

CHAPTER 1

OVERVIEW: PROMOTING TRADE, INCLUSIVENESS AND CONNECTIVITY FOR SUSTAINABLE DEVELOPMENT

Abstract: *This chapter provides an overview of the report which examines trade costs and their influence on sustainable development and poverty reduction. It analyses in particular the physical and digital connectivity required to plug into the global economy. It surveys the connectivity challenges faced by developing countries with a specific focus on the least developed, together with the action taken to tackle these constraints. It underscores that digital connectivity is not sufficient to engage in e-commerce – a range of other enabling factors must also be in place. It surveys the policies for supporting developing countries to engage in this form of trade. This overview provides a snapshot of what is happening in promoting trade inclusiveness and connectivity for sustainable development, the impact of that support and where improvements are needed.*

INTRODUCTION

This is the sixth aid-for-trade monitoring report. The previous edition focussed on trade costs. It stressed that high trade costs make it hard for many firms in developing countries to fully exploit market access opportunities. Obsolete or ill-adapted infrastructure, cumbersome and time-consuming border procedures, limited access to trade finance and the costs of meeting an ever broader array of standards were shown to be pricing too many developing country firms out of international trade. This was found to be particularly true for small and medium sized enterprises in the least developed countries, and in sea- and landlocked countries. It is also true for trade in agricultural goods, – where perishability and trade measures push costs higher. In short, the report revealed that high trade costs can undermine the potential gains from trade.

Aid for Trade at a Glance 2017: Promoting Trade Inclusiveness and Connectivity for Sustainable Development continues the focus on trade costs. It puts a spotlight on connectivity, physical and digital. Both are critical for sustainable growth and poverty reduction. Physical and digital connectivity intertwine and are now inseparable to the conduct of trade. Physical connectivity enables the movement of people, goods and services and provides access to local, regional and global markets. Digital connectivity allows individuals and businesses to plug more directly into the global economy. At its most basic level, digital connectivity links individuals and businesses through digital networks. It facilitates the online purchase of goods and delivery of services.

Digitalisation and new technologies change how trade takes place, not why it takes place. Trade is still subject to comparative advantage, while informational asymmetries and trade barriers, both at the border and behind the border, continue to exist. However, new technologies are reducing the cost of supplying services across borders and connecting diverse actors along the value chain. They are helping to overcome many of the constraints that are associated with operating in international markets, leading to the adoption of new business models, the entry of new businesses and a shift in sources of comparative advantage.

Digitalisation has not only changed how trade is taking place, but also who is trading and what is being traded. A larger number of low-value transactions and small shipments are now crossing borders. Also, goods are increasingly bundled with services. Services represents a significant and growing share of exports of manufactured products, for both developed and developing countries. Global internet marketplaces, such as Alibaba, Amazon and eBay are helping consumers and micro, small and medium enterprises (MSMEs) to engage more directly in international trade. Some MSMEs are “born global”. National and regional platforms, for example Jumia, leboncoin, MercadoLivre and Trini Trolley, grew by offering solutions to e-trade barriers such as payment and delivery bottlenecks. These online platforms help reduce informational asymmetries and search frictions, tackling the constraints posed by thin markets.

To better exploit the potential of e-trade, developing countries must pay greater attention to the trade policy dimension of digital connectivity and bridge the “digital trade policy divide”. This implies integrating trade perspectives into digital connectivity strategies. Although digital connectivity is a necessary condition for e-commerce, it is not sufficient. A series of additional steps and policies need to be in place before the potential of e-commerce can be fully tapped.

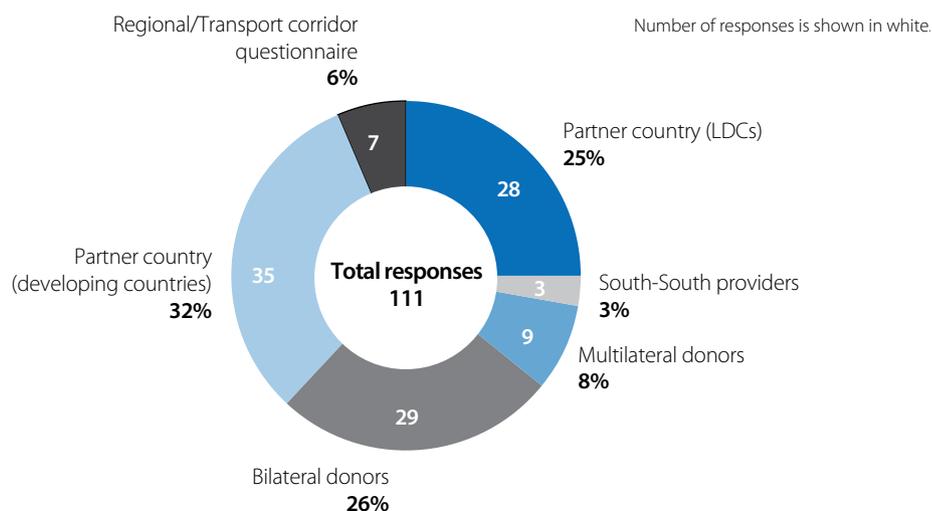
In addition, some countries—the least developed in particular—require technical and financial assistance to build the human, institutional and infrastructure capacities needed to connect to and compete in international markets. Official development finance and trade-related assistance from South-South providers is already helping these countries to bridge the physical and digital divides. The private sector, meanwhile, is working to improve connectivity through commercial investments, public-private partnerships and through corporate social responsibility and corporate philanthropic foundations.

This report puts a spotlight on what is happening in aid for trade and connectivity, what is not, and where improvements are needed. One conclusion that emerges is that aid for trade must act as a catalyst for removing both supply and demand side constraints to the diffusion of digital connectivity, with a particular focus on the least-connected.

WHO PARTICIPATED IN THE OECD-WTO AID-FOR-TRADE MONITORING EXERCISE?

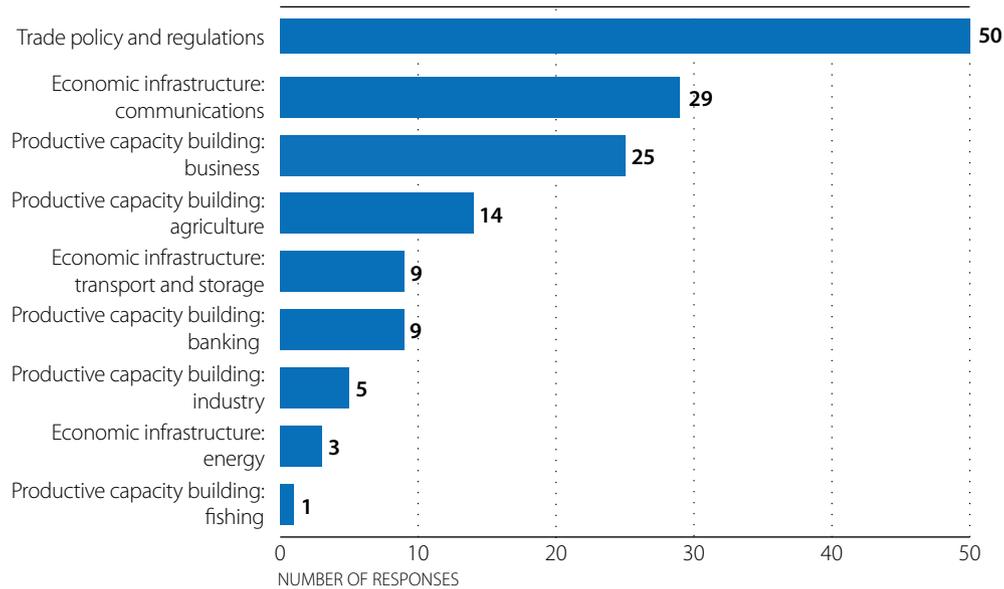
In 2017, 63 developing countries, of which 25 were least developed countries (LDCs), submitted aid-for-trade self-assessment questionnaires in response to the OECD-WTO aid-for-trade monitoring and evaluation exercise. A total of 38 donors participated: 29 bilateral and 9 multilateral donors. Three providers of South-South trade-related support (i.e. Brazil, Chile and Indonesia) also submitted self-assessments. Lastly, 7 regional organisations (i.e. transport corridors and regional economic communities) participated in the 2017 exercise (Figure 1.1).

Figure 1.1. Responses submitted in the aid-for-trade monitoring exercise



Source: OECD-WTO aid-for-trade monitoring exercise (2017a), www.oecd.org/aidfortrade/countryprofiles/
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The monitoring exercise also invited the public and private sectors to submit case stories about aid-for-trade policies, programmes and projects. A total of 145 case stories were received before the cut-off date, including: 96 from the public sector, 25 from the private sector, and 24 from NGOs and academia.¹ The single largest category of case stories (34%) focused on capacity building programmes in trade policy and regulations. Within that category, eight out of ten case stories focussed on trade facilitation. Experiences in building trade-related infrastructure were recounted in 30% of the case stories, with two-thirds highlighting programmes aimed at improving information and communications technologies (ICT) in developing countries. Activities for building productive capacity were addressed in a total of 36 of the case stories, with 25 focussing on business services, 14 on agriculture, 9 on banking services, 5 on industry and manufacture and 1 case story on fisheries (Figure 1.2).

Figure 1.2. Program focus of case stories submitted in the context of the OECD-WTO aid-for-trade monitoring exercise

Source: OECD-WTO aid-for-trade monitoring exercise (2017b), <http://www.oecd.org/aidfortrade/casestories/>
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The following sections highlight the main findings of the monitoring exercise and other findings of the report.

