SERVICES ECONOMY AND TRADE AND STRUCTURAL TRANSFORMATION

LA ECONOMÍA Y EL COMERCIO DE SERVICIOS Y EL CAMBIO ESTRUCTURAL

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Mina Mashayekhi heads the Trade Negotiations and Commercial Diplomacy at UNCTAD. Previously she led the Division of International Trade at UNCTAD. She has held senior policy related and leadership positions at the UN and advised developing countries and emerging market leaders on the international trading system, multilateral and regional trade negotiations and joining the WTO as well as on trade policy and services sector policies. Her research and policy work has covered international trade and SDGs, international trading system and global governance, services in trade and development as well as RTAs, dispute settlement, trade, employment and migration, intellectual property and trade related investment measures. She has founded the Global Services Forum which brings together business and government leaders to discuss 21st century services issues including education, health, financial, energy and digital trade and ICT services. She is widely respected and has published on international trade and development in leading journals and edited and contributed to various books. Her latest publications and articles include Services, Trade and Development Services Regional Integration and Developing Countries, The Regulatory and Institutional aspects of Infrastructure Services, and Legal aspects of Trade in Agriculture: WTO Agreement on Agriculture and Preferential Trade Agreements. She is a frequent speaker at international conferences. She sits on various task forces and boards. She works closely with many universities and leading think tanks around the world. Ms Mashayekhi holds a BA in Political Science and Public Law from UCLA, an LLB from Cambridge University, and an LLM in International law from the London School of Economics and Political Science.

Summary

Services have relevant direct effects on output, employment, investment and trade, and provide intermediate inputs to all economic activities, facilitating productive and export processes. Services also have an important role in creating linkages and coordination throughout production processes, providing the means for different activities to interact. Services are thereby catalytic of productivity and create services-led changes in the economic structure, where some sectors become relatively more important than others by building on services value-added. Such structural changes may be beneficial if they favour sectors which are more technological intensive or with more upgrading potential, leading to a services-led growth. Still, in Latin America and the Caribbean structural changes displaced workers to lower-productivity activities and led to reduced growth. Enabling policies and regulations are required to improve services performance and achieving a desired economic transformation. Trade in services plays a particularly important role in economic transformation, enabling countries to diversify and upgrade their economies, including through integration into regional and global value chains. Efforts are needed to advance a global SDG-led services trade agenda in the international trading system, including preferential treatment, flexibilities, experimentation, adjustment mechanism and support, and capacity building for developing countries, to enable the transformative potential of services trade for development.

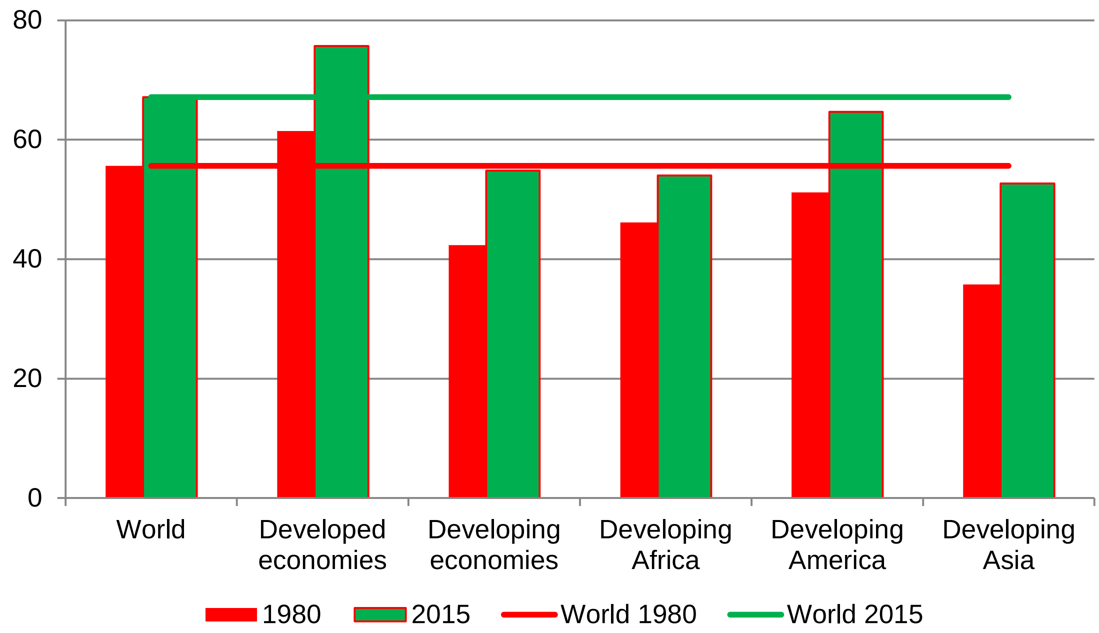
Los servicios tienen efectos directos relevantes sobre la producción, empleo, inversión y comercio, y proporcionan insumos a todas las actividades económicas, facilitando los procesos productivos y de exportación. Los servicios también desempeñan un papel importante en la creación de vínculos y coordinación de los procesos de producción, proporcionando los medios para que diferentes actividades interactúen. Los servicios son, por tanto, catalizadores de la productividad y generan cambios en la estructura económica, con lo cual algunos sectores se vuelven relativamente más importantes que otros. Dichos cambios estructurales pueden ser beneficiosos si favorecen sectores con mayor intensidad tecnológica o con un mayor potencial de escalamiento. Sin embargo, en América Latina y el Caribe cambios estructurales desplazaron trabajadores hacia actividades de baja productividad y condujeron a un crecimiento reducido. Se requieren políticas y regulaciones que permitan mejorar el desempeño de los servicios y lograr una transformación económica deseada. El comercio de servicios desempeña un papel particularmente importante en la transformación económica, permitiendo a los países diversificar y escalar sus economías. Se necesitan esfuerzos para avanzar en una agenda global de comercio de servicios enfocada en los ODS en el sistema comercial internacional, que incluya trato preferencial, flexibilidades, experimentación, mecanismos de ajuste y apoyo y creación de capacidad para los países en desarrollo para posibilitar el potencial transformador del comercio de servicios para el desarrollo.

Keywords
Services, trade, structural transformation, global value chains, trading system
Servicios, comercio, cambio estructural, cadenas globales de valor, sistema de comercio

Services as a growing part of the economy

The long-term trends in many countries confirm the increased contribution of services to economies. Between 1980 and 2015, the proportion of services in GDP increased for all categories of countries - from 61 to 76 per cent in developed economies and from 42 to 55 per cent in developing economies (figure 1). Services are predominant in all developing regions in 2015, mainly in Latin America and the Caribbean (65 per cent share of GDP).

Figure 1
Share of services in gross domestic product by income level and region, 1980 and 2015
(Percentage)



Source: UNCTADStat.

This preponderance of services is true also for employment. In 2016, the broad services sector is estimated to account for nearly half of global jobs (49 per cent). As in output, the importance of services in employment is more pronounced in developed economies - where services jobs represent 75 per cent of the total - than in developing economies (44 per cent)[1]. Services have been the main job provider since mid-2000s, even during the 2008-2009 global economic and financial crisis. Employment in services is particularly relevant for women, as it is the services sector where women have the highest share of jobs globally and in developed countries. The participation of women in services jobs in developing economies is 41 per cent, second only to the agriculture sector. Services employment is also important for migrant workers as some host countries, such as Canada and the United States of America, rely heavily on migrants in their broad services sector[2].

Between 2001 and 2016, construction, tourism and other business services were sectors whose importance for the global job market has grown more annually, above or close to 3 per cent. The same occurred in developing economies, where these sectors have even higher annual growth of their employment share, above 4 per cent. Although to a lesser extent, transport and financial services have also had important annual growth of their employment share in the same period. The same trends were followed in Latin America and the Caribbean, although with lower growth rates than for the average of developing countries. Other business services account for the biggest employment share annual growth rate between 2001 and 2016, of 2.8 per cent (figure 2).

Figure 2
Annual change of employment distribution in selected sectors by income level, 2001–2016

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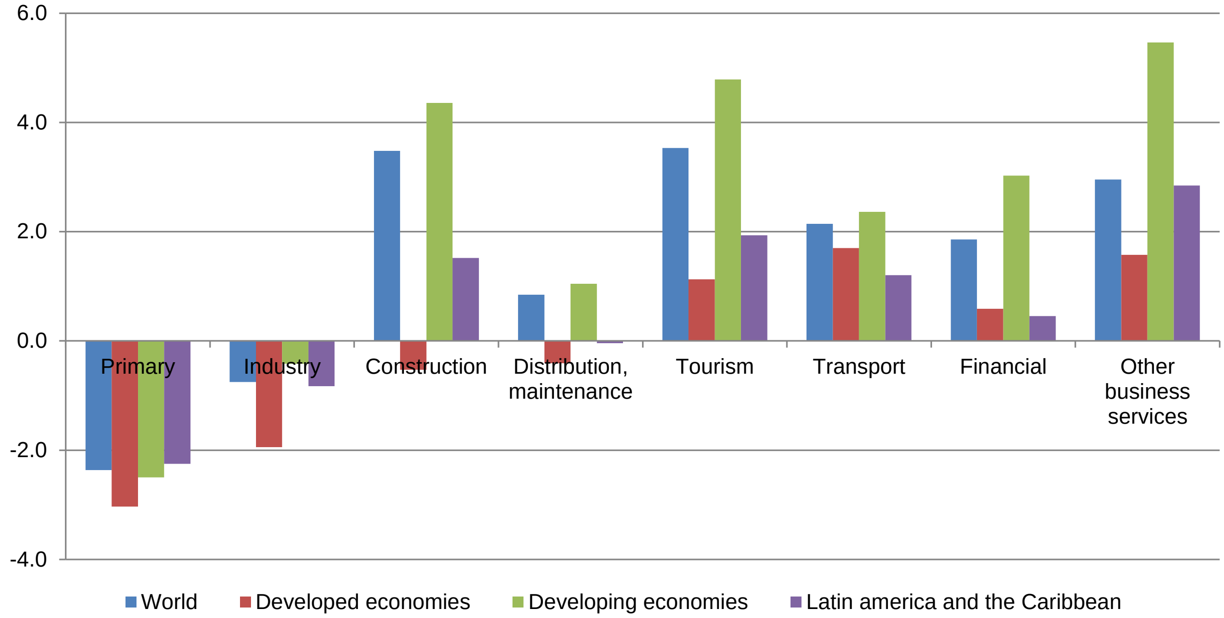
[1] ILOSTAT.
[2] ILO, 2016, *World Employment Social Outlook: Trends 2016* (Geneva).

(Percentage)



Source: UNCTAD secretariat calculations, based on International Labour Organization (ILO), Econometric models.
Note: Estimates for 2014 and projections for 2015 and 2016.

Services are also increasingly important for the creation of jobs related to global value chains. Between 2000 and 2013, services accounted for the greatest part of new trade-related jobs in advanced economies and were the second largest contributor, after manufacturing, to new trade-related jobs in emerging economies. Between 2000 and 2011, some services sectors revealed more potential to create trade-related jobs, namely business services, transport and communication in developed economies, and business services, hotels and restaurants in emerging economies. Data from 2014 revealed that although women account for large shares of employment in several services sectors, they represent a small share of employment in the sectors that create the most jobs linked to global value chains. The indirect effects of services exports were stronger in some sectors, with one job in tourism creating three jobs elsewhere and in India one job in information technology creating four jobs elsewhere. Infrastructure services in particular are a key factor in creating supply and export capacity and taking advantage of employment benefits from trade[3].

