Digital Trade Regulatory Review for Asia-Pacific, Africa, and Latin America and the Caribbean

ESCAP-ECA-ECLAC Initiative on Digital Trade Regulatory Analysis

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Digital Trade Regulatory Review for Asia-Pacific, Africa, and Latin America and the Caribbean

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For further information on this publication, please contact: escap-tiid@un.org.

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Abbreviations and acronyms

AfCFTA	African Continental Free Trade Area
ARII	Africa Regional Integration Index
ATPC	African Trade Policy Centre
AU	African Union
CA	Central Africa
CARICOM	Caribbean Community and Common Market
CABs	Conformity Assessment Bodies
CPC	Central Product Classification
CPTA	Cross-border Paperless Trade Framework Agreement
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DPIA	Data Protection Impact Assessment
DPO	Data Protection Officer
DTS	Digital Transformation Strategy
EA	Eastern Africa
ECA	United Nations Economic Commission for Africa
ECLAC	United Nations Economic Commission for Latin America and the Caribbean
ENEA	East and North-East Asia
EMD	Electrolytic Manganese Dioxide
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
EUI	European University Institute
FDI	Foreign Direct Investment
GATS	General Agreement on Trade in Services
GPA	Government Procurement Agreement
ICT	Information and Communication Technology
IEC	International Electrotechnical Commission
ILAC	International Laboratory Accreditation Cooperation
IPRs	Intellectual Property Rights
ISO	International Organization for Standardization
ISP	Internet Service Provider
ITA	Information Technology Agreement
ITIF	Innovation Technology and Innovation Foundation
JSI	Joint Statement Initiative
LCR	Local Content Requirement
LDCs	Least Developed Countries

NA	Northern Africa
NCA	North and Central Asia
NTMs	Non-Tariff Measures
MELC	Model Law on Electronic Commerce
MELS	Model Law on Electronic Signatures
MERCOSUR	Southern Common Market
MRAs	Mutual Recognition Agreements
MSMEs	Micro, Small and Medium Enterprises
OECD	Organisation for Economic Co-operation and Development
PCT	Patent Cooperation Treaty
PTFE	Polytetrafluorethylene
RDTII	Regional Digital Trade Integration Index
RTA	Regional Trade Agreement
SDoC	Supplier Declaration of Conformity
SA	Southern Africa
SEA	South-East Asia
SSWA	South and South-West Asia
TFA	Trade Facilitation Agreement
TRIMs	Trade-Related Investment Measures
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNCITRAL	United Nations Commission on International Trade Law
UNRCs	United Nations Regional Commissions
VPNs	Virtual Private Networks
WA	Western Africa
WCT	WIPO Copyright Treaty
WIPO	World Intellectual Property Organization
WPPT	WIPO Performances and Phonograms Treaty
WTO	World Trade Organization

Executive summary

Economic integration and effective engagement in digital trade have been identified as key priorities in Asia-Pacific, Africa, Latin America and the Caribbean (LAC) for accelerating recovery from the COVID-19 crisis and as engines of sustainable development. Digitalization increases the number of businesses and consumers accessible globally, helps diffuse ideas and knowledge, and raises productivity and consumer welfare. It also enables new business models and practices, bringing both opportunities and challenges. As Governments take steps to regulate the digital economy, the challenges are daunting. Governments have to ensure that regulatory environment creates sufficient opportunities for small and medium-sized enterprises (SMEs) and that the benefits from digital trade can be realised and shared more widely.

While the infrastructure deficit for digital trade is evident in many countries in Asia-Pacific, Africa, and LAC, a conducive regulatory environment is an essential prerequisite for increasing the viability of infrastructure development and the promotion of digital trade. In this context, this report aims to assist policymakers in the three regions to better understand digital trade regulatory environment within and between their regions. Being well informed about the policy context not only at home but also abroad, will allow policymakers to generate useful insights for identifying specific areas for attention and potential improvement to facilitate digital trade.

The report has five chapters. The first chapter summarizes the Regional Digital Trade Integration Index (RDTII) 2.0 framework of the United Nations Regional Commissions in Asia-Pacific, Africa, and LAC. The common approach in data collection and analysis allows for comparison of the results across the three regions. Chapters two, three, and four present key findings from RDTII 2.0 for the Asia-Pacific, African, and LAC regions, respectively. The final chapter draws on results obtained across the three regions to offer digital trade policy recommendations. Overall, enhancing regional integration through more digital trade between economies requires finding common ground on digital trade regulatory approaches as well as reducing policy ambiguity and restrictions that affect digital trade and investment.

The dataset used for this publication covers 69 economies at different levels of development and is based on primary and secondary information from official public sources. The following economies have been covered in the project's pilot phase:

Asia-Pacific (21 economies): Australia, Brunei Darussalam, Cambodia, India, Indonesia, Japan, Kazakhstan, Lao People's Democratic Republic, Malaysia, Nepal,

New Zealand, Pakistan, the Philippines, the Republic of Korea, the Russian Federation, Singapore, Thailand, Türkiye, Vanuatu, Viet Nam and Hong Kong, China.

Africa (28 economies): Burundi, Botswana, Cameroon, Chad, Congo, Democratic Republic of the Congo, Egypt, Eswatini, Ethiopia, Gabon, the Gambia, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Sierra Leone, Tanzania, Togo, Uganda, Zambia and Zimbabwe.

LAC (20 economies): Argentina, Bolivia (P.S. of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago and Venezuela (B.R. of).

The RDTII 2.0 index score gives a sense of the regulations facing digital trade businesses in an economy. The index scores indicate how significantly the regulatory environment adds to 'the cost of doing digital trade-related business'.** Regulatory interventions are not necessarily trade impediments. An example is that businesses may fully recognize the value and importance of regulations – such as privacy protection – to foster digital trust and use. However, a complex, ambiguous and heterogeneous regulatory environment can increase the costs of doing business and trade if the regulatory standards considerably differ across jurisdictions. The index, therefore, addresses such issues by considering the measures both related to the lack of important legal frameworks and to reduced flexibility of business and interoperability in digital economy through regulations. International treaties or model laws are used as benchmarks to assess regulatory interoperability.

Based on data collected in 2022 for these economies, it is found that the regional average RDTII scores are 0.36 for the Asia-Pacific region, 0.34 for Africa and 0.25 for LAC. The scores suggest that Governments in the Asia-Pacific and African regions are using a more complex approach in regulating their digital economy than Governments in the LAC region. In addition, the average regulatory similarity score of the Asia-Pacific region (0.63) is lower than that of LAC (0.68) and Africa (0.72).*** It shows that the regulatory environment in Asia-Pacific is somewhat more heterogeneous than that in Africa and LAC.

** The RDTII score ranges from zero to one, with zero representing the lowest compliance cost and 1 representing the highest.
*** The regulatory similarity ranges from zero to one, with zero representing the highest similarity and 1 representing the lowest.

Across the three regions, regulatory interventions that may affect competition are particularly prominent in the telecom sector. The three regions also share commonality in the policies related to intermediary liability. However, the three regions are considerably different regarding regulatory tools used and the degree to which Governments in their regions have established facilitative legislative frameworks.

The major differences between the three regions appear in the traditional domains of trade policies and domestic regulations. While import tariffs on ICT goods have already reached a low level in many Asia-Pacific economies, those in African and LAC countries remain quite high. In contrast, interventions in the Asia-Pacific region appear more in foreign direct investment, public procurement and domestic data protection.

The three regions converge in terms of standards and procedures for digital trade. Governments across the regions recognize the importance of reducing procedural delays. It appears that they have prioritized enhancing transparency by establishing technical standards in line with international norms, particularly for ICT equipment. Among the economies that have implemented encryption standards, many have aligned their standards with international benchmarks.

The report proposes the following recommendations for enhancing digital trade integration based on commonalities among the three regions:

- Lower barriers to trade in information and communication technology (ICT) goods and digital trade-related services;
- Implement an accommodative foreign direct investment policy within the telecommunications sector to enhance access and affordability to telecom/digital infrastructure;
- Promote the adoption of conducive legal frameworks for digital governance.

Beyond these common recommendations for the three regions, the following recommendations are highlighted based on region-specific conditions and priorities:

Asia-Pacific:

- Deepen cooperation in areas where a high degree of regional common ground already exists, such as online consumer protection, cybersecurity, technical standards, e-signatures and paperless trade facilitation;
- Leverage existing regional and global initiatives, such as the WTO Joint Statement Initiative (JSI) on e-commerce, the Framework Agreement

on Cross-border Paperless Trade Facilitation in Asia and the Pacific, and digital economic partnerships to strengthen cooperation for regulatory interoperability;

- Bridge the regulatory gap in LDCs, by building their capacity in policymaking and in rulemaking negotiations in digital trade areas.

Africa:

- Facilitate competition in the telecommunication sector to draw capital and innovation into Africa's digital landscape;
- Bolster efforts to harmonize the digital regulatory landscape at the continental level, thereby enhancing regional digital integration;
- Prioritize regulatory interventions that reduce effective intra-African tariffs rates on ICT goods, strengthen intermediary liability protection for business against third party content, and accede to key international agreements that protect patents and (digital) copyrights, whilst implementing and enforcing an enhanced framework for data privacy and protection.

Latin America and the Caribbean :

- Reform the telecom sector by reducing discriminatory requirements to obtain licences, attaching the WTO Telecom Reference Paper to the countries' schedules of commitments and introducing the functional separation of operators with significant market power to increase competition in the sector;
- Sign the WTO Information Technology Agreement (ITA) and its expansion (ITA II), and allow self-declaration of conformity for electrical products to foster trade in ICT goods both within the region and with the rest of the world;
- Join 'next generation' free trade agreements with commitments supporting digital trade, including de minimis thresholds and open data transfers across borders;
- Introduce safe harbour regulation that shields intermediaries from liability for user-generated content on their platforms to enhance legal certainty and promote the expansion of innovative services.

While the above regional specificities have been observed, it is important to note that considerable variations and diversity among economies exist within each region. Therefore, this report also aims to examine this heterogeneity in further detail.

536.85
238.38
561.84
268.38
536.85

Chapter 1

Introduction

1.1 Introduction

Digital transformation is opening up new opportunities for companies to do business worldwide and for Governments to leverage digitalization for economic and societal objectives. For international trade, digitalization provides several benefits, including facilitating access to new markets and new customers, lowering the cost of engaging in cross-border transactions, and enhancing the ability to coordinate global value chains (OECD, 2020). The COVID-19 pandemic has accelerated the digital transformation, demonstrating the importance of supportive digital trade policies to mitigate the global economic slowdown, sustain well-being and speed up recovery. At the same time, the rapid pace of digitalization also raises challenges for policymakers worldwide, fostering regulatory fragmentation and increasing global barriers to digital trade (OECD, 2022). Better regional integration helps countries overcome differences that impede the cross-border flow of goods, services, capital, data and people, while regulatory differences can result in higher trade costs for businesses and higher prices for consumers.

Fostering integration through digital trade is seen as a key priority by many developing countries towards fostering sustainable growth in the twenty-first century. Countries in Asia, Africa, Latin America and the Caribbean have worked progressively over the recent years to enhance regional integration and unlock the benefits of shared prosperity. The interactions between trade and digital economy integration have translated into a growing number of digital-trade and ecommerce-related provisions in regional trade agreements of countries in the three regions. Awareness is growing that regulatory differences can result in higher trade costs for businesses and higher prices for consumers. Hence, removing regulatory bottlenecks and ensuring interoperability with regional regulatory frameworks will be essential for regional integration, especially for the least developed countries (LDCs), which have high trade cost disadvantages and will soon lose preferential tariffs on their exports after graduation.

Supporting member States to overcome challenges that impede their regional digital-trade integration has been a priority for the United Nations Regional Commissions of Asia-Pacific, Africa, and Latin America and the Caribbean (LAC). The ESCAP Committee on Trade and Investment, at its seventh session in January 2021, requested the ESCAP Secretariat to deepen its analysis of existing conventional and digital trade rules and regulations, as well as provide support to smaller economies and least developed countries (LDCs). This includes the development of pragmatic policy recommendations and capacity building technology transfer as well as the initiation of a study on the impact of the harmonization of digital trade rules and

regulations on the effective participation of those countries in e-commerce and digital trade.

At the first session of the Committee on Private Sector Development, Regional Integration, Trade, Infrastructure, Industry and Technology, held in March 2020, the United Nations Economic Commission for Africa (ECA) was requested to undertake research on the digital economy, prepare (in collaboration with its partners) a comprehensive and coherent digital agenda for the African continent, and provide technical assistance to streamline regional digital policies and strategies. In this context, in December 2020, through its African Trade Policy Centre (ATPC), the ECA launched a training and research initiative on Digital Trade Regulatory Integration in Africa to assess the readiness of African countries to effectively engage in digital trade and e-commerce with a strong focus on regulation. In this context, the initiative primarily aims to assist member States on digital trade issues at large, including in the context of the negotiations and implementation of the Digital trade Protocol under the African Continental Free Trade Area (AfCFTA) Agreement. Building a stand-alone regional digital trade integration index for Africa, potentially adding a digital trade integration component to the Africa Regional Integration Index (ARII), covering all African countries under the OECD Digital services trade restrictiveness index (Digital STRI), and making data available for subsequent analyses on digital trade-related issues by ECA and any other stakeholders interested are also key objectives.

Since 2005, the Economic Commission for Latin America and the Caribbean has assisted Governments in the region in designing, implementing, monitoring and evaluating three annual digital agendas known as eLAC. This agenda fosters the use of digital technologies as instruments for sustainable development. Its mission is to promote the development of the digital ecosystem in Latin America and the Caribbean through integration and regional cooperation, strengthening digital policies that drive knowledge, inclusion and equality, innovation and environmental sustainability. ECLAC is also assisting regional integration schemes to further their digital agendas, in particular the Andean Community, and the Pacific Alliance. For this purpose, since 2020 this Regional Commission has analysed rules and regulations for digital trade in general and e-commerce in particular.

In this context, the three United Nations Regional Commissions undertook a strengthening of the existing evidence base by developing new indicators on digital trade regulations for their member States, which policymakers and analysts in their regions could use. These indicators facilitate the comparison, facilitate the comparison, benchmarking and formulation of evidence-based policy strategies as

well as fostering collaboration and harmonization of digital trade-related regulatory frameworks for more inclusive and sustainable development in a region. The ECA-ECLAC-ESCAP initiative currently covers 21 pilot economies[1] in the Asia-Pacific region, 28 pilot countries[2] in the African region and 20 pilot countries[3] in the LAC.

This report is a preliminary step towards a greater understanding of the digital trade policy environment in the Asia-Pacific, Africa and LAC regions. It summarizes key findings from the ECA-ECLAC-ESCAP common analytical framework that is based on the Regional Digital Trade Regulatory Integration Index (RDTII) 2.0[4] which provides a comprehensive view of the state of play of various regulatory measures affecting digital trade integration. The common framework allows comparative analysis across the three regions. The global average of the RDTII 2.0 score is 0.31, while the regional average score is 0.36 for the Asia-Pacific region, 0.34 for Africa and 0.25 for LAC. The results imply that Asia-Pacific and African economies, on average, have pursued a relatively heavy-handed approach to regulate their digital economy, while LAC economies are generally taking a relatively light-touched approach. It is important to emphasize that the different regulatory approaches of each economy reflect different priorities and objectives in their policy agenda, and that the index scores presented do not necessarily reflect the superiority of one approach over another.

This report is structured as follows: Section 2 presents the key findings based on the RDTII 2.0 indicators in the Asia-Pacific region. Section 3 is a contribution by ECA that presents the key findings in the African region. Section 4 is a contribution by ECLAC that presents the key findings in Latin America and the Caribbean. Section 5 provides concluding remarks and recommendations.

[1] In this pilot study, the sample includes Australia, Brunei Darussalam, Cambodia, India, Indonesia, Japan, Kazakhstan, Lao People's Democratic Republic, Malaysia, Nepal, New Zealand, Pakistan, the Philippines, the Republic of Korea, the Russian Federation, Singapore, Thailand, Türkiye, Vanuatu, Viet Nam and Hong Kong, China.

[2] This pilot study, which is intended to cover the entire African continent, focused on 28 countries in its first two phases: Phase 1 (11 countries): Cameroon, Chad, Gabon, Ghana, Kenya, Malawi, Nigeria, Tanzania, Uganda, Zambia, and Zimbabwe. Phase 2 (17 countries) Burundi, Botswana, Congo, Democratic Republic of the Congo, Egypt, Eswatini, Ethiopia, the Gambia, Lesotho, Liberia, Madagascar, Mozambique, Namibia, Rwanda, Senegal, Sierra Leone, and Togo.

[3] Argentina, Bolivia (P.S. of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, and Venezuela (B.R. of).

[4] Contributed by academic communities, especially the European University Institute (EUI), the RDTII 2.0 is an upgraded version of the UNRC's index that was initiated at ESCAP in 2020 and was called the Regional Digital Trade Integration Index (RDTII) version 1. For more information about the RDTII version 1.0 framework, see ESCAP-ECA-ECLAC (2022).

1.2 The RDTII 2.0 framework[5]

The United Nations Regional Digital Trade Regulatory Integration Index (RDTII) 2.0 framework provides an overview of the digital trade policy environment. The coverage of the framework incorporates sectors relevant to the digital economy, including digitally-related services and the wide range of ICT products prescribed under the "ITA 3.0" list.[6] It identifies 12 policy areas, or "Pillars", in the digital-trade ecosystem (figure 1 and box 1).[7] Each Pillar includes indicators that capture different elements and major policy measures under the Pillar. The impact of each captured indicator can be expected to 'affect' digital trade integration.

The index and indicator scores give a sense of the policy ecosystem facing digital trade businesses in an economy. The index scores, ranging from zero to one, imply how significantly the regulatory environment adds to 'the cost of doing digital trade-related business'.

It is important to emphasize that the added costs are not necessarily trade impediments. Businesses can struggle with the high compliance costs associated with some forms of regulation while nevertheless fully recognizing the value and importance of regulations – such as privacy protection – to foster digital trust. However, a complex, ambiguous and heterogeneous regulatory environment can hamper trade. The index seeks to address such issues by considering both the indicators on the lack of important legal frameworks and the indicators on the risks of lacking digital interoperability due to regulations. International treaties or model laws are used as benchmarks to assess regulatory interoperability.

The RDTII 2.0 Pillars cover both traditional trade-policy measures, such as tariffs that affect trade in ICT goods, and new types of policies that potentially affect digital trade and related business. The 12 Pillars can be grouped into three broad clusters:

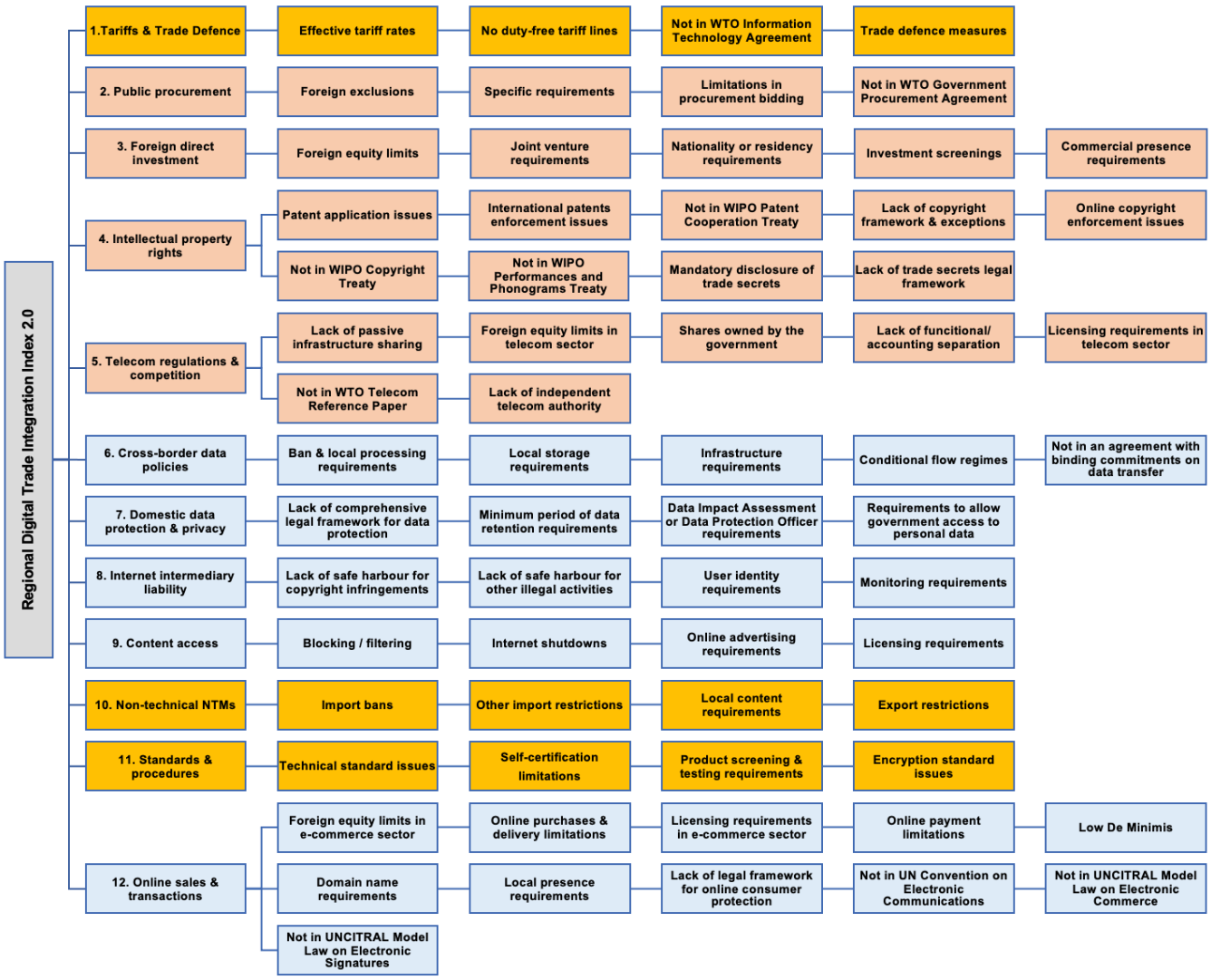
- **Traditional trade policy cluster** covers such regulations as tariff and nontariff measures (NTMs) on information communication technology goods and services. The cluster includes Pillar 1 (tariffs and trade defence), Pillar 10 (non-technical NTMs) and Pillar 11 (standards and procedures);

[5] For more details about RDTII version 2.0 framework, please refer to Ferracane (2022), and ESCAP-ECA-ECLAC (2023) forthcoming.
[6] The RDTII 2.0 results are based on the list of ICT products found in the "ITA 3.0" list proposed by the Innovation Technology and Innovation Foundation (ITIF) (Ezell and Dascoli, 2021). The ITA 3.0 includes all products under the WTO's Information Technology Agreement (ITA) I and ITA II products as well as additional products provided by ITIF.
[7] Results by Asia-Pacific economy for which data are available in RDTII 2.0 are available later in this report.

- **Other domestic regulations cluster** includes regulations in broader policy areas. The cluster covers policies under Pillar 2 (public procurement), Pillar 3 (foreign direct investment), Pillar 4 (intellectual property rights), and Pillar 5 (telecom regulations and competition);

- **Digital governance cluster** encompasses modern domestic regulations that focus on data, Internet platforms and platform-generated transactions. The cluster includes Pillar 6 (cross-border data policies), Pillar 7 (domestic data protection and privacy), Pillar 8 (Internet intermediary liability), Pillar 9 (content access) and Pillar 12 (online sales and transactions).

Figure 1. Regional Digital Trade Regulatory Integration Index (RDTII 2.0) - Pillars and Indicators



Source: ESCAP

Box 1. RDTII 2.0 framework in brief*

The overall RDTII 2.0 is a composite index integrating the scores of 12 pillars by using a simple average method. Each RDTII Pillar score is the weighted average of scores at the indicator level. Indicator scores range from '0' to '1' and are based on a review of existing policies and regulations. A score greater than '0' indicates that at least one of the following conditions occurs:

- **Differential treatment** between domestic and foreign providers;
- **Additional regulatory compliance costs to services provided online**, relative to those provided offline;
- **Absence of certain international norms**, e.g., international agreement, legislation or legal mechanism considered to be significant importance for interoperability across jurisdictions.

The RDTII framework considers that enhancing regional integration through more digital trade between the economies within the considered United Nations region requires promoting the interoperability of digital-trade regulatory approaches, reducing the costs of regulatory compliance, and promoting intraregional trade in goods and services that are important to the development of the digital economy, such as ICT goods and ICT services. Based on this principle, selected indicators address intraregional perspectives, such as those related to tariff and non-tariff measures imposed on intra-regional imports.

Pillar 1 covers **tariffs and trade defence** measures that limit trade in ICT goods with the regional partners.

Pillar 2 covers **restrictions on participation in public procurement** of ICT goods and services.

Pillar 3 covers **restrictions on foreign direct investment** in sectors related to digital trade. Such restrictions may be in place for national security and other legitimate reasons, but reduce competition.

Pillar 4 looks at **Intellectual Property Rights (IPRs) policies** and the balance between protecting individual rights to intellectual property and fostering innovation.

* For details, see Ferracane, 2022, and ESCAP-ECA-ECLAC, 2023, forthcoming.

Pillar 5 covers policies and regulations regarding **telecommunications infrastructure and competition.**

Pillar 6 considers **cross-border data policies** which may address data privacy, data protection, data flows and other concerns, but also increase the costs of digital trade.

Pillar 7 covers **domestic data policies** governing the use of data in the regulating economy, such as regulations related to domestic data privacy, protection, retention and cybersecurity that may enhance trust in digital transactions.

Pillar 8 deals with measures governing **Internet intermediary liability**, balancing the need for holding intermediaries responsible for illegal content over the internet and not discouraging their participation in digital trade with onerous liability or obligations.

