.

[3] In the case of SMEs, other major impediments to access to finance – especially the high perceived risk and the lack of collateral – also need to be addressed by policymakers to boost the contribution of the financial sector to stuctural transformation.

Despite the great potential for DDS and their backbone technologies to provide a substantial acceleration to structural transformation of LDCs, their contribution has been limited so far, since the DDS sector is still incipient in LDCs, and represents a minor part of their tertiary sector. Providing a transformational contribution is especially challenging for LDC producers supplying international digital value chains. These suppliers are corporate actors or individuals (such as online freelancers). They tend to operate in activities such as business process outsourcing (BPO); supply of services to international customers, largely through platforms (such as data entry, coding and image-tagging); creative industries; and professional services. LDC suppliers are generally located at the lower rungs of global services value chains, which typically have lower entry barriers. Their location at these levels of international digital value chains tends to lead to low earnings associated with the fact of having suppliers with limited market power in highly competitive markets at the global level. These small-scale producers face value chain leaders with much strong(er) market power.

The freelancers or SMEs providing services to foreign digital platforms often operate informally. Although they undertake higher-value added activities than the traditional activities of most low-value added services sectors in LDCs, their operation in the informal sector largely escapes government control and supervision, and therefore poses major challenges to policymakers. It contributes to expanding the size of the informal sector and therefore aggravates the challenges of LDC fiscal authorities in raising taxes. This situation is especially critical because these are higher-value added activities, with a higher potential to generate taxes. This goes counter to the medium-term trend and objective of LDC Governments of raising their tax revenues (albeit from a very low base) (UNCTAD, 2023b). Failing to meet the challenges of expanding the tax base jeopardizes the heavy investment drive that is required both by traditional and modern economic activities and, more broadly, by structural transformation.

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, 2022a). Since DDS sectors are broad, the approach requires a comprehensive policy response that addresses various aspects of society. 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. To boost the expansion of the DDS sector in LDCs, these countries' policymakers need to act on several fronts, especially: (a) infrastructure, (b) entrepreneurship, (c) skills development and (d) regulation.

Infrastructure

The development of DDS requires investment in robust digital infrastructure, building secure network servers and data centres. These measures are crucial for improving last-mile connectivity and rolling out affordable options such as fibre-optic networks and wireless systems in rural areas. Doing so will boost Internet access and unlock the potential of rural economies. Policymakers can also allocate space and seed funding for technology parks and incubators, where entrepreneurs collaborate. The investments of Bangladesh in high-tech parks and ICT incubators, coupled with training facilities, have nurtured a thriving digital startup ecosystem. Similar hubs in other LDCs can provide mentorship, networking and early-stage financing for new services-oriented ventures.

Investing in digital infrastructure and hubs can unlock rural economies and foster startups

Entrepreneurship

Entrepreneurship policies are crucial for the development of different segments

of the services sector in LDCs, and they need to be adapted according to the different types of services subsectors, as mentioned above, ranging from low-productivity services to DDS. For the latter, Governments and development agencies are advised to create an enabling environment for startups and SMEs in the digital space. Business entry and establishment can be eased by simplifying business registration and licensing for tech startups, implementing one-stop online registration portals and reducing red tape. The move by Rwanda to electronic business registration is an example that cut costs and encouraged entrepreneurship.

Innovation funds, fintech solutions, and mentorship are key to thriving digital services in LDCs

Another important aspect of entrepreneurship policies for DDS is improving access to finance for tech entrepreneurs (via innovation funds, challenge grants or fintech solutions), providing mentorship and business development services, and reducing bureaucratic hurdles to starting an online business. Africa has a burgeoning digital finance sector, including fintech innovation, which reached an annual investment of $1 billion in 2022 (UNCTAD, 2022b). This highlights the success of the continent's emerging digital economy. Such success stories can be replicated by tailoring support to local conditions. Special focus could be given to platforms or services that have high social impact. For example, EdTech (online education) and Telehealth services in LDCs can expand access to education and health, while also creating skilled service jobs.

Skills

In terms of strengthening human capital and digital skills, LDCs should integrate digital skills training at all levels of education and provide opportunities for upskilling the current workforce. This means not only basic digital literacy in schools, but also more advanced ICT training through technical programmes, coding bootcamps, and education initiatives in science, technology, engineering and mathematics (STEM). ICT training programmes in Bangladesh have certified over 65,000 professionals, contributing to a 40 per cent annual growth in ICT services exports. Creating tech hubs, innovation labs and university partnerships can build a pipeline of talent. The partnership of Rwanda with Carnegie Mellon University to train local ICT professionals is an example.