Still, the services policy agenda needs to be mindful of employment risks related to services. Technology, infrastructure and knowledge related services increase productivity and may cause job losses by automation. Notwithstanding, this is to a certain extent a job replacement since indirect effects have to be taken into account as there are job gains in technology-producing sectors and these might be more important[4]. Trade in services contributes to the potential of the services sector in generating employment and inducing skills upgrading, although a set of

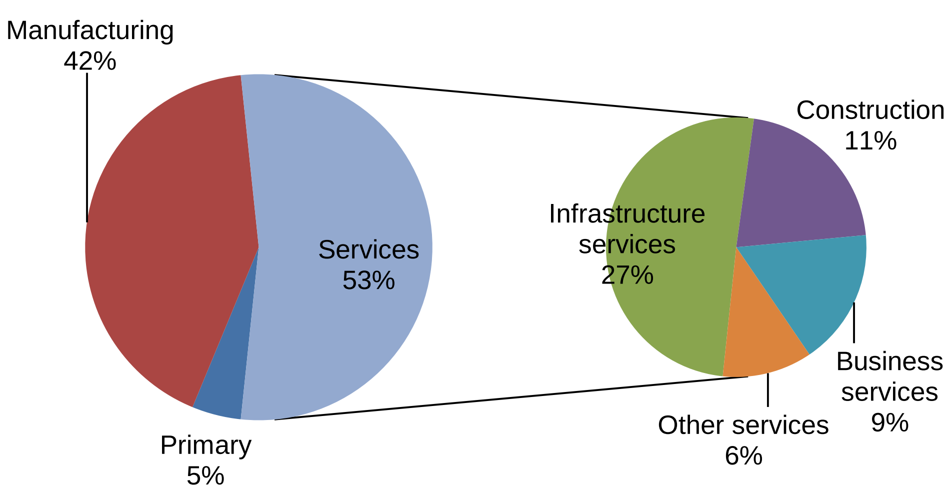
[3] UNCTAD, 2016, Services, development and trade: The regulatory and institutional dimension, TD/B/C.I/MEM.4/11 (Geneva).
[4] UNCTAD, 2017, Report of the Multi-year Expert Meeting on Trade, Services and Development on its fifth session, TD/B/C.I/MEM.4/15, UNCTAD.

policies needs to be in place to enable this role[5]. In South America, trade liberalization has prompted firms, especially exporting firms, to upgrade their technology and to increase the skill intensity of their workforce as exporters increased the share of high-skilled workers in their workforce[6]. Nevertheless, trade creates jobs with a different skill set from jobs being replaced. With labour frictions, workers cannot easily move across sectors and a net job loss may occur.

Overall services-related policies are relevant for inclusive employment, especially in a current context of persistent high unemployment where global unemployment is expected to rise in 2017 to just over 201 million people and vulnerable employment remains pervasive at 1.4 billion people worldwide[7]. It is crucial to put a strong emphasis on skills development, not only because of their role in strengthening productive and export capacity, but also because appropriate skills development policies help workers who lose their jobs to make a smoother and faster transition to new jobs with equal or higher wages[8].

Services are also prevalent in foreign direct investment (FDI), with announced greenfield investment in the last ten years mainly concentrated in the services sector. In 2015, services received 53 per cent of investment. In addition, FDI in services has grown 6 per cent annually between 2005 and 2015, faster than investments in the primary and in manufacturing sectors. Investment in the infrastructure services sector (ISS) has grown even faster in the same period - 7 per cent annually - and accounted in 2015 for more than half of announced greenfield investment in services. Construction and business services also received important shares of FDI in services (figure 3).

Figure 3
Sectoral distribution of announced greenfield foreign direct investment projects, 2015
(Percentage)



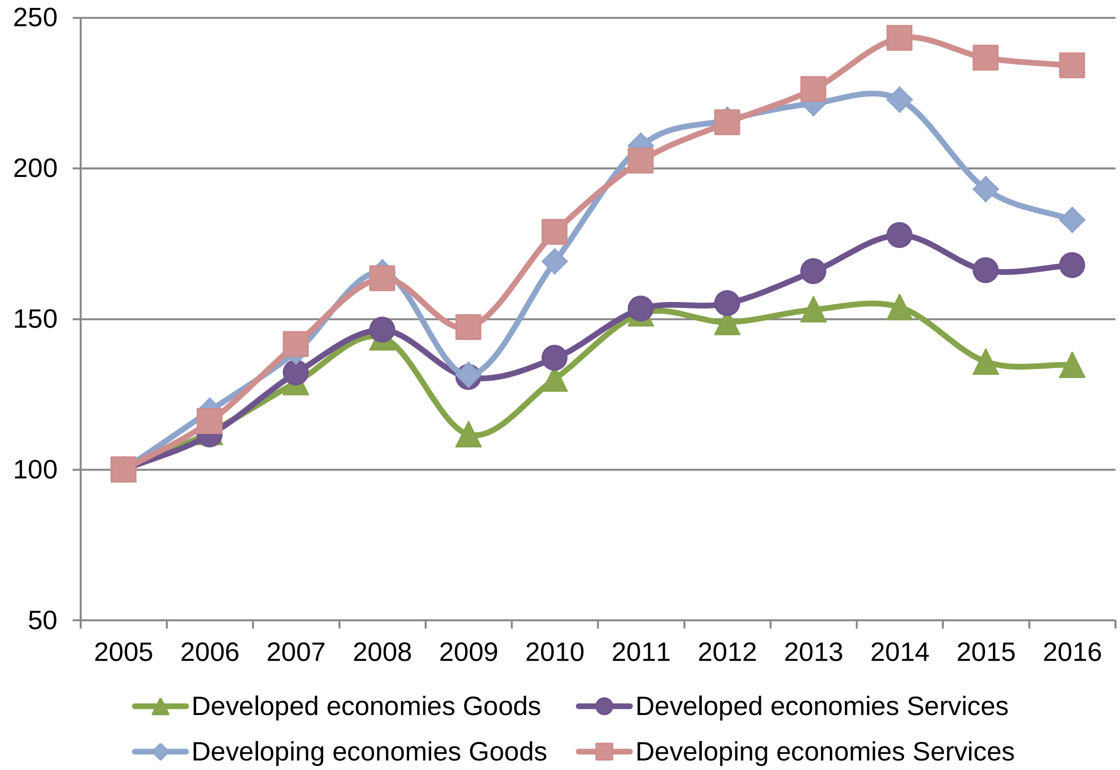
[5] UNCTAD, forthcoming, *Trade, Employment and Development*, Geneva.
[6] ILO and WTO, 2017, *Investing in skills for inclusive trade* (Geneva).
[7] ILO, 2017, *World Employment Social Outlook: Trends 2017* (Geneva).
[8] ILO and WTO, 2017, *Investing in skills for inclusive trade* (Geneva).

Source: UNCTAD secretariat calculations, based on UNCTAD *World Investment Report 2016* annex tables.

Trends in trade in services

Between 2005 and 2016, the share of services exports in the total exports of goods and services increased from 24 to 28 per cent in developed economies and from 14 to 17 per cent in developing economies (figure 4). In this period, services exports had an annual growth of 5 per cent in developed economies and 8 per cent in developing economies, higher than the annual growth of goods exports for both income levels. In addition, services exports have been more resilient than goods exports. Globally, services exports decreased 11 per cent in 2009, in the global economic and financial crisis, and 6 per cent in 2015, in the trade downturn, much less than goods exports, which have decreased 22 per cent in 2009 and 13 per cent in 2015. Global services exports have resumed growth in 2016, in opposition to goods exports. In developing countries, services exports decreased 3 per cent in 2015 while goods exports decreased 13 per cent (figure 4).

Figure 4
Growth of goods and services exports by income level, 2005–2016
(Index; 2005=100)



Source: UNCTADstat.

Trade in services have a direct contribution for development, with services exports growing faster in developing economies than in developed economies. Between 2005 and 2016, the share of developing economies in global services exports grew from 23 to 29 per cent (figure 4). Still, in 2016 the 5 world's largest exporters and importers are mainly developed economies: the United States of America with 15.6 per cent of global exports of services; the United Kingdom of Great Britain and Northern Ireland with 6.8 per cent; Germany with 5.6 per cent; France with 4.9 per cent; and China with 4.3 per cent. These countries were also the main importers in the same year (table 1). The first ten exporters account for more than 50 per cent of global services exports and the same occurs with the first ten importers, revealing heterogeneity in the participation of developed and developing economies in trade in services.

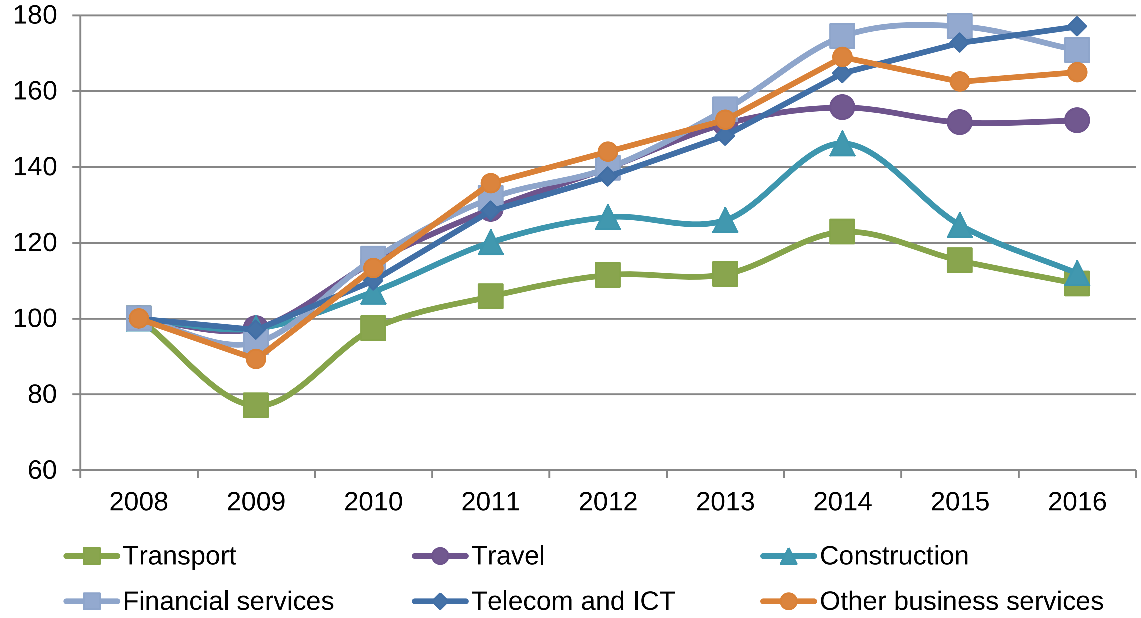
Table 1
Main exporters and importers of services, 2016
(Millions of dollars and percentage)

Main services exporters	*Value of services exports*	*Share of global services exports*	*Main services importers*	*Value of services imports*	*Share of global services imports*
United States	752 411	15.6	United States	503 053	10.7
United Kingdom	327 176	6.8	China	453 014	9.6
Germany	272 738	5.6	Germany	312 074	6.6
France	236 760	4.9	France	235 679	5.0
China	208 488	4.3	United Kingdom	198 653	4.2
Netherlands	179 776	3.7	Ireland	191 939	4.1
Japan	173 821	3.6	Japan	184 710	3.9
India	161 845	3.3	Netherlands	169 458	3.6
Singapore	149 642	3.1	Singapore	155 581	3.3
Ireland	146 678	3.0	India	133 710	2.8
Total	**2 609 334**	**53.9**	**Total**	**2 537 870**	**53.9**

Source: UNCTADstat.

The export data disaggregated by services category reveals that between 2008 and 2016 exports in developing countries were growing more strongly in telecommunications, computer, and information services - with a 7 per cent annual growth rate - other business services and financial services, with exports in both growing 6 per cent annually in the same period (figure 5). Nevertheless, the sectoral distribution of commercial services exports in 2016 confirms that developed and developing economies still have different trade profiles. Although transport, travel and other business services are the largest categories for all types of economies, the share of transition and developing economies on transport and travel services continues to be higher – 58 and 55 per cent of their total commercial services exports (table 2). In contrast, developed economies continue to be more specialized in higher value added services categories, such as financial services and charges for the use of intellectual property.

Figure 5
Developing economy exports of selected commercial services, 2008–2016
(Index; 2008=100)



Source: UNCTADstat.
Note: Other business services covers miscellaneous business, professional and technical services.