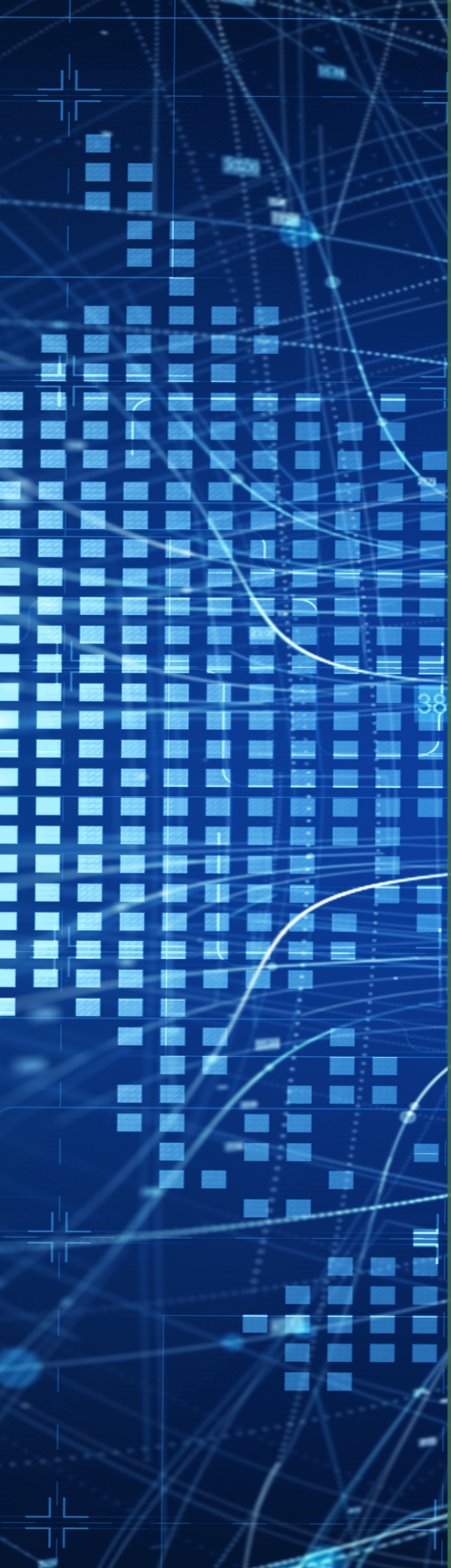
Pillar 9 deals with **content access**, balancing the interest to reduce illegal online content and the business costs for the intermediaries to conform with the requirements and the interruption to providing their services.

Pillar 10 captures **non-technical NTMs**, including trade restrictions that are non-tariff measures (e.g., quotas) that limit the importation and exportation of ICT goods and online services from the economy in the region.

Pillar 11 focuses on **standards and related procedures**. Pillar considers procedural delays and complexity, which deviate from internationally recognized best practices, as a potential trade restriction for ICT goods and online services in the telecommunication sector.

Pillar 12 captures a broad spectrum of policies that affect **online sales and transactions**, including regulations on online purchase, delivery, online payment and domain names as well as legal recognition for electronic signatures and the existence of relevant consumer protection laws.

Overall, the RDTII 2.0 framework and scores summarize increasingly complex digital trade policies and regulations from a trade and business perspective. It allows policymakers to understand where their economies stand in comparison to other economies. The framework does not attempt to capture the full range of social, economic, security and environmental concerns that may need to be considered when engaging in regulatory reform.



Chapter 2

Digital trade policy environment in the Asia-Pacific region

2. Digital trade policy environment in the Asia-Pacific region

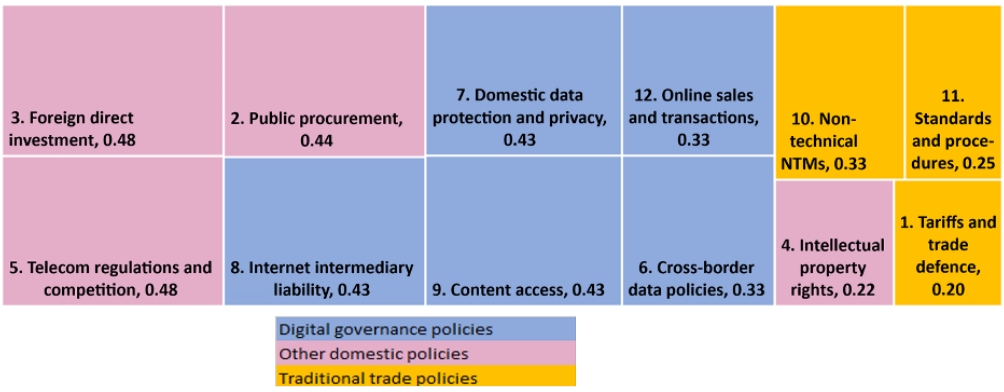
2.1 Overview of digital trade policy environment in the Asia-Pacific region

Based on data collected from 21 sample Asia-Pacific economies, the RDTII 2.0 score of the group stands at 0.36 on average, showing that a low score indicates a less complicated regulatory environment in general and a higher potential for digital trade integration among economies. The policy areas where businesses may encounter heavy rules and burdens tend to be related to foreign direct investment regulations, competition in the telecom services and public procurement conditions. Digital governance policies, such as the regulations on online sales and e-commerce surrounding measures, stand on a wide spectrum ranging from heavy regulations related to intermediary liability to moderate conditions for cross-border data flows.

Based on regional average scores, as shown in figure 2, traditional trade policy measures (Pillars 1, 11 and 10) tend to be relatively enabling with quite a low presence of tariffs and non-tariff barriers to trade on digital products, which include ICT goods, ICT services, and digitally delivered services. The enabling conditions in the region also include the presence of legal and institutional frameworks governing intellectual property rights (Pillar 4). Government awareness of the importance of e-commerce and data flows seem to be reflected in the encouraging policy environment, in general, for online sales and transactions (Pillar 12), and cross-border data policies (Pillar 6).

At the other end of the policy spectrum, challenges for cross-border business occur frequently due to policies in the telecom sector (Pillar 5) and foreign direct investment rules (Pillar 3), followed by heavy rules regarding public procurement (Pillar 2), Internet intermediary liability (Pillar 8), content access (Pillar 9), and data protection and privacy (Pillar 7). Notably, the gap is large between the six policy areas on the right (traditional trade policies and IPRs) and the other six contentious areas on the left, with average scores of 0.20 - 0.33 for the former and 0.43 - 0.48 for the latter.

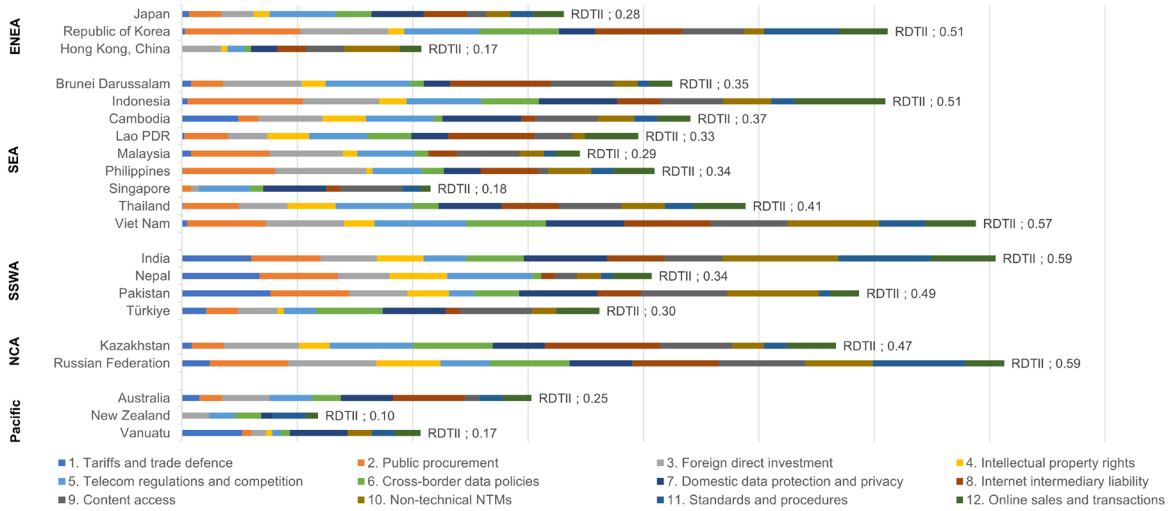
Figure 2. Asia-Pacific RDTII 2.0 score by Pillar, group average score, 2022



Source: ESCAP calculation, data as of October 2022.

The regional averages, however, mask a large variation across regional economies. The overall RDTII 2.0 scores of Asia-Pacific sample economies range from 0.10 to 0.59 (figure 3). India, the Russian Federation, Viet Nam, Indonesia and the Republic of Korea have significantly higher RDTII 2.0 scores than other economies, indicating the existence of a significantly more complex regulatory environment for regional businesses to engage in digital trade. New Zealand, Hong Kong (China) and Singapore have RDTII 2.0 scores well below the sample average. Vanuatu also has low scores relative to other developing economies. Generally, lower RDTII 2.0 scores indicate a low compliance-cost digital trade environment. Such an environment can facilitate the participation of smaller firms in the region in digital trade with these economies. However, such an open environment in emerging economies may also be due to a lack of sufficient regulatory oversight (i.e., absence of regulation), affecting the overall development of digital trade and associated benefits.

Figure 3. RDTII 2.0 score of sample Asia-Pacific economies, 2022

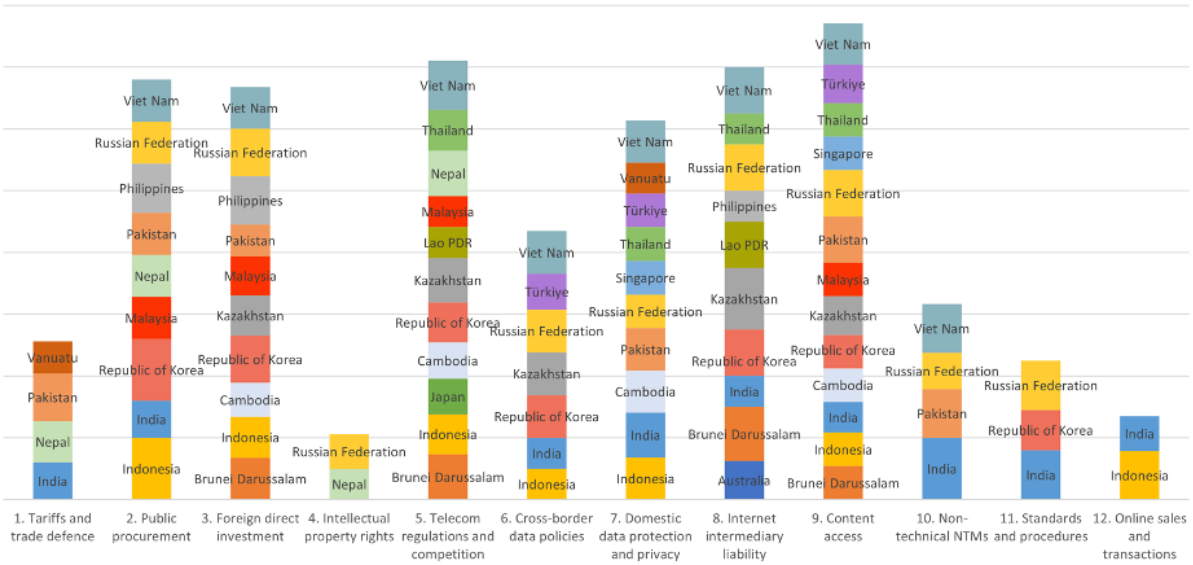


Source: ESCAP calculation, data as of October 2022.
Note: East and North-East Asia (ENEA), South-East Asia (SEA), South and South West Asia (SSWA), North and Central Asia (NCA), and the Pacific. Higher scores indicate more restrictive policies.

2.2 Clustered analysis based on RDTII 2.0 Pillars in the Asia-Pacific region

In specific policy areas, such as content access (Pillar 9), telecom regulations and competition (Pillar 5) and Internet intermediary liability (Pillar 8), a number of sample economies have very high scores, i.e., RDTII 2.0 scores at least 0.5, at the Pillar level (figure 4). This result suggests the possible need for these economies to review and simplify their regulations to make them more conducive for local businesses to engage in cross-border digital trade. On the contrary, in intellectual property rights (Pillar 4) and online sales and transactions (Pillar 12), most sample economies generally score less than 0.5. Few countries have scores equal or higher than 0.5 in the traditional trade policy areas (Pillars 1, 10, 11). India, the Russian Federation and Viet Nam, in particular, score 0.5 or greater in most policy areas, while only the Hong Kong (China) and New Zealand scores are below than the 0.5 threshold in all areas.

Figure 4. Asia-Pacific economies with high RDTII 2.0 scores, by Pillar, 2022



Source: ESCAP compilation, data as of October 2022.
Note: The figure shows only economies with RDTII 2.0 Pillar scores equal or greater than 0.5. Economies are ordered in alphabetically order. Economies with higher scores have larger rectangles. A higher score suggests more regulatory interventions that may increase costs of regulatory compliance and regional digital trade integration.

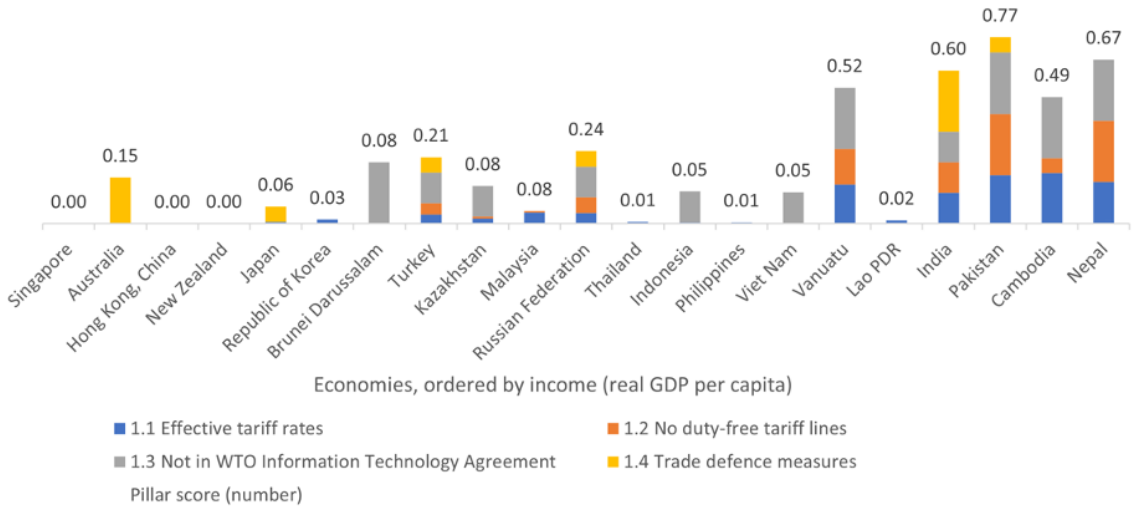
A. Traditional trade policies

This cluster includes Pillars 1, 10 and 11, which are related to tariff and trade defence measures on ICT goods and ICT services. They are measures that have been covered in most forums of trade negotiations. The Pillars under this cluster have a low RDTII 2.0 score, hence they tend to indicate enabling conditions for cross-border businesses in the digital economy.

Pillar 1 focuses on tariffs and trade defence measures imposed on imports of ICT goods from Asia-Pacific economies (figure 5). The average score of 0.20 suggests a generally open environment. There is still room to improve. Many of the sample economies have not participated in the WTO's Information Technology Agreement (ITA), a proxy of their commitment to liberalising trade in ICT goods; their **effective tariff rates** (i.e., MFN applied rates and preferential tariff rates) on ICT goods are low on average.

It is encouraging that several regional economies have already reduced tariffs on ICT goods through regional trade agreements. Most of the sample economies also have substantial coverage of zero duty on the tariff lines of ICT goods. However, India, Pakistan, Nepal, Vanuatu and Cambodia have room to further improve their conditions in this area to enable digital trade and align with other regional economies. These economies still have medium-to high effective tariffs on ICT goods imported from Asia-Pacific partners and fewer zero-tariff lines on ICT goods. Notably, having a sensitive list, not participating in a greater number of products listed in ITA II, and the MFN duties of trade defence measures have caused high tariffs in economies that are signatory to ITA. Regarding trade-defence measures against the Asia-Pacific partners, few cases appear. Examples are (a) the anti-dumping measures imposed by India on Polytetrafluorethylene (PTFE) used for wiring computer applications from a selected Asia-Pacific economy, and (b) Japan on electrolytic manganese dioxide (EMD), a component in the cathode material of alkaline and lithium-ion batteries from China, Spain and South Africa.

Figure 5. Pillar 1 (Tariffs and trade defence) scores in Asia-Pacific, 2022

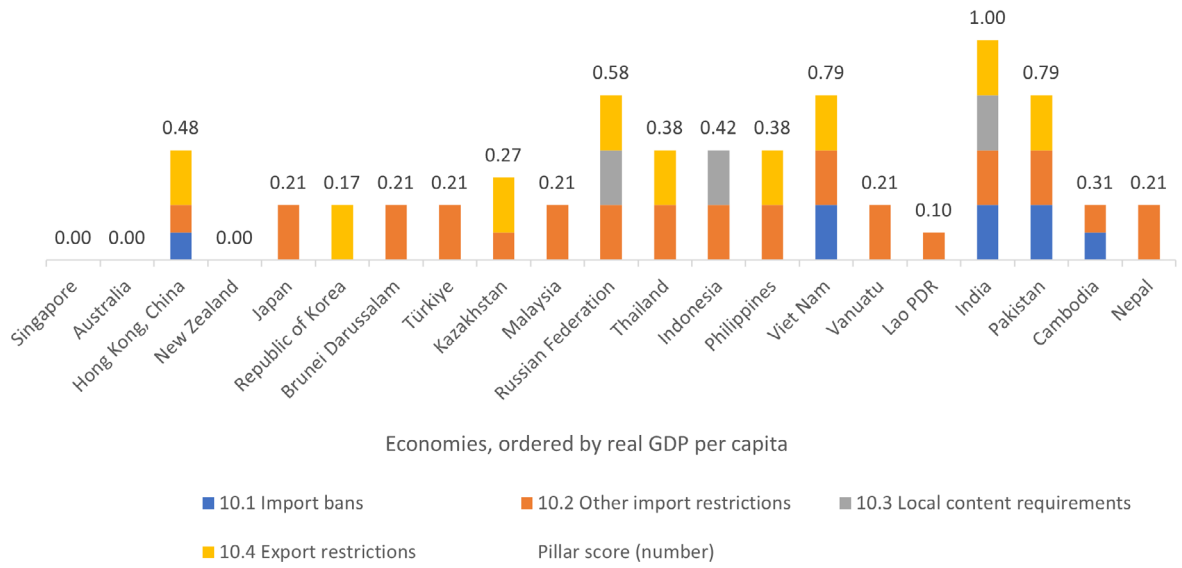


Source: ESCAP calculation, data as of October 2022.

Pillar 10 focuses on non-technical non-tariff measures (NTMs), including licensing, bans, quotas and local content requirements (figure 6). On average, the Pillar score which is 0.33, higher than the score for tariff measures, indicating that challenges to businesses will come from non-tariff trade measures more than from tariffs.

No non-technical restrictions are found in Australia, New Zealand and Singapore. All sample economies do not impose local content requirements except for Indonesia, India and the Russian Federation. Import bans are not common, implemented only by five sample economies, while import regulations exist in most sample economies. Specifically, licensing requirements, certifications and labelling requirements are the most prevalent types applied to various ICT goods and services, including smart televisions, mobile phones, and telecommunication and radiocommunication equipment. However, nine out of 21 economies impose export restrictions. These include the ban, licensing and pre-approval requirement on export items considered dual-use, such as electronic components that potentially fit military use.

Figure 6. Pillar 10 (Non-technical NTMs) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

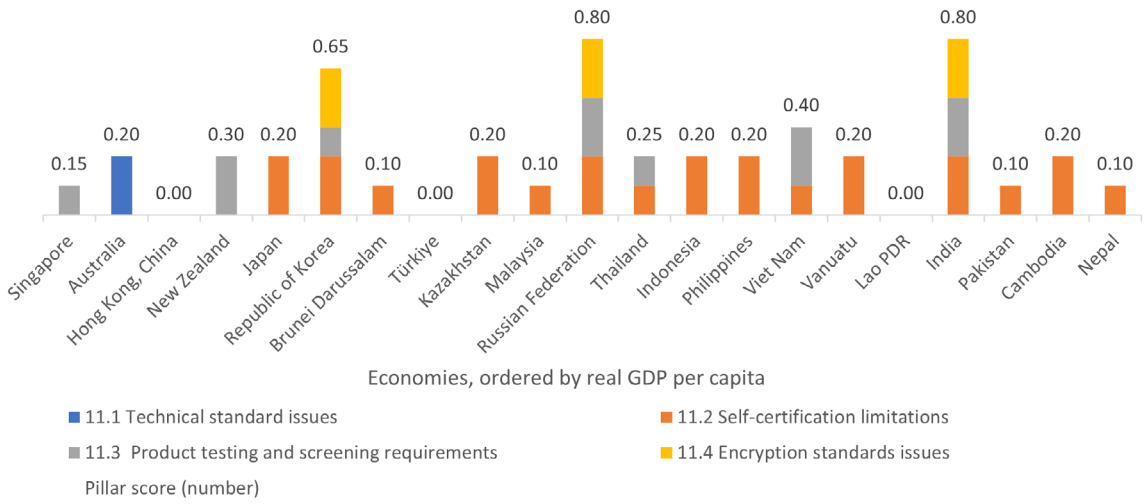
Pillar 11 considers technical non-tariff measures, including standards and procedures, affecting trade in ICT goods and services (figure 7). Most sample economies have adopted transparent technical and encryption standards as well as non-restrictive testing requirements. The common good practices are reflected in the group's score (0.25). However, there is room for improvement to reduce the cost of compliance for businesses, especially in India, the Russian Federation and the Republic of Korea.

Encouragingly, all sample economies, except Australia, allow foreign businesses to participate in public consultations for the technical standard-setting bodies and have a transparent standard-setting process.[8] The encryption standards applied in the sample economies are generally aligned with the internationally recognized encryption standards. Apart from the standards, seven economies implement additional ICT product testing and screening, mainly applied to telecommunication equipment. Of these sample economies, where certain requirements are in place, the Republic of Korea, Singapore and Thailand are open to accepting the test result from recognized foreign certifications or accredited foreign laboratories.

[8] In Australia, an eligible organization to participate in the technical standard-setting must have a domestic headquarters and membership base.

Nevertheless, several extensive requirements are found in the certification process. The ICT products imported by the foreign supplier are subjected to a mandatory certification process, i.e., undergo testing in a local laboratory. Only a few economies accept third-party certification from Conformity Assessment Bodies (CABs), for example, ASEAN and APEC Mutual Recognition Arrangements, or self-certification of product safety by foreign suppliers through the Supplier Declaration of Conformity (SDoC).

Figure 7. Pillar 11 (Standards and procedures) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

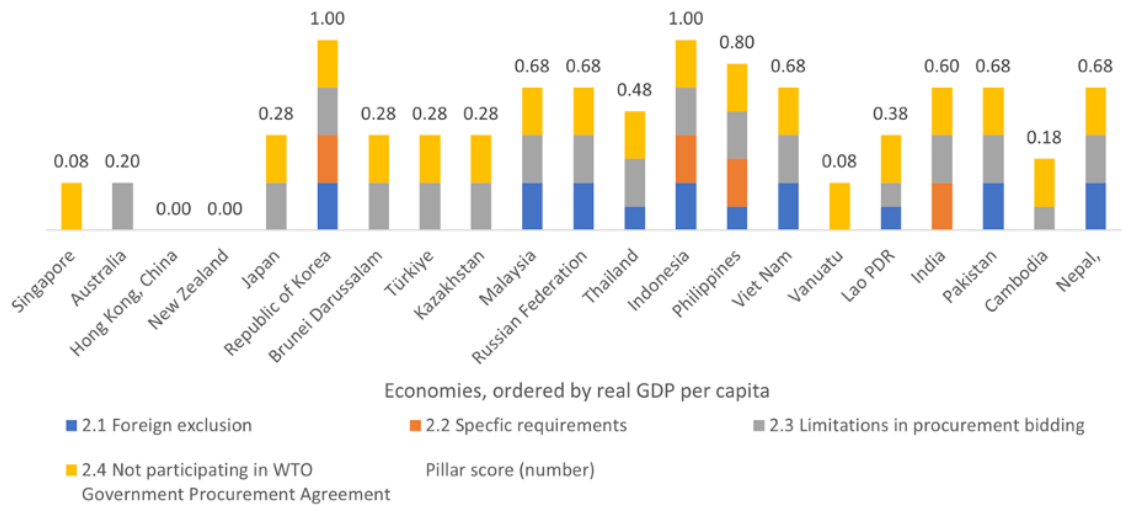
B. Domestic regulations

Policy measures under Pillars 2, 3, 4, and 5 are domestic regulations affecting foreign direct investment and trade. Domestic regulatory Pillars, excluding intellectual property rights, have significantly higher scores than other clusters of trade-policy Pillars.

Pillar 2 considers public procurement in digital trade-related sectors, such as ICT networks, equipment and digitally-enabled services. The regional average score of Digital Trade Regulatory Review for Asia-Pacific, Africa, and Latin America and the Caribbean 18 this Pillar is relatively high at 0.44 (figure 8). The sample economies tend to share some commonalities in their strict approaches, explicitly in Indonesia and the Republic of Korea. However, diversity is still present ; Hong Kong (China) and New Zealand have established favourable procurement regulations.

Most economies in the sample do not participate in the WTO Government Procurement Agreement (GPA) with its coverage schedules related to digital trade and implement limitations on foreign participation in procurement bidding. Measures affecting foreign access to public tenders to protect the national interest in digital trade-related projects come in various forms. Examples are requirements to use local software or local data storage for a public project, requirements for digital service providers to have a local office, and joint venture requirements to be eligible for bidding on the project. Half of the sample economies that implement foreign exclusion frequently impose them on all foreign bidders and **across all sectors**. In several cases, for example, in Indonesia, the Lao People's Democratic Republic, Malaysia, Nepal and Viet Nam, foreign bidders are allowed to participate in procurement only when domestic resources are not available. On top of the horizonal requirement, sector-specific requirements are also found for the digital trade-related sector, such as the requirements on surrendering source codes, encryption and trade secrets, which are included as a condition for participating in tenders by three sample economies.

