

World Trade Organization

Economic Research and Statistics Division

**THE CONTRIBUTION OF SERVICES TRADE POLICIES TO
CONNECTIVITY IN THE CONTEXT OF AID FOR TRADE**

Martin Roy

Manuscript date: September 2017

Disclaimer: This is a working paper, and hence it represents research in progress. This paper represents the opinions of individual staff members or visiting scholars, and is the product of professional research. It is not meant to represent the position or opinions of the WTO or its Members, nor the official position of any staff members. Any errors are the fault of the author.

THE CONTRIBUTION OF SERVICES TRADE POLICIES TO CONNECTIVITY IN THE CONTEXT OF AID FOR TRADE

Martin Roy¹

Abstract:

This paper examines how services trade and policies contribute to connectivity. It highlights the economic relevance of services and identifies some key channels through which trade in services contributes to physical and digital connectivity. The paper examines the impact of services trade policies on connectivity in view of recent research showing their impact on sectoral performance, economic welfare and development. Finally, it discusses the positive contribution that aid for trade can make in support of services policies.

The paper finds that services sectors play a multifaceted and significant role in connecting countries to the international trading system, and matter greatly to economic development and the achievement of the Sustainable Development Goals (SDGs). Services significantly affect connectivity by: (i) providing the basic infrastructure to support trade in goods; (ii) facilitating supply chains and entering trade as value added embodied in goods; (iii) providing the backbone that enables e-commerce and the on-line supply of services; (iv) and enhancing export diversification through their cross-border electronic supply. The paper underscores that services trade policies have a fundamental impact on connectivity. Restrictions to investment and cross-border trade in services remain high and widespread. But an enabling policy environment – promoting competition, openness to trade and investment, and adequate regulatory frameworks – can enhance connectivity, lower trade costs, and foster growth and economic performance. For example, improving the policy environment for services sectors can help attract the FDI required to meet the SDGs and develop the ICT infrastructure needed to bridge the digital divide. Aid for Trade can play a supportive role in this regard.

JEL classification: F13, F15, F53, L8, L96

Keywords: WTO, GATS, trade in services, aid for trade, digital trade.

¹ Counsellor, Trade in Services and Investment Division, WTO Secretariat. This paper is adapted from the chapter prepared for *Aid for Trade at a Glance 2017* (WTO and OECD), entitled "The Contribution of Services Trade Policies to Connectivity and Development". The author acknowledges comments and inputs from Christophe Degain, Christine Graves, Frans Lammersen, Andreas Maurer, Théo Mbise, Raffaella Muoio, Nazia Mohammed, Roberta Piermartini, Michael Roberts, and Lee Tuthill. All errors remain the author's.

I. INTRODUCTION

Services are central to everyday life. Service suppliers support education and health, bring goods from producers to individuals and enterprises that consume them, transport people and merchandise, ensure the functioning of the financial system, help meet energy demands and achieve environmental policies, provide information and entertainment, offer services for tourists, and form the backbone of countries' digital infrastructure.

Services occupy a growing and central place in both domestic economies and international economic relations. They now account for the bulk of global foreign direct investment and world trade. Service sectors also play a multifaceted and significant role in connecting countries to the international trading system, and matter greatly to economic development and the achievement of the Sustainable Development Goals (SDGs). Services notably affect connectivity by: providing basic infrastructure to support trade in goods; facilitating supply chains and entering trade as value added embodied in goods; providing the backbone that enables e-commerce and online supply; and enhancing export diversification through cross-border electronic supply.

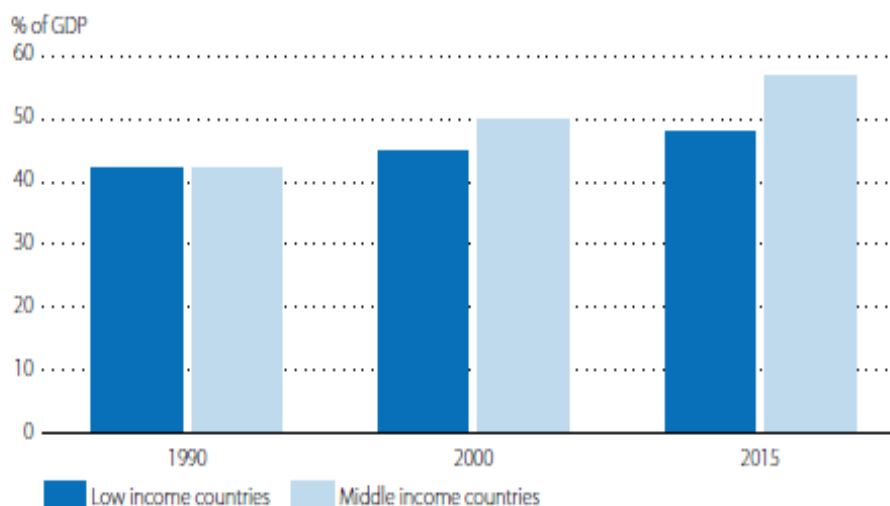
This paper analyses the contribution of services trade to connectivity. It discusses the role of policies in this sector – including foreign investment policies and international commitments – in promoting digital and physical connectivity, in the context of aid for trade. The first section sets the scene by highlighting the economic relevance of services in national economies, as well as in international trade and investment. The paper then identifies some key channels through which trade in services promotes connectivity, highlighting relevant service sectors. The following section underscores, in light of recent research, the role services trade policies play in promoting connectivity. It examines current levels of trade openness in services, discusses the role of international commitments, and reviews the impact of policies on sector performance, economic welfare and development. The final section looks at the possible contributions of aid for trade in supporting services policies that will promote connectivity. The paper concludes that restrictive policies in services trade increase economic remoteness. An enabling policy environment, on the other hand, enhances connectivity and fosters economic growth and performance. Improving investment policies in services sectors, for example, can help attract the foreign direct investment required to develop ICT infrastructure, helping bridge the digital divide and meet the SDGs. Aid for trade can make a significant contribution by providing support for quality services policies at both the sector-specific and cross-sector levels.

II. THE INCREASING IMPORTANCE OF TRADE IN SERVICES IN THE GLOBAL ECONOMY

Service sectors and trade in services occupy an important and growing place in both national economies and international trade. Services generate more than two-thirds of global gross domestic product (GDP), employ the highest proportion of workers in the large majority of countries, and generate most new jobs. The contribution of services to national economies has been increasing over time for countries at all levels of development. Figure 1 shows services value added to GDP for low income and middle income countries. Even for the lowest income countries, services industries are

central and have consistently been gaining in importance over time. The share of services in GDP is even greater in high income countries, where it reaches over 70% on average. In short, for countries at all levels of development, services are now even more important than in the past.

Figure 1: Services value added as a percentage of GDP



Source: World Bank (2017), World Bank Development Indicators.

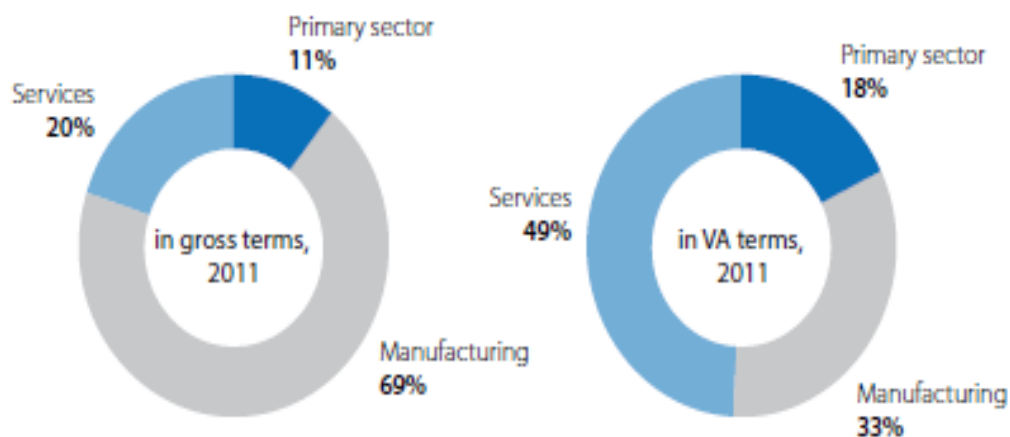
The importance of services in world trade has long been considered much more limited than the sector's contribution to domestic economies. This perception is changing, however, as understanding of the role of services in global trade improves. The important role that trade in services plays in economic growth and development is increasingly evidenced by its contribution to export diversification, the role of services as inputs to the production of goods, and by the importance of service sectors as a destination for foreign direct investment.

Advances in information and communications technology, exemplified by the global expansion of the Internet, are transforming the tradability of services. It is increasingly easier to export services across borders, either as a final product or as an intermediate product for the production of another service or a good. Trade in services has also been spurred by trade and investment liberalization, which has allowed the fragmentation of production across borders. This is reflected in the growing relative importance of services. Measured on a balance-of-payments (BOP) basis, trade in services now accounts for 23% of total trade in goods and services, compared to 18% in 1995.

The magnitude of trade in services is more accurately reflected when taking into account services that are exported indirectly, namely services that are embodied in exports of goods. When trade is measured in terms of value added rather than gross (or BOP) terms, services account for 49% of world trade, compared to 18% for the primary sector and 33% for manufacturing (Figure 2). Trade in value added (TiVA) statistics show how services drive manufacturing competitiveness and employment, and are key to the export of manufactured products. Even in countries where services

account for a small proportion of total exports in gross terms, services often account for a significantly larger share of total exports in value added terms. For example, services currently account for 19% of Argentina's total exports in BOP terms, but the proportion jumps to 43% in value added terms.²

Figure 2: Structure of world trade, 2011



Source: OECD-WTO (2016), Trade in Value Added database

The importance of trade in services is further underscored when taking into account the principal means of supplying services, which is through a commercial presence abroad (GATS mode 3). Indeed, BOP data focuses on transactions between residents and non-residents, and does not capture services that are supplied within the country through business establishments owned or controlled by foreigners. This category (mode 3) accounts for approximately 55% of world trade in services, compared to 30% for cross-border supply (mode 1), 10% for consumption abroad (mode 2), and 5% for movement of persons (mode 4) (Maurer et al., 2016). And while mode 3, which involves foreign direct investment, is, overall, the main mode of supply for services trade, services are also the predominant destination of foreign direct investment (FDI). Services now account for almost two-thirds of the global FDI stock (UNCTAD, 2016), as compared to 25% in 1970 and less than 50% in 1990.