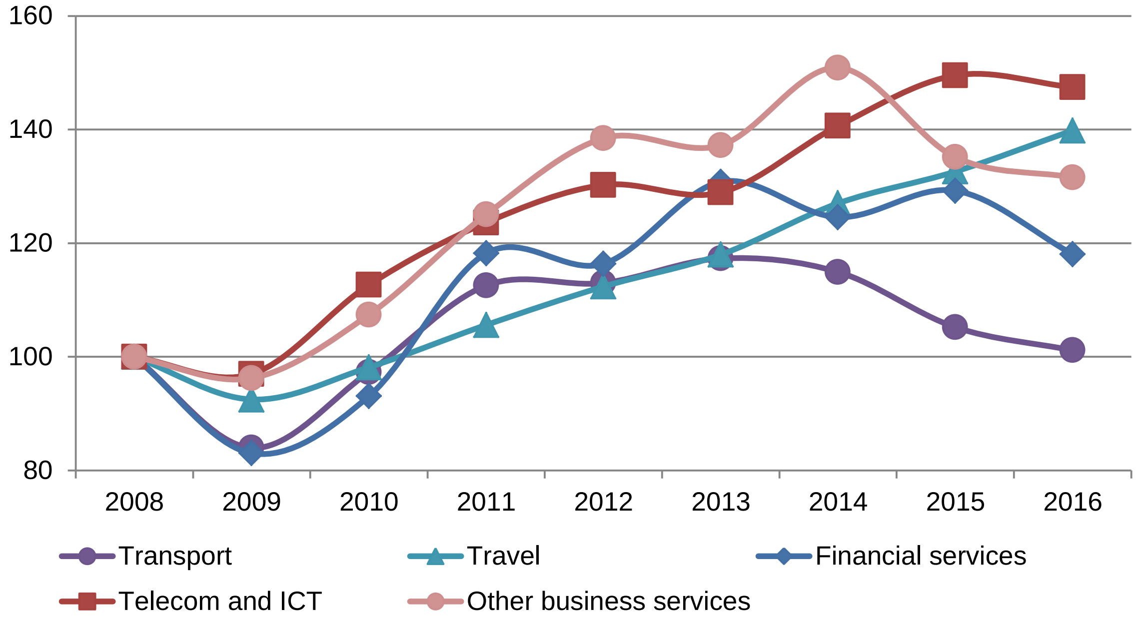
Table 2
Exports of commercial services by income level, region and category, 2016
(Percentage)

Services category	*Developed economies*	*Developing economies*	*Developing Africa*	*Developing America*	*Developing Asia*
Goods-related	3.4	3.4	2.0	2.5	3.6
Transport	15.8	21.1	29.2	16.2	21.2
Travel	21.4	33.8	39.1	47.4	31.4
Construction	1.3	2.8	2.3	0.1	3.2
Financial	13.6	6.5	4.2	5.0	6.9
Intellectual property	9.0	1.4	0.3	0.8	1.5
Telecom and ICT	10.6	9.5	6.6	4.7	10.4
Other business	23.9	20.6	15.7	20.7	21.0
Personal, cultural and recreational	1.0	0.9	0.7	2.7	0.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: UNCTADstat.

In Latin America and the Caribbean, between 2008 and 2016, exports were growing more in telecommunications, computer, and information services - with a 5 per cent annual growth rate -, followed by travel - 4 per cent -, and other business services - 3 per cent (figure 6). Still, this region has a lower focus than developing Asia on exports of higher value added services categories, such as financial services; telecommunications, computer and information services; and other business services (table 2).

Figure 6
Developing America exports of selected commercial services, 2008–2016
(Index; 2008=100)



Source: UNCTADstat.
Note: Other business services covers miscellaneous business, professional and technical services.

Revealed dimension of trade in services

Current balance of payments-related statistics capture only a part of services trade and does not reflect the full importance of services trade. Most importantly, there are data gaps and challenges related to some modes of services trade. Cross-border services trade data captures only a part of services trade, as services trade increasingly occurs with commercial presence (mode 3) and with the temporary movement of natural persons (mode 4). Nevertheless, while international transactions can sometimes be allocated to a single mode, a single transaction can also be composed of several modes. For example, architectural services may include mode 1 - delivery of design by e-mail - and mode 4 if occasional visits to the clients' location are required.

Commercial presence is the most important mode of supply of services as can be inferred from the ever growing sales by foreign affiliates. If assumed it also derives from its services component, the amount reached $37 trillion in 2015, an increase from $34 trillion in 2014 and $32 trillion in 2013[9]. In 2013, 69 per cent of services exports in the European Union were through mode 3. The temporary movement of people supplying services is particularly important in professional and business services, as well as in services related to agriculture, manufacturing and mining. Taking into account the sizeable amounts of remittances, mode 4 of supplying services is of substantial importance for developing countries. In 2016, worldwide remittance flows are estimated to be $575 billion, with $429 billion flowing to developing countries.[10] The

[9] UNCTAD, 2016, *World Investment Report 2016: Investor Nationality: Policy Challenges* (New York and Geneva).
[10] The World Bank, 2017, *Migration and Development Brief 27: Migration and Remittances, recent developments and outlooks*.

relevance of migration for the services sector is also underscored by the fact that around 71 per cent of migrant workers are concentrated on services. Migrant workers accounted for 150 million of the 232 million migrants in 2013[11].

In addition to the direct effects of services on output, employment, FDI and trade, the services sector - and most notably the ISS - can provide intermediate inputs to all economic activities, including agriculture and manufacturing. Furthermore, services are bundled with goods, for example with manufacturing firms that also provide the distribution services or with the machinery industry where maintenance, repair, and installation can be indispensable services to be sold with the good. These indirect effects of services imply that there is services value-added included in output and exports in all economic sectors - the forward linkages of services. While services direct exports in 2011 accounted for 25 per cent of total exports in developed economies and 14 per cent in developing economies, services represented 44 per cent of the value-added in total exports in developed economies and 32 per cent in developing economies (figure 8). The significant differences between direct services exports and services' value-added in exports from all sectors are also not captured in cross-border services trade data.

In addition to this, neither cross-border services trade data nor analyses of value added in gross exports captures the increasing importance of services activities within manufacturing companies. To add more value and innovation-related content to their products, to promote client relationships, and keep strategic business functions in-house, firms develop services activities themselves rather than outsourcing. Services inputs accounted for 37 per cent of the value of manufacturing exports but by adding services activities within manufacturing firms, that share increased to 53 per cent and the contribution of services to overall exports was close to two-thirds[12].

More fundamentally, the intangible nature of services and services trade raises a particular challenge for data registry and collection. Moreover, services trade data is often not fully available for all countries. Despite important advances, there is still lack of information regarding partner country data for services trade between developing countries and data often lacks the level of disaggregation necessary for informed policymaking. Institutional challenges often arise because a broad array of institutions are usually involved in services trade in all four modes of supply, including national statistical office, tax authorities, social security agencies. This implies that the provision of valid statistics requires institutional cooperation. Harvesting this potential requires high-quality, reliable, timely, comprehensive and sufficiently disaggregated data on services trade flows to facilitate specific evidence-based policy-oriented actions. A focus on data is a required strategy to develop the right policies for the right services-led structural transformation It is relevant to have information on the sector, mode of supply, and trade partner at transactional level (box 1). The availability of data is a key element for measuring the achievement of sustainable development goals (SDGs)[13].

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[11] ILO, 2015, *ILO Global estimates on migrant workers*. The provided number of migrant workers on services does not include the construction sector.

[12] Miroudot, Sébastien, Charles Cadestin, 2017, Services In Global Value Chains: From Inputs to Value-Creating Activities, *OECD Trade Policy Papers*, No. 197, OECD (Paris).

[13] Target 17.18 of SDGs calls for the enhancement, by 2020, of capacity-building to developing countries to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, *disability*, geographic location and other relevant in national contexts.

Box 1. SISCOSERV

In Brazil, the Integrated System of Foreign Trade in Services and Intangibles (SISCOSERV) is an important tool for services classification, data collection and policy action. The system covers all services transactions between residents and non-residents and data collection encompasses the 4 modes of trade in services, with national and subnational levels of information. The effectiveness of SISCOSERV relies on assigning a high priority and political support to data availability and quality, mandatory reporting from economic agents associated to a strong institutional support, and in the country's experience in e-government and e-platforms. The implementation process also included training and awareness raising initiatives focused on the private sector [14]. Released information includes all exports and imports of services and intangibles in multiple languages, including bilateral services trade profiles and an overview aiming to provide greater economic visibility to the services sector.

SISCOSERV helped different Brazilian authorities to identify services export potential, supported market intelligence and trade promotion, enabled other public policies in favour of services exports, and provided inputs for trade negotiations. Together with information disaggregated by mode of supply, which unveils business models adopted by companies, this contributes to international negotiations of trade in services, government procurement in services and e-commerce agreements and to the management and monitoring of public policies. Information is shared between the Brazilian Revenue Agency and other supervisory bodies in operations against money laundering. Based on data from the system, specific statistics have been developed to support business strategies from services sectors, and a public-private initiative ("Services Export Leverage Forum") was launched to increase competitiveness through the identification of relevant measures that can be taken by both public and private actors to increase services exports.

Services and structural transformation

The provision of intermediate inputs by the services sector facilitates productive and export processes to move forward in obtaining final or other intermediate products. This central role of services can be observed in all stages of productive processes, mainly in back-office - for example business services - and production stages - e.g. quality control, engineering services, security services - but also on establishment, pre-production, post-production, and after-sales stages[15]. Services also have an important role in creating linkages and coordination throughout production processes, providing the means for different activities to interact. This role can be easily found in infrastructure services, for example in telecommunication services that allow for cooperation between different activities and participants in the production process. It can also be identified in knowledge and technology-based services that have an intermediation function facilitating specialization.

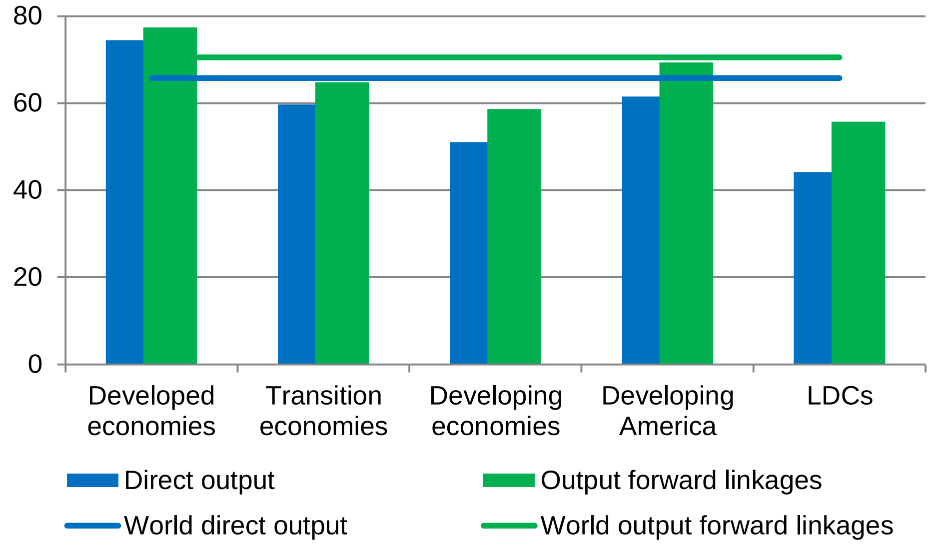
[14] UNCTAD, forthcoming, Trade, Migration and Development, *Handbook for Improving the Production and Use of Migration Data for Development*, Global Migration Group.
[15] Asia Global Institute, 2015, *The role of services in global value chains*, presented at UNCTAD, Geneva, 17 September.

The services' value-added incorporated in output and exports in all economic sectors reveals the real importance of the services sector for the economy at large and for development. While in 2011 services direct output accounted for 74 per cent of total output in developed economies and 51 per cent in developing economies, services represented 77 per cent of the value-added in total output in developed economies and 59 per cent in developing economies. In Latin America and the Caribbean, while services direct output represented 62 per cent of total output, services value-added accounted for 69 per cent of the value-added in total output (figure 7). This value-added in total output represents the forward linkages of services in output and the servicification of economies in all income levels.