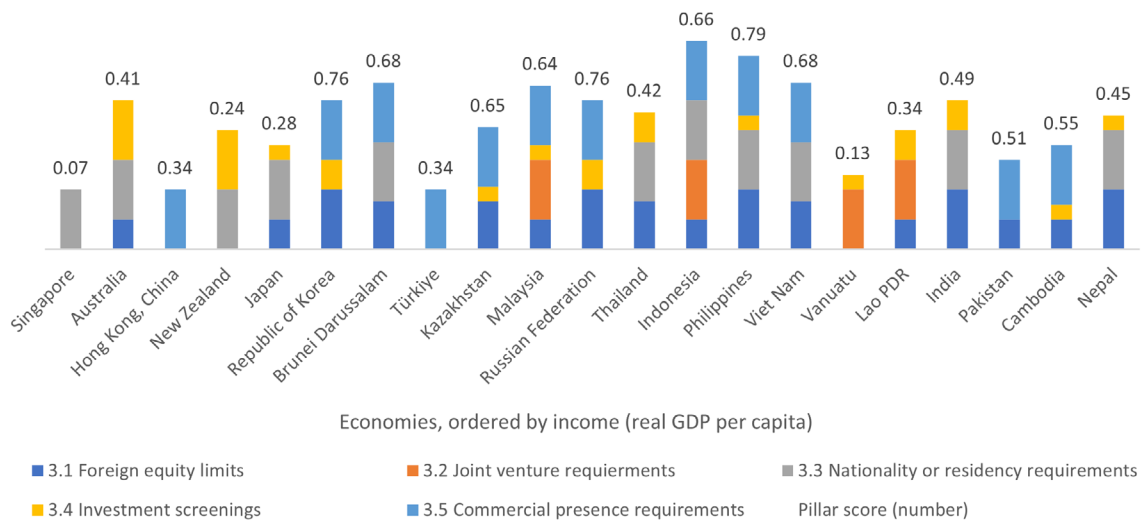
Figure 8. Pillar 2 (Public procurement) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

Pillar 3 considers regulations on foreign direct investment in the sectors at the core of digital-trade activities, including computer services, online broadcasting and manufacturing of ICT goods. This Pillar has regional average score of 0.48, the highest among all 12 Pillars. The high score suggests that regional economies tend to have high complexity in investment policies affecting digital trade and its supportive industries (figure 9). Most of the sample economies impose a foreign equity cap, commercial presence requirements, and screening measures for investment and acquisition in digital trade-related sectors. In particular, India, the Republic of Korea, Nepal, the Philippines and the Russian Federation do not allow foreign direct investment in digitally-related services, such as mass media, and even computer training in the case of Nepal. The requirements for foreign companies to establish companies or branches locally mostly apply horizontally across the sectors and to the specific sector of telecommunication. More than half of the sample economies impose nationality or residency requirements for directors or managers. In contrast, except for Indonesia, the Lao People's Democratic Republic and Vanuatu, none of the sample economies impose joint-venture requirements for foreign direct investment.

Figure 9. Pillar 3 (Foreign direct investment) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

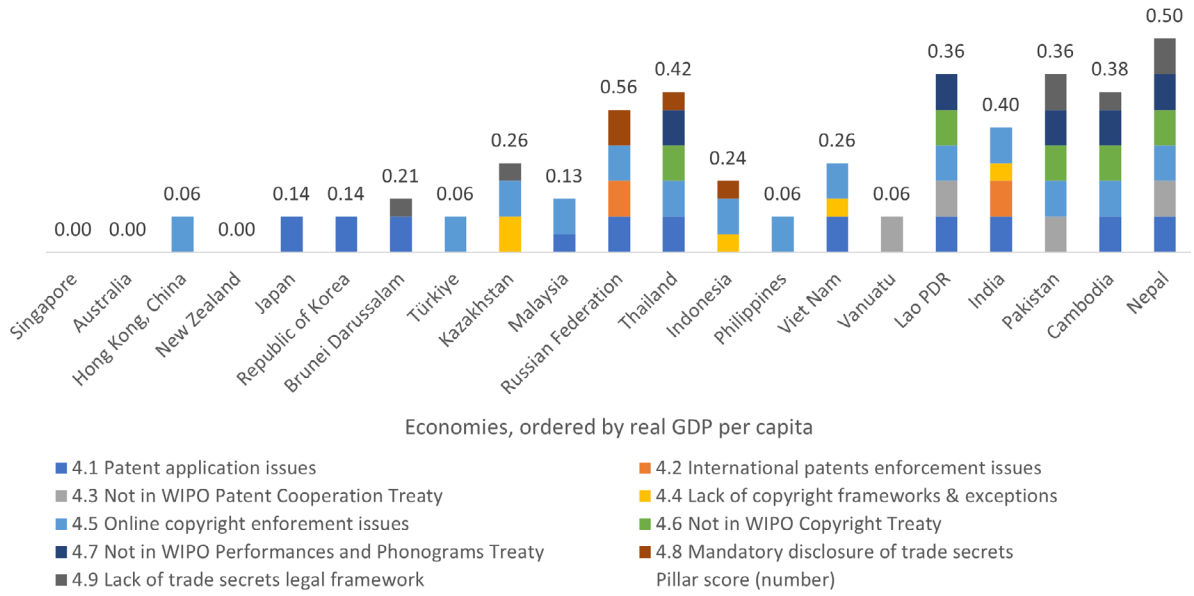
Pillar 4 considers Intellectual Property Right (IPR) policies, focusing on patents, copyrights and trade secrets. The group's average score is 0.22 (figure 10), considering to be one of the most encouraging category of policy environment for digital trade in the AsiaPacific region compared to other Pillars. Intellectual property laws – patents and copyrights – are well-established in most sample economies. Explicit copyright exceptions based on fair use and fair dealing provisions are often included in the legislations. Hence, many Asia-Pacific economies paticipate in the international frameworks, i.e., the WIPO Patent Cooperation Treaty (PCT), WIPO Copyright Treaty (WCT), and WIPO Performances and Phonograms Treaty (WPPT). On the enforcement side, equal protection is given to foreign patents and local patents in most sample economies.

Nevertheless, IPR enforcements still have room to improve. Trade partners have reported cases of copyright infringement and complex patent application processes in some Asia-Pacific economies. For the latter, the requirements to hire local agents are most prominent types, followed by mandatory filing of the patent application locally before filing abroad is possible and requirments to translate the patent application into the local language.

As for trade secrets, most sample economies have adequate safeguards against unauthorized disclosure, whereas a few developing economies, such as Cambodia, Nepal and Pakistan, do not have specific trade secret laws. The absence of legislation could create potential threats regarding confidential information of businesses.

Moreover, mandatory disclosure of trade secrets, including the request for encryption keys, source code and configuration information are implemented by three sample economies.

Figure 10. Pillar 4 (Intellectual Property Rights) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

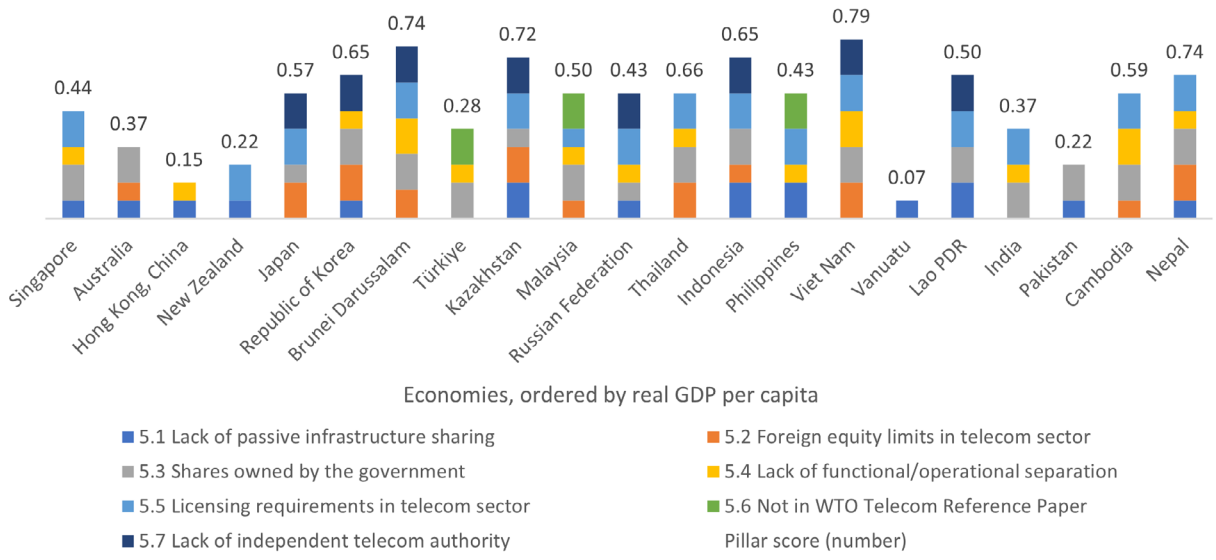
Pillar 5 provides an overview of the regulations and competition in the telecommunication sector, which are the backbone services for digital trade. The regional average Pillar score is 0.48, which is on par with the score for Pillar 3, with a large diversity across sample economies (figure 11). The high RDTII 2.0 score suggests that the telecom regulatory environment may not work well to enhance competition in the market. The lack of a properly regulated market harms for the ability of businesses and consumers to access affordable and efficient telecom services.

Even though most sample economies have appended the WTO Telecom Reference Paper and are governed by independent regulatory bodies, several sample economies – for example, Brunei Darussalam, Indonesia, the Republic of Korea and Viet Nam – have implemented extensive measures. The presence of state-owned enterprises and complex licensing requirements for telecom service operators are common challenges. Most of the telecom companies in the sample economies are owned by the Government with a majority stake. In Brunei Darussalam, Cambodia and India, government ownership is up to 100%. Therefore, not surprisingly,

foreign direct investment in the telecommunication sector is prohibited in several economies, while the other economies impose equity limits.

The mentioned indicators concerning the telecom market structure seem to be more restrictive than the passive obligations on infrastructure-sharing and functional/accounting separation. Twelve sample economies do not mandate infrastructure requirements, but most of them are *de facto* implemented. Several economies also impose separation requirements on telecom operators with significant market power.

Figure 11. Pillar 5 (Telecom regulations and competition) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

C. Digital governance policies

Pillars 6, 7, 8, 9 and 12 include domestic regulations in new areas. This cluster shows a high degree of policy heterogeneity across economies as well as across Pillars.

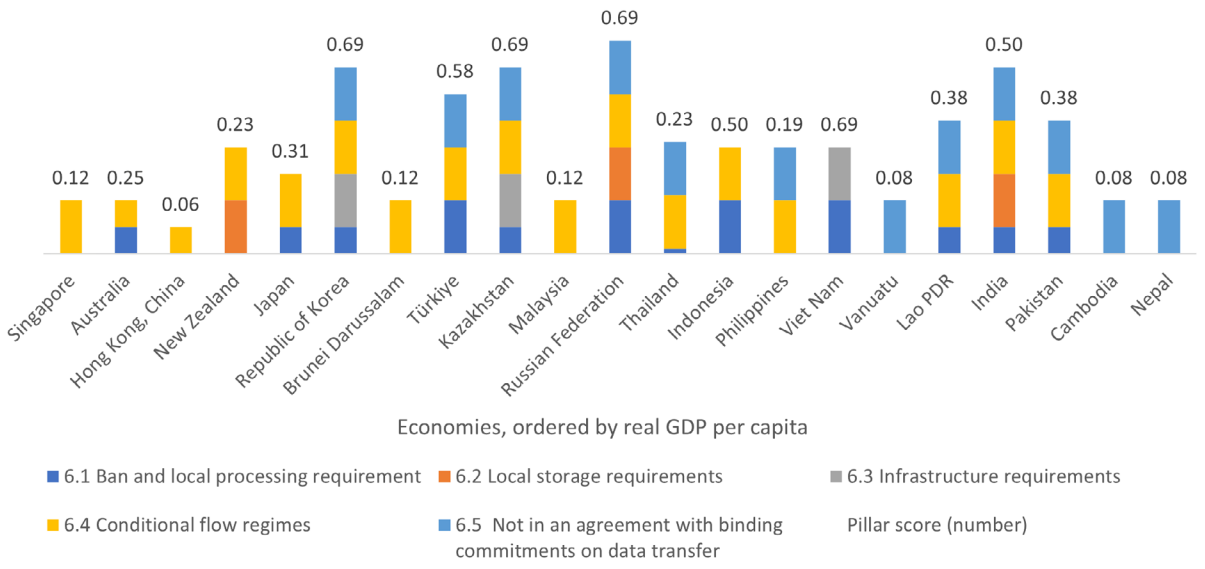
Pillars 6 and 7 together relate to data governance. Pillar 6 captures requirements applied to cross-border data transfer, while Pillar 7 considers policies related to data privacy and protection.

Based on 21 sample economies, the average score of cross-border data policies in Pillar 6 is 0.33 (figure 12). A modest score compared other Pillars. It is quite encouraging that although more than half of the Asia-Pacific sample economies have requirements that affect the location of data – such as the ban on cross-border data flow, local processing, local storage and infrastructure requirements – most of them are sector-specific measures. Among these data localization measures the sector-specific local processing requirement, especially in financial data, is the most common.

The compliance cost may be high when looking at conditional flow regimes in the Asia-Pacific region. Most economies have imposed extensive conditions on transferring personal data, requiring explicit consent from the data subject and an adequate level of data protection in the recipient economy in order to transfer the data abroad. The exceptions are Cambodia, Nepal, Vanuatu and Viet Nam, which do not seem to impose those conditions on cross-border transfers. On a positive side, the conditional flow measures do not require additional investment to store or process the data. Hence, although the conditional flow measures are put in place, the compliance cost they create may not be as high as the measures on data localization (ESCAP, 2022).

Moreover, nine sample economies commit to at least one agreement that has a binding commitment on cross-border transfer of data. For example, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) has a binding commitment on cross-border data transfer in its e-commerce chapter (Article 14.11). Such commitments are also especially common in advanced Asia-Pacific economies that have signed stand-alone digital trade agreements such as the Singapore-United Kingdom Digital Economy Agreement (Article 8.61-F), and the Japan-United States Digital Trade Agreement (Article 11).

Figure 12. Pillar 6 (Cross-border data policies) scores in Asia-Pacific, 2022

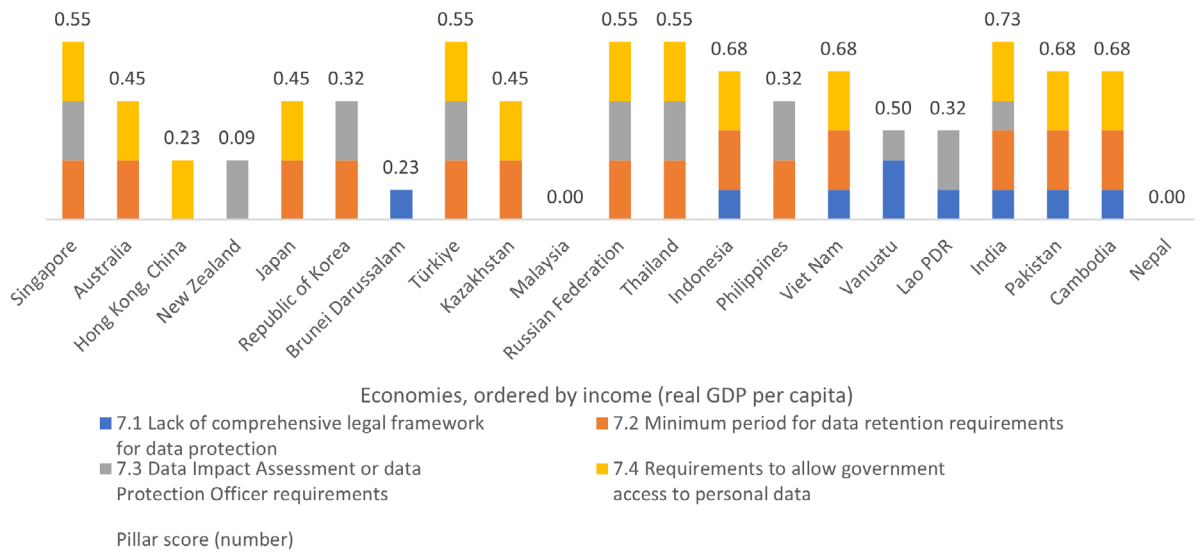


Source: ESCAP calculation, data as of October 2022.

Rules on data protection in Asia-Pacific economies tend to be complex. This has led to a high average score of 0.43 in domestic data protection and privacy (Pillar 7) (figure 13). Notably, most sample economies have already put legal frameworks for data privacy protection in place, although the scope tends to be fragmented in several cases and thereby is governed by specific laws. For example, data privacy protection in Pakistan is regulated under the Prevention of Electronic Crimes Act, Payment Systems and Electronic Fund Transfers Act and Telecom Consumers Protection Regulations.

Many of the sample economies with a fully-established legal framework on data protection tend to impose at least one requirement regarding data retention, government access to personal data and requirements for Data Protection Impact Assessment (DPIA) or appointment of a Data Protection Officer (DPO). Specifically, the requirement to retain data for a minimum period is frequently imposed on several types of data, including company data, telecom data, and financial data. The regulation that authorizes government officials to intercept or decrypt personal data without a warrant, in certain cases, is practised as part of a criminal investigation. In addition, several sample economies, including the economies that do not yet have comprehensive data regulatory frameworks such as Vanuatu, have imposed requirements for firms processing personal data to appoint an officer to ensure compliance with data protection. Compared to others, The RDTII 2.0 score suggests that Malaysia and Nepal have the most simplified environment compared to the other economies.

Figure 13. Pillar 7 (Domestic data protection and privacy) scores in Asia-Pacific, 2022

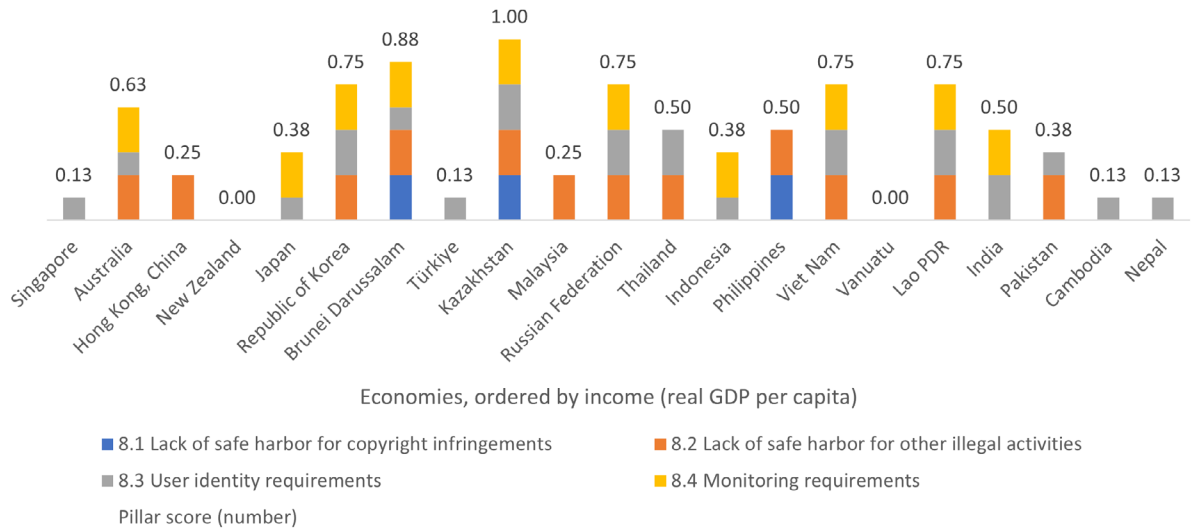


Source: ESCAP calculation, data as of October 2022.

Pillars 8 and 9 on Internet intermediary liability and content access capture the measures related to the responsibility of Internet intermediaries and limiting access to online content, respectively.

Internet intermediary liability (Pillar 8) has a relatively high average score of 0.43 (figure 14). This Pillar considers the compliance cost of Internet intermediaries due to the absence of safeguards to protect them from third party liability and obligations to monitor their users, found in New Zealand and Vanuatu. All sample economies, except Brunei Darussalam, Kazakhstan and the Philippines, have established a safe harbour regime to protect Internet intermediaries against legal liability from a third party, but this is limited to copyright infringement. The provision that safeguards intermediaries against other illegal activities is less implemented in the region. Regarding user identity and monitoring requirements, these measures are more excessively applied than the safe harbour provision. More than half of the samples economies require Internet intermediaries to record their user identities. In turn, users are obliged to register their identifications, i.e., personal data, in order to access certain services. The user identity requirement is widely implemented for activating a new SIM card. Moreover, in several sample economies, Internet intermediaries are responsible for monitoring their users' online activities, for example, by disabling public access to unlawful content on their platforms.

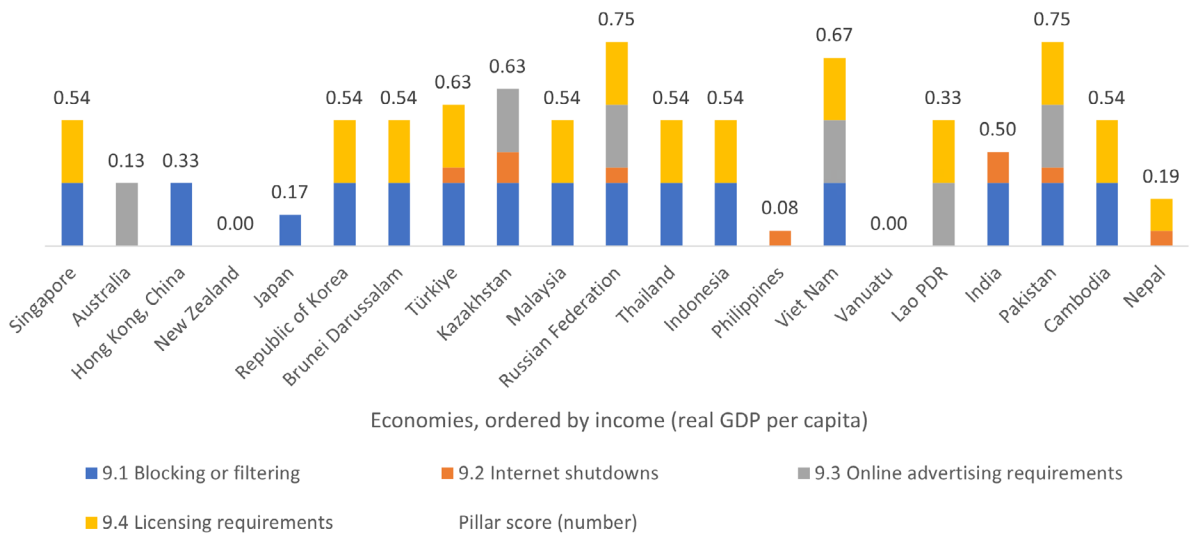
Figure 14. Pillar 8 (Internet intermediary liability) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

Like Pillar 8, content access (Pillar 9) has an average score of 0.43 (figure 15). In addition, most Asia-Pacific economies, except for New Zealand and Vanuatu, tend to heavily regulate online content. Governments in most sample economies have blocked or filtered some foreign commercial websites, even if the content was not internationally agreed illegal content. Specifically, the ban or filtering are imposed on websites, such as Telegram, Alibaba Cloud, Amazon Web Services, Google Cloud and Microsoft Azure. This Pillar also captures the licensing requirement in services related to online content, including social media platforms, news providers, Virtual Private Networks (VPNs), and cloud services. More than half of sample economies mandate that the intermediaries must obtain a licence to operate their services. This license scheme is regarded as 'strict' since it requires, for instance, the license holders to take down online content, or appoint an officer to facilitate access requested by the Government. Less common are regulations regarding online advertisements that go beyond regulating misleading advertisements, such as the requirements to appoint a local agent, locate a local server and obtain approval from the authorities, in order to place the online advertisement. These regulations are found in only six of the sample economies.

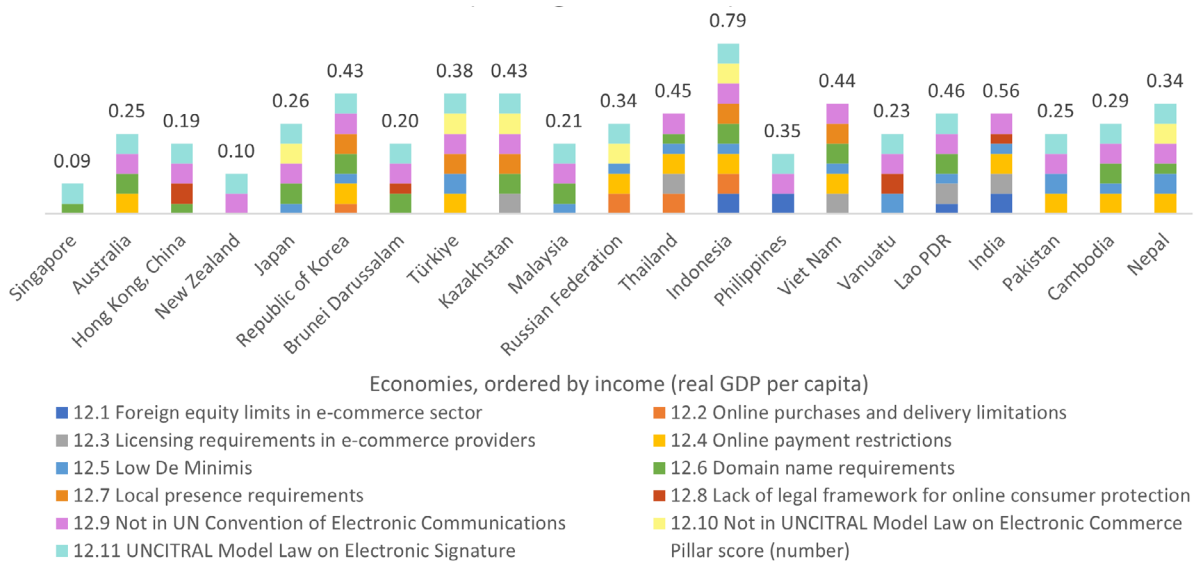
Figure 15. Pillar 9 (Content access) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

Pillar 12 considers policies on online sales and transactions. This Pillar has a direct implication for cross-border e-commerce. The average group score of 0.33 is relatively low compared with other Pillars in the cluster of digital governance (figure 16). This is contributed by liberalised foreign equity shares in the e-commerce sector, low restrictions on online purchases and online sales as well as local presence requirements. Most economies have consumer protection laws that are applicable to e-commerce transactions, and adopt their domestic laws in accordance with the UNCITRAL Model Law on Electronic Commerce (1996) (MLEC). The ratification of MLEC could facilitate a harmonised e-commerce environment and increase legal certainty across the sample economies. However, several sample economies implement demanding regulations concerning online payment, de minimis rules and domain names. Most of the samples have not adopted other international legal frameworks, i.e., the UNCITRAL Model Law on Electronic Signatures (2001) (MLES) and the United Nations Convention on the Use of Electronic Communications in International Contracts (2005) (the Electronic Communications Convention).

Figure 16. Pillar 12 (Online sales and transactions) scores in Asia-Pacific, 2022



Source: ESCAP calculation, data as of October 2022.