² "Trade in value-added and global value chains: statistical profiles", https://www.wto.org/english/res_e/statis_e/miwi_e/countryprofiles_e.htmhttps://www.wto.org/english/res_e/statis_e/miwi_e/countryprofiles_e.htm

Box 1: Trade in services and modes of supply

In an effort to cover the various means through which services are provided internationally, the General Agreement on Trade in Services (GATS) defines trade in services by reference to four modes of supply. These may be summarised as follows:

Mode 1 (cross-border supply), analogous to trade in goods, occurs when a service is delivered from the territory of one World Trade Organization (WTO) Member to the territory of another Member. Examples of mode 1 include international transport and supply of services over digital networks, where the service supplier is not present in the territory of the Member where the service is consumed.

Mode 2 (consumption abroad) involves the supply of a service in the territory of one Member to the service consumer of another Member. An example of supply through this mode is tourism.

Mode 3 (commercial presence) is the supply of a service by a service supplier of one Member through the establishment of a commercial presence (subsidiary, branch or other forms of business establishment) in the territory of another Member. Mode 3 can be relevant for all sectors, e.g. the establishment and operation abroad of foreign insurance companies, hotels, supermarkets.

Mode 4 (movement of natural persons) concerns the supply of services through the temporary presence of a natural person of one Member in the territory of another Member. This mode of supply can involve the temporary movement of, for example, independent professionals (e.g. lawyers or accountants), or intra-corporate transferees whereby certain personnel are transferred from their parent company to a subsidiary in the territory of another Member.

Given their weight in domestic economies, as well as their multi-faceted significance for trade, services have a fundamental impact on achieving the 2030 Sustainable Development Goals. This is not only in relation to economic performance in general, but also to their role in specific areas such as energy, water, environment, health or education.

III. THE MULTIFACETED CONTRIBUTION OF SERVICES TO CONNECTIVITY

A number of developing countries, in particular the LDCs, continue to face difficulties in connecting to the global economy through trade, and see their opportunities to benefit from their potential reduced as a result. Promoting connectivity, including by reducing trade costs, has been identified as a priority in the context of aid for trade (WTO, 2016a). Services play a fundamental and growing role in promoting connectivity in the global economy.

This section highlights four important – and sometimes overlapping – channels through which services, in particular trade in services, exercise a determinant impact on connecting countries to the international trading system:

1. providing the basic infrastructure to support trade in goods
2. facilitating supply chains and being used as inputs into the production and export of goods
3. providing the backbone that enables e-commerce and the on-line supply of services
4. enhancing export diversification through cross-border electronic supply of services.

III.1 Services provide essential infrastructure for trade in goods

Services promote connectivity by providing the basic infrastructure on which trade in goods relies. Without services, goods cannot be traded. The more expensive or inefficient the underlying services, the harder it is to trade goods.

A diversity of services is needed to bring final goods from their production site to consumers across borders. These include, most obviously, services such as maritime transport (e.g. freight, port services), road transport, air transport (e.g. freight, airports), logistics services (e.g. freight forwarders, customs brokers, storage, warehousing), express delivery services, and distribution services (wholesale and retail).

While hard infrastructure, such as roads or port facilities, has been a traditional focus of aid for trade, it is also crucial to consider the quality and cost of the services that make use of such infrastructure. The quality of government measures, especially the extent to which competition is facilitated, influences the efficiency of service markets. At the same time, this enabling environment, or soft infrastructure, is strongly influenced by measures that limit trade in services, such as foreign ownership restrictions or barriers to cross-border supply (e.g. quotas or limits to cabotage in road transport). By restraining competition, these measures raise costs and limit the quality of services provided, which in turn limits connectivity and negatively affects trade.

An example from Rwanda illustrates the impact of an enabling policy environment. In Rwanda, reform of trucking arrangements to allow greater ease of market entry resulted in prices declining by more than 30% in nominal terms, and was associated with an expansion of the domestic trucking fleet. This contrasts with the situation in other countries in the region, where restrictive entry regulations, quotas, and other measures have reduced competition, raising the costs of road transport services and thereby penalizing farmers by making it difficult for them to get their produce to domestic and foreign markets (Teravaninthorn and Raballand, 2009). This example also suggests that the benefits of reduced border or customs barriers, for example through the Trade Facilitation Agreement (TFA), may not be fully realized if other obstacles to the flow of goods, further upstream, are not also tackled. Failure to introduce competition in transport services also may erode the benefits of investments in transport infrastructure (Cadot et al., 2014; Borchert et al., 2017).

The efficiency of service markets is also critical to the participation of small and medium-sized enterprises (SME). Indeed, the cost of logistics has a larger incidence on such companies because of their lower volume, which means that these represent a larger proportion of their total costs (WTO, 2016c).³

³ In a survey of firms, transportation and shipping costs were cited by SMEs as a leading impediment to engaging in global trade in manufacturing. SMEs in the US ranked this as the second most important impediment, while other firms did not include this among their top 5 impediments.

III.2 Services facilitate supply chains and provide key inputs to goods exports

Global value chains (GVCs) play a preponderant role in connecting countries through trade. Around half of world trade now takes place through global value chains. As for developing economies, 48% of their exports, in value added terms, involve GVCs (OECD-WTO, 2016).⁴

Services, as well as trade in services, are key enablers of global production networks. The feasibility of international production networks, as well as their recent growth, have been made possible by, among other things, significant technological advances that have increased the ease of delivering services across borders. A wide range of services act as enablers of global value chains, for example, computer, research and development, advertising, telecommunications, financial and professional services.

In addition to permitting the co-ordination of international production networks, services also provide increasingly significant inputs to the production of goods. Accordingly, services are increasingly traded through trade in goods, and account for a growing share of the value added of many goods produced. Research suggests that the share contributed by services to value added in goods exports from low income countries grew from 16% in 1992 to 22% in 2012 (Balchin et al., 2016). Overall, value added from services accounts for about one-third of manufacturing exports of developed economies, and more than one-quarter (26%) of those of developing economies (WTO, 2014). For some low income countries, for example Ethiopia and Myanmar, the value of services embodied in goods exports is greater than the value of the services they export directly (Balchin et al., 2016).

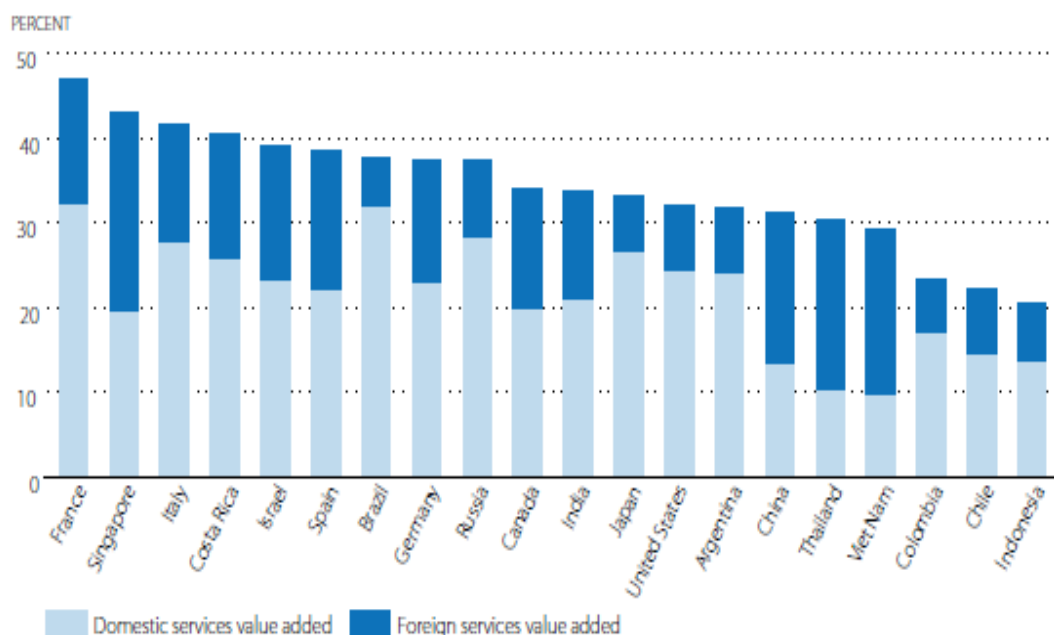
In value added terms, developing countries are important service exporters. Efficient services are essential to enable them to export goods and connect to international markets. The cost and quality of the underlying services affect the performance of the economy as a whole. Without adequate and affordable services, developing manufacturing is a formidable task. Inadequate enabling environments for trade in services, which create barriers to trade and to competition, limit the range, quality and affordability of services, holding back connectivity and competitiveness in the export of goods.

Imported services also add value added to exported goods. Figure 3 shows that a significant share of services value added embedded in manufactured products is from foreign services: almost 20% for Viet Nam, 24% for Singapore, 20% for Thailand and 18% for China.⁵

⁴ Estimations on the basis of data for 2011.

⁵ This does not take into account services provided through foreign suppliers' commercial presence (mode 3).

Figure 3: Services value added in exports of manufactured products, 2011



Source: OECD-WTO TiVA database (2016),
https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2016_C1

III.3 Services provide the infrastructure that enables e-commerce and online supply

Services in sectors such as telecommunications and computers, in particular, but also financial and distribution services, are key enablers of the electronic supply of services and of e-commerce more generally.

Telecommunication services, including Internet, mobile telephony, and data transmission services, provide the basic infrastructure and transmission capacity that allow a range of services to be provided over digital networks, and also permit goods to be offered and purchased through these networks.⁶ Technological developments, such as growth in broadband networks – including mobile broadband – have improved the quality and capacity of these services and brought costs down, making it easier to connect producers, sellers and consumers across borders.

Infrastructure services such as telecommunications promote connectivity in four principal ways. First, advancements in telecommunications and related services enhance the tradability of services, in turn expanding export opportunities, especially for developing countries. These technologies reduce the need for establishing a commercial presence abroad or for travel by persons to

⁶ Telecommunications are broadly defined in the GATS Annex on Telecommunications as "the transmission and reception of signals by any electronic means".

supply services to foreign markets. Efficient telecommunication services have made it profitable for outsourcing to take place, for global value chains to be managed and operated, and for e-government initiatives to be developed. As a result, telecom networks reduce trade costs for the exchange of both goods and services (Fink et al., 2005; Tang, 2006).