Figure 7

Share of services in total direct output and in total forward linkages in output by income level, 2011

(Percentage)



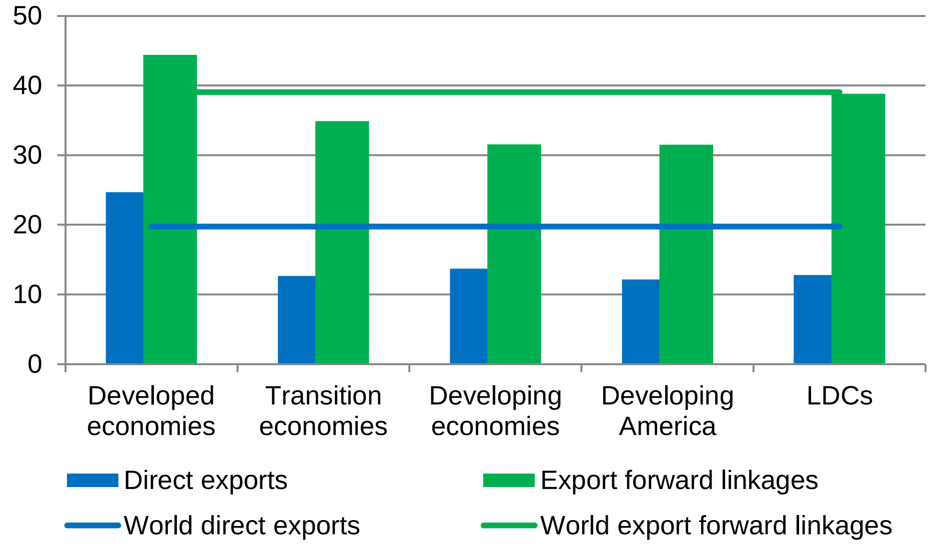
Source: UNCTAD calculations based on the World Bank's Export Value Added Database (EVAD).

As mentioned, services direct exports in 2011 accounted for 25 per cent of total exports in goods and service in developed economies and 14 per cent in developing economies. Still, services represented 44 per cent of the value-added in total exports in developed economies and 32 per cent in developing economies. In Latin America and the Caribbean, while services direct exports represented 12 per cent of total exports, services value-added accounted for 32 per cent of the value-added in total exports, an enormous difference of crucial importance for policy making (figure 8). The export of this services' value-added within products of all economic sectors is referred to as "mode 5"[16] of supply of services and is the reflection of "servicification" in international trade. The substantial differences between direct exports of services and of services' value-added in exports from all sectors, reveals the importance of services for

[16] Cernat, Lucian, Zornitsa Kutlina-Dimitrova, 2014, Thinking in a box: a "mode 5" approach to services trade, European Commission.

improving export capacity. This mode 5 also confirms the increase tradability of services, especially when they are associated with inherently tradable goods and services. Global GDP gains from liberalizing mode 5 services at multilateral level could reach up to €300 billion by 2025 and world trade could increase by over €500 billion[17].

Figure 8
Share of services in total direct exports and in total forward linkages in exports by income level, 2011
(Percentage)



Source: UNCTAD calculations based on EVAD.

These effects can induce efficiency and effectiveness, the reduction of productive and trade barriers and costs, and thereby contribute to more productivity and increased productive and export capacity. Opportunities may emerge for economic agents to join value chains supporting exports, including in some cases for micro, small and medium enterprises (MSMEs) (box 2). Still, the participation in global value chains (GVCs) alone does not guarantee relevant development gains. In the apparel industry in the United States of America, 70 per cent of the final retail price remains in the country, although as many as 56 different countries or regions contribute to this value chain. This is because high value-added services activities, such as design, distribution and marketing, continue concentrated in the United States of America[18]. In a different scale, similar examples of heterogeneity can be found in regional value chains. China and India have a preponderant role in value chains, with the foreign content of their exports amounting to 32 and 24 per cent, respectively, of their gross exports[19].

Box 2. Services and micro, small and medium enterprises

[17] Antimiani, Alessandro and Lucian Cernat, 2017, Liberalizing global trade in mode 5 services: how much is it worth?, Chief Economist Note, DG Trade, European Commission.
[18] Durkin, Andrea, 2017, *Jobs in Fashion You Didn't Know Were Connected to Trade*, Tradevistas.csis.org.
[19] OECD-WTO Trade in Value-added Database.

MSMEs are important for development as they represent a meaningful share of the number of firms (95 per cent), output (50 per cent) and employment (60 per cent), are sources of innovation and provide more opportunities for women and youth to participate and contribute to economic growth[20]. This importance is met by the challenges MSMEs face, such as the productivity gap between them and larger firms, wider in developing economies. The participation of MSMEs in international trade is minimal and focuses in low value-added production. Trade costs are higher for MSMEs due to lack of scale, including for example in access to information, financing, and compliance with requirements. By providing inputs and linkages throughout production processes, services can improve their productivity, reduce trade barriers and costs, and allow for their diversification and upgrading. Infrastructure services are particularly critical for MSMEs. For example, financial services are mentioned in both targets of SDGs that refer to MSMEs (8.3 and 9.3), and telecom and information and communication technology (ICT) services promote MSME's inclusion, inter alia, through digital financial services and e-commerce.

Services activities are also more amenable for MSMEs' participation in the economy and trade. Services activities are less dependent on economies of scale and are often less capital-intensive and more focused on other production factors. This democratisation of the economy by the services sector is also expanded as services can be providers of atomised inputs for different stages of broader productive processes. MSMEs can concentrate in producing such atomised services' inputs rather than face the challenge of producing the whole final product. The integration of services in broader productive processes and value chains also means that some costs are, to some extent, distributed by the several participants, such as reputational costs, costs of capital, and of technology transfer. This facilitated participation can provide the incentives for the formalisation of many MSMEs and for informal workers to enter formal labour markets. This is also very important for development as revealed by the increasing formalisation of the Brazilian economy since 2000[21] which appears to enhance growth, whereas in India the increase in informality reduces growth[22].

This also applies to MSMEs using on-line marketplaces to engage in e-commerce. In China, the e-commerce company Alibaba established a diverse ecosystem to enable trade through a network of services including an own e-payment system which soon expanded to banking, investment, and clearing house for cross-border trade. SMEs account for a larger share of businesses trading through Alibaba than in non-ICT-enabled markets. Furthermore, Chinese companies trading through Alibaba can reach up to 98 export destinations, almost double than in non-ICT-enabled markets[23].

These positive linkages need to be enabled by an environment which includes a developmental state that assigns adequate priority and mainstreams MSME's issues into national development

[20] WTO, 2015, *Fostering the participation of micro, small, and medium enterprises (MSMEs) in regional and global markets*, JOB/GC/80, Geneva.

[21] Policies in Brazil also include a differentiated, simplified and preferential tax regime for micro and small enterprises - the SIMPLES, and some simplified and expedite business procedures. The number of enterprises that has been formalized trough the SIMPLES has increased 380 per cent in 10 years.

[22] J. *de* Vries, Gaaitzen et al, 2012, Deconstructuring the BRICS: Structural transformation and aggregate productivity growth, *Journal of Comparative Economics*, 40.

[23] Mashayekhi, Mina, Taisuke Ito and Bruno Antunes, 2017, Digital economy and ICT services-enabled trade, Box II.1 *World Economic Situation and Prospects 2017*, United Nations, New York.

policies, recognising their specificities; promotes coherence, institutional coordination and multi-stakeholder partnerships and MSMEs association; and promotes skills upgrading and technology adoption in MSMEs to build their supply capacity. Trade policies need to address barriers, promoting trade facilitation in services; improve access to information, for example by domestic regulation and transparency provisions; and negotiate flexibilities for MSMEs. International cooperation is also relevant to build productive capacity in MSMEs, for instance by improving access to finance through Aid for Trade and the Enhanced Integrated Framework.

By increasing productivity and productive and export capacity, services change relative prices in the sectors to which they contribute, thus impacting production, employment, investment, trade and consumption decisions related to those sectors. This creates services-led changes in the economic structure, where some sectors become more important by building on support from the services sector. The structural changes that derive from services may favour sectors which tend to have higher productivity, be more technological intensive or with more upgrading potential, leading to a services-led growth. The impacts that services can have on a positive structural transformation - through the diversification of production, development of new productive capacities, and upgrading[24] - expands the debate on development options. Services should no longer be considered as a mere alternative in the absence of industrialization or tactic to improve export revenues, but as a transformative strategy for development which can also promote industrialization.

The linkages between services and changes in the economic structure are very important for development as was evidenced by structural changes from low to high-productivity sectors in Asia leading to growth since 1990. Conversely, in Africa and in Latin America and the Caribbean structural changes had a different pattern, with workers displaced to lower-productivity activities including in services and the informal sector, and led to reduced growth. The challenge for Latin American countries is complex. On the one hand, they are more industrialized than countries in Africa and openness has allowed industrial upgrading and increased efficiency. On the other hand, countries in Latin America were also more affected by globalization, including by a contraction in the manufacturing sector, partly a result of China's increasing role in global manufacturing. This contraction forced a reallocation of resources across sectors and globalization has brought uneven outcomes in this regard[25]. Therefore, the services sector is more likely to assume a supporting role in accelerating structural transformation in countries that have a dynamic manufacturing industry with fast productivity and income growth[26]. For example, no less than one third of aggregate productivity growth is associated with the performance of the services sector in countries where manufacturing has grown rapidly such as in Viet Nam[27].

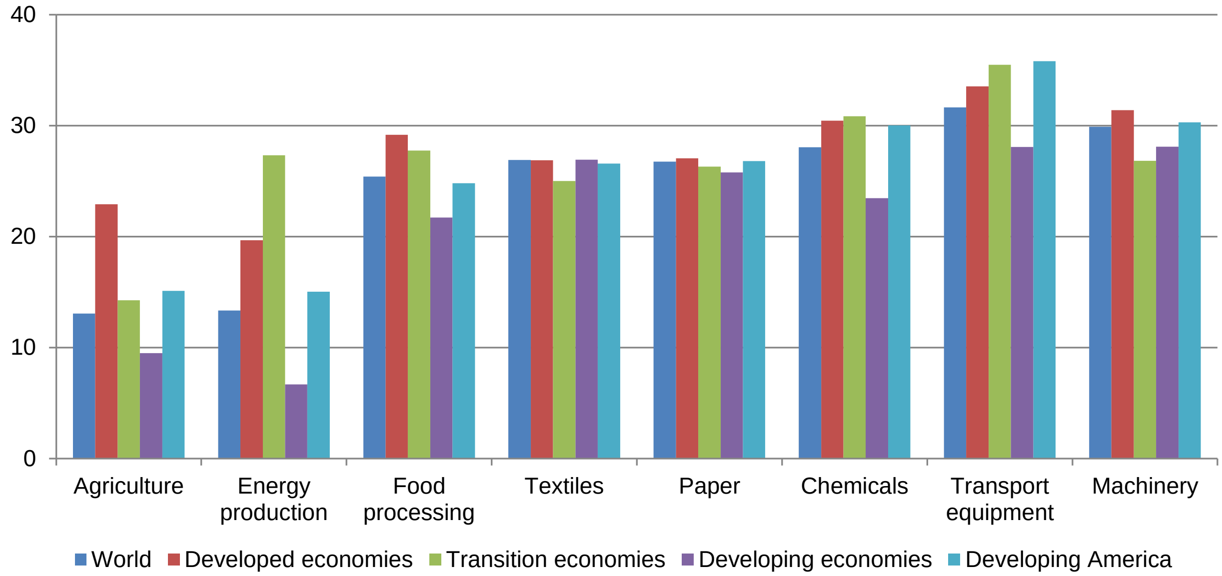
[24] Jouanjean, Marie-Agnes, Max Mendez-Parra and Dirk Willem Te Velde, 2015, *Trade Policy and Economic Transformation*, ODI.
[25] *McMillan*, Margaret, Dani Rodrik and Iñigo Verduzco-Gallo, 2014, Globalization, Structural Change, and Productivity Growth, with an Update on Africa, *World Development*, Vol.63.
[26] UNCTAD, 2016, *Trade and Development Report*, UNCTAD, New York and Geneva.
[27] *Mendez*-Parra, Max, 2017, Trade in services and economic transformation: some evidence, *Trade in Services and economic transformation*, SET-ODI (London).

In 2011, services' value-added represented 23 per cent of agricultural output in developed economies and 9 per cent in developing economies, as measured by the sector's backward linkages. This can be even more meaningful in several manufacturing sectors. In textiles, for example, services' value-added accounted for 27 per cent of sectoral output in both developed and developing economies (figure 9). Developing countries incorporate less services' value-added than developed countries in many sectors, and are lagging behind in using the potential of services, particularly in agriculture and energy production. In Latin America and the Caribbean, most sectors incorporate more services' value-added than in the developing countries' average. For instance, the value-added of services represented 15 per cent of agricultural output in this region. A similar scenario can be observed in exports. In 2011, services' value-added represents 24 per cent of agricultural exports in developed economies and 13 per cent in developing economies. In textiles, services' value-added accounts for 27 per cent of sectoral exports in developed economies and 25 per cent in developing economies. In Latin America and the Caribbean, sectoral exports incorporate more services' value-added than in the developing countries' average. For example, the value-added of services represented 16 per cent of agricultural exports and 30 per cent of textile exports in this region (figure 10).