CHAPTER 2. SETTING THE SCENE

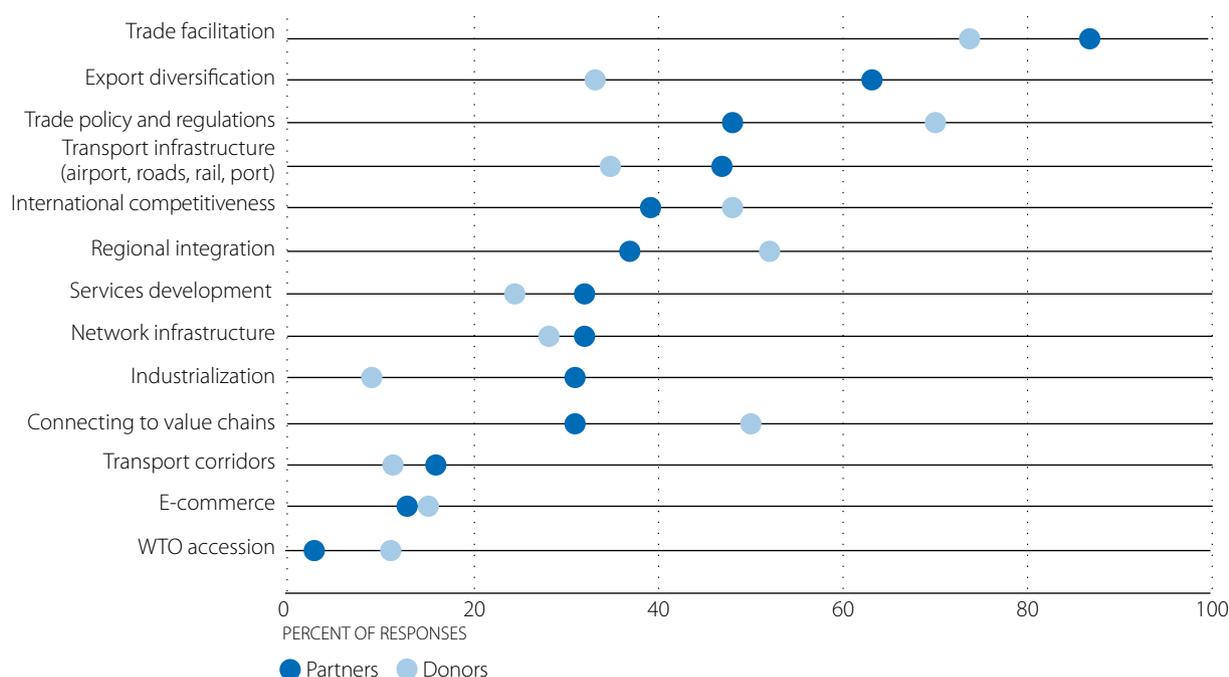
World Trade Organization

On 22 February 2017, the WTO Trade Facilitation Agreement (TFA) entered into legal force. The TFA adds a powerful instrument to the toolbox that can be drawn on by policymakers seeking to reduce trade costs. Trade facilitation emerges as the top aid-for-trade priority of both developing countries and their development partners who responded to the 2017 aid-for-trade monitoring exercise (Figure 1.3). The concept of trade facilitation is a broad one and includes transport facilitation and, increasingly, digital connectivity.

Digital networks offer an avenue for developing and least developed countries to connect to global trade. Digital connectivity intertwines with other modes of physical connectivity (air, maritime, road and rail) and underpins the global value chains that increasingly characterise international commerce. Digital networks also offer access to the rapidly expanding market of goods and services that is made available through the Internet. In the absence of affordable digital connections, there is no access to this new global market.

Access to digital connectivity requires the supply of hard infrastructure, but uptake also depends on a range of demand- and supply-side factors, which in turn can be influenced by regulatory regimes. Services supplied and goods ordered online can be offered often at significantly lower cost than their offline equivalents. Many services are also digitally enabled, even if ultimately supplied physically or in person. Yet goods ordered online still need to be physically delivered. Often these goods face a series of obstacles that drive up their final costs and reduce the participation of developing country firms in supply chains. Logistics, customs and trade facilitation are examples of policy areas where analogue policies can help facilitate growth generated through digital connectivity.

The monitoring exercise points to action by a range of countries at different levels of income to harness digital connectivity for their development. Digital technologies are permeating a growing array of government functions and policy areas. The private sector and development partners are actively supporting many of these activities.

Figure 1.3. Aid-for-trade priorities from partner and donor agencies

Source: OECD-WTO aid-for-trade monitoring exercise (2017a), www.oecd.org/aidfortrade/countryprofiles/.

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Trade policy can have an important influence on digital trade connectivity costs, in terms of both the availability and the affordability of connections, and therefore on the ability of developing countries to use digital connectivity for their trade integration and economic development. The emergence of a possible “digital trade policy divide” is an issue of particular concern. The monitoring exercise suggests that trade ministries do not appear to be systematically engaged in ICT, digital or other e-government national co-ordination mechanisms. This same issue is also mirrored among development agencies where connectivity is not often considered from a trade perspective.

CHAPTER 3. DIGITAL CONNECTIVITY AND TRADE LOGISTICS

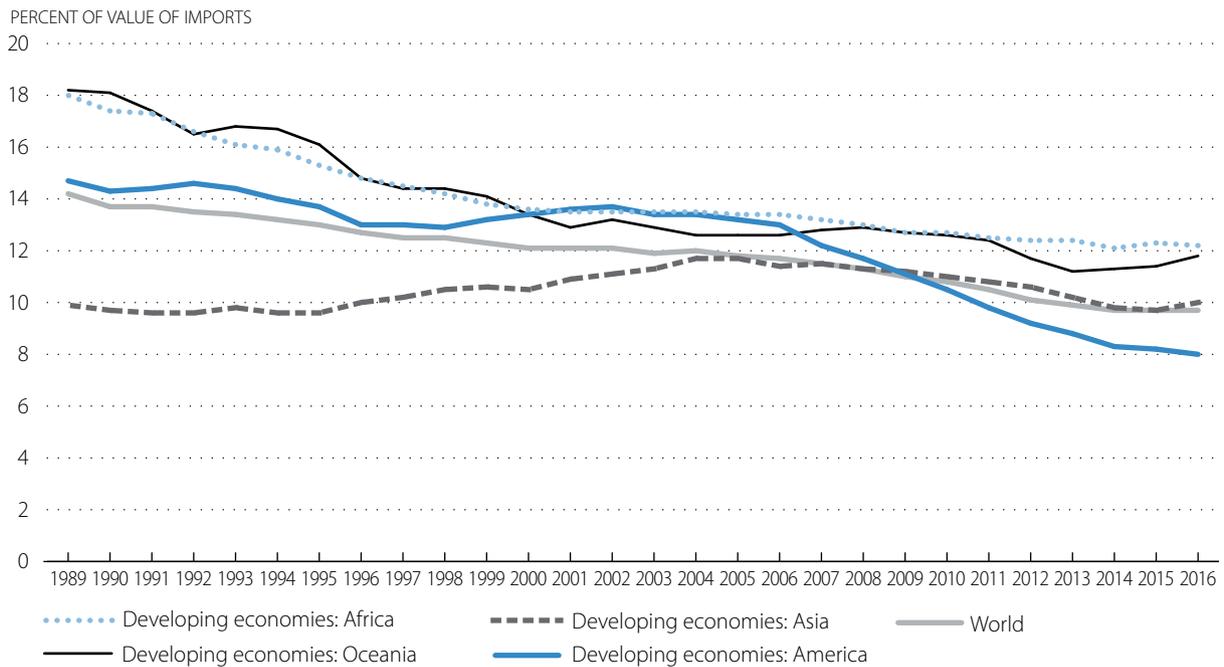
Organisation for Economic Co-operation and Development and United Nations Conference on Trade and Development

Innovations in the digital economy reduce the costs of engaging in trade. This, in turn, can enable previously marginal buyers and sellers, or those in remote areas, to enter markets, thereby strengthening inclusive economic growth. However digital trade is not without challenges. First, transforming digital connectivity opportunities into digital trade for development requires tackling long-standing constraints to market integration as well, such as physical connectivity, and reduce the cost of physically moving goods across borders (customs efficiency) and behind the border (trade logistics services efficiency). While digitalisation can also help reduce those costs, it also creates new ways of trading requiring adaptation from both public and private actors. .

Addressing traditional physical connectivity constraints is a necessity to unlock the opportunities created by digitalisation and digital trade. Traditional physical connectivity, such as hard infrastructure and the provision of efficient trade logistics (for example air, maritime road and rail transport services), still matter. Although it has reduced over time, physical connectivity still weighs heavily on trade costs (see figure 1.4). In fact, in the digital world physical connectivity may have become even more critical. However, digitalisation also provides an opportunity to reduce

the cost of addressing physical connectivity bottlenecks and increasing market access. This creates positive spill-overs for public and private actors. Digitalisation lowers the costs of moving goods by reducing co-ordination costs between different actors in global value chains (GVCs), and the costs of support services that are necessary to make trade happen, from transport to insurance.

Figure 1.4. Freight and insurance costs as a percentage of the value of imports, ten-year moving averages within country groups, 1989-2016



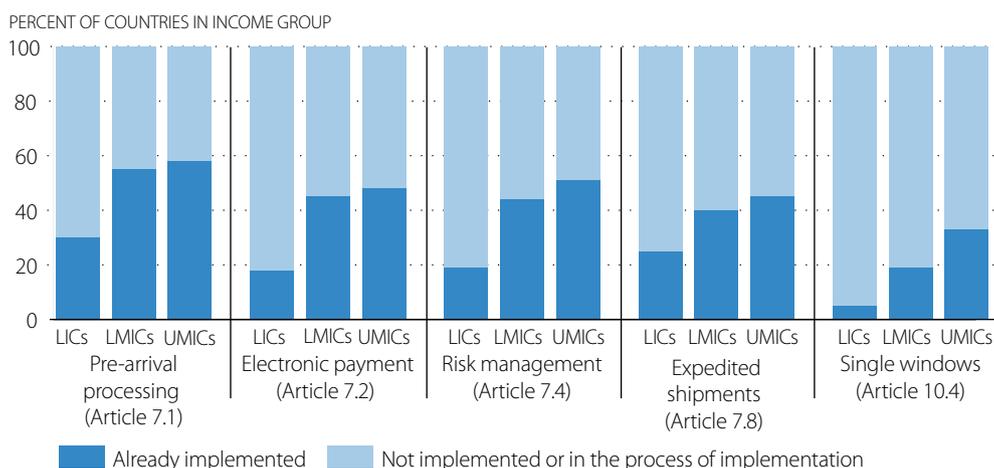
Note: Averages within the country groups are un-weighted, i.e. each country's freight ratio is assigned the same weight when calculating the average. Data is for all modes of transport, representing the cost of international transport and insurance as a percentage of the CIF value (cost, insurance, freight) of the imported goods.

Source: UNCTAD.

