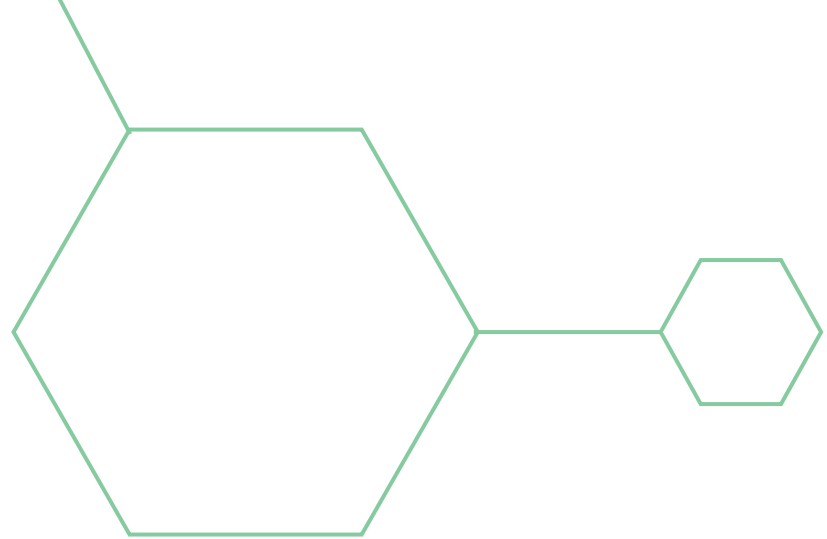


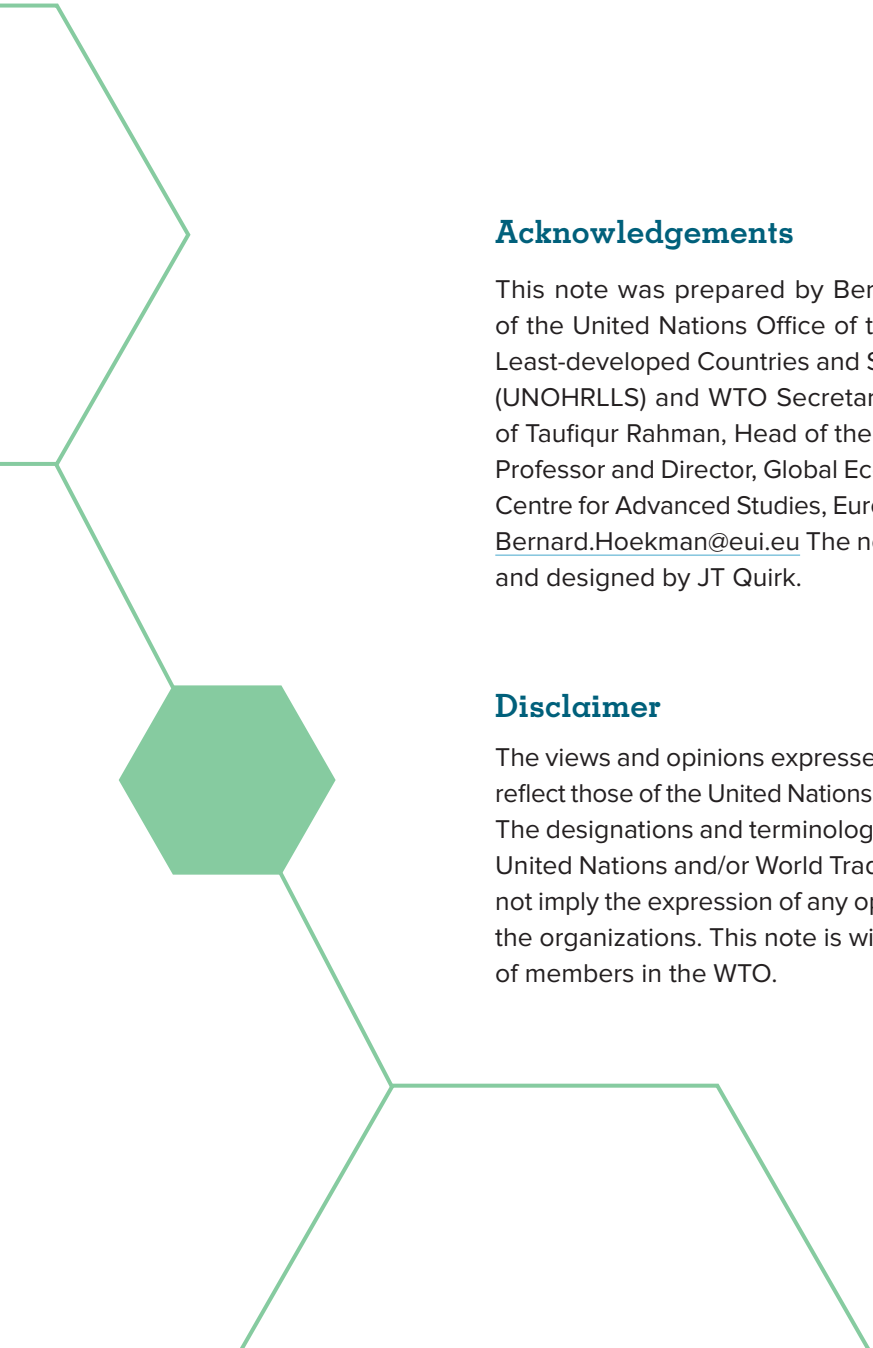
Digital Trade

OPPORTUNITIES
AND CHALLENGES



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Executive summary



Digital trade offers more opportunities than challenges to least-developed countries (LDCs), including for their small and medium-sized enterprises (SMEs) and startups. This paper outlines some steps LDCs can take to tap those opportunities. It also describes how international cooperation can help LDCs foster regulatory regimes and practices that support their companies' digital trade ambitions.

Digitalization reduces many of the barriers to entry for international trade that SMEs and startups in developing countries have historically faced. For example, better access to open-source tools and services like tax compliance software makes it easier to conduct international transactions. Using software-enabled products and services on a subscription basis reduces costs. Supplying services digitally can also eliminate the expense of building a physical presence in foreign markets.

LDCs with a young workforce, digitally knowledgeable consumers and a community of enterprising SMEs and startups are best positioned to grasp opportunities in digital trade. But there are actions that all LDCs can take to improve their exporters' ability to compete. For example, strengthening ICT and network infrastructure ensures companies and consumers have more reliable, affordable internet access. Supporting the development of efficient, low-cost tools such as cross-border digital payment systems means companies can trade more seamlessly and cheaply.

Adopting good regulatory practices – including an openness to using internationally agreed regulatory standards – is important for helping firms realize

digital trade opportunities. Cooperating in regional or international fora can support this process, such as through helping LDCs develop regulatory regimes and practices that are recognized in foreign markets. At the same time, LDCs remain absent or under-represented in many of the joint statement initiatives being pursued by WTO members, including those related to e-commerce and small businesses.

Open plurilateral agreements (OPAs) offer LDCs an option. These may be more attractive to LDCs than standard trade agreements because members can produce a required outcome through their own regimes and institutions and commitments relate only to specific goods or services. Digital economy partnerships (DEPAs), which are often OPAs focused on the digital economy, can help governments identify how best to regulate digital economic activities so that data privacy, for example, is compatible with the requirements of trading partners.

Although LDCs have much to gain from international cooperation in general, they might benefit most from joining OPAs that are designed to identify constraints to trade that originate in importing markets or to foster greater LDC participation in digital trade.

1. Introduction



The terms digitization (converting analogue representations of tangible objects or attributes into a digital format), digitalization (applying digital technologies to existing business processes), and digital transformation (changing or developing new business processes and products using digitalization technologies) are frequently used interchangeably to denote the shift to a more digital economy. They reflect the convergence of fixed, mobile and broadcast information and communication technology (ICT) and computational advances that connect people, devices and objects in real time through telecom networks and the internet, and the associated structural transformation of economies, product innovation, and changing social interaction. Basic features of the digital economy are the disembodiment of production and intensive use of data generated by interactions within and among firms, between companies and consumers, and among individuals, as well as the transmission of information generated by the operation of business processes, machinery and equipment: the “industrial internet” or internet of things (IoT).

Digitalization is accelerating and deepening the ‘servicification’ of the economy.¹ This is a central feature of economic development, reflected in a steady expansion of the share of the workforce engaged in services activities as countries become richer. Many developing countries, including least developed countries (LDCs), have been moving into services earlier and at a faster rate than was observed for East Asian economies in the 1970s and 1980s.