Regulation

LDCs need to improve and strengthen their industry standards, regulations and laws governing e-trade. UNCTAD's eTrade for All initiative and eTrade Readiness Assessments have been crucial in assisting LDCs navigate the complexities of e-commerce and the digital economy. They have been complemented by the eT Ready Implementation Support Mechanism since 2020 (UNCTAD, 2020e, 2022c, 2023c). Priority reforms include the following:

- *E-commerce and digital trade laws:* It is important for LDCs to introduce clear legal frameworks recognizing electronic contracts, digital signatures, consumer protection rules for online transactions and online dispute resolution. Early adopters such as Cambodia, which passed e-commerce and consumer protection laws between 2017 and 2023, have seen increased investor confidence in services sectors. Streamlining customs procedures for small parcels, simplifying taxation for online businesses, and enabling digital payments (with appropriate fintech regulations) are also critical. Policymakers can use examples from existing models and guidance (from UNCTAD and the United Nations Commission on International Trade Law, among others) to have inspiration from international best practices. The UNCTAD framework for e-trade and digital transformation also highlights the importance of private sector participation in the delivery of backbone digital services (UNCTAD, 2022c). 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 their e-commerce sectors.

- *Data protection and cybersecurity:* These can be strengthened by implementing robust data privacy laws and cybersecurity regulations to safeguard users and businesses. Adopting clear frameworks for data privacy and cybersecurity protects users and gives foreign investors confidence to engage in LDC markets. This builds trust for crossborder digital services and aligns with global best practices (such as the guidelines of the International Telecommunication Union or the General Data Protection Regulation of the European Union).
- *Online consumer protection:* This can be extended by broadening consumer rights and anti-fraud measures for online transactions. It may be strengthened by establishing units to monitor digital marketplaces and enforce standards so that users (both domestic and foreign) feel safe engaging with LDC-based service providers.
- *Competition in ICT sectors:* One instrument to reduce Internet access costs is to update telecom and Internet service regulations to prevent monopolies. Encouraging market entry and enforcing competition discipline have led to significantly lower data costs in LDCs such as Bangladesh, Bhutan and Cambodia. Lower connectivity prices, in turn, enable more widespread Internet use.

E. International policies

The increasing international tradability of services and the enhanced dynamism of international trade in services have meant that international markets have come to exert a strong influence over developments in domestic services sectors. This takes place both on the export side – given the possibilities opened by foreign markets as export destinations for domestic producers – and in the domestic market, where domestic producers face increased competition from imports. It follows that the domestic policies outlined in the previous sections need to be implemented in tandem and in coherence with trade policies for services, so as to ensure market access and synergies between domestic and international policies, upgrade the performance of LDCs in international trade as compared with their present state (chapter III), and provide clear signals to both domestic and international investors.

Trade policies that affect LDCs' performance in services trade are developed at different levels: bilateral, regional, continental and multilateral. Often, these trade policies are negotiated together with other components of economic relations – for example, technical assistance and development financing. In most cases, LDCs argue with their development partners to take into account the specific conditions of LDCs and the existing asymmetries between their productive capacities and those of their development partners. These asymmetries should translate into special and differential treatment for LDCs.

1. Opportunities in services trade

By being aware of both the constraints and the potential that different services sectors bring to accelerating structural

transformation of LDC economies, policymakers can develop strategies for the development of certain tertiary subsectors by taking advantage of opportunities available in international markets.

Sources of comparative advantage

The main bases for export opportunities for LDC service providers are outlined below:

- *Labour abundance and cost competitiveness:* LDCs generally have an abundance of labour willing to work at comparatively low wages, which gives them a comparative advantage in labour-intensive services. This is especially relevant for tourism and hospitality (which rely on a large workforce in hotels, catering and tour guides, among others) and for outsourcing services (such as call centres, data processing and back-office support). In mode 4 services (movement of natural persons, as indicated in box III.1), the large pool of semi-skilled and skilled workers in LDCs (such as construction workers, artisans, teachers and nurses) is a latent advantage – essentially exportable human capital. Low labour costs coupled with growing skill pools (such as the rising number of ICT graduates in Bangladesh, and those with English and French language skills in several African LDCs) have enabled some foothold in BPO and ICT services, as shown in chapter IV.
- *Natural and cultural assets:* Many LDCs are richly endowed with unique attractions that fuel tourism. These include United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage sites, pristine beaches, wildlife and biodiversity, and distinct cultural heritage. Some examples include the Angkor temples in Cambodia, the Luang Prabang in the Lao People's Democratic Republic, the mountain landscapes of Bhutan, the Serengeti park and Mount Kilimanjaro in the United Republic of Tanzania, the Himalayas of Nepal, the biodiversity of Madagascar, the gorillas of Uganda and Rwanda, and the music and festivals of Mali and Senegal. Such assets give these countries a comparative advantage in travel services because they offer experiences not easily replicated elsewhere. With tourism seen as a high-growth sector globally, LDCs that preserve and promote these assets have drawn increasing numbers of visitors (at least until 2020). Governments have recognized this. For example, Rwanda brands itself as a destination for ecotourism and conferences, while Senegal leverages its music and heritage for cultural tourism. Thus, inherent endowments combined with focused promotion (such as tourism boards and marketing campaigns) and improving security/stability have supported LDC comparative advantages in mode 2 in travel services.
- *Geographic and strategic position:* Some LDCs benefit from strategic location, which can be leverages for transport and logistics services. Djibouti and the United Republic of Tanzania, for example, serve as gateway ports for neighbouring landlocked countries, mainly Ethiopia for Djibouti, and several countries for the United Republic of Tanzania. The location of Ethiopia was the basis of the policy-developed air transport hub connecting Africa with the Middle East and Asia, leveraging the hub-and-spoke advantage of Addis Ababa for Ethiopian Airlines (chapter IV). These geographic factors – coupled with infrastructure investment, such as port expansion and airport upgrades – bolster comparative advantages in transport services. Djibouti has also been able to benefit from its geographic location, bolstering the exports of services through the presence of foreign military bases on its territory. Additionally, being in proximity to large markets can help certain services. For example, Bangladesh and Myanmar are adjacent to India, enabling some cross-border services trade. Cambodia and the Lao People's Democratic Republic neighbour Thailand and Viet Nam, and benefit from tourism circuits in the Mekong region.

- *Policy and institutional support:* LDC Governments and their development partners have increasingly recognized services trade in policy frameworks, which has been instrumental in developing services exports in several cases. Sector-specific strategies and incentives have been enacted, for example: Bangladesh created ICT parks and incentive schemes to boost ICT exports; Rwanda invested heavily in broadband and an innovation fund to grow tech services; and several LDCs eased visa policies to attract tourists (such as visa-on-arrival schemes in many African LDCs). Some have also engaged in services trade agreements. For example, the Pacific LDCs leverage regional tourism initiatives. East African LDCs (such as Uganda and the United Republic of Tanzania) benefit from joint tourism marketing under the East African Community. In some LDCs, trade facilitation and liberalization in services have improved competitiveness, such as the partial liberalization of logistics and telecommunications in Ethiopia, the opening of telecommunications in Myanmar (which improved Internet access for digital services before its political setback), and the relatively open investment regime in tourism and hospitality in Cambodia. Each of these policy moves has provided an enabling environment for services exporters. Additionally, Aid for Trade programmes have increasingly targeted services (such as tourism training and ICT capacity), further supporting LDCs' development of productive capacities in services.
- *Technological change:* Entrepreneurs and service providers in LDCs can now access global services marketplaces online. Emerging technologies such as AI, blockchain and cloud computing can enable LDC providers to offer new services. For instance, blockchain can allow secure outsourcing of microtasks (such as image annotation for AI) to LDC freelancers, while AI can help LDC-based medical professionals provide remote diagnostic services worldwide.

Policies to exploit comparative advantages

While the opportunities outlined above exist to varying degrees for different LDCs, effectively taking advantage of them requires policies to mobilize human, financial and institutional resources, and develop the productive capacities of service providers in these countries.

Significant challenges remain. Digital divides persist both within and between countries, limiting the potential benefits of digital services (as shown in chapter III). Infrastructure deficits increase the cost of services delivery. Skills gaps constrain the ability of LDC service providers to move up the value chain. Institutional capacity limitations hamper effective policy implementation and regulatory oversight. Moreover, gains from digital services exports are likely to initially accrue to a small segment of the population (mostly urban and educated youth), so policies are needed to expand these benefits economy-wide.

The experience of LDCs such as Rwanda, Cambodia, Bangladesh and Ethiopia, as well as the other case studies presented in chapter IV, provide compelling evidence that strategic policies targeting services sectors can drive diversification, job creation and integration into higher-value segments of global service value chains. The most successful approaches share common elements: (a) strategic investments in both physical and digital infrastructure; (b) deliberate human capital development aligned with target sectors; (c) proactive regulatory reforms that create enabling environments for service providers; (d) careful attention to inclusivity and sustainability; and (e) effective leveraging of regional and international frameworks.

