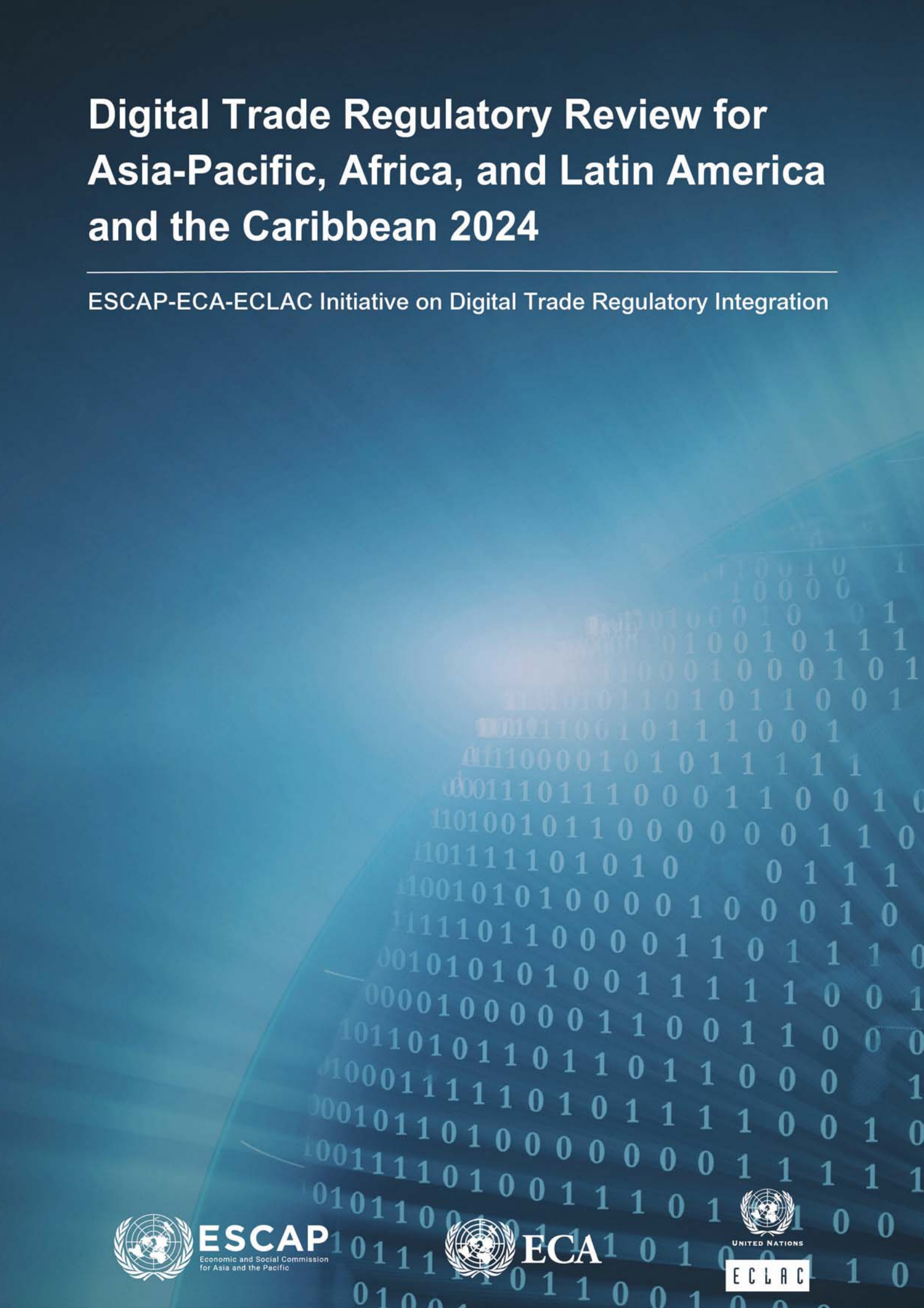
Digital Trade Regulatory Review for Asia-Pacific, Africa, and Latin America and the Caribbean 2024

ESCAP-ECA-ECLAC Initiative on Digital Trade Regulatory Integration



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This publication draws upon digital trade regulatory research conducted by ESCAP, ECA, and ECLAC, employing the unified methodology of the Regional Digital Trade Integration Index (RDTII) version 2.0.

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Abbreviations and acronyms

AfCFTA	African Continental Free Trade Area
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
ATPC	African Trade Policy Centre
AU	African Union
CA	Central Africa
CARICOM	Caribbean Community and Common Market
CABs	Conformity Assessment Bodies
CAA	Cloud Act Agreement
CPC	Central Product Classification
CPTA	Cross-border Paperless Trade Framework Agreement
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DCEFS	Digital Child Exploitation Filtering System
DEPA	Digital Economy Partnership Agreement
DPIA	Data Protection Impact Assessment
DPO	Data Protection Officer
DRC	Democratic Republic of the Congo
DTP	Digital Trade Protocol
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
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
EUI	European University Institute
FDI	Foreign direct investment
FEALAC	Forum for East Asia-Latin America Cooperation
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GPA	Government Procurement Agreement
ICT	Information and Communication Technology
IEC	International Electrotechnical Commission
ILAC	International Laboratory Accreditation Cooperation
IMF	International Monetary Fund
IPRs	Intellectual Property Rights
ISO	International Organization for Standardization
ISP	Internet Service Provider
ITA	Information Technology Agreement
ITIF	Information Technology and Innovation Foundation
ITU	International Telecommunication Union

JSI	Joint Statement Initiative
LAC	Latin America and the Caribbean
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
PCT	Patent Cooperation Treaty
RDTI	Regional Digital Trade Integration
RDTII	Regional Digital Trade Integration Index
RITD	Regional Integration and Trade Division
RTA	Regional Trade Agreement
SA	Southern Africa
SDoC	Supplier Declaration of Conformity
SDR	Special Drawing Rights
SEA	South-East Asia
SMEs	Small and Medium-sized Enterprises
SOEs	State-owned enterprises
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
USMCA	United States, Mexico and Canada Agreement
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

As a preliminary step towards deepening the understanding of the digital trade policy environment in the Asia-Pacific, Africa, and Latin America and the Caribbean (LAC) regions, this report offers an overview of the digital trade policy landscape in the three regions. It presents aggregate findings based on the unified frameworks utilized by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations Economic Commission for Africa (ECA), and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). This framework is known as the Regional Digital Trade Integration Index, 2nd edition (RDTII 2.0).

The 2024 edition of the Digital Trade Regulatory Review includes data up to 2023 from 102 economies in the Asia-Pacific, Africa, and Latin America and the Caribbean (LAC) regions. The economies covered in this version are as follows:

Asia-Pacific (21 economies): Australia, Brunei Darussalam, Cambodia, India, Indonesia, Japan, Kazakhstan, the 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 (53 economies): Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cabo Verde, Central African Republic, Chad, Comoros, Congo, Cote D'Ivoire, Djibouti, the Democratic Republic of the Congo (DRC), Egypt, Eritrea, Eswatini, Ethiopia, Gabon, the Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

LAC (28 economies): Argentina, the Bahamas, Barbados, Belize, Bolivia (P.S. of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Suriname, Trinidad and Tobago, Uruguay and Venezuela (B.R. of).

The findings presented in this report are derived from the RDTII 2.0 index score. Generally, the index score represents regulatory compliance costs and signals an opportunity to simplify digital trade regulations, reduce legal ambiguity and enhance adherence to internationally recognized practices. Index scores represent different policy characteristics; a higher (or lower) index score does not imply that the policy environment of the concerned economy is less (or more) optimal compared to other economies. Its implications depend on context and perspective. Demanding regulations can enhance cybersecurity, protect consumers' rights, and ensure compliance with local laws. Conversely, they can increase operational costs, hinder smaller businesses, and stifle innovation. Ultimately, whether these measures are seen as good or bad depends on the balance between these positive and negative aspects and how they align with the goals and priorities of the stakeholders involved. This framework also considers the implications when regulations do not align with these internationally accepted standards, international treaties, model laws and trade agreement provisions, further emphasizing the importance of consistency in regulatory practices. Users of this report are strongly encouraged to consult the RDTII 2.0 Guide for a comprehensive discussion of the methodology and policy indicators captured within the RDTII 2.0 Framework. In addition, regulatory information and country-level regulatory profiles are made available on the ESCAP-ECA-ECLAC common online platform for the Digital Trade Regulatory Integration Initiative.

Overall, the report underscores the importance of regulatory cooperation in minimizing the fragmentation of digital trade rules, enhancing transparency and reducing uncertainties, and lowering compliance costs, which disproportionately affect small and medium-sized enterprises (SMEs) more than large firms. According to data collected in 2023-2024, the regional average RDTII scores are highest for the Asia-Pacific region (0.41), followed by Africa (0.34) and then LAC (0.25).[1] The index scores reveal that firms operating in Asia-Pacific economies are likely to encounter higher digital-trade regulatory compliance costs compared to those in Africa and LAC. Conversely, firms in LAC economies face the lowest compliance costs.

Furthermore, the regulatory similarity index, which reflects the relative proximity of digital trade policies across jurisdictions, indicates that regulatory cooperation would be most beneficial in the Asia-Pacific region, followed by Africa and LAC, respectively. This is attributed to the relatively low level of regulatory similarity within the Asia-Pacific group (0.64), in comparison to the African group (0.68). and the LAC group (0.73).[2]

Asia-Pacific, Africa, and LAC share certain common policy challenges. Specifically, regulations concerning intermediary liabilities and the telecom sector pose considerable challenges across all three regions, with Africa facing particularly significant issues. However, the Asia-Pacific region is distinct in that the most challenging aspects for firms are tied to investment regulations, which impact digital trade businesses and beyond. Encouragingly, Governments across these regions recognize the importance of reducing procedural delays and have prioritized enhancing transparency by establishing technical standards that align with international norms, especially concerning ICT equipment.

In terms of digital governance rules, the regulatory complexity associated with data protection policies is significant across the three regions. In addition, despite placing a high priority on e-commerce development, regulations related to online sales and transactions raise concerns across all the regions, with particularly acute challenges in the Asia-Pacific.

The report proposes the following recommendations to enhance digital trade integration, based on the commonalities among the three regions:

- Lower barriers to both trade and investment in information and communication technology (ICT) goods and digital trade-related services.
- Enhance access to, and affordability of telecom/digital infrastructure by promoting competition in the digital and telecommunications service sector. This should also include ensuring that rules and regulations regarding investment and public procurement foster competition in the sector concerned.
- Promote the adoption of legal frameworks conducive to digital governance, such as data protection regulations that mutually recognize the adequacy of protection in other jurisdictions.

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

[1] The RDTII score ranges from zero to one, with zero representing the lowest compliance cost and 1 representing the highest.

[2] The Regulatory Similarity Index score ranges from zero to one, with zero representing the lowest similarity and 1 representing the highest.

Asia-Pacific:

- Promote mutual recognition in areas where a high degree of regional common ground already exists, such as online consumer protection, cybersecurity, ICT standards, Intellectual Property Right (IPR) and e-commerce 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 the Digital Economy Partnership Agreement to strengthen cooperation for regulatory interoperability;
- Prioritize investment regulatory simplification and ensure public procurement rules promote competition in the sectors that enable digital trade;
- Close regulatory gaps in countries with special needs through Aid for Digital Trade. Support such as training and making information available should be considered to bolster their capacity in policymaking and in rulemaking negotiations in areas of digital trade.

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.

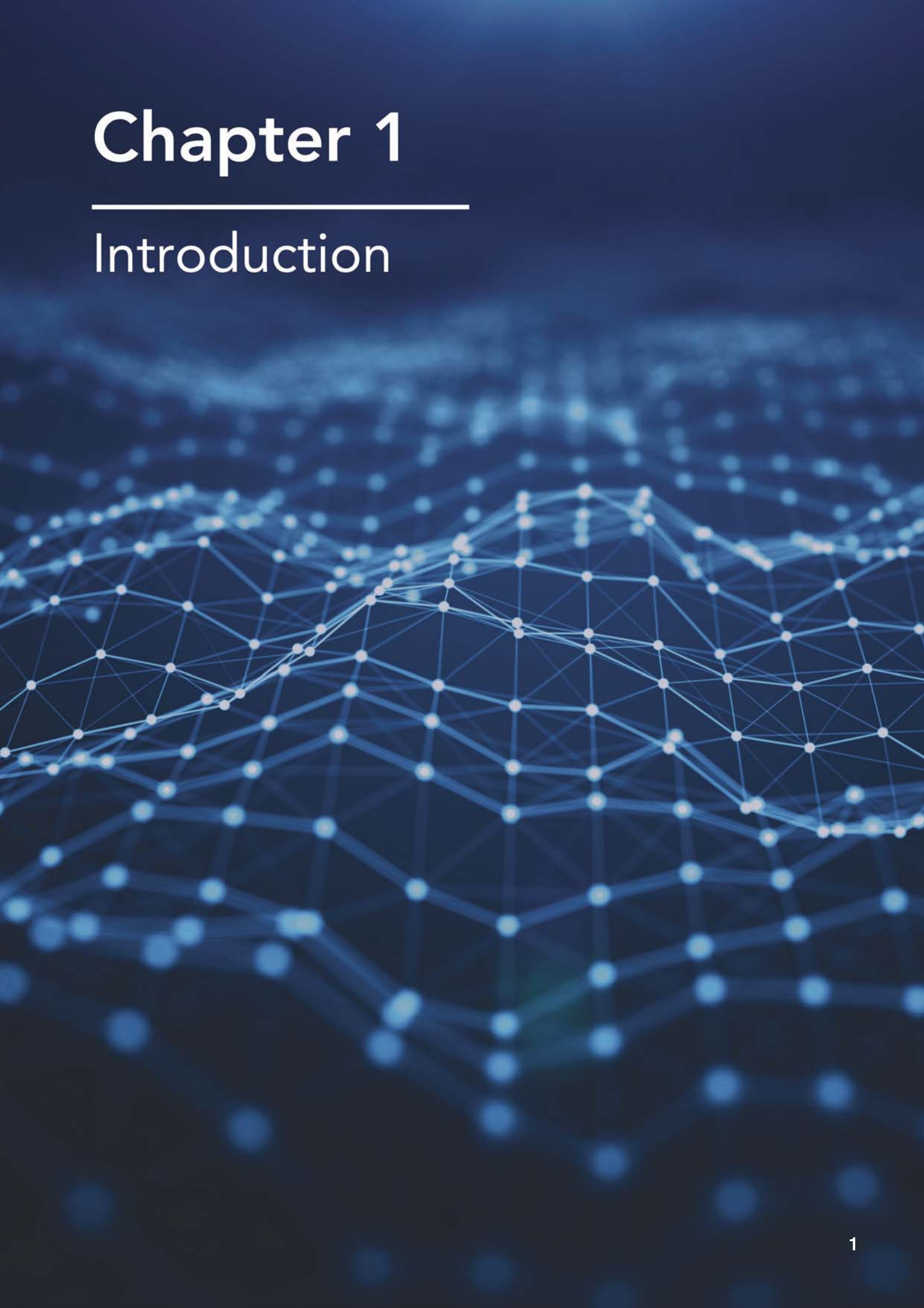
Latin America and the Caribbean:

- 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.
- Sign the WTO Government Procurement Agreement.

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.

Chapter 1

Introduction



1. Introduction

Fostering participation in digital trade and digital economy integration is considered to be a key priority by developing countries in Asia, Africa, Latin America and the Caribbean in promoting sustainable and inclusive growth. Moreover, the digital transformation in the trade and production sectors has broadened the scope of regional integration and co-operation. This expanded focus is reflected in the increasing number of digital trade and e-commerce-related provisions in regional trade agreements across these regions (ESCAP-UNCTAD-UNIDO, 2023).

However, the rapid growth of digital trade presents challenges for regulators and policymakers in adapting regulatory frameworks to technological advancements and managing the socio-economic impacts of digital trade as well as the expanded scope of trade negotiations. Moreover, there is a growing awareness that regulatory differences can result in higher trade costs for businesses and increased prices for consumers (ESCAP-ECA-ECLAC, 2023).

Aware of the importance of evidence-based digital trade policy formulation, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations Economic Commission for Africa (ECA) and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) have established and maintained the ESCAP-ECA-ECLAC Regional Digital Trade Integration Index (RDTII) methodology and database, which is currently in its second edition (RDTII 2.0).[3] The RDTII 2.0 database includes digital trade policy indicators that policymakers and analysts can utilize for policy formulation, comparison and training stakeholders in developing evidence-based digital trade policy strategies. It also aids in identifying potential opportunities for fostering regulatory cooperation with their dialogue partners. As of December 2023, the ESCAP-ECA-ECLAC RDTII 2.0 database covered 102 economies at different levels of development; it encompasses 53 countries in the African region, 21 pilot economies in the Asia-Pacific region and 28 pilot countries in LAC.[4]

This 2024 edition of the Digital Trade Regulatory Review for Asia-Pacific, Africa, and Latin America and the Caribbean includes data up to 2023 based on the RDTII 2.0 research framework. The report consists of five chapters. The first chapter provides an overview of the RDTII 2.0 framework. The subsequent chapters two, three and four — detail the key findings of the RDTII 2.0 for the Asia-Pacific, African and LAC regions, respectively. The final chapter synthesizes the findings from all three regions to put forward recommendations for digital trade policy.