Part of what is measured as an increase in the service content of production across sectors, whether agriculture, mining, or manufacturing, reflects a shift of resources to the use of digital technologies in all stages of production (Miroudot and Cadestin, 2017). Whether digitalization is cause for concern or a

source of opportunity is the focus of much academic debate. Arguments that it may be detrimental to the growth prospects of low-income countries include perceptions that services offer fewer prospects for sustained high productivity growth and less potential for scale economies and generation of ‘good jobs’ for unskilled workers at the levels needed than did manufacturing in the past. An expanding body of evidence documents, however, that many types of services have experienced levels of productivity growth that are similar to, or exceed, that realized in agriculture and manufacturing (Newfarmer et al., 2018; Nayyar et al., 2021). The use of digital technologies increases the scope for productivity growth. It lowers costs for startups and small and medium-sized enterprises (SMEs) by permitting them to use software-enabled products and associated services to be sold on a subscription basis. This reduces the need to allocate capital to investment in high-skilled specialized workers (e.g. engineers) and equipment, instead permitting them to buy the required services, tasks and functions from providers located anywhere in the world.

Trade in services – broadly defined to span cross-border exchange through telecommunications networks, the temporary movement of service suppliers or consumers, and the establishment through foreign direct investment (FDI) of foreign affiliates in a host country that produce/sell services – is similar to trade in goods in that it allows specialization according to comparative advantage. However, it differs in that it requires the movement of providers, whether legal entities (firms) or natural persons (services suppliers). While air transport, investments in ‘backbone’ infrastructure and network connectivity, and advances in ICT technologies have made services easier to trade, trade costs for services are higher than for goods. Many services are relatively labour intensive, involve both low- and high-skilled activities, and are

less tradable than goods due to higher trade costs. Therefore, job generation in services is significant and tends to be more widely dispersed across territories than in manufacturing. One implication is that, to date, globalization has affected service-sector employment less than industrial activities, where increased foreign competition from countries with a comparative advantage in labour-intensive parts of the production process has caused significant adjustment costs in high-income countries.

Digitalization can be expected to change this situation by increasing the tradability – and thus international outsourcing of tasks and business functions – of a wider range of services that no longer rely on the physical proximity of the provider and buyer/consumer to be feasible. An important dimension of the digital economy is that it reduces this proximity constraint: if digitized, products and services can be traded cross-border – i.e. through Mode 1 of the General Agreement on Trade in Services (GATS) categories for services trade. The extent to which there will be a sustained substitution of online domestic and Mode 1 (cross-border) provision for what involved physically intermediated production and consumption of services remains to be determined, as this depends on consumer preferences, regulation and technology. For the time being, commercial presence (Mode 3) will likely remain the dominant mode for cross-border supply of many services.

LDCs that are well endowed with digitally knowledgeable consumers and a young workforce have significant potential to leverage the digital economy. Digital business models based on the provision and use of open-source software tools facilitate the entry of startups and support product innovation and sales to new markets by giving entrepreneurs low-cost access to a variety of building blocks and business functions that can be sourced ‘off the shelf’. Digitalization may enable companies to sell products internationally from a very early stage and reduce the disadvantages small and/or new firms face to export. Digital tools and the platforms they run on benefit small firms as well as large multinationals, making it easier for the latter to engage with the former, including through the provision of point-of-sale, payments, financial and logistics services. Digitalization creates new opportunities for firms in developing countries to sell to foreign customers and to benefit from open software, standardization and international platforms to create differentiated products that better satisfy local preferences/demand than those of global players. In practice, this may imply

that digital trade opportunities are more intra-regional than extra-regional, given greater commonality of languages, culture and consumer preferences within a given region.

Digital trade goes beyond trade in services as it includes goods that are wholly or partially ordered or delivered through digital means. Definitions of digital trade vary, but the concept usually includes ICT goods and digital-based services.² E-commerce, usually defined to encompass the delivery of goods ordered online, is part of the larger category of digital trade. Digital trade in services – including financial services; telecommunications, computer and information services; business services; audio-visual and recreational services – has been growing rapidly, driving much of the increase in global services trade in 2021. This has complemented a partial recovery in travel-related services trade that had been severely impacted by the COVID-19 pandemic.

Because digital trade spans both goods and services, it faces a broader range of potential barriers than trade in goods. Digital trade in services is affected by policy measures that apply at the border and by regulation that applies behind the border. Restrictive national regulation may have negative consequences for trade and the ability of firms to connect and use digital platforms to provide services to both local customers and foreign clients. The impact of foreign regulatory regimes that impede or simply exclude domestic firms from engaging in cross-border digital transactions is as important from a digital transformation perspective. Data and digital regulation more broadly is particularly important for firms that rely on data as a core part of their business, such as platform companies and providers of ‘software as a service’.

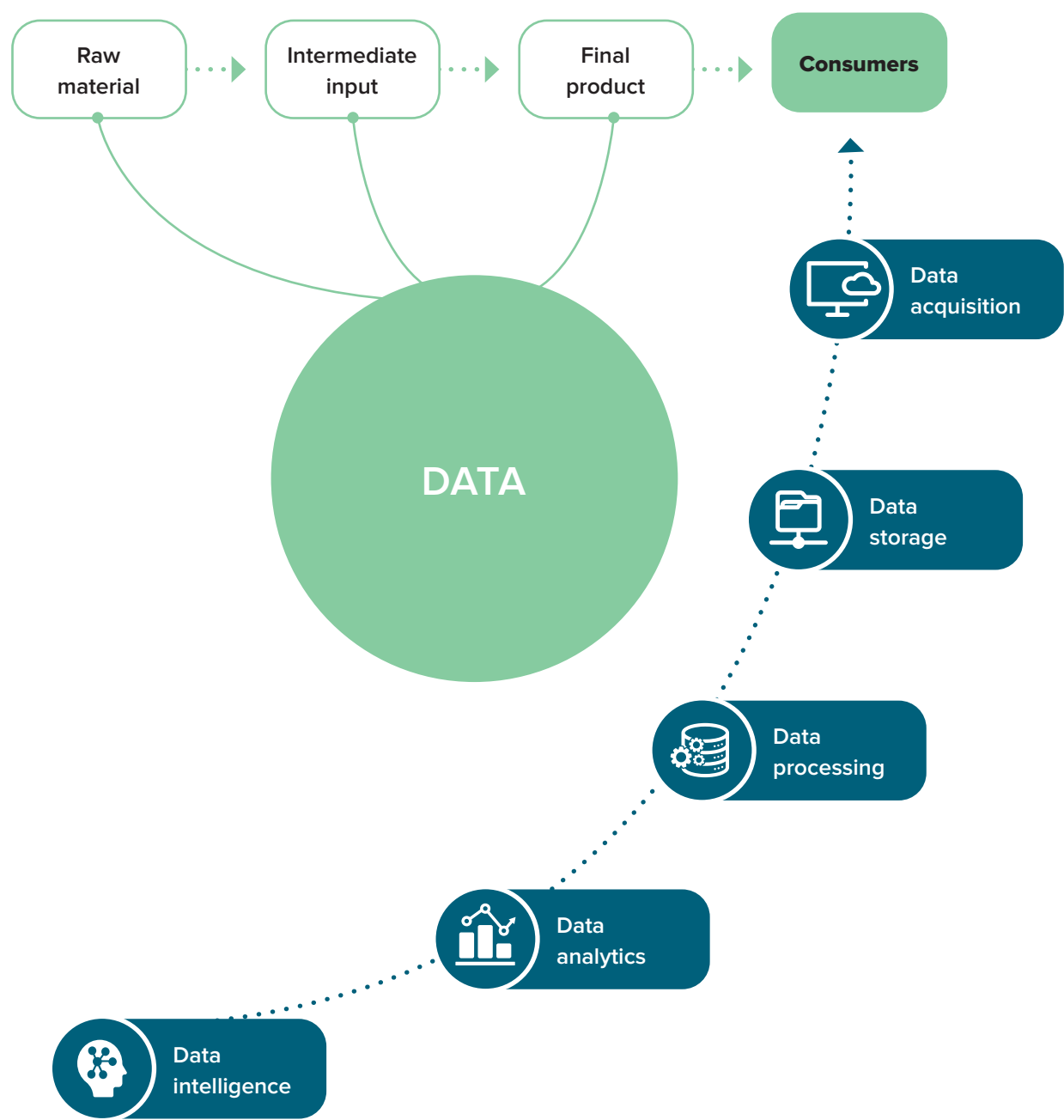
Domestic regulatory impediments are estimated to account for more than 55 per cent of services trade costs, which are twice as high as the costs for manufactured goods trade.³ Policies restricting trade in services tend to be reflected in visa regimes that affect Mode 2 (consumption abroad) and Mode 4 (presence of natural persons) supply of services, and in policies regulating the entry and operation of foreign direct investment (Mode 3). Typically, Mode 1 has been relatively free in many countries. This has been changing because of the increasing regulation of digital transactions and cross-border data flows and may change further if the WTO Moratorium on Customs Duties on Electronic Transmissions is not

maintained. Digitally enabled exchanges are data intensive, with firms using data as an input into design, research and development, and product innovation, in the production process and to improve logistics,

distribution and engagement with customers and clients. These data require processing, storage, modelling and analysis – all ancillary but critical services that are central to digital value chains (Figure 1).