Beyond the policy packages targeting selected services sectors, the policy priority should be not just to integrate domestic services producers into global services value chains, but doing so in a way that maximizes the developmental impact of such integration. This can take place by striving to establish strong intersectoral linkages in the

domestic economy, and aiming to upgrade services supply, in terms of progressively intensifying the value added and knowledge intensity of domestic production. Reaching these goals requires policies that are both domestic and international, which implies coordinating domestic economic actors and undertaking international negotiations at the bilateral, regional, continental and multilateral levels. The main policy priorities for LDCs are outlined below:

- *Services export strategies:* These can be developed as a component of policies to expand, strengthen and upgrade some services sectors present in the domestic economy. These strategies can help these sectors by aiming at some of the positive effects traditionally associated with exports, such as overcoming narrow domestic markets, achieving economies of scale, benefitting from specialization, facilitation transfer of technology and knowledge acquisition, loosening balance of payments constraints to growth, and vent for surplus. This means that export strategies should be part of broader national policies for the development of the productive capacities of given services sectors.
- *National services trade strategies:* LDCs should formulate (or update) clear national services trade strategies that identify priority services sectors for growth and key export niches, based on competitive advantage analysis, market opportunities and development impact potential. They should comprise clear implementation mechanisms and monitoring frameworks, as well as required reforms and investments. As exemplified by LDCs such as Rwanda and Bangladesh, a strategic approach focusing on a few competitive sectors (such as tourism, ICT and logistics) effectively channels efforts and resources. The strategy should be cross-cutting – involving, among others, ministries of education, ICT, infrastructure and investment – to ensure coherence.
- *Export promotion agencies:* These have been instrumental in promoting exports of many developing countries. LDC Governments can establish or expand them to include dedicated units within existing trade promotion organizations with sector-specific expertise and public-private governance models. A study of 103 countries – including 13 LDCs – between 2005 and 2024 indicates that a 1 per cent increase in trade promotion organization budgets leads on average to a 0.067 per cent increase in exports and a 0.101 per cent increase in GDP per capita. The fact that returns in GDP per capita are higher than export returns suggests that export promotion has a growth-promoting effect that goes beyond the impact on export growth, likely because they promote a more competitive and innovative ecosystem that leads to productivity and employment gains (Olarreaga, 2024). Trade promotion organizations should embed digital tools in their services offered to small businesses. For instance, online platforms could be better leveraged to present businesses internationally and reach desired communities, as well as to facilitate data collection and analysis, and assess customer needs (UNCTAD, 2017a). These export promotion agencies can also implement export readiness programmes for service SMEs, providing technical assistance on international market requirements, quality standards and export procedures. Another component of services export promotion schemes can include digital trade hubs that combine physical facilities and virtual platforms to provide integrated export support services, market intelligence and business matchmaking for services exporters.
- *Export finance:* Export financing mechanisms tailored to services can be put in place, addressing the intangible nature of services exports and the working capital needs of service providers.

2. The regional and continental dimensions

Regional approaches offer significant potential for LDCs to overcome market-size constraints and enhance integration into services value chains. Regional frameworks are somewhat better attuned to development disparities. Regional cooperation also allows LDCs to pool resources, improve connectivity and build regional value chains that can serve as a springboard into global markets.

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. The success of DDS relies on two key pillars: market access and a robust digital ecosystem. Regional agreements – such as the African Union Protocol to the Agreement Establishing the African Continental Free Trade Area on Digital Trade, and the Association of Southeast Asian Nations (ASEAN) Agreement on Electronic Commerce – could guarantee small economies market access within their own regions.

One of the arguments in favour of regional integration is that the disparities among member countries – in terms of income, technological capabilities, development of productive capacities, etc. – are narrower than in the multilateral context, which makes it easier to open up to neighbouring countries and integrate more deeply with them. This is true, but some level of disparities still exists, even in the regional sphere. Therefore, within regional integration schemes, LDCs should benefit from special and differential treatment, to take into account these asymmetries. To some extent, this is currently put in place in some regional agreements. Within ASEAN, the LDCs – Cambodia and Myanmar (alongside Viet Nam) – enjoy special conditions. These typically materialize as capacity-building programmes/activities, longer phase-in, technical assistance and fewer (sub)sectoral commitments that LDCs have to commit to.

LDCs participate in a number of programmes, initiatives and agreements aiming at integrating the services trade of their members, both in Africa (box V.4) and Asia (box V.5).

Box V.4.
African services trade integration initiatives are thriving

The East African Community (EAC) framework essentially allows each member State's companies and professionals to operate with fewer restrictions in other member States. The EAC also has mutual recognition agreements for qualifications in professions such as engineering, accounting and medicine, enabling professionals to have their credentials recognized regionally. EAC integration has prompted members to update domestic regulations in line with best practices. The relatively advanced regulatory frameworks of Kenya and Rwanda tend to set benchmarks that others then emulate.