Figure 9

Participation of services in total backward linkages in output of selected sectors by income level, 2011

(Percentage)

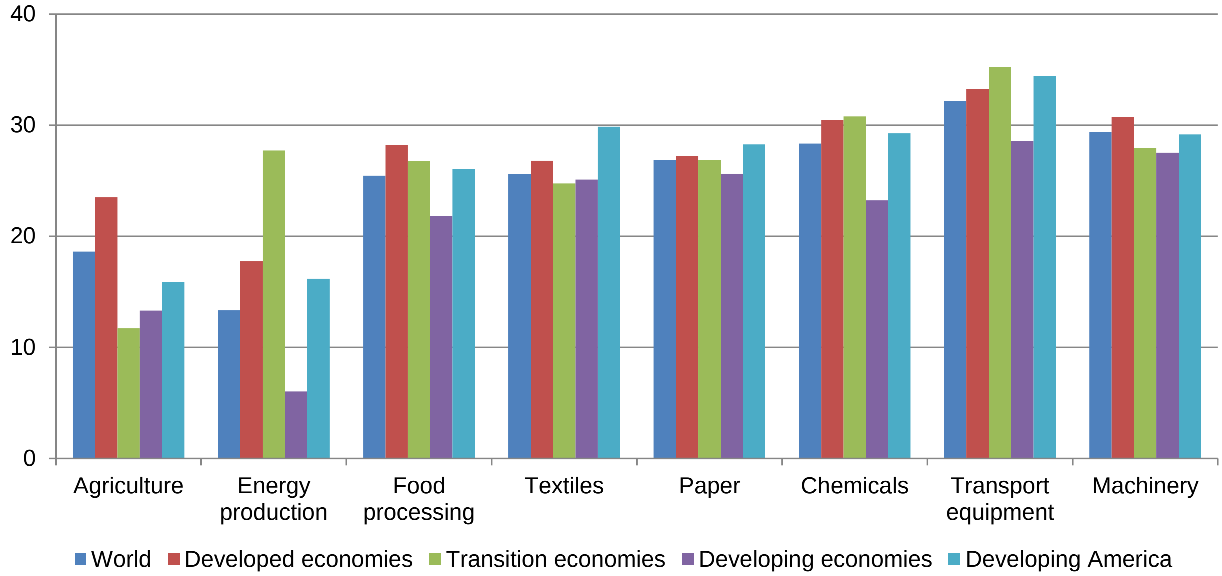


Source: UNCTAD calculations based on EVAD.

Figure 10

Participation of services in total backward linkages in exports of selected sectors by income level, 2011

(Percentage)

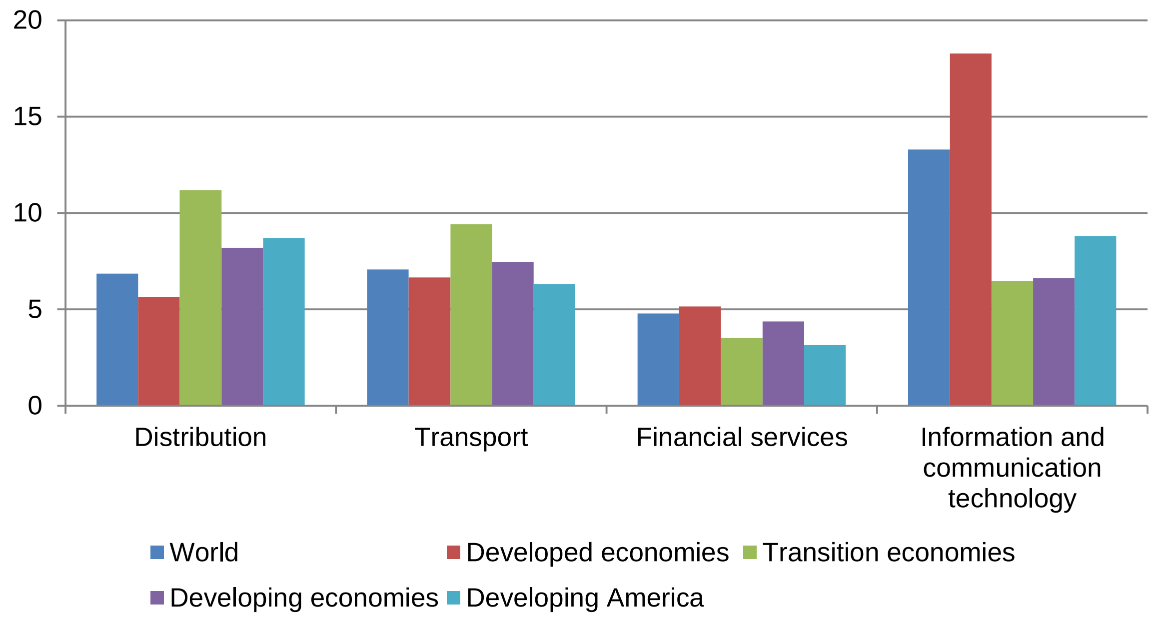


Source: UNCTAD calculations based on EVAD.

The services sectors that contributed more in 2011 to the world's total export value-added are distribution (7 per cent), transport (7 per cent), financial and insurance services (5 per cent) and ICT services (13 per cent). Other business services are also a key provider of inputs to all industrial sectors, and play an important role in sustaining innovation as they include knowledge intensive activities such as professional services[28]. While transition and developing economies tend to incorporate more value-added of distribution and transport services in total exports, developed economies use more value-added of financial and insurance services and much more value-added of ICT services. Developed economies embedded 18 per cent of ICT services value-added in total exports, while transition and developing economies only incorporated 6 and 7 per cent respectively (figure 11). This is consistent with the analyses of direct exports (table 2) and confirms the importance of ICT services to enable trade. The digital economy had a higher role in facilitating exports in Latin America and the Caribbean than in the average of developing countries, as 9 per cent of ICT services' value-added was embedded in total exports of the region, above the developing countries' average.

Figure 11
Share of selected services sectors in total forward linkages in exports by income level, 2011
(Percentage)

[28] Evangelista, Rinaldo et al, 2015, Business services and the export performances of manufacturing industries, *Journal of Evolutionary Economics*.

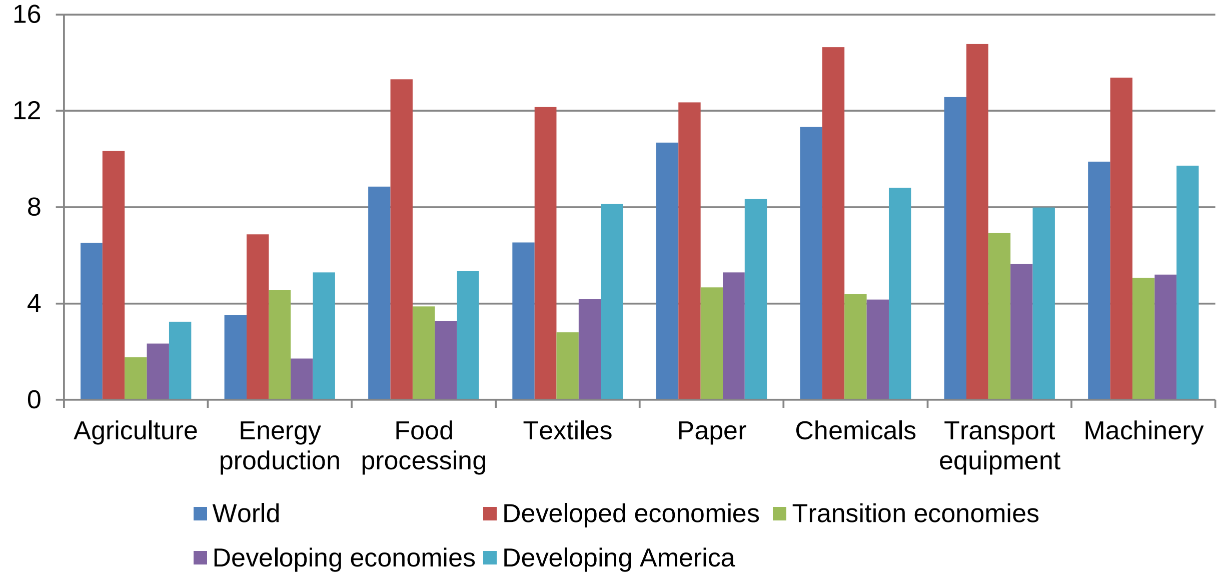


Source: UNCTAD calculations based on EVAD.

Developed economies are more advanced in the use of ICT services value-added in agriculture and manufacturing exports than transition and developing economies. In 2011, agricultural exports incorporated 10 per cent of ICT services' value-added in developed economies, as compared to only 2 per cent in both transition and developing economies. In Latin America and the Caribbean, agricultural exports incorporated 3 per cent of ICT services' value-added. As an example in manufacturing, in the same year exports of transport equipment incorporated 15 per cent of ICT services' value-added in developed economies, 7 per cent in transition economies and 6 per cent in developing economies. In Latin America and the Caribbean, ICT-services' value-added in exports of transport equipment was 8 per cent (figure 12). ICT services are also relevant to improved performance of services activities. ICT diffusion, among other factors, is especially associated with higher productivity of wholesale, retail and business services, and these are the sectors responsible for most of the lack of catch-up in labour productivity between Europe and the United States of America[29].

Figure 12
Share of information and communication technology services in total backward linkages in exports of selected sectors by income level, 2011
(Percentage)

[29] Buiatti, Cesare, João B. Duarte and Luis Felipe Sáenz, 2017, Why is Europe falling behind? Structural transformation and services' productivity differences between Europe and the U.S., *Working Paper Series 2017/04*, Cambridge-INET.



Source: UNCTAD calculations based on EVAD.

Policies and regulation for services-led structural transformation

A set of enabling policies and regulations is required for the improvement of services performance and the promotion of a resulting economic transformation that favours sectors with higher productivity and value-added. Market failures require economic regulation and thus the quality of policies and regulations is a key determinant of services performance[30]. Harnessing the potential benefits of trade and services for structural transformation requires sound, evidence-based policy, along with regulatory and institutional frameworks adapted to local conditions and introduced gradually. These are key components of services policy and necessary to addressing domestic supply-side constraints, externalities and coordination issues in services, particularly infrastructure services; minimizing inadvertent trade-restrictive effects; and determining services performance. They are especially important to ensuring efficient and competitive markets and available, affordable, convenient, equitable and quality infrastructure services[31]. The effectiveness of such frameworks relies on achieving the necessary coherence between several policy areas, as well as between these areas and trade liberalization[32].

UNCTAD's services policy reviews (SPRs) serve as a useful toolkit to assist countries in devising an appropriate policy mix to improve services sector performance[33]. In Latin America

[30] UNCTAD, forthcoming, *Survey of Infrastructure Regulators and Competition Authorities* (Geneva).
[31]UNCTAD, 2012, *Services, Development and Trade: The Regulatory and Institutional Dimension of Infrastructure Services* (United Nations publication, New York and Geneva.
[32]TD/B/C.I/MEM.4/11.
[33] More on services policy reviews: http://unctad.org/en/Pages/DITC/Services/Services-Policy-Review-Series.aspx; UNCTAD, 2016, *Services Policy Review of Bangladesh (I and II)*, UNCTAD/DITC/TNCD/2015/2 and 3, UNCTAD, Geneva; UNCTAD, 2015, *Services Policy Review: Paraguay*, UNCTAD/DITC/TNCD/2014/2, UNCTAD, Geneva; UNCTAD, 2015, *Services Policy Review: Peru*, UNCTAD/DITC/TNCD/2013/11, UNCTAD, Geneva; UNCTAD, 2014, *Services Policy Review: Nicaragua*, UNCTAD/DITC/TNCD/2013/13, UNCTAD, Geneva; UNCTAD, 2013, *Services Policy Reviews: A detailed methodology for reviewing policy, regulatory and institutional frameworks for services*, UNCTAD/DITC/TNCD/2013/3, UNCTAD, Geneva; UNCTAD, 2013, *Services Policy Review: Uganda (II)*, UNCTAD/DITC/TNCD/2013/ 12, UNCTAD, Geneva; UNCTAD, 2013,

and the Caribbean, reviews have been conducted for Nicaragua, Paraguay, and Peru. Cross-cutting lessons for effective regulatory and institutional frameworks can be learned from these SPRs, as detailed in the following paragraphs[34].