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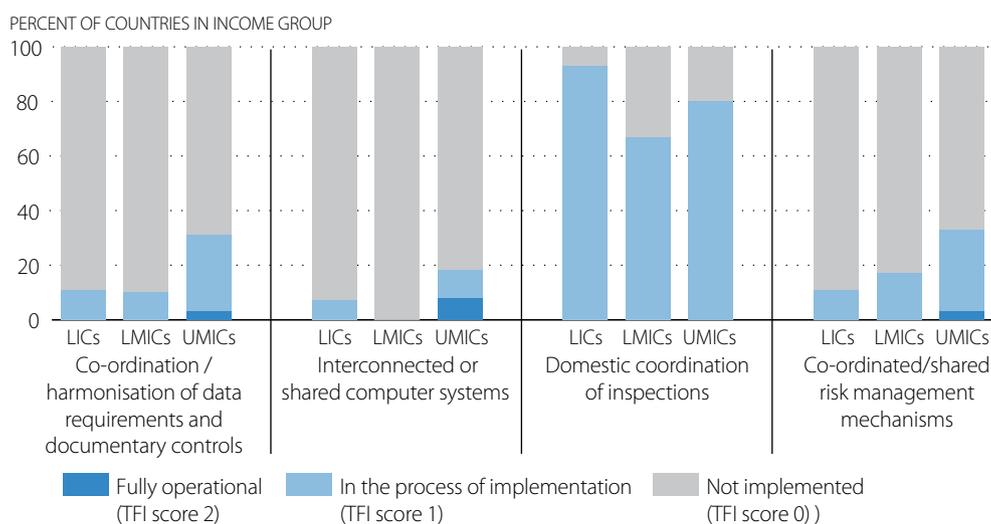
For trade facilitation, digitalisation also provides opportunities to reduce costs of implementation associated with co-ordination among authorities, and with private actors, and ways to manage the processing of increased trade flows. Measures such as customs automation, electronic documents and Single Windows are all easier to implement today than when trade facilitation negotiations started at WTO a decade ago. In addition, digitalisation of customs operations creates positive spill overs for both public and private actors. For instance, it increases transparency by decreasing risk management costs for customs authorities; increases the efficiency of customs operations and reliability for the private sector and finally decreases corruption opportunities.

The OECD Trade Facilitation Indicators (TFIs) measure progress in areas falling under the WTO TFA. The indicators highlight that, at its entry into force, implementation of the various substantive provisions of the TFA was well under way. While digitalisation and the flow of data across borders can support efficient customs services and the implementation of the TFA, digitalisation of clearance processes lags behind in many customs and other border administrations. A lack of ICT infrastructure is one reason for this. More progress is also needed to improve coordination between public authorities within and between countries (See figures 1.5 and 1.6).

Figure 1.5. Automation tools in place, by type of tool and by country grouping

Source: OECD (2017a), *Trade Facilitation Indicators* www.oecd.org/trade/facilitation/indicators.htm (accessed on 01 February 2017)

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Figure 1.6. Automation tools for domestic border agency co-operation

Source: OECD (2017a), *Trade Facilitation Indicators* www.oecd.org/trade/facilitation/indicators.htm (accessed on 01 February 2017)

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Holistic approaches are required to deal with weak links or bottlenecks in terms of both physical and digital connectivity in the trade logistics chain, whether between logistics modes, between countries or between systems. For instance, good maritime connectivity requires not only efficient port infrastructure and competitive shipping lines, but also efficient hinterland services. Co-ordination at the regional scale has the potential to maximise returns to infrastructure investments. Also, digital connectivity requires systems that are capable of exchanging information seamlessly. This raises issues such as interoperability, and more broadly constraints preventing the continuity of information flows. Failure to consider these issues can substantially limit the gains from digitalisation.

Finally, digital trade changes the way goods are traded (increasing the volume of small value shipments traded, as well as the importance of parcel services as an export pathway and consolidation of containers) and who trades (i.e. micro, small and medium enterprises, or MSMEs). These “new” types of trade flows require customs and other border authorities to think about updating their systems to ensure an appropriate balance between control and facilitation for imports and exports.

CHAPTER 4. THE CONTRIBUTION OF SERVICE TRADE POLICIES TO CONNECTIVITY AND DEVELOPMENT

World Trade Organization

Services trade policies can play a fundamental role in addressing the difficulties faced by a number of developing countries in connecting to the international trading system, thereby reducing economic isolation. Indeed, well-functioning services markets are key to advancing both physical and digital connectivity. Services occupy a central place in both domestic economies and international economic relations. They generate more than two-thirds of world GDP and employ the greater proportion of workers in the large majority of countries. Services account for 49% of world trade, compared with 33% for manufacturing and 18% for the primary sector when measured in value added terms. Services are also the predominant destination of foreign direct investment, representing approximately two thirds of world foreign direct investment (FDI) stock.

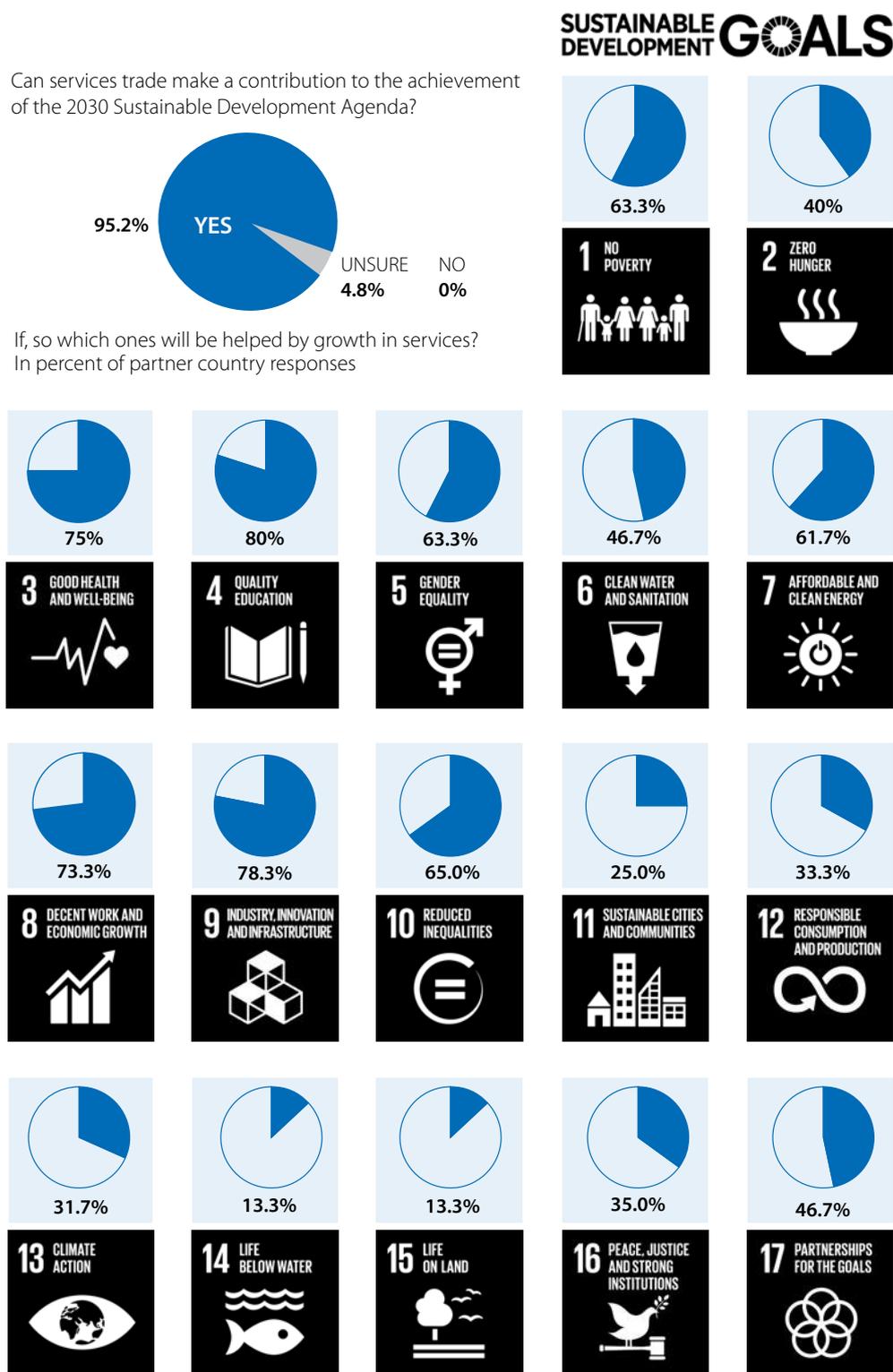
Services have a fundamental impact on achieving the 2030 Sustainable Development Goals given their weight in domestic economies, as well as their multi-faceted significance for trade. This is not only in relation to economic performance in general, but also to their role in specific areas such as energy, environment, health or education. This view is largely shared by developing country governments. As illustrated in Figure 1.7, respondents to the *OECD/WTO aid-for-trade monitoring exercise* considered that trade in services could make a significant contribution to the achievement of Sustainable Development Goals.

Services help connecting economies to the international trading system and the global trading system through four main channels. First, services provide the basic infrastructure on which trade in goods relies. A diversity range of services is necessary to bring final goods from their production site to consumers across borders. The more expensive or inadequate the underlying services, the harder it is to trade goods. Second, services are key enablers of global value chains (GVCs), which now play a preponderant role in connecting economies through trade. Services permit the coordination of GVCs, but also provide increasingly significant inputs to the production of goods. Thus efficient services are essential for industrialisation and trade. Third, services are key enablers of the digital supply of services and the functioning of e-commerce more generally. Telecommunication and IT services can have a transformational impact on economic development. They provide the basic infrastructure that allows for a range of services to be provided digitally and for goods to be offered and purchased online. Fourth, services supplied online enhance connectivity by providing developing countries with new export opportunities. Their share of world services trade has jumped and a number of developing countries have experienced the most rapid export growth in certain services segments.

Services policies play a fundamental role in connecting countries; when trade-facilitating, they promote connectivity, when trade restrictive, they tend to limit it. Services trade costs are much higher on average than for trade in goods. Barriers to trade in services contribute largely to such costs, which are relatively high and widespread. Sectors essential to physical connectivity (e.g., transport) and to digital connectivity (e.g., telecommunications) face trade restrictions in a number of countries.

Recent research has found that services trade policies can limit – or enhance – connectivity in different ways. Services sectors facing lower trade costs – themselves associated in part with lower services barriers – have been found to be more productive and to have higher productivity growth. Restrictive services policies limit physical connectivity. For example, policy restrictions in the road transport sector increase the price of trucking services and raise trade costs, especially for landlocked countries.

Figure 1.7. Partner views of SDGs that growth in services trade may help achieve



Source: OECD-WTO aid-for-trade monitoring exercise (2017a), www.oecd.org/aidfortrade/countryprofiles/, StatLink <http://dx.doi.org/10.1787/888933525360>

Services trade restrictions also negatively affect foreign investment, as well as the export of manufactured products. Further, countries that have introduced quality regulation – including allowing competition – have had greater success than others in developing their digital economy. Such regulatory settings are key to driving investment in information and communications technology (ICT) and uptake. Bridging the digital divide therefore hinges in significant part on such government policies.

Over the past 25 years, the regulation of the telecommunication sector has undergone fundamental transformations, as the large majority of countries has moved from monopolies to regulatory environments encouraging effective competition, with lower barriers to entry and often privatised state-owned incumbents. Competition in the telecommunications sector has reduced prices and increased penetration levels.