Second, telecommunication services underpin data flows across borders, which have skyrocketed in recent years. Indeed, use of cross-border bandwidth grew by 45 times between 2005 and 2014, and is projected to grow by another 9 times in the coming five years (McKinsey Global Institute, 2016). Nowadays, broadband access to the Internet and other data networks offers the higher speeds that are required to exploit newer technologies, such as cloud computing, and to use or offer services that require the transfer of large quantities of data (WTO, 2016c). These data flows often relate to some aspect of the supply of goods and services (if not to the service itself), or to the coordination of activities between a foreign-invested enterprise and its parent abroad. Cross-border data flows, boosted by basic and value added telecom services, such as data processing and storage via cloud capacity, allow companies not only to sell their goods and services, but also to coordinate their logistics and the activities of their subsidiaries and partner offices across the globe. These flows may involve customer information for product development and support, human resources data, financial and merchant data, or product-specific technical data (Tuthill, 2016: 357).

Third, telecommunication services, and more specifically the Internet, constitute the backbone for key pillars of e-commerce such as online retail and wholesale trade (e.g., Amazon, Alibaba). Indeed, without increased capacity and speed, and the lower communication costs brought about by improvements in telecom and computer services, the sale of goods online as it stands today, including inventory management, would not be possible.

Fourth, information and communication technology (ICT) services, combined with innovation, regulatory adaptation, and trade openness in the financial services sector, have made possible significant advances in payment solutions, particularly payments using Internet and mobile services. This has contributed to greater financial inclusion by allowing unbanked segments of the population to access and make use of a range of financial services. Various types of services and service suppliers, operating through diverse business models, are needed in order to bring financial services to low-income populations. Trade in services has an important role to play in this regard. Although policy-makers and regulators may not consider financial inclusion initiatives to be trade related, when foreign service suppliers are involved in any of the modes of supply, financial inclusion-related regulations also become trade policies (WTO, 2016b: 14).

In light of the above, ICT services, in particular broadband platforms, can have a transformational impact on economic development and serve as catalysts for attaining the SDGs. They can offer consumers improved and sometimes new access to a wide array of basic and other services. They can also enable companies to develop new products and find innovative ways of reaching their consumers, connecting with other companies and managing their internal operations (e.g. cloud computing and data storage) without having to invest in servers or other costly equipment and staff. Indeed, the Internet is now one of the most important business platforms for companies, domestically and internationally. The Internet promotes efficiency because it makes transactions quicker, cheaper, and more convenient to carry out (World Bank, 2016; WTO and OECD, 2015). McKinsey Global Institute found that selling through digital channels can lead to productivity gains of 6-15% (WTO, 2016c).

The potential benefits of the ICT revolution are arguably greater for SMEs. Online markets offer the opportunity to better integrate their enterprises – and the developing countries where they operate – into global trade by making it easier to connect to distant consumers. Online trade possibilities not only reduce costs; they give SMEs a global presence that was, in the past, only feasible for large multinational enterprises.

As noted in the WTO's 2016 *World Trade Report* (2016c), to fully reap the benefits of online trade, ICT infrastructure must be in place, the quality of services offered must be adequate and prices must be affordable, especially for SMEs. Policies in services trade play an important role, in particular in terms of enabling – or not – foreign investment to expand the supply of services, and of allowing contestability to maintain competitive pressure on prices and quality of services.

The responses of developing country governments in the 2017 aid-for-trade monitoring questionnaire (OECD-WTO, 2017) confirm that the quality and cost of broadband networks are critical to online activities. Among the main obstacles faced, by both enterprises and consumers, in accessing and using Internet services, cost of broadband subscriptions and slow Internet connection speeds were the top issues cited (62% and 58% of respondents, respectively).

III.4 Trade in services enhances export diversification through online supply

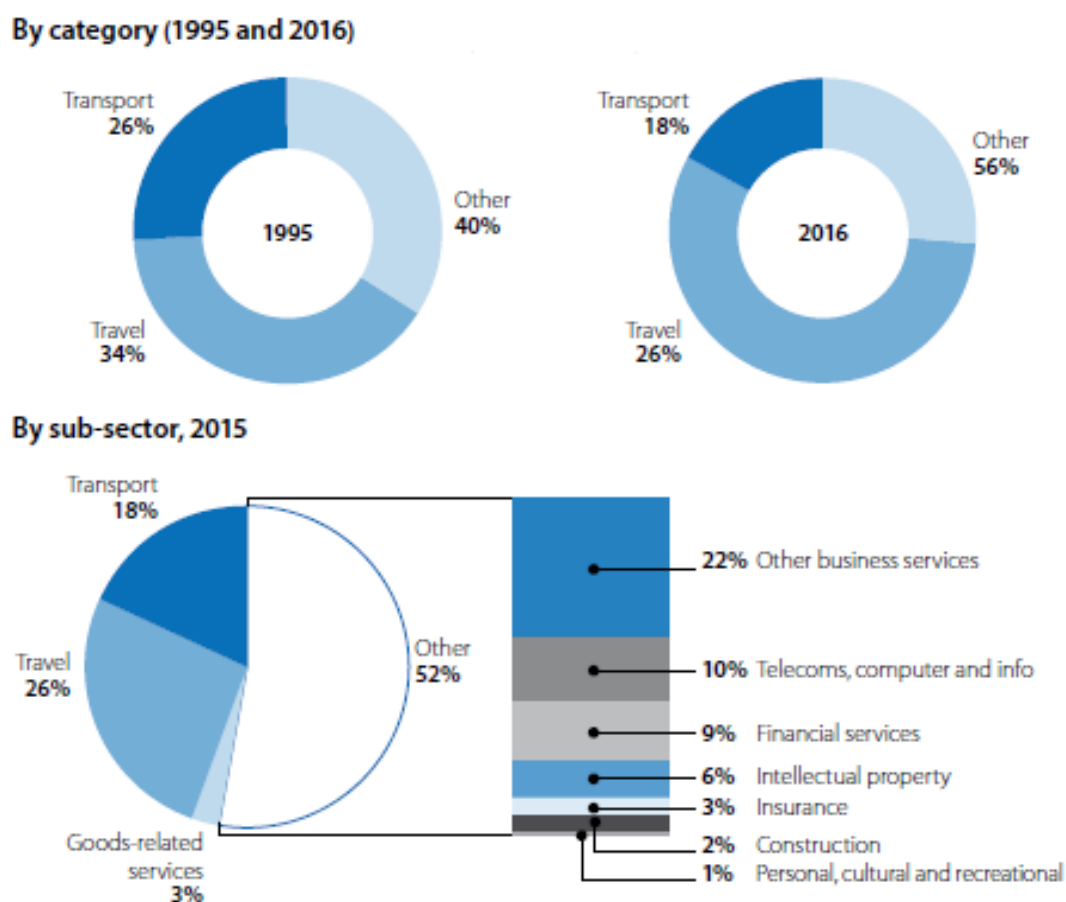
A fourth channel through which services promote connectivity, and in particular digital connectivity, comprises services whose cross-border trade (mode 1) is enabled by advances in communications technology, making them easier to supply from a distance. Electronic supply of services also can occur within borders, including through foreign commercial presence. Services supplied online include intermediate services for the production of goods or other services (as noted above), but also final export products for direct consumption. Services provided online span almost all sectors: professional, business, audio-visual, education, distribution, financial or even health services.

As noted in Part II, the strong growth of trade in services is largely a result of the Internet revolution. Studies have found that greater Internet penetration and usage are associated with higher levels of trade in services, both in terms of exports and imports (Choi, 2010; Freund and Weinhold, 2002).

Technological advances and increased tradability have led to significant change in the composition of trade in services, as shown in Figure 4. The relative importance of travel and tourism in BOP statistics has diminished considerably, while other commercial services now account for 56% of global trade in services and include some of the most dynamic components of world trade today.

Figure 5 shows that some service sectors falling under the “other commercial services” category are among those that have experienced the most vigorous growth in recent decades, with trade in computer services exhibiting an average annual growth of almost 18% (in BOP terms) since 1995, financial services 10.8%, and other business services 9.6%. Not surprisingly, these are all services that can be supplied electronically and that have benefited significantly from the increased efficiency of digital networks. The cross-border supply of these services offers potential for new export opportunities and for export diversification.

Figure 4: Exports of commercial services by main category and by sub-sector



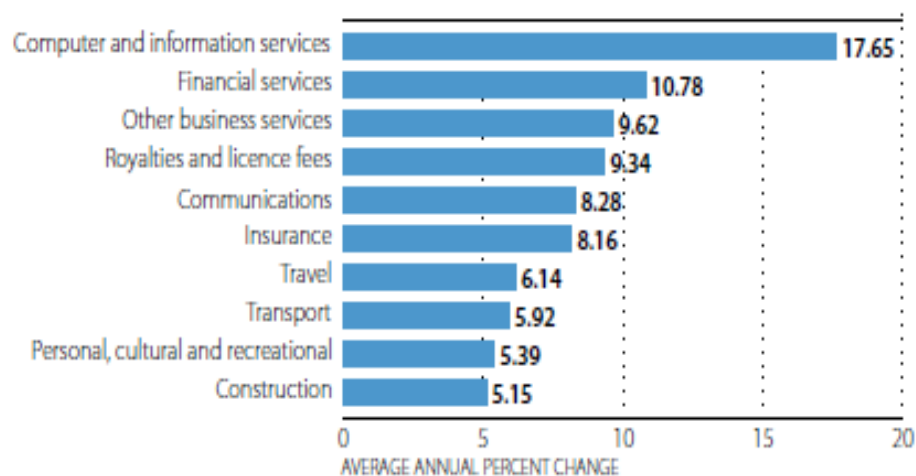
Source: WTO Statistics Database:

https://www.wto.org/english/res_e/statis_e/tradeserv_stat_e.htm

Developing countries are taking greater advantage of direct export opportunities offered by the digital revolution. Their share of global trade in services has risen from 29% in 2005 to 34% in 2016.⁷ India offers a prominent example of a developing country that has built up export capacity in sectors such as computer services and business process outsourcing (BPO). With about 20% of the total global exports of computer services, India is, together with Ireland, the global leader in this field; it also accounts for 60% of the global market for offshoring of IT services (WTO and OECD, 2015).