The horizontal and vertical coordination of sectoral policy initiatives is important in formulating a coherent overall national strategy for services sector development. The use of a single policy document for the services agenda favours the achievement of a coherent outcome. Services development strategies also need to be consistent with trade, investment, competition, industrial, macroeconomic and social policies. This is facilitated by a multi-stakeholder approach to policymaking involving the private sector, such as coalitions of services industries. Regulatory design, which ensures policy objectives and avoids unnecessary restrictions, is a major component of ensuring coherence.

Sound institutions and good governance are also required so that through cross-ministerial and multi-stakeholder coordination, strategic objectives, priorities and strategies can be defined and resources – human, financial and other – allocated. To be effective, an inter-institutional coordination mechanism would need to enjoy the endorsement at a high political level and be institutionalized with the requisite legal mandate, resources and capabilities. This presumes effective institutional capabilities and requires capacity-building support. In Peru, setting up an inter-institutional committee and translating the national agenda into a public instrument can catalyse inter-institutional coordination. Independent regulators are essential in ensuring neutral, effective and procompetitive regulation and their national, regional and international cooperation is important for trade facilitation, infrastructure development, and standard recognition and harmonization. Regional regulatory cooperation can lead to the development of regional standards and stronger regulatory cooperation in addressing issues such as roaming fees. In Central America, the Regional Technical Commission on Telecommunications coordinates the development and regulatory harmonization of telecommunications in the region.

SPRs also underscore the need for an enabling productive, technology and business environment, based on coordinated supply-side measures. The development of productive clusters can promote cooperation and coordination among firms and create economies of scale to reduce operational costs and enhance competitiveness, with a view to achieving better integration of higher value added segments of regional and global value chains. Such policies are particularly supportive of MSMEs. Enhancing a national innovation system is also an important factor enabling the integration of firms in higher value added segments of global value chains. The SPR of Peru recommended establishing a centre of technological innovation for software as a strategy for the development of computer-related services. Formalizing the informal economy can help create an enabling environment, as informality affects many MSMEs, and formalized MSMEs can create stronger linkages with the rest of the economy. Tax reforms reducing the tax burden on informal MSMEs and other incentives for formality, such as extending social protection coverage, can be pursued.

Services Policy Review: Rwanda, UNCTAD/DITC/TNCD/2013/6, UNCTAD, Geneva; UNCTAD, 2013, *National Services Policy Review of Kyrgyzstan*, UNCTAD/DITC/TNCD/2010/2, UNCTAD, Geneva; UNCTAD, 2012, *Services Policy Review: Lesotho*, UNCTAD/DITC/TNCD/2012/1, UNCTAD, Geneva; UNCTAD, 2011, *National Services Policy Review: Uganda*, UNCTAD/DITC/TNCD/2010/1, UNCTAD, Geneva; UNCTAD, 2011, *National Services Policy Review: Nepal*, UNCTAD/DITC/TNCD/2010/3, UNCTAD, Geneva.

[34] UNCTAD, 2015, Services, development and trade: The regulatory and institutional dimension, TD/B/C.1/MEM.4/8 (Geneva).

Labour skills development is required as a qualified workforce promotes knowledge and technology-intensive services. This calls for a sound education strategy, both at technical and higher levels, that matches labour demand and provided skills and a strong interaction between the private sector, academia and policymaking bodies facilitating the identification of skills gaps and academic solutions. Agreements with foreign universities to allow academic exchanges and the promotion of international accreditations for national universities would strengthen academic programmes and their recognition. English language skills are of particular importance to reinforce labour supply, particularly in information technology-enabled services.

In Costa Rica, where export of business services is important, a strategy was devised to generate human capital aiming to allow exporters of these services to upgrade into higher value-added segments of the value chain. The strategy comprises providing vocational training, encouraging technical workers to pursue further education with time off for study and the reimbursement of university fees. Firms work with universities to design curricula to ensure that these address the needs of the sector. To improve English skills, the government has established bilingual public high schools, established the National English Plan aiming to provide intermediate or advanced level of English to high school graduates, and launched the Costa Rica Multilingue - a not-for-profit organization to improve communication skills for older people[35].

Evidence-based policymaking is also emphasized by SPRs to harvest the potential of services to structurally transform society by building on improved collection, treatment and analysis of services data[36]. The availability of reliable data should be placed high on the national regulatory agenda (box 1).

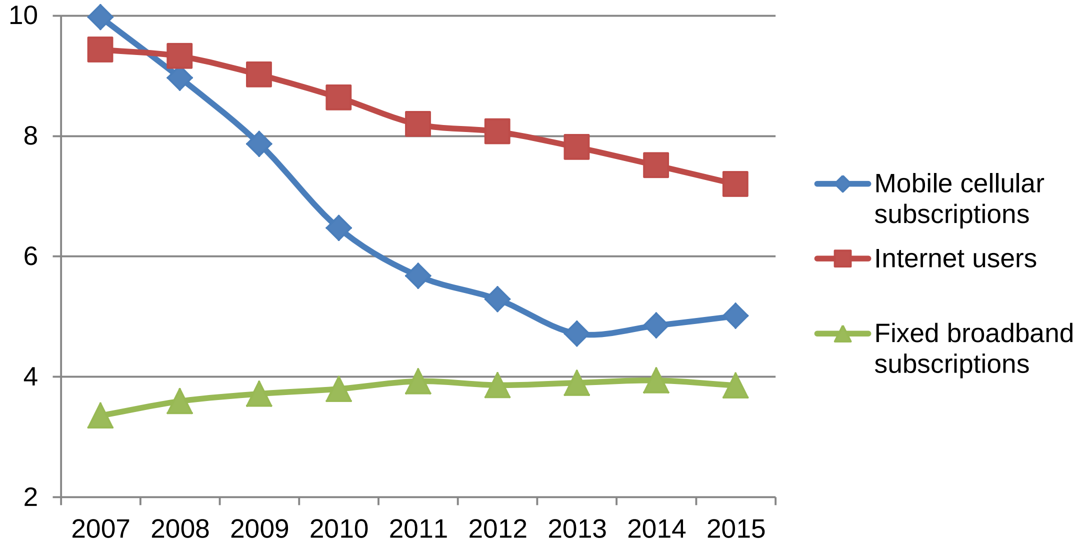
Sectoral policy and regulatory issues

Telecommunication and ICT services are essential for all economic activities, with digitization allowing for increased productivity and greater efficiency as well as reduced production, transaction and trade costs, as exemplified in digital financial services, e-commerce and ICT-enabled trade in general. Their inputs strengthen the supply capacity of the overall economy and their coordinating role in production networks, together with important innovation in digital technology, has promoted tradability and the development of GVCs, with a relevant inclusive role for MSMEs. Telecom and ICT services are recognised in SDGs, implicitly through multiple references to technology and innovation, and explicitly in targets 9.c and 17.8. Still, progress in reducing the digital divide between developed and developing countries remains insufficient. While the number of mobile cellular subscriptions in low/middle-income economies has increased faster than the world average between 2007 and 2015, low/middle-income economies are still lagging behind in terms of the number of Internet users and of fixed broadband subscriptions (figure 13).

Figure 13

[35] René A. Hernández, Jorge Mario Martínez and Nanno Mulder, 2014, Global value chains and world trade, prospects and challenges for Latin America, *ECLAC Books*, No. 127, LC/G.2617-P, ECLAC.
[36] UNCTAD, 2015, *Services, development and trade: The regulatory and institutional dimension*, TD/B/C.I/MEM.4/8, UNCTAD, Geneva.

Difference between global and low and middle-income economies in number of subscriptions and level of use of selected telecommunications and ICT services, 2007–2015
(Per 100 users or subscriptions)



Source: UNCTAD calculations based on the World Bank's World Development Indicators (WDI).

Regulatory and institutional frameworks remain critical to enable telecom and ICT services, connectivity and the transformative role of the digital ecosystem. Promoting universal access is a key component of this broad objective, including by funding mechanisms for infrastructure and service uptake, provisioning grants, encouraging innovation and increasing demand, for example by extending digital literacy. Facilitating the investment and business environment, including by supporting tech clusters, is highly important. Regulators can play a role in public-private partnerships, by encouraging infrastructure and network sharing and spectrum pooling and using licence-based obligations. Ensuring competition is another key component of a strategy to enable the development role of the digital ecosystem. This includes measures facilitating market entry and licensing, encouraging non-discriminatory access and number portability, addressing high mobile termination rates and securing net neutrality. The growth of the Internet-of-Things and of mobile applications and services brings new challenges: improving connectivity; addressing spectrum, switching, roaming, and numbering regulatory issues; and promoting interoperability[37]. Moving from rigid rules to a light-touch regulatory approach would increase responsiveness to this innovative context, ensuring a sound and proportional approach to ensure multiple development objectives. At the institutional level, sectoral regulators need to collaborate more in this environment of blurred inter-sectoral borders. The consumer should continue to be at the centre of regulatory concerns, including data and personal privacy issues, while moving to a digitally connected ecosystem.

In Paraguay, access limitations are compounded by high transport costs associated with its landlocked position. The country is dependent on neighbouring countries to interconnect with submarine cable networks. The National Telecommunications Plan addressed this issue by

[37] ITU, 2016, *Trends in telecommunication reform 2016: regulatory incentives to achieve digital opportunities*, ITU, Geneva.

setting investment targets and promoting public–private partnerships for long-distance fibre optic cables that ensure broadband access. The strategy entails subsidies through the Universal Service Fund to install the necessary infrastructure. The competition law is recent but it also requires coordination with the National Telecommunications Commission (CONATEL)[38].

Telecom and ICT services have been paramount to connect consumers and providers through digital means allowing for e-commerce and ICT-enabled trade, of both goods and services. This facilitates MSMEs and individuals to connect to new domestic and foreign markets and GVCs, for example through on-line marketplaces, promoting competition, consumer choice and increased trade. The increase of Internet use in an exporting country is directly linked to the increase in the number and value of products traded[39]. An e-commerce divide still persists and an enabling ecosystem needs to be implemented. This includes the efficient provision of ICT connectivity and other infrastructure such as energy, payment services and e-commerce platforms. Regulatory frameworks are needed to build the digital economy with security, availability, affordability, convenience, and quality objectives.

Financial services facilitate transactions, mobilise savings and channel investment and credit for firms, including MSMEs, as well as households. Trade is increasingly important for the sector, with cross-border exports of financial services having reached $540 billion in 2015, with an annual growth rate of 7 per cent between 2005 and 2015. Developing economies grew faster in the same period, with a 12 per cent annual growth rate. This is explained mostly by developing Asia, which accounted for 87 per cent of developing economies' exports in financial services in 2015 and is the fastest growing region, 13 per cent annually between 2005 and 2015. Nonetheless, developed economies still accounted for 84 per cent of global exports in 2015. Latin America and the Caribbean accounted for 9 per cent of developing economies' exports in financial services in 2015 and grew 8 per cent annually between 2005 and 2015[40].

Financial inclusion, defined as the effective access and use of affordable, convenient, quality and sustainable financial services from formal providers, needs to factor in the increased international provision of financial services. Financial inclusion is a central element of SDGs as acknowledged in several targets: 1.4, 2.3, 5.a, 8.3, 8.10, 9.2, 10.5 and 10.c. Access to financial services can also contribute to facilitated, speedier, safer and less costly remittances and to maximise the development role of remittances by facilitating options to invest these private funds in productive activities, social services and infrastructure[41]. This is important from a development perspective as a 10 per cent rise in remittances may contribute to a 3.5 per cent reduction in the share of people living in poverty[42].