[3] 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 RDTII 2.0, please see RDTII 2.0 Guide at https://repository.unescap.org/handle/20.500.12870/6849.

[4] **Africa:** Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cabo Verde, Central African Republic, Chad, Comoros, Congo, Cote D'Ivoire, Djibouti, the Democratic Republic of the Congo (DRC), Egypt, Eritrea, Eswatini, Ethiopia, Gabon, the Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe. **Asia-Pacific**: 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). **LAC:** Argentina, the Bahamas, Barbados, Belize, Bolivia (P.S. of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Suriname, Trinidad and Tobago, Uruguay and Venezuela (B.R. of).

1.1. 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). 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 RDTII 2.0 index score range from 0 to 1, with higher scores indicating that there is an opportunity for simplifying digital trade regulations, reducing legal ambiguity or increasing adherence to internationally recognized practices. It is important to note, however, that index scores represent different policy characteristics; a higher (or lower) index score does not imply that the policy environment of the concerned economy is less (or more) optimal compared to other economies. Businesses may grapple with the high compliance costs associated with certain forms of regulation while still fully recognizing the value and importance of such regulations – such as those for privacy protection – to foster digital trust. Nonetheless, a complex, ambiguous and heterogeneous regulatory environment can increase operational costs, hinder smaller businesses, and stifle innovation. The data within the RDTII 2.0 framework also enable the development of the Digital Trade Regulatory Similarity (DTRS) index, which serves as a proxy for regulatory harmonization among economies within a group. This index is an important metric for digital trade policy considerations, as it highlights potential areas to strengthen regulatory cooperation to enhance the interoperability of digital trade systems across jurisdictions (box 2).

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

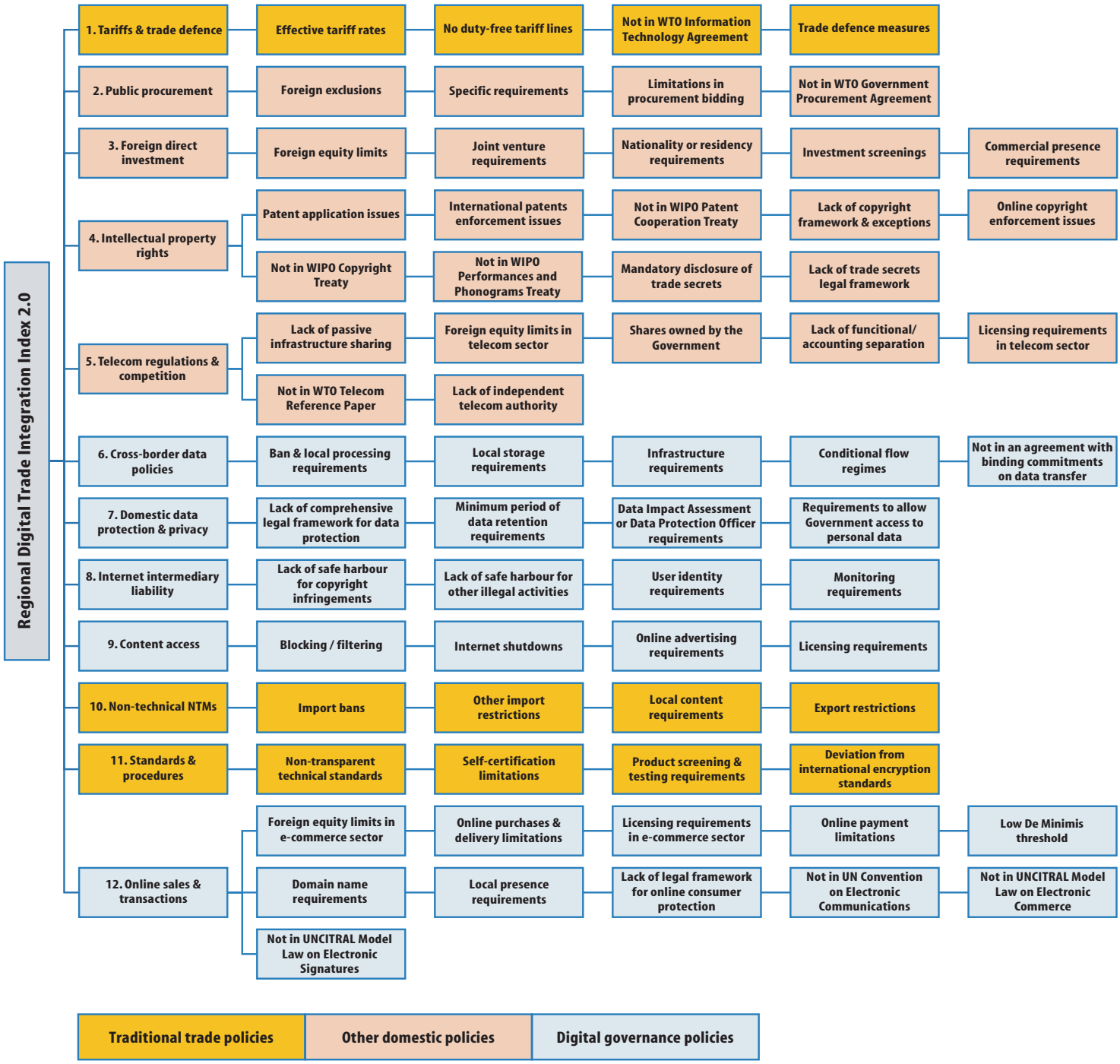
- **Traditional trade policy cluster** covers such regulations as tariff and non-tariff measures (NTMs) on information communication technology goods and services. The cluster includes Pillar 1 (tariffs and trade defence), Pillar 10 (non-technical NTMs) and Pillar 11 (standards and procedures);
- **Other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

[5] For more details about RDTII version 2.0 framework, please see the guide at https://repository.unescap.org/handle/20.500.12870/6849.

[6] The RDTII 2.0 results are based on the list of ICT products found in the "ITA 3.0" list proposed by the Information Technology and Innovation Foundation (ITIF) (Ezell and Dascoli, 2021). The ITA 3.0 includes all products under WTO's Information Technology Agreement (ITA) I and ITA II products as well as additional products provided by ITIF. The proposed WTO ITA III expansion includes next-generation ICT products, such as robots, 3D printers, drones, certain medical technologies, and unmanned aerial vehicles.

Overall, the RDTII 2.0 framework allows policymakers to understand where their economies stand in comparison to other economies in terms of regulatory compliance cost.

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 RDTII 2.0 is a composite index integrating the scores of 12 Pillars by using a simple average method. Each RDTII 2.0 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 2.0 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 intraregional 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.

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.

Source: ESCAP-ECA-ECLAC (2024). Regional Digital Trade Integration Index 2.0: A Guide.

Annex. Digital Trade Regulatory Similarity (DTRS) index

Studies of the relationship between regulatory heterogeneity and trade clearly highlight the role of a harmonized regulatory environment (Nordås, 2016). Indeed, it is not only the presence of regulations – which often are key for a healthy and energetic trade environment – but rather its fragmentation that yields economic costs. With that in mind the Digital Trade Regulatory Similarity (DTRS) index was developed.

Conceptually, similarity can be understood as the complement of distance (i.e., *Similarity = 1 – Distance*). In turn, distance simply measures the absolute difference between two points. In this case, the complement (1 –) of the distance between policy *p* of *i* a reporter *i* $\left(RDTII_i^p\right)$ and a partner *j* $\left(RDTII_j^p\right)$ is taken. Mathematically, for any given policy and reporter-partner pair *(i, j)*:

$$DTRS_{i,j}^{p} = 1 - \overbrace{abs\left(RDTII_i^p - RDTII_j^p\right)}^{\text{Policy (p) distance}}$$

Policy similarities are then aggregated to pillar (*P*) level. The aggregation method follows the principal as the RDTII 2.0 aggregation that use weight average approach, reflecting different importance of measures considered. Specifically, a weighted average, which, for a pillar *P* comprised of a set of policies $p \in P$ and $\sum_{p \in P} weight_p^P = 1$ can be represented as:

$$DTRS_{i,j}^{P} = \overbrace{\sum_{p \in P} DTRS_{i,j}^{p} * weight_p^P}^{\text{Policy (p) similarity}}$$

Finally, DTRS of pillar *P* for a country group (A) that constitute a number (*n*) of pairs of countries *(i, j)* is taken as the simple average across all pairs within the group. Specifically, *DTRS* of pillar *P* for a country-group A that have n pairs of countries *(i, j)* can be represented as:

$$DTRS_A^P = \frac{1}{n_A} * \sum_{(i,j) \in A} DTRS_{(i,j)}^P$$

It is important to note that measuring similarity at the policy level before aggregating into pillars is crucial for understanding regulatory fragmentation. For example, if countries *i* and *j* both achieve high RDTII 2.0 scores in Pillar 12 (Online sales and transactions) due to different regulatory measures (such as strict licensing requirements for e-commerce service providers in country *i* and low *de minimis* thresholds in country j), they should not be considered highly similar in regulatory terms.

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*

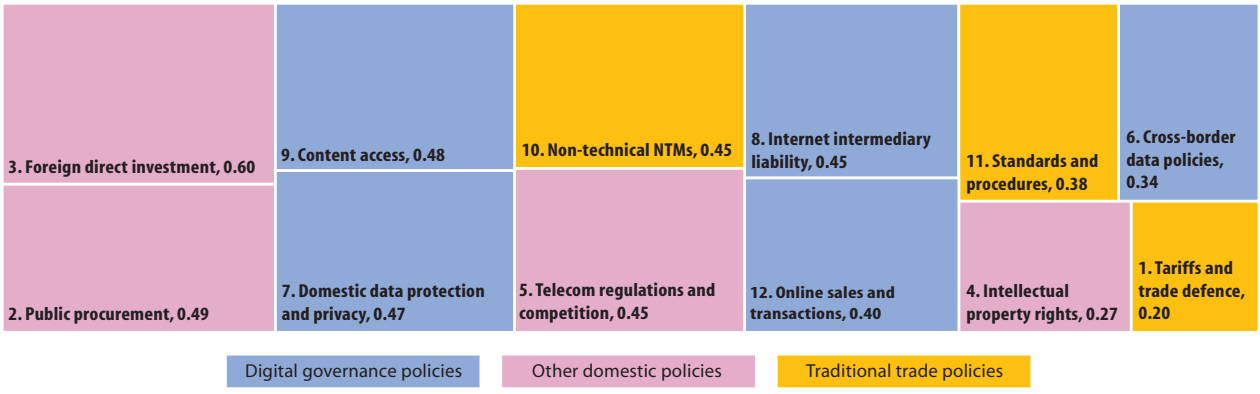
Based on data collected from 21 sample Asia-Pacific economies, the RDTII 2.0 score of the group stands at 0.41 on average. The regional average score is higher in the Asia-Pacific region than in Africa (see chapter 3) and LAC (chapter 4). This result indicates a significant opportunity for Asia-Pacific economies to address regulatory complexity and strengthen regulatory cooperation.

In the Asia-Pacific region, the traditional trade policies cluster tends toward a lower compliance cost compared to the other two clusters, with a group average score of 0.34, which is lower than the overall score of 0.41. Both the digital governance and domestic policies clusters have considerably higher average scores, at 0.42 and 0.45, respectively.

It is noteworthy that within each cluster, there is a range of policies with diverse regulatory compliance costs (figure 2). For instance, the digital governance cluster stands on a wide spectrum, ranging from heavy regulations concerning content access, domestic data and Internet intermediary liability, to more moderate measures related to the online sales and e-commerce surrounding measures, and to a lighter approach on cross-border data flows.

Based on the regional average, the three areas of digital trade policies in the Asia-Pacific region with the lowest compliance costs appear to be tariff-related measures (Pillar 1), Intellectual Property Rights (Pillar 4) and cross-border data flows (Pillar 6). At the other end of the policy spectrum, challenges for cross-border business occur frequently due to Foreign Direct Investment (FDI) rules (Pillar 3), followed by stringent rules regarding public procurement (Pillar 2), content access (Pillar 9) and data protection and privacy (Pillar 7). Moreover, regulations related to telecom regulations and competition (Pillar 5), non-technical non-tariff measures (NTMs) (Pillar 10), Internet intermediary liability (Pillar 8) and online sales and transactions (Pillar 12) appear to have significant requirements that potentially carry high compliance costs. In addition, there is a significant gap between the four policy areas with low compliance costs (Pillars 1, 4, 6 and 11) and the other four contentious areas with high compliance costs (Pillars 3, 2, 9 and 7), with average scores ranging from 0.20 to 0.38 for the former and 0.45 to 0.60 for the latter.

Figure 2 **Asia-Pacific RDTII 2.0 score by pillar, group average score, 2023**

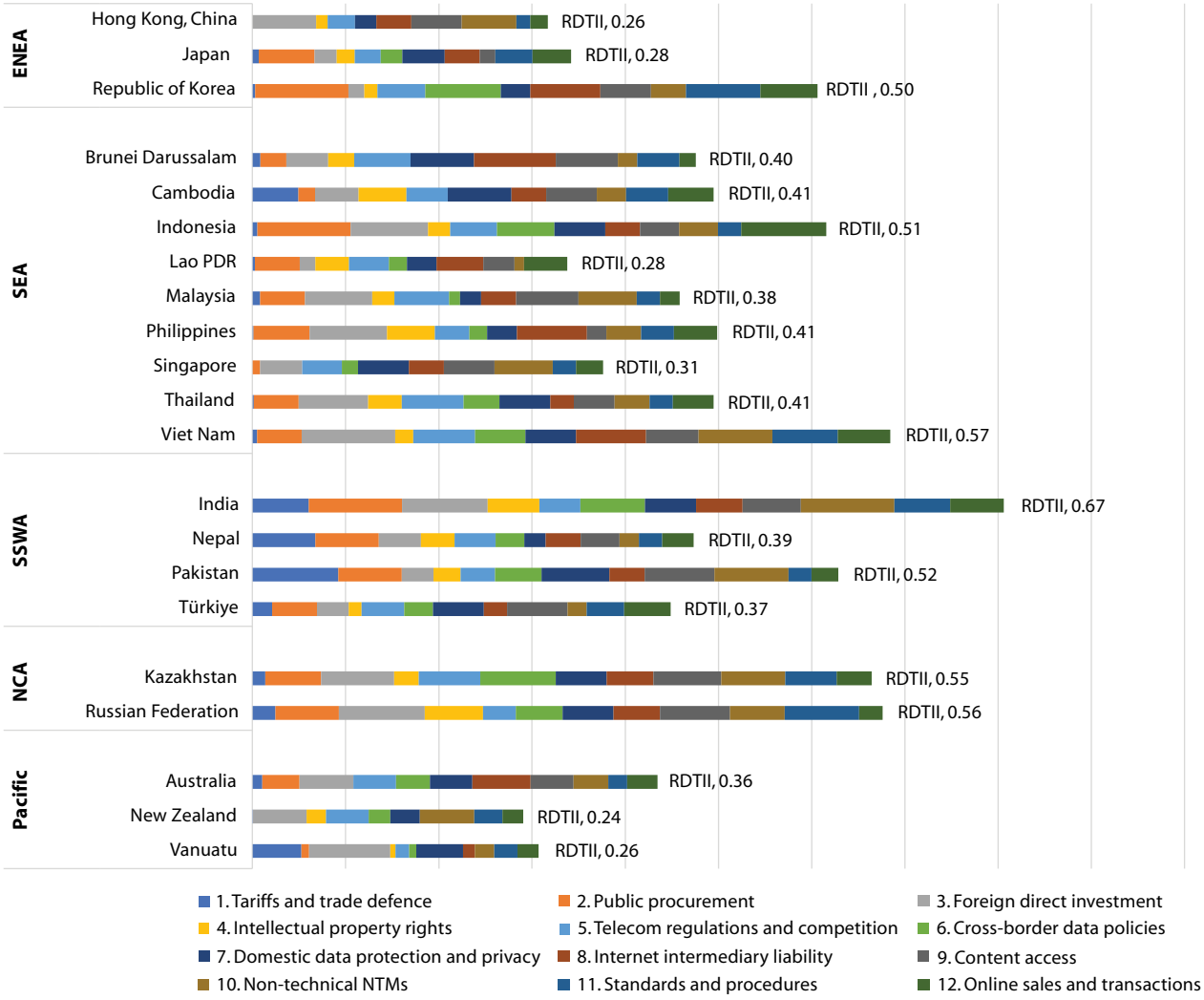


Source: ESCAP calculation, data as of August 2023.

* Economy profiles by Asia-Pacific economy

The regional averages, however, mask a large variation across regional economies. The overall RDTII 2.0 scores of Asia-Pacific sample economies range from 0.24 to 0.67 (figure 3). India, Viet Nam, the Russian Federation, Kazakhstan, Pakistan, 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. In contrast, New Zealand, Vanuatu, Hong Kong (China), the Lao People's Democratic Republic, Japan, Singapore and Australia have RDTII 2.0 scores well below the sample average. Notably, there is no clear relationship between the level of economic development and regulatory complexity. This result can be explained by the fact that digital trade regulations are not purely driven by economic objectives but by a mix of socio-economic-political conditions.

Figure 3 **RDTII 2.0 score of sample Asia-Pacific economies, 2023**



Source: ESCAP calculation, data as of August 2023.