2.3 Towards regulatory cooperation for digital trade integration of Asia and the Pacific

This section attempts to identify potential areas for promoting digital-trade regulatory cooperation among the sample economies. Figure 17 maps out policy areas for the group based on average RDTII 2.0 Pillar-level scores and the level of policy similarity among economy pairs. Policy similarity within the group is calculated as the average of inverse bilateral differences of each indicator score within each Pillar.

Based on the group average, traditional trade policy areas (**Pillars 1, 10 and 11**), and intellectual property rights (**Pillar 4**) have high similarities and fewer policy-induced costs to businesses. As noted above, most sample economies have low tariffs on ICT goods and have room to make more commitments in multilateral trading agreements related to digital trade, such as the WTO ITA. Regional cooperation focused on addressing gaps in trade policy may be a good starting point. While further lowering tariffs may be considered, cooperation on addressing non-tariff trade measures and collaboration on technical standards may be particularly fruitful.

Intellectual property right has a significantly lower score than most Pillars. Economies typically follow the rules on IP formulated by WIPO and WTO. Divergent

interpretations of the terms of protection and procedures may need to be addressed at the national and regional levels. For example, mutual recognition of intellectual property registrations in the region and a harmonized framework for IP rules based on the minimum standards commonly adopted in the region may be usefully considered.

Digital governance policies are split into two approaches – light (**Pillars 6 and 12**) and heavy interventions (**Pillars 7, 8 and 9**). Cross-border data policies (**Pillar 6**) and online sales and transactions (**Pillar 12**) tend to show commonalities across economies. On average, Asia-Pacific economies have relatively modest regulations on the location of data (**Pillar 6**, cross-border data policies), and awareness of the importance of having well-established measures related to e-commerce, specifically consumer protection laws (**Pillar 12**, online sales and transactions). To enable a more conducive environment, binding commitments on data flow and electronic commerce should be focus on. Enforceable agreements either bilateral, plurilateral or multilateral, could ensure effective enforcement and increase the degree of similarity in domestic regulations, thereby enabling data flows and electronic transactions.

Contentious areas with heavy regulations tend to be imposed on domestic data protection and privacy (**Pillar 7**), internet intermediary liability (**Pillar 8**), and content access (**Pillar 9**). It is quite common across the Asia-Pacific region that that ban or filtering content on commercial websites and strict licensing schemes are widely implemented on digital content providers. At the same time, most Asia-Pacific economies in the sample generally impose a minimum period of data retention, permit government access to personal data, or absence of safe harbour regime for other activities apart from copyright infringement. The heavy regulations in digital-governance policies are driven by public policy objectives. Considering these cutting-edge areas of digital governance, this result could reflect that the regulations are developing over time at a different pace in response to the growing internet architecture. Without ensurance by international instruments, seeking a common ground in these regulatory areas for data and the internet is challenging.

The great challenges for regional cooperation in the Asia-Pacific region also appear in the familiar domains of domestic regulations. Even though internationally recognised frameworks are available, public procurement (**Pillar 2**), FDI (**Pillar 3**), and telecom regulations and competition (**Pillar 5**) continue to have high compliance costs and a fragmented environment.

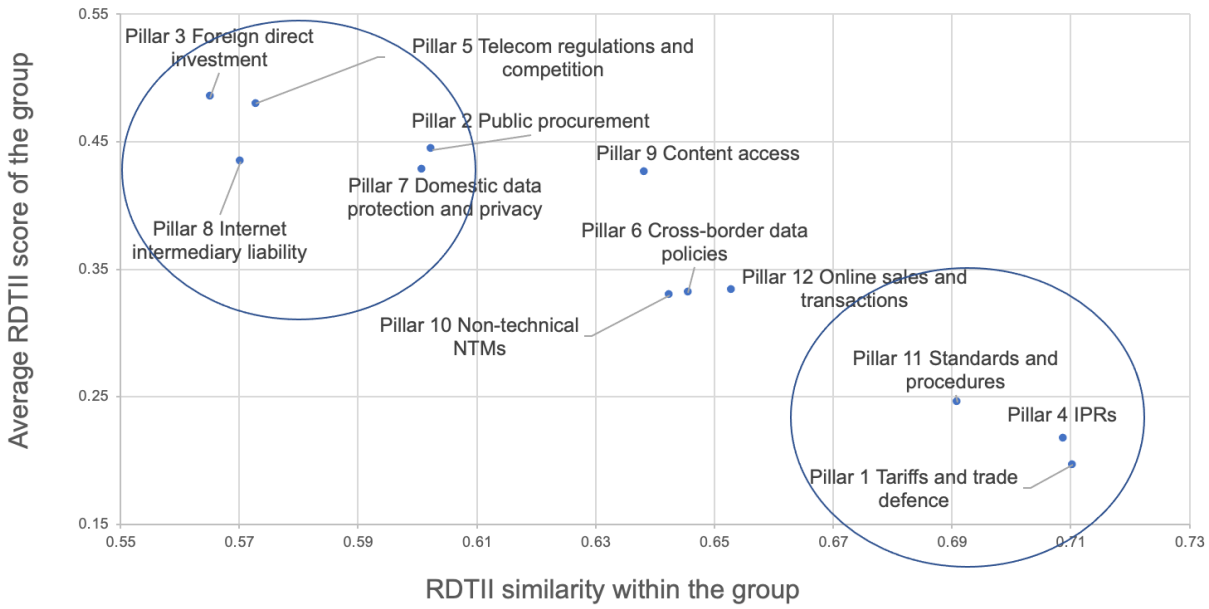
Public procurement policies (**Pillar 2**) of the sample economies remain quite complex. Most sample economies have not made formal commitments to the WTO GPA. Requirements to safeguard national interests or to achieve social objectives appear

in a significant number of sample economies. A significant number of regional trade agreements signed after 2014 in the Asia-Pacific region increasingly cover public procurement, but the disciplines for deepening cooperation between economies have remained modest (Trivedi and others, 2019).

Investment regulations (**Pillar 3**) tend to create the greatest compliance cost, on average for the Asia-Pacific region. The sample economies are commonly implementing a foreign equity cap, commercial presence requirements, and screening of investment and acquisition in sectors relevant for digital trade. Simplifying investment rules and compliance with obligations under international agreements, such as the WTO Agreement on Trade-Related Investment Measures (TRIMs), would be essential to promote transparency and competition as well as facilitate access to world-class technologies.

Similarly, affordability and efficiency of accessing telecom network services form the basis for a country's competitiveness in the digital economy. The existing environment in the telecom market (**Pillar 5**) of Asia-Pacific economies could adversely affect all businesses, including domestic ones, in the digital economy. Undertaking commitments and implementing the principles of the GATS Telecom Reference Paper in national laws and regulations could help to enhance regulatory predictability and offer a global coherent framework for regulatory reform. By appending the Reference Paper to the schedule of commitments, the economy binds it self to the regulatory frameworks for basic telecommunication services[9] which is enforceable through the WTO merchanism for settlement.

Figure 17. Digital-trade policy diversity in the Asia-Pacific region in 2022, by the RDTII 2.0 policy Pillar



Source: ESCAP calculation based on RDTII 2.0 data of 21 sample economies, data as of October 2022.
Note: RDTII score is between zero and one, where zero represents the lowest compliance cost. RDTII similarity is between zero and one, where zero represents the lowest degree of policy similarity between economies in the group.

[9] The regulatory frameworks under the WTO Telecom Reference Paper are competitive safeguards, interconnection, universal services obligation, public availability of licensing criteria, independent regulators and allocation, and use of scarce resources. More information is available at https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm; and https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm.

Chapter 3

Digital trade policy environment in the African Region

3. Digital trade policy environment in the African region

3.1 Overview of Digital Trade Policy Environment in the African region:[10] Findings from the RDTII 2.0

Since late 2020, as part of its Digital Trade Regulatory Integration initiative in Africa, the Regional Integration and Trade Division (RITD) – through the African Trade Policy Centre (ATPC) – of the United Nations Economic Commission for Africa (ECA) has collected, compiled and analysed data on the digital regulatory environment in Africa. Thus far, 28 African countries have been covered in two successive phases.[11] Work is ongoing in another 13 countries,[12] and it is foreseen that the remaining 13 African countries will be covered in 2023.

This chapter illustrates some of the key findings, as evidenced thus far, from the RDTII 2.0, and highlights the main similarities and differences among the sample of 28 African countries. Based on data collected, Africa's average RDTII 2.0 score is 0.34. Similar to the other regions covered in this report, it should not necessarily be concluded that a relatively low overall RDTII 2.0 score is solely indicatory of a conducive digital trade environment; low scores can sometimes also reveal a lack of an extensive policy agenda across several areas relevant to digital trade such as online sales, non-tariffs measures (NTMs) and cross-border data flows. Thus, insufficient safeguards due to a regulatory vacuum may also hamper the development of digital trade and limit integration thereof. It is therefore important to examine the RDTII 2.0 and its indicator scores in more detail.

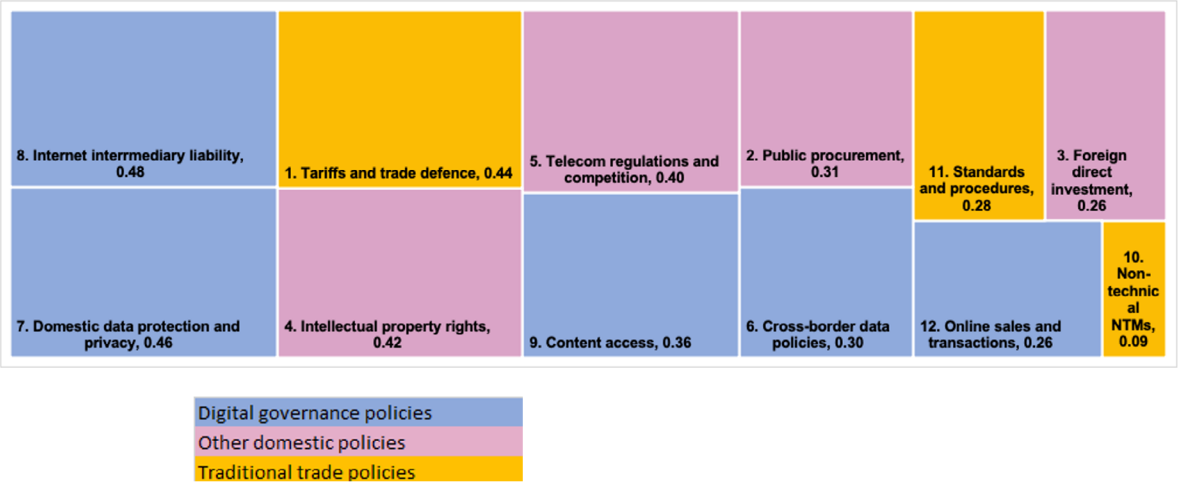
The main impediments to digital trade integration in Africa found thus far, in descending order, are essentially: Internet intermediary liability (Pillar 8); regulations related to domestic data policies (Pillar 7); high effective tariffs applied on ICT goods imported within the African continent (Pillar 1); intellectual property rights (IPRs) (Pillar 4); telecom regulations and competition (Pillar 5); and content access (Pillar 9) (figure 18).

[10] Based on a sample of 28 countries.

[11] Phase 1 (11 countries) Cameroon, Chad, Gabon, Ghana, Kenya, Malawi, Nigeria, Tanzania, Uganda, Zambia, and Zimbabwe. Phase 2 (17 countries): Burundi, Botswana, Congo, Democratic Republic of the Congo, Egypt, Eswatini, Ethiopia, the Gambia, Lesotho, Liberia, Madagascar, Mozambique, Namibia, Rwanda, Senegal, Sierra Leone and Togo.

[12] Phase 3 (13 countries) Algeria, Benin, Central African Republic, Eritrea, Ivory Coast, Mali, Mauritania, Mauritius, Morocco, Seychelles, Somalia, South Africa and South Sudan.

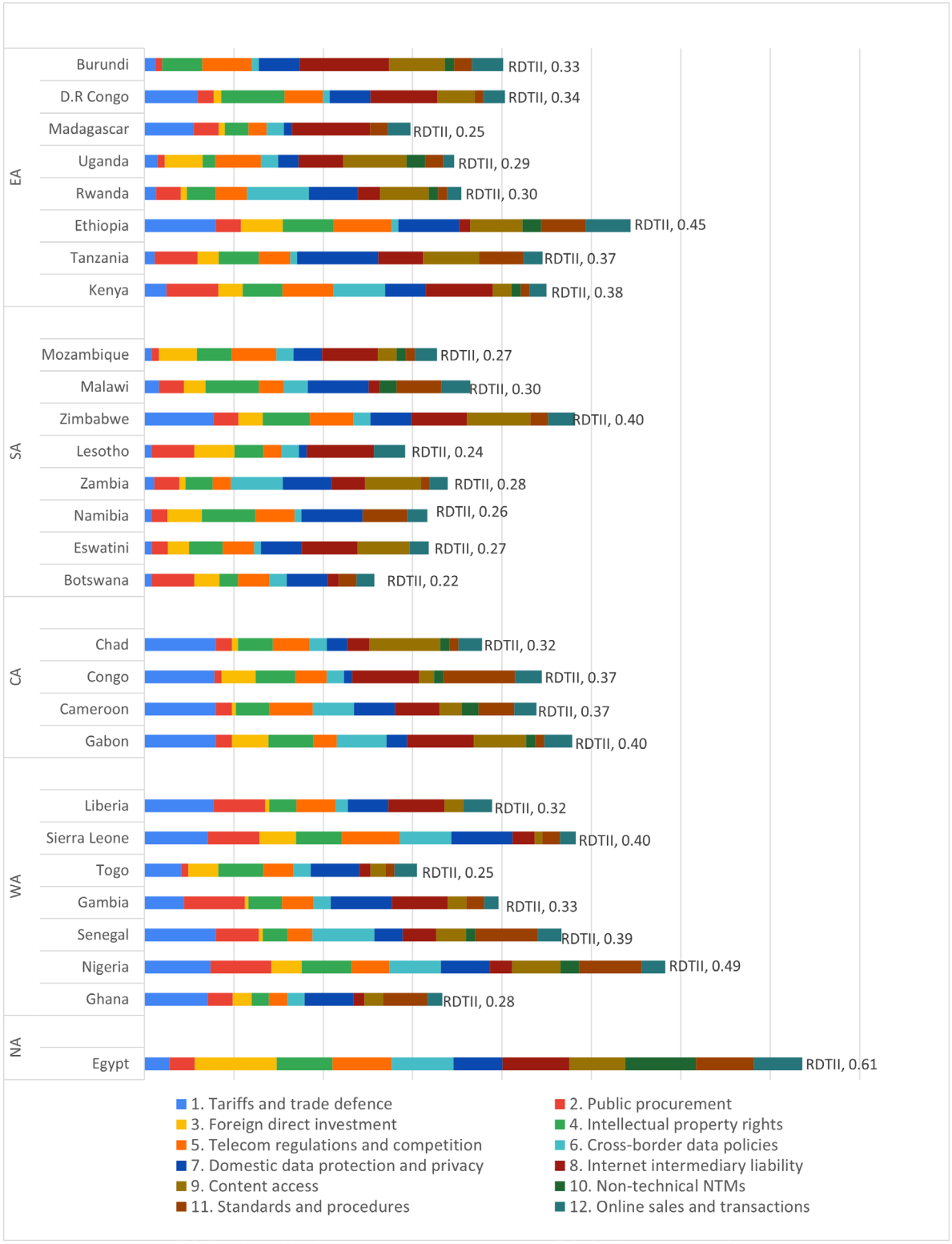
Figure 18. Africa RDTII 2.0 score by Pillar, group average score, 2022



Source: ECA and EUI calculation, data as of December 2022.

When focusing on scores at the country level the RDTII 2.0 reveals significant heterogeneity of digital trade integration in Africa. Scores range from 0.22 for Botswana (the lowest) to 0.61 for Egypt (the highest), as illustrated in figure 19. However, average scores can hide significant disparities at the Pillar level, thus requiring a more granular analysis for each country.

Figure 19. RDTII 2.0 score of sample African countries 2022



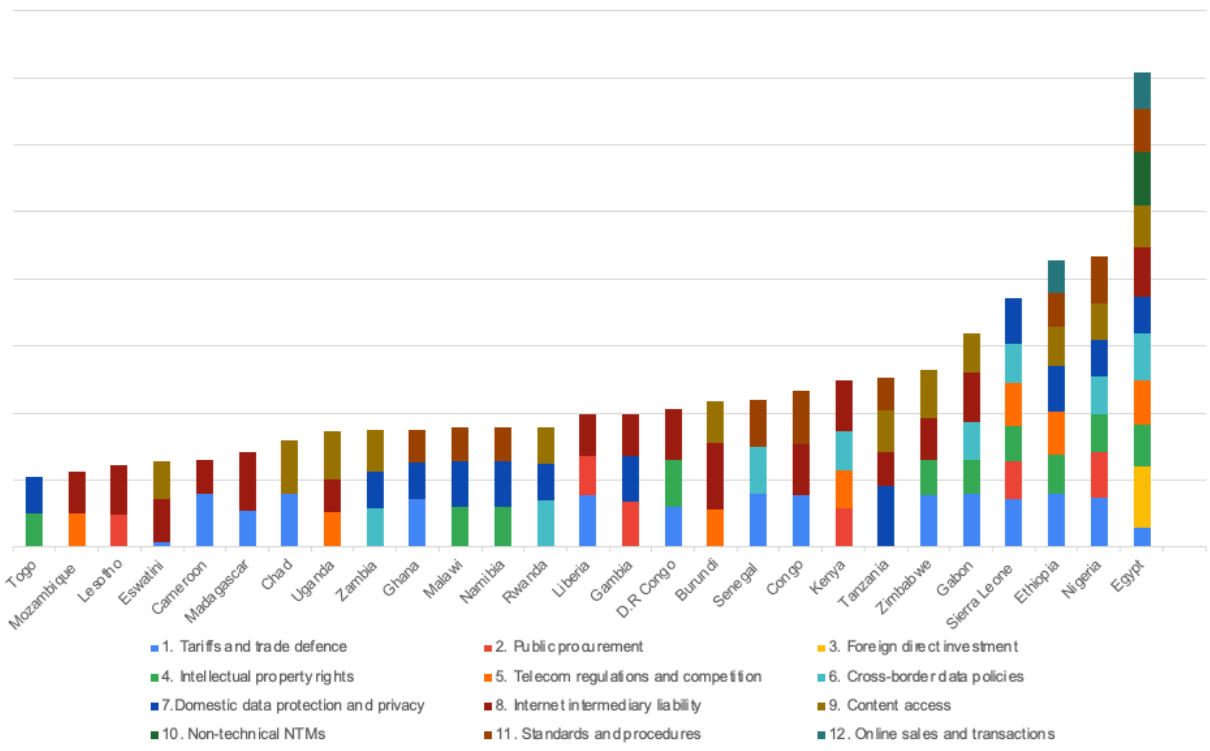
Source: ECA and EUI calculation, data as of December 2022.

Note: Eastern Africa (EA), Southern Africa (SA), Central Africa (CA), Western Africa (WA) and Northern African (NA).

3.2 Clustered analysis based on RDTII 2.0 Pillars in the African region

By narrowing down on individual RDTII 2.0 Pillar scores it is potentially possible to identify areas where attention is required to foster a more conducive environment for digital trade integration. To begin, figure 20 highlights Pillars where countries potentially have high scores, i.e., those Pillars where a nation' score is at least 0.5.

Figure 20. Africa countries with high RDTII 2.0 scores, by Pillar, 2022



Source: ECA calculation, data as of December 2022.
Note: A higher score suggests more regulatory interventions that may increase costs of regulatory digital trade integration.

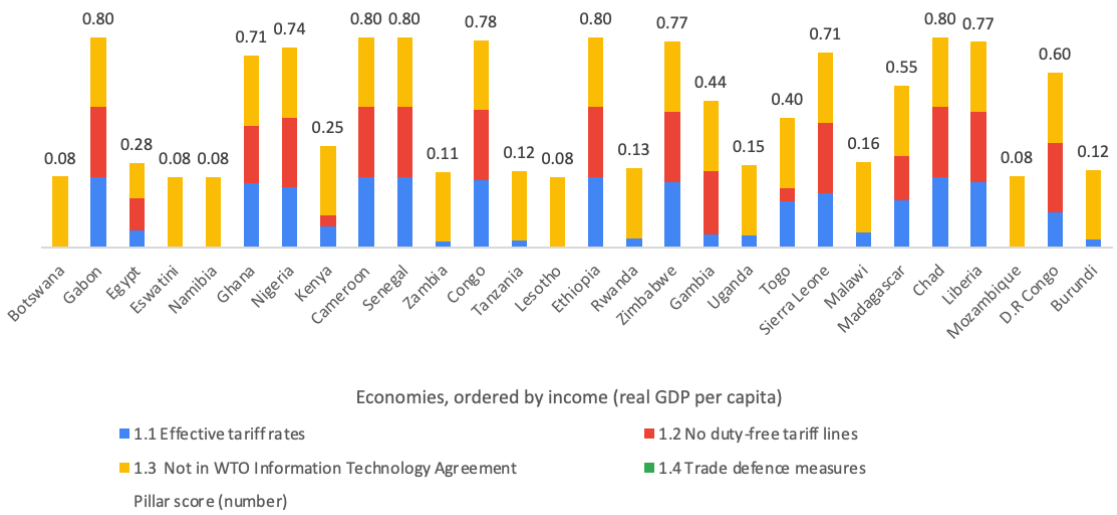
Figure 20 helps to illustrate how, in some African countries, there are several potential roadblocks to digital trade integration while others seemingly have fewer constraints. Botswana, for example, does not have any Pillar with a high score, while Togo has only intellectual property rights (Pillar 4) and domestic data (Pillar 7). In the case of Egypt, however, barriers to digital trade integration are significant in all Pillars, except for tariffs and trade defence (Pillar 1) and public procurement (Pillar 2).

A. Traditional trade policies

Pillars 1, 10, and 11 are related to traditional trade policy measures that have an impact on the import and export of ICT goods and services. Focusing on these Pillars show that African countries still have high effective tariffs on ICT goods with a low coverage of zero duty in tariffs, but a limited amount of NTMs applied on ICT goods and services.

Pillar 1, which focuses on tariffs and trade defence measures imposed on imports of ICT goods imported from African countries. The average score of 0.44 (one of the highest scores of all Pillars within the RDTII 2.0 in Africa) suggests a relatively restrictive tariff environment for ICT goods imports (figure 21). Interestingly, Egypt, which has Africa's highest most restrictive overall RDTII 2.0 score, performs among the best on this measure. In fact, only Egypt[13] is a participant of the WTO's Information Technology Agreement (ITA). Moreover, no African country in the sample applies anti-dumping, countervailing duties, or safeguard measures. Finally, most in the sample have low coverage rates for zero-duties in tariffs lines for ICT goods (less than 30%), apart from eleven countries which apply zero-tariff coverage on at least 70% of ICT goods.

Figure 21. Pillar 1 (Tariffs and trade defence) scores in Africa, 2022

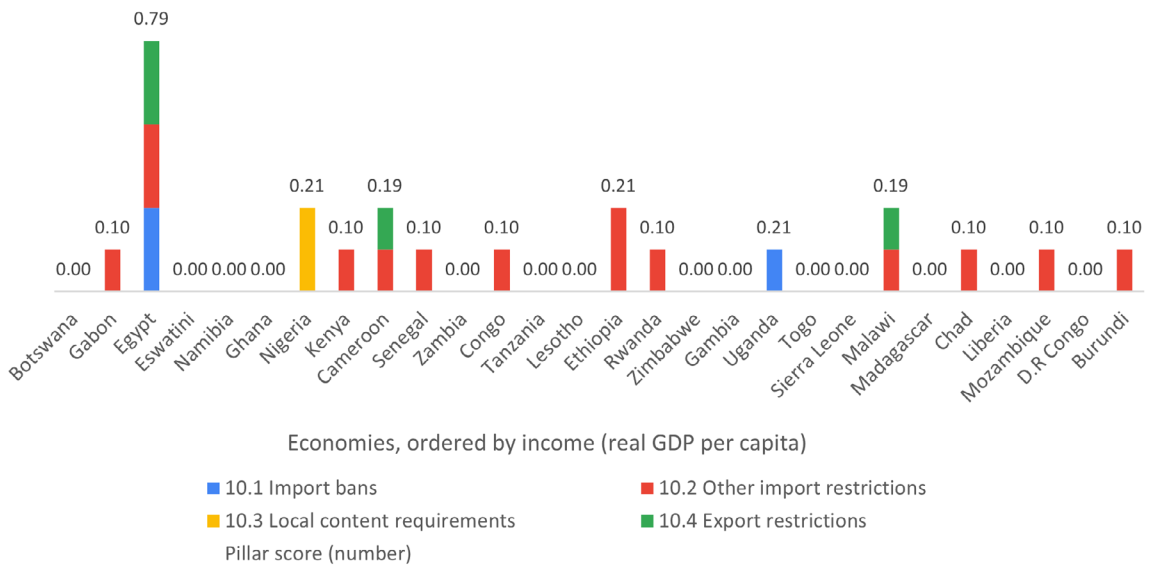


Source: ECA calculation, data as of December 2022.

[13] Egypt signed the ITA I agreement in 2003 to progressively eliminate tariffs on ICT products.

Pillar 10 focuses on non-technical trade measures applied on ICT goods (i.e., network equipment, servers and handsets) or online services (i.e., applications, data processing, and Internet Service Providers (ISP)). Quantitative restrictions can come in the form of quotas, import licences, local content requirements (LCR), or export restrictions as illustrated in figure 27. For the sample, the overall average Pillar score is 0.09, the lowest score of Africa's RDTII 2.0. Indeed, only Egypt applies significant restrictions like bans on ICT goods, import licensing requirements and prohibitions towards the export of content transfer services, except after obtaining a licence. On the other hand, several countries such as Uganda, Ethiopia, Congo, Mozambique, Rwanda, Kenya and Nigeria have only one quantitative restriction like LCR minimum thresholds, or other discriminatory import constraints (as licensing procedures).