⁷ The LDC share of world trade in services remains very low in BOP terms, accounting for 1% of exports and 2% of imports in 2015. However, for a number of LDCs, services account for a high proportion of their total exports due to the relative importance of tourism: travel accounts for 10% of their total exports of goods and services, and for 53% of LDC total exports of commercial services (2015).

Figure 5: Growth of global exports of commercial services by sub-sector, 1995-2014



Source: WTO Statistics Database:

https://www.wto.org/english/res_e/statistics_e/tradeserv_stat_e.htm

In a number of developing countries, services export opportunities related to offshoring and digitalization have been facilitated by government policies and engagement with the private sector. The success of the Philippines in BPO was underpinned by the abolition of foreign ownership limitations, the creation of information technology parks, and the promotion of affordable access to liberalized telecommunications (Balchin et al., 2016). Cases in Jordan and Senegal (Box 2) illustrate how suppliers of a variety of ICT-enabled services, benefitting from reliable and competitively priced telecom infrastructure as well as promotion efforts by the government, have expanded across their respective regions.

Box 2 - ICT services in Jordan and Senegal

In **Jordan**, start-up companies have used ICT developments to expand their trade in services. Jordan has produced a number of local ICT service companies that have expanded trade with other countries in the Gulf through a combination of modes of supply. As trade has grown, some of the companies have moved segments of their operations to locations such as Dubai. For example, MarkaVIP, an online retailer, has grown far beyond its roots in Jordan. Its delivery network extends to six Gulf countries as well as Lebanon, and it plans to begin offering products in Egypt. MarkaVIP's head office is now in Dubai, where most of its customers are located. However, harnessing Jordan's reserves of educated people, MarkaVIP has kept most of its back office, as well as its call centre and finance employees, in Amman, supplying these services remotely. Other successful Jordanian-founded companies include Jamalon, an online bookseller that is expanding substantially in the Gulf. Arabia Weather, the region's largest online private weather company, was founded in Amman and has established itself in Dubai as it expands its presence in the region. Aramex, a logistics group, is another example of a company that started up in Amman, rapidly expanding to take advantage of the growing trade opportunities offered by the region's larger markets, while continuing to supply back

office services from Jordan. Jordan has also carved out a niche in ICT innovation for cross-border online outsourcing, for example through the translation and cultural adaptation of English-language media and web content. Jordan's government has promoted the ICT sector as a source of jobs, considering its main resources to be its people. One of the means of support is Oasis500, a government-promoted business accelerator to help start-ups grow through mentorship and funding. Government support was also lent for the development of the Jordan Gaming Lab, a training facility for aspiring software designers that was set up in 2011. It has helped Jordan become one of the region's leading suppliers of original gaming content. Jordan has a telecoms infrastructure that surpasses most other countries in the region in terms of bandwidth, infrastructure, consistency, and price, constituting a clear asset for ICT companies and making online trade more feasible.

Senegal is another developing country that has recently experienced strong growth in services exports, driven in large part by the export of ICT services. Senegal's most important export services (on a BOP basis) are in the area of "other commercial services" (49.5%), followed by travel (36.5%) and transport (12.8%). ICT services are the main component (51.6%) of the "other commercial services" category. Policies targeting the domestic environment have played a key role in facilitating the success of service suppliers in ICT and BPO. Key steps include the liberalization of the sale of computer terminals in 1997, the lowering of tariffs on computer imports, and a series of policies to create a more competitive and efficient telecommunication sector. These policy choices include privatisation of the incumbent telecom operator, pre-commitments on telecommunication services, adoption of the Reference Paper on Regulatory Principles in the extended GATS negotiations on telecommunications, and the establishment of an independent telecom regulator. All of this helped provide ICT and BPO service operators with access to relatively low-priced and robust infrastructure that has allowed them to expand. These efforts have been complemented by reforms in other areas, such as the inclusion of incentives in the investment code and the adaptation of the labour code to take into account the work schedules of call-centres.

Exports of Senegalese BPO and ICT services are mostly in mode 1, although some suppliers have also established a commercial presence abroad, mostly in other West African countries. Experts also travel regionally to work for subsidiaries and to provide consulting services directly (mode 4). For example, Call Me—created in 2002 as a subsidiary of Chaka Group, the Senegalese computer engineering firm—is 100% owned by Senegalese interests. Call Me provides BPO services, including voice services and outsourced appointment-taking for visa applications. It also provides advisory services (quality management, team training, and performance in customer teams). Call Me has numerous customers in Senegal and abroad (France, Belgium, Switzerland). In Africa, Call Me has opened subsidiaries in Mali (2003), Côte d'Ivoire (2004), Guinea and Mauritania (2005), and Cameroon (2008). Currently, the domestic Senegalese market accounts for approximately 25% of Call Me's turnover, while 60% is generated from other African markets and 15% from non-African foreign markets.

Sources: Jordan case adapted from Financial Times (22 December 2015), "Jordan seeks to reinvigorate its IT". Senegal case adapted from Doumbouya et al. (2015).

Increased possibilities to supply services cross-border through digital networks also provide better access to essential services, thereby helping to meet the SDGs focused on health, education and

energy. They are also central to the efforts of tourism operators to expand their consumer base and service offerings (Dihel and Goswami, 2016).

IV. THE IMPACT OF SERVICES TRADE POLICIES ON CONNECTIVITY

The previous section highlighted four channels through which trade in services can play a fundamental role in connecting countries to the trading system and the global economy. However, the policies applied by governments in relation to services trade have an impact on connectivity, either enhancing or limiting it (Box 3). An enabling policy environment – promoting competition, openness to trade and investment, and with adequate regulatory frameworks – can enhance connectivity, lower trade costs, and foster growth and economic performance.

This section focuses on the role of policies in services trade. It first presents the state of costs and of restrictions in services trade, before discussing the role of international commitments. It then reviews how policies in services trade affect diverse facets of connectivity and, more generally, impact economic performance.

Box 3: Services trade barriers

Barriers to trade in services are not barriers at the border. They are, rather, embedded in legal and regulatory frameworks and most typically involve government measures that discriminate between foreign and domestic services or suppliers (GATS Article XVII: National Treatment). Services trade barriers may also take the form of non-discriminatory measures that, for example, limit or restrict the total number of service suppliers or operations; the value of transactions; or the type of legal entity through which a supplier may provide a service (GATS Article XVI: Market Access). Taken together, market access and national treatment measures largely determine the extent to which there is international contestability and competition in a country's service market.

Across modes of supply, services trade barriers may include, for example, monopolies, discretionary foreign investment screenings, foreign equity limits, caps on the number of licences, restrictions on the temporary movement of natural persons supplying services, and discriminatory subsidies or licensing requirements. Services trade policies also include measures closely related to the supply of services by foreign suppliers, whether across borders, through establishment, or by means of natural persons moving to supply services.

IV.1 Barriers to trade in services raise costs

Economic isolation is not solely the result of geography and low levels of development. Policies in services trade can have a fundamental economic impact, engendering significant costs, and limiting connectivity and related economic benefits. Furthermore, because services constitute inputs to merchandise trade, they are an important determinant of trade costs for goods. Yet restrictions to investment and cross-border trade in services remain high and widespread.

The costs of cross-border trade in services are much higher on average than those of trade in goods. By one recent estimate, trade costs were 277% *ad valorem* for final services and 194% for intermediate services (Miroudot and Shepherd, 2016: p. 73).⁸ Overall, services trade costs have only decreased slightly over the past 10-15 years, in contrast with trade costs for goods, which have come down significantly.

While such measures encompass all types of trade costs (e.g. distance, consumer preferences, regulatory divergence) and do not represent measures of protection, barriers to trade in services contribute significantly to estimated services trade costs.⁹ The OECD and the World Bank have developed services trade restrictiveness indices (STRI) that capture – by country, mode of supply, and service sector – the extent to which government policies restrict services trade. These datasets show high overall levels of services barriers, although variations across sectors, regions and levels of development are important.¹⁰

Sectors such as professional and transport services, for example, tend to be more restricted than telecom, computer or distribution services. Figure 6 shows the levels of restrictiveness for a sample of sectors and highlights STRI scores for developing and developed economies. It reveals that developing economies have, on average, higher levels of restrictiveness in all sectors covered. The gap between developed and developing economies is particularly important in telecommunication and financial services, two backbone infrastructure service sectors.

STRI scores also show the extent to which service sectors that are particularly important for connectivity are subject to varying levels of trade restrictions around the world. Sectors fundamental to the movement of goods within and across borders, such as transport services, face significant restrictions in a number of countries. Similarly, despite the role of telecommunication services as enablers for the electronic supply of services and for e-commerce more generally, services trade in mode 3 is limited in a number of countries by restrictions on the establishment and operation of foreign suppliers.

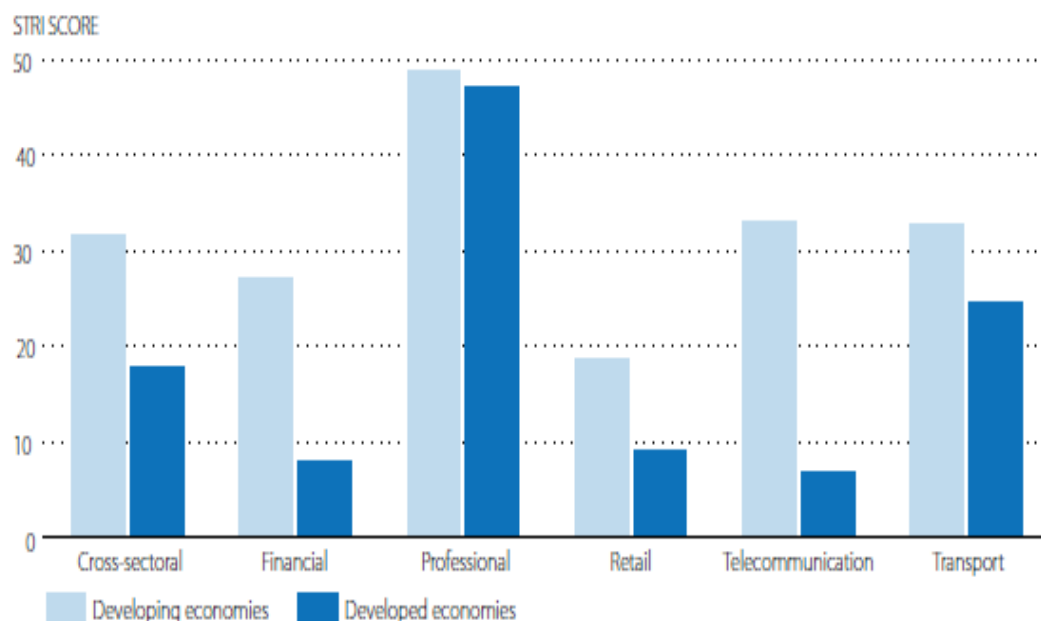
While STRIs do not yet track the evolution of restrictiveness levels over time, evidence suggests that there have been slight reductions in these levels. Indeed, a recent study shows that over the past decade, most trade policy changes in the service sectors have been trade-facilitating rather than trade-restrictive, for both developing and developed countries, and that most of these policy changes concerned mode 3. However, the number of trade restrictive measures, and their relative importance, appears to have increased in the aftermath of the 2008-09 financial crisis (Roy, 2016).