As reported by the UN Broadband Commission, a study of 165 countries between 2001 and 2012 showed that competitive markets had mobile broadband penetration levels that were 26.5% higher than those countries without competitive markets. Many studies have also found that this change in policy approach has been associated with enhanced affordability, as well as higher quality and greater diversity of telecommunication services. Accordingly, adequate trade and investment policies in the telecommunication sector, supported by appropriate regulatory frameworks, figure as key building blocks to develop quality infrastructure and help reduce the digital divide, and consequently provide a platform to take advantage of digital opportunities.

CHAPTER 5. SPANNING THE INTERNET DIVIDE TO DRIVE DEVELOPMENT

International Telecommunication Union

Rapid growth in ICT access and use as well as the evolution towards a global information society, promise new development opportunities for everyone. Internet uptake has been found to bring great benefits for people, governments, organisations and the private sector. It has opened up new communication channels, provided access to information and services, increased productivity, fostered innovation, and facilitated trade in goods and services. Information and communications connectivity and use are key building blocks of the digital economy, and indispensable drivers of e-commerce.

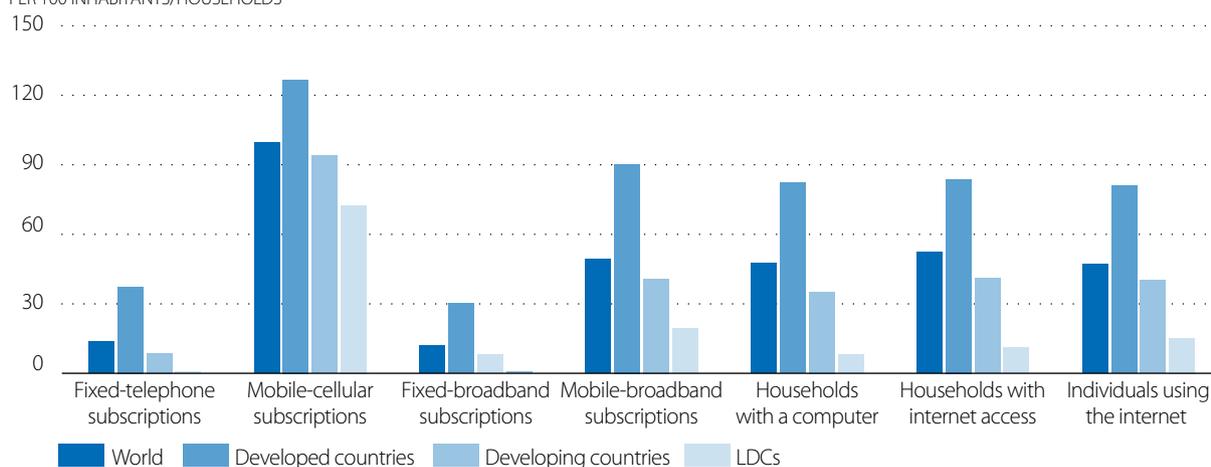
The importance of infrastructure and connectivity is recognised in the 2030 Agenda in Sustainable Development Goal 9 on industry, innovation and infrastructure. It issues a call to “significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.” Yet while the increasingly ubiquitous, open, fast and content-rich Internet has changed the way many people live, communicate and do business, major differences continue to exist in ICT access, use, and affordability, in particular in terms of broadband Internet access and use.

The benefits of the Internet are still unavailable to over half the world’s population: 3.9 billion people globally remain offline (Figure 1.8). Many of these people live in the least developed countries (LDCs), where 15% of the population are using the Internet. Furthermore, in the vast majority of countries, there is a rural urban divide and the proportion of men using the Internet is higher than that of women; the gender gap is particularly pronounced in the LDCs. ICT infrastructure, connectivity and quality of service in the least developed countries are lagging behind the rest of the world.

Policy makers must make sure they address and overcome important infrastructure bottlenecks, in terms of both national backbones and international Internet connectivity. Similarly, fixed- and mobile-broadband prices remain high for the world’s poorest countries, and unaffordable for low-income population groups. Moreover, developing countries, and in particular the LDCs, rely almost exclusively on mobile-broadband networks to deliver Internet access to end users, including many businesses. Although 3G and 4G (or higher) mobile-broadband networks have reached unprecedented levels of population coverage, their speed—or latency (the amount of time it takes for a data packet to traverse a network, which affects the quality of a connection—is inferior to that of fibre broadband networks, which continue to provide a more reliable and often cheaper option for data intensive applications.

Figure 1.8. ICT penetration by level of development, 2016

PER 100 INHABITANTS/HOUSEHOLDS



Note: ITU estimates.

Source: ITU (2016), *Measuring the Information Society Report 2016*.

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There are a number of important steps governments, and in particular the LDCs, can take to create an enabling regulatory environment that will help to stimulate investment and increase ICT access and use. Two-thirds of all LDCs are still in either the first or the second generation of regulation and need to urgently carry out basic reforms, including the promotion of privatisation, liberalisation, and intra-platform competition. Other important reforms for many LDCs include the removal of entry barriers to foreign ownership and investment. When private investment is not sufficient, it is possible to look into direct government investment; take advantage of public-private partnerships; use universal service funds and obligations to bring services to areas that provide limited business opportunities; and provide tax incentives for investments.

Yet while Internet infrastructure, access and quality of service remain important barriers to uptake, more people have access to Internet services than actually use them. To bring more people online, broader socio-economic factors and inequalities, outside the ICT ecosystem, need to be addressed. Education levels, in particular, are strong determinants of whether or not, and how, people use the Internet. Citizens need both digital and analogue skills to fully benefit from the opportunities of the information society. The availability of relevant local content is also critical to bring more people online.

CHAPTER 6. IMPROVING THE E-TRADE ENVIRONMENT

World Bank Group

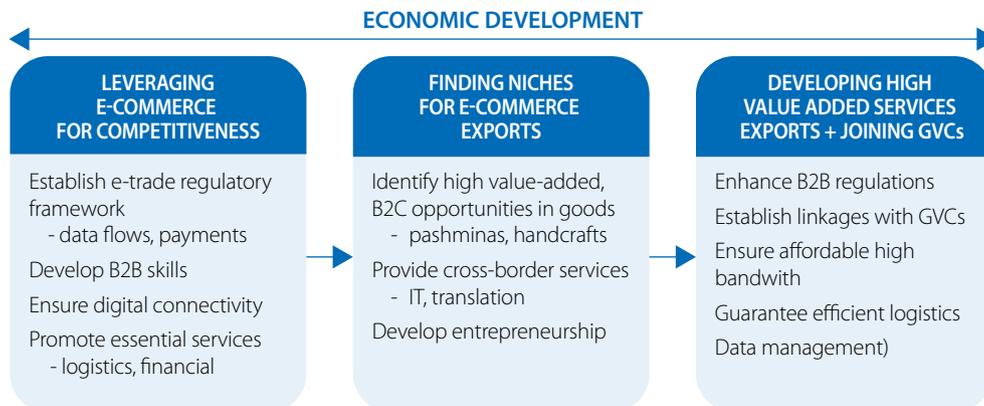
The strong growth of e-trade presents a number of opportunities for developing countries. First, lowering of trade costs through digital connectivity and e-commerce creates opportunities for new firms and entrepreneurs to participate in trade, as well as for entry into new markets. It also has the potential to help the extreme poor overcome some of the typical constraints faced in making the most of trade opportunities, although poverty still presents many challenges to involvement in e-trade. Traditional trade barriers also remain relevant.

The growing e-trade sector has the potential to act as a force for economic growth, expanding and diversifying exports and fostering inclusion by facilitating access by MSMEs to international markets. Importantly, these benefits are not reserved to global leaders in innovation and digital technologies; they are available to countries at all levels of economic development, as well as industries at different stages of development in one same economy. Figure 1.9 provides a stylised breakdown of what economies at different levels of development can gain from the various types of e-trade.

The benefits from e-trade include increased competitiveness for countries at all levels of development, with productivity gains for all sectors of the economy. This includes traditional sectors such as agriculture, through online services that in their diversity range from market and weather information to tools for remote soil analysis and stock management.

Moreover, developing countries increasingly benefit from e-trade as a tool for creating niches for high-value goods, sold and delivered directly to consumers across the globe, such as Pakistani pashminas and Kenyan jewellery. LDCs are also engaging in this process. Finally, more advanced economies, as well as more e-trade savvy industries in developing countries, can offer high value-added business-to-business services that link into global value chains.

Figure 1.9. A stylised model of e-trade benefits at different levels of development



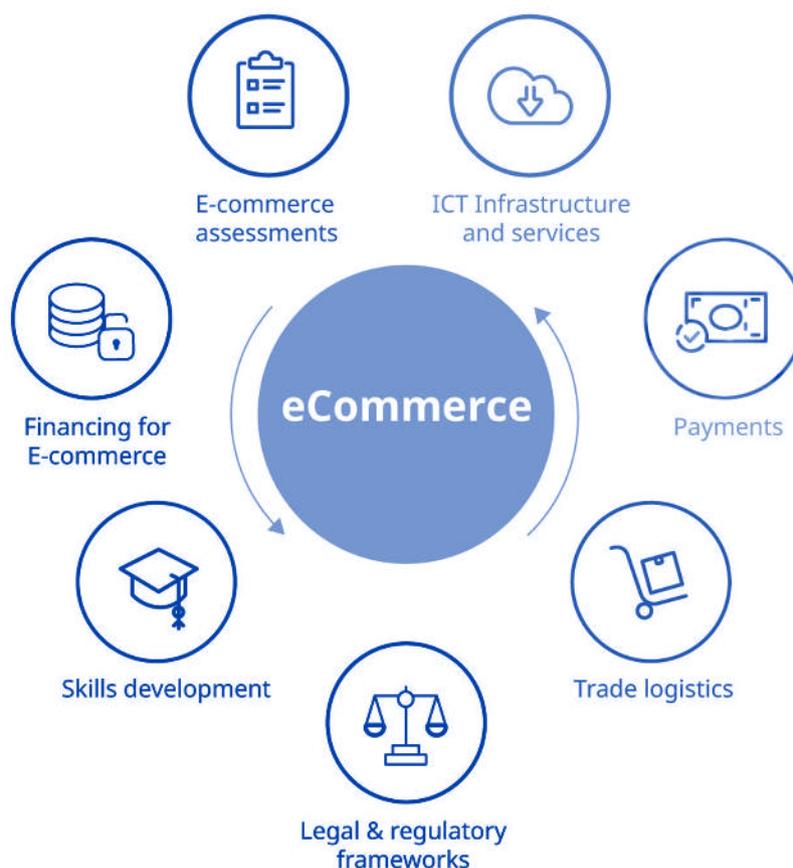
Source World Bank

High- and low-income countries alike, therefore, have good reasons to address the many challenges that e-trade presents. Important laws and regulations for e-trade, concerning areas such as privacy, consumer protection or intermediate liability, are still unclear and inconsistently applied even in high-income countries, bringing uncertainty to international digital markets. Countries at all development levels still encounter substantial trade costs, which disproportionately affect e-trade shipments. Access to digital connectivity, as well as solutions for digital payments, remain patchy and often inequitable, in particular in developing countries. Also, many developing countries and particularly LDCs have an important shortage of digital skills and, especially, of capacity for digital entrepreneurship.