Figure 1. Value chains in the digital economy

Source: WTO (2020).



2. Services and digital trade policies

A rapidly growing stock of regulatory measures contributes to the fragmentation of markets, both geographically and across sectors and functions. Such fragmentation creates substantial costs for services traders, particularly SMEs. There is significant potential for digital trade to act as a driver of sustainable growth and development. Harnessing that potential depends on measures to facilitate the adoption and use of digital technologies – a domestic policy agenda – and on measures to facilitate and support cross-border trade. Detailed information on services and digital trade policies is limited. Comprehensive country-

sector services trade restrictiveness indicators (STRIs) are only available for one year in the late 2000s for a subset of LDCs (Borchert et al., 2014).⁴ Figure 2 plots average STRI values for all modes of supply. The measures considered include barriers to cross-border flows of services through ICT networks and measures that constrain foreign investment in the sectors covered. A comparison with STRIs observed in different regions of the world (Figure 3) suggests that many of the LDCs for which STRIs exist are similar or somewhat less restrictive than many other developing countries.

Figure 2. STRI by sector in selected LDCs

Source: Borchert et al. (2014), using data for the late 2000s.

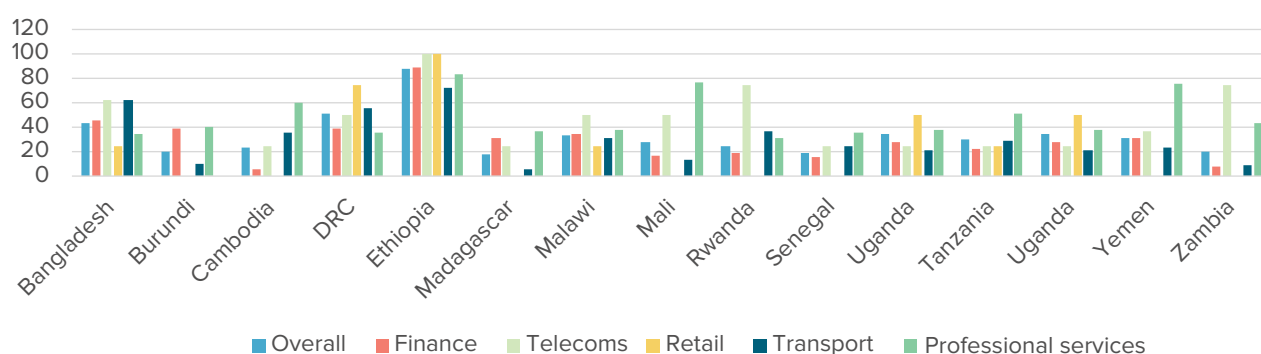
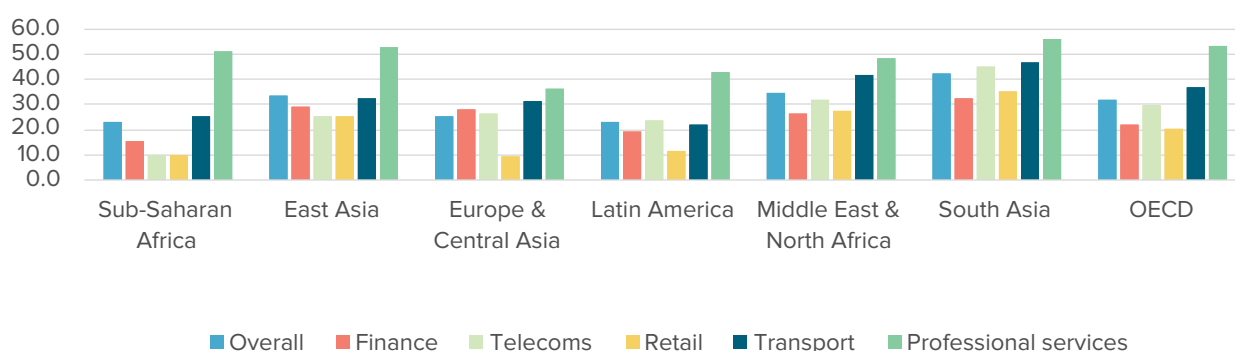


Figure 3. STRIs by world region and sector

Source: Borchert et al. (2014), using data for the late 2000s.



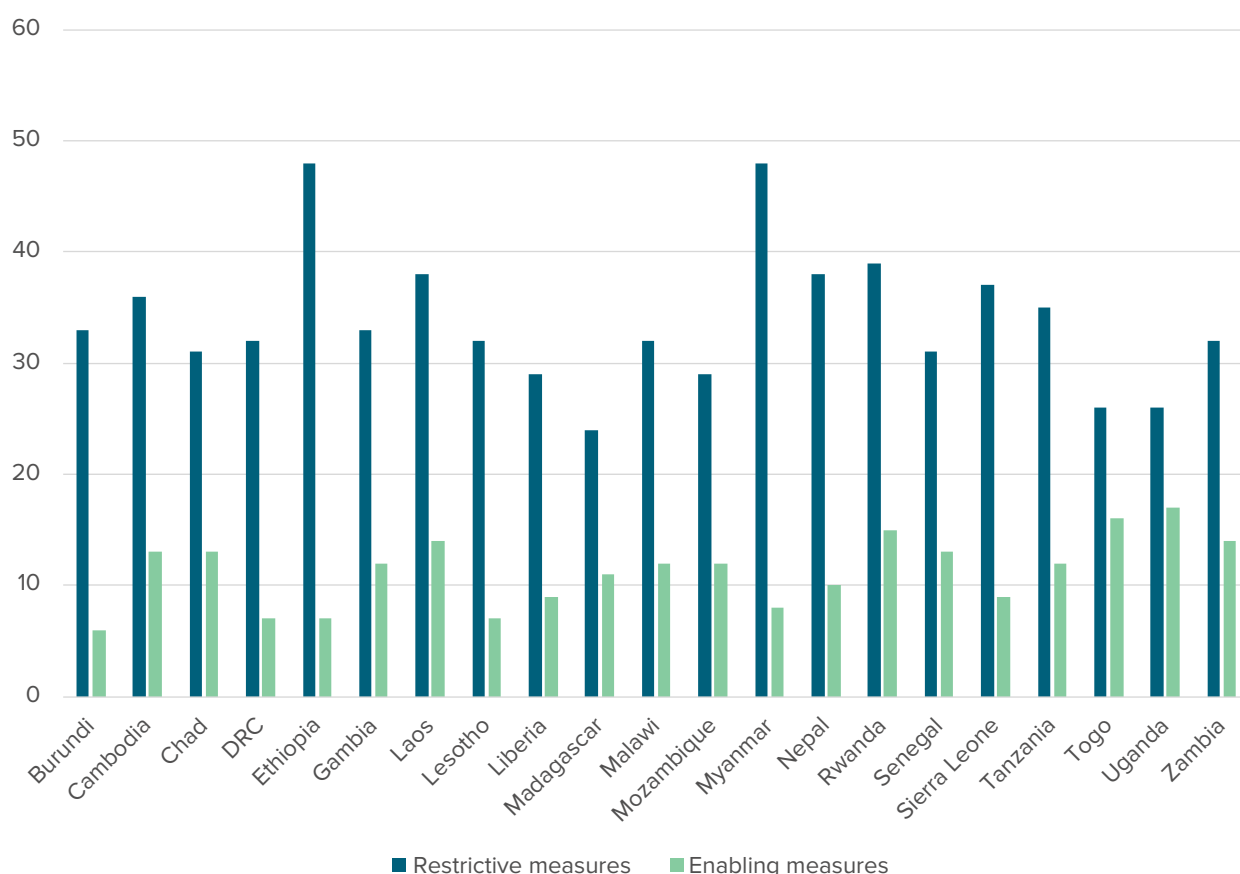
The situation for information on digital trade policies is somewhat better. Launched in 2021, the Digital Trade Integration (DTI) project collects information on policies that may impact digital trade.⁵ It includes a cross-country compilation of policy measures that can restrict digital trade. Such measures encompass policies that imply differential treatment between domestic and foreign providers; more restrictive treatment of online trade versus offline trade; the use of trade restrictions instead of domestic (non-discriminatory) measures to achieve non-economic objectives; and the absence of legislation or failure to join international agreements that are important for digital trade. The DTI database includes both policies expected to restrict digital trade and policies expected to enable digital trade.