⁸ Miroudot and Shepherd estimated the trade costs for 2011 using the World Input-Output Database for 40 economies. See also Miroudot et al (2013) and Miroudot and Shepherd (2015). The approach used in these studies does not calculate trade costs relative to a benchmark country, but rather is based on the country's trade in services in relation to domestic consumption of services. Such estimates focus on cross-border trade and do not attempt to assess trade costs for mode 3 (commercial presence) or mode 4 (movement of natural persons).

⁹ In a recent study, Jafari and Tarr (2017) calculate *ad valorem* equivalents of services trade barriers on the basis of the World Bank's STRI. In another study, the OECD (forthcoming (a)) has done similar work on the basis of STRI.

¹⁰ See OECD (2017) for OECD STRI and Borchert et al. (2012) for the World Bank's STRI.

Figure 6: STRI scores for developing and developed economies, by sector



Source: Computed on the basis of the World Bank's STRI:

<http://iresearch.worldbank.org/servicetrade/home.htm>

IV.2 Uncertainty around lack of binding commitments may raise costs further

The uncertainty associated with the fact that a significant range of policies in services trade are not bound at the WTO may be associated with certain additional costs. Research has shown that the predictability of market access conditions underpinned by the WTO system of disciplines has commercial value in itself (WTO, 2014). In the case of goods, trade policy uncertainty – measured as the gap between bound and applied tariffs (also known as tariff “water”) – is a significant trade impediment (Osnago et al., 2015).¹¹

In the case of trade in services, even when barriers are low, there is often no certainty that these may not rise in the future as a result of pressures for protection. The perceived benefits of increased bindings on services in regional trade agreements likely explains, in good part, the proliferation of such accords over the past 15 years.

WTO Members have not so far managed to secure levels of binding obligation under the GATS agreement that are close to existing levels of openness (the equivalent of applied tariffs in the case of goods), although there are some exceptions (e.g. commitments of many acceding Members). The

¹¹ This study, which covers 149 countries, shows that the elimination of tariff water increases the probability of exporting by 12%; a 1% decrease in water increases export volumes by 1%. The study also finds that, on average, trade policy uncertainty is equivalent to a level of tariffs between 1.7% and 8.7%.

majority of Members have no specific commitments in the majority of service sectors. Further, where market access commitments are undertaken, these may contain water.

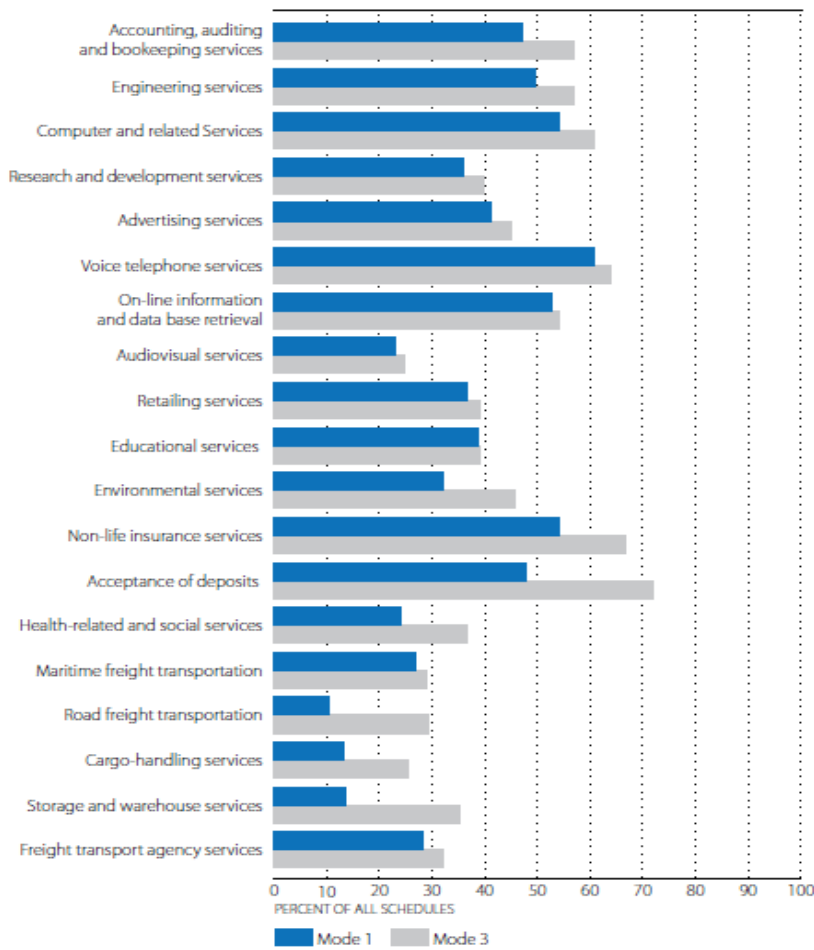
Figure 7 shows the proportion of WTO Members' schedules that have commitments for modes 1 and 3 in the service sectors that were highlighted above as being important for digital and other connectivity. For a number of services that underpin trade in goods, such as transport-related subsectors and retailing services, the proportion of schedules with commitments is rather low. In comparison, the proportion of schedules that contain commitments on cross-border supply and commercial presence for digital infrastructure services such as voice telephony, computer services, and database retrieval is higher, although more than one third of schedules provide no guarantees of treatment whatsoever in these areas. The Figure further highlights that fewer commitments are undertaken under mode 1 than mode 3, even for services where digital networks provide opportunities for cross-border electronic supply, such as accounting, engineering, research and development, advertising, audiovisual, or educational services.

The regulatory principles in the Reference Paper on basic telecommunication services have been inscribed in the schedules of a number of Members as “additional commitments”.¹² This Reference Paper aims to address the difficulty of effectively realizing commitments on liberalization in a sector that is characterized by dominant operators, even following the introduction of competition. The regulatory principles embodied in the Reference Paper concern anti-competitive cross-subsidization, terms of interconnection, misuse of information, licensing criteria, transparency and other matters relevant to the prevention of abuse by dominant operators with respect to basic telecommunications. The proportion of Members' schedules that include additional commitments in relation to the Reference Paper stands at 58%. Of the 61 WTO Members that have not inscribed the Reference Paper in their schedules, over half (31) are African governments.

The absence of commitments does not necessarily mean that supply by foreign suppliers cross-border or through commercial presence is prohibited, or that principles like those embodied in the Reference Paper are not applied. However, it signals that the openness or the regulatory practices that are in place are not secured by the WTO, and that they could be reversed at any time.

¹² The Reference Paper has been inscribed in schedules of commitments as 'additional commitments'. Additional commitments allow Members to undertake legally binding commitments with respect to government measures other than those relevant for “market access and national treatment”.

Figure 7: Percentage of schedules with commitments for mode 1 and mode 3 in selected sectors



Note: The figure shows whether guarantees of a minimum level of market access and national treatment are provided for each sector and mode. It does not assess the level of openness guaranteed, how this level relates to the openness currently granted in practice, or whether it contains water.

The limited sectoral scope of commitments under the GATS also means that other binding disciplines of the agreement that may have particular relevance for digital connectivity do not apply. For example, the guarantees of access provided by the GATS Annex on Basic Telecommunications apply only to the sectors where Members have undertaken commitments. The Annex contains disciplines aimed at ensuring, among other things, that service suppliers have non-discriminatory and reasonable access to basic telecommunication networks for supplying their services, whether educational, professional or computer services. The obligations cover all forms of access and use necessary to supply such services, as well as the movement of information within and across borders. This last aspect is obviously of great relevance for preventing undue restrictions on movement of data.

IV.3 The openness of services trade policy has an impact on connectivity

The growing availability of data on services regimes and trade flows has enabled research on the openness of services trade policies, which have been found to limit connectivity in various ways.

Services trade policies affect productivity and performance

Research has found that service sectors with lower trade costs – which are themselves associated in part with lower services barriers – tend to be more productive and to have higher growth in productivity than those with higher trade costs (Miroudot et al., 2012). Across developed countries, services policies, in particular restrictions to FDI in services, have been found to explain differences in total factor productivity (TFP), which in turn largely mirror differences in productivity growth, as well as aggregate growth (Van der Marel, 2012).

Not surprisingly, there is also a negative correlation between entry barriers and regulatory restrictiveness in services, on the one hand, and investments in digital technologies and ICT on the other (World Bank, 2016). This suggests that barriers to entry and competition in service sectors reduce the incentive of suppliers to invest in digital technologies (e.g. use of cloud facilities by transport companies, supply of online services by professional services firms, or use of the Internet by retailers).

Barriers to trade in services also may shield domestic suppliers from competition, leading to higher prices and reduced incentives to invest, innovate, or otherwise improve service quality. Indeed, services trade restrictions, measured by the STRI, are negatively associated with performance in a number of important service sectors, as measured by comparable indicators across a broad range of countries. For example, countries that are more trade restrictive in commercial banking have less-developed credit markets (Nordås and Rouzet, 2016).