Taking advantage of e-trade opportunities requires a solid understanding of the different types of e-trade, as well as better data on e-trade flows. It also requires thorough analysis of the drivers of e-trade competitiveness, including the key foundations for connectivity and the enabling conditions for participation in e-trade. There has been little systematic analysis of the drivers of e-trade competitiveness at the country level, underlining the need for the partners in the Aid for Trade Initiative to engage more actively in this area in the years ahead.

CHAPTER 7. HARNESSING E-COMMERCE FOR SUSTAINABLE DEVELOPMENT
United Nations Conference on Trade and Development

While global trade growth has been stagnant for several years, e-commerce has been growing rapidly. According to estimates by the United Nations Conference on Trade and Development (UNCTAD), between 2013 and 2015 the value of online trade accelerated upwards, from USD 16 trillion to USD 25.3 trillion. The lack of comprehensive official statistics on e-commerce is a major challenge for mapping e-commerce uptake and measuring its impact on development. Available data and estimates show that in terms of value, business-to-business (B2B) e-commerce represents the lion’s share of e-commerce (89%), whereas business-to-consumer (B2C) appears to be expanding faster. Business-to-government e-commerce is also on the rise and offers an entry point for many developing countries.

Figure 1.10. The E-trade for All analytical framework for e-commerce

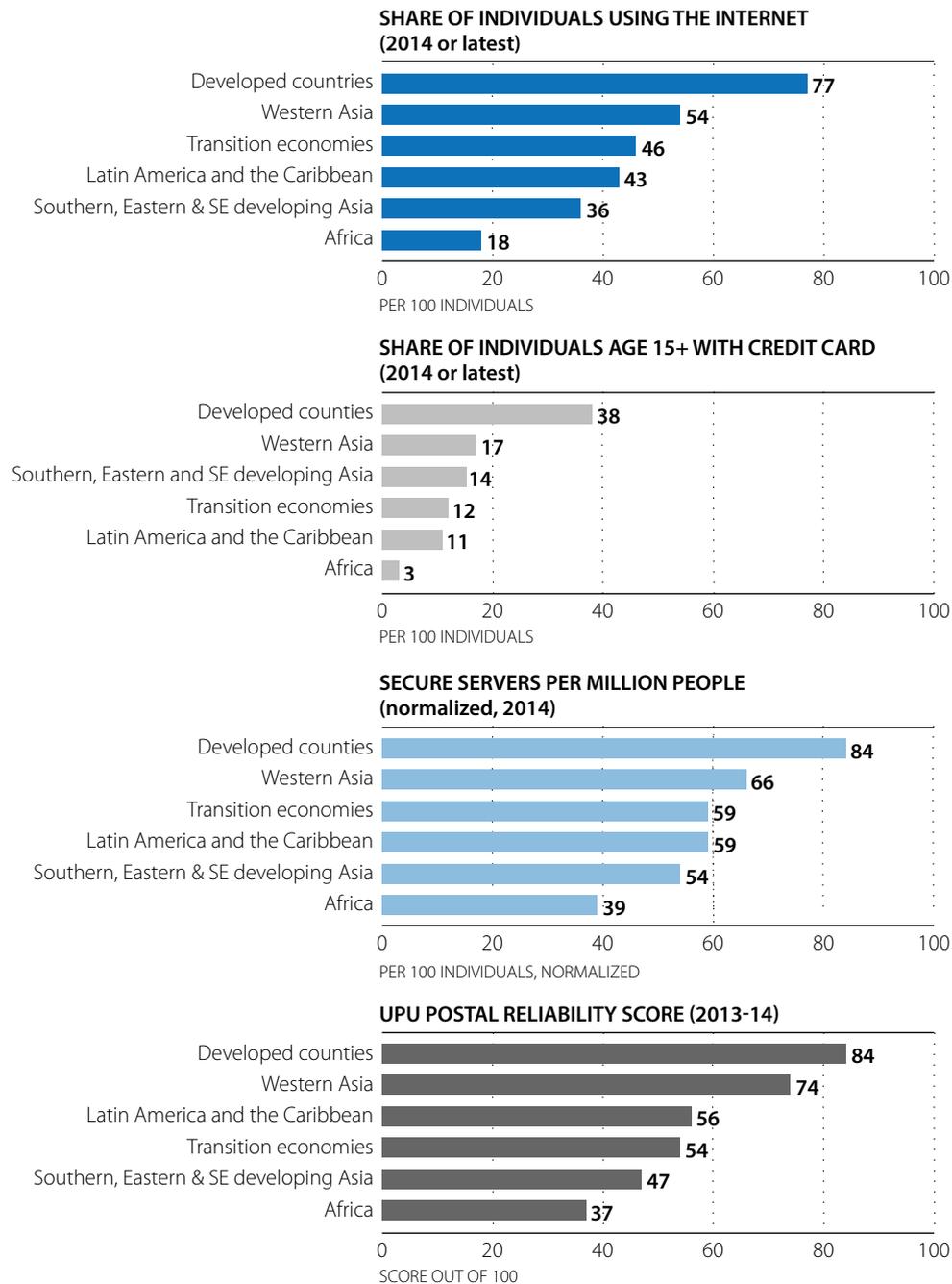
Source: UNCTAD

China and the United States had the largest B2C e-commerce markets in 2015, with USD 617 billion, and USD 612 billion, respectively. The United States, however, was the leader in B2B sales, at more than USD 6 trillion, well ahead of Japan (USD 2.4 trillion). In the ten major e-commerce economies for which data were compiled, e-commerce sales corresponded to more than a third of the aggregate GDP. While global e-commerce is still dominated by developed countries, the highest growth is observed in developing regions, especially in Asia. An estimated 1.6 billion people around the world are expected to make at least one online purchase in 2018; 75% of them will be from developing and transition economies. Factors such as firm size and rural locations significantly affect the ability of enterprises to sell and buy online. The extent to which different countries, individuals and enterprises engage in e-commerce varies greatly, giving rise to a multi-faceted digital divide.

Digital connectivity is a necessary, but not sufficient, condition to engage in e-commerce. UNCTAD's e-Trade for All analytical framework for e-commerce features six key policy areas that need to be addressed in national e-commerce strategies: 1) ICT infrastructure, 2) payment solutions, 3) trade logistics, 4) e-commerce skills, 5) legal frameworks and 6) access to financing (Figure 1.10).

The UNCTAD B2C E-commerce Index (Figure 1.10.) groups indicators to help policy makers assess to what extent their economies are e-commerce ready and what areas are in greatest need of improvement. The Index comprises four readiness indicators: (i) Internet use penetration, (ii) secure servers per million inhabitants, (iii) credit card penetration, and (iv) postal reliability. The 2016 Index covers 137 economies, which represent 96% of the world population and 99% of global GDP.

Figure 1.11. E-commerce readiness, by component indicators and geographic region



Note: Latest data available.

Source: Based on UNCTAD (2016), UNCTAD *B2C E-commerce Index 2016*. ITU, World Bank and UPU data.

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The Index shows that e-commerce readiness varies by region (Figure 1.11). Just over one-fifth of the population in Africa uses the Internet, compared to two-thirds in Western Asia. While Western Asia and transition economies fare well on most indicators, their credit card availability is average. Overall, Asia needs to boost Internet penetration, which currently stands at just over one-third of the population, as well as the number of secure servers. In Latin America and the Caribbean, the main barriers appear to be low credit-card penetration and relatively poor postal reliability. Africa ranks the lowest in all the indicators. Unless there is improvement in the underlying transaction and logistics processes, African online shopping is likely to remain confined to wealthier populations in urban areas. In all regions, there is a prominent divide when readiness is disaggregated by gender.

There is growing interest in examining the development dimension of e-commerce. E-commerce can be associated with reduced transaction costs, shorter customs clearance times, better supply chain management, the possibility of reaching new markets and new customers, enhanced productivity, increased inclusiveness, and greater consumer choice, just to name a few of the potential benefits. However, such advantages do not materialize automatically and e-commerce also poses a number of potential challenges to development. For example, uneven access to ICTs can lead to an inequitable distribution of the benefits of e-commerce. More research is needed to fully explain the development impact of e-commerce and to enable policy makers to make well informed decisions.

CHAPTER 8. CLOSING SMALL-BUSINESS AND GENDER CONNECTIVITY GAPS

International Trade Centre

Digital connectivity is enabling firms of all types to connect to suppliers and customers around the world. However, firm-level data show that there is a significant connectivity gap between small and large firms. Compared to large firms, small firms are ten times less likely to have a business website and eight times less likely to use email. This is a problem, as poor digital and physical connectivity lowers the likelihood of firms engaging in international markets (Figure 1.12).

Figure 1.12. Relative proportions of small and large firms with a business website



Note: Gaps are calculated on a percentage point basis. For example, if 40% of small firms have a business website compared to 60% of large firms, the gap is 20%.

Source: ITC calculations based on World Bank (2016a) *Enterprise Surveys* data, www.enterprisesurveys.org (accessed 17 January 2017).

MSMEs in the LDCs face the biggest barriers, as the connectivity gap for small firms in these countries, compared to large firms, is much larger than the gap observed in more developed countries. To support MSMEs in connecting to global markets, policy makers can promote e-literacy, encourage firms to digitalise their production processes and ensure that national ICT infrastructure meets the demands of consumers and firms alike.

E-commerce is transforming the global business landscape at an unprecedented speed. The e-commerce process chain is composed of four stages: establishing an online business, international e-payments, cross-border delivery and aftersales services. In order to enable this chain to function effectively, it is urgent that policy makers address issues such as the creation of national strategies for e-commerce growth, the establishment of regulations for the prevention of online fraud, and the facilitation of customs and other border procedures (Figure 1.13).