Figure 4 reports information on the number of laws, regulations and decrees that are deemed to restrict digital trade, as well as the number of such policy measures that are deemed to enable digital trade for the LDCs covered by the database. The data reveal there are more restrictive than enabling measures in all countries, but also document significant differences in the ratio of restrictive to enabling measures. Togo and Uganda are examples of countries with fewer restrictive measures and more enabling policies, resulting in a net restrictiveness that is substantially lower than in countries like Ethiopia and Myanmar, where the opposite holds. As important from a trade integration perspective is the extent of variation across countries. The data suggest substantial disparity in applied policies across countries.

Figure 4. Average number of restrictive and enabling digital trade policies in selected LDCs

Note: Lower numbers indicate more open policy stances.

Source: Ferracane et al. (2022).



A DTI index can be constructed as a summary indicator of the overall digital trade policy stance of a country, taking into account both restrictive and enabling measures, and using expert weights to aggregate across the various types of regulatory policies covered by the DTI database.⁶ The index ranges from 0, signifying a policy environment fully open to digital

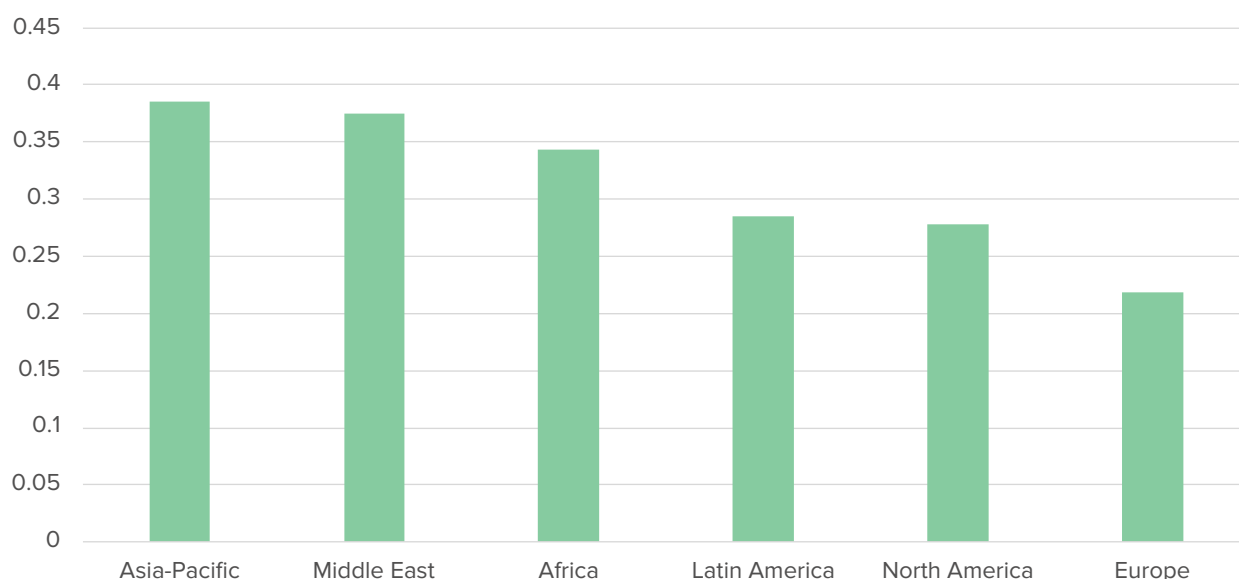
trade integration, to 1, for a regulatory regime that is completely closed to digital trade. High-income regions (Europe and North America) have the lowest levels of digital trade restrictiveness, while the Asia-Pacific region has the highest level of restrictiveness. Many LDCs have DTI levels that are similar to those of high-income nations (Figure 5).

Figure 5. Average Digital Trade Restrictiveness Index by region and for LDCs

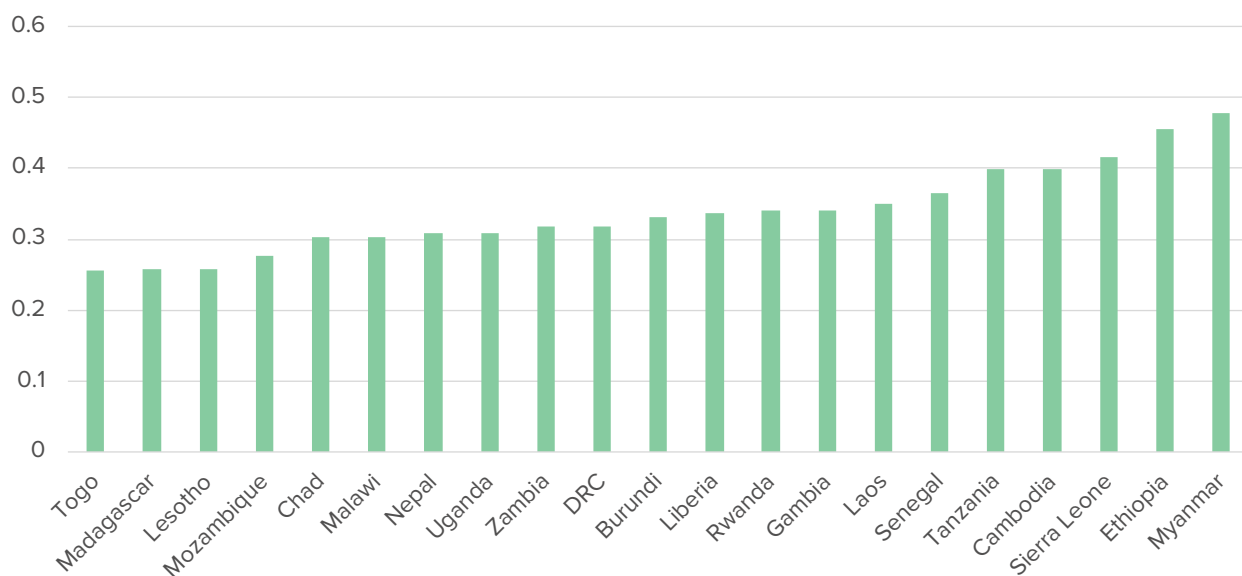
Note: Lower numbers indicate more open policy stances.

Source: Ferracane et al. (2022).

(A) By world region



(B) LDCs



The overall level of the DTI hides significant variation across countries in specific policy areas that matter for digital trade. Two such areas concern policies towards cross-border data flows and domestic storage and processing requirements. Ferracane and van der Marel (2021) show that restrictive measures related to cross-border transfers of data and domestic data processing have a strong and significant negative effect on a country's imports of digital services. Restrictions on the transfer of data may either prevent or increase the cost for companies to move data out of the country for further analysis or processing, leading to higher costs for both domestic and foreign digital services providers. Figure 6 focuses on cross-border data policies in a selection of African countries, including 17 LDCs. Some LDCs maintain much more restrictive data policies than others.