Restrictive policies in services trade limit physical connectivity

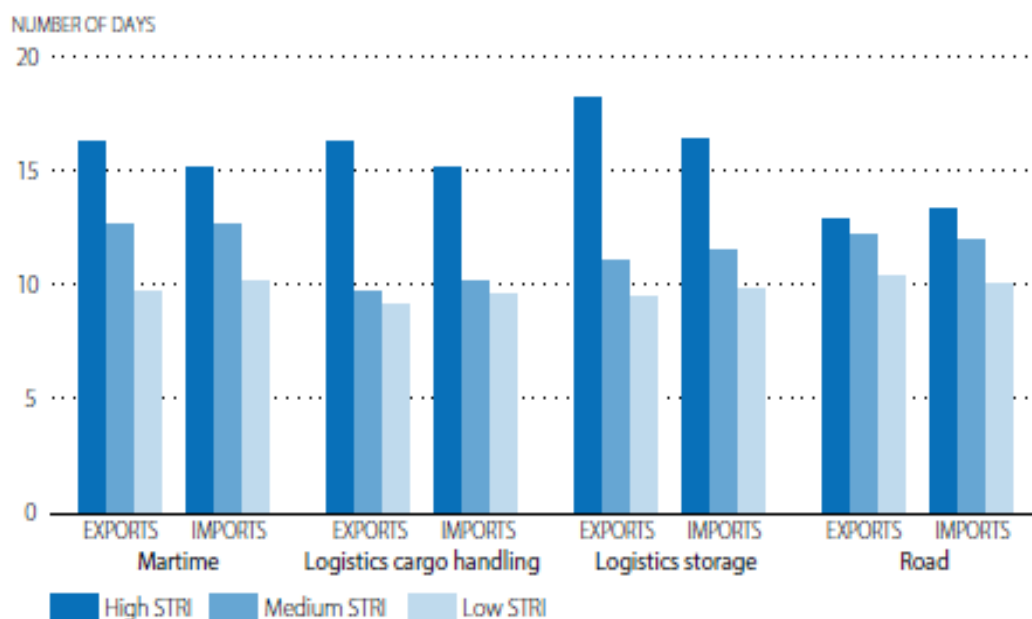
With respect to transport and physical connectivity, higher levels of services trade restrictiveness in logistics, maritime and road transport are associated with greater delays in the domestic legs of transport (Nordås and Rouzet, 2016) (Figure 8).

Focusing more specifically on the transport of containerized cargo on liner vessels, a study finds that government restrictions in the shipping sector, especially in relation to foreign investment, significantly increase maritime transport costs (Bertho et al., 2016). Because most global trade in merchandise takes place through this mode of transport, these restrictions considerably reduce seaborne trade flows.¹³

As noted earlier, policy restrictions in the road transport sector increase the price of trucking services, and thereby increase trade costs, especially for landlocked countries. In Africa, for example, evidence suggests that the high price of transport is largely the result of government policies regulating the sector (Raballand and Macchi, 2009). Studies suggest that when government restrictions to competition are in place, investments in infrastructure produce lower returns in terms of reducing transport prices and trade costs.

¹³ Restrictions are found to increase shipping costs by 26% to 68% and to reduce trade flows by 48% to 77%.

Figure 8: STRI in relation to export and import times (averages, 2014)



Source: Nordås and Rouzet (2016).

Services trade restrictions negatively affect foreign investment

Recent research also evidences the negative impact of services trade restrictions on foreign investment inflows into service sectors. Countries with lower restrictiveness are significantly more likely to attract foreign investment in services than countries with more trade-restrictive regulatory frameworks (OECD, forthcoming (b)). Furthermore, restrictions not only limit new investments, but also are associated with lower sales for foreign affiliates already established in the host country. Aside from affecting foreign suppliers, regulatory restrictions also discourage small domestic firms and newer firms from competing in a market, with implications for innovation and job creation. This dissuading effect can limit investments in new technologies and network infrastructure, and restrain expansion in productive capacity, as well as curbing competition and availability of high-quality, low-costs services. This, in turn, has implications for connectivity because of its impact on the infrastructure services relied on for trade in goods, global value chains and digital services.

Restrictions in services trade limit trade in goods

Services trade policies also have implications in terms of connecting to the international trading system for goods. Achieving a reduction in trade costs for goods largely hinges on improving the performance of the services used by the goods-producing enterprises, reducing their costs and increasing their diversity and quality (Hoekman and Shepherd, 2017). A body of country-specific studies has firmly established that openness in services trade positively affects the productivity of manufacturing industries (Arnold et al., 2011; Arnold et al., 2015; Arnold et al., 2008; Duggan et al., 2013).

Recent research has also emphasized the role of FDI policies for the service sectors. Using data for over 100 developing countries, Hoekman and Shepherd (2017) find that openness in services trade is a significant determinant of performance in manufactured exports, with inward FDI being the main channel through which services policies negatively affect exports. This is consistent with earlier research suggesting that investment openness is an important determinant of countries' participation in global value chains – even more important than tariff barriers (WTO and OECD, 2015; Kowalski et al. 2015).¹⁴

Restrictions limit cross-border trade in services

Restrictiveness in services trade is found to raise costs for foreign exporters, thereby limiting cross-border trade in services – including services supplied over digital networks.¹⁵ Yet these restrictions are also found to limit the services exports of the country imposing the measures (Nordås and Rouzet, 2016). This may be because restrictions, by limiting competition, negatively affect the performance of domestic suppliers, reducing incentives to improve efficiency through innovation, adoption of new technologies and investment. This in turn affects the capacity of domestic suppliers to compete in international markets. Also, because services companies, like producers of manufactured goods, use inputs from other service sectors, raising the cost of imported inputs can make them less competitive and limit their export potential (Nordås and Rouzet, 2016).¹⁶

Services policies for the telecommunication sector can help bridge the digital divide

Policies in services trade also play a key role in the development of the backbone infrastructure that enables digital trade, with resulting impacts on the economy as a whole.

Over the past 25 years, regulation in the telecommunication sector has undergone fundamental transformations. A large majority of countries has moved from monopolies to regulatory environments that encourage effective competition, with reduced barriers to entry and often privatised state-owned incumbents (ITU, 2016b). Many studies have found that these changes have been associated with enhanced affordability, as well as higher quality and greater diversity of telecommunication services (Lestage et al., 2013).

As noted by the ITU (2017), countries that have introduced quality regulation – including, in particular, regulation allowing competition – have had greater success than other countries in stirring up market growth and developing their digital economy. Positive regulatory settings are necessary to drive ICT investment, use and uptake. Bridging the digital divide, therefore, hinges largely on government policies.¹⁷ As reported by the UN Broadband Commission (2013), a study of 165

¹⁴ Hoekman and Shepherd (2017) find that a 10% increase in services trade restrictiveness is associated with a 5% decrease in bilateral trade in manufactured products. In terms of sectors, trade/investment restrictions on transport services and retailing services have the largest impact on the export performance of merchandise goods.

¹⁵ Cross-border trade in services here refers to transactions between residents and non-residents, and essentially serves as a proxy for modes 1, 2 and (in part) mode 4.

¹⁶ The negative impact of high STRI scores on exports may be due, at least in part, to the fact that services trade barriers are not always discriminatory, but rather include behind-the-border measures that impose costs on domestic suppliers as well.

¹⁷ As observed in ITU (2017), significant gaps persist between developing and developed economies with respect to Internet access and, even more so, broadband access. In developed economies in 2016, fixed and mobile broadband subscriptions covered, on average, 30.1% and 90.3% of the population, respectively; in developing economies, these

countries shows that between 2001 and 2012, mobile broadband penetration levels were 26.5% higher in countries with competitive markets (UN, 2013; ITU, 2014).¹⁸

Open trade and investment policies in the telecommunication sector, supported by adequate regulatory frameworks, can thus be seen as key building blocks for the development of quality infrastructure to help reduce the digital divide and take advantage of digital opportunities. Policies affecting foreign commercial presence may prove to be a particularly determinant factor. Studies have shown that markets characterized by more intense competition have seen greater price decreases and improved services; others have linked telecommunications liberalization to higher GDP growth rates (Mattoo et al. 2006; Eschenbach and Hoekman 2006), as well as higher productivity of firms in other sectors (Arnold et al., 2008; Balchin et al., 2016)).

Finally, the quality of digital infrastructure, including telecom infrastructure, as well as the availability and use of ICT services are perceived by governments as key determinants of a country's participation in global value chains (OECD et al., 2014). In surveys of SMEs, unreliable and/or low-band Internet access was ranked as the leading perceived constraint to entering, establishing or moving up ICT value chains (WTO, 2016b).

V. AID FOR TRADE AND SERVICES TRADE POLICIES

Services are essential channels for connectivity. Yet services trade policies, depending on the direction they take, can either severely limit or greatly enhance the service sector's contribution to economic growth, development, and integration into the world trading system. Services trade barriers, together with inadequate regulatory frameworks that limit competition and investment, thereby raising costs – including trade costs – are key impediments to connecting through services.

This suggests that aid for trade can play an important role in supporting the governments of developing countries in their efforts to enhance connectivity by adapting their policies to provide an enabling environment for service markets. This can promote the emergence of service providers, improve the quality and cost of services for other users, and encourage innovation and investment.

Table 1 shows that service sectors receive a significant part of aid-for-trade flows. Transport and storage account for a sizable share of total flows (28.54% in 2015), as does energy (29.83% in 2015). However, for these two categories a significant share of disbursements relate to hard infrastructure (physical installations such as roads or airports) rather than soft infrastructure (government policies and service markets). Indeed, classification of aid-for-trade data does not provide sufficiently disaggregated information to fully capture the extent to which development assistance currently contributes to the regulation of service markets or, even less, to services trade

penetration rates stood at 8.2% and 40.9% (ITU, 2016a). The cost of mobile broadband is also much higher in a number of developing countries.

¹⁸ Higher STRI scores in telecommunication services are associated with lower penetration rates for fixed, mobile and broadband Internet (Nordås and Rouzet, 2016). See also Borchert et al. (2017).

policy. Other services categories, such as communications, business and other services, or tourism, account for a relatively small – and diminishing – share of total flows.¹⁹

Table 1: Percentage of total aid for trade disbursements by category, 2002-2015

	2002-05	2006-08	2009-11	2012-14	2015
Transport and storage	27.46	30.56	30.51	29.36	28.54
Communications	2.56	1.58	1.58	1.66	1.05
Energy	21.89	21.48	23.51	27.92	29.83
Banking and financial services	7.24	8.05	8.08	10.15	10.15
Business and other services	5.76	6.33	4.67	3.34	3.44
Agriculture, forestry, fishing, mining, manufacturing	31.49	28.06	28.02	24.96	24.93
Trade policy and regulations	3.19	3.28	3.19	2.38	1.90
Tourism	0.42	0.66	0.44	0.23	0.16

Source: OECD-DAC/CRS aid activity database.