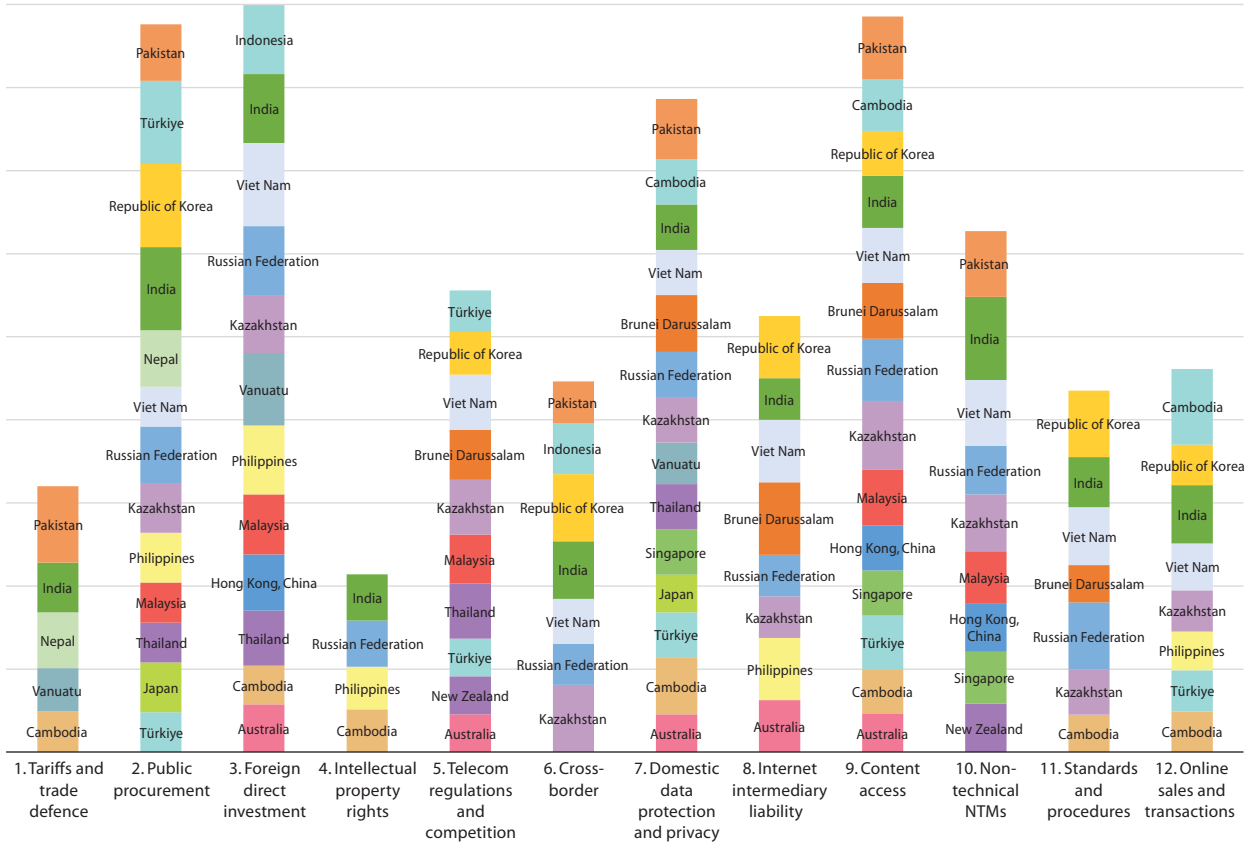
Note: East and North-East Asia (ENEA), South-East Asia (SEA), South and South-West Asia (SSWA), North and Central Asia (NCA) and the Pacific. Higher scores indicate more restrictive policies.

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

In specific policy areas such as Foreign Direct Investment (Pillar 3), Public Procurement (Pillar 2) and Content Access (Pillar 9), several sample economies have very high scores, i.e., RDTII 2.0 scores of at least 0.5 at the Pillar level (see figure 4). This outcome highlights the need for these economies to review and simplify their regulations in order to facilitate local businesses' participation in cross-border digital trade. Conversely, only a few countries have scores equal to or higher than 0.5 in Intellectual Property Rights (Pillar 4), Tariffs and Trade Defence (Pillar 1) and Standards and Procedures (Pillar 11).

Among the economies, India, Kazakhstan, the Russian Federation, and Viet Nam, in particular, score 0.5 or greater in most policy areas. In contrast, Japan, the Lao People's Democratic Republic, Nepal, New Zealand, Vanuatu and Hong Kong (China) have scores equal to or above the 0.5 threshold in only a few areas.

Figure 4 **Asia-Pacific economies with high RDTII 2.0 scores, by pillar, 2023**



Source: ESCAP compilation, data as of August 2023.

Note: The figure shows only economies with RDTII 2.0 Pillar scores equal or greater than 0.5. Economies are ordered in alphabetical 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

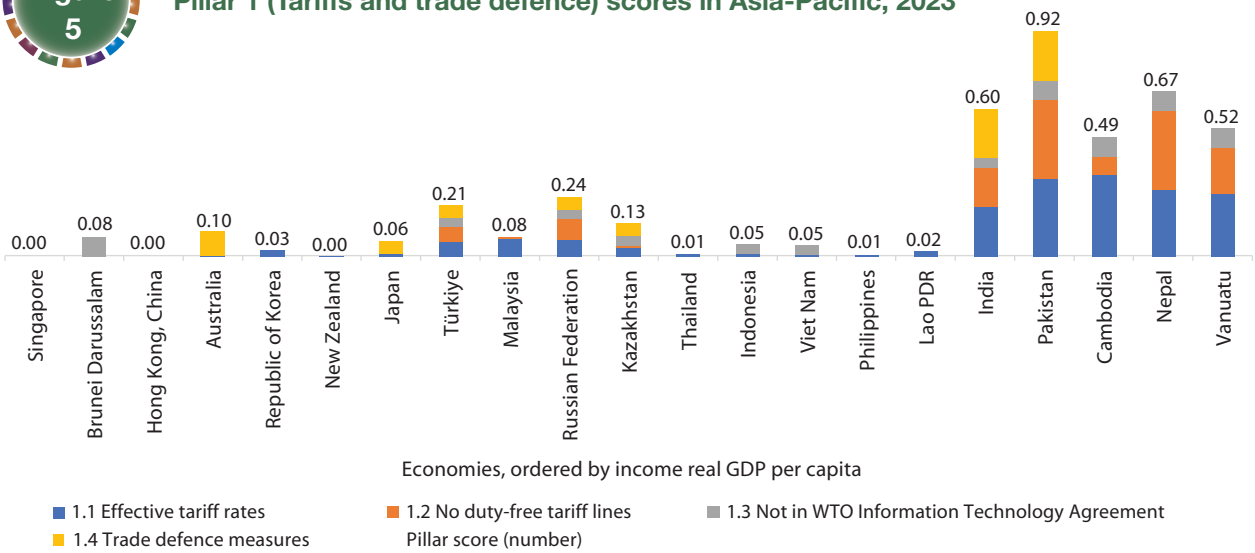
This cluster includes Pillars 1, 10 and 11, which are related to tariff-related and trade defence measures that affect ICT goods and ICT services. They are measures that have been covered in most forums of trade negotiations.

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.

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, Cambodia, India, Nepal, Pakistan and Vanuatu 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. Furthermore, Asia-Pacific economies are also faced with the challenge of completing the commitment to ascend or agree to the WTO Information Technology Agreement (ITA I) and the ITA II, which provides a clear indication of higher tariffs.

Regarding trade defence measures against the Asia-Pacific partners implemented by 7 sample economies, most cases utilized anti-dumping and countervailing duties that involved critical sectors such as telecom heavily directed at East and North-East Asian and South-East Asian economies, particularly China. Recent cases include (a) the anti-dumping measures imposed by Pakistan on Offset Printer Ink for China and the Republic of Korea since April 2022, and (b) Türkiye's measure on stainless steel tubes, pipes and profiles directed to Viet Nam, given the usage to the economy's telecom industry since July 2021. The findings reveal that trade cooperation in ICT related sectors encompasses these sensitive products can address challenges.

Figure 5 **Pillar 1 (Tariffs and trade defence) scores in Asia-Pacific, 2023**



Source: ESCAP calculation, data as of August 2023.

Note: Certain economies' effective tariff rates and non-duty-free tariff lines on ICT products may occur despite their WTO ITA I and ITA II membership due to the following reasons: (a) The calculation of these two pillars includes ICT products covered under the WTO ITA I, WTO ITA II, and the proposed expansion of WTO ITA III by the Information Technology and Innovation Foundation (ITIF), which encompasses next-generation ICT products not covered by ITA I and ITA II, (b) Some products under ITA I and ITA II receive full liberalization, while others are only partially covered (ex-outs), leaving certain tariff lines unchanged. (c) Tariff reductions are phased in over three years with four equal annual cuts, starting in 2016 and ending in 2019, with potential for extended staging under specific conditions. For more information, see the RDTII Guide version 2.0.

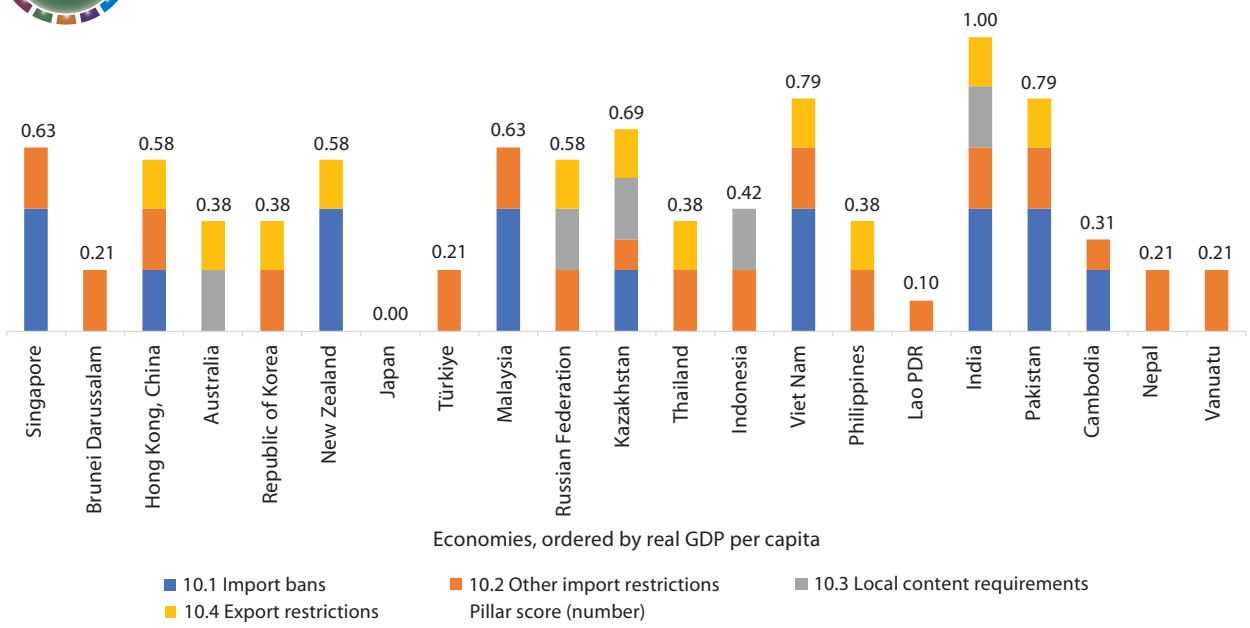
The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

Pillar 10 focuses on non-technical, non-tariff measures (NTMs) applied to ICT goods and online services, including licensing, bans, quotas and local content requirements (figure 6). On average, the Pillar score is 0.45, which is on a par with the score for Pillars 5 and 8 and considerably higher than the score for tariff measures, indicating that challenges to businesses will come from non-tariff trade measures more than from tariffs. This reflects the prevalence of import restrictions with import bans implemented in nine economies, and other import regulations in place in 18 economies. All sample economies except Australia and Japan impose import regulations – specifically licensing requirements, certifications and labelling requirements are the most common types applied to various ICT goods and services, including smart televisions, mobile phones, and telecommunication and radio-communication equipment. Regarding exports, half of the sample economies impose export restrictions, including a ban, licensing and pre-approval requirement on export items considered as dual-use, such as electronic components that potentially fit military use.

Moreover, local content requirements (LCRs) are extensively regulated in Australia, India, Indonesia, Kazakhstan and the Russian Federation for various ICT products (e.g., 4G smartphones, software applications, TV and set-top boxes) and services (e.g., broadcasting, and streaming services, and wireless broadband services). The recent proposal is that Australia plans to introduce content quotas on streaming platforms by mid-2024 to ensure access to local stories and content.[7]

Figure 6

Pillar 10 (Non-technical NTMs) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

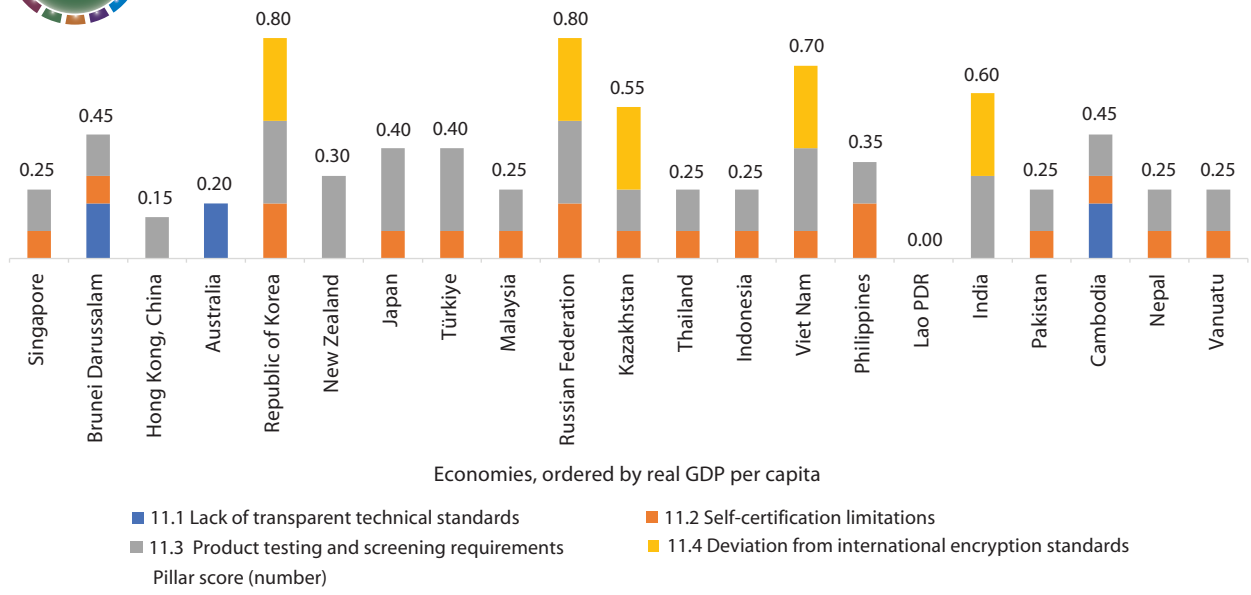
[7] Aside from the mentioned LCR on streaming platforms, Australia's Broadcasting Services Act 1992 prescribes that the free-to-air commercial television stations are subject to local content quotas requiring them to broadcast 55% of Australian content on primary channels and 1,460 hours of Australian content on non-primary channels annually. For more information regarding the content quotas on streaming platforms, see 'The Revive, Australia's Cultural Policy for the next five years.

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. The common good practices are reflected in the relatively low group's score (0.38). 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.

All sample economies, except Australia, Brunei Darussalam and Cambodia, allow foreign businesses to participate in public consultations for the technical standard-setting bodies and have a transparent standard-setting process. Nearly half of the sample economies do not have mandatory requirements regarding encryption standards. Among the 11 economies that do, six of them align with ISO/IEC standards. These include Australia, Malaysia, Nepal, New Zealand, the Philippines, and Singapore. On the other hand, the Republic of Korea has developed its domestic encryption algorithms. India, Kazakhstan, the Russian Federation, and Viet Nam impose additional requirements, such as licences, for encryption facilities and users of cryptographic services.

Apart from the transparency of standard setting, more than half of the 21 economies accept third-party certifications from Conformity Assessment Bodies (CABs) under regional Mutual Recognition Arrangements (MRAs), such as APEC-TEL MRA and ASEAN EE MRA. While additional ICT product testing and screening measures, mainly applied to telecommunication equipment, are commonly enforced, there is an exception for accepting test results from recognized foreign certifications or accredited foreign laboratories. For example, Thailand has introduced testing requirements for specific types of telecommunication products to ensure conformity with technical standards, and recognizing the test reports from certified foreign laboratories.

Figure 7 **Pillar 11 (Standards and procedures) scores in Asia-Pacific, 2023**



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

B. Domestic regulations

Policy measures under Pillars 2, 3, 4 and 5 are domestic regulations affecting foreign direct investment and trade.

Pillar 2 considers public procurement in digital trade-related sectors, such as ICT networks, equipment and digitally-enabled services. The regional average score of this Pillar is relatively high at 0.49 (figure 8). The sample economies tend to share some commonalities in their strict approaches, explicitly in India, Indonesia and the Republic of Korea. However, diversity is still present; Hong Kong (China) and New Zealand pursue relatively open approaches.