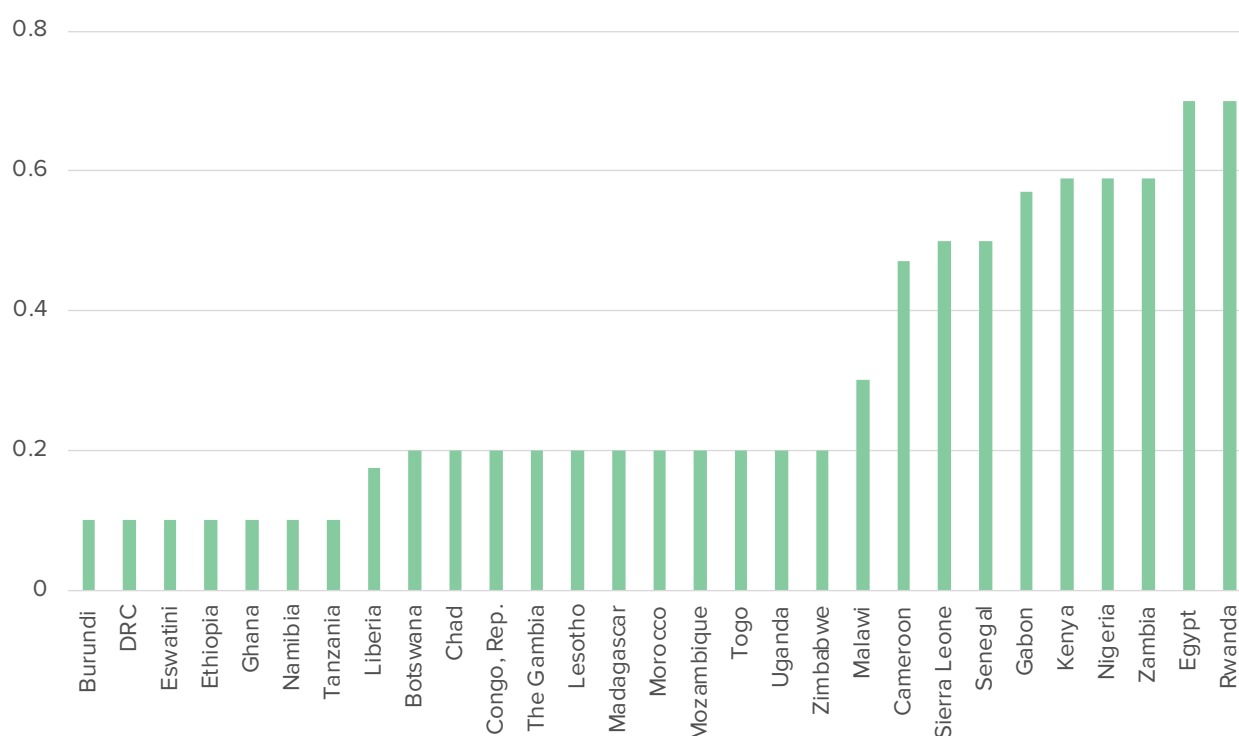
Benefitting from digital services trade opportunities requires a supporting business environment, including ICT infrastructure of sufficient quality that is available at a low cost and, more broadly, an investment climate that supports entrepreneurship. The major shocks incurred by firms and households by the COVID-19 pandemic underline the importance of investment

in connectivity and universal access. This includes investment in digital infrastructure, which determined the ability of households to use digital technologies for education, health, videoconferencing and working from home, purchasing goods, and entertainment services, etc. Basic prerequisites for competitiveness in digital services include skills (human capital), digital infrastructure, and efficient regulatory regimes that are open to international trade and investment in services while protecting consumer data and privacy at standards required by major trading partners.

The feasibility and cost of digital trade will also depend on the availability of reliable and low-cost cross-border digital payment systems. Digital payments are a critical link for digital trade. Cross-border e-payment systems are often unnecessarily challenging to use, costly and inefficient. Consumers without bank accounts or payment cards can be left out of the digital economy entirely. Policy makers need to facilitate the development of inclusive and efficient digital payment systems, ensure the safety and reliability of payments, improve the interoperability of bank and non-bank financial service providers, and enhance consumer trust (Elms, 2022).

Figure 6. Cross-border data policies in selected African countries

*Note: Lower numbers indicate more open policy stances.
Source: Ferracane et al. (2022).*



The adoption of good regulatory practices (GRP) is an important success factor for realizing digital trade opportunities. Basic principles of GRP are well understood and include clearly defined objectives for regulating an activity; transparency and consultation with stakeholders when defining regulatory objectives and performance standards; processes for identifying measures that are cost efficient in achieving an objective; consideration of the use of internationally agreed regulatory standards where these exist; flexibility in responding to changed circumstances in a timely manner; independent monitoring and evaluation of outcomes; and regular dialogue and consultations with stakeholders.

If regulatory frameworks differ widely across countries, disparities in applied policies will segment markets and may exclude foreign firms based in countries with regulatory frameworks that are deemed inadequate by importing states. Cooperation in regional or multilateral fora can help to establish focal points for regulatory upgrading and convergence, supporting the ability of small firms to capture digital trade opportunities.

The principles underlying GRP are largely equivalent to those identified in the theory of economic policy, which can be reduced to several basic questions:

- What is the problem?
- Why does it call for government intervention?
- What policy instruments are available to deal with the problem?
- Of those instruments, which politically feasible ones achieve the goal at the lowest cost?
- Once implemented, do the policies work as intended? Do they remain fit for purpose over time as conditions change?

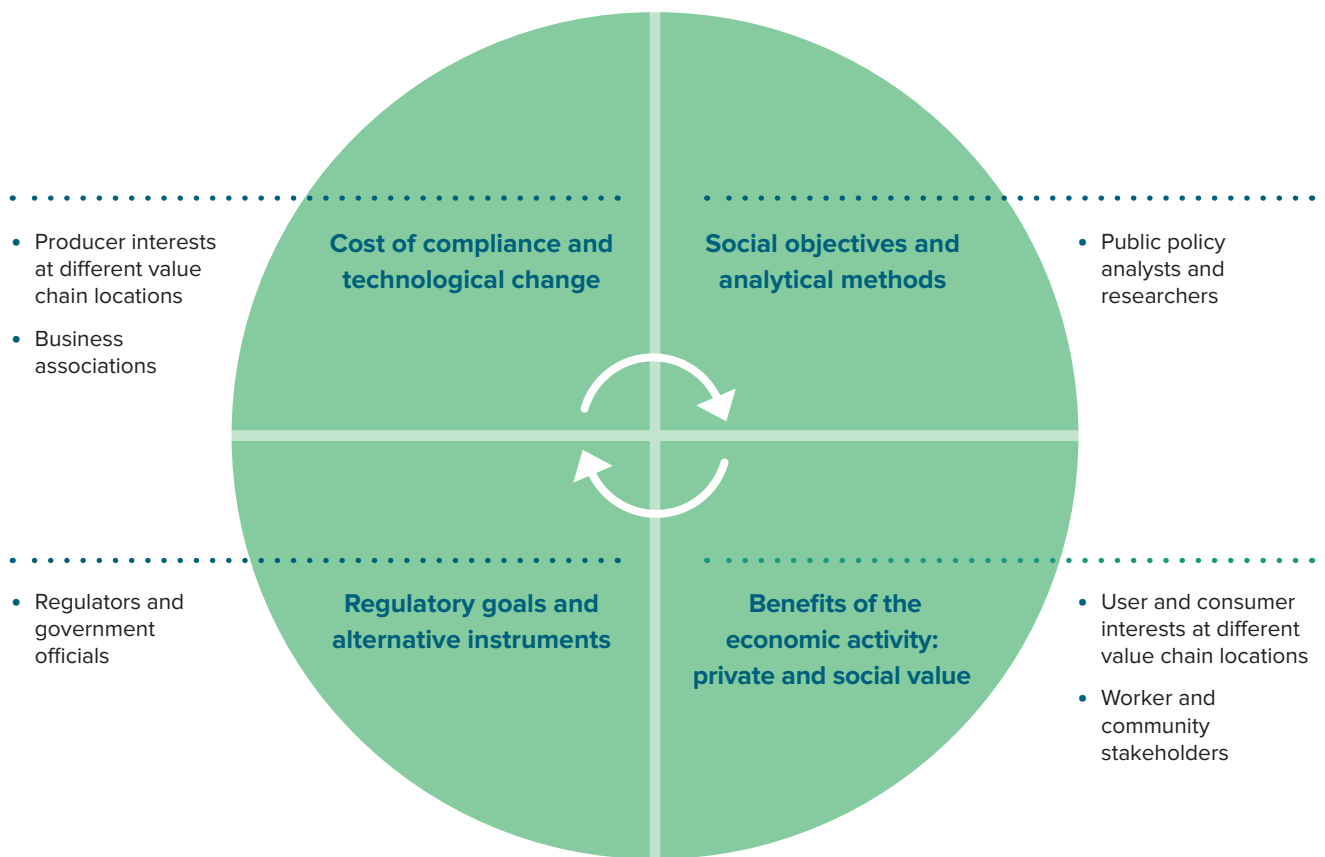
A clear definition of the problem and of the objectives of regulation is crucial. A good example relates to cross-border data-flow restrictions and local storage

and processing requirements. Are these motivated by economic objectives (limiting use of data to local firms), by consumer protection and data privacy concerns, or by national security goals? Some of these goals may be achieved more efficiently through instruments other than trade restrictions. Engaging in processes to assess the relationship between goals and instruments can help improve regulatory frameworks, foster learning and inform reform. Such processes should involve collaboration with businesses, regulators, and other stakeholders. Findlay and Hoekman (2020) suggest principles for the design and operation of deliberative mechanisms, drawing on experience with multi-stakeholder partnerships to assess the trade effects of regulatory policies. Leveraging the knowledge of suppliers and buyers on the effectiveness and consequences of policies on digital services activities and investment in digital technologies can help identify priorities for actions to enhance the ability of SMEs to engage in digital trade.