In view of the important contribution of services trade policy to connectivity, there are two areas where aid for trade could make a difference:

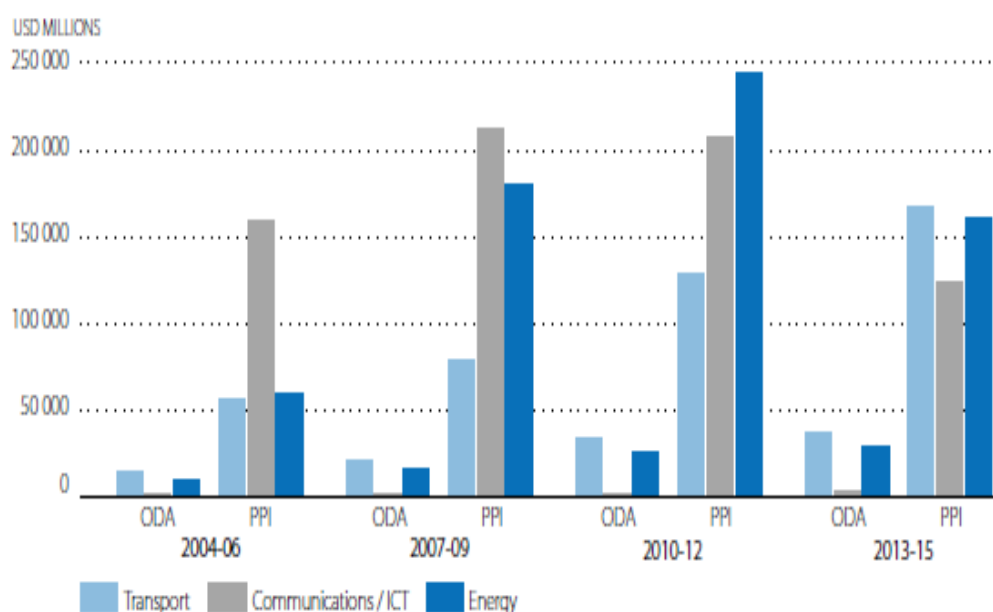
1. helping to improve foreign investment policy for services
2. providing assistance in the design, assessment, and implementation of trade-related service sector reforms, and associated regulatory frameworks.

Foreign investment policy, while applicable to all economic sectors, is particularly relevant for services. This is true for two reasons: 1) most global FDI goes into service sectors; 2) the barriers to FDI in services are for the most part supply barriers through mode 3 (commercial presence). In some countries, FDI policy is still restrictive. Improving the policy environment for FDI in services can help attract the foreign and private investment needed to fill infrastructure gaps and investment shortfalls, contributing to achieving the SDGs in these countries. UNCTAD has stressed that public finances alone will not suffice to meet SDG-implied demands for financing and has stressed that the contribution of the private sector is therefore indispensable for many developing countries (UNCTAD, 2014). FDI is especially important for the LDCs.

¹⁹ Total flows, in constant dollars, have more than doubled over the period reviewed.

Indeed, funding for the development and upgrade of public infrastructure for sectors such as transport (ports, roads, railways, airports) and energy (electricity and natural gas transmission and distribution) will, to a good extent, come from the private sector. As shown in Figure 9, this is particularly true for the ICT sector, where private investment in public infrastructure, including land-based and submarine cables, dwarfs official development assistance: the former totalled USD 702 billion between 2004 and 2015, a hundred times more than official development assistance for communications (USD 6.8 billion) over the same period.²⁰ Private participation in ICT infrastructure projects during this period largely took the form of greenfield investments (73%).

Figure 9: Official development assistance and private participation in infrastructure, by sector, 2004-15



Note: PPI = private participation in infrastructure. The PPI data from the World Bank Private Participation in Infrastructure database records contractual arrangements for public infrastructure projects in low and middle income countries that have reached financial closure, in which private parties assume operating risks. Projects recorded in the database do not have to be entirely privately owned, financed or operated; some have public participation as well. Accordingly, the value of investment projects in the database is the total investment value, and not solely the amount invested by the private sector.

Source: Data on private participation in infrastructure from the World Bank PPI Database (<https://ppi.worldbank.org/data>); ODA statistics from the OECD-DAC CRS aid activity database.

²⁰ ODA for communication/ICT does not typically involve infrastructure upgrade.

These data clearly underscore the preponderant role of private investment – typically foreign investment – in developing digital infrastructure and, thereby, in helping bridge the digital divide. They also point to the importance of the enabling environment framed by government policy, a key determinant of FDI.

Despite the overall benefits, however, upgrading of FDI policies is not always easy to carry out, especially for smaller countries with stretched capacities. In developing country governments where there is an interest, assistance in this regard could, for example, help to:

- assess the costs/benefits of the existing policies;
- assess the extent to which the existing policies depart from international best practice and how this impacts on attracting investments;
- devise and set up less restrictive ways to achieve national policy objectives in relation to foreign investment;
- simplify procedures and enhance transparency;
- update foreign investment laws and regulations, and implement the new policies;
- assess, monitor and measure the effects of new policies in terms of attracting and retaining investment, as well as their effects on employment, the development of service sectors, and their contribution to connectivity.

Technical assistance of this kind – involving officials, politicians, and other stakeholders – can also help to inform the decision-making process. A recent project in Myanmar provides an example of development assistance along those lines (Box 4).

BOX 4: The Myanmar investment policy project

Myanmar shares borders with China, India, Bangladesh, Thailand and Lao PDR– countries representing almost 40% of the world's population and many of the world's fastest growing economies. Myanmar itself has substantial natural resources and vast stretches of underutilized land.

Although investors showed keen interest in opportunities in Myanmar, the economy was underperforming because of excessive and outmoded regulations. Despite a pro-market reform program, in 2014 FDI in Myanmar was declining. To boost the economy, attracting investment in a wide range of sectors with employment generation potential was essential. Yet growth and diversification were hampered by unclear, discretionary, and onerous entry and screening procedures that burdened would-be investors. The government requested assistance from the World Bank Group to address the inadequacies in the legal and regulatory environment that impeded investment. The goal was to assist Myanmar in attracting sustainable private sector investment by generating savings through streamlined administrative procedures.

In the fall of 2016, Myanmar's national legislature passed an investment reform law, culminating a three-year World Bank Group effort to accelerate economic reform and increase investment and trade. The new law is expected to streamline tax laws, regulatory processes, and investment approval requirements so as to generate substantial new foreign and domestic investment.

Source: OECD-WTO Trade Monitoring Exercise (2017), International Finance Corporation, World Bank Group contribution.

In the 2017 aid-for-trade monitoring questionnaire, developing country governments underscored that improvements in the investment climate figured highly among their priorities. Indeed, 98% of the respondents indicated that their national development strategies included actions to improve the investment climate. For 93% of respondents, such actions included updates to their investment policies and regulations; 68% indicated that over the past five years they had taken concrete steps to facilitate the entry and operations of foreign investors (OECD-WTO, 2017).

Another area where development assistance can make a difference is in improving services-specific policies. As with foreign investment regimes, this assistance might involve helping interested countries to achieve policies in favour of connectivity services, whether on a sectoral basis (e.g. telecommunication or financial services) or with regard to specific modes of supply (e.g. modes 1 and 4). This may, for example, involve introducing competition in previously monopolized segments of the telecommunication market, relaxing limits on the supply of certain professional services in modes 1 or 4, or allowing new financial services products and transactions to be undertaken between non-resident financial institutions and resident consumers. While decisions on whether or not to undertake reforms obviously rest with the government, when the intention is to look at enhancing connectivity and upgrading policies in services trade, this type of assistance can be quite valuable. Indeed, the adequate sequencing of reforms can be an important factor and, because they often take place on a sector-by-sector basis, technical considerations – and therefore expertise – can be paramount. As for cross-sectoral FDI policies, support can also help in assessing the cost of existing policies, scoping the impact of policy change (including on the pursuit of social or other government policy objectives), and updating relevant regulations and ensuring their effective implementation.

Assistance might also cover adapting and reinforcing regulatory regimes in service sectors subject to trade-related reforms. There is broad recognition that increasing international contestability in service markets often requires adapting domestic regulatory frameworks. For example, allowing new transactions in cross-border financial services may require new supervisory functions as well as adaptation of prudential measures. Introducing competition in telecommunication services typically involves modifications in domestic policies in areas such as cross-subsidization and anti-competitive practices, interconnection, universal service obligations, or the set-up and functions of an independent regulator. Technical assistance to facilitate the improvement and adaptation of regulatory frameworks for countries that have undertaken or decide to undertake reforms also would help ensure that the benefits of liberalization are not undercut by inadequate regulatory frameworks.

Beyond the adaptation of regulatory frameworks to accompany liberalization, development assistance could also target regulatory deficiencies that limit trade in services. This might include ensuring that domestic regulations are not discriminatory or unnecessarily burdensome, that they are transparent, or that they do not restrict trade (e.g. licensing and qualification procedures and requirements for companies or natural persons), it can also include ensuring that regulations promote effective competition in the market (adequate competition policy frameworks), and that they enable and foster the development of e-commerce.

Finally, assistance of this sort may include help in establishing a legal framework governing electronic transactions, and in ensuring its effective implementation and enforcement. It could involve, more specifically, devising the necessary regulatory framework to support online payment solutions, or updating relevant regulatory frameworks in the light of best practice in areas such as

electronic signatures and authentication, fraud protection for consumers, protection of personal information, cybersecurity, or measures to limit unsolicited commercial electronic messages.

VI. CONCLUSIONS

Services play a pivotal role in connecting countries to the global economy, including by enhancing trade in goods. They are an important contributor to economic growth, employment, financial inclusion and more generally to the Sustainable Development Goals. However, if policies in services trade are not sufficiently facilitating, they can hinder both physical and digital connectivity, making the achievement of development objectives more difficult.

Aid for trade can help by providing support for developing country governments that want to improve connectivity by reforming their policy environment for service markets. This support may focus, for example, on reducing trade costs by facilitating competition and contestability in the service sectors, or by increasing the transparency of regulatory frameworks.