The Economic Community of West African States (ECOWAS) has a Protocol on Free Movement of Persons that allows citizens of member States visa-free entry and the right of residence and establishment. However, barriers still exist in practice, where some countries require work permits or have quotas. Moreover, the member States of ECOWAS have adopted regional cybersecurity and data protection policies that help create a safer digital trade environment. Aligning national laws with these regional frameworks is an ongoing process.

The services protocol of the Southern African Development Community (SADC) is still being implemented. It lacks the depth of the EAC common market, but provides a legal pathway to liberalize and possibly binds countries not to reverse openness. As an LDC in SADC, Mozambique has benefited from technical assistance to participate in services negotiations.

The regional services agreements often serve as building blocks for the commitments made in the context of the African Continental Free Trade Area (AfCFTA). Indeed, many AfCFTA service commitments are based on existing regional liberalization levels. Eventually, AfCFTA may supersede these if fully implemented continent-wide, but meanwhile regional agreements act as building blocks.

AfCFTA has adopted the Protocol on Trade in Services (which commits countries to progressive liberalization of services sectors and regulatory cooperation), and is negotiating a Protocol on Digital Trade (which establishes harmonized rules and standards for e-commerce and other digital trade activities across Africa). AfCFTA negotiations on services have been ongoing, with the first round focusing on five priority sectors: business services, communications, financial services, tourism and transport.

An important feature of AfCFTA is that it explicitly provides for Special and Differential Treatment for African LDCs in the scheduling of commitments. LDCs are generally given more time to implement commitments, and can schedule fewer or less extensive commitments, reflecting their development level.

AfCFTA provides a platform for mutual recognition agreements on professional qualifications, thereby facilitating the mobility of skilled workers across member States. This obviates one of the major obstacles to LDC exports of professional services, namely the lack of mutual recognition of qualifications/diplomas.

An important sectoral services initiative by the African Union is the African Single Air Transport Market (SAATM), also known as the Atmosphere of Free Movement of People and Goods for Africa. It is a flagship project of the Union's Agenda 2063. It aims to liberalize and integrate air transport across African countries to enhance connectivity, boost trade in goods and services, and promote economic growth on the continent.

Sources: ECA et al. (2025); African Union (2025).

Box V.5.
Asian least developed countries participate in several services trade integration schemes

The ASEAN Framework Agreement on Services (AFAS), signed in 1995, led to 10 rounds ("packages") of commitments where each member progressively liberalized more sectors for other ASEAN members. Building on AFAS, ASEAN signed the ASEAN Trade in Services Agreement (ATISA) in 2019, a modernized, consolidated agreement that adopts a negative list approach (meaning all services are liberalized except those on a list of reservations) and seeks deeper integration. ATISA entered into force in 2021 for those that ratified, including Cambodia and the Lao People's Democratic Republic.

ASEAN has also adopted a Digital Integration Framework and the ASEAN Digital Masterplan 2025, which outline strategic goals such as reducing the digital divide, securing digital data flows and enabling digital payments across the region. ASEAN is negotiating a landmark Digital Economy Framework Agreement (DEFA), slated for conclusion by 2025. DEFA is envisioned as a comprehensive pact to unify digital trade rules in ASEAN, covering areas such as paperless trade, data regulation, fintech and digital upskilling.

Taking into account asymmetries between member countries, ASEAN introduced the Initiative for ASEAN Integration (IAI) to assist CLMV countries (Cambodia, the Lao People's Democratic Republic, Myanmar and Viet Nam). Through IAI, projects have focused on improving services sector capacities such as English language training for tourism workers or improving Internet connectivity in CLMV. These efforts have helped narrow gaps somewhat. More developed members such as Singapore, Malaysia and Thailand opened many sectors, giving LDCs potential niche export markets (such as sending skilled workers). In return, LDCs also had to open sectors, but they were allowed longer transition periods and flexibility.

ASEAN LDCs also enjoy ASEAN-wide initiatives, such as the ASEAN Framework Agreement on Mutual Recognition Arrangements. They concentrate on qualified professionals, such as tourism professionals, nurses, engineers and architects. Although they are still early in implementation, they eventually facilitate mobility of those professionals among member States. Additionally, air transport liberalization in ASEAN (open skies for ASEAN carriers on certain routes) helped tourism in Cambodia by increasing intra-ASEAN flights.