Figure 22. Pillar 10 (Non-technical NTMs) scores in Africa, 2022



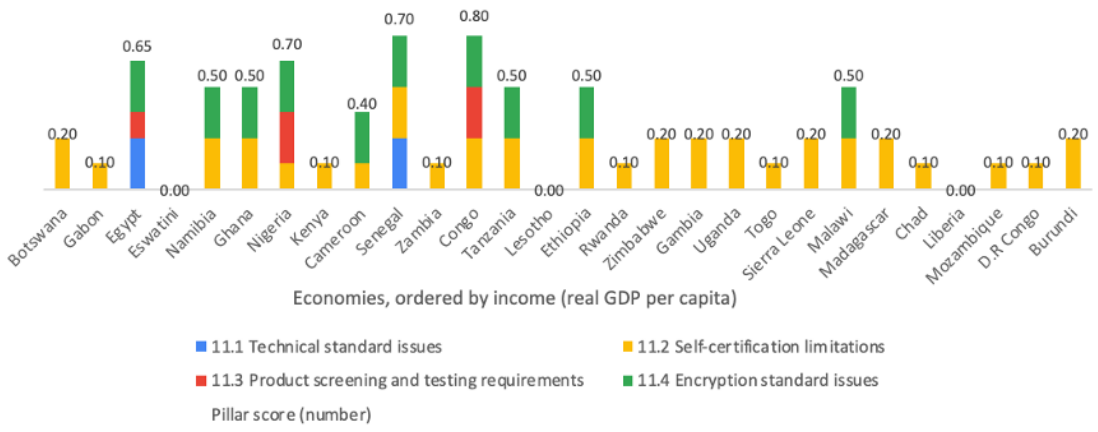
Source: ECA calculation, data as of December 2022.

Pillar 11 considers technical non-tariff measures (NTMs), including standards and procedures that affect trade in ICT goods and services. Africa's average score on Pillar 11, 0.28, is lower than most other Pillars (figure 23). All the sample countries, except for Egypt and Senegal, permit foreign companies to take part in standard-setting bodies. However, only four countries accept the self-certification of products by suppliers through Supplier Declaration of Conformity documents (SDoC), while the third-party certification from Conformity Assessment Bodies (CABs) with Mutual Recognition Agreements are needed in 10 others. For example, in Gabon, ICT products are subject to a pre-shipment conformity assessment, and a third-party certificate is accepted to request a certificate of conformity, while in

Zambia accredited laboratories can accept foreign test certificates. The last example is Rwanda in which a Simplified Type Approval Regime is issued following a third-party certification from CABs recognized by the Regulatory Authority, as such there is recognition of test reports and certificates. If electronic communications equipment has the appropriate certificate of compliance from a national regulatory or a CAB recognition, they may be eligible for the Simplified regime. In addition, any test report from an accredited laboratory can be accepted by the regulatory authority only if it follows ISO/IEC17025 and/or is certified by an Accreditation Body that is a member of the International Laboratory Accreditation Cooperation (ILAC).[14]

Only Congo, Egypt and Nigeria require screening or testing of software and electronic communications terminal equipment. The encryption standards applied in the sample countries generally align with the internationally recognized encryption standards, except for 10 countries (i.e., Cameroon, Congo, Egypt, Ethiopia, Ghana, Malawi, Namibia, Nigeria, Senegal and Tanzania).

Figure 23. Pillar 11 (Standards and procedures) scores in Africa, 2022



Source: ECA calculation, data as of December 2022.

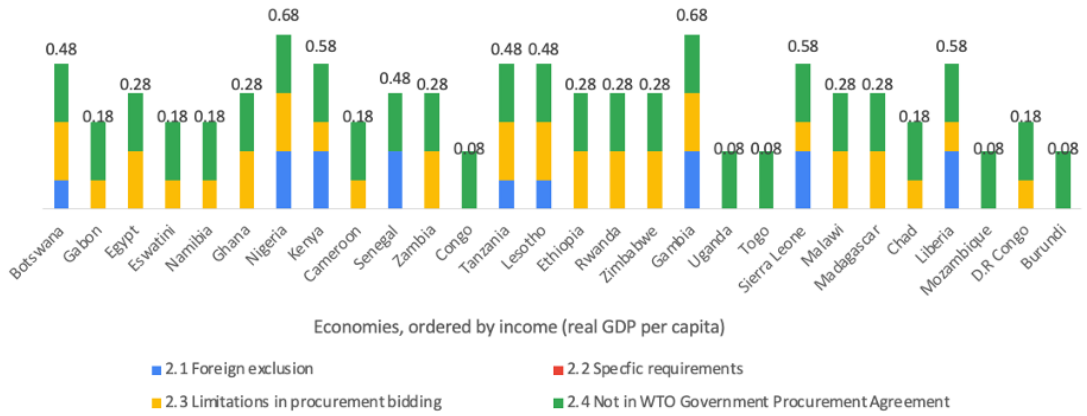
[14] See the list of members at https://ilac.org/ilac-membership/members-by-economy/

B. Domestic regulations

Policy measures under Pillars 2, 3, 4 and 5 relate to domestic regulations that affect foreign direct investment and digital trade. This section aims to illustrate a lack of deregulation in countries where key sectors for digital trade, like telecommunications, are dominated by the public sector or restrictive for foreign businesses.

Pillar 2 considers public procurement of ICT products and online services. Africa's regional average for this Pillar is 0.31 and individual results are presented in figure 24. From the sample the most burdensome regulations are present in Gambia, Kenya, Liberia, Nigeria and Sierra Leone (Pillar score higher than 0.5). None of the countries in the sample participate in the WTO Government Procurement Agreement (GPA) or have fully covered the three most relevant services sectors (CPC752, CPC754 and CPC84).[15] Pillar 2 also captures some requirements to protect national interests in digital trade-related projects. Indeed, six countries exclude foreign companies from public procurement, while Botswana and Tanzania apply beneficial provisions for local companies and contractors. In addition, Lesotho can offer a margin of preference (up to 10%) to companies with the largest use of locally produced goods or to tenders who propose to perform at least 50% of the contract within the country. Most of the countries have policies that may be considered disadvantaging or discriminatory such as, for example, with equivalent offers where priority is given to a tender presented either by a natural or legal person of national law, or lack of transparency. Botswana, Ghana, Malawi and Nigeria can require skills transfer or countertrade arrangements, for example, when local an expert or a contractor is not available.

Figure 24. Pillar 2 (Public procurement) scores in Africa, 2022

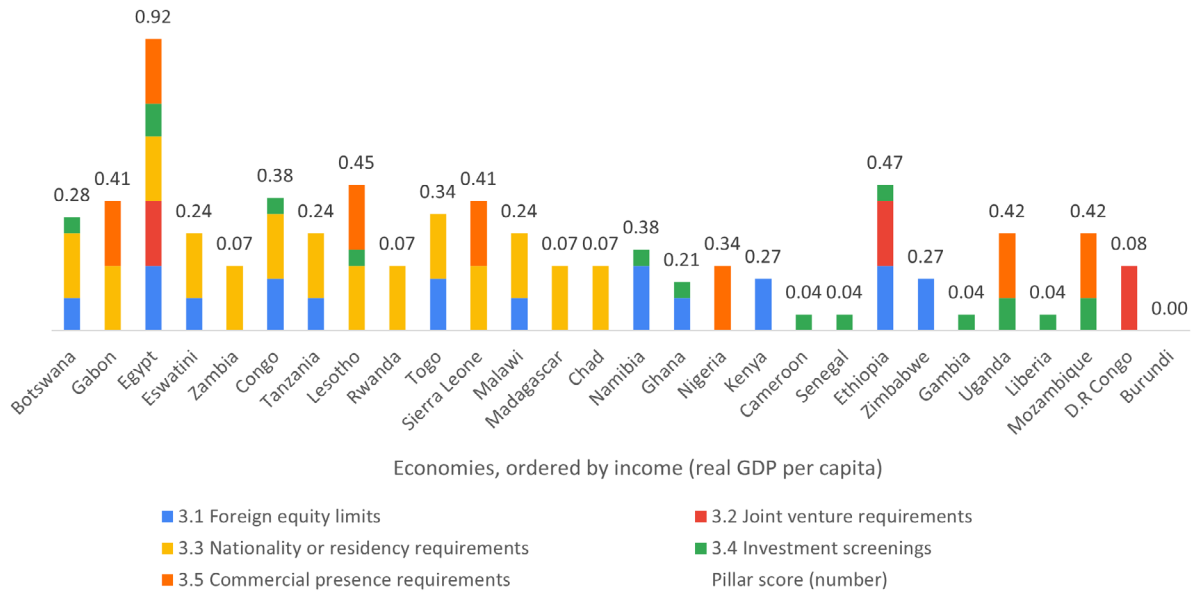


Source: ECA calculation, data as of December 2022.

[15] The Central Product Classification on telecommunications and related services nomenclature are CPC84 (for computer and related activities); CPC752 (for telecommunications services); and CPC754 (for telecommunications related services).

Pillar 3 considers regulations on FDI in sectors at the core of digital-trade activities. Regionally, Africa's score is relatively low at 0.26 for this Pillar but hides many varying policies related to FDI. For example, some countries such as Egypt, Ethiopia, Lesotho, Uganda and Mozambique have a relatively restrictive regimes, while others like Burundi, Cameroon, Gambia, Liberia, and Senegal, provide an open framework for investment. More specifically, Ethiopia and Egypt ban foreign direct investment on media services, and digital wired and wireless stations. Foreign equity caps on controlling stakes are in place in Botswana, Eswatini, Ghana, Malawi and Tanzania. Likewise, Congo, Kenya, Namibia, Togo and Zimbabwe allow foreigners to only hold a minority stake. In instances where it is not mandatory to engage in a joint venture or have a commercial presence for ISPs, in most sampled countries the nationality or residency of board members is often required. If FDI screening mechanisms are not used to block an investment in sectors relevant for digital trade, most of countries apply at least one or several screening mechanisms that can prevent foreign companies from operating (security clearance process can be long in Egypt while Mozambique and Uganda require a minimum investment capital to obtain a licence) or to qualify for registration and issuance of an investment licence (figure 25).

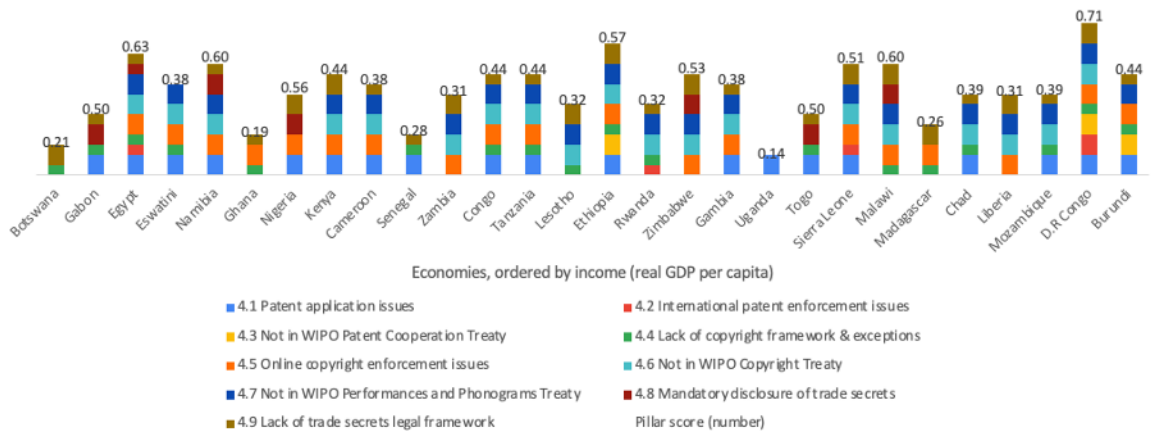
Figure 25. Pillar 3 (Foreign direct investment) scores in Africa, 2022



Source: ECA calculation, data as of December 2022.

Pillar 4 examines Intellectual Property Right (IPR) regulations. Africa's average score in this Pillar is 0.42, which is relatively high (figure 26). While most African countries have signed the WIPO Patent Cooperation Treaty (PCT), only a few have signed the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonogram Treaty (WPPT). Domestic restrictions related to patents, such as the requirement to appoint a local representative to file a patent application, are quite widespread whereas most sample countries have effective patent enforcement. While 10 of the countries have put in place copyright law frameworks that specify clear exceptions for the use of copyrighted works, most of the countries provide a copyright law framework with only limited exceptions for the use of copyrighted works in specific cases, following the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the Berne Convention. However, high piracy rates in 19 countries reflect a lack of copyright enforcement online. Moreover, while 12 countries do not offer an effective regulatory framework for the protection of trade secrets (algorithms or source code), half the countries in the sample have a limited legal framework in terms of their ability to preserve trade secrets (only Eswatini and Uganda seem to provide an effective trade secrets' protection framework).

Figure 26. Pillar 4 (Intellectual Property Rights) scores in Africa, 2022



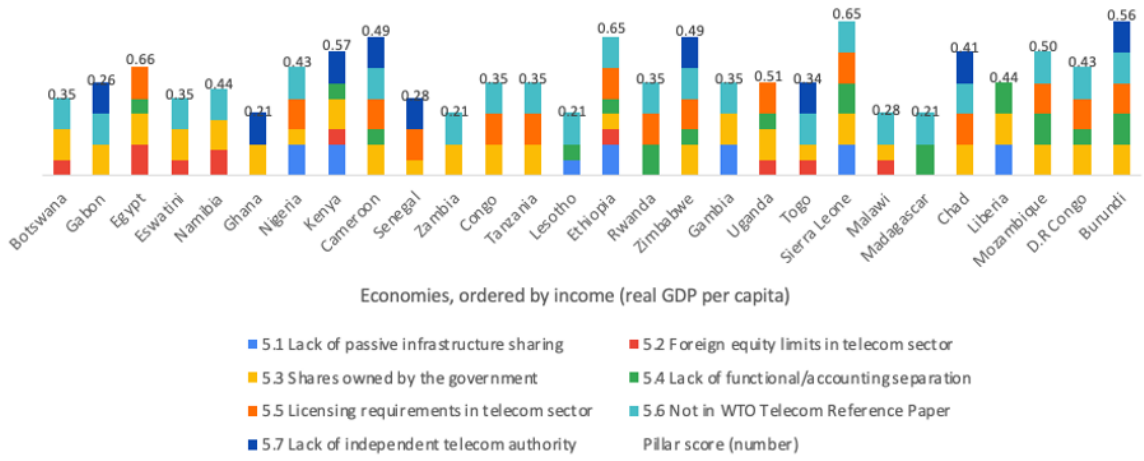
Source: ECA calculation, data as of December 2022.

Pillar 5 provides an overview of policies and regulations in the telecommunication sector. Africa's average in this Pillar stands at 0.40 (figure 27) which mainly reflects a telecom sector dominated by the public sector. While most countries allow foreign companies to have majority stakes, Governments still hold shares in at least one telecom company between 1% and 50% in Ethiopia, Malawi, Nigeria, Senegal and Togo. In 20 other countries, the Government can have more than 50% of shares of at least one company. Madagascar, Lesotho and Rwanda are countries in which Governments do

not hold shares in the telecommunications sector. Licensing requirements are often associated with discriminatory restrictions that may hamper foreign telecom services providers from bidding (such as minimum capital investment).

Although the telecom market seems strongly regulated, some countries have appended the Telecom Reference Paper to their own schedule of commitments under the WTO General Agreement on Trade in Services (GATS). Most countries have an independent telecom authority and request a passive infrastructure sharing except for seven countries (Lesotho is the only country practising it without mandatory obligation). In addition, the sampled countries require both accounting and functional separation while eight of them require only an accounting separation. However, in Burundi, Madagascar, Mozambique, Liberia, Rwanda and Sierra Leone there is no separation.

Figure 27. Pillar 5 (Telecom regulations and competition) scores in Africa, 2022



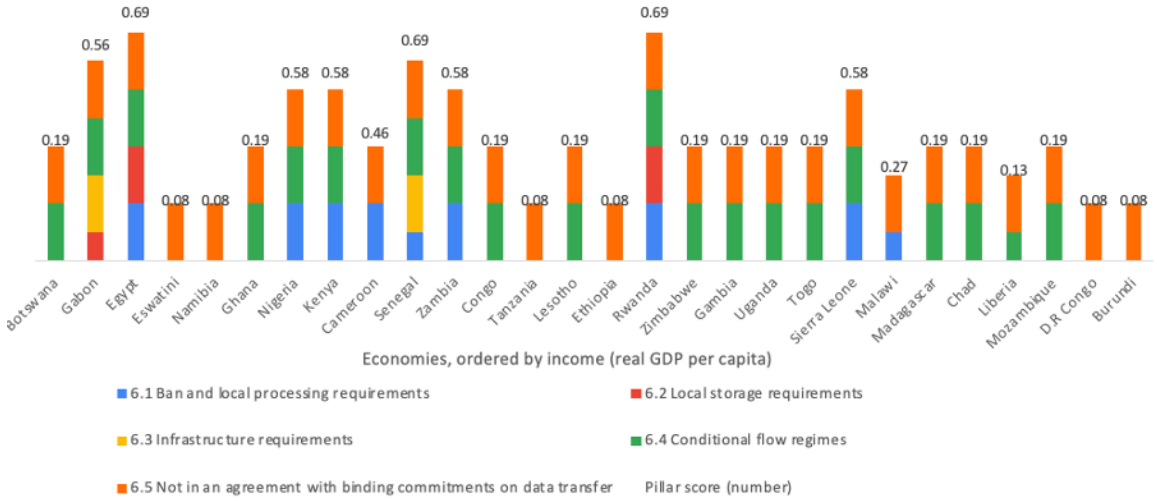
Source: ECA calculation, data as of December 2022.

C. Digital governance policies

Pillars 6, 7, 8, 9 and 12 focus on data-related regulatory policies including regulations on domestic data, cross-border data flow, intermediary liability, content access, and online sales and transactions. Stricter regulatory approaches seem to be more common in this cluster than the previous two above.

Pillar 6 captures requirements applied to cross-border data transfer with Africa's average score 0.30 (figure 28). Across Pillar 6 similarities exist between African countries as a conditional flow regime on data seems prevalent, and there is an absence of requirements related to bans for transfer and local processing of personal and specific data. Similarly, local storage and infrastructure requirements affect, respectively, Gabon, Egypt, Rwanda on the one hand, and Gabon and Senegal on the other hand. Finally, none of the sample countries have joined a trade or regional agreement committing them to open transfers of cross-border data flows.

Figure 28. Pillar 6 (Cross-border data policies) scores in Africa, 2022

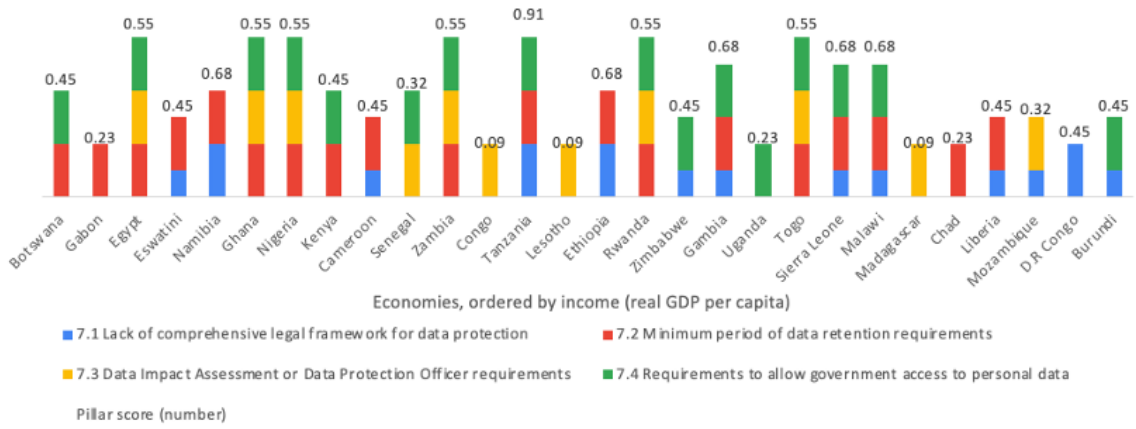


Source: ECA calculation, data as of December 2022.

Pillar 7 considers policies related to data privacy and protection. With Africa's average score of 0.46 (figure 29), this Pillar has the second highest average score of the RDTII 2.0. In fact, 12 African countries score higher than 0.5. Only 15 of the sample countries have put a data protection framework in place and nine others provide a sectoral data protection framework. Africa's data governance model appears to be a controlled one, with extensive exceptions being conceded to Governments for access to personal data without court orders, mainly justified by security reasons

(for example, rights for law enforcers to access data from service providers without a warrant, electronic spying on a suspect, and interception of electronic communication or monitoring of website database with critical data are allowed). A minimum period is required for data retention (from 1 year to 10 years) in most the countries. However, only 11 countries require firms processing personal data to appoint a data protection officer (DPO) or perform an impact assessment (DPIA) to ensure compliance with the Data Protection Act.

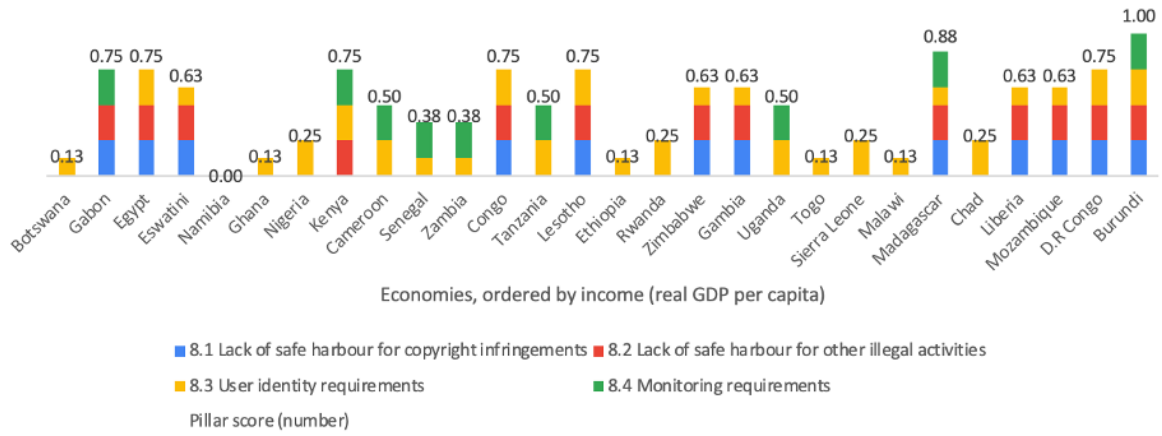
Figure 29. Pillar 7 (Domestic data protection and privacy) scores in Africa, 2022



Source: ECA calculation, data as of December 2022.

Pillar 8 focuses on Internet intermediary liability with a relatively high African average of 0.48 (highest of all Pillar scores, figure 30). User identity requirements for both SIM card registration and Internet access prevail in 26 countries. At least 15 countries provide a safe harbour for both copyright infringement and other activities, whereas Kenya provides safe harbour only for copyright infringement. Only nine countries require network operators, electronic communication service providers and information system operators to install data traffic monitoring mechanisms in their networks.

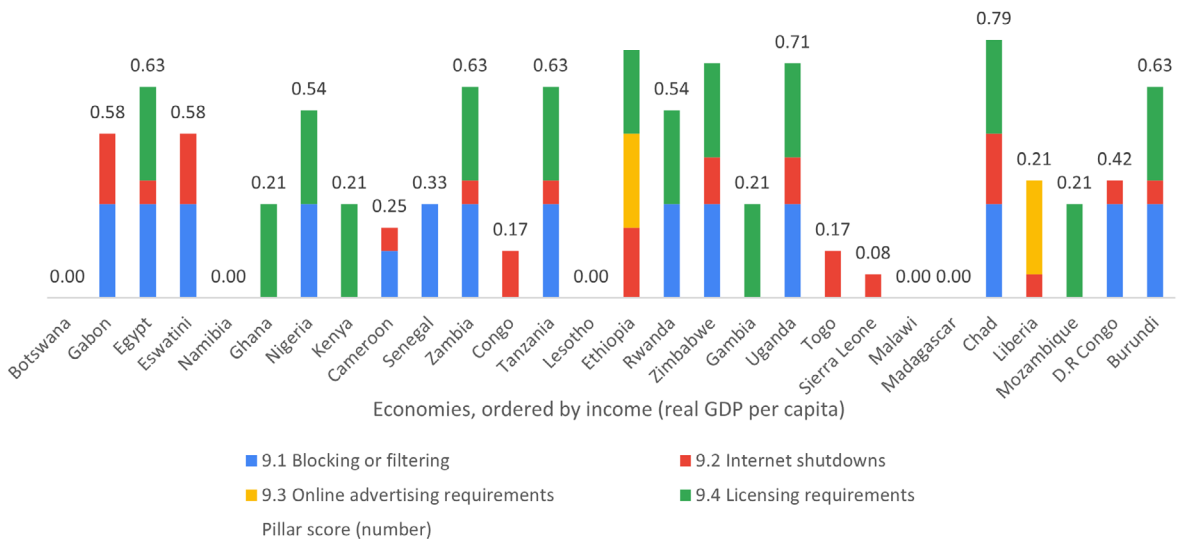
Figure 30. Pillar 8 (Internet intermediary liability) scores in Africa, 2022



Source: ECA calculation, data as of December 2022.

Pillars 9 examines content access regulations. Africa's average is 0.36 (figure 31). Half of the African countries in the sample either block or filter some foreign commercial websites, and online advertising is restricted in Ethiopia and Liberia. Governments interfere with Internet access, which can sometimes result in Internet shutdowns (this has been observed in 16 countries, with varying frequencies). Getting a licence to provide online content is mandatory in at least 14 countries.

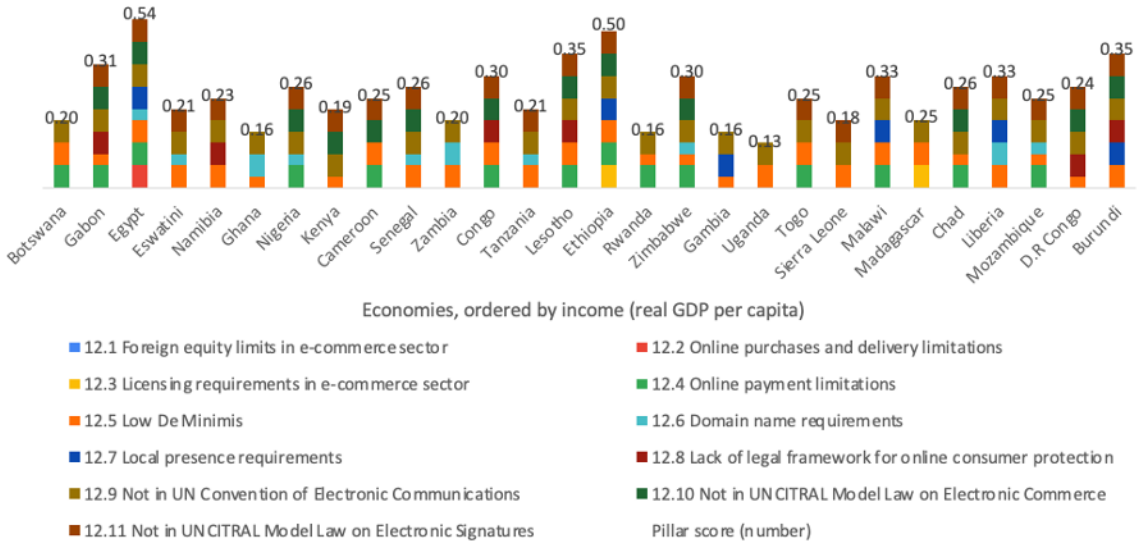
Figure 31. Pillar 9 (Content access) scores in Africa, 2022



Source: ECA calculation, data as of December 2022.