Notably, 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.

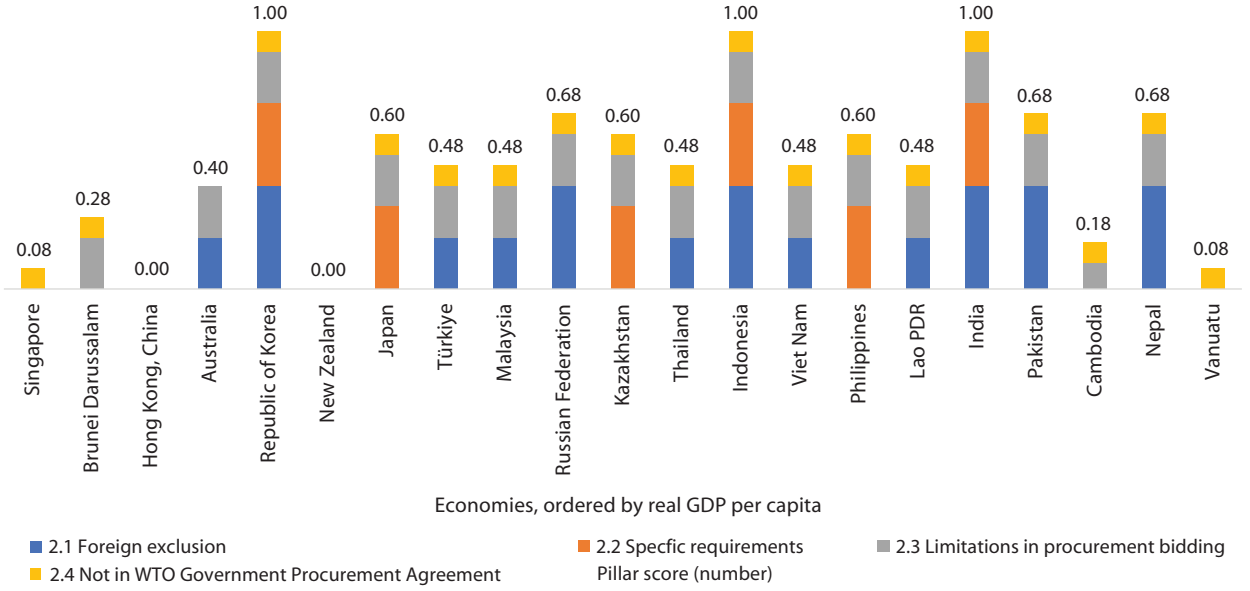
Measures affecting foreign access to public tenders to protect the national interest in digital trade-related projects come in various forms and are often applied across all sectors. Examples include price preference for domestic bidders, requirements to use local software or local data storage for a public project, local content requirements, and joint venture requirements to be eligible for bidding on the project.

In addition, 12 sample economies that implement foreign exclusion frequently impose them on all foreign bidders and all sectors. In several cases, for example, in Indonesia, the Lao People's Democratic Republic, Malaysia, Nepal, Thailand and Viet Nam, foreign bidders are allowed to participate in procurement only when domestic resources are not available. Indonesia has recently further mandated that all government agencies must spend at least 40% of their budget on local products produced by SMEs since 2022. Furthermore, specific types of foreign ICT services, such as Microsoft Teams, Skype, TikTok, WhatsApp and WeChat, are prohibited from being used by public entities due to security concerns.

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 six sample economies. Among these samples, the requirement to submit source codes of software is commonly applied.

Figure 8

Pillar 2 (Public procurement) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

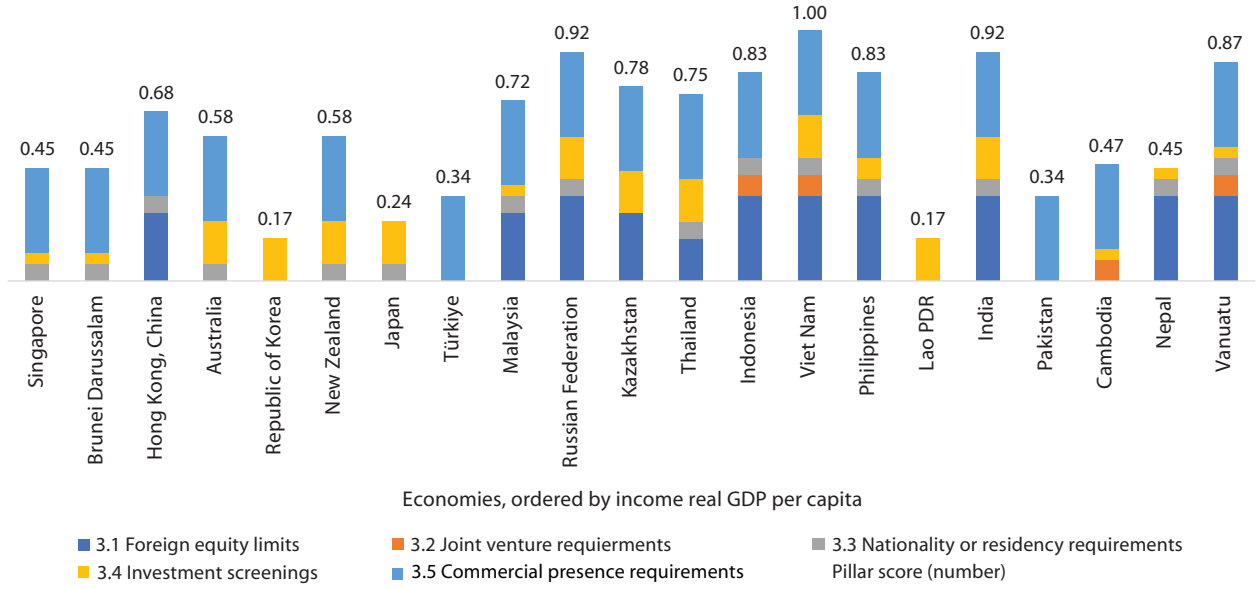
The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

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 a regional average score of 0.60, 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 screening measures for investment and acquisition in digital trade-related sectors, commercial presence requirements as well as nationality or residency requirements for board of directors and managers. Investment screening is typically applied horizontally across sectors and to the telecommunication sector. In parallel, requirements for foreign companies to establish local branches or companies are implemented across all sectors and specifically for e-commerce businesses.

Half of the sample economies set foreign equity limits for investment in sectors relevant to digital trade. In particular, India, Kazakhstan, the Philippines, the Russian Federation and Hong Kong (China) do not allow foreign direct investment in digitally-related services, such as broadcasting, mass media, and even computer training in the case of Nepal. Vanuatu also reserves professional services, specifically for electricians and electro-technicians exclusively to locals. In contrast, except for Cambodia, Indonesia, Vanuatu and Viet Nam, none of the sample economies impose joint-venture requirements for foreign direct investment.

Figure 9

Pillar 3 (Foreign direct investment) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

Pillar 4 considers Intellectual Property Right (IPR) policies, focusing on patents, copyrights and trade secrets. The group's average score is 0.27 (figure 10), considering to be one of the most encouraging categories of policy environment for digital trade in the Asia-Pacific region compared to other Pillars. Notably, Australia and Singapore have established conducive regulatory environments for IPRs. Intellectual property laws – patents and copyrights – are well-established in most sample economies. Between 2022 and 2023, eight samples have made amendments to their regulations governing patents and/or copyrights.[8] Explicit copyright exceptions based on fair use and fair dealing provisions are often included in legislations. Hence, many Asia-Pacific economies participate in the international frameworks, i.e., the WIPO Patent Cooperation Treaty (PCT), WIPO Copyright Treaty (WCT), and WIPO Performances and Phonograms Treaty (WPPT).

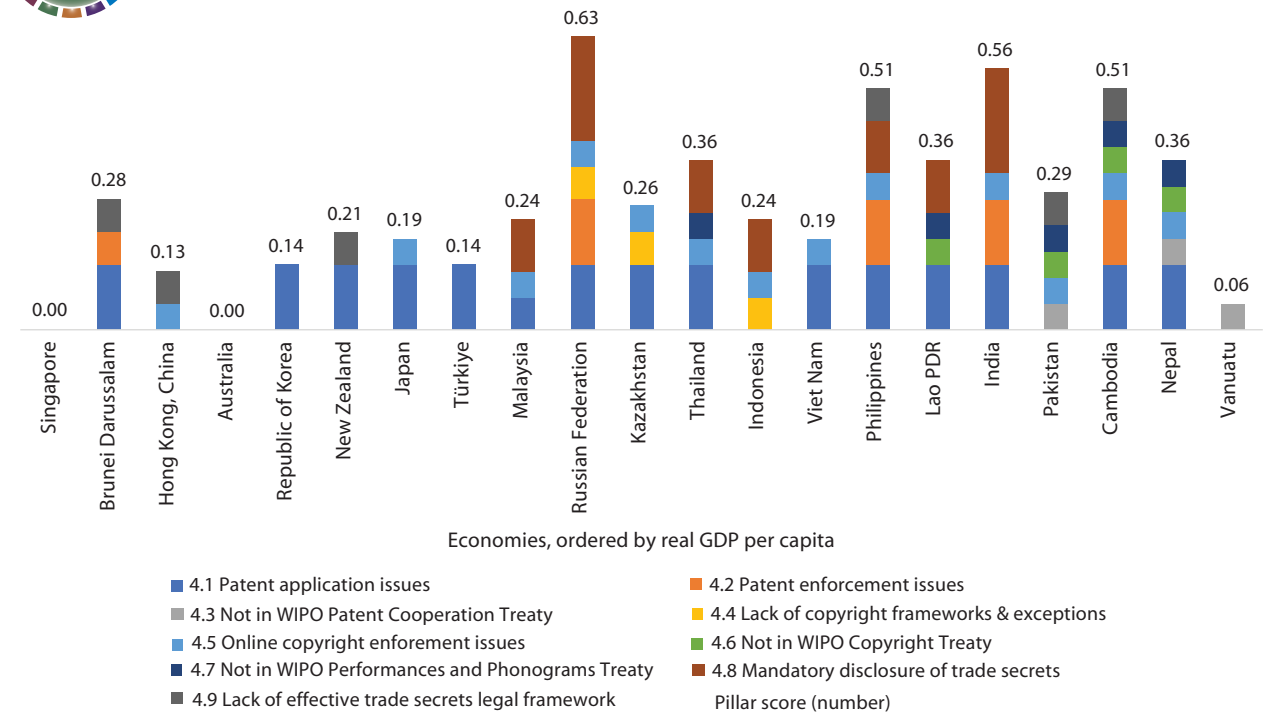
On the enforcement side, while equal protection is given to foreign patents and local patents in most sample economies, the patent application process and enforcement of copyrights online still have room to improve. Trade partners have reported cases of copyright infringement and complex patent application 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 requirements to translate the patent application into the local language.

As for trade secrets, most sample economies have adequate safeguards against unauthorized disclosure. Owing to differences in legal systems adopted across the sample economies, specific statutory regimes for protecting trade secrets are present in civil law economies. While there is

[8] Australia, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Thailand and Viet Nam

typically no express legislation in common law economies like Australia, India and Singapore, courts upheld the protection of trade secrets under other laws such as contract law, competition law, and common law action for breach of confidence doctrine.[9] However, several sample economies implement mandatory disclosure of trade secrets, including the request for encryption keys, source code and configuration information.

Figure 10 **Pillar 4 (Intellectual Property Rights) scores in Asia-Pacific, 2023**



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

Pillar 5 provides an overview of the regulations and competition in the telecommunication sector, which serves as the backbone services for digital trade. A pro-competitive telecom environment enables the ability of businesses and consumers to access affordable and efficient telecom services. Of the 21 sample economies, the regional average Pillar score is 0.45, indicating a moderately complex environment in telecom sector (figure 11).

All sample economies have appended the WTO Telecom Reference Paper, which is enforceable through the WTO mechanism for settlement.[10] Accordingly, several economies are governed by independent regulatory bodies and establish pro-competitive policies, including the passive

[9] For instance, in the case of Burlington Home Shopping Pvt. V. Rajnish Chibber 1995 (in India), the Delhi High Court defines trade secrets as any information with commercial value that is not available in the public domain and the disclosure of which would cause significant harm to the owner.

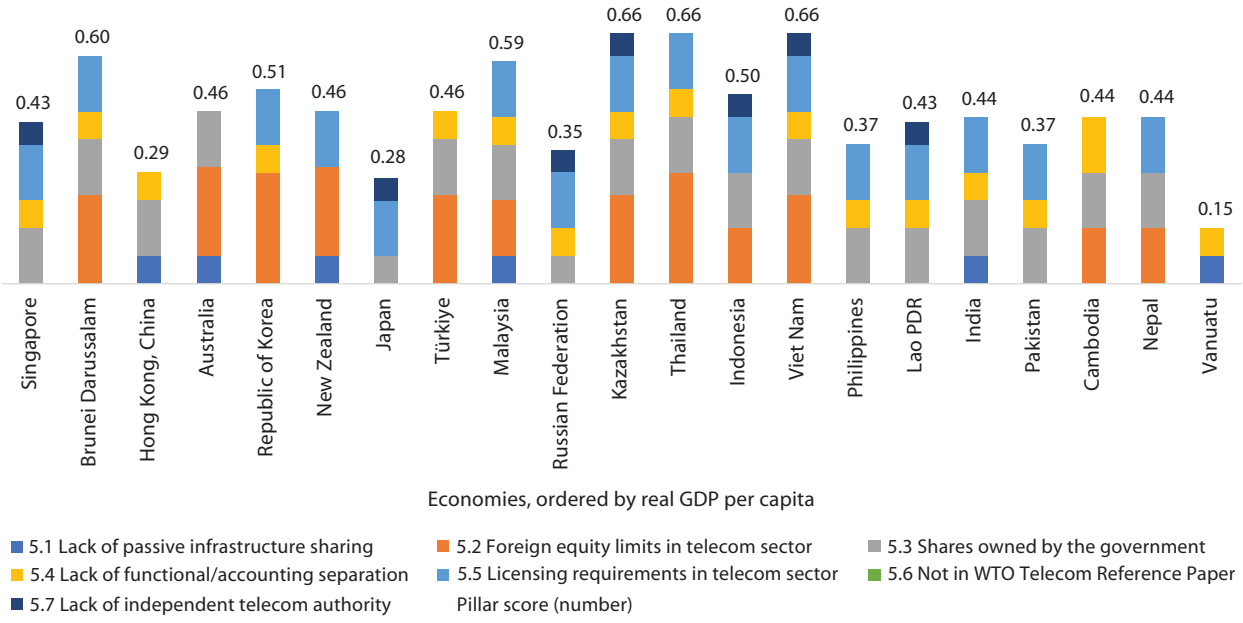
[10] The regulatory frameworks under the WTO Telecom Reference Paper are competitive safeguards, interconnection, universal services obligation, public availability of licensing criteria, independent regulators and allocation, and use of scarce resources. More information is available at https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm.

infrastructure sharing obligation, and separation requirements, particularly accounting separation (i.e., to keep separate accounts for different service segments) for telecom operators with significant market power. In particular, six sample economies, including Australia, India, Malaysia, New Zealand, Vanuatu and Hong Kong (China) allow entities to enter into a voluntary arrangement that reduces bottleneck facilities and duplication of resources. For example, telecommunication carriers in Australia have statutory rights of access to towers and ducts owned by other carriers through negotiations on a commercial basis.

However, the presence of state-owned enterprises and complex licensing requirements for telecom service operators are a common challenge. Government ownership is a predominant characteristic of the telecom market structure in Asia-Pacific sample economies. With the exception of New Zealand, the Republic of Korea, and Vanuatu, all sample economies have at least one government-owned telecom company. In Brunei Darussalam, Cambodia, Pakistan, Singapore, Thailand and Türkiye government ownership is up to 100%. Therefore, it is not surprising that several economies impose equity limits on foreign direct investment in the telecommunications sector. Limitations on foreign ownership also exist in publicly controlled firms or state-owned enterprises (SOEs).

However, recent developments in Indonesia, India and the Philippines are encouraging. The years 2021 and 2022 saw the lifting of previous caps to permit 100% foreign ownership in the telecommunications sector, marking a positive step toward achieving a more open telecom market in these economies.

Figure 11 **Pillar 5 (Telecom regulations and competition) scores in Asia-Pacific, 2023**



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

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 transfers, while Pillar 7 considers policies related to domestic data privacy and protection.

Based on 21 sample economies, the average score of cross-border data policies in Pillar 6 is 0.34 (figure 12). The lowest among digital governance policies. It is encouraging that although around three-fourths of the Asia-Pacific sample economies have requirements that affect the location of data – such as the ban on cross-border data transfer, local processing, local storage and infrastructure requirements – most of them are sector-specific measures. The most common data localization measures are focused on local processing requirements for financial and health services, which cover data for payments and insurance.

