Shedding New Light on the Evolving Regulatory Framework for Digital Services Trade

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Key messages

- In 2021, regulatory barriers to digitally enabled services remained high across the globe. On average, economies in Africa were the most restrictive, followed by economies in the Asia-Pacific and Latin America and the Caribbean (LAC) region. There are, however, considerable variations and diversity among economies within regions.
- Compared to the benchmark year of 2014, barriers to digitally enabled services have been growing over the years, with the highest overall increase observed in the Asia-Pacific region and the OECD. In the LAC region, regulations have been more stable over time and showed moderate liberalisation since the COVID-19 pandemic started. In Africa, too, barriers have eased moderately in recent years but, on average, remain the highest among all regions.
- Barriers related to communications infrastructure and connectivity contribute to at least half of all barriers observed in all regions. This demonstrates scope to reduce barriers related to telecommunications services across the board, as well as scope to ease unnecessary and unjustified barriers to cross-border data flows.
- Computer services, which are fundamental to digital trade, are also subject to considerable trade barriers across countries. Barriers affecting the cross-border movement of computer professionals remain high across countries, although they may have been partially alleviated by the increased possibility of remote operations put in place during the COVID-19 pandemic. Restrictions on access to public procurement markets as well as restrictions affecting foreign investment (e.g. foreign investment screening, performance or localisation requirements) remain substantial bottlenecks in the sector.
- Lower restrictiveness to digital trade, as measured by the DSTRI and the computer services STRI, is associated with higher access and use of communication networks and increased trade in digitally enabled services. Open digital markets lower trade costs for businesses, increase competitiveness, and lower prices for consumers. Multilateral trade rules and open commitments on services can lock in these benefits and provide certainty to firms seeking to access foreign markets.

1. Setting the scene

The growing adoption of digital technologies has revolutionised international trade, making it easier and cheaper to trade across borders (López González and Jouanjean, 2017[1]). The COVID-19 pandemic further accelerated the adoption of digital technologies and demonstrated the importance of digital trade to global economic recovery (OECD, 2020[2]).

Trade is an essential vehicle to enable digital transformation, which relies heavily on access to digital networks and equipment, seamless transfer of data across borders, and movement of skilled workers and knowledge. Policies that aim to increase connectivity, to ease trade restrictions on information and communication technology (ICT) goods, and to lower barriers on digitally enabled services contribute to strengthening the pillars upon which digital trade operates (Lopez-Gonzalez and Sorescu, 2021[3]).

As discussions on digital trade progress, whether under the WTO Joint Statement Initiative on E-commerce, through the increased number of digital trade provisions in regional trade agreements, or in the context of emerging digital economy partnership agreements, understanding the benefits and channels through which digitalisation and related policies impact trade and trade costs is becoming a policy priority.

In recent years, the evidence base to measure the regulatory environment affecting digital trade has been enriched with new data and indicators, including the OECD Services Trade Restrictiveness Index (STRI)[1] which covers several services at the forefront of digitalisation, and the OECD Digital Services Trade Restrictiveness Index (Digital STRI)[2] which covers cross-cutting barriers on digital trade (Ferencz, 2019[4]). This has contributed to a better understanding of existing and emerging trade barriers across countries, has enabled benchmarking against best practice, and continues to inform evidence-based policy strategies on digital trade.

In an effort to improve regional and global evidence on policies affecting digital trade, the UN Economic Commission for Latin America and the Caribbean (ECLAC), the UN Economic and Social Commission for Asia and the Pacific (ESCAP), and the UN Economic Commission for Africa (ECA) have worked with the OECD between 2020 and 2022 to expand the coverage of the STRI and Digital STRI tools to shed new light on the current state of global and regional regulatory landscapes that affect digital services trade.

This brief provides a summary of the key findings and insights across the three regions covered. The first section introduces the meaning of digital trade and its growing economic importance, followed by an analysis of recent developments on digital trade across the three regions. The subsequent sections describe the STRI tools and present the findings, trends, and preliminary associations between regulatory policies and trade performance.

[1] For further details, see http://oe.cd/stri.