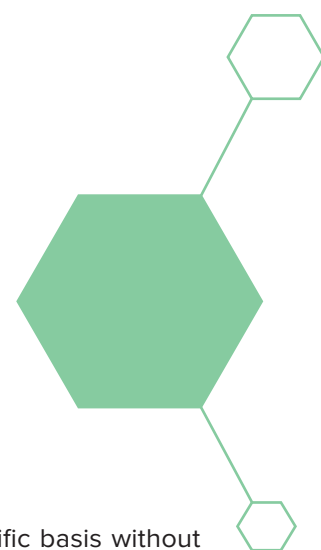
Findlay and Hoekman (2021) argue such deliberation should be specific, centring on important value chains for an economy. The potential elements of a value chain deliberation platform that brings together key stakeholders with an interest in digital trade are summarized in Figure 7. These include regulators and government agency representatives responsible for policy (bottom left) and producers, buyers, consumers, and other stakeholders, such as workers and community representatives with an interest in production and trade. Producers (top left) can best identify impediments to digital economic activities – including in foreign countries. Analysts can help to assess impacts and provide research capacity to facilitate discussion of transactions and operating costs, as well as monitor progress in the implementation of measures aimed to reduce costs over time. A commitment to setting goals for progress and monitoring performance is critical for success.

Figure 7: Supply chain policy platforms

Source: Adapted from Findlay and Hoekman (2020).



3. Multilateral and plurilateral cooperation



Such platforms will be more effective if they explicitly include an international dimension, helping to flag issues where cooperation is needed to support digital trade. An example is facilitating digital trade between states with different regulatory regimes for data flows. There are broadly three types of regulation of data flows in the world today: jurisdictions with open data flow regimes; those where flows are conditional on satisfying national standards; and regimes where data flows are subject to government control (Ferracane and van der Marel, 2021). International cooperation is a potential tool to support digital trade, especially if cross-border data flows are conditional on satisfying the importing or host country's regulatory requirements. To export, firms will need to meet foreign data protection norms. To import, the same is true – without a data protection and regulatory regime that satisfies home countries, foreign firms may not be able to access and process data, impeding their ability to compete and provide value-added services to clients. Cooperation is particularly important to reduce transaction costs caused by international regulatory differences for a given sector or product, and to identify how best to regulate digital economic activities. Trade costs due to regulatory diversity may be reduced through coordination and learning, leading to the adoption of common norms and the gradual adoption of what have been determined to be good regulatory practices.

Cooperation may be on a standalone basis or embedded in a trade agreement. Trade agreements are beginning to address these policy areas, as are bilateral and plurilateral data adequacy and 'digital economy' agreements. LDCs have been hesitant to make commitments on services in trade agreements. This extends to joint statement initiatives (JSIs) spanning e-commerce, domestic regulation of services, and investment facilitation, and measures to enhance the ability of micro, small and medium-sized enterprises (MSMEs) to utilize trade opportunities.⁷ These constitute a shift by many WTO members to plurilateral engagement, offering an alternative to embedding regulatory cooperation in trade agreements

by cooperating on an issue-specific basis without having to liberalize almost all trade.

A first step could be to join WTO-based initiatives, as these will establish a minimum common denominator set of provisions. Depending on the design of commitments, this may permit flexibility in the sense of signing on to specific modules or elements of an agreement only if this is deemed feasible by each developing country. There is also the possibility of making the application of specific provisions conditional on the receipt of technical assistance. This was the approach taken by the Trade Facilitation Agreement and can be emulated in open plurilateral agreements (OPAs). Why all LDCs are not participating in these discussions is unclear given the freedom of any WTO member to decide not to sign on to what is negotiated. Governments could also reflect on the content of the Asia-Pacific digital agreements and consider if and how such models – and associated modules – might be adopted to support the ability of LDCs to participate more in digital trade.

The services domestic regulation talks involved 70 WTO members and centred on matters associated with the authorization and certification of foreign services providers (licensing, qualification and technical standards), not on the substance of regulations. The talks were concluded successfully in 2021, with participants agreeing to include the negotiated provision into their GATS schedules of commitments. The intent of the agreement is to reduce the trade-impeding effects of domestic regulation by enhancing the transparency of policies; establishing good practice timeframes for processing applications; facilitating the acceptance of electronic applications by service providers; ensuring national authorizing bodies are independent and impartial; and establishing mechanisms for foreign providers to request domestic review of decisions. No LDC has joined the agreement.

The WTO e-commerce talks involve over 80 WTO members. Most are middle- and high-income nations.

Only four LDCs are participating in this JSI: Benin, Burkina Faso, Lao People's Democratic Republic (Lao PDR) and Myanmar. Talks are focused on a mix of trade restrictive policies and digital trade facilitation (Ismail, 2020). The former includes regulation of cross-border data flows and data localization requirements. The latter includes issues like electronic signatures, e-invoicing, facilitation of electronic payment for cross-border transactions, and cooperation on consumer protection (e.g. combatting fraud).

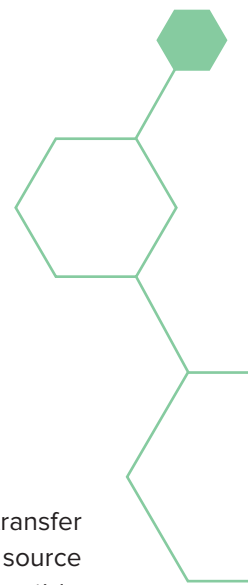
The informal working group on MSMEs includes 95 WTO members, including three LDCs: Lao PDR, Myanmar and The Gambia. The talks aim to identify measures governments can take to support the internationalization of small firms. Such firms have much greater opportunities than in the past to engage in international trade because of digitalization trends, but may also be disproportionately affected by restrictive regulation of the digital economy. MSMEs typically do not have the resources needed to adapt and adjust to changing policies or to understand and manage differing policies in a cross-border landscape (Elms, 2022). The working group finalized a package of six recommendations and declarations to facilitate the

participation of smaller businesses in international trade towards the end of 2020.

Talks on investment facilitation involve over 100 participants, including 20 LDCs (Afghanistan, Benin, Burundi, Cambodia, Central African Republic, Chad, Djibouti, Guinea, Guinea-Bissau, Lao PDR, Liberia, Mauritania, Myanmar, Sierra Leone, Solomon Islands, The Gambia, Togo, Uganda, Yemen and Zambia).⁸ The agenda excludes the liberalization of inward foreign direct investment (FDI) policies, the protection of foreign investors and investor-state dispute settlement – the focus is solely on facilitation. All investment is covered, including services. Deliberation centres on 'good regulatory practices' such as transparency and predictability of investment-related policies; administrative procedures; information sharing and ex post monitoring and evaluation.

All four of these initiatives are relevant to LDCs, given the importance of regulation for e-commerce and data flows, the role of FDI as a vehicle for knowledge transfers, and the importance of startups and SME entrants to exploit digitalization.

4. Digital economy partnerships



Outside the WTO, groups of countries have also begun to negotiate OPAs to address digital trade policies. Examples include the Digital Economy Partnership Agreement between Chile, New Zealand and Singapore,⁹ the Digital Economy Agreement between Australia and Singapore,¹⁰ the Japan-US Agreement on Digital Trade,¹¹ and negotiations between Singapore and the Republic of Korea on a digital partnership agreement.¹² Such initiatives provide an alternative to trade agreements and could therefore be important for LDCs given their revealed preference for shallow trade agreements.