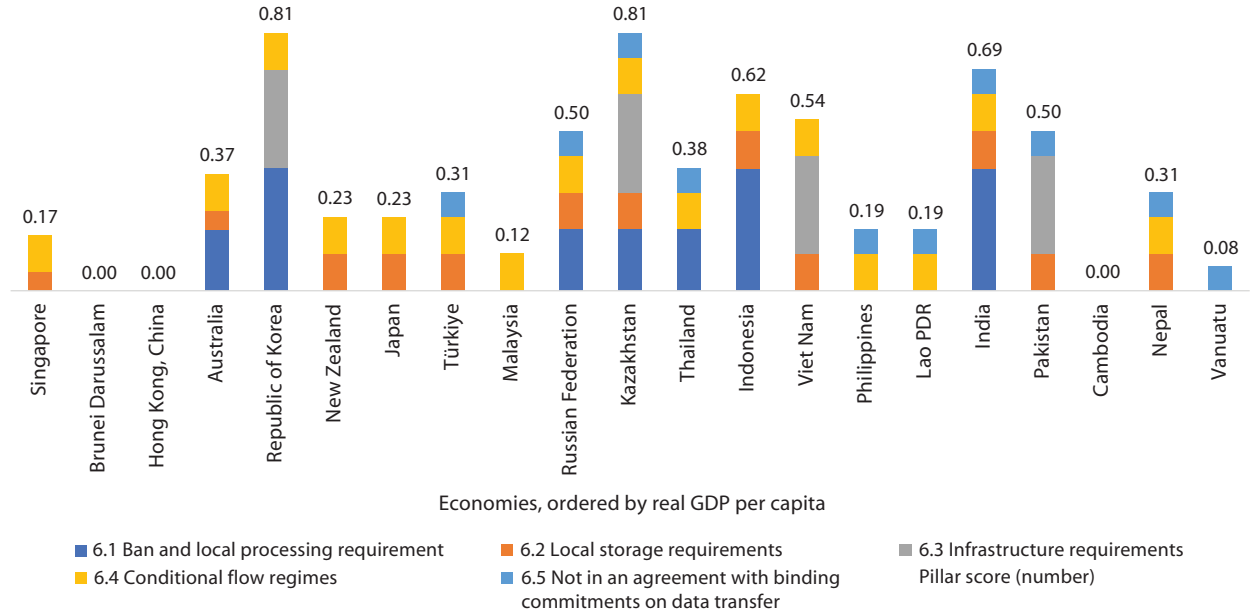
The compliance cost tends to be high when looking at conditional flow regimes in the Asia-Pacific region. The majority of economies have imposed extensive conditions on transferring personal data abroad, requiring explicit consent from the data subject and an adequate level of data protection for the recipient economy. The exceptions are Brunei Darussalam, Cambodia, Vanuatu, and Hong Kong (China), which do not impose stringent conditions on cross-border transfers. A recent policy change was implemented by Pakistan in 2022 that allows the participation for Cloud Office stakeholders to identify appropriate information security standards for cross-border data flows, as enshrined in its Cloud Policy First. On the 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, ECA, ECLAC, 2022).

Moreover, 11 sample economies commit to at least one binding agreement that tackles the cross-border transfer of data. For example, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) has a binding commitment to cross-border data transfer in its e-commerce chapter (Article 14.11). In addition, these commitments are growing more common in advanced Asia-Pacific economies that have recently signed stand-alone digital trade agreements such as the Australia-United States CLOUD Act Agreement,[11] the Singapore-United Kingdom Digital Economy Agreement (Article 8.61-F), and the Republic of Korea-Singapore Digital Partnership Agreement (Article 14.14).

[11] The Australia-United States Agreement on Access to Electronic Data for the Purpose of Countering Serious Crime, commonly referred to as the Australia-United States CLOUD Act Agreement, was signed in December 2021 and entered into force on January 30, 2024.

Figure 12

Pillar 6 (Cross-border data policies) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

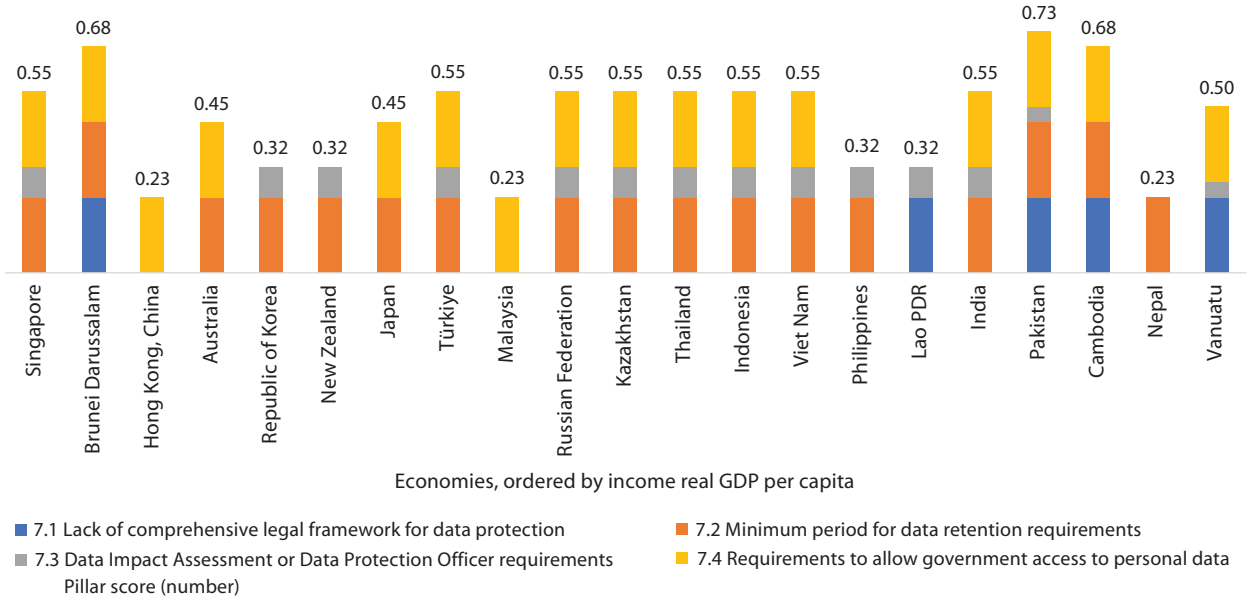
The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

Rules on data protection in Asia-Pacific economies tend to be complex. This has led to a high average score of 0.47 in domestic data protection and privacy (Pillar 7) (figure 13). Notably, all 21 sample economies already have legal frameworks for data privacy protection, although the scope tends to be fragmented in a few cases, thereby, governed by specific laws. For example, data privacy protection in Brunei Darussalam is regulated under the Electronic Transactions Act, Banking Order, Islamic Banking Order and Data Protection Policy. The Asia-Pacific region also provided an intensified approach to this Pillar, with 10 sample economies having crafted or amended their Personal Data Protection policies, with India being a key example of its new Digital Personal Data Protection of 2023, which provides a robust framework to protect and process personal data.

Many of the sample economies with a fully established legal framework on data protection tend to impose at least one requirement, whether that is data retention, government access to personal data, or requirement 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 personal, corporate, telecommunication, and financial data. The regulation that authorizes government officials to intercept or decrypt personal data without a warrant, in certain cases, is practiced as part of a criminal investigation or deemed a threat to national security. In addition, more than half of the sample economies, including those that do not have yet comprehensive data regulatory frameworks, such as Vanuatu, imposed requirements for electronic businesses to appoint a DPO to ensure compliance with codes of conduct and standards. Compared to other sample economies, the RDTII 2.0 score suggests that Malaysia, Nepal and Hong Kong (China) have the most simplified environment.

Figure 13

Pillar 7 (Domestic data protection and privacy) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

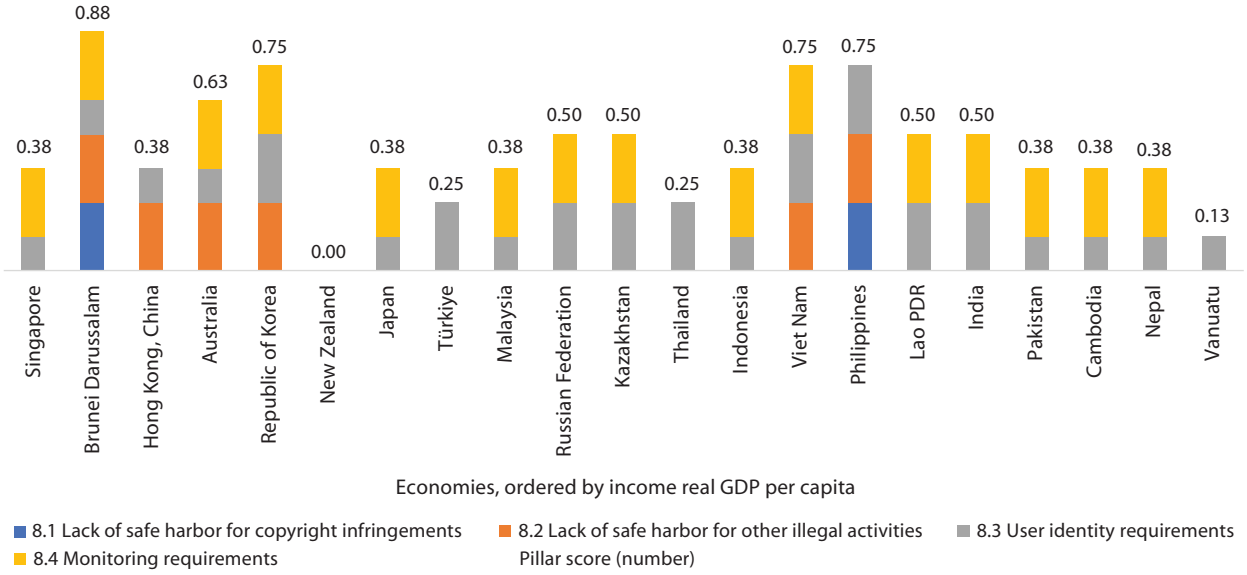
Pillars 8 and 9 on Internet intermediary liability and content access capture the measures related to the responsibility of Internet intermediaries and limiting access to online content, respectively.

Internet intermediary liability (Pillar 8) has a relatively high average score of 0.45 (figure 14). This Pillar covers the array of safeguards against third-party liability, user monitoring requirements and other policy measures imposed on Internet intermediaries. In the latest RDTII 2.0 results, New Zealand is the only economy that does not impose any stringent Internet intermediary measures. All sample economies, except Brunei Darussalam 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. Meanwhile, the provision that safeguards intermediaries against other illegal activities are implemented in 15 sample economies.

In the Asia-Pacific economies, user identity and monitoring requirements are excessively applied. More than half of the sample economies require Internet intermediaries to record user identities. In turn, users are obliged to register their personal data to access certain services or activate 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, and disclosing private online communication as deemed necessary. Recently, respective Ministries in Malaysia and Singapore implemented Codes of Practices that dictate the procedural steps to be undertaken by the content and broadcasting industries to ensure their responsibility in upholding online user safety by curbing prohibited material or activity.

Figure 14

Pillar 8 (Internet intermediary liability) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

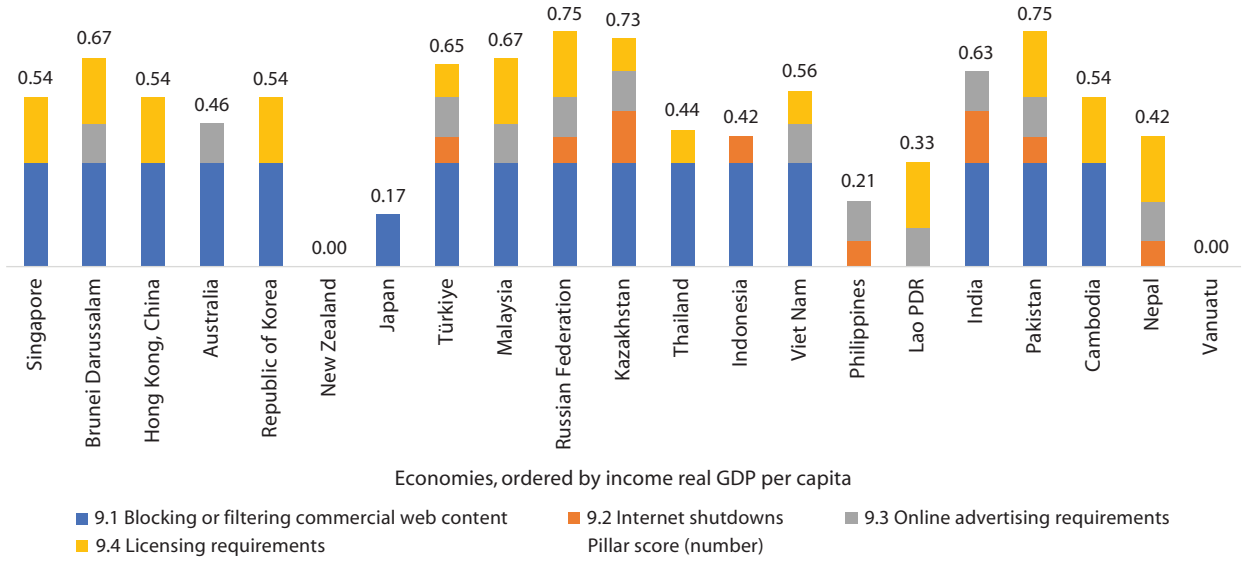
Similar to Pillar 8, content access (Pillar 9) has a high average score of 0.48 (figure 15). In addition, most Asia-Pacific sample economies, except for New Zealand and Vanuatu, tend to heavily regulate online content. Although Internet shutdowns are not frequently practiced, Governments have blocked or filtered foreign commercial websites, even if the content was not internationally agreed illegal content. Specifically, the ban or filtering is imposed on news and information sharing, social media (e.g., Reddit, Instagram, Facebook, X (formerly Twitter)) and video-sharing platforms (e.g., TikTok, YouTube and Vimeo). In contrast, New Zealand has implemented a more flexible method for filtering illegal content through the Digital Child Exploitation Filtering System (DCEFS), which is a voluntary tool for internet service providers (ISPs) to block websites displaying objectionable child sexual abuse material.

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 the sample economies mandate that the intermediaries must obtain a licence to operate their services. This licensing scheme is regarded as “strict” since it requires a company to comply with a combination of the following requirements – the licence holders are required to take down certain online content, to limit foreign ownership, or to appoint an officer to facilitate access requested by the Government.

Similarly, 12 Asia-Pacific sample economies are regulating online advertisements beyond misleading advertisements, such as limitations for content and sectors, requirements to appoint a local agent, locate a local server/storage, and obtain approval from the authorities to place the online advertisement.

Figure 15

Pillar 9 (Content access) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

Pillar 12 considers policies on online sales and transactions. This Pillar has a direct implication for cross-border e-commerce across various channels. The average group score of 0.40 is relatively low compared with other Pillars under digital governance policies (figure 16). This is contributed by liberalized foreign equity shares in the e-commerce sector, consumer protection laws applicable to e-commerce transactions, and low restrictions on online purchases and online sales, with the key exception of India and Indonesia.

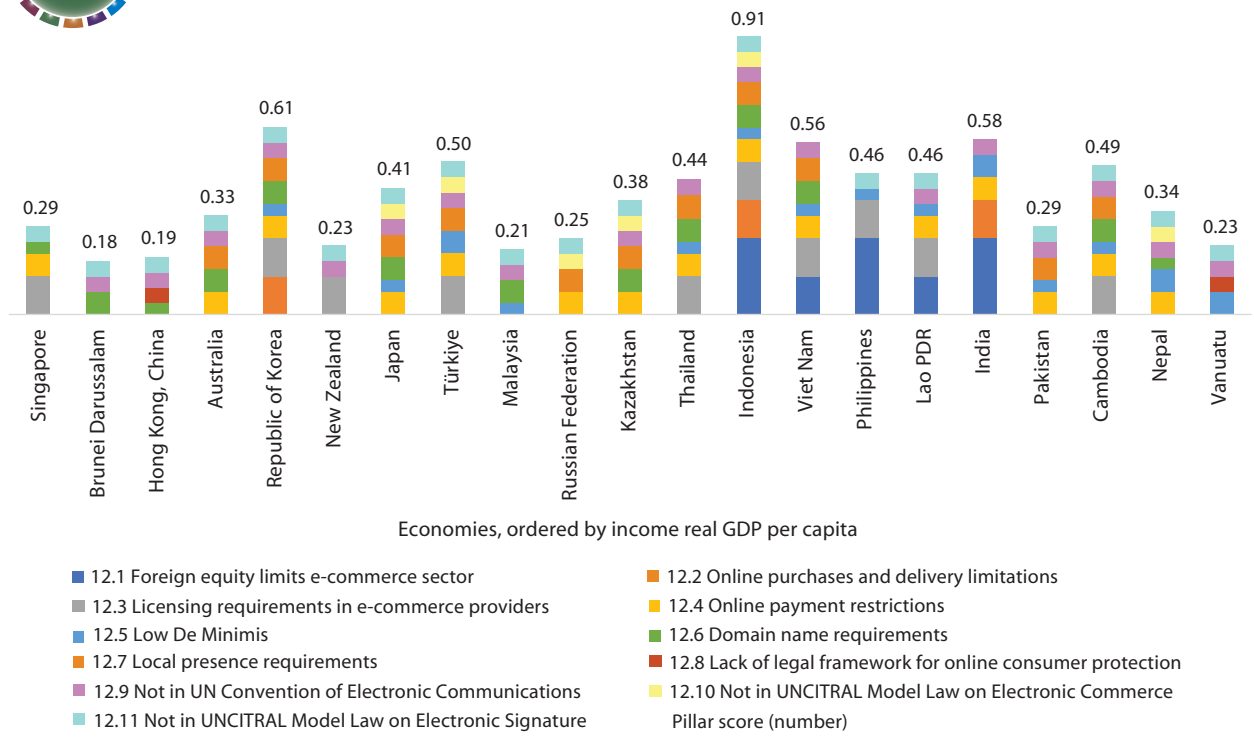
However, half of the Asia-Pacific economies impose a local presence requirement that may be in the form of a local representative or a designated office. Ten sample economies also require e-commerce providers to obtain a licence. Additionally, all sample economies, except for New Zealand, implement demanding measures affecting the use of electronic payment and credit services, *de minimis* rules, and domain names.