Regulatory cooperation in ASEAN on services includes forums of regulators (such as the ASEAN Banking Integration Framework and the ASEAN Telecommunications Regulators Council), where members exchange best practices and gradually align regulations. LDCs receive capacity-building through ASEAN to implement commitments – for instance, through training to upgrade their services quality standards or regulatory frameworks in line with ASEAN agreements.

However, South Asian integration in services through the South Asian Association for Regional Cooperation (SAARC) is weak, with significant visa restrictions, regulatory heterogeneity and limited regional initiatives compared with ASEAN or African regional economic communities. Nepal and India have a long-standing treaty (dating from 1950) that allows free movement of people and labour, which is far more impactful for services in Nepal (many Nepalis work in India) than are SAARC agreements. Bangladesh has engaged in bilateral cooperation with India on specific services (such as mutual recognition of academic degrees and cooperation in ICT skills development) outside the SAARC framework.

The Regional Comprehensive Economic Partnership Agreement (RCEP) offers its LDC signatories (Cambodia, the Lao People's Democratic Republic and Myanmar) the opportunity to gain from capacity-building components in e-commerce and greater market access for their digital exports. However, the complexity of implementation and the overlap with ASEAN commitments means the immediate effect might be muted. Still, over time, common rules of RCEP, such as on e-commerce or telecom regulatory principles, could encourage upgrades in LDCs' regulatory systems.

Sources: ESCAP (2025); ASEAN Secretariat (2021); Minghui (2018); TFGI (2023).

Going forward, LDCs could take a more proactive stance in regional and continental blocs to actively leverage and shape them. This can include one or more of the following elements:

- *Deepening regional services liberalization:* Many LDCs are part of regional economic communities that have services trade protocols or digital market initiatives (boxes V.4 and V.5). LDCs are advised to ratify and implement these agreements, aligning their national regulations with regional standards to facilitate cross-border services provision. Where gaps remain, they should push within these blocs for harmonization of regulations – for example, common frameworks for data protection or e-transactions – to reduce the compliance burden on services firms.

  LDCs may consider taking the following actions to deepen regional services liberalization:

  - Accelerate implementation of existing regional services commitments through dedicated technical working groups, implementation monitoring mechanisms and capacity-building programmes.
  - Prioritize services sectors with strong regional demand and demonstrated comparative advantages of regional LDCs, such as transport, tourism and business services.
  - Address non-tariff barriers affecting services trade through transparent notification systems, coordination mechanisms and dispute resolution procedures at the regional level.
  - Enhance mode 4 facilitation by expanding mutual recognition agreements for professional qualifications and implementing simplified visa procedures for business travellers and service providers. The model of the ASEAN Framework Agreement on Mutual Recognition Arrangements has facilitated professional mobility in multiple services sectors.
  - Harmonize regulatory frameworks for key services sectors through regional model regulations, regulatory coordination platforms and shared capacity-building initiatives.

- *Regional digital infrastructure and markets:* In this field, the following actions can be considered by LDC policymakers:

  - Build regional digital platforms and payments. Collaborate regionally to establish platforms that connect service providers with clients across countries. For instance, an African freelancing marketplace or a joint e-learning platform for South Asia could aggregate supply and demand, giving LDC providers a larger audience.
  - Link national digital payment systems to enable smooth cross-border transactions. Initiatives such as the East African Payments System can serve as models to ensure that, when services are delivered across borders, payments flow efficiently. It is also important to establish fintech regulatory coordination to reduce transaction costs for digital services trade and e-commerce within regional markets.
  - Develop regional backbone networks, Internet exchange points (IXPs) and data centres, to reduce connectivity costs and improve service quality.[4]
  - Implement harmonized spectrum management policies and cross-border connectivity agreements to facilitate seamless digital services provision across regional markets.
  - Develop regional approaches to taxation of digital services, avoiding fragmentation that could undermine the growth of digital markets. Coordinated approaches have been shown to increase tax compliance while reducing

[4] For every 1 per cent increase in the number of IXPs per 10 million inhabitants, the speed of fixed-broadband download (Kbps) increases by 0.8 per cent. Countries with a higher number of IXPs also tend to have greater access to broadband Internet, and the costs are more affordable (Ofa, 2021).

compliance costs for businesses.

- Create regional digital skills partnerships, pooling resources for specialized training programmes that serve regional services markets.

- *Mutual recognition of qualifications:* LDCs should also coordinate with neighbouring countries to mutually recognize professional certifications and technical qualifications. This enables LDC professionals (such as nurses, teachers and ICT specialists, among others) to offer services in regional markets without facing prohibitive requalification hurdles. Regional bodies (such as the African Union and ASEAN) can facilitate such mutual recognition agreements in fields such as accounting, healthcare or engineering, expanding the talent pool and high-value services offerings across borders.