Pillar 12 examines policies as they relate to online sales and transactions. The relatively low average group score, 0.26, is mainly due to the absence of restrictive measures, except for online payments (figure 32). None of the countries limit maximum foreign equity shares in the e-commerce sector or require a specific licence (except Ethiopia and Madagascar). A local domain name can also be attributed without a physical presence except for Ghana, Liberia and Zambia, and a consumer protection framework for e-commerce exists in almost all the countries examined. However, Burundi, Egypt, Ethiopia, Gambia, Malawi and Liberia require a local presence for ISPs. Restrictions on e-payments are found in 14 countries. In addition, while 18 countries do not have a de minimis threshold, nine others apply it for goods priced below US$ 200.[16] Nigeria is the exception with a threshold above US$ 200. Finally, there is a lack of commitment to the United Nations Convention on the Use of Electronic Communication, and a lack of adoption of UNCITRAL Model Law on Electronic Signatures for most of the African countries. However, 15 countries have adopted the UNCITRAL Model Law on Electronic Commerce.

Figure 32. Pillar 12 (Online sales and transactions) scores in Africa, 2022



Source: ECA calculations, data as of December 2022.

[16] US$ 200 is equivalent to SDR 133 based on the ICC recommendation of establishing a global baseline (UNECE, 2012) See https://tfig.unece.org/contents/de-minimis.htm / RDTII Guide v 1

3.3 Towards some degree of regional regulatory harmonization to support digital trade integration

Africa's digital transition has become ever more relevant, especially since the imposition of the COVID-19 pandemic.[17] Economic digitalization is an essential step towards facilitating inclusive trade that can reach previously marginalized populations like women, the young,[18] micro, small, and medium enterprises (MSMEs), and others. Digital trade can make participating in, and exploiting export opportunities easier, and thus provide a platform for new market opportunities previously out of reach. In this sense, digital trade can be a catalyst for economic growth in the African region and could help Africa to achieve the economic and social objectives embedded in the African Union (AU) Agenda 2063.

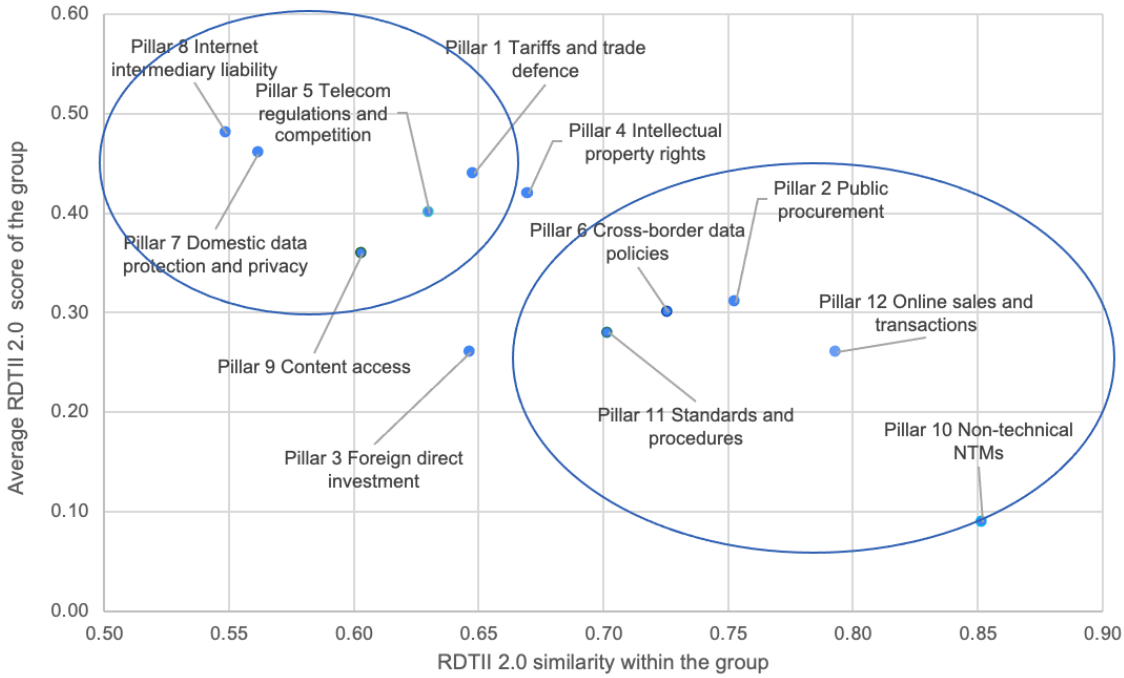
Several studies have assessed the relationship between regulation and digital trade, and tend to show that varying regulatory frameworks can have both positive and negative effects on digital trade. While certain regulations are essential to ensuring the trust of consumers, business owners and investors, restrictive regulations can significantly hinder digital trades development (Jaller, 2020). In addition, digital trade regulatory heterogeneity can have major implications on the ability to engage in cross-border trade (Nordås, 2016). Therefore, digital trade regulation may require some degree of harmonization within Africa to facilitate its development (Lemma, 2022). In this sense, although dialogue and negotiations are important, the current findings from the RDTII 2.0 suggest significant regulatory heterogeneity and policies inducing business costs across Africa currently exists (figure 33).

In this context, this section attempts to identify potential areas for promoting digital-trade regulatory harmonization among the sample countries.

[17] A survey conducted by the ECA in 2021 shows that 65% of African businesses and companies have accelerated their digital transformation through training, acquisition of tools and developing product lines that are orientated to online selling. For more information, see https://www.uneca.org/sites/default/files/uploaded-documents/ATPC/reactions-and-outlook-to-covid-19/COVID-19_Africa-Impact-Survey_March2021_Final_English_Release_22042021.pdf

[18] Protocol on Women and Youth under the AfCFTA Agreement.

Figure 33. Digital-trade policy diversity in the African region in 2022, by RDTII 2.0 policy Pillar



Source: ECA calculation based on RDTII v2.0 data of 28 sample countries, data as of December 2022.

Figure 33 maps out policy areas for the group based on average RDTII 2.0 Pillar-level scores and the level of policy similarity among economy pairs. Policy similarity within the group is calculated as the average of inverse bilateral differences of each indicator score within each Pillar, respectively.

Based on the group average, non-technical NTMs policies (**Pillar 10**) and online sales policies (**Pillar 12**) have the most similarities and fewer policy-induced costs to businesses. Indeed, non-technical NTMs and online sales have the lowest scores of the RDTII 2.0 (0.09 and 0.26, respectively), mainly due to the absence of restrictive measures or specific regulations. Similarly, the technical standards Pillar (**Pillar 11**) has also a significantly low score (0.28), which reflects the lack of a binding legal framework, although there is a degree of divergence among countries higher than Pillars 10 and 12. At the country level, the adoption of a policy agenda on NTMs and technical standards as well as the establishment of a de minimis regime would provide instructions for import/export of ICT goods and online services. While on the multilateral level, the ratification of the United Nations Convention on the Use of Electronic Communication and the adoption of the UNCITRAL Model Law on Electronic Signatures and UNCITRAL Model Law on Electronic Commerce could advance African's digital regulatory integration.

Moreover, Pillars on public procurement (**Pillar 2**) and cross-border data policies (**Pillar 6**) also have high similarities, and they both reflect a non-binding environment forforeign direct investments and cross-border data flows. However, none of the sampled countries have made formal commitments to GPA, and disadvantaging requirements (mostly to safeguard national interest or to achieve social objectives) appear in a significant number of countries (under **Pillar 2**). Complying with obligations under international agreements, such as the WTO GPA, would be essential to promote FDI in relevant sectors for ICT goods and services. Regarding cross-border data, on average, African countries apply a conditional flow regime on data but do not have specific regulations or restrictions related to location, local storage of data or infrastructure requirement. Thus, a policy agenda on cross-border regulations as well as binding commitment on data flow as a regional agreement could increase the degree of similarity in domestic regulations, thereby enabling data flows, which is the digital trade backbone.

Investment regulations (**Pillar 3**) appear to be more conducive to foreign direct investments than other domestic regulations (**Pillars 2, 4 and 5**), with a RDTII 2.0 score of 0.26. However, they also indicate more regulatory heterogeneity among countries than previous Pillars (**Pillars 2, 6, 10, 11 and 12**). If only a few countries allow a commercial presence for ISPs to operate or to engage in a joint venture, most of them require the nationality or residency of board members and the screening of investment in sectors relevant for digital trade. Simplifying and merging such investment rules could benefit African countries with an upward trend in FDI flow.

Heavy regulations tend to be imposed on tariffs on ICT goods (**Pillar 1**), intellectual property rights (**Pillar 4**) as well as telecommunications and competition policies (**Pillar 5**). Most sample countries have relatively high tariffs on ICT goods imported within the African continent, and have room to make more commitments in multilateral trading agreements related to digital trade, such as the WTO ITA. Lowering tariffs could also be considered to increase import-export exchanges and foster a continental integration. The establishment of the African Continental Free Trade Area (AfCFTA) should enable regulatory convergence through harmonized customs, regulations, IPRs and competition issues.[19] IPR regulations can be insufficient to provide a comprehensive legal framework (especially for copyright enforcement online), enhanced by the lack of signature of WIPO Copyright and Performances and Phonogram Treaties. However, the telecoms sector, mainly dominated by the public sector, remains strongly regulated, which may have an impact on the country's

[19] Protocols on goods and services, and protocols on IPRs and competition-related issues, were negotiated during phases I and II of the AfCFTA Agreement negotiations.

competitiveness, affect affordability and efficiency to access the Internet, and hamper digital business' opportunities.

The great challenges for harmonization and integration of the African region remain in the domain of digital governance policies (**Pillars 7, 8 and 9**). Indeed, most sampled countries apply a minimum period of data retention and provide access to personal data to Governments. Across the African region, the absence of a safe harbour regime for other activities apart from copyright infringement is quite common. In addition, bans on filtering commercial content as well as shutdowns and strict licensing schemes on digital content providers are often found. As a step toward overcoming these obstacles, AU member States have developed and endorsed the AU Digital Transformation Strategy (2020- 2030), with a plan to harmonize digital trade regulations and with the end-goal of creating a common African digital market. In addition, ongoing negotiations on a Digital Trade Protocol under the African Continental Free Trade Area (AfCFTA).[20] Agreement may seek to address the heterogeneity of digital policy frameworks across the continent.

[20] The AfCFTA is a flagship project of the AU Agenda 2063.

Chapter 4

Digital trade policy environment in Latin America and the Caribbean

4. Digital trade policy environment in Latin America and the Caribbean

4.1 Overview of digital trade policy environment in Latin America and the Caribbean

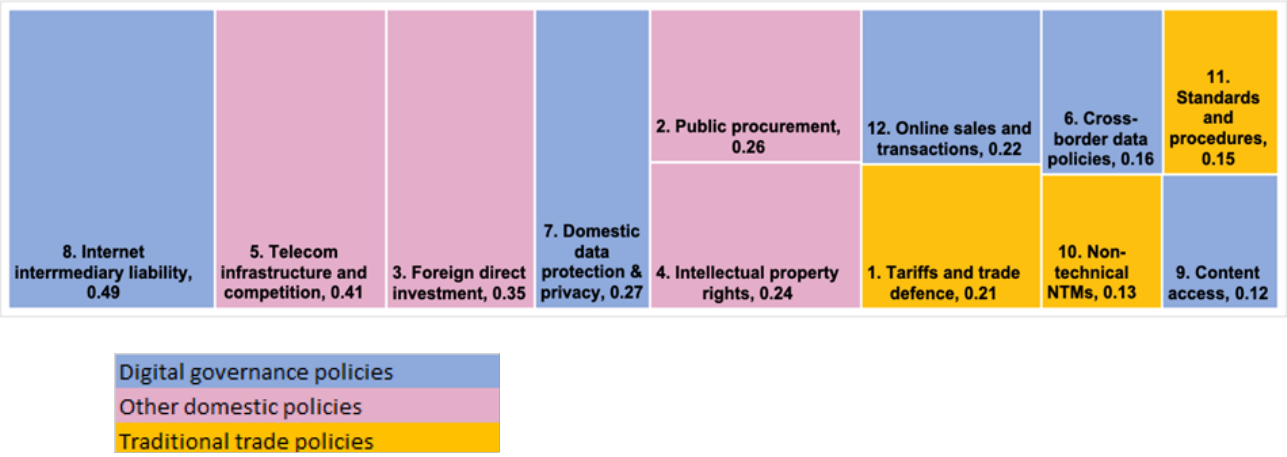
Since 2021, the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) has collected, compiled and analyzed data on the regulatory environment for digital trade in Latin America and the Caribbean (LAC). This work is part of its Regional Digital Trade Integration (RDTI) project in LAC. Until December 2022, 20 countries out of 33 countries were covered in two successive phases.[21] This chapter illustrates significant findings and highlights similarities and differences among the LAC countries.

LAC's average RDTII score is 0.25, below the global average of 0.31.[22] A closer examination of the RDTII and its indicators' scores provide a comprehensive picture of the policy environment in the region. A low score does not automatically mean a highly conducive digital trade environment. This may also reveal missing policies across digital trade policy areas such as online sales, non-tariff measures (NTMs), cross-border data flows and FDI. In this work insufficient safeguards due to a regulatory vacuum, for example, in areas of online consumer protection, are considered to be restrictions that hamper digital trade.

The main impediments to digital trade in LAC are, in descending order: intermediary liability (Pillar 8), telecom infrastructure and competition (Pillar 5), FDI (Pillar 3), and domestic data policies (Pillar 7) (figure 34).

[21] The countries covered in Phase 1 were Argentina, Brazil, Chile, Costa Rica and Mexico; and in phase 2 Bolivia (P.S. of), Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Panama, Peru, Paraguay, Trinidad and Tobago, and Venezuela (B.R. of).
[22] Calculations by the European University Institute (EUI) covering 109 countries, including 20 Latin American and Caribbean countries, see https://dti.eui.eu/

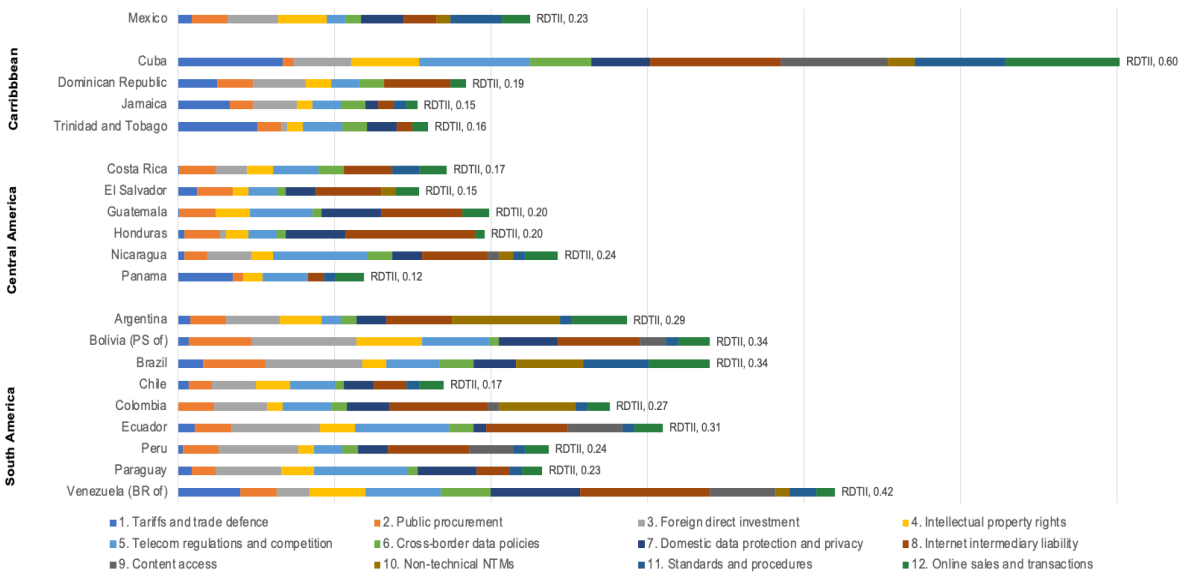
Figure 34. LAC RDTII 2.0 score by Pillar, group average score, 2022



Source: ECLAC and EUI calculation, as of December 2022.

LAC countries' scores show significant heterogeneity regarding their digital trade integration. Scores range from 0.12 for Panama (the lowest) to 0.60 for Cuba (the highest) (figure 35). Among the countries studied, 13 have an RDTII score below the overall LAC average, reflecting that few countries drive the average, particularly Cuba and Venezuela (B.R.). Low scores suggest a better performance; conversely, high scores indicate less digital trade integration due to cumbersome restrictions. As shown in figure 35, average scores may hide significant disparities at the Pillar level, requiring a more granular analysis.

Figure 35. RDTII 2.0 score of sample LAC countries, 2022

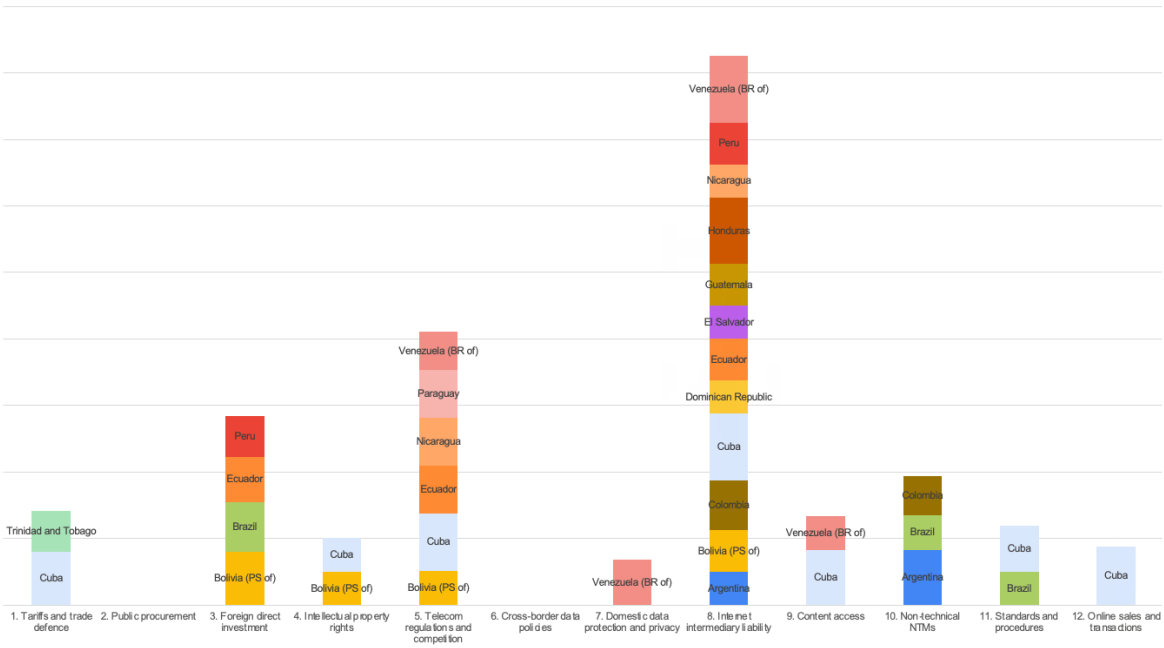


Source: ECLAC and EUI calculation, as of December 2022.

4.2 Clustered analysis based on RDTII 2.0 Pillars in LAC

Individual RDTII Pillar scores show which areas require specific attention to foster a more conducive environment for digital trade integration. Figure 36 highlights Pillars where countries have a score at least 0.5. Cuba has substantial digital trade restrictions in seven Pillars. Peru scores high on two Pillars: intermediary liability (Pillar 8) and FDI (Pillar 3). Intermediary liability is the only Pillar with scores of 0.5 or more for multiple countries – Dominican Republic, El Salvador, Guatemala, and Honduras.

Figure 36. LAC countries with high RDTII 2.0 scores, by Pillar, 2022



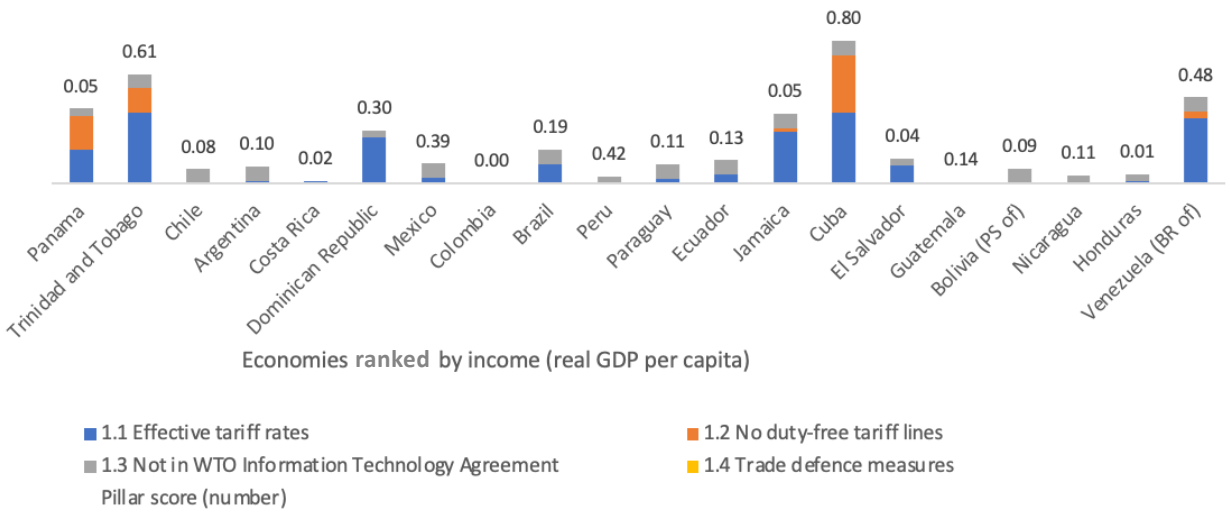
Source: ECLAC and EUI calculation, as of December 2022.
Note: A higher score suggests more regulatory interventions that may increase costs of regulatory compliance and regional digital trade integration.

A. Traditional trade policies

Pillars 1, 10, and 11 refer to traditional trade regulations that impact the import and export of ICT goods and services.

Pillar 1 of the RDTII 2.0 index focuses on tariffs and trade defence measures imposed on ICT goods imports from other countries in the region (figure 37). The average score is 0.21. Only Cuba, and Trinidad and Tobago have a score above 0.5. In contrast, Colombia, Costa Rica and Guatemala show virtually no restrictions applied to intraregional imports of ICT goods. These are also the only countries that joined the WTO Information Technology Agreement (ITA I) and its expansion (ITA II).

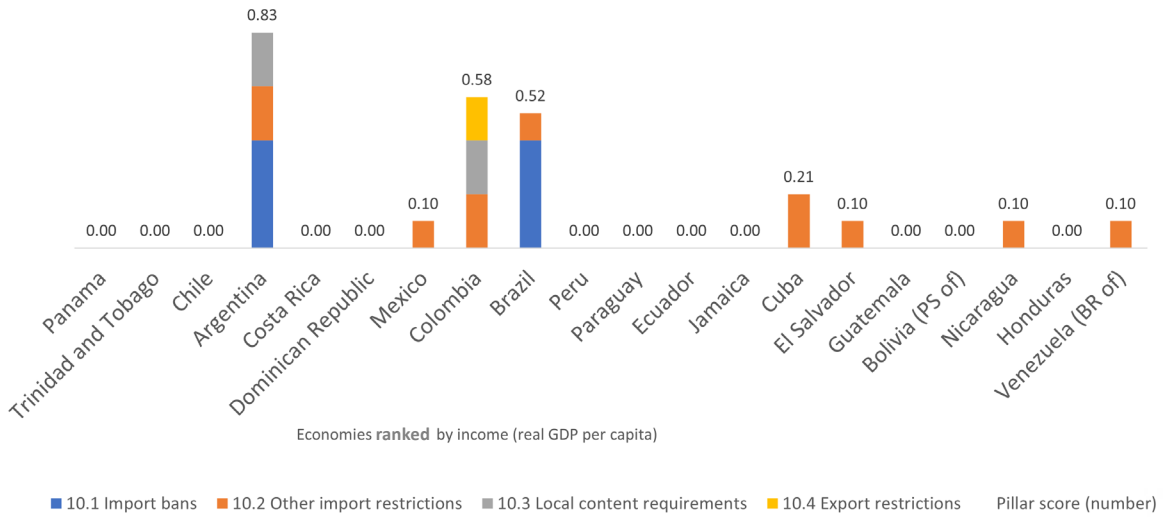
Figure 37. Pillar 1 (Tariffs and trade defence) scores in LAC, 2022



Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 10 focuses on non-technical non-tariff measures (NTMs) applied to ICT goods or online services. These can come in the form of import bans, import licences, local content requirements (LCR), or export restrictions (figure 38). The overall Pillar score is 0.13, reflecting an open environment for ICT goods with few quantitative trade restrictions across the region. Only three countries scored above 0.5, i.e., Argentina, Brazil, and Colombia. Argentina and Brazil are the only countries imposing import bans on ICT goods, while Argentina and Colombia are the only countries imposing local content requirements. Colombia is also the only country imposing export restrictions on certain ICT goods. Twelve countries do not have any quantitative trade restrictions: Bolivia (P.S. of), Chile, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Panama, Paraguay, Peru, and Trinidad and Tobago.