Regarding international legal frameworks, most sample economies have adopted[12] the UNCITRAL Model Law on Electronic Commerce (MLEC), while only the Philippines, the Russian Federation, and Singapore have ratified the United Nations Convention on the Use of Electronic Communications in International Contracts (the Electronic Communications Convention). Ratification to this Convention could facilitate a harmonised e-commerce environment and increase legal certainty across the sample economies by ensuring the validity and enforceability of electronically concluded contracts and communications exchanged electronically. Furthermore, most of the samples have not adopted the UNCITRAL Model Law on Electronic Signatures (MLES), making India, Thailand and Viet Nam as exceptions given their participation in both Model Laws.

[12] A model law is created as a suggested pattern for law-makers to consider adopting as part of their domestic legislation. Economies that enact legislation based on a model law have the flexibility to depart from its text. The adoption status of a UNCITRAL Model Law is based on the list of enactments communicated to the UNCITRAL Secretariat. For more information, please see https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_signatures/status and https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_signatures/status

Figure 16

Pillar 12 (Online sales and transactions) scores in Asia-Pacific, 2023



Source: ESCAP calculation, data as of August 2023.

The bar chart displays the weighted average values of indicators within each pillar. The weight assigned to each indicator represents its policy impact within the pillar. The numeric labels show the overall pillar scores, indicating the weighted average compliance cost from policies within the respective pillar for the economies concerned.

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.

Of the 21 Asia-Pacific sample economies, regulatory compliance costs and regulatory similarity are varied across traditional trade policies, domestic policies and digital governance policies clusters. Each cluster exhibits different approaches, ranging from light to moderate and heavy interventions as well as the diverse degree of similarity.

Based on the group average, traditional trade policy areas, namely tariffs and standards (Pillars 1 and 11), and intellectual property rights (Pillar 4) have high similarities and fewer policy-induced costs to businesses. 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. As per standards and procedures, several economies align their technical and encryption standards with existing international standards – for example, from the ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) – as well as recognize the regional MRAs. Thereby, regional cooperation focused on addressing gaps in trade policy may be a good starting point. While further lowering tariffs may be considered, 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 the WTO Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement. 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). On average, Asia-Pacific economies have developed less extensive regulations on data location (Pillar 6), while implementing modest regulations governing online sales and transactions (Pillar 12). However, these Pillars exhibit disparities across the sample economies. In fact, the online sand sales and transactions Pillar is the most diverse policy area. This reflects the proliferation of heavy conditions in e-commerce related regulations, such as e-payment and licensing scheme for e-commerce providers. To enable a more interoperability, collaborative efforts focused on binding commitments for data flow and electronic commerce – similar to the existing United Nations Convention on the Use of Electronic Communications in International Contracts – could be beneficial. Enforceable agreements that are bilateral, plurilateral or multilateral, and adherence to the Model Law, could ensure effective enforcement 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). Interestingly, the domestic regulations telecom regulations and competition (Pillar 5) share the commonalities with this group. It is quite common across the Asia-Pacific region 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, require the performance of Data Protection Impact Assessment (DPIA) and appointment of a Data Protection Officer (DPO), or impose user identify and monitoring requirements. 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.

Regarding telecommunications, the affordability and efficiency of accessing telecom network services form the basis for a country's competitiveness in the digital economy. All sample economies have committed to the WTO Telecom Reference Paper, promoting regulatory predictable and a global coherent framework for regulatory reform. In line with the Reference Paper, pro-competitive measures have been implemented in several samples. Recent progress in opening up the sector to full foreign ownership has been evident. Nevertheless, the existing environment in the telecom market still has room for further improvement, especially in the telecom market structure and licensing requirements for telecom operators.

The significant challenges for regional cooperation in the Asia-Pacific region also manifest in broader areas of domestic regulation, such as public procurement (Pillar 2), FDI (Pillar 3), and non-technical NTMs (Pillar 10). Adhering to WTO agreements and regional agreements as guiding principles should be given attention.

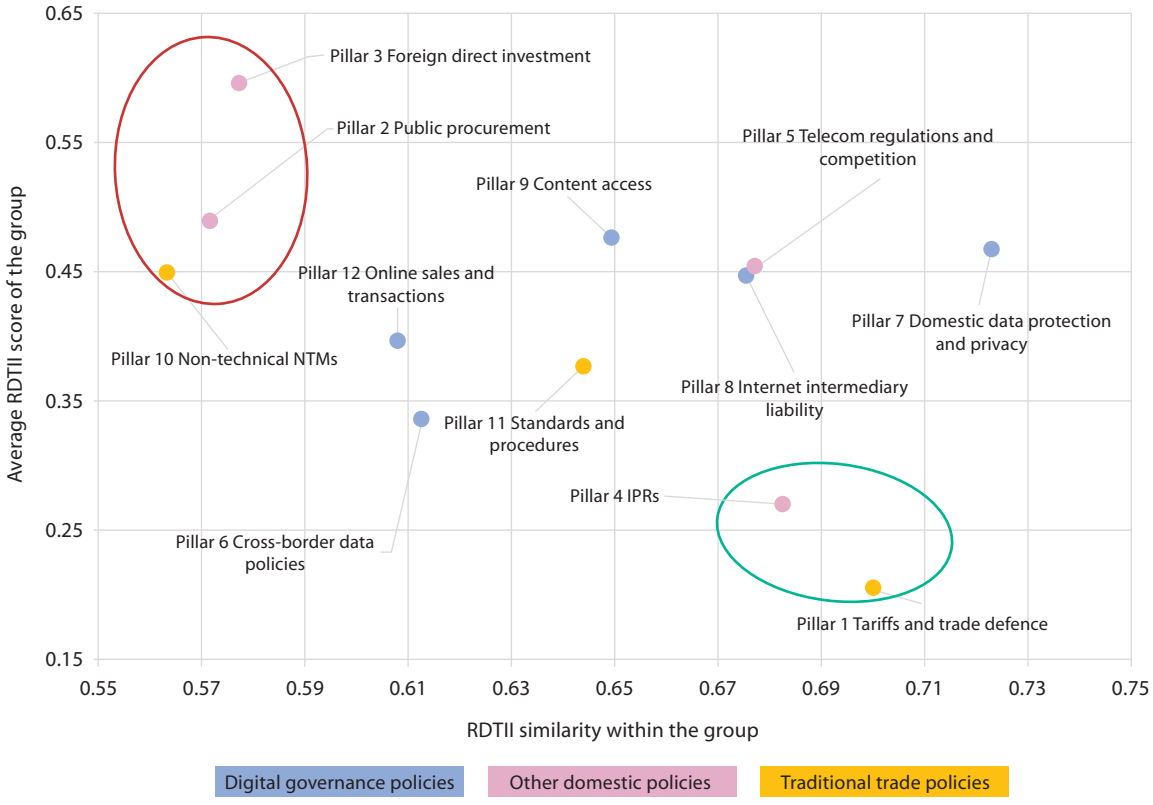
Specifically, investment regulations tend to create significant compliance cost, on average for the Asia-Pacific region. The sample economies are commonly implementing commercial presence requirements, and screening of investment and acquisition in sectors relevant to digital trade, and nationality or residency requirements for board of directors and managers. 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.

Regarding non-tariff measures – particularly import and export restrictions, and LCRs on ICT products or services – WTO notification requirements under the Agreement on Import Licensing Procedures, Quantitative Restrictions and the General Agreement on Trade in Services (GATS) could provide guiding principles that enhance transparency and consistency in the regulations.

Challenges for regulatory cooperation are significant in policies related to public procurement. Many economies have not made formal commitments to the WTO Agreement on Government Procurement (GPA). In addition, although a significant number of regional trade agreements signed after 2014 in the Asia-Pacific region increasingly cover public procurement, the disciplines for deepening cooperation between economies have remained modest (Trivedi and others, 2019).

Figure 17

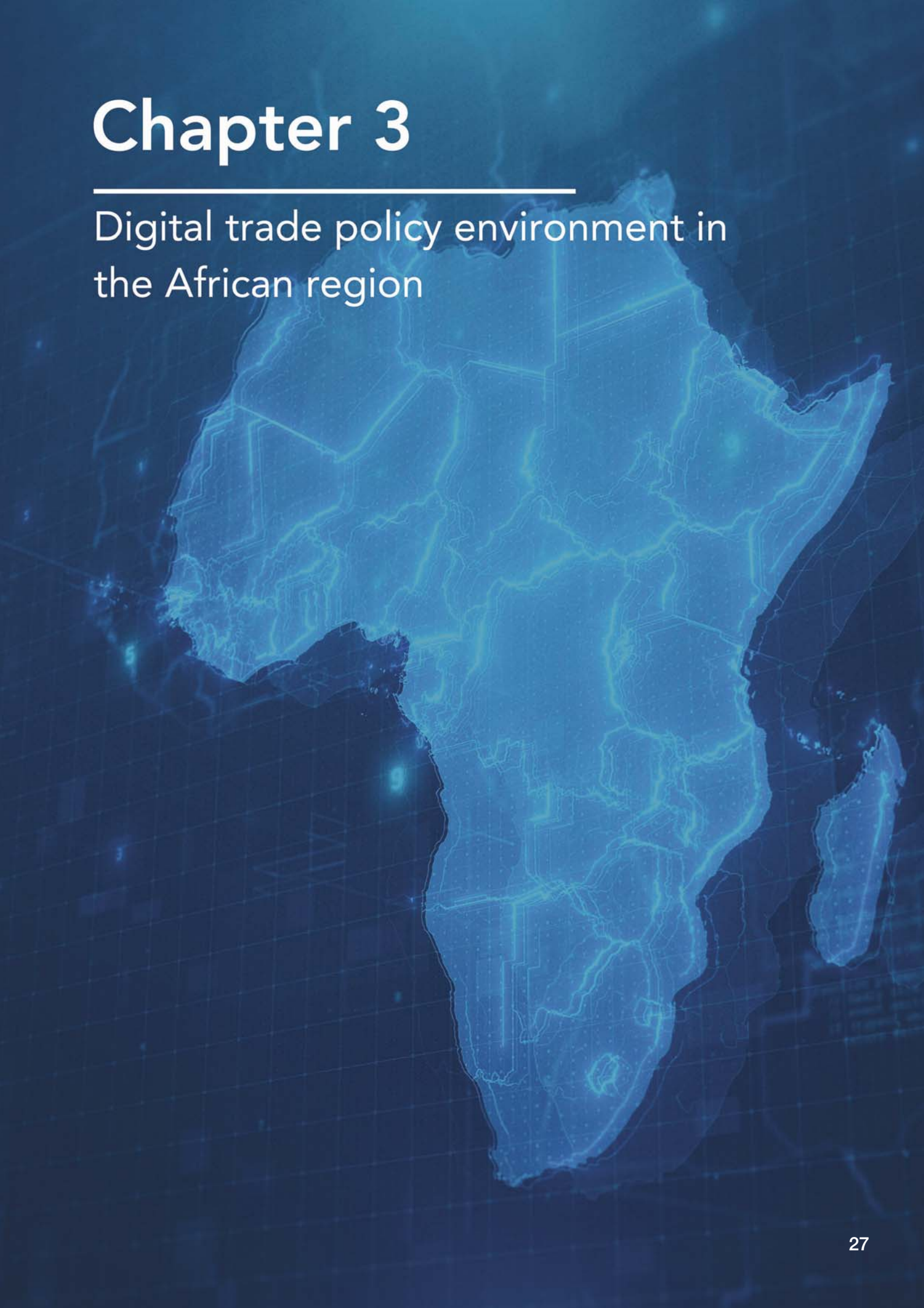
Digital-trade policy diversity in the Asia-Pacific region in 2023, by the RDTII 2.0 policy pillar



Source: ESCAP calculation, data as of August 2023.

Chapter 3

Digital trade policy environment in the African region



3. Digital trade policy environment in the African region

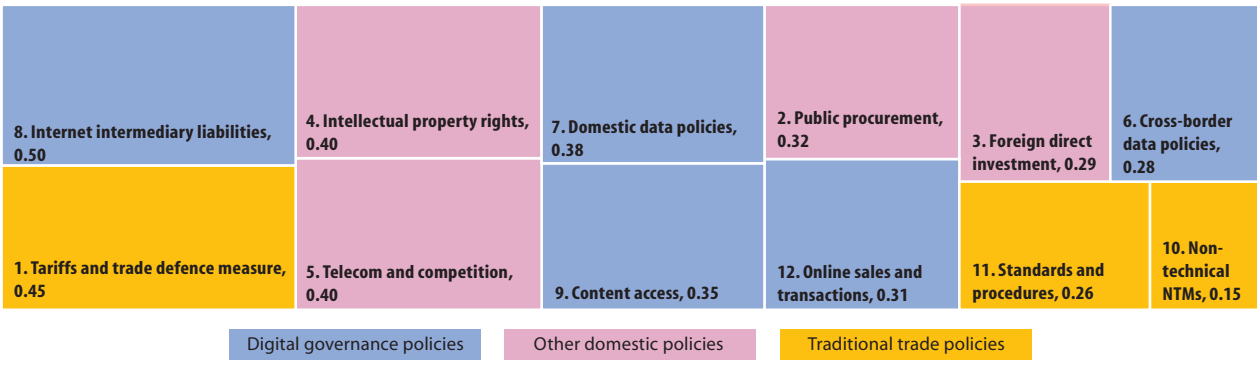
3.1. Overview of digital trade policy environment in the African region

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, 53 African countries have been covered in four successive phases.[13] Once the ongoing work in Equatorial Guinea is completed, all the 54 African member States will have been covered by the initiative.

This chapter illustrates the key findings from the RDTII 2.0, and highlights the similarities and differences of the 53 (out of 54) African countries. Based on the data collected, Africa's average RDTII 2.0 score is 0.34. In comparison to the two other main regions under examination, Africa demonstrates a moderate level of digital integration, aligning with the mean score observed across the three regions on a global scale. 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 also reveal a lack of an extensive policy agenda across several digital trade areas such as non-tariff 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 the integration thereof. It is therefore important to examine the RDTII 2.0 and its indicator scores in more detail.

Pillars with high scores in Africa, in descending order, are essentially: Internet intermediary liability (Pillar 8); tariffs and trade defence (Pillar 1); intellectual property rights (IPRs) policies (Pillar 4); telecommunications regulation and competition (Pillar 5); domestic data policies (Pillar 7); and content access (Pillar 9) (figure 18).

Figure 18 **Africa RDTII 2.0 score by pillar, group average score, 2024**

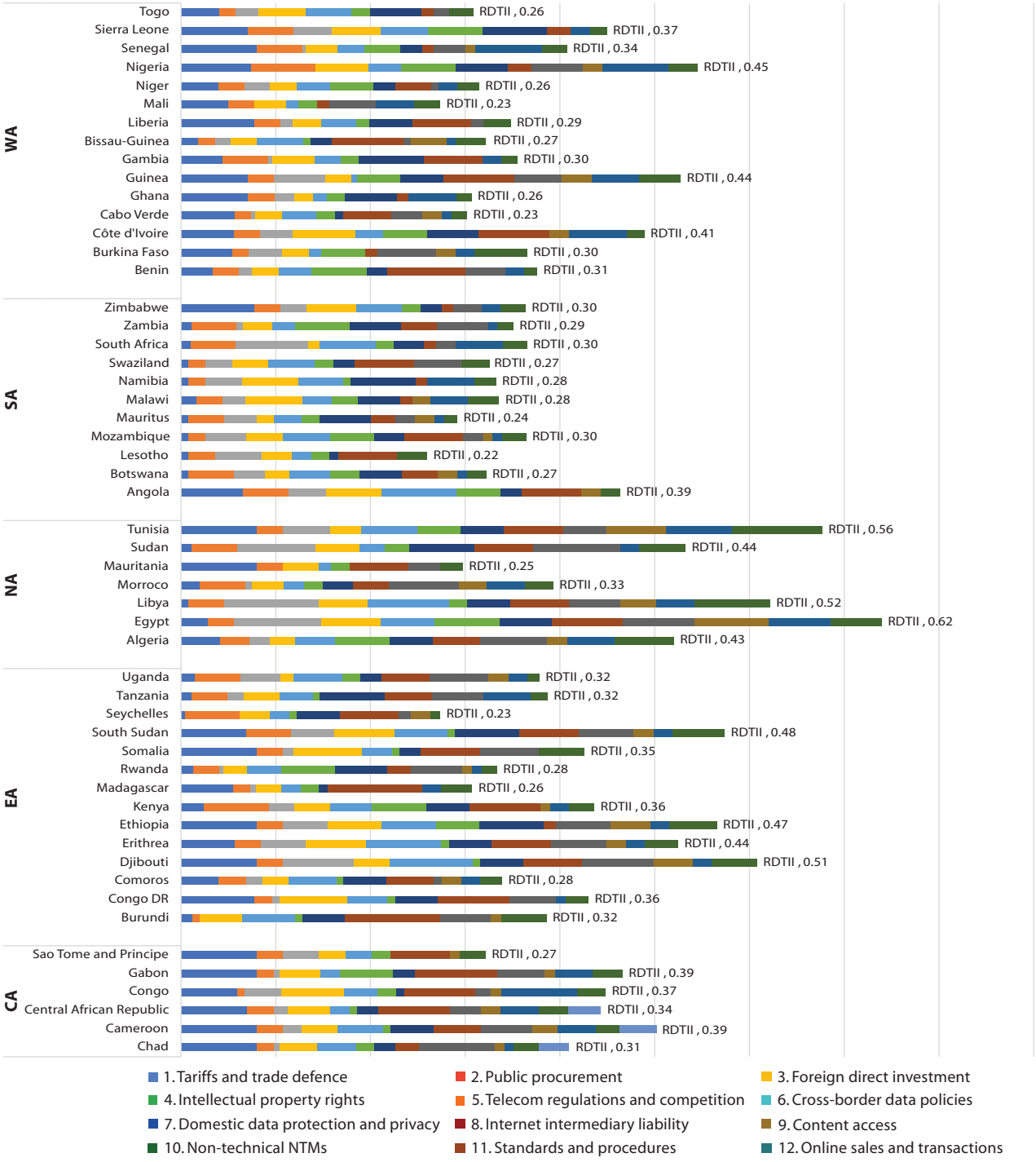


Source: ECA and EUI calculation, data as of February 2024.