3. The multilateral dimension

At the multilateral level, over the years, LDCs have strengthened their participation in services trade negotiations, both at the World Trade Organization (WTO) and in other forums. LDC negotiation strategies have evolved. Initially, they were primarily defensive, seeking exemptions and special treatment, such as flexibility, longer time and aid. More recently, they have become increasingly proactive, seeking to shape rules and gain market openings that matter to them, such as with service visas, mutual recognition and keeping low barriers in sectors where they can compete. Moreover, they have enhanced the coordination of their negotiating positions.

LDCs have emphasized several key priorities in multilateral services negotiations:

- *Mode 4 (movement of natural persons, according to GATS) liberalization:* Enhanced access for natural persons from LDCs providing services in developed markets. All LDCs have a surplus of labour and most have relatively young, growing populations. They consistently push for easier entry for their service providers (both skilled and semi-skilled) into developed and advanced developing markets.

- *Special treatment:* LDCs have pushed for effective implementation of existing commitments and special provisions for LDCs.

- *Technical assistance and capacity-building:* Support for developing competitive services sectors and meeting regulatory requirements in export markets.

- *Regulatory flexibility:* Preservation of policy space to regulate services sectors in accordance with development objectives.

As a result of this more proactive negotiating stance by LDCs, a series of decisions in favour of these countries' services exports have been adopted. But the outcomes of services trade negotiations for LDCs present a mixed picture. The multilateral trading system has established specific instruments and provisions aimed at enhancing LDC participation. The modalities for the special treatment of LDCs in the services negotiations, adopted in 2003, require members to provide "effective market access" in sectors and modes of supply of export interest to LDCs when making specific commitments. Wherever possible, members are requested to make commitments in mode 4 (WTO, 2003).

In 2011, WTO members adopted the LDC services waiver (WTO, 2011) and, in 2015, it was extended to December 2030 (WTO, 2015). It provides a legal basis for granting preferential treatment to LDC services and service suppliers, without having to extend such treatment to other WTO members. More than 50 WTO members have notified preferences for LDCs under the waiver, including both developed and other developing economies. These preferential measures refer mainly to market access, while some address provisions on national treatment, visa regulations, and contact point for LDC services providers. The sectors most frequently targeted by these preferential measures are business and transport services.

The practical impact of these outcomes, however, has been limited (UNCTAD, 2020c). The main reasons for this shortcoming have been:

- *The voluntary nature of many provisions,* including the LDC services waiver, which states that members "may" provide preferential treatment rather than establishing binding obligations. This "best endeavour" language does not obligate any WTO member to provide any preferential treatment to LDCs, and hence it becomes very difficult to ensure compliance.
- *Minimal actual preferences margins* beyond existing most-favoured-nation (MFN) treatment in many cases.
- *The misfit between offers made by preference-giving countries and the supply capacity and export interest of LDCs,* in terms of both the services sectors and modes of supply.
- *Implementation challenges* resulting from complex regulatory requirements, capacity constraints and limited awareness.
- *Migration sensitivities.*

Much of the discourse on the waiver gravitates towards a consideration of "commitments" instead of actually applied preferences.

Another area of proactive engagement is domestic capacity and regulatory cooperation. Recognizing that just market openings are not enough, LDC negotiators have increasingly tied their demands to commitments of support, i.e. capacity-building.

For the future of multilateral negotiations on trade in services, LDCs may wish to consider the following approaches:

- *Maximizing the use of the LDC services waiver:* LDC Governments need to raise awareness among their domestic firms about any existing preferences so that more LDC providers can take advantage of them. Additionally, there is a need to establish a dedicated technical assistance programme to help LDCs understand and utilize preferences under the waiver, including targeted support for services exporters to navigate regulatory requirements in preference-providing markets. As part of this effort, capacity-building initiatives could prioritize strengthening LDCs' data collection and use, covering trade flows, regulations, and utilization rates of the waiver, enabling more evidence-based policymaking and more targeted engagement with preference-granting countries (UNCTAD, 2025b).
- *Update LDC requests:* LDCs may conduct an updated comprehensive assessment of their priority export interests in services to better align preferences with commercial opportunities and comparative advantages. Such an assessment could also identify priority services imports that may enhance the competitiveness of their goods exports, subject to domestic availability, quality and accessibility. LDC Governments could subsequently submit updated requests to existing and potential preference-granting countries and negotiate with trade partners for meaningful preferences.
- *Extension and improvement of LDC services preferences.* To improve its effectivity, the LDC services waiver would need to be extended beyond its expiration in December 2030 to maintain LDC services preferences. Preferences could go beyond market access and include measures such as streamlined licensing, recognition of qualifications, digital trade facilitation or visa facilitation for LDC services providers.