Figure 1.13. E-commerce process chain

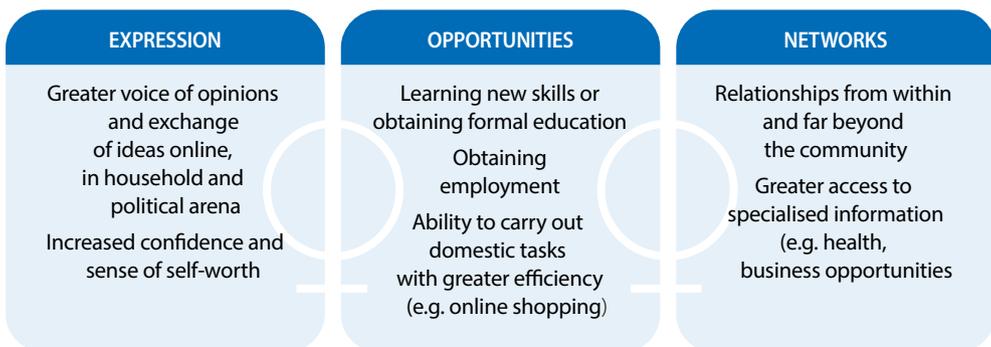


Source: ITC (2016), *Bringing SMEs onto the e-Commerce Highway*, www.intracen.org/publication/Bringing-SMEs-onto-the-e-Commerce-Highway/

A growing body of firm level research associates exporting with higher firm level productivity, particularly among MSMEs. ITC field work suggests though that the exporter productivity premiums of women-owned firms are roughly half the size of comparable men-owned firms. Part of the reason for this may be due to lower use of connectivity technologies, which often help firms find new buyers and suppliers, by women. For example, women-managed firms are 12% less likely to use email than men-managed firms. Discrimination at the border may also be a factor that contributes to reducing the benefits of trade. Digital tools like single windows eliminate the need for a large number of personal interactions, which can sometimes hinder women getting their goods across the border.

It is a known fact that women face greater barriers to trade. The obstacles range from having to pay larger bribes to gender-based violence. Digital solutions that remove the need for face-to-face interactions when trading, for example the “single window”, can help reduce the negative incentives that women running a business face. Firm-level data also suggest that women-owned firms sometimes use technologies differently than those earned by men. Women-led companies in some East African countries are more likely to use mobile money as a means of paying employees and suppliers than men-led companies. This may be due to the advantages that mobile money offers women in terms of providing an independent and protected mechanism to save money (Figure 1.14).

Figure 1.14. Beneficial outcomes from women and girls having online access



Source: Adapted from Intel (2012), *Women and the web*.

The same data also show that firms trading internationally employ more women; if the company is women-led, an even higher share of employees is female. These findings boost the rationale behind trade-related technical assistance programmes that focus on helping women-owned enterprises enter international markets. To promote access by women to competitiveness-boosting digital technologies, policy makers should establish dedicated programmes to teach girls e-skills, increase online content promoting women's participation, and integrate the gender dimension into trade promotion initiatives and national ICT strategies.

CHAPTER 9. PROMOTING TRADE INCLUSION IN THE LEAST DEVELOPED COUNTRIES

Enhanced Integrated Framework

Most people in the LDCs do not have access to affordable Internet connections (Figure 1.16). Improving connectivity and access to information could help make trade more inclusive and bring larger gains to the LDCs, in particular for the most isolated groups—namely women and people living in rural areas.

LDC digital connectivity is improving, and this progress is expected to continue. Even among those online though, the potential offered by digital connectivity is far from being fully exploited. High costs for setting up the physical infrastructure and the education required to fully exploit the Internet's potential are only two of the obstacles perpetuating the gap between LDCs and the rest of the world.

Expectations about ICT regulation have changed dramatically in the past decade. In a world in which more than half of the world's population is not using the Internet, ICT regulators must balance commercial incentives with wider social and economic goals, notably connecting the unconnected. As profound change seeps ICT markets, challenges are many – and the role of ICT regulation is ever more central. Regulation is needed that encourages the growth of networks, the provision of services and the diffusion of content, devices and applications in an affordable, competitive and safe way in particular among LDCs. Only one LDC – Uganda – has attained the ITU's fourth generation of regulation, joining the club of some of the most advanced countries in terms of ICT regulation

Figure 1.15. Generations of regulation

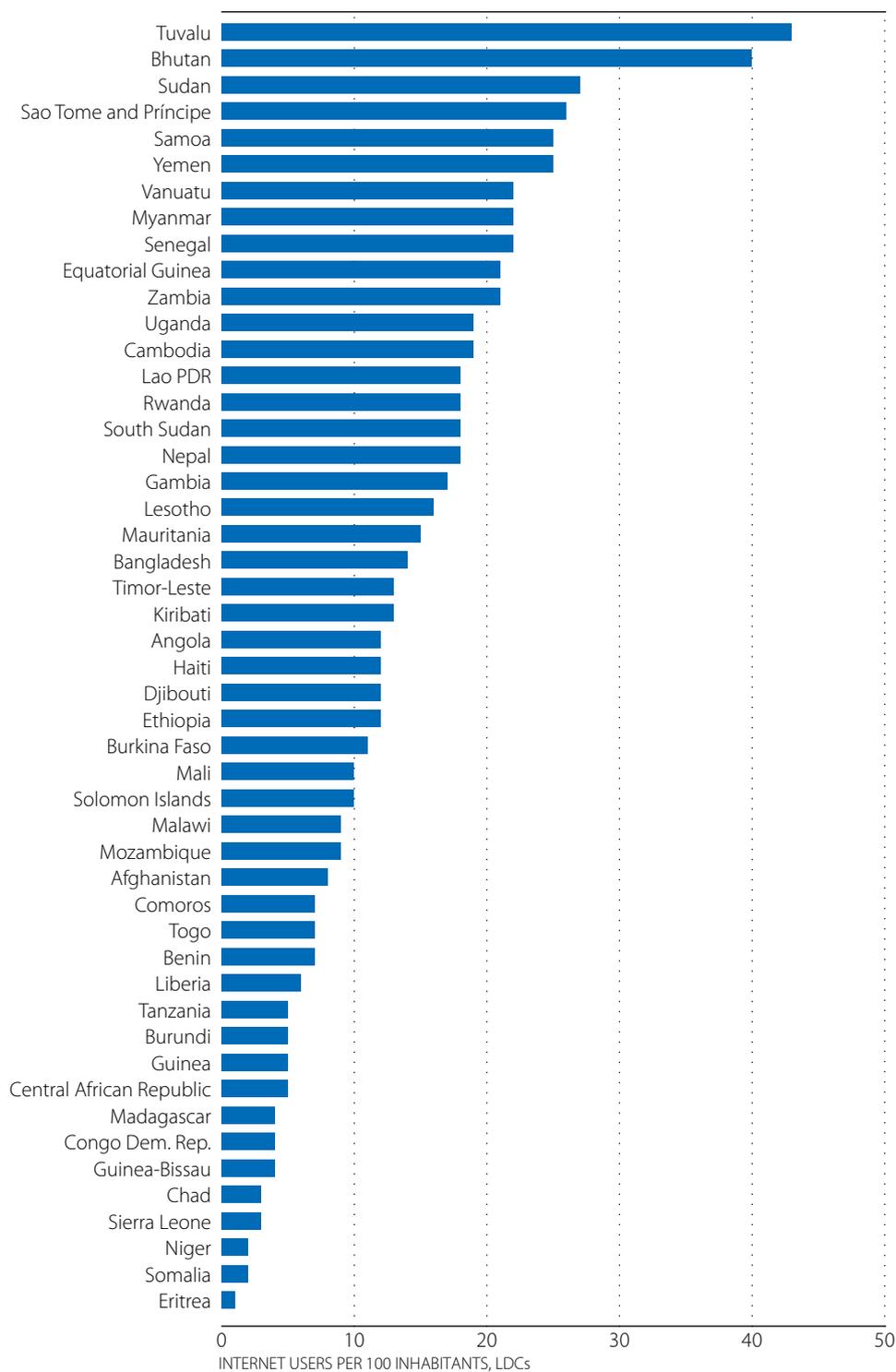


Source: ITU (2017), *Global ICT Regulatory Outlook*.

Research suggests that best-practice regulation does matter, and that both the design and the effective enforcement of regulatory frameworks are essential for broadband markets to thrive. Good regulation has an impact. Regulators need to ensure that market opportunities outweigh the challenges, while protecting consumers' interests. The LDCs need to come up with their own balanced mix of regulatory incentives and obligations to deliver on their regulatory goals and open the way to investment, innovation and market growth.

LDC governments have a major role to play in accelerating the uptake of new technologies. They shape the enabling environment for businesses and can ensure that ICT policies and regulations benefit consumers by facilitating greater access at lower prices. The introduction of Internet-based government services is growing in the LDCs, which will help to provide services more efficiently to businesses and citizens.

Figure 1.16. Internet users per 100 inhabitants in the LDCs, 2015



Source: ITU

StatLink  <http://dx.doi.org/10.1787/888933525417>

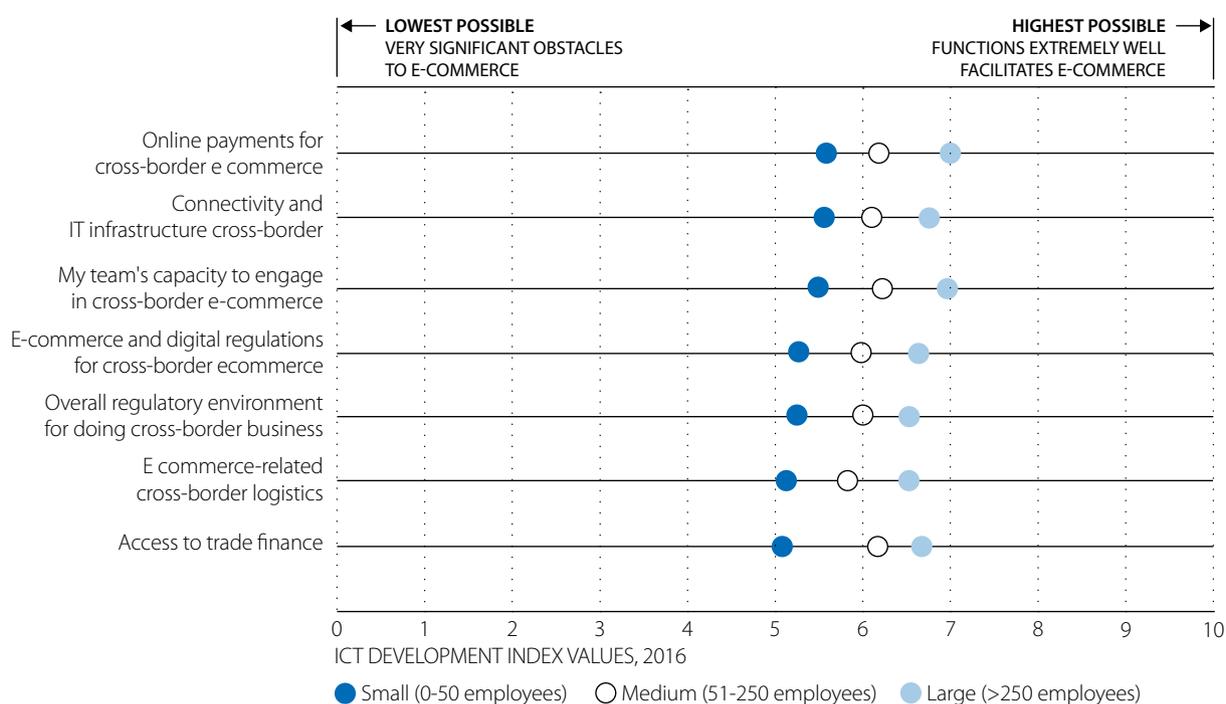
CHAPTER 10. PRIVATE SECTOR AID-FOR-TRADE PRIORITIES IN THE DIGITAL ERA

Business for eTrade Development

Technology-powered trade is changing the patterns, players and possibilities of world trade. The private sector—from online merchants to e-commerce platforms, logistics companies, payment providers, IT companies and others—makes digital trade move. This means that the private sector is in the closest proximity to the opportunities, challenges, and e-commerce solutions to development issues. For this reason, private sector participation is critical to inform and guide policy making on e-commerce issues around the world. In partnership with the public sector, the private sector can develop new solutions to unlock e-commerce markets and promote cross-border e-commerce.