Enabling environments can serve as a catalyst for attracting additional investment in infrastructure. They can also help to improve the performance of the service sectors in developing countries, thereby increasing their capacity to meet a diversity of societal needs and to take advantage of opportunities to export goods and services.

References

- Arnold, J., A. Mattoo, and G. Narciso, (2008), "Services inputs and firm productivity in Sub-Saharan Africa: Evidence from firm level data", *Journal of African Economies* 17 (4): 578–99.
- Arnold, J., B. Javorcik, and A. Mattoo (2011), "Does services liberalization benefit manufacturing firms? Evidence from the Czech Republic", *Journal of International Economics* 85(1): 136–46.
- Arnold, J., B. Javorcik, M. Lipscomb, and A. Mattoo (2015), "Services reform and manufacturing performance: Evidence from India", *The Economic Journal* 126: 1–39.
- Balchin, N., B. Hoekman, H. Martin, M. Mendez-Parra, P. Papadavid, D. Primack, and D. Willem te Velde (2016), *Trade in Services and Economic Transformation*, Overseas Development Institute, London: UK.
- Bertho, F., I. Borchert, and A. Mattoo (2016), "The Trade-Reducing Effects of Restrictions on Liner Shipping", *Journal of Comparative Economics* 44 (2), pp. 231-42.
- Borchert, I., B. Gootiiz, A. G. Goswami, A. Mattoo (2017), "Services Trade Protection and Economic Isolation", *World Economy* 40:3, pp. 632-652.
- Borchert, Ingo, Batshur Gootiiz and Aaditya Mattoo (2012), "Guide to the Services Trade Restrictions Database", World Bank Policy Research Working Paper (WPS6108).
- Cadot, O., A. Fernandes, J. Gourdon, A. Mattoo and J. de Melo (2014), "Evaluating Aid for Trade: A Survey of Recent Studies", World Bank Policy Research Paper 6742, Washington DC.
- Choi, C. (2010), "The Effect of the Internet on Service Trade", *Economics Letters* 109, pp. 102-104.
- Dihel, N. and A. G. Goswami (2016), *From Hair Stylists and Teachers to Accountants and Doctors: The Unexplored Potential of Trade in Services in Africa*, World Bank Group, Washington DC.
- Doumbouya, S.F., A. Ndiaye, and D. Primack (2015), "Business Process Outsourcing and Information Technology Services: A Case Study of Senegal", in S. Stephenson and C. Tumuhimbise (eds.), *Services Exports for Growth and Development: Case Studies from Africa*, African Union Commission, Addis Ababa.
- Duggan, V., S. Rahardja, and G. Varela (2013) *Service sector reform and manufacturing productivity: Evidence from Indonesia*. Policy Research Working Paper 6349. Washington, DC: World Bank.
- Eschenbach, F., & Hoekman, B. (2006). Services policy reform and economic growth in transition economies. *Review of World Economics*, 142(4), 746-764.
- Fink, C., A. Mattoo, I.C. Neagu (2005), "Assessing the Impact of Communication Costs on International Trade", *Review of International Economics* 67:2, pp. 428-445.
- Freund, C. and D. Weinhold (2002), "The Internet and International Trade in Services", *American Economic Review* 92 (2), pp. 236-240.

- Hoekman, B. and B. Shepherd (2017), "Services Productivity, Trade Policy and Manufacturing Exports", *World Economy* 40:3, pp. 499-516.
- ITU (2014), "Trends in Telecommunication Reform - Fourth-generation regulation: Driving digital communications ahead", Geneva.
- ITU (2016a), *ICT Facts and Figures 2016*, Geneva.
- ITU (2016b), "Trends in Telecommunication Reform 2016: Regulatory Incentives to Achieve Digital Opportunities", Geneva.
- ITU (2017), "Spanning the Internet Divide to Drive Development", in WTO and OECD, eds., *Aid for Trade at a Glance 2017; Promoting Trade, Inclusiveness and Connectivity for Sustainable Development*, Paris.
- Jafari, Y. and D. G. Tarr (2017), "Estimates of Ad Valorem Equivalents of Barriers Against Foreign Suppliers of Services in Eleven Services Sectors and 103 Countries", *World Economy* 40:3, pp. 544-573.
- Kowalski, P., J. Lopez Gonzalez, A. Ragoussis, and C. Ugarte (2015), "Participation of Developing Countries in Global Value Chains: Implications for Trade and Trade-Related Policies", OECD Trade Policy Papers, no. 179, OECD Publishing, Paris.
- Lestage, R., D. Flacher, Y. Kim, J. Kim, and Y. Kim (2013), "Competition and investment in telecommunications: Does competition have the same impact on investment by private and state-owned firms", *Information Economics and Policy* 25, pp. 41-50.
- Mattoo, A., Rathindran, R., & Subramanian, A. (2006). Measuring Services Trade Liberalization and Its Impact on Economic Growth: An Illustration. *Journal of Economic Integration*, 21(1), 64-98
www.jstor.org/stable/23000818
- Maurer, A., R. Lanz, and J. Magdeleine (2016), "Measuring Trade in Services in a World of Global Value Chains", in Sauvé and Roy (eds.), *Research Handbook on Trade in Services*, Edward Elgar Publishing, Cheltenham, UK, pp. 42-65.
- McKinsey Global Institute (2016), "Digital Globalization: The New Era of Global Flows", March 2016, McKinsey & Company.
- Miroudot, S. and B. Shepherd (2015), "The Paradox of 'Preferences': Regional Trade Agreements and Trade Costs in Services", *World Economy*, 19 May, DOI: 10.1111/twec.12178
- Miroudot, S. and B. Shepherd (2016), "Trade Costs and Global Value Chains in Services", in Sauvé and Roy (eds.), *Research Handbook on Trade in Services*, Edward Elgar Publishing, Cheltenham, UK, pp. 66-84.
- Miroudot, S., J. Sauvage, and B. Shepherd (2012), "Trade Costs and Productivity in Services Sectors", *Economics Letters* 114(1), pp. 36-8.
- Miroudot, S., J. Sauvage, and B. Shepherd (2013), "Measuring the Cost of International Trade in Services", *World Trade Review* 12(4), pp. 719-735.

Nordås, H. and D. Rouzet (2016), "The Impact of Services Trade Restrictiveness on Trade Flows", *World Economy*, 27 July, DOI: 10.1111/twec.12424.

OECD (2017), *Services Trade Restrictiveness Index* (database), www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm

OECD (forthcoming (a)), "The Trade Effect of Services Trade Restrictions", OECD Trade Policy Papers, Paris.

OECD (forthcoming (b)), "Trading Firms and Trading Costs in Services; Firm-Level Analysis", OECD Trade Policy Papers, Paris.

OECD, WTO, World Bank Group (2014), "Global Value Chains: Challenges, Opportunities, and Implications for Policy", Report prepared for submission to the G20 Trade Ministers Meeting, 19 July 2014, https://www.oecd.org/tad/gvc_report_g20_july_2014.pdfhttps://www.oecd.org/tad/gvc_report_g20_july_2014.pdf

OECD-WTO (2016), *Trade in Value Added* (database), https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2016_C1https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2016_C1

OECD-WTO (2017), *Aid for Trade Monitoring Exercise 2017*, (questionnaires) www.oecd.org/aidfortrade/countryprofiles/

Osnago, A., R. Piermartini, and N. Rocha (2015), "Trade Policy Uncertainty as Barrier to Trade", WTO Staff Working Paper ERSD-2015-05.

Raballand, G. and P. Macchi (2009), "Transport Prices and Costs: The Need to Revisit Donors' Policies in Transport in Africa", Bureau for Research and Economic Analysis of Development (BREAD) Working Paper 190, Washington, DC.

Reed, J. (22 December 2015), Jordan seeks to reinvigorate its IT, *Financial Times*, <https://www.ft.com/content/01d01d48-8a34-11e5-90de-f44762bf9896><https://www.ft.com/content/01d01d48-8a34-11e5-90de-f44762bf9896>

Roy, M. (2016), "Charting the Evolving Landscape of Services Trade Policies: Recent Patterns of Protection and Liberalization", in Sauvé and Roy (eds.), *Research Handbook on Trade in Services*, Edward Elgar Publishing, Cheltenham, UK, pp. 25-41.

Tang, L. (2006), "Communication Costs and Trade of Differentiated Goods", *Review of International Economics* 14: 1, pp. 54-68.

Teravaninthorn, S. and G. Raballand (2009), *Transport Prices and Costs in Africa: A Review of the Main International Corridors*, Washington DC: World Bank.

Tuthill, L. (2016), "Cross-border Data Flows: What Role for Trade Rules?", in P. Sauvé and M. Roy (eds.), *Research Handbook on Trade in Services*, Edward Elgar Publishing, Cheltenham, UK, pp. 357-382.

UN Broadband Commission (2013), "The State of Broadband 2013: Universalizing Broadband", Report by the ITU and UNESCO, Geneva.

UNCTAD (2014), "World Investment Report 2014. Investing in SDGs: An Action Plan", Geneva.

UNCTAD (2016), "World Investment Report 2016. Investor Nationality: Policy Challenges", Geneva.

Van der Marel, E. (2012), "Trade in Services and TFP: The Role of Regulation", *World Economy*, 11 October, DOI: 10.1111/twec.12004

World Bank (2016), World Development Report 2016; Digital Dividends", Washington DC.

World Bank (2017), *World Development Indicators* (database), data.worldbank.org/data-catalog/world-development-indicators

WTO (2014), "World Trade Report 2014 - Trade and Development: Recent Trends and the Role of the WTO", Geneva.

WTO (2016a), "Aid-for-trade Work Programme 2016-2017: Promoting Connectivity", Committee on Trade and Development; Aid for Trade, 16 February 2016, WT/COMTD/AFT/W/60.

WTO (2016b), "Financial Inclusion and the GATS – Barriers to Financial Inclusion and Trade in Services", Note by the Secretariat, Committee on Trade in Financial Services, S/FIN/W/88/Add.1, 13 June 2016.

WTO (2016c), "World Trade Report 2016 - Levelling the Trading Field for SMEs", Geneva.

WTO and OECD (2015), "Aid for Trade at a Glance – Reducing Trade Costs for Inclusive, Sustainable Growth", Paris and Geneva.