- *A coordinated negotiating stance:* LDCs are advised to engage as a bloc in WTO discussions to ensure special and differential treatment provisions are preserved and enhanced. They have increasingly advanced in this direction. Drawing on the approach taken by the Trade Facilitation Agreement, LDCs can collectively insist on provisions for capacity-building and flexible implementation of rules until capacity is achieved. Speaking with a united voice amplifies LDCs' influence in setting rules that align with their constraints and priorities.
- *Technical assistance and Aid for Trade:* LDCs can proactively utilize the Enhanced Integrated Framework dedicated to LDCs, the broader Aid for Trade initiative and technical cooperation programmes (for example, by UNCTAD and WTO) to build trade capacity. By preparing well-defined project proposals, for example, for digital customs systems or ICT training centres, LDCs can attract funding and expertise through these channels.
- *Transitional periods:* In global rulemaking, LDCs should insist on grace periods and exemptions commensurate with their development level. If new rules on services regulation are negotiated, LDC negotiators can request extra time and assistance to comply. This special and differential treatment principle helps prevent LDCs from being penalized or excluded due to capacity constraints.

By actively shaping negotiations and making full use of special provisions, LDCs can ensure that the global trade regime evolves in a way that supports their ambitions rather than stifling them. It is crucial that LDCs do not remain passive rule-takers. With the right strategy and coordination, they can become influential voices championing a more inclusive multilateral trading system.

4. South–South cooperation

South-South cooperation includes mechanisms that support the development and upgrading of services sectors in LDCs. This includes technical cooperation, peer learning and experience sharing. LDCs can learn from emerging economies that have successfully grown their services sectors. For example, the ICT outsourcing industry in India or fintech innovations in Kenya offer lessons in building competitive services sectors. Through South-South cooperation platforms, LDC policymakers and entrepreneurs can undertake study tours, peer learning programmes and joint projects with more advanced developing countries. Such exchanges can accelerate the adoption of effective policies and business models adapted to local needs. Additionally, India has extended its expertise in digital ID systems and digital payments to countries in Africa and Asia (including LDCs) via development cooperation, which can accelerate the adoption of foundational digital platforms.

Another area in which South-South cooperation can be fruitful to LDCs is through experience-sharing and capacity-building on tax issues. Other developing economies often share with LDCs a large informal sector, and have longer experience with formalization and bringing informal economic agents under the purview of national tax authorities.

Experience-sharing on taxation enables LDCs to improve compliance and strengthen revenue systems

A further area in which South-South cooperation has become increasingly prominent is in development finance. Institutions such as the New Development Bank and the Asian Infrastructure Investment Bank (AIIB) offer concessional financing that supports infrastructure development critical for services trade, such as energy, transport and trade infrastructure, as well as Internet connectivity, among others. Wider international financing sources help LDCs lift some of the major constraints hampering the development of their services sectors.

F. Summary conclusions

While the expansion of services in LDCs has created much-needed employment opportunities, it has yet to deliver the productivity gains and broad-based improvements in living standards that many had hoped for. The large number of low-skilled workers employed in traditional services needs to be supported through better skills, productivity and working conditions, so that living standards can also improve.

The time is now ripe for LDCs to transition the bulk of their services sector from being a buffer to absorb low-skilled labour, towards promoting the diversification, growth and upgrading of tertiary companies. LDC Governments and development partners need to assist in transforming the sector so that it reaches a new phase of growth — one that deepens linkages across the economy and strengthens the capacity to export services competitively. By fostering tradable, high-value added services, while upgrading traditional ones, LDCs can not only diversify their export revenue base, but also enhance the quality, efficiency and accessibility of services that underpin productivity and innovation across domestic industries.

Such upgrading of the services sector will allow it to become a hub of technology and knowledge spillover by building dynamic linkages with other sectors and activities of the domestic economy – including manufacturing – in a mutually supportive development process that improves efficiency and productivity.

The improvement of the performance of the tertiary sector requires a coherent set of policies ranging from the highest-level development policies aiming to solve some of the structural bottlenecks to growth and development, to much more targeted policies and measures that aim at developing or creating comparative advantages for specific services (sub) sectors. It also requires active trade policies. Access to international markets is being facilitated by the implementation of regional integration schemes and by technological developments, while stronger action is necessary at the multilateral level. Business development for international markets should be complementary to that for domestic markets.

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