The partnerships address the cross-border transfer of data, data localization and protections for source code; encourage cooperation on compatible e-invoicing and e-payment frameworks; and establish benchmarks (focal points) for regulatory reforms that support the digital economy, foster inclusion and bolster the associated governance frameworks.¹³ They are also a tool to help governments identify how best to regulate digital economic activities to ensure data privacy and consumer protection in a way that is supportive of cross-border trade in services and digital products (Box 1).

BOX 1

What are Digital Economy Partnership Agreements (DEPAs)?

DEPAs are a response by countries to a lack of global rules architecture for digital trade. This lack means firms face a patchwork of regulatory regimes, even if two countries have a trade agreement, because most trade agreements were not designed to include digital provisions. The DEPA concluded between Chile, New Zealand and Singapore was the first such agreement. It differs from trade agreements by being designed in modules. The DEPA comprises 16 thematic modules that are intended to work together but can also be adopted by a country individually in one of its trade agreements.

MODULE 1: Initial Provisions and General Definitions

MODULE 2: Business and Trade Facilitation (including paperless trading, domestic electronic transactions framework, logistics, electronic invoicing, express shipments, and electronic payments)

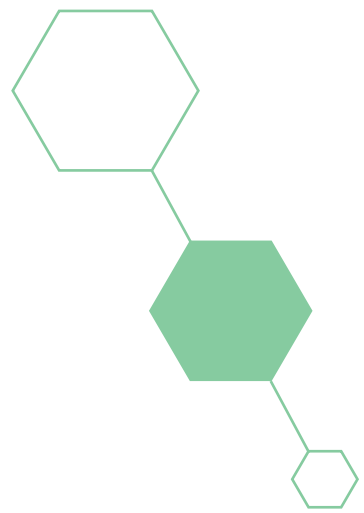
MODULE 3: Treatment of Digital Products and Related Issues (including customs duties on electronic transmissions and non-discriminatory treatment of digital products)

MODULE 4:	Data Issues (personal information protection, cross-border transfer of information, location of computing facilities – prohibition on forced data localization)
MODULE 5:	Wider Trust Environment (including cybersecurity cooperation and online safety and security)
MODULE 6:	Business and Consumer Trust (including spam and online consumer protection)
MODULE 7:	Digital Identities
MODULE 8:	Emerging Trends and Technologies (including financial technology, artificial intelligence, government procurement, and competition policy cooperation)
MODULE 9:	Innovation and the Digital Economy (including public domain and open government data)
MODULE 10:	Small and Medium Enterprises Cooperation
MODULE 11:	Digital Inclusion
MODULE 12:	Joint Committee (institutional arrangements)
MODULE 13:	Transparency
MODULE 14:	Dispute Settlement
MODULE 15:	Exceptions
MODULE 16:	Final Provisions (including processes for amendments, accession, and withdrawal)

These modules fall into three broad headings: (i) enabling trusted data flows; (ii) facilitation of end-to-end digital trade; and (iii) creating a platform to support innovation and participation in the digital economy. From a business perspective, the nature of the regulatory and policy settings for the various elements of a cross-border transaction – from data flows and payments to documentation and consumer protection – can all impact how and whether trade takes place. The DEPA aims to establish a framework that enables the digital economy. In some of the areas covered, such as digital identities or artificial intelligence, the DEPA establishes a platform for collaboration, not binding rules. The DEPA's institutional mechanisms are intended to foster collaboration and include flexibility to enhance the partnership over time, such as through amendments to accommodate new issues. The DEPA does not address sensitive matters, such as protection against forced disclosure of source code and algorithms, and excludes financial services from the prohibition on forced data localization. It also does not include market access commitments on digital services or equipment.

Source: Honey (2021).

5. Key points for LDCs



The types of OPAs that are the focus of efforts in both the WTO and Asia-Pacific contexts differ from ‘standard’ trade agreements in at least four ways (Hoekman and Sabel, 2021). First, they are open: any country able to satisfy the membership conditions can participate, in contrast to trade agreements that generally are not open to accession by additional countries. Second, insofar as agreements address costs due to regulatory differences, they do not lend themselves to quid pro quo exchange of concessions because of their focus on good regulatory practice. Third, because they are domain specific, they are limited to commitments for the issue or class of goods and services concerned. Fourth, insofar as an OPA requires only equivalent performance – not identical procedures or institutions – they permit members to produce the required outcome through their own regulatory regimes and institutions, subject to continuing reciprocal review of existing regulatory policies and their implementation, and joint evaluation of potential adaption to changes in circumstances.

Such approaches may be useful for LDCs to consider, including in the context of regional integration efforts. One potential area of focus is joint action to fill knowledge gaps. An example is to generate better and more timely information on the value and origin/destination of services/digital trade flows, and to improve understanding of how prevailing digital/data policies impact on firms based in LDCs. As noted previously, the STRI data is incomplete in terms of sectoral coverage and the Digital Trade Restrictiveness Index (DTRI) information for LDCs reveals significant differences in the content of policies that impact on trade in services, digital products, and cross-border data flows. Ultimately, what matters is to use the information for analysis of the effects – positive or negative – of the various policies, both in the home and foreign markets, with a view to improving regulation and facilitating digital and services trade for LDCs. Rather than the historical focus on special and differential treatment as exceptions from negotiated agreements, plurilateral initiatives organized around fostering greater LDC participation in digital trade and identifying specific constraints to

such trade originating in importing markets could be a more constructive and effective form of cooperation. A plurilateral approach implies that LDCs that do not see digital trade as a priority need not participate, but retain the option to do so at a later date.

Another possible way to support both intra-regional and international trade in services is to pursue bilateral and regional regulatory cooperation. An example is negotiation of mutual recognition agreements of regulatory regimes relating to data privacy and protection. This can be considered both in the framework of regional integration initiatives, be pursued bilaterally with major trade partners, or take the form of a plurilateral initiative. The European Union, for example, offers trading partners the possibility of seeking so-called data adequacy decisions that provide a governance framework enabling the free flow of data. As is the case in many jurisdictions, the EU’s General Data Protection Regulation (GDPR) requires that companies processing or with access to personal data originating in the European Union comply with the European Union’s regulation. The GDPR provides for adequacy decisions (Article 45 GDPR) that establish that a country has a regulatory regime in place that ensures an adequate level of data protection that is equivalent to that ensured within the European Union for personal data. Necessary conditions for such decisions are the existence of independent regulatory supervision, cooperation mechanisms with the data protection authorities of the European Union, and mechanisms through which the citizens of the European Union can contest perceived violations of data privacy and obtain redress (Saluste, 2021). Adequacy decisions apply to all companies based in a partner country and remove the need to rely on derogations (for example, the consent of the data subject for the necessity of the transfers) or appropriate safeguards (for instance, using standard contractual clauses or binding corporate rules).

To date, the European Union has concluded such arrangements with only a small number of countries and has yet to grant an adequacy decision to an LDC.

Nothing precludes an LDC from initiating a dialogue with the European Union on adequacy and mutual recognition of the equivalence of digital regulation regimes. While there are clear differences in how countries approach cross-border data flows, the goal of regulation in many LDCs and the European Union may be very similar: protection of data. Initiation of dialogue with the European Union could benefit LDCs by clarifying the extent of similarities or gaps between the GDPR and national regulatory regimes. It could also offer them a basis for deliberation on whether and how national regulatory goals relating to data protection might be relaxed on a bilateral basis, in the process supporting plurilateral cooperation in both regional integration initiatives and the WTO.

Cooperation may also be helpful in putting in place appropriate competition policies to address potential abuse of market power and assure a level playing field for firms seeking to use or compete with established platforms and market-leading service providers. Competition policy to prevent excessive market concentration has been found to be associated with reduced benefits from adopting digital technologies. In practice, LDCs may not be able to effectively combat anti-competitive practices by large firms that dominate segments of the global market. As is the case for regulation of data and digital activities, cooperative approaches can help identify good practices in competition policy enforcement by home countries and provide a framework for joint enforcement actions.

It is unclear why LDCs appear to be missing in action in international fora and why they have a revealed preference for not using trade agreements to put in place regulatory frameworks that are supportive of digital trade. Factors may include the limited extent of available research and analysis of digital economy issues for LDCs, or a bias of policymakers against services activities (i.e. a pro-manufacturing bias). The revealed preference is to focus on trade in goods, leaving services and digital trade for later. This is not consistent with the rapidly increasing share of services in economies and the digitalization of tasks and activities in which LDCs have a stronger comparative advantage than they have for manufacturing. Whatever the underlying reasons, all these possible factors suggest similar action: raising awareness of policymakers and stakeholders of the opportunities offered by OPAs as a form of cooperation that puts LDC interests and concerns front and centre.