[13] 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. Phase 3 (13 countries): Algeria, Benin, Central African Republic, Cote d'Ivoire, Eritrea, Mali, Mauritania, Mauritius, Morocco, Seychelles, Somalia, South Africa and South Sudan. Phase 4 (13 countries): Angola, Burkina Faso, Cabo Verde, Comoros, Djibouti, Equatorial Guinea, Guinea, Guinea-Bissau, Libya, Niger, Sao Tome and Principe, Sudan and Tunisia. Please note, however, that work is still ongoing in Equatorial Guinea, and therefore, the scores for the country are not included in this report.

When focusing on scores at the country level, RDTII 2.0 reveals significant heterogeneity of digital trade integration in Africa. Scores range from 0.216 for Lesotho (the lowest) to 0.616 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 African countries, 2024**



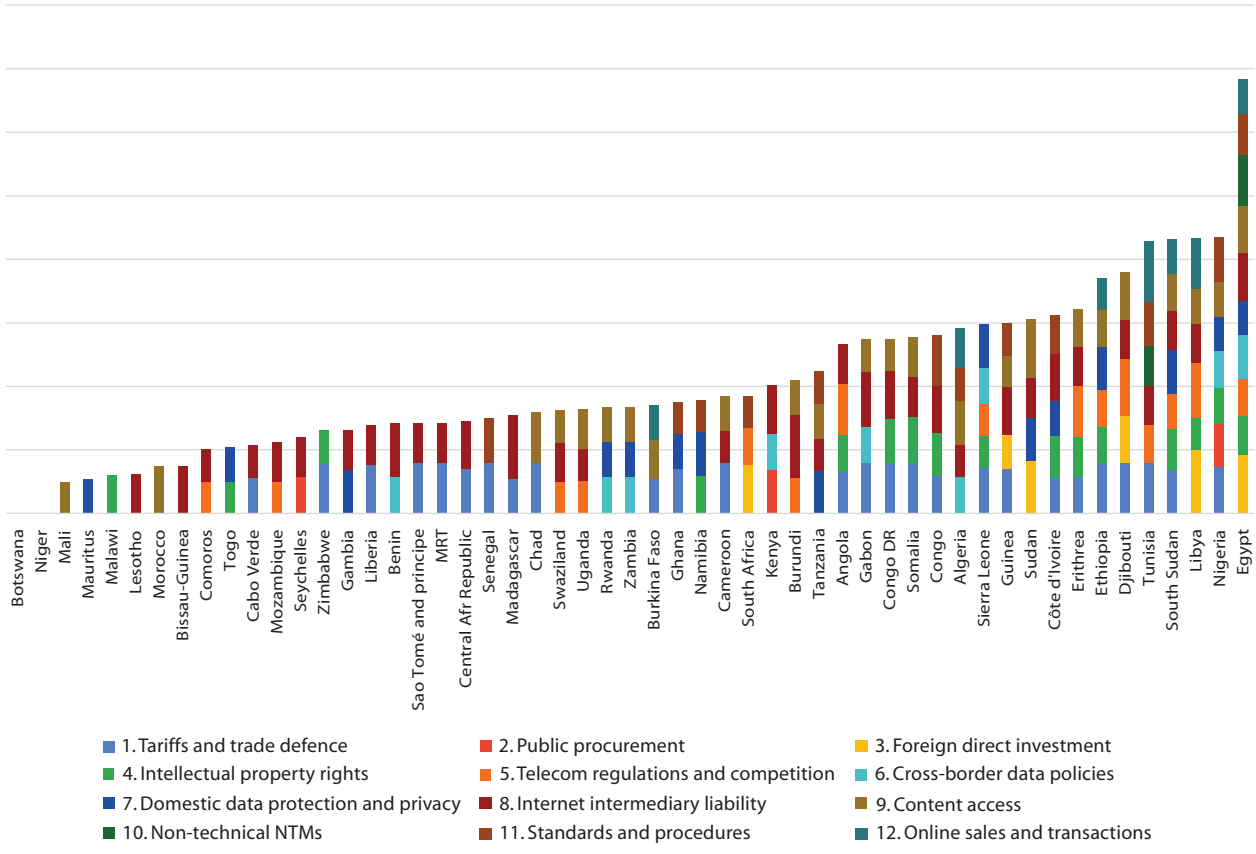
Source: ECA and EUI calculation, data as of February 2024.
Note: Eastern Africa (EA), Southern Africa (SA), Central Africa (CA), Western Africa (WA) and Northern African (NA)

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 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 have high scores, i.e., those Pillars where a nation' score is at least 0.5.

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 and Niger, for example, do not have any Pillar with a high score. Mali, Mauritius, Malawi, Lesotho, Morocco and Guinea-Bissau only have one pillar with a score greater than or equal to 0.5. As in the case of Togo, which has only intellectual property rights (Pillar 4) and domestic data (Pillar 7), 14 other countries only have two significant barriers to digital trade integration. 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). Intermediary liability (pillar 8), content access (pillar 9), and tariffs and trade defence (Pillar 1) emerge as the areas where the prevalence of countries with the significant barriers is most pronounced.

Figure 20 **Africa countries with high RDTII 2.0 scores, by pillar, 2024**



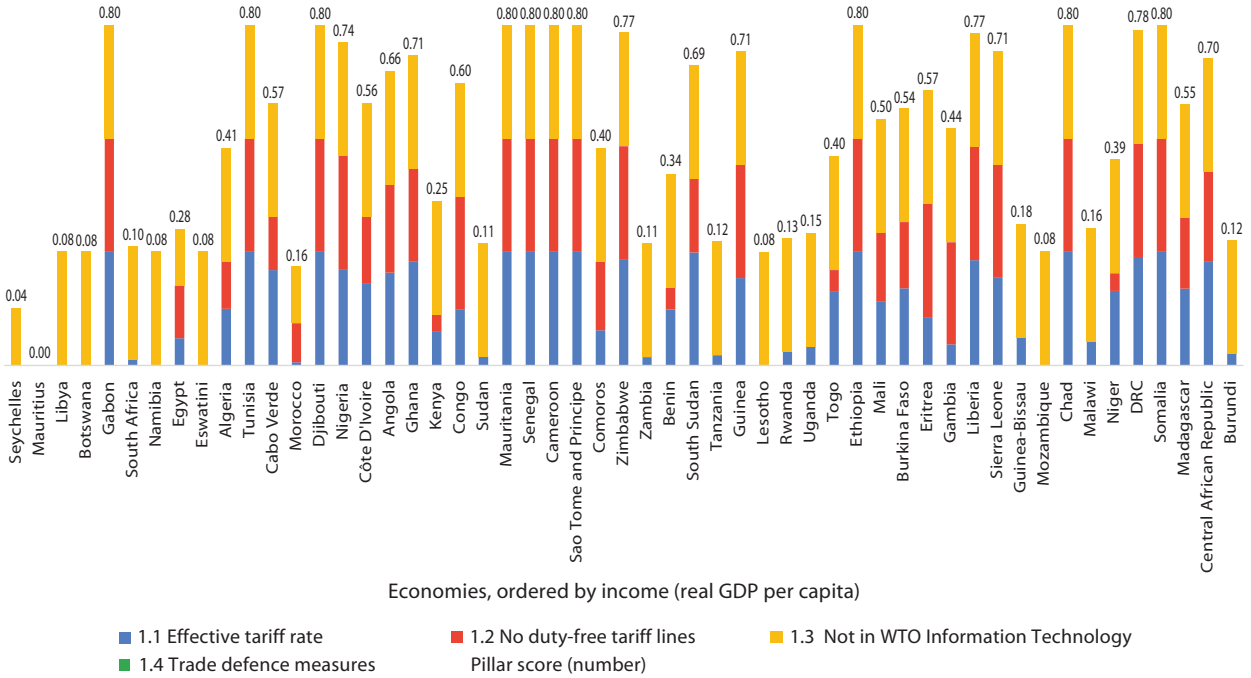
Source: ECA calculation, data as of February 2024.
Note: A higher score suggests more regulatory interventions that may increase costs of regulatory digital trade integration.

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 shows that African countries still have high effective tariffs on ICT goods with low coverage of zero duty in tariffs but a limited amount of NTMs applied on ICT goods and services.

Pillar 1 focuses on tariffs and trade defence measures imposed on imports of ICT goods from African countries. The average score of 0.45, one of the highest scores of the RDTII 2.0 Pillars in Africa, suggest a relatively restrictive tariff environment for ICT goods imports (figure 21). Interestingly, Egypt, which has Africa's highest overall RDTII 2.0 score, performs among the best on this measure. Mauritius, Morocco, the Seychelles and Egypt[14] are the only African countries that participate in the WTO's Information Technology Agreement. Moreover, none of the 53 African country covered applies anti-dumping, countervailing duties or safeguard measures. Finally, most African countries have low coverage rates for zero-duties in tariff lines for ICT goods. Indeed, only 17 out of the 53 countries studied apply zero-tariff on at least 70% of ICT goods.

Figure 21 **Pillar 1 (Tariffs and trade defence) scores in Africa, 2024**



Source: ECA calculation, data as of February 2024.

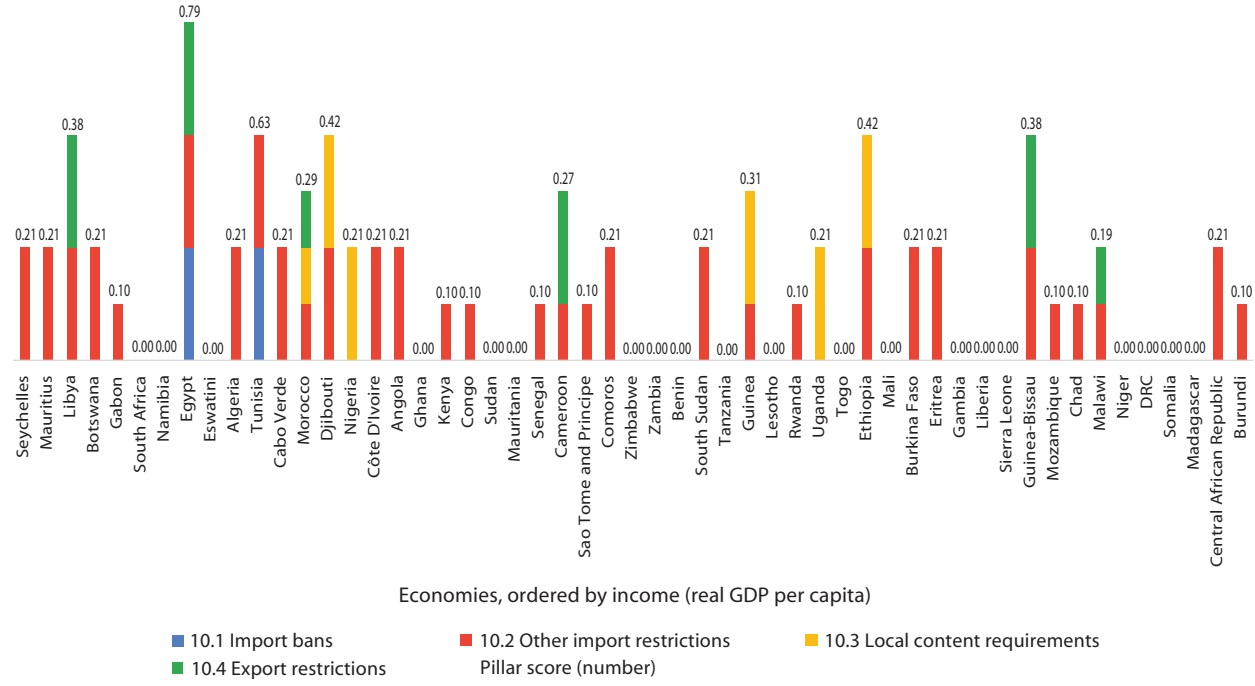
Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

[14] Mauritius is a signatory of both ITA I and ITA II, while Egypt, the Seychelles, and Morocco have only signed ITA I.

Pillar 10 focuses on non-technical NTMs applied to ICT goods (i.e., network equipment, servers and handsets) or online services (i.e., applications, data processing and Internet Service Providers (ISPs)). Restrictions can come in the form of quotas, import licences, local content requirements (LCRs), or export restrictions, as illustrated in figure 22. The overall average Pillar score is 0.15, the lowest score of Africa's RDTII 2.0. This is mainly due to the absence of non-technical NTMs applied to trade in ICT goods in 20 out of 53 African countries. 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 Non-technical NTMs like LCR minimum thresholds or other discriminatory import constraints (e.g., licensing procedures).

Figure 22

Pillar 10 (Non-technical NTMs) scores in Africa, 2024



Source: ECA calculation, data as of February 2024.

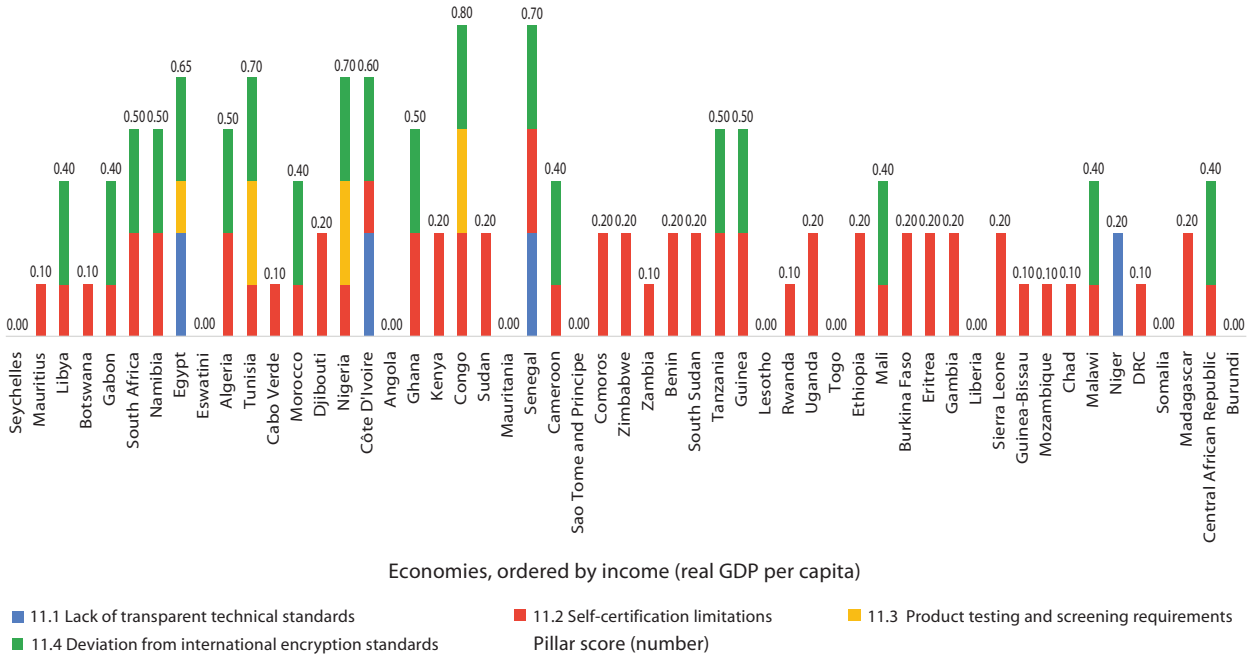
Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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, i.e., 0.26, is lower than other Pillars (see figure 18). All the African countries, except for Egypt, Côte d'Ivoire, Senegal and Niger, permit foreign companies to take part in standard-setting bodies (figure 23). However, only 12 countries accept the self-certification of products by suppliers through Supplier Declaration of Conformity (SDoC) documents. Third-party certification from Conformity Assessments Bodies (CABs) with Mutual recognition Agreements are needed in 19 others (i.e., Botswana, Cabo Verde, Cameroon, Central African Republic, Chad, Cote D'Ivoire, DRC, Gabon, Guinea-Bissau, Libya, Malawi, Mali, Mauritius, Morocco, Mozambique, Nigeria,

Rwanda, Tunisia and Zambia). For example, in Gabon, imported ICT products are subject to a pre-shipment conformity assessment, with a third-party certificate accepted if the partner country's agency in charge of standardisation has a mutual recognition agreement with the Gabonese Standardization Agency (AGANOR). In Zambia, only accredited laboratories can accept foreign test certificates. The last example is Rwanda, where 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).[15]

Only Congo, Egypt, Nigeria and Tunisia require screening or testing of software and electronic communications terminal equipment. The encryption standards applied in the covered African countries generally align with the internationally recognized encryption standards, except for 19 countries. For example, in Libya, the possession or trade of encryption tools is subject to authorization by the relevant authorities, while in Senegal the private use of cryptology software by an individual is limited to software with a key length of 128 bits or less, and the supply and import of cryptology equipment is subject to declaration when it does not exclusively perform authentication and integrity control functions.