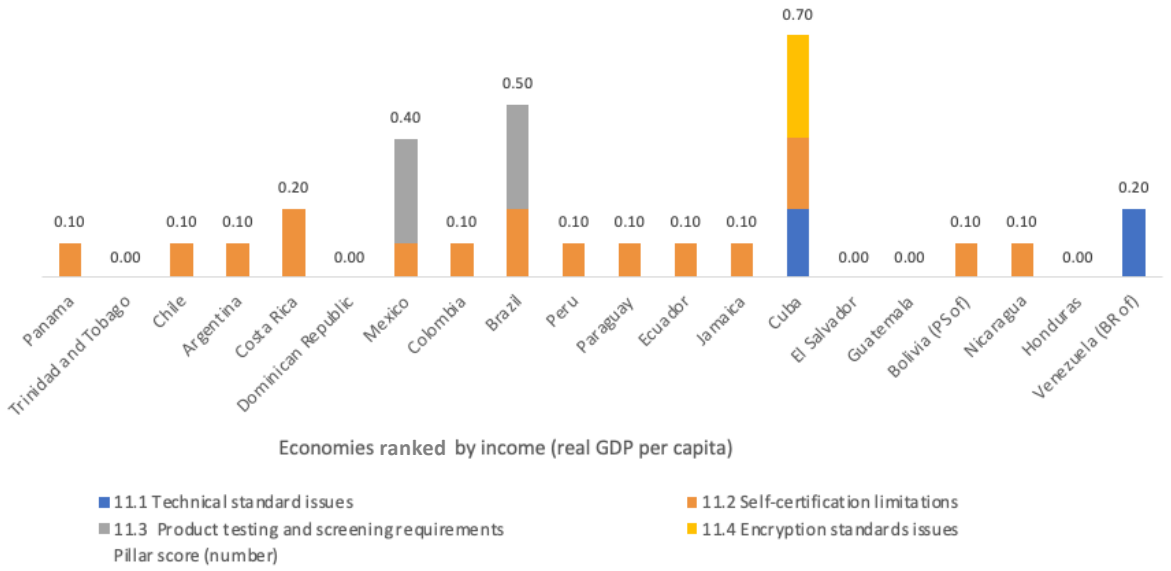
Figure 38. Pillar 10 (Non-technical NTMs) scores in LAC, 2022



Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 11 focuses on NTMs related to standards and procedures that affect trade in ICT goods and online services (figure 39). LAC's average score for this Pillar is 0.15, below that of most other Pillars. All countries allow foreign companies to participate in standard-setting bodies except for Cuba and Venezuela (B.R.). Six countries accept the self-certification of products by suppliers through the Supplier Declaration of Conformity (SDoC), without requiring additional certification in the country. In most other countries, third-party certification from accredited laboratories is accepted. Only Brazil and Mexico impose screening of certain ICT products, being the predominant ICT goods producers in the region. The encryption standards applied by countries generally align with the internationally recognized encryption standards. Cuba is the only country imposing restrictions on the use of encryption.

Figure 39. Pillar 11 (Standards and procedures) scores in LAC, 2022



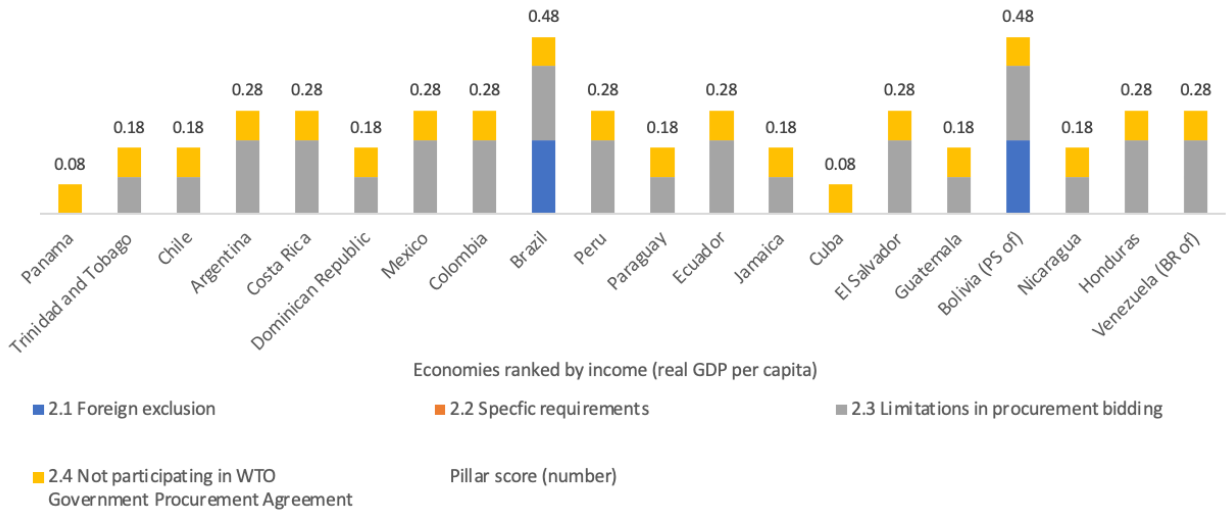
Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

B. Domestic regulations

Policy measures under Pillars 2, 3, 4 and 5 relate to domestic regulations that affect foreign direct investment and digital trade.

Pillar 2 considers public procurement involving ICT goods and online services. The LAC regional average for this Pillar is 0.25; individual results are presented in figure 40. There are few restrictions under this Pillar, as no countries score above 0.5. Only two countries (P.S. of Bolivia and Brazil) impose measures that have the potential to exclude foreign firms from participating in public tenders in certain circumstances. On the other hand, beneficial provisions for local companies and contractors, including margins of preferences and other limitations to foreign participation in public tenders, are applied by almost all countries except Cuba and Panama. In addition, none of the countries have joined the WTO Government Procurement Agreement (GPA).

Figure 40. Pillar 2 (Public procurement) scores in LAC, 2022

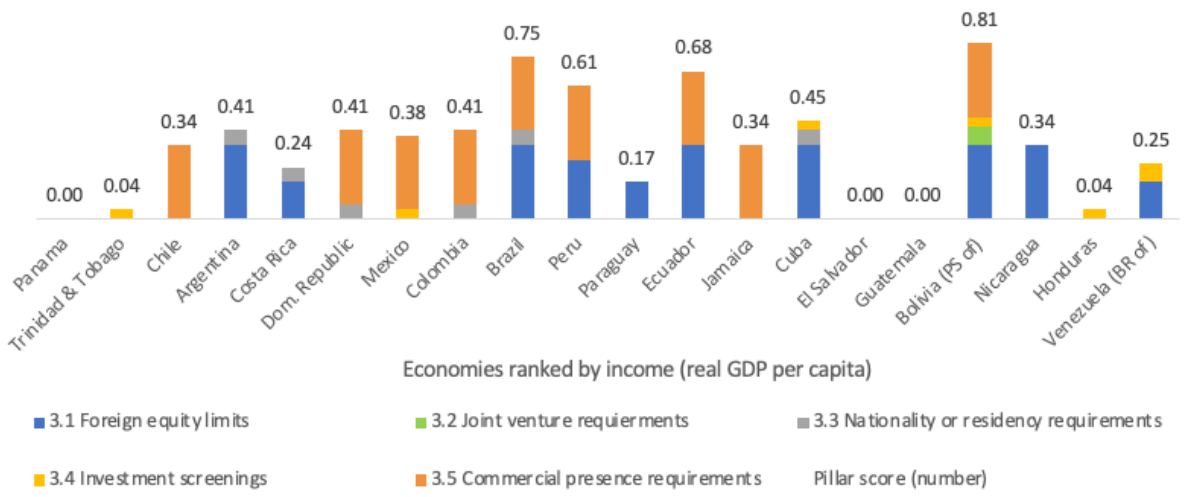


Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 3 considers regulations for foreign direct investment in sectors at the core of digital-trade activities. The overall LAC score for this Pillar is 0.35. On the one hand, three countries have a fully open environment for FDI – El Salvador, Guatemala and Panama. On the other hand, five countries have a score exceeding 0.50 – Bolivia (P.S. of), Brazil, Ecuador, Paraguay and Peru (figure 41). More specifically, majority ownership by foreigners is not allowed in specific sectors in Argentina, Bolivia (P.S. of), Brazil, Cuba, Ecuador, Nicaragua and Peru. At the same time, FDI restrictions in certain state-owned enterprises are applied in Costa Rica, Paraguay and Venezuela (B.R. of). The restricted sectors include the telecom sector, newspapers, media, social media and postal sector.[23] The only country imposing a joint venture requirement is Bolivia (P.S. of), while nationality or residency requirements are applied in Argentina, Brazil, Colombia, Costa Rica, Cuba and the Dominican Republic. Investment screenings are used in Bolivia (P.S. of), Cuba, Honduras, Mexico, Trinidad and Tobago, and Venezuela (B.R. of). Finally, commercial presence requirements are imposed by Bolivia (P.S), Brazil, Chile, Colombia, Dominican Republic, Ecuador, Jamaica, Mexico and Peru. These cover mainly the telecom sector and companies involved in public procurement, while in some instances, they apply horizontally.

[23] Restrictions applied to the broadcasting sector have been included in the analysis when it was not clear whether they also applied online.

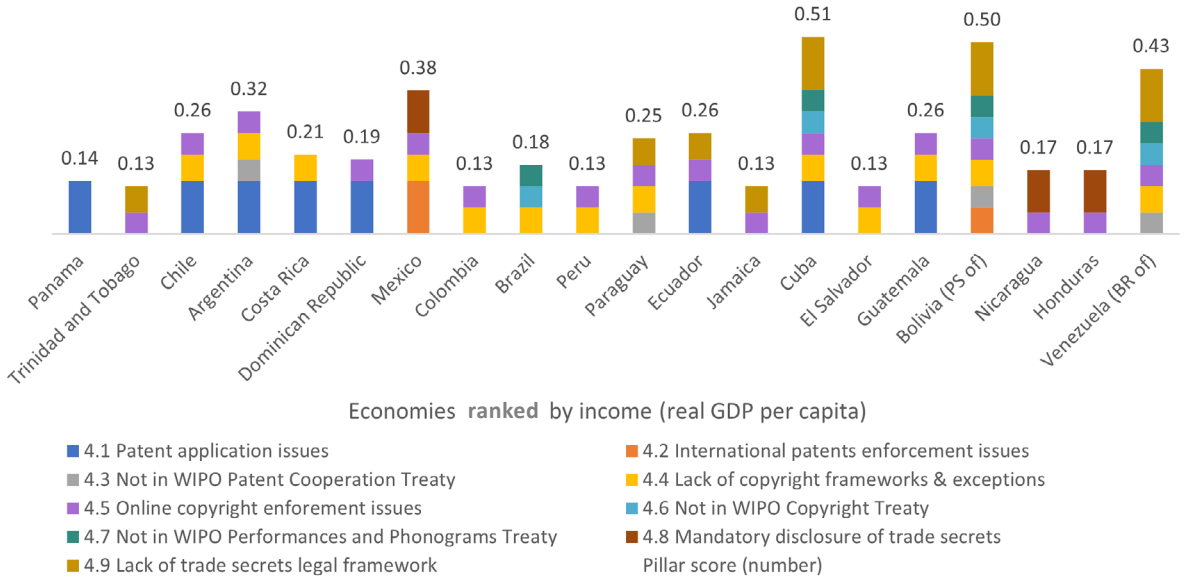
Figure 41. Pillar 3 (Foreign direct investment) scores in LAC, 2022



Source: ECLAC and EUI, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 4 examines Intellectual Property Rights (IPR) regulations. LAC's average score in this Pillar is 0.24 (figure 42). Most Latin American countries have signed the Patent Cooperation Treaty (PCT), the WIPO Copyright Treaty (WCT), and the WIPO Performances and Phonogram Treaty (WPPT) – the two WIPO agreements are referred to as "Internet Treaties." Only four countries have not joined the PCT, i.e., Argentina, Bolivia (P.S. of), Paraguay and Venezuela (B.R. of). Four countries have not joined the WIPO Internet Treaties: Bolivia (P.S. of), Brazil, Cuba and Venezuela (B.R. of). Ten countries impose domestic restrictions on applying for and enforcing patents. All countries have implemented copyright laws, with certain exceptions for using copyrighted works. Still, only seven (Dominican Republic, Ecuador, Honduras, Jamaica, Nicaragua, Panama, and Trinidad and Tobago) apply fair use or fair dealing regimes to copyright exceptions. Issues related to inadequate online copyright enforcement and high piracy rates are found in almost all countries except Brazil, Costa Rica and Panama. Seven countries do not offer a comprehensive regulatory framework for protecting trade secrets, while three countries (Honduras, Mexico and Nicaragua) show some restrictions regarding the forced disclosure of trade secrets.

Figure 42. Pillar 4 (Intellectual Property Rights) scores in LAC, 2022

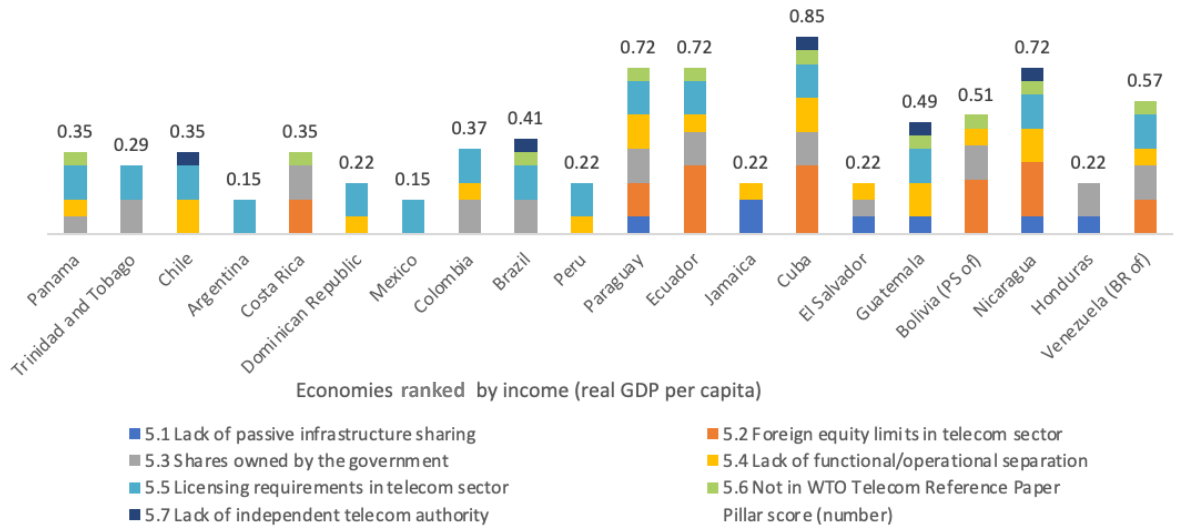


Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 5 reviews regulations and competition in the telecommunication sector. The LAC average in this Pillar is 0.48 (figure 43), reflecting significant restrictions. Cuba has the highest score (equal to 0.85). While most countries do not restrict foreign direct investment in the telecom sector, seven nations (Bolivia P.S. of, Costa Rica, Cuba, Ecuador, Nicaragua, Paraguay and Venezuela B.R. of) impose FDI restrictions. In addition, the Government owns shares in telecom companies in 12 countries. Passive infrastructure sharing is practiced or mandated in all the countries, while only six countries (i.e., Argentina, Brazil, Costa Rica, Honduras, Mexico, and Trinidad and Tobago) implement functional and accounting separation for operators with significant market power, which is considered good practice to enhance competition. Among the 14 remaining countries, nine implement only accounting separation for operators with significant market power. In contrast, five countries (Chile, Cuba, Guatemala, Nicaragua and Paraguay) do not implement either functional or accounting separation.

In addition, all countries have regulatory authority for the telecom sector, but the authority is reported as not being fully independent in five countries (Brazil, Chile, Cuba, Guatemala and Nicaragua). Licensing requirements are associated with discriminatory conditions in 15 countries, requiring – in most cases – commercial or local presence of the telecom companies, but also minimum capital requirements or non-transparent processes. Finally, half of the countries have fully appended the Telecom Reference Paper to their schedule of commitments under the WTO General Agreement on Trade in Services (GATS).

Figure 43. Pillar 5 (Telecom regulations and competition) scores in LAC, 2022



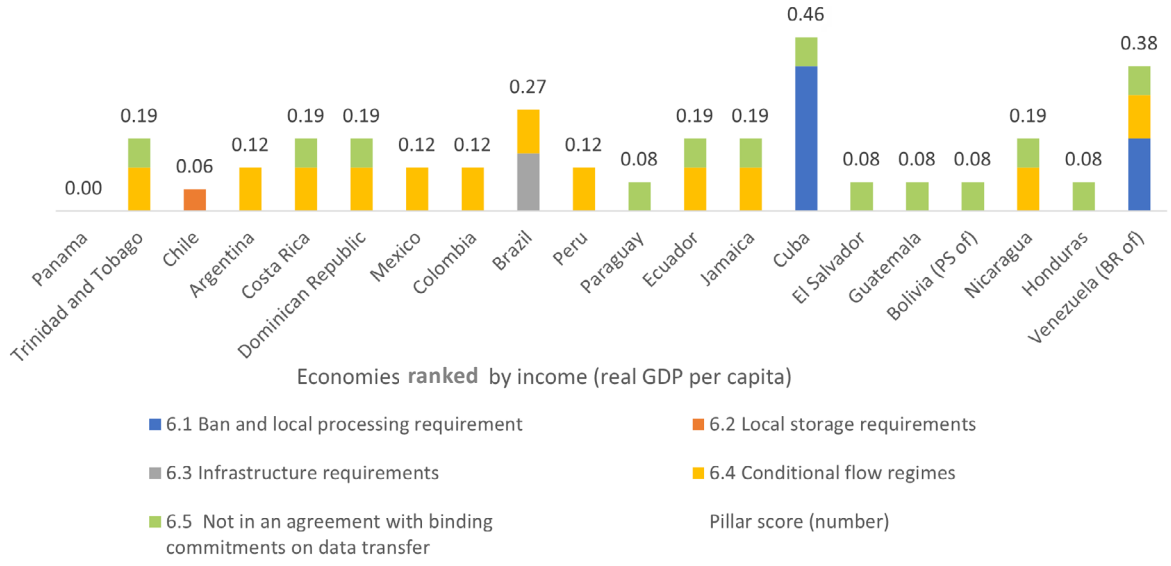
Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

C. Digital governance policies

Pillars 6, 7, 8, 9 and 12 focus on data-related regulatory policies, including regulations on domestic data, cross-border data flows, intermediary liability, content access, and online sales and transactions.

Pillar 6 captures requirements for cross-border data transfers with LAC's average score of 0.16 (figure 44). Panama is the only country that has a fully open regime on cross-border data transfers. Four countries impose certain restrictions on data location, while 12 countries impose some conditions for transferring data across borders, particularly personal data. Among the countries imposing restrictions on the location of data, Cuba and Venezuela (B.R. of) force the processing of specific data within their territories. In particular, Cuba requires hosting websites on local servers, while Venezuela (B.R. of) imposes local processing of payment information. In addition, Chile requires keeping a local copy of specific financial data, while Brazil uses a national data centre to process certain public information. Finally, only seven countries – Argentina, Brazil, Chile, Colombia, Mexico, Panama and Peru – have joined trade agreements committing them to open transfers of cross-border data flows.

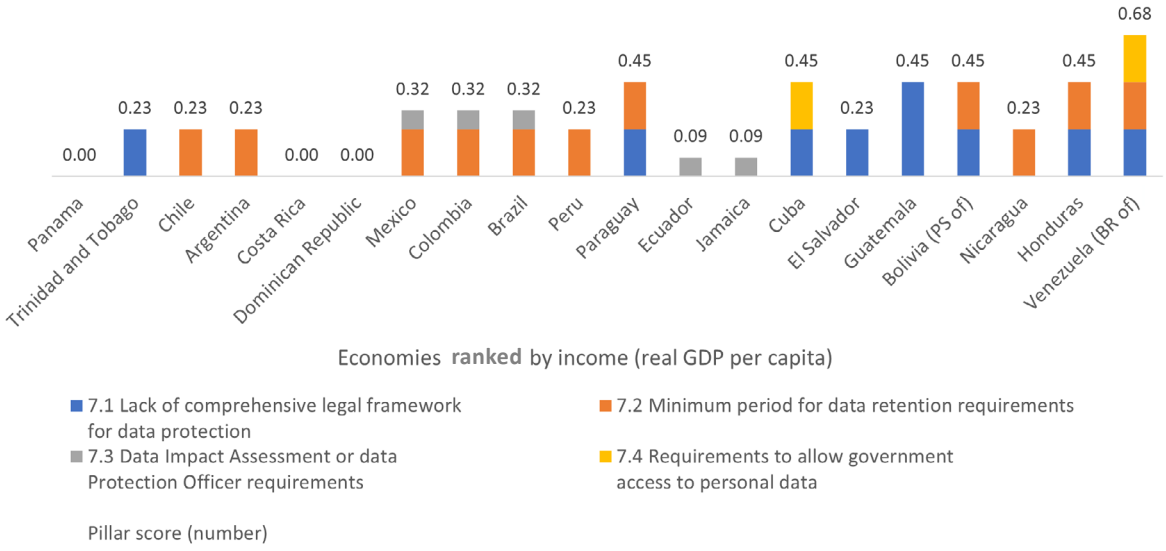
Figure 44. Pillar 6 (Cross-border data policies) scores in LAC, 2022



Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 7 considers policies that apply to data protection and privacy at the domestic level. The average LAC score is 0.27 for this Pillar (figure 45). Twelve countries have a comprehensive data protection framework, while seven others provide a sectoral data protection framework. Only Guatemala has no framework to protect personal data, although the country has a Bill pending approval by its Congress. Five countries require firms processing personal data to appoint a data protection officer (DPO) or to perform an impact assessment (DPIA). In addition, more than half of the countries implement a minimum data retention period for specific data, mainly in the telecom sector. Finally, two countries (Cuba and Venezuela B.R. of) have laws allowing their Governments to access personal data without a court order.

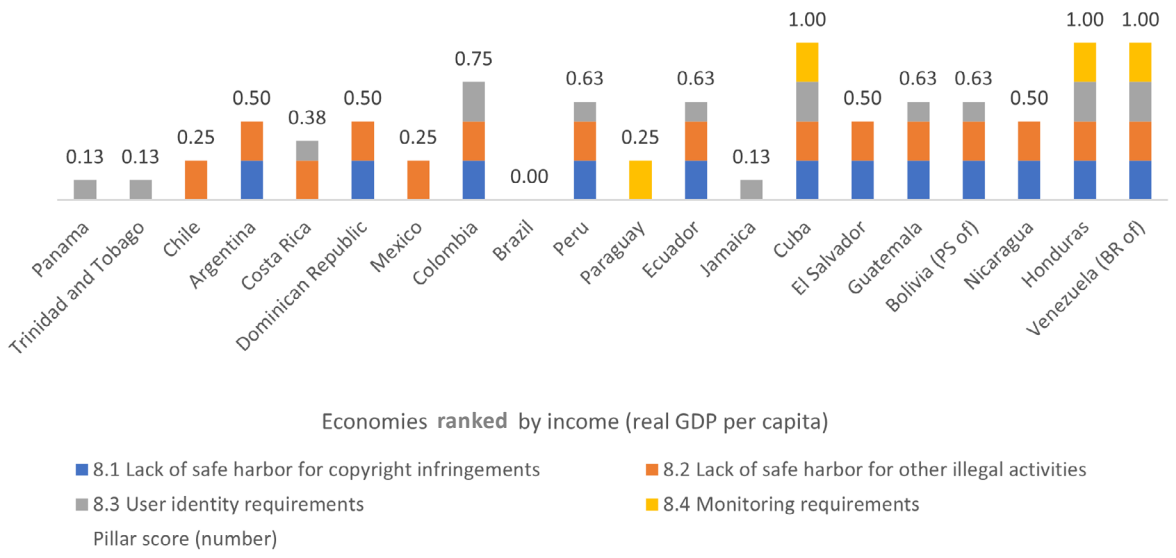
Figure 45. Pillar 7 (Domestic data protection and privacy) scores in LAC, 2022



Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 8 focuses on intermediary liability with a regional average of 0.49, being the highest across all Pillars (figure 46). Brazil is the only fully open country (a score of 0) in this Pillar, whereas Cuba, Honduras and Venezuela (B.R. of) are show a high level of restrictions (a score of 1). Only five countries – Brazil, Jamaica, Panama, Paraguay, and Trinidad and Tobago – provide a safe harbour for copyright infringement and other user activities. In addition, Chile, Costa Rica and Mexico provide safe harbours limited to copyright infringement. All other countries have not implemented any regime to limit the liability of intermediaries. Twelve countries apply user identity requirements to purchase a SIM card or Internet access. Also, four countries – Cuba, Honduras, Paraguay, and Venezuela (B.R. of) – use monitoring requirements for Internet intermediaries.

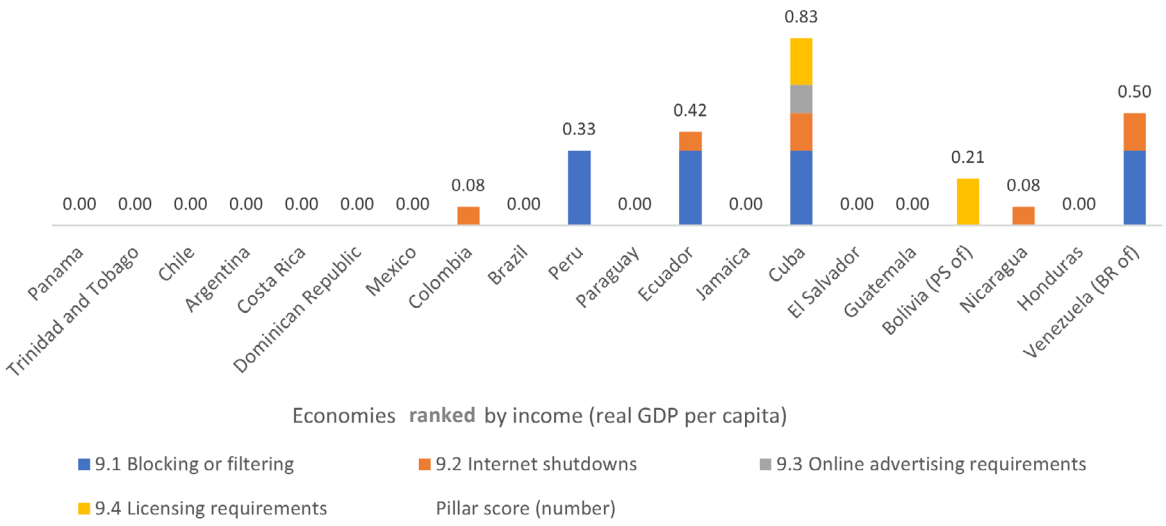
Figure 46. Pillar 8 (Internet intermediary liability) scores in LAC, 2022



Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 9 examines content access regulations, and LAC's average is 0.12 (figure 47), reflecting a relatively open content-access environment. More than half of the selected LAC countries do not impose any restriction on access to commercial web content. In contrast, Cuba is the only country with a score above 0.5, followed by Venezuela (B.R. of), which has a score equal to 0.5. Commercial web content has been blocked in Cuba, Ecuador, Peru and Venezuela (B.R. of). In contrast, Internet shutdowns have been practiced, although rarely, in Colombia, Cuba, Ecuador, Nicaragua and Venezuela (B.R. of). Cuba is also the only country with restrictions on online advertising. Finally, getting a licence to provide certain online services is mandatory only in Cuba and Bolivia (P.S. of).