Although progress has been made in recent years, a large variation in financial inclusion still exists in terms of income, region, gender and age. The share of adults in developed economies who have a financial services account is much higher than that of developing countries. The ratio of account penetration is higher in Asia and the Pacific and lower in the Middle East and North Africa and Sub-Saharan Africa. In 2014, 62 per cent of adults had an account (as compared to

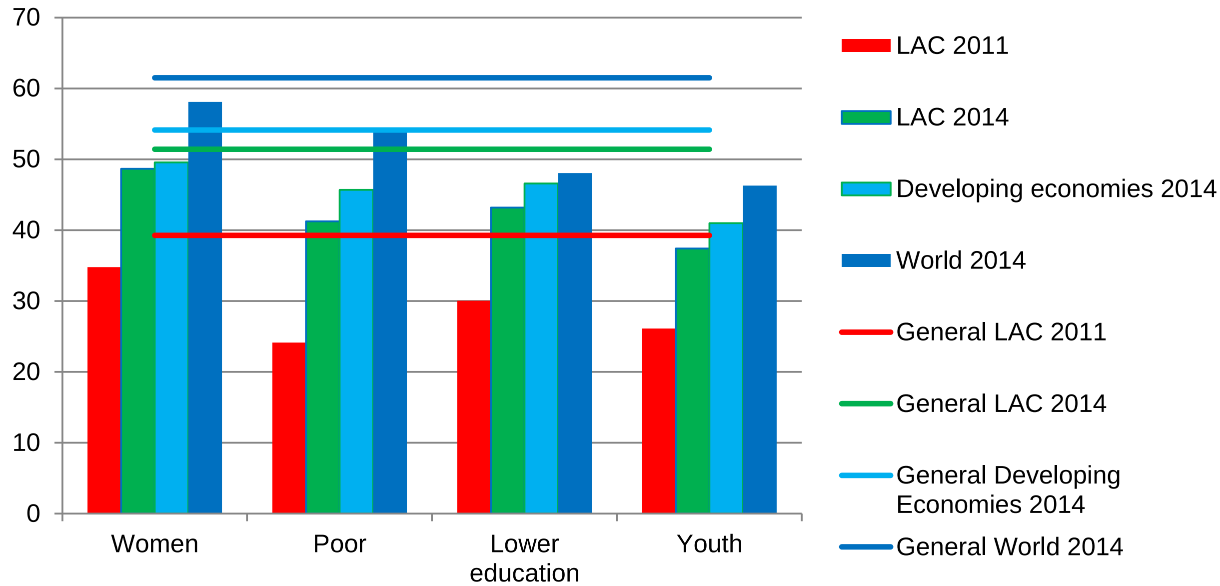
[38] UNCTAD, 2015, *Services Policy Review: Paraguay*, UNCTAD/DITC/TNCD/2014/2, UNCTAD, Geneva.
[39] General Assembly, 2016, *International trade and development*, A/71/275, United Nations.
[40] UNCTADStat.
[41] UNCTAD, 2013, *Maximising the development impact of remittances*, UNCTAD/DITC/TNCD/2011/8 (Geneva).
[42] UNCTAD, *2015, Access to financial services as a driver for the post-2015 development agenda*, Policy Brief No. 35 (Geneva).

50 per cent in 2011). In the same year, women still lag behind with the ratio being 58 per cent (as compared to 47 per cent in 2011), and this is particularly the case in South Asia. In 2014, the youth was also worse off with 46 per cent (as compared to 37 per cent in 2011), and lagging behind more in Europe and Central Asia. In Latin America and the Caribbean in 2014, women, poor, people with lower education and youth are all better than in 2011, but worse than the average of the entire population and worse than the average of developing countries and the global average (figure 14).

Figure 14

Financial services account owners, globally and in developing economies, by gender, income level, education level and age, 2011 and 2014

(Percentage)



Source: UNCTAD calculations based on the World Bank's Global Findex database.

Supply side policies regarding financial services include subsidies and mandatory requirements, such as universal services obligations, to enhance access and sound and proportional regulatory and institutional frameworks that address under and over supply, protect consumers, promote competition, and pursue balanced objectives of financial inclusion, stability and integrity. Increasing levels of regulation and demand for reporting have led to the development of RegTech solutions, as another example of the importance of digital services. It is necessary to apply best practices in risk management, including stronger know your customer (KYC) requirements, wider use of legal entity identifiers, more effective information sharing, clear know your customer's customer (KYCC) rules, and anti-money laundering / combating the financing of terrorism (AML/CFT) requirements. National identity schemes are beneficial to the implementation of these practices, particularly for the unbanked. In addition, it is crucial to apply a proportional approach and effective risk management, rather than risk avoidance as in the case of de-risking. Demand side policies include the Government using financial services, supporting information availability - for instance by setting standards for disclosure and transparency - and improving financial literacy, capabilities and consumer empowerment[43].

The financial sector in Paraguay expanded at an average rate of 9 per cent in the last 10 years but has fallen short of achieving financial inclusion and facilitating the channelling of resources to MSMEs. The Central Bank is setting up a credit bureau to balance information asymmetry that contributes to increased financial spread, drafting a guarantee fund act and cooperating with the Secretariat of the Consumer Protection Office to launch financial education projects. In addition, the Central Bank created basic savings accounts that facilitate access to banking deposits by not requiring minimum amounts to open them or minimum average balances. The accounts can be opened without the physical presence of the client, through electronic media such as mobile telephones[44].

In Chile, importance has been given to financial services to raise and mobilize resources and encourage investment for structural transformation towards higher productivity sectors. The country has liberalized the financial sector, yet the Banco Estado, a State-owned commercial bank, has remained a key player in providing financial services to SMEs[45].

Financial services in Nicaragua are small and concentrated. The sector contains only seven active banks, four of which control over 90 per cent of the market. After liberalization and closure of the Development Bank, the supply of credit and other financial services did not spread to the majority of the population and MSMEs. Financial depth (total credit/GDP) was 27 per cent in 2012, well below 40–50 per cent in other countries of similar size. Instead, financial institutions have focused on carefully selecting potential customers, offering mostly consumption and trade credit, rather than supporting investments and productive activities. The SPR of Nicaragua suggested that the existing public Bank Produzcamos, whose main objective is to support productive agricultural and industrial MSMEs, be transformed into a fully-fledged development bank. The new development bank would preferably be endowed with a mixed capital base[46].

Digital financial services (DFS) play a key role in financial inclusion, building on ICT services to reduce infrastructure costs and increase coverage. In addition, DFS are more gender neutral and youth friendly and have positive externalities such as incentivising the use of banking services by establishing linkages and helping credit scoring by providing information on mobile money usage. Developing DFS requires an enabling environment and infrastructure readiness[47] that addresses several challenges: the infrastructure gap, most notably regarding availability and reliability of energy and ICT services; data and personal privacy issues; fraud and security issues regarding data and payment systems; lack of technological skills; adequate agent networks; and interoperability. Digital liquidity is necessary for the sustainability of DFS and this is promoted by the provision of additional DFS, such as saving, credit and investment services. Proportional and inclusive regulation is necessary to involve *inter alia* the digital illiterates, the poor, people in rural areas, migrants, and MSMEs.

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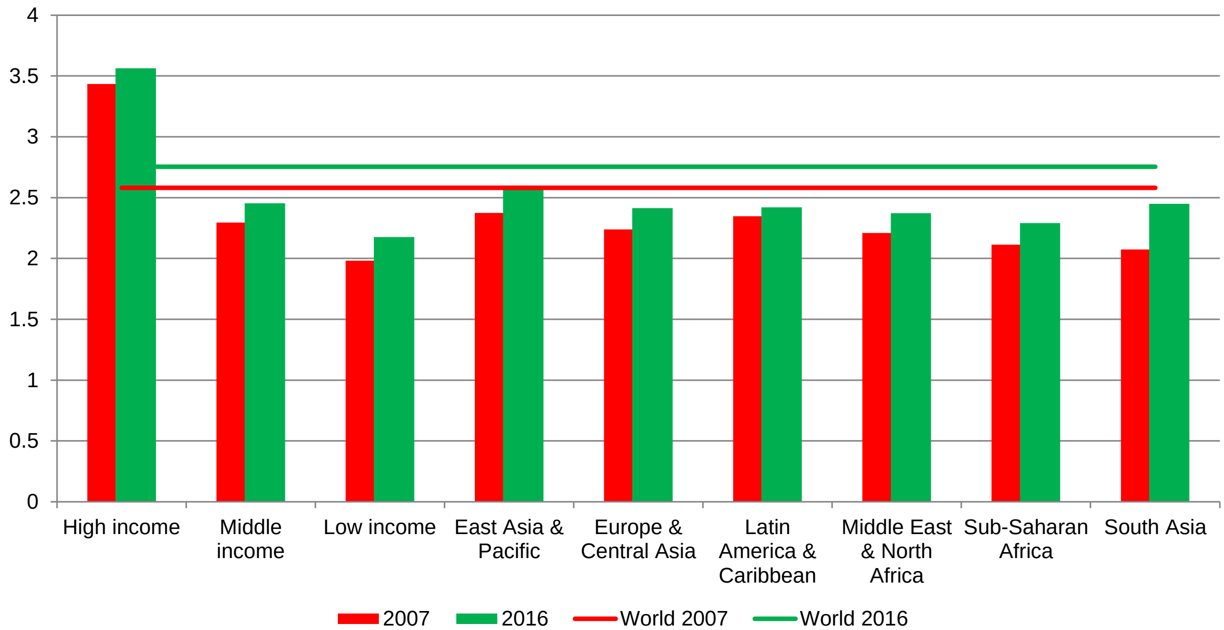
[43] UNCTAD, forthcoming, *Access to financial services and digital economy for sustainable development*, UNCTAD, Geneva.
[44] UNCTAD, 2015, *Services Policy Review: Paraguay*, UNCTAD/DITC/TNCD/2014/2, UNCTAD, Geneva.
[45] UNCTAD, 2014, *The Least Developed Countries Report 2014* (United Nations publication, Sales No. E.14.II.D.7, New York and Geneva).
[46] UNCTAD, 2014, *Services Policy Review: Nicaragua*, UNCTAD/DITC/TNCD/2013/13, UNCTAD, Geneva.
[47] ITU-T Focus Group on Digital Financial Services, 2016, *The Digital Financial Services Ecosystem*, ITU, Geneva.

Transport is pivotal in providing connectivity linking consumers and producers. It contributes to integrating markets within an economy and to integrating these domestic markets with the rest of the world, by facilitating exports and imports, as well as the movement of people. Improvements on transport infrastructure, logistics and cross-border trade facilities are instrumental for reducing delivery times and costs, and therefore for the integration into GVCs and to deepen international trade. This is particularly important for developing countries that are worse off in terms of soft and hard transport infrastructure and critical for landlocked developing countries. This is recognised by SDGs in targets 9.1 and 11.2. Despite recent improvements, Latin America and the Caribbean is lagging behind in the quality of trade and transport-related infrastructure. The same occurs with developing economies in general, particularly Sub-Saharan Africa (figure 15). In addition, transport services are increasingly an ecosystem which integrates ancillary services such as banking, insurance, freight forwarding and others.

Figure 15
Logistics performance index related to quality of trade and transport-related infrastructure, by region and income level, 2007 and 2016
(Index)



Source: UNCTAD calculations based on WDI.