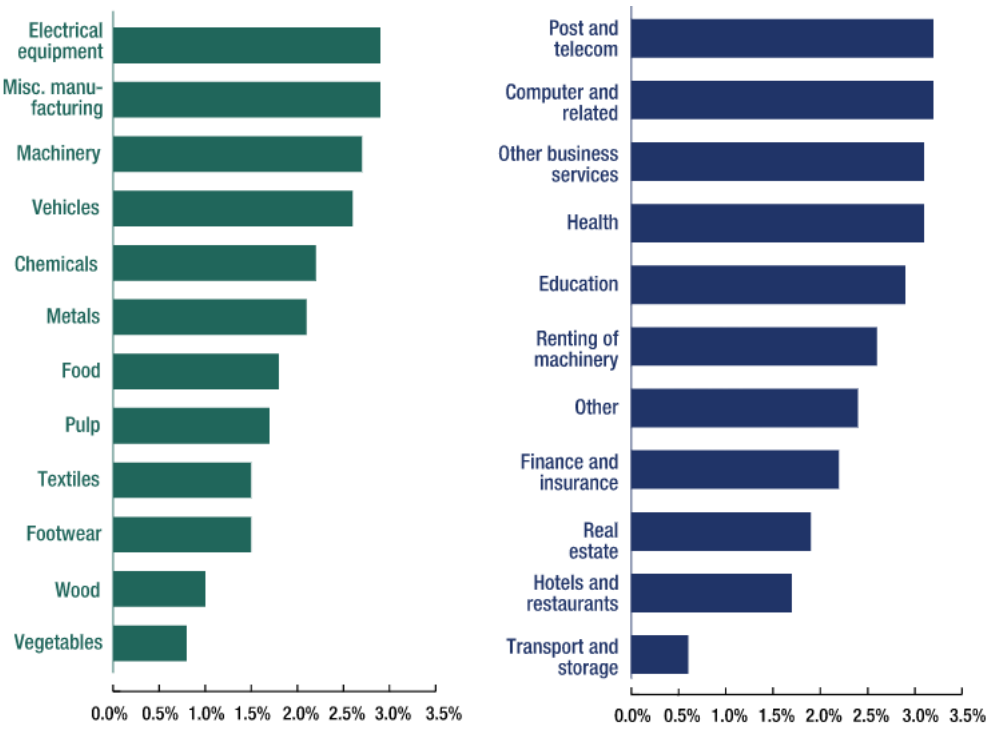
[2] For further details, see http://oe.cd/dstri.

2. What is digital trade and why does it matter?

In much the same way that reductions in transport and co-ordination costs enabled the fragmentation of production along global value chains, declining costs of sharing information are powering a digital trade revolution that is changing traditional trade patterns. Digital trade involves digitally enabled or digitally ordered cross-border transactions in goods and services which can be either digitally or physically delivered (López González and Jouanjean, 2017[5]).

Countries with better digital connectivity, such as a higher degree of Internet penetration, have a greater degree of trade openness and sell more products to more markets. More digitalisation also means more trade: a 10% increase in digital connectivity between countries[3] raises goods trade by nearly 2% and trade in services by over 3% (López González and Ferencz, 2018[6]). Importantly, these positive effects emerge across all sectors (Figure 1). In addition, when goods are traded internationally in small parcels, a 10% increase in bilateral digital connectivity (both countries increasing their connectivity rates) raises parcel exports by up to 4% (López González and Sorescu, 2021[7]).

Figure 1. Digitalisation has a positive impact on trade in goods and services



Note: This figure shows the percentage increase in exports as a result of a 10% increase in bilateral digital connectivity and is derived from a gravity model on a sample of 160 countries.
Source: López González and Ferencz (2018[6]).

[3] Digital connectivity between two countries, or the potential thereof, is proxied using the minimum of the share of the population that is using the Internet. The measure acts as a mass parameter of potential digital connections, reflecting that both supplying and demanding countries require good connectivity for digitally enabled trade to flourish. Internet penetration indicators are used as a proxy for digital connectivity since such data are available for more countries and more time periods than for other indicators. Internet penetration indicators also have a high correlation with other measures of digital connectivity (e.g. business and household use of broadband, access to computers, and wireless broadband and fixed broadband subscriptions).

Digitalisation can also help countries to draw greater benefits from their regional trade agreements. When combined with a regional trade agreement, a 10% increase in digital connectivity gives rise to an additional 2.3% growth in goods exports (López González and Ferencz, 2018[6]). In addition, digital trade facilitation tools can help reduce the costs of trade at different stages of the supply chain. Sustained implementation of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA), for instance, has enabled the wider digitalisation of trade processes. Even modest efforts to reduce performance gaps in automated border processes – as captured by the OECD Trade Facilitation Indicators – could further increase trade by as much as 4% across all goods sectors (OECD, 2020[8]).[4] In addition, greater use of digital tools for streamlining border processes can increase exports of small parcels by more than 6% (López González and Sorescu, 2021[7]). Importantly, automation of border processes can help micro, small and medium enterprises (MSMEs) in developing countries to engage in international trade and increase the value of their exports and imports by more than 4.5% (López González and Sorescu, 2019[9]).