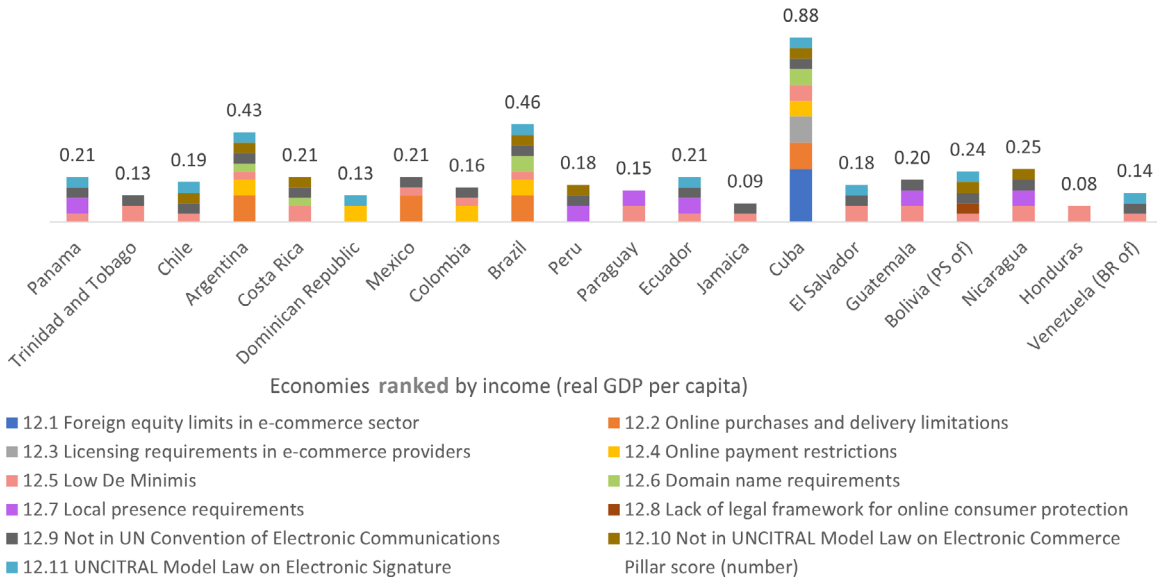
Figure 47. Pillar 9 (Content access) scores in LAC, 2022



Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

Pillar 12 examines policies relating to online sales and transactions (figure 48). The average score for this Pillar is 0.23. Cuba is the only country imposing restrictions on foreign ownership in the e-commerce sector. Four countries (Argentina, Brazil, Cuba and Mexico) impose certain limits on the value or amount of goods purchased online or shipped with express shipments. In addition, Argentina, Brazil, Colombia, Cuba and the Dominican Republic impose certain limitations on online payments, including additional charges for online purchases from abroad and limits on applications that can be used for online payments. The Dominican Republic and Peru are the only countries with a de minimis threshold above US$ 200, the minimum value of goods below which customs do not charge customs duties. Eight countries (Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, and Trinidad and Tobago) do not have a de minimis threshold. In addition, four countries (Argentina, Brazil, Costa Rica, and Cuba) impose certain restrictions on domain names, including local or commercial presence requirements. Six countries – Ecuador, Guatemala, Nicaragua, Panama, Paraguay and Peru – impose local presence requirements to offer certain online services. Bolivia (P.S. of) is the only country that has not adopted a consumer protection law. Finally, 17 countries have not joined the United Nations Convention on the Use of Electronic Communications. In comparison, 12 countries have adopted the UNCITRAL Model Law on Electronic Commerce, and 10 have adopted the UNCITRAL Model Law on Electronic Signatures.

Figure 48. Pillar 12 (Online sales and transactions) scores in LAC, 2022



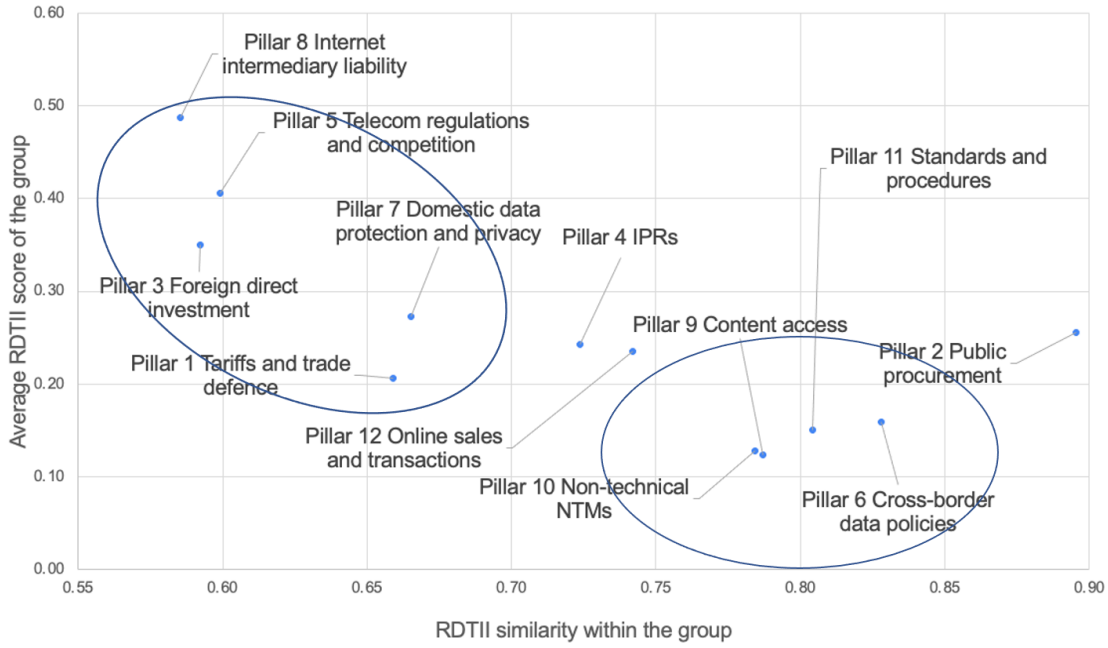
Source: ECLAC and EUI calculation, as of December 2022. The 2021 real GDP per capita for all countries (except Cuba) is from IMF, World Economic Outlook, October 2022 database. For Cuba, the 2020 figure was taken from World Bank Data.

4.3 The need for regional regulatory harmonization to support digital trade integration

So far, the focus has been on restrictions imposed by countries on digital trade as well as on the lack of implementation of certain regulations expected to be conducive to digital trade, including participation in international agreements, and enforcement of data and consumer protection laws. However, when assessing potential integration across countries, it is also essential to focus on the regulatory heterogeneity between them. Large regulatory distances hinder regional trade integration (Nordås, 2016).

For this purpose, figure 49 compares average RDTII Pillar-level scores (plotted on the vertical axis) and the level of policy similarity among all LAC countries for each Pillar (plotted on the horizontal axis). Policy similarity within the group is calculated as the average of inverse bilateral differences of each indicator score within each Pillar. The higher scores reveal higher similarity across countries within a Pillar, while lower scores indicate higher disparity across countries.

Figure 49. Digital-trade policy diversity in LAC by RDTII 2.0 policy Pillar



Source: ECLAC and EUI calculation.

Figure 49 shows that Pillars with higher average RDTII scores also tend to offer the largest heterogeneity among the 20 countries. Examining the horizontal axis of figure 49, the four Pillars with the highest heterogeneity across countries also have some of the highest RDTII scores. Precisely, the main impediments to digital trade integration in LAC are in domestic regulations (**Pillar 5** on telecom regulations and competition and **Pillar 3** on FDI), and data governance measures (**Pillar 7** on domestic data protection and privacy, and **Pillar 8** on Internet intermediary liability). Each of these Pillars has a score above LAC's RDTII average score (i.e., 0.25). Harmonization efforts could be especially relevant in those Pillars, as they are both highly restricted and highly heterogenous in their regulations. Other Pillars with high heterogeneity are **Pillar 1** (tariffs and trade defence) and **Pillar 4** (IPR). While tariffs on ICT goods are relatively low in the region, the Pillar covering IPR shows a score only slightly below average, therefore representing another potential area of action to identify intraregional solutions for interoperability or regulatory harmonization.

On the opposite side of the graph are policy areas with lower restrictions and higher regulatory similarity. **Pillar 6** (cross-border data policies), **Pillar 9** (content access), **Pillar 10** (non-technical NTMs) and **Pillar 11** (standards and procedures) could represent low-hanging fruit for potential regional collaboration for regulatory harmonization, given the relatively similar regulatory framework and fewer restrictions across countries.

Chapter 5

Conclusion

5. Conclusion

This report is a collaboration between three United Nations Regional Commissions (UNRCs) to assist policymakers across Asia-Pacific, Africa and LAC in deepening their understanding of the digital trade regulatory environment, as a basis for enhanced regional and global cooperation and integration. The report provides an overview of the digital-trade regulatory landscape based on the Regional Digital Trade Integration Index (RDTII) 2.0 framework. The framework features 12 distinct policy areas for attention and potential improvement to facilitate digital trade. The dataset covers 69 economies at different levels of development (21 in Asia-Pacific, 28 in Africa and 20 in LAC) and is based on primary and secondary information from official public sources.

The analysis suggests that Governments in Asia-Pacific and Africa are using a relatively greater complex approach in regulating their digital economy than their peers in the LAC region. Regulatory interventions are particularly prominent in the telecom sector and government procurement, typically to limit competition as well as in domestic data protection, e.g., data retention requirements, and liability of digital service providers. The analysis also suggests that Governments across all three regions recognize the importance of reducing procedural delays and have prioritized enhancing transparency in technical standards.

The three regions are significantly different with regard to regulatory tools used and the degree to which Governments in those regions have established facilitative legislative frameworks. The analysis on regulatory similarity shows that the regulatory environment in the Asia-Pacific region is less convergent than in Africa and LAC.

- In Asia-Pacific, import tariffs on ICT goods are already low in most economies. In contrast, rules on FDI, public procurement and digital governance are often extensive and raise compliance costs. However, there are considerable differences in regulatory approaches across the Asia-Pacific economies. The regulatory similarity analysis shows that the areas where regulatory approaches are least similar across Asia-Pacific economies are FDI rules, telecom regulations, measures related to intermediary liability and domestic data protection.

- Within Africa, RDTII 2.0 indicates that while restrictive policies within digital governance (e.g., intermediary liability, domestic data protection, privacy and content access), domestic policies (e.g., IPR and telecom regulations), and traditional trade barriers (e.g., tariffs and trade defence) exist, policy

heterogeneity is also prevalent within these areas. Interestingly, and at the opposite end of the spectrum, where African countries are found to have relatively less restrictive policies, such policies tend to be similar. While it is apparent that a level of policy similarity exists within the digital trade regulatory landscape, the disparities identified suggest much work remains to harmonize a common set of rules for digital trade in Africa.

- Latin America and the Caribbean show a more open environment for digital trade integration than the African and Asia-Pacific regions. Nevertheless, some countries – including some large economies – stand out as having a restrictive environment that prevents integration through digital trade. The most restrictive policy areas also show the highest levels of regulatory heterogeneity. These are intermediary liability, FDI, telecom infrastructure and domestic data policies. On the other hand, the region shows an open environment regarding access to commercial web content and on NTMs applied to ICT goods.

Policy recommendations

The following policy recommendations are shared across Asia-Pacific, Africa, and LAC based on the RDTII 2.0 analysis.

- **Lower barriers to trade in ICT goods and digital trade related services** More open markets for ICT goods and services could yield substantial benefits in reducing trade costs for firms that provide services across borders. Multilateral trade rules and commitments to liberalize trade in ICT goods and digital trade-related services can lock in these benefitsand provide certainty to firms seeking to access foreign markets. Thus, Governments should reduce tariffs on ICT goods and import/export restrictions, and fully implement the commitments in WTO ITA I and ITA II.

- **Implement an accommodative FDI policy within the telecommunications sector to enhance access and affordability to telecom/digital infrastructure.** Telecommunication services are the core of the digital economy, enabling e-commerce in goods and services (WTO).[24] Thus, fostering the development of digital trade requires the existence of an open and competitive telecommunications sector. For this purpose, implementing conducive FDI policies in the telecommunications sector combined with an

[24] See: https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm

effort to develop digital infrastructure (such as data centres) will create positive effects and facilitate the participation of numerous economic actors in the digital sector.

- **Promote the adoption of conducive legal frameworks for digital governance.** Governments across all three regions should build up adequate regulation of digital trade and reduce the restrictiveness of rules under digital governance policies, especially in intermediary liability and domestic data protection and privacy. The goal is to create a conducive regulatory framework that supports the development of online activities through platforms, while providing guarantees that data are protected from fraudulent use or piracy activities.

Beyond these common recommendations for the three regions, **the following suggestions are based on region-specific conditions and priorities.**

Asia-Pacific:

- **Deepen regulatory cooperation in areas with a high degree of regional common ground.** Governments should prioritize deepening cooperation in policy areas where many Asia-Pacific economies already agree on the principles, such as online consumer protection, e-signatures and paperless trade facilitation. In addition, many Asia-Pacific economies have already adopted good practices related to IPRs, technical standards and conformity assessment procedures, and reducing tariff barriers.

  Regional cooperation may also include a joint stock-taking exercise of regulatory practices in areas where considerable differences persist. Discussing and identifying strategies for regulatory coordination in those areas should follow the exercise. In this context, the RDTII 2.0 framework and ESCAP initiative on digital-trade regulatory analysis can be an instrument for these purposes.

- **Leverage existing regional and global initiatives to strengthen cooperation for regulatory interoperability.** Governments in the Asia-Pacific region should leverage existing regional and global initiatives to enhance regulatory interoperability. In many ways, the traditional WTO rules have already offered broad principles that should be applied to digital trade.[25]

[25] Trade in ICT goods and part of E-commerce that affects trade in goods are subject to the General Agreement on Tariffs and Trade (GATT), while trade in digital services is subject to General Agreement

New WTO initiatives, especially the JSI on e-commerce, can contribute to global compatibility between rules in selected areas. Moreover, many Asia-Pacific economies are increasingly turning to trade agreements and digital economic partnerships. These agreements generally promote regulatory cooperation and emphasize the need for participating economies to adopt regulatory frameworks that promote digital trust.

Developing Asia-Pacific economies should participate in global and regional initiatives, and voice the need for a balance between commitments and aid for trade or capacity-building to close regulatory gaps in their economies. An example is the Framework Agreement on Cross-border Paperless Trade Facilitation in Asia and the Pacific (CPTA).[26] This inclusive regional United Nations treaty aims at supporting Asia-Pacific economies in gradually moving to cross-border paperless trade by providing a dedicated, inclusive and capacity-building intergovernmental platform. In turn, regional efforts can inform ongoing multilateral discussions, including at the WTO JSI on E-commerce.

- **Bridge the regulatory gaps in LDCs and other countries with special needs.** The importance of "soft infrastructure" should not be overlooked. Although most LDCs recognize the significant benefit of participation in digital trade, the RDTII 2.0 analysis shows that the regimes for digital governance in Asia-Pacific LDCs often offer only broad frameworks. They need enforceable rules to build digital trust within and across borders, such as personal data protection and online consumer protection.

  Development partners, including ESCAP, may consider providing on- demand support in building capacity of LDCs to bridge this regulatory gap. Building capacity for digital trade policy-making and rule-making negotiation may be done through specialized training on the relevant legal frameworks and regulatory instruments as well as on how to assess the potential impacts of digital trade rules and commitments on development objectives. In addition,

on Trade in Services (GATS). To the extent that domestic regulations, including data regulations, are part of specific commitment, obligations are under Article VI of GATS. Local Content Requirements (LCRs) are disciplined under the Trade-Related Investment Measures (TRIMs). The Trade-Related Aspects of Intellectual Property Rights (TRIPs) can provide guidance for policies on software copyrights and source code.

[26] More information on the CPTA, a United Nations treaty aimed at accelerating inclusive trade digitalization, is available at https://www.unescap.org/kp/cpta

economies more advanced on digital trade should consider active participation in existing enabling regional cooperation frameworks, such as CPTA.

Africa:

- **Facilitate competition in the telecommunications sector to draw capital and innovation into Africa's digital landscape.** Fostering the development of digital trade requires the existence of an open and liberal telecommunications sector. For this purpose, implementing a conducive FDI policy in the telecommunications sector, combined with efforts to develop digital infrastructure (such as data centres), will yield positive effects while facilitating the participation of numerous economic actors in the digital sector. Moreover, infrastructure plays a crucial role in improving a country's competitiveness; therefore, infrastructure deficits may act as roadblocks to African countries participating more actively in digital trade and integrating more effectively with partners. According to the World Bank, in 2020, only 30% of Africa's population had access to the Internet, with the cost of bringing broadband access to all in Africa estimated at a staggering US$100 billion.[27]

- **Bolster efforts to harmonize the digital regulatory landscape at the continental level, thereby enhancing regional digital integration.** In Africa, a clear roadmap exists to leverage the opportunities digital trade has to offer. Indeed, on 9 February 2020, the African Union adopted a Digital Transformation Strategy (DTS) for 2020-2030 as a framework to "harness digital technologies and innovation to transform African societies and economies to promote Africa's integration, generate inclusive economic growth, stimulate job creation, break the digital divide, eradicate poverty for the continent's socio-economic development, and ensure Africa's ownership of modern tools of digital

- **Prioritize key regulatory interventions.** RDTII 2.0 suggests several key areas for African policymakers to consider, including in the context of AfCFTA Digital trade Protocol:

  - Reduction of effective tariffs rates applied by African countries on their imports of ICT goods, especially from within Africa;
  - Strengthening the intermediary liability protection for business against third party content;

[27] See https://www.worldbank.org/en/news/press-release/2019/10/17/achieving-broadband-access-for-all-in-africa-comes-with-a-100-billion-price-tag

- Accede to key international agreements that protect patents and (digital) copyrights. Implement and enforce a framework for data privacy and protection.

A concerted effort to address the areas identified in RDTII 2.0 is essential to ensure 'digital' can become not just a viable complement to African trade. Particularly within the context of AfCFTA and other regional economic integratory initiatives, closing Africa's digital divide will ultimately help it provide opportunities for its people, reach its sustainable development objectives and help bring it up to par with its global peers.

Latin America and the Caribbean:

- **Reform the telecom sector,** which is the backbone for the provision of digital services. Required reforms include reducing discriminatory requirements to obtain licences, attaching the WTO Telecom Reference Paper to the countries' schedules of commitments, and introducing the functional separation of operators with significant market power to increase competition in the sector. These measures may increase competition in the sector, promote the much-needed investment in digital infrastructure (especially in rural areas), and reduce the cost of access.

- **Step up efforts towards regulatory convergence and cooperation through trade organizations and agreements,** such as the Andean Community, the Caribbean Community (CARICOM), the Central American Common Market, Pacific Alliance and the Southern Common Market (MERCOSUR). Most subregional integration schemes in LAC have digital agendas, but only a few include concrete commitments to harmonize digital regulations. In this context, there is a need to promote greater subregional and regional cooperation and coordination for policy design. One mechanism in this regard is the Ministerial Conference on the Information Society in Latin America and the Caribbean (e-LAC), which brings together the Governments of the 33 countries in the region. The 2022-2024 Digital Agenda for Latin America and the Caribbean has emerged as a key instrument for coordinating actions, including in digital trade regulations.

- The RDTII 2.0 analysis also suggests other key reform areas for LAC policymakers:

  - Sign the WTO Information Technology Agreement (ITA) and its expansion (ITA II) to foster trade in ICT goods, both within the region and with the rest of the world. In addition, Governments could allow self-declaration of conformity for electrical products to foster trade in ICT goods both within the region and with the rest of the world;
  - Join 'next generation' free trade agreements with commitments supporting digital trade, including de minimis thresholds and open data transfers across borders;
  - Introduce safe harbour regulation that shields intermediaries from liability for for user-generated content on their platforms to enhance legal certainty as well as promote the expansion of innovative services;
  - Enter the WTO Agreement on Government Procurement and reduce discrimination against foreign providers in public tenders;
  - Continue to fight high levels of piracy on online content.

The way forward

While a global approach to digital trade rules is currently under discussion at WTO in the context of the Joint Statement Initiative on Electronic Commerce, economies have increasingly turned to regional trade agreements or other types of agreements to develop new rules on digital trade.

Open dialogues for sharing experiences can help regional economies to better understand and promote the alignment of their general objectives where possible in the long term. Such dialogues should be based on careful data collection and analysis, as undertaken in this report by three United Nations Regional Commissions. It is hoped that RDTII can be regularly updated to offer valuable insights to member States in their efforts to effectively engage in regional and multilateral cooperation on digital trade and e-commerce.

Continental and regional bodies such as ASEAN and AU are essential to supporting negotiations on digital trade issues, creating greater understanding and finding regional common ground in the long term. Examples from the African region include negotiations on a Digital Trade Protocol (DTP) under the AfCFTA Agreement and the AU Digital Transformation Strategy. Implementation of DTP is expected to support countries in developing domestic regulatory frameworks to effectively cover issues related to intermediary liability, consumer protection or online transactions.

In the Asia-Pacific region, ongoing negotiation of with digital trade-related provisions and international digital trade agreements are driving member economies' adoption of digital policy standards. Agreements on Single Window and e-commerce among the 10 ASEAN economies in South-East Asia, the Digital Economy Partnership Agreement between Chile, New-Zealand and Singapore as well as other agreements and initiatives in Central Asia and the Pacific provide fertile ground for the emergence of broader multilateral solutions to making digital trade rules more inclusive and sustainable.

Strengthening of regional cooperation may focus on addressing the regional divergence in the interpretation and enforcement of rules, including through mutual recognition. United Nations Regional Economic Commissions such as ECA, ESCAP and ECLAC can help to create greater understanding and find common ground. For example, the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (CPTA) is a United Nations treaty negotiated at ESCAP that leverages the many bilateral and subregional agreements and initiatives undertaken by Asia-Pacific economies on paperless trade to facilitate the mutual recognition and exchange of electronic trade documents through pilot projects and gradual consensus building. It entered into force in February 2021 and is expected to not only complement the WTO Trade Facilitation Agreement (TFA), but also support its full digital implementation.

All 46 LDCs are located in Asia (12), Africa (33) and LAC (1). They, and other countries with special needs, require support in navigating the continued digitalization of trade. In addition to investment in ICT infrastructure and digital skills, LDCs need help to develop coherent and interoperable regulatory frameworks to engage in increasingly digital international supply chains. ESCAP, ECA and ECLAC look forward to working with other development partners in providing the support they need.

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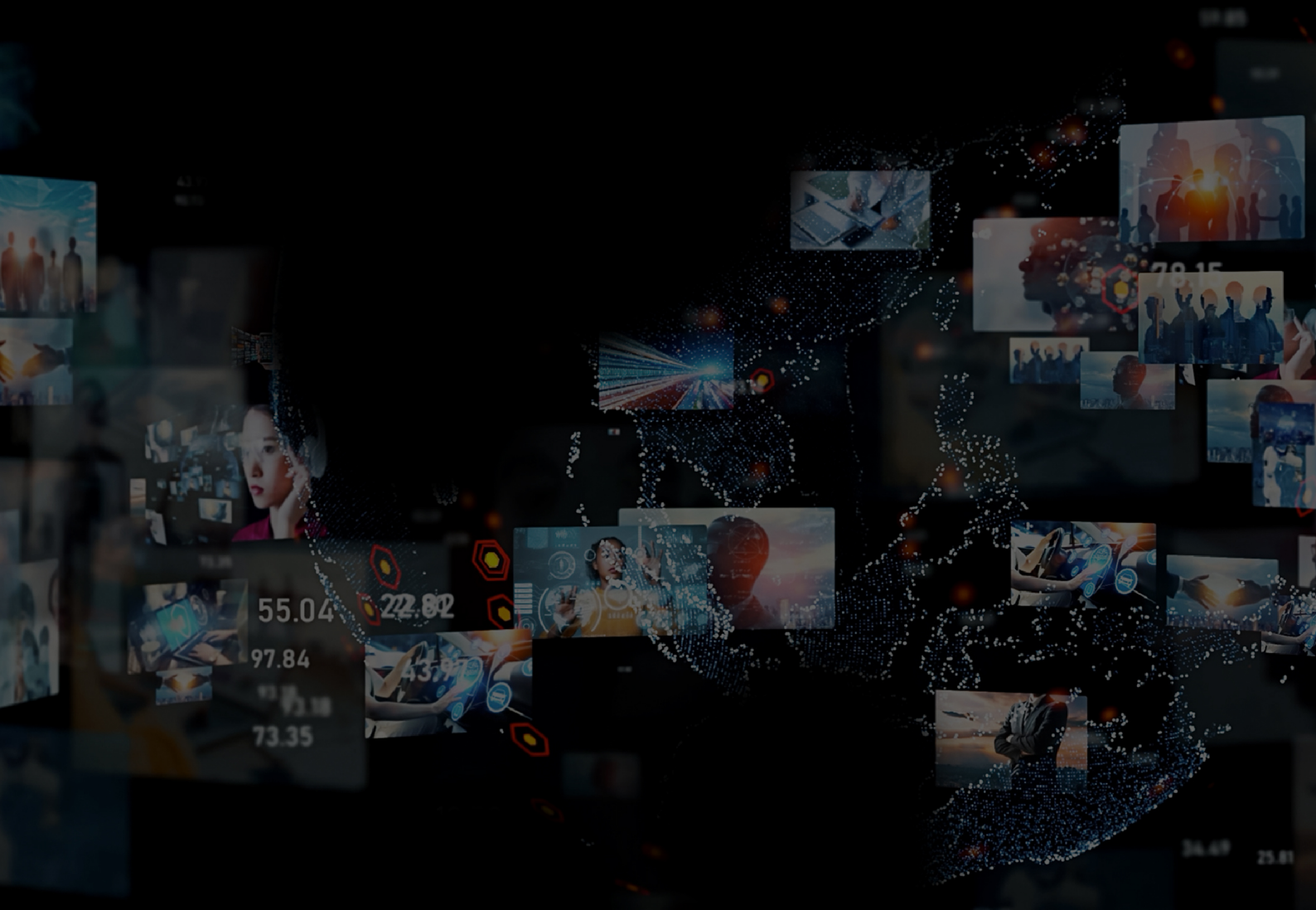

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