Company characteristics shape the perceptions of barriers to e-commerce. In every country, small companies tend to be considerably more affected by the various obstacles to e-commerce than large companies, with access to finance and e-commerce logistics posing particularly steep challenges for small businesses (Figure 1.17). Mid-size and large companies, meanwhile, wrestle most with logistics and digital and other regulations.

Figure 1.17. Merchants' perception of obstacles to cross-border e-commerce, by company size



Source: Suominen (2017), *E-commerce development survey and index*.

StatLink <http://dx.doi.org/10.1787/888933525436>

For trade policy makers, the challenges articulated by companies engaged in e-commerce require a rethink of the policy toolkit for trade, including trade rules, export promotion, trade facilitation, export credit, and trade infrastructure. In all these areas, trade policy makers intent on catalysing e-commerce need to work closely with ICT, finance ministries and regulators—as well as with the private sector—given that it is businesses that have the first-hand grasp of the challenges to e-commerce, as well as the corresponding solutions.

Some of the priorities to empower small businesses, in particular, to enter into e-commerce involve capacity building and new approaches including: simplified, paperless one-stop border clearance processes; better access to finance; improved regulatory environments; improved public-private policy dialogue on e-commerce policies; and funding for e-commerce development via social impact bonds.

CHAPTER 11. FINANCING CONNECTIVITY

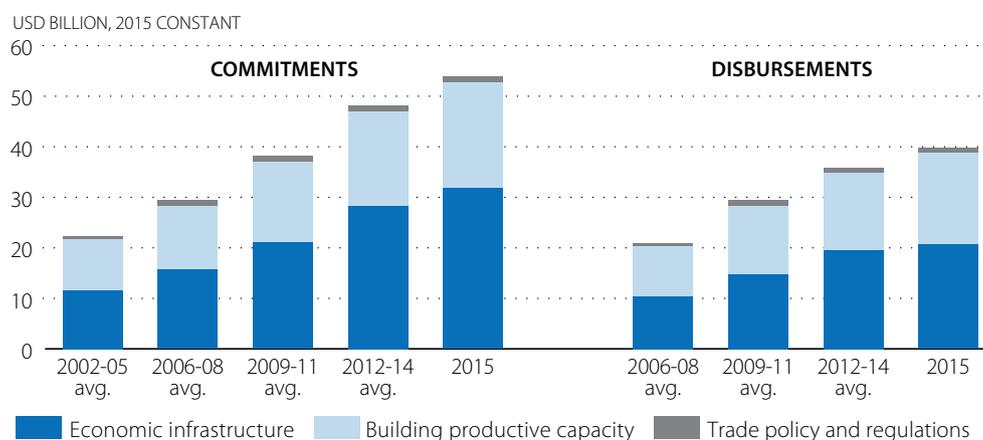
Organisation for Economic Co-operation and Development

A total of USD 333.1 billion has been disbursed for financing aid-for-trade programmes and projects since the Aid for Trade Initiative was launched in 2006. To date, more than three-quarters of total aid-for-trade disbursements have financed projects in four sectors: transport and storage (28.8%), energy generation and supply (21.8%), agriculture (17.8%), and banking and financial services (11.4%). In addition, USD 245 billion in trade-related other official flows (OOF)² has been disbursed since 2006, of which 76% is from international financial institutions. Most of this non-concessional funding has been for projects in economic infrastructure (47.9%) and for building productive capacity (51.3%); it has been invested almost exclusively in middle income countries (94.6%).

In 2015, aid-for-trade commitments reached USD 53.9 billion, an increase of USD 5.4 billion over 2014 and an additional USD 31.6 billion compared with the 2002-05 baseline average. Commitments for trade-related OOF increased by USD 5 billion to reach USD 60.1 billion, more than four times the 2002-05 baseline average. Commitments for economic infrastructure reached USD 31.8 billion, up 14.3% compared to 2014.

OECD (2015) found that total infrastructure investments in developing countries amounted to roughly USD 1 trillion in 2013, of which more than half was financed by developing country governments and one-third by the private sector. Official development partners finance USD 55 billion of these infrastructure investments; bilateral donors financed around 46% and multilaterals 54% of this total amount.

Figure 1.18. Aid-for-trade commitments and disbursements by category, 2002-15



Source: OECD-DAC CRS: aid activity database (2017b), DOI: <http://dx.doi.org/10.1787/data-00061-en>, (accessed 07 April 2017).

StatLink <http://dx.doi.org/10.1787/888933525455>

Many governments over the past two decades have sought to tap private sector investment and know-how through public-private partnerships (PPPs) to build and operate infrastructure – a trend that is increasingly evident. Examples are, for instance, the Programme for Infrastructure Development in Africa or the Master Plan for Connectivity 2025 of the Association of Southeast Asian Nations. Other approaches are based on transport corridors that are of particular relevance for landlocked countries. The most ambitious of these approaches is China's Belt and Road Initiative.

The case stories show that improving trade-related infrastructure helps to reduce transport costs, which in turn increases competitiveness and boosts trade flows. These impacts can lead to increased welfare and higher incomes and thereby reducing poverty. The case stories also underscore the role of the private sector in infrastructure delivery. Donors also have an important role to play in boosting private sector investment in infrastructure by lending technical support to governments seeking to attract funds, actively engaging their private sector arms in infrastructure projects, and providing effectively-designed risk-mitigation mechanisms.

Aid commitments for projects in Information and Communications Technology (ICT), mostly in the form of technical assistance for regulatory reform, stood at USD 560 million in 2015. Information and communications technology hardware investments were largely financed by the private sector. The 2017 OECD-WTO monitoring exercise found that ICT is prioritised in the development strategy of two-thirds of the donors, followed by e-government and e-commerce (58% and 50% respectively). Nearly all partner countries (90%) anticipate a need for future assistance in this area. Donors also report that this area is attracting growth in demand.

The African Development Bank promotes connectivity through the Connect Africa Initiative. Public institutions in developing countries are increasingly getting involved in ICT infrastructure development. For instance, the government of Pakistan has embraced the digital economy and now offers a wide range of services online. The case of Tonga offers a good example of the potential of ICT infrastructure to provide small islands and landlocked countries an opportunity to overcome the high transaction costs they face. ICT applications have been widely used to improve lives in rural agricultural communities, offering them better networking opportunities and facilitating access to advanced technologies. Furthermore, ICT enables farmers to enter new markets and gain access to digital services, such as credit or crop failure insurance, or to consult the latest weather reports. Large multinational companies have also been active in promoting access to e-commerce for small and medium enterprises. Several of these case stories illustrate the opportunities digital technologies offer to increase private sector engagement in development.

CHAPTER 12. AID FOR INCLUSIVE TRADE AND POVERTY REDUCTION

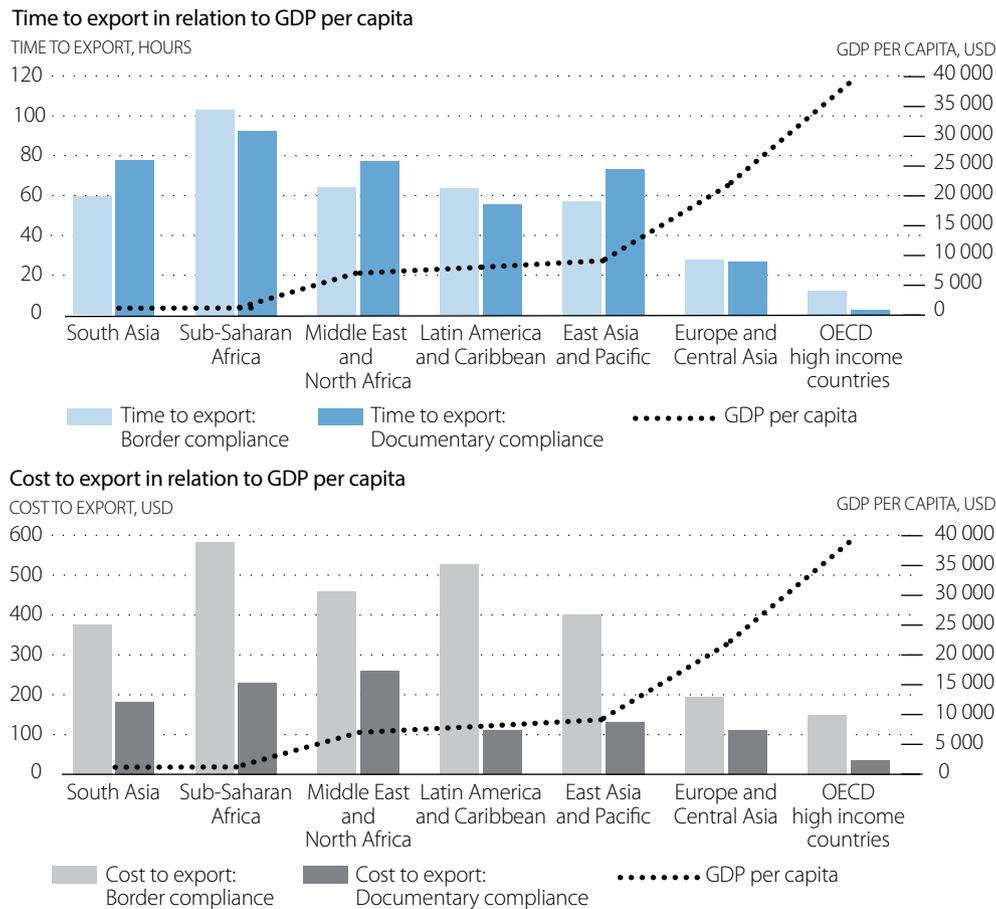
World Trade Organization

A growing body of evidence highlights the effectiveness of aid for trade in generating positive trade outcomes. The focus on capturing trade outcomes (e.g. increases in exports or reductions in trade costs) is now being complemented by an increasing focus on tracing the impacts of aid for trade interventions on poverty reduction, in particular for women, on whom the burden of poverty falls heaviest. Poor connectivity is strongly associated with poverty. Regions with higher poverty rates score lower on the World Bank's Logistics Performance Index and the World Economic Forum's Enabling Trade Index. *Doing Business* indicators, as illustrated in Figure 1.19, demonstrate that the time and cost to clear customs are higher in regions with lower per capita incomes. A similar association is found between the lack of digital connectivity and poverty. As illustrated in Figure 1.20, Internet use is lower in regions with lower per capita incomes. Furthermore, for women and rural populations, limited digital and physical connectivity, together with socio-cultural and other regulatory factors, intensify the burden of poverty.