Policies for the transport sector have an important regional and international dimension, which has been centred on extending transport networks and cross-border connectivity. This increasingly requires linking national planning to international strategies, connecting transport corridors with present and future growth centres, promoting multimodality, and prioritizing trade facilitation, including through the elimination of non-tariff barriers[48]. Cross-border efficiency is associated with the harmonisation or recognition of transport regulation, including vehicle and drivers permits and certificates, and the development of automated and streamlined one-stop

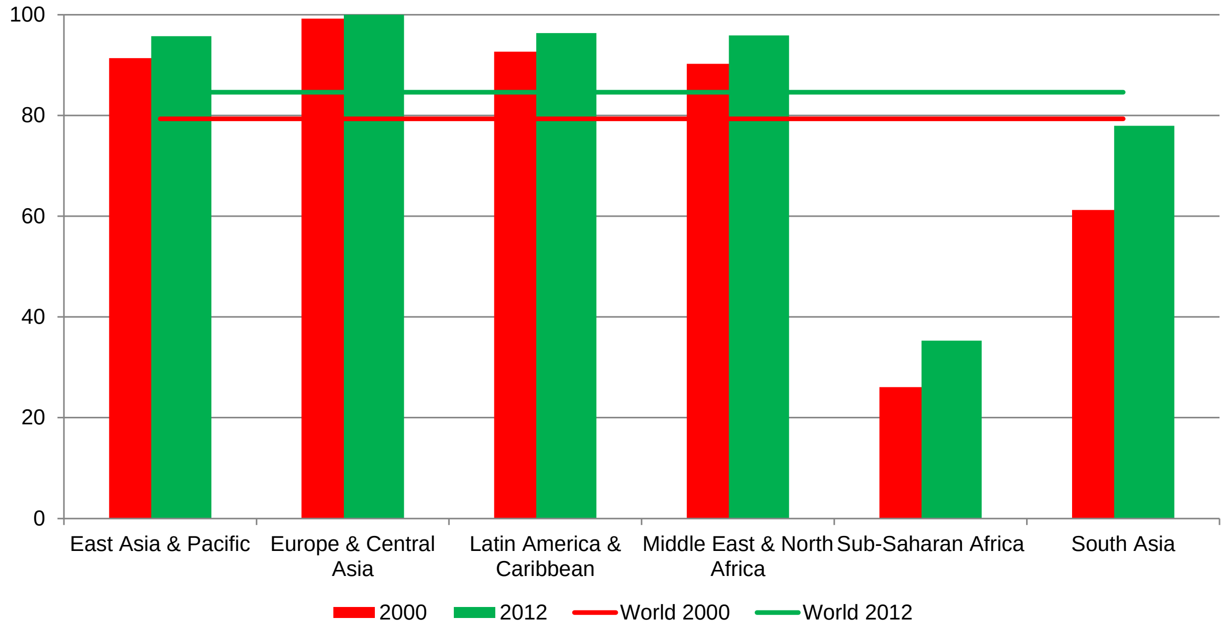
[48] CUTS International, 2017, *Facilitating Connectivity in the Bay of Bengal Region*, CUTS.

cross-border posts as important trade facilitation measures[49]. ICT services can also have a relevant transformative role in providing connectivity by improving transport services and trade facilitation. This comprises the ability to track and trace shipments, to manage and internationally synchronize schedules and information on inventories[50], and to automate and optimize utilization rates, and overall logistic services.

Energy services and electricity services in particular, remain paramount to the prosperity of economies and to social welfare. The availability of electric supply is essential for both economic development and quality of life and it is a key requirement for human development[51]. This is reflected in goal 7 of SDGs on energy. Although many developing regions have achieved levels of access to electricity close to or above 90 per cent, including Latin America and the Caribbean, the status of Sub-Saharan Africa remains critical with only 35 per cent of the population having access to electricity in 2012 (figure 16). This requires a regional policy with harmonised regulatory frameworks that, as in other regions, explores the potential of the regional dimension in the optimization of supply. This involves creating common regional infrastructure, power interconnection and harmonisation of specifications, and common markets that facilitate cross-border trade of energy. As in other sectors, the digital ecosystem is important for energy services, by enabling smart power grids that improve power transmission efficiency and the monitoring and maintenance of delivery systems[52]. Renewable energy and energy efficiency remain at the core of energy services strategies.

Figure 16
Access to electricity by region, 2000 and 2012
(Percentage)

[49] UNCTAD, 2014, *Services, development and trade: The regulatory and institutional dimension*, TD/B/C.I/MEM.4/5, UNCTAD, Geneva.
[50] Kunaka, Charles, Monica Alina Mustra and Sebastian Saez, 2013, Trade Dimensions of Logistics Services, *Policy Research Working Paper* 6332, the World Bank.
[51] UNCTAD, 2017, *Energy Services Toolkit*, UNCTAD/DITC/TNCD/2017/1, UNCTAD.
[52] ITU, 2016, *Trends in telecommunication reform 2016: regulatory incentives to achieve digital opportunities*, ITU, Geneva.



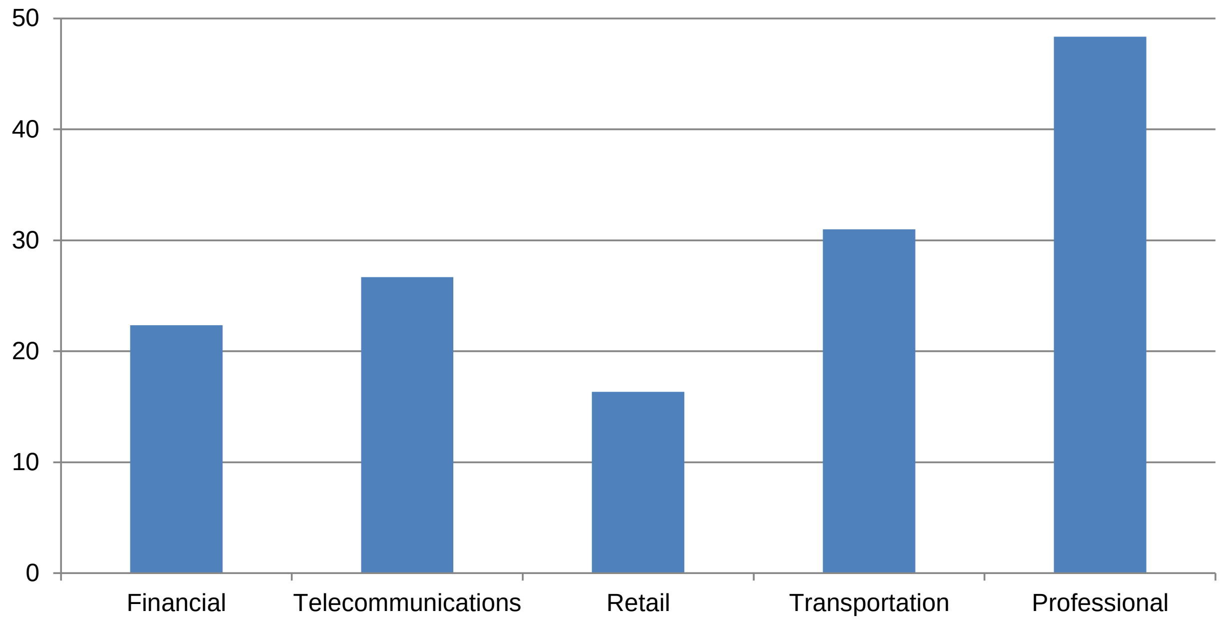
Source: UNCTAD calculations based on WDI.

International trading system for services development

National regulatory frameworks attending to legitimate public policy concerns are central for development aspirations and are a precondition to trade liberalization. Notwithstanding, given the overwhelming importance of both the direct contributions of the services sector, and their role in creating network linkages, enhancing productivity and promoting a services-led structural change growth, there is need to examine services trade restrictions to ensure they are not unnecessarily harmful for the development potential of the services sector. These can include the prohibition of foreign providers, limits on foreign ownership and on foreign personnel, or implicit discriminations on qualification and licensing requirements. Restrictions in telecom are associated with fewer telephone lines and Internet subscriptions; in financial services, restrictions are linked to less developed credit and insurance markets; and in transport restrictions associate with longer journeys for containers. Although some countries have reduced restrictions, mainly related to mode 3, there are tighter restrictions on the temporary movement of people to provide services through mode 4, such as quotas, labour market tests and durations of stay[53]. Despite its importance, services trade continues to face relevant restrictions, particularly in professional services and transport (figure 17).

Figure 17
Services trade restrictions index average by services category
(Index)

[53] IMF, the World Bank, and WTO, 2017, *Making Trade an Engine of Growth for All*.



Source: World Bank Services Trade Restrictions database.
Note: Index values range from 0, signifying that the sector is completely open to trade, to 100, signifying that the sector is completely closed.

Addressing restrictions requires proactive, appropriately combined and sequenced trade policies to reform the services sector through its different dimensions including trade negotiations, services trade facilitation, market intelligence and trade promotion. This multi-dimensional trade policy is relevant for the enabling policy mix for services, including contributions for policy coherence and coordination; sound regulatory and institutional frameworks; infrastructure development - particularly of telecom and ICT services enabling digitization; and to improving endowments of skills. Trade policy thereby connects with industrial policy to promote efficiency, competition, innovation and enhanced productive and export capacity in services[54]. A "whole-of-supply-chain approach" is required to avoid policymaking in silos, while recognising the heterogeneity of services sectors[55]. This catalyses the role of the services sector in inducing productivity and structural transformation.

Services in Brazil account for a significant part of the economy, including two-fifths of the manufacturing value-added, and have had important growth. Still, their productivity lags behind other sectors and they underperform in international markets, remaining focused on the domestic market. This derives from severe deficiencies in infrastructure, with transport, logistics and credit representing an important part of manufacturing costs. A stable and simplified policy and regulatory framework is also necessary to strengthen services and improve their contributions to the rest of the economy. Furthermore, there are inadequate competitive pressures for services and

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[54] More on trade policy in services for development: http://unctad.org/en/Pages/DITC/TNCD/Trade-Policy-Framework-Reviews.aspx; UNCTAD, 2015, *Trade Policy Framework: Jamaica*, UNCTAD/DITC/TNCD/2013/9, UNCTAD, Geneva; UNCTAD, 2016, *Trade Policy Framework: Angola*, UNCTAD/DITC/TNCD/2015/5, UNCTAD, Geneva; UNCTAD, 2017, *Trade Policy Framework: Panama*, UNCTAD/DITC/TNCD/2016/3, UNCTAD, Geneva.
[55] UNCTAD, 2017, Report of the Multi-year Expert Meeting on Trade, Services and Development on its fifth session, TD/B/C.I/MEM.4/15, UNCTAD.

in several areas there are more restrictions towards foreign services providers than in other Latin American countries. The Brazilian government has undertaken several initiatives to open the market, some of them under discussion and others already launched. Foreign entry in tandem with a strong and supportive regulatory framework, public-private partnerships, and evidence based policy making enabled by SISCOSERV will allow attracting further investment and trade, providing competitive pressure, lowering production costs, and increasing productivity in services activities and downstream in the whole economy. In Brazil, half of services imports are services offshored in relation to export contracts, confirming the importance of foreign providers for export capacity[56].

The type of trade rules that were required has evolved in the light of the changing production patterns that have led international trade to go from the exchange of products that are "packages of a single nation's productive factors, technology, social capital, governance capacity, etc." to trade through supply chains which represent the same factors from several countries. GVCs embody complex cross-border flows of products, people, services, investment, and information and therefore require complex rules to govern these flows. However, as GVCs have become more prevalent, with developing countries increasingly joining in these supply chains, certain topics including in the area of services are currently gaining more traction in the multilateral setting. Indeed, 21st century trade characterized by GVCs requires ever more services, including infrastructure services.

Opening areas like services and digital trade may bring important benefits due to their direct and indirect cross-cutting contributions, and current high trade barriers. The growing digitization of economic activities is allowing for new tradable goods and services and new ways of trading. While existing multilateral and regional trade rules already cover many aspects of digital trade, particularly services, there may be a need to update countries' specific commitments and to clarify and enhance rules in certain areas[57]. In financial services in China, the value added of the financial intermediation sector could double with trade openness in that sector as labour, capital, technology, and elasticity respond to liberalization policies[58].

Economies need to pursue a balanced growth strategy to capitalize on growth-inducing and catalytic role of services. At the international level, efforts are needed to advance a global SDG-led services trade agenda in the international trading system to enable the transformative potential of services trade for development. In general, liberalization policies require that the risks, costs and trade-offs that the reform agenda may entail for national regulatory autonomy and policy space are attended. This points to the adequate content, pace and sequencing of liberalization so that regulatory and institutional frameworks are previously built and retain the possibility to adapt to new challenges, including those from liberalised markets. It also calls for skills development, social safety nets and adjustment mechanisms, including by allowing countries to adequate revise and use rollback mechanisms of commitments[59]. Support to developing countries remains paramount, for example through the use of inclusive rules of origin,

[56] OECD, 2016, *Services and performance of the Brazilian economy, analysis and policy options*, OECD (Paris).
[57] IMF, the World Bank, and WTO, 2017, *Making Trade an Engine of Growth for All*.
[58] Hsu, *Sara* and Alba Carolina Melchor Simon, 2016, China's structural transformation: reaching potential GDP in the financial services sector, *China Finance and Economic Review*.
[59] UNCTAD, 2017, The role of the services economy and trade in structural transformation and inclusive development, TD/B/C.I/MEM.4/14, UNCTAD.

preferential treatment, flexibilities, experimentation, capacity building, and aid for trade to build supply capacity, towards an effective international trading system. International cooperation at bilateral, regional and multilateral levels is also necessary, particularly to strengthen national regulatory frameworks.