Digital trade is especially important for developing country micro, small and medium-sized enterprises (MSMEs) and women entrepreneurs. Access to cheaper, more sophisticated and diverse digital inputs – including productivity-enhancing software, communications technology or e-payment services – can help firms deliver their output to a wider customer base across different countries and overcome existing trade costs disadvantages. Recent evidence suggests that access to digitally deliverable business services such as Internet banking or online accounting services, helps drive export competitiveness, especially in lower-middle-, and lower-income countries (Andrenelli and López González, 2019[10]). Moreover, recent analysis shows that in developing countries, MSMEs with a digital presence in the form of a webpage are more likely to become exporters than those with no digital presence (Andrenelli and López González, 2019[10]). Digital services also help women-led firms, which are generally smaller than those led by men, overcome some of the barriers to establishing and growing their businesses and to trading on international markets. This includes lowering the costs of accessing credit and obtaining information through professional networks (Korinek, Moïsé and Tange, 2021[11]).

3. Recent developments on digital trade in Africa, the Asia-Pacific, and Latin America

3.1. Africa

African economies are constantly evolving in terms of digital technology. The use of the Internet, mobile phones, and other tools to facilitate digital trade has grown rapidly. In 2019, around 29% of people in sub-Saharan Africa were using the Internet, whereas less than ten years ago internet penetration was only 7%.[5] Mobile broadband has also grown in Africa over the past decade. In 2020, mobile broadband penetration was nearly 20 times higher than in 2010, making Africa the fastest growing region for mobile money (UNCTAD, 2021[12]). More than half of all registered active accounts are located on the continent and accounted for two-thirds of the total value of mobile transactions worldwide in 2021.[6]

The extensive use of ICT and the increase in digitization within Africa has led to strengthening its business potential and will certainly impact the evolution of digital trade. The development of mobile money, for

[4] The potential increase in trade across sectors is based on a reduction of 0.1 points in the bilateral performance gap, based on the OECD Trade Facilitation Indicators for 163 economies.

[5] Figures on internet penetration come from World Bank indicators.

[6] Mobile money figures come from GSMA 2022 report on mobile money (State of the Industry Report on Mobile Money - 2021 (gsma.com))

example, has resulted in the financial inclusion of a whole range of economic actors, especially women, youth, and micro- and small-sized enterprises. In Zambia, for example, access to a basic but affordable and appropriate payment technology via mobile money has increased the profitability of micro-enterprises from 36% to 74% (Frederick, 2014[13]).

Such development has led the governments of African countries to consider digital trade and e-commerce in the second phase of negotiations of the African Continental Free Trade Area (AfCFTA) Agreement. Emerging from the COVID-19 pandemic, interest in digitalization has increased as it has proven to be particularly useful in bolstering economic resiliency. Studies have also shown the pandemic helped to increase the rate at which countries were digitalizing. Findings from an April 2021 joint survey by ECA and International Economics Consulting Ltd (IEC) to African businesses revealed that 65% of respondents increased their rate of digitalization as a response to the pandemic (ECA & IEC, 2021[14]).

Digitalization has allowed countries to maintain trade relationships with traditional partners and has helped them to access new markets and diversify the goods and services they offer. Further, between 2019 and 2020, Africa experienced a 10% increase in services exports, nearly on par with the global performance of 14%. Digitalization, however, raises issues related to security, data integrity, privacy and data protection, and intellectual property rights which require greater international cooperation to ensure that incentives for digital trade and e-commerce are not limited. The Enhanced Digital Access Index (EDAI) provides a first look at this issue by showing that most Sub-Saharan African countries lag in digital connectivity and suggests that a better regulatory environment (among other things) is needed to promote digital connectivity (Alper and Miktus, 2019[15]).

Focusing on these regulatory challenges, the United Nations Economic Commission for Africa (ECA), through the African Trade Policy Centre (ATPC), has launched a training and research initiative on "Regulatory Integration of Digital Trade in Africa" to build two national databases on various measures identified in the Digital STRI as well as on issues related to digital trade integration. Key findings from the initiative are summarized, along with the formulation of specific recommendations, in country profiles. The objective of this initiative is to better assess the readiness of African countries to effectively engage in digital trade and e-commerce and to assist member States on digital trade issues in general, including digital trade/e-commerce discussions in the AfCFTA context.

These evidence-based findings open interesting prospects that could strengthen initiatives currently underway on the continent. As mentioned above, they can feed into Phase II negotiations of the AfCFTA on digital trade/e-commerce and be of use for subsequent implementation of the AfCFTA Agreement. Also, by suggesting regulatory commonalities across the continent, these findings can help inform the discussions and drafting of the Continental Harmonization Plan for Africa that is currently being developed by the African Union as part of the already approved Digital Transformation Strategy for Africa[7]. This strategy aims to harmonize ICT policy and regulatory frameworks in the digital sector and envisions paving