Improved physical and digital connectivity are lowering trade costs and reducing poverty. Digital approaches to trade facilitation can reduce bottlenecks at borders, increase revenues, and facilitate the movement and participation of small traders and women in cross-border trade. Internet access reduces distance and information asymmetries, helping entrepreneurs earn income by selling online. Mobile money innovations promote financial inclusion by alleviating some of the constraints of traditional financial methods, particularly for women.

Both developing countries and donors consider that aid for trade can contribute to 2030 Agenda, in particular Sustainable Development Goal (SDG) 9 on industry, innovation and infrastructure; SDG 8 on decent work and economic growth; and SDG 1 no poverty (Figure 1.21). Furthermore both groups have expressed their interest in collaborating with various stakeholders, including with the private sector, to work towards the achievement of the 2030 Sustainable Development Goals.

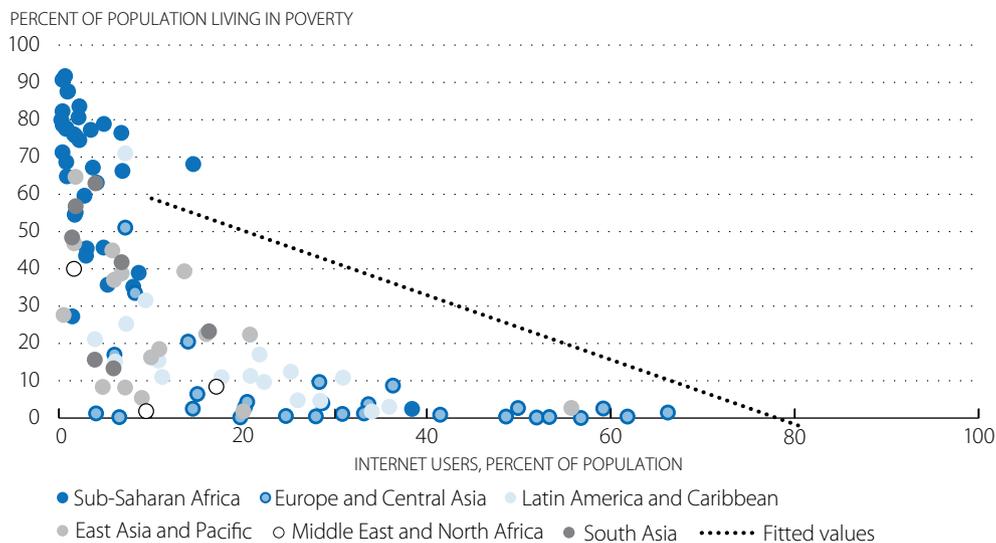
Figure 1.19. Time and cost to export and GDP per capita, by region



Source: World Bank (2016b) *Doing Business*, www.doingbusiness.org/data/exploretopics/trading-across-borders and World Bank (2015) *World Development Indicators*, <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>

StatLink <http://dx.doi.org/10.1787/888933525474>

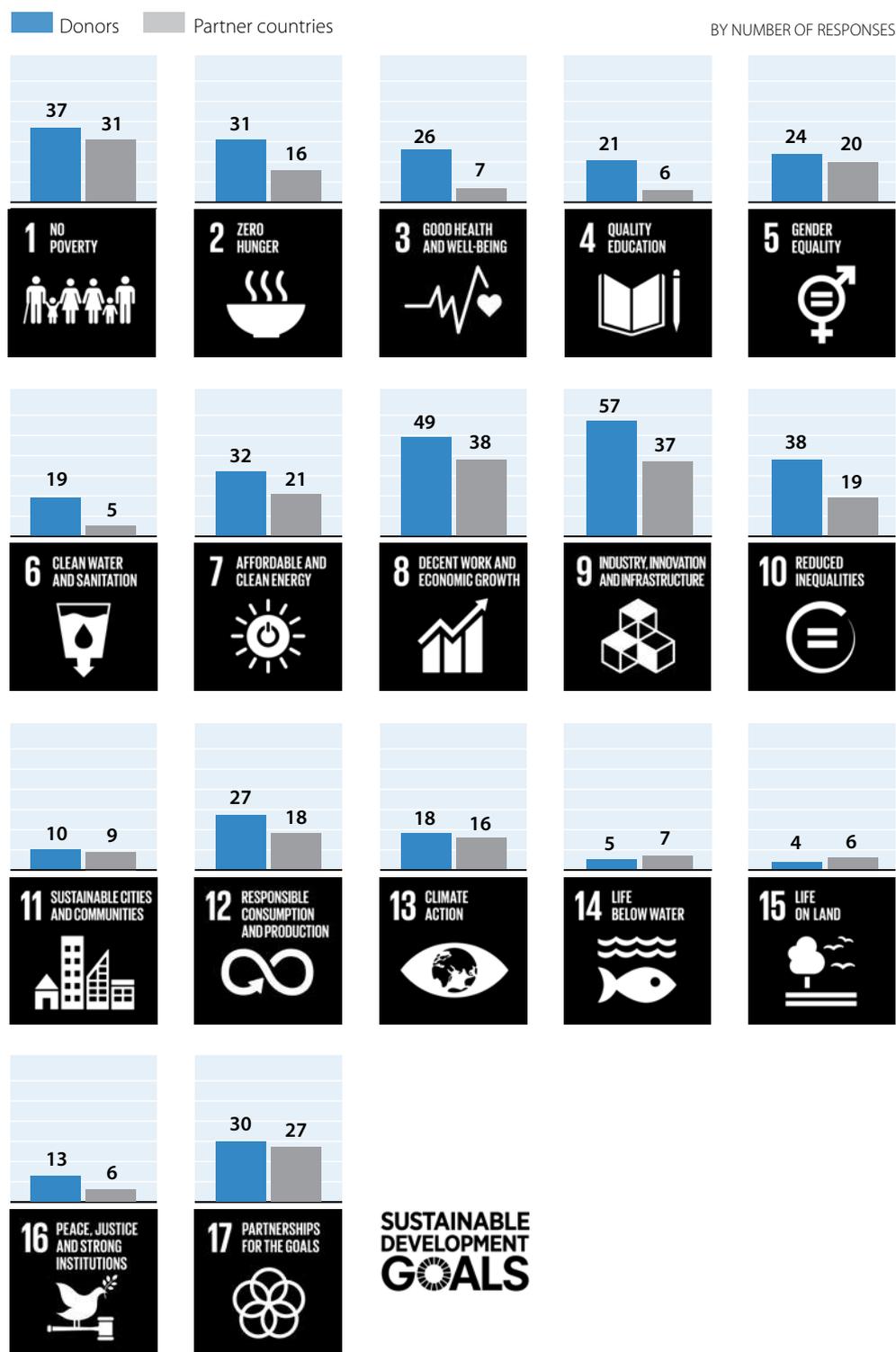
Figure 1.20. Poverty rates by region and percentage of Internet users



Source: World Bank, World Development Indicators (2008-2014 average); ITU, World Telecommunications/ICT Indicators, Internet Users (2007); World Bank Regional Classification

StatLink <http://dx.doi.org/10.1787/888933525493>

Figure 1.21. Aid-for-trade contribution to the SDGs



Source: OECD-WTO aid-for-trade monitoring exercise (2017a), <http://www.oecd.org/aidfortrade/casestories/>

StatLink <http://dx.doi.org/10.1787/888933525512>

ANNEX 1.A1.

Table 1.A1.1. Overview of responses to the OECD-WTO Aid-for-trade monitoring and evaluation exercise, 2017

Developing countries	Least developed countries	Donors	South-South providers	Regional economic communities/ transport corridors	Total
63	28	38	3	7	111

Table 1.A1.2. Partner country responses

Region	
Africa (31)	Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Gabon, The Gambia, Guinea, Guinea-Bissau, Lesotho, Madagascar, Malawi, Mali, Mauritius, Namibia, Niger, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe
Arab and Middle East (1)	Yemen
Asia and Pacific (12)	Bangladesh, Indonesia, Lao PDR, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Sri Lanka, Tonga, Viet Nam
Latin America and the Caribbean (19)	Antigua and Barbuda, Barbados, Belize, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Honduras, Mexico, Paraguay, Peru, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Uruguay
Least developed countries (28)	Bangladesh, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, The Gambia, Guinea, Guinea-Bissau, Lao PDR, Lesotho, Madagascar, Malawi, Mali, Myanmar, Nepal, Niger, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Uganda, Yemen, Zambia

Table 1.A1.3. Donor agencies

Bilateral (29)	Australia, Austria, Belgium, Canada, Czech Republic, Denmark, European Union, Finland, France, Germany, Iceland, Ireland, Japan, Korea, Kuwait, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Chinese Taipei, United Kingdom, United States
Multilateral (9)	African Development Bank, European Bank for Reconstruction and Development, Inter-America Development Bank, Islamic Development Bank, International Trade Centre, United Nations Development Programme, United Nations Economic Commission for Africa, United Nations Economic Commission for Europe, World Bank Group

Table 1.A1.3. Providers of South-South co-operation response

3	Brazil, Chile, Indonesia
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Table 1.A1.4. Regional and transport corridor responses

Africa (4)	COMESA, ECOWAS, TradeMark East Africa, Walvis Bay Corridor Group
Latin America and the Caribbean (3)	CARICOM, OECS, SIECA

Source: OECD-WTO aid-for-trade monitoring exercise (2017a), www.oecd.org/aidfortrade/countryprofiles/.

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NOTES

1. After the 1 February deadline for the monitoring exercise, questionnaires were submitted by Albania, Guyana and the Asian Development Bank; 15 case stories (11 from public sector and 4 from private sector) were also received. These questionnaires and case stories have been uploaded to the joint OECD-WTO website, but are unfortunately not part of the analysis in this report.
2. Transactions known as OOF are those made by the official sector with countries on the DAC List of ODA Recipients, but which do not meet the conditions for ODA eligibility, either because they are not primarily aimed at development or because they have a grant element of less than 25%.