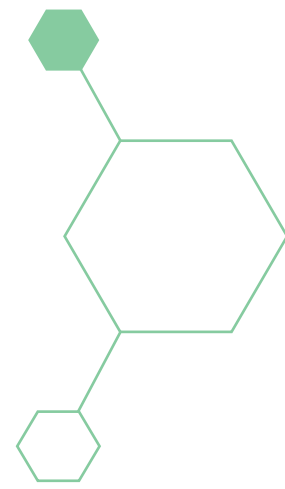
In practice, not all countries will be able to engage on an equal footing in the negotiation of OPAs. There

are major differences in capacities to engage on regulatory matters and the ability to participate in a fully informed way. Some governments may find it difficult to determine the 'return' on applying a proposed rule or regulatory reform. Ensuring that agreements are truly open to any country wishing to join, are fully transparent, and encourage participation by international and sectoral organizations with relevant expertise could help address potential concerns of non-members. Agreement on a set of principles that apply to any OPA pursued in the WTO context could help make plurilateral initiatives in the digital economy area more attractive to LDCs by addressing concerns regarding their consistency with an open, rules-based trading system.

Hoekman and Sabel (2021) suggest a way to do so is to negotiate a code of conduct for OPAs. Such a code could require:

1. Openness to accession by additional economies with a clear description of requirements and procedures to be followed by aspiring members.
2. Assurances that accession cannot be on terms that are more stringent than those applied to the incumbent parties, adjusted for any changes in substantive disciplines adopted by signatories over time.
3. An obligation to provide reasons to accession-seeking countries for decisions to reject membership applications.
4. A commitment to provide assistance to applicants that are not in a position to satisfy the preconditions for membership in terms of applying the substantive provisions of the agreement but which desire to do so.
5. Where feasible and in instances where capacities must be built for a country to meet OPA requirements, consideration being given to establish a stepwise schedule of compliance, as in the Trade Facilitation Agreement.
6. Compliance with WTO requirements relating to publication of information on measures covered by the agreement.
7. Mechanisms to engage stakeholders in an ongoing conversation about how the agreement is working and future needs.
8. Annual reporting to the WTO General Council by OPA members on its activities.
9. Inclusion of consultation and conflict resolution procedures for non-signatories of OPAs in cases where they perceive that members do not implement the foregoing principles.

6. Conclusion



Digital trade offers significant opportunities as well as challenges to LDCs. The increased access to a range of open-source tools and ancillary services needed by SMEs to engage in international transactions – ranging from e-payment systems, business information and tax compliance software to e-commerce platforms with dedicated logistics and after sales services – suggest that on balance the potential benefits are large. This is augmented by the scope digital trade offers to use Mode 1 to supply services as opposed to having to establish a commercial presence in foreign markets or to enter such markets on a temporary basis, with associated visa and travel costs. Harnessing the opportunities calls for domestic action on ICT and network

infrastructure, ensuring firms and households have access to telecom networks at a reasonable cost, putting in place regulatory regimes to safeguard data privacy and protect consumers, and ensuring that businesses have access to efficient e-payment systems. Equally important is that regulatory regimes support digital trade through the adoption of good regulatory practices that are recognized in foreign markets and efforts to establish recognition or equivalence systems. Both good regulatory practices and recognition can be pursued through international cooperation, with OPAs offering one mechanism to do so. What is required is to participate and to utilize this new form of cooperation to address issues that will facilitate digital trade for firms in LDCs.

References

Baccini, L., M. Fiorini, B. Hoekman and M. Sanfilippo. 2022. Services, jobs, and economic development in Africa. *World Bank Research Observer*.

Elms, D. and N. Agnew. 2022. Digital Trade in Asia. EUI RSC Working Paper 2022/51.

Ferracane, M. F. (Ed.). 2022. Digital Trade Integration Database. European University Institute et al. At dti.eui.eu

Hoekman, B. and C. Sabel. 2021. Plurilateral Cooperation as an Alternative to Trade Agreements: Innovating One Domain at a Time, *Global Policy* 12(S3): 49-60.

Honey, S. 2021. Enabling trust, trade flows, and innovation: the DEPA at work. Hinnerich Foundation Working Paper (July).

Miroudot, S. and C. Cadestin. 2017. Services in Global Value Chains: From Inputs to Value-Creating Activities. OECD Trade Policy Papers 197.

Nayyar, G., M. Hallward-Driemeier and E. Davies. 2021. At your service? *The promise of services-led development*. Washington DC: World Bank.

Newfarmer, R., J. Page and F. Tarp. 2018. *Industries without Smokestacks*. Oxford University Press.

Saluste, M. 2021. Adequacy decisions: an opportunity for regulatory cooperation on data protection? EUI working paper.

Abbreviations

DEPA	Digital Economy Partnership Agreement	IoT	Internet of things
DTI	Digital Trade Integration	JSIs	Joint statement initiatives
DTRI	Digital Trade Restrictiveness Index	LDCs	Least-developed countries
EIF	Enhanced Integrated Framework	MSMEs	Micro, small and medium-sized enterprises
FDI	Foreign direct investment	OPAs	Open plurilateral agreements
GATS	General Agreement on Trade in Services	SMEs	Small and medium-sized enterprises
GDPR	General Data Protection Regulation	STRI	Services Trade Restrictiveness Index
GRP	Good regulatory practices	UNOHRLLS	United Nations Office of the High Representative for the Least-developed Countries and Small Islands Developing States
ICT	Information and communication technology	WTO	World Trade Organization

ENDNOTES

- 1 The term servicification is generally used to describe the process of increasing the share of services in GDP (value added), or, at the firm level, a shift towards services in company revenues, and/or increasing use of services as inputs into production, both in-house and sourced arms-length.
- 2 ICT goods cover information and communication technology goods such as computers and peripheral equipment, communication equipment, consumer electronic equipment, and electronic components. Digital services definitions range from narrow, spanning only ICT services, to broad, including digital-based services. **ICT services** include computer and communications services (telecommunications, and postal and courier services) and information services (computer data and news-related service transactions). Computer services cover international telecommunications, and postal and courier services; computer data; news-related service transactions between residents and non-residents; construction services; royalties and license fees; miscellaneous business, professional, and technical services; and personal, cultural, and recreational services. **Digital-based services** include international telecommunications; computer data; news-related service transactions between residents and non-residents; construction services; royalties and license fees; miscellaneous business, professional, and technical services; personal, cultural, and recreational services; manufacturing services on physical inputs owned by others; and maintenance and repair services and government services not included elsewhere. Ferracane and van der Marel (2021).
- 3 http://tradecosts.wto.org/docs/Trade_Cost_Index_Background_Note_24-03-2021.pdf
- 4 The WTO and World Bank will release updated information for all African economies towards the end of 2022. This will substantially improve the availability of information on STRIs for LDCs.
- 5 See Ferracane et al. (2022) and <https://dti.eui.eu/>
- 6 The index, which is still in beta version, employs a detailed methodology that assigns specific scores and weights to each measure. The final version of the index and the methodology will be released in December 2022.
- 7 https://www.wto.org/english/news_e/news17_e/minis_13dec17_e.htm An updated list of participants and information on each JSI and subsequent plurilateral initiatives is provided at <https://wtoplurilaterals.info/>
- 8 <https://wtoplurilaterals.info/>
- 9 <https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-in-force/digital-economy-partnership-agreement-depa/>
- 10 <https://www.dfat.gov.au/trade/services-and-digital-trade/Pages/australia-and-singapore-digital-economy-agreement>
- 11 The agreement bans data localization, barriers to cross-border data flows and the conditioning of access to the market on the transfer of source code or algorithms, and covers financial services. See https://ustr.gov/sites/default/files/files/agreements/japan/Agreement_between_the_United_States_and_Japan_concerning_Digital_Trade.pdf
- 12 <https://www.mti.gov.sg/-/media/MTI/Newsroom/Press-Releases/2020/06/22-Jun-2020-Singapore-and-the-Republic-of-Korea-launch-negotiations-on-Digital-Partnership-Agreement.pdf>
- 13 See e.g. Elms (2020).

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