Figure 23 **Pillar 11 (Standards and procedures) scores in Africa, 2024**



Source: ECA calculation, data as of February 2024.

Note: The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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

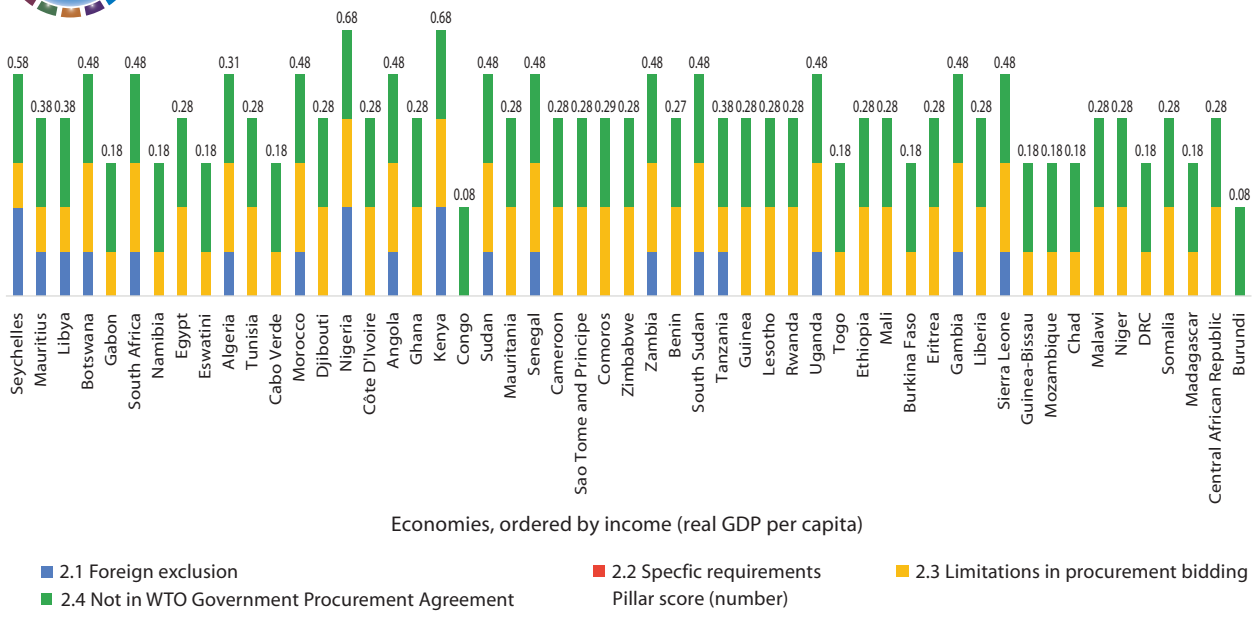
B. Domestic regulations

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, such as 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 0.32, and individual results are presented in figure 24. The most burdensome regulations are present in Seychelles, Kenya and Nigeria (Pillar score higher than 0.5). None of the 53 African countries covered participate in the WTO Government Procurement Agreement (GPA) or have fully covered the three most relevant service sectors, which are CPC752, CPC754 and CPC84.[16] Pillar 2 also captures some requirements to protect national interests in digital trade-related projects. Even if no country has specific requirements such as surrender patents, source codes or trade secrets, as well as a certain type of encryption to win tenders, 16 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 maximum 10% margin of preference to companies with the largest use of locally produced goods or those who propose to perform at least 50% of the contract within the country. Most countries have policies that may be considered disadvantaging or discriminatory. For example, with equivalent offers, 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 counter-trade arrangements, for example, when a local expert or a contractor is not available.

Figure 24

Pillar 2 (Public procurement) scores in Africa, 2024



Source: ECA calculation, data as of February 2024.

Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

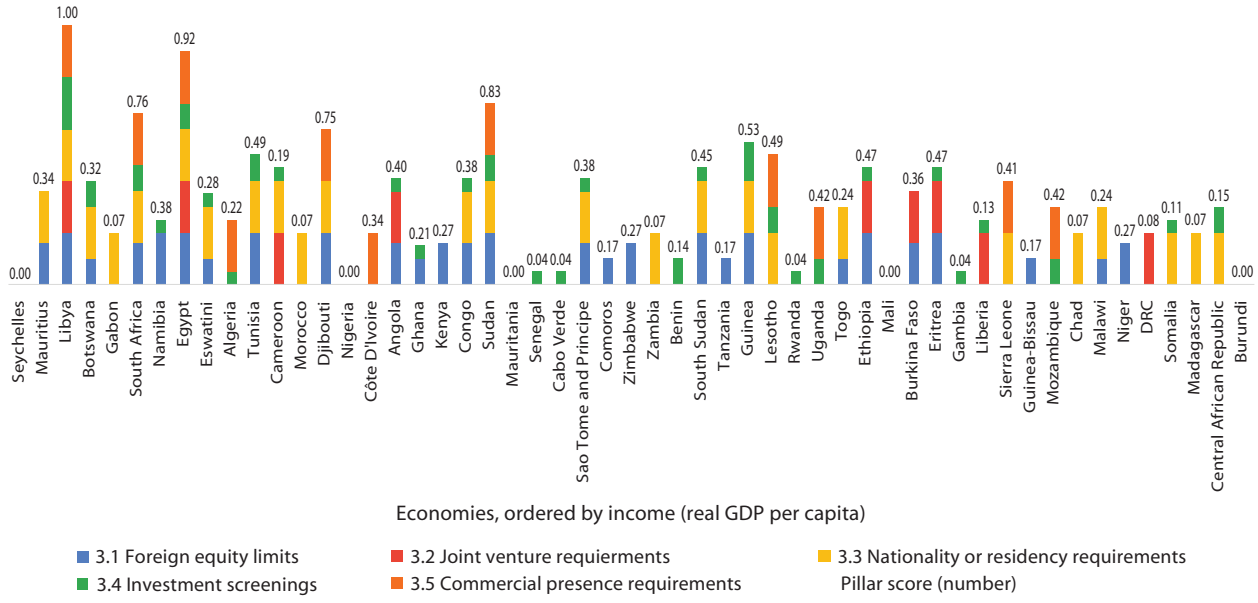
[16] The Central Product Classification on telecommunications and related services nomenclature are CPC84 (for computer and related activities); CPC752 (for telecommunications services) and CPC754 (for telecommunications related services).

Pillar 3 considers regulations on FDI in sectors at the core of digital-trade activities. Regionally, Africa's score is relatively low at 0.285 for this Pillar. Certain countries, such as Gabon and Nigeria, have experienced a decrease in their scores between 2022 and 2024. This can be attributed to the relaxation of the commercial presence requirements for providers of digital services and applications. However, the relatively low pillar score hides many differences across countries in terms of FDI policies. For example, Egypt, South Africa, Libya, Djibouti and Sudan have highly restrictive regimes (index above 0.7), while others, like Burundi, Madagascar, Mauritania, Nigeria, Gabon and Senegal, provide an open framework for investment. More specifically, Libya and Egypt are restrictive in all sub-pillars related to FDI relevant to digital trade. For instance, they ban FDI in telecommunication, media services and digital wired and wireless stations. In other sectors relevant to digital trade, investment is generally allowed only through joint ventures with nationals.

Foreign equity caps on controlling stakes are in place in most African countries. Likewise, some of them (e.g., 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, the nationality or residency of board members is often required. If FDI screening mechanisms are not used to block investment in sectors relevant to digital trade, most countries apply at least one screening mechanism that can prevent foreign companies from operating – the security clearance process can be long in Egypt, while Mozambique, Sudan and Uganda require a minimum investment capital to obtain a licence – or to qualify for registration and issuance of an investment licence (figure 25).[17]

Figure 25

Pillar 3 (Foreign direct investment) scores in Africa, 2024



Source: ECA calculation, data as of February 2024.

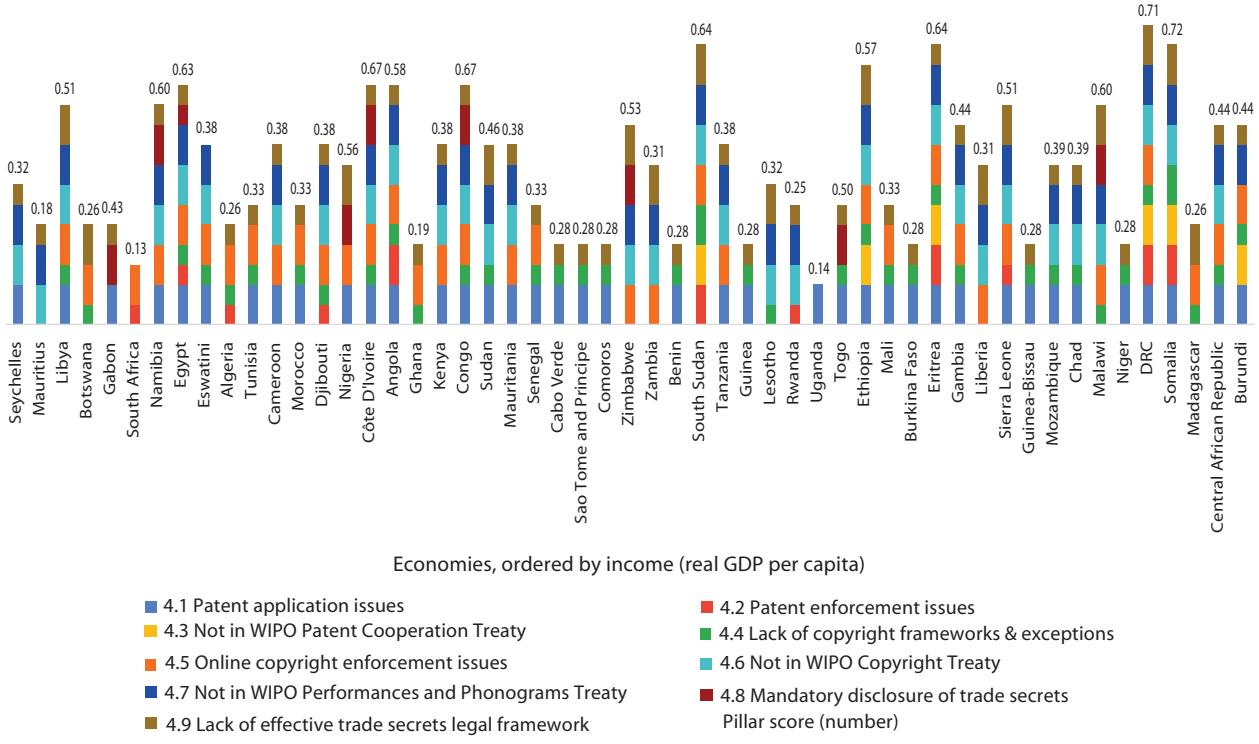
Note: The bar chart depicts the sum of indicators' values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

[17] It is noteworthy that certain countries, such as Gabon and Nigeria, have experienced a decrease in their scores comparing this present and last year's reports (see https://repository.unescap.org/rest/bitstreams/28d24e47-f82e-4c46-bba3-237c52c3f9a5/retrieve). This can be attributed to the relaxation of the requirement for commercial presence for providers of digital services and applications.

Pillar 4 examines Intellectual Property Rights (IPR) regulations. Africa's average score in this Pillar is 0.40, which is relatively high (figure 26). While most surveyed African countries have signed the WIPO Patent Cooperation Treaty (PCT), only 21 have signed the WIPO Copyright Treaty (WCT), and the WIPO Performances and Phonograms Treaty (WPPT). Domestic restrictions related to patents, such as the requirement to appoint a local representative to file a patent application, are widespread. However, 19 African countries do not have effective mechanisms to enforce patents, like adequate judicial remedies in cases of patent infringement. While 16 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 most African countries reflect a lack of copyright enforcement online. Moreover, while 15 countries do not offer an effective regulatory framework for the protection of trade secrets (algorithms or source code), two-thirds of African countries have a limited legal framework in terms of their ability to preserve trade secrets (only Eswatini, South Africa and Uganda seem to provide an effective trade secrets' protection framework).

Figure 26

Pillar 4 (Intellectual Property Rights) scores in Africa, 2024



Source: ECA calculation, data as of February 2024.

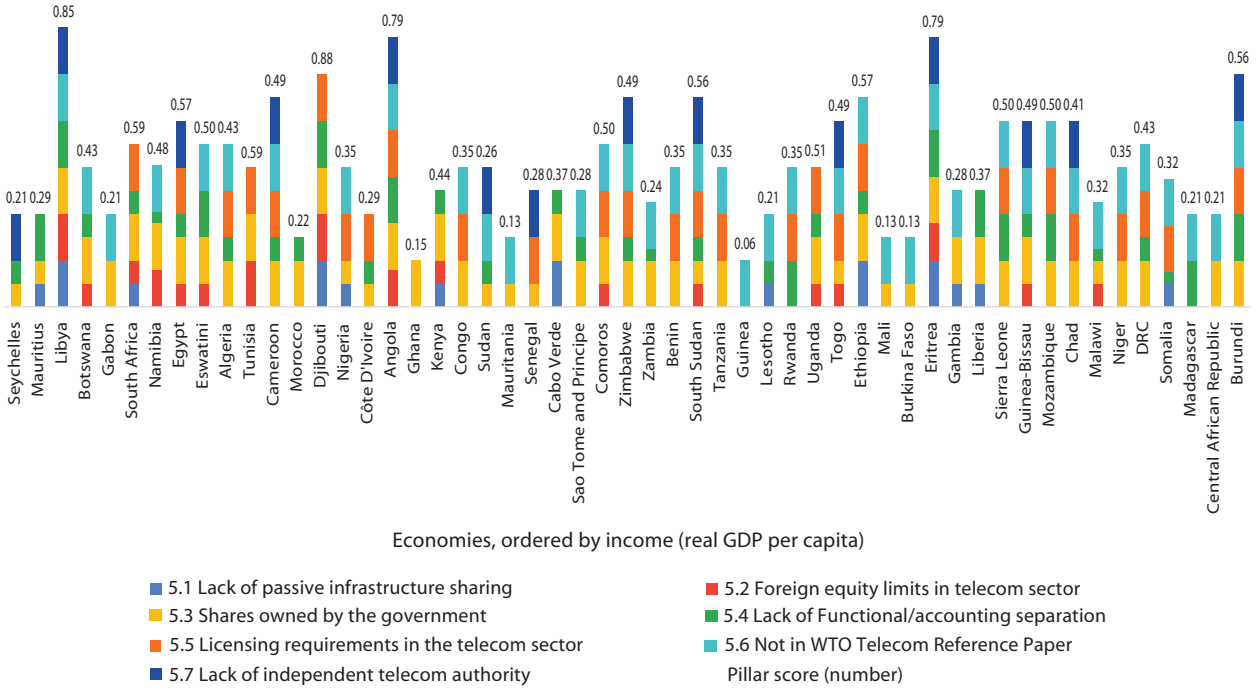
Note: The bar chart depicts the sum of indicators' values within each pillar. The taller a bar, the greater the indicator values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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 industry dominated by the public sector. While most countries allow foreign companies to have majority stakes, Governments still hold substantial shares of at least one company in 47 countries studied. In 12 of them, the share of Government stakes in at least one telecom company is between 1% and 50%. In only five countries (i.e., Guinea, Lesotho, Madagascar, Rwanda and Somalia) do Government 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, 14 countries have appended the Telecom Reference Paper to their own schedule of commitments under the WTO General Agreement on Trade in Services (GATS). All but Cabo Verde, Djibouti, Ethiopia, Eritrea and Libya have an independent telecom authority. Passive infrastructure sharing is not mandated, but it is practiced in the market in the case of the Gambia, Kenya, Lesotho, Liberia, Mauritius, Nigeria, Somalia and South Africa. Elsewhere, passive infrastructure sharing is mandated. In addition, both accounting and functional separation are required in 18 countries, while 23 countries require only an accounting or functional separation. However, in the other 12 countries, there is no separation.

Figure 27

Pillar 5 (Telecom regulations and competition) scores in Africa, 2024



Source: ECA calculation, data as of February 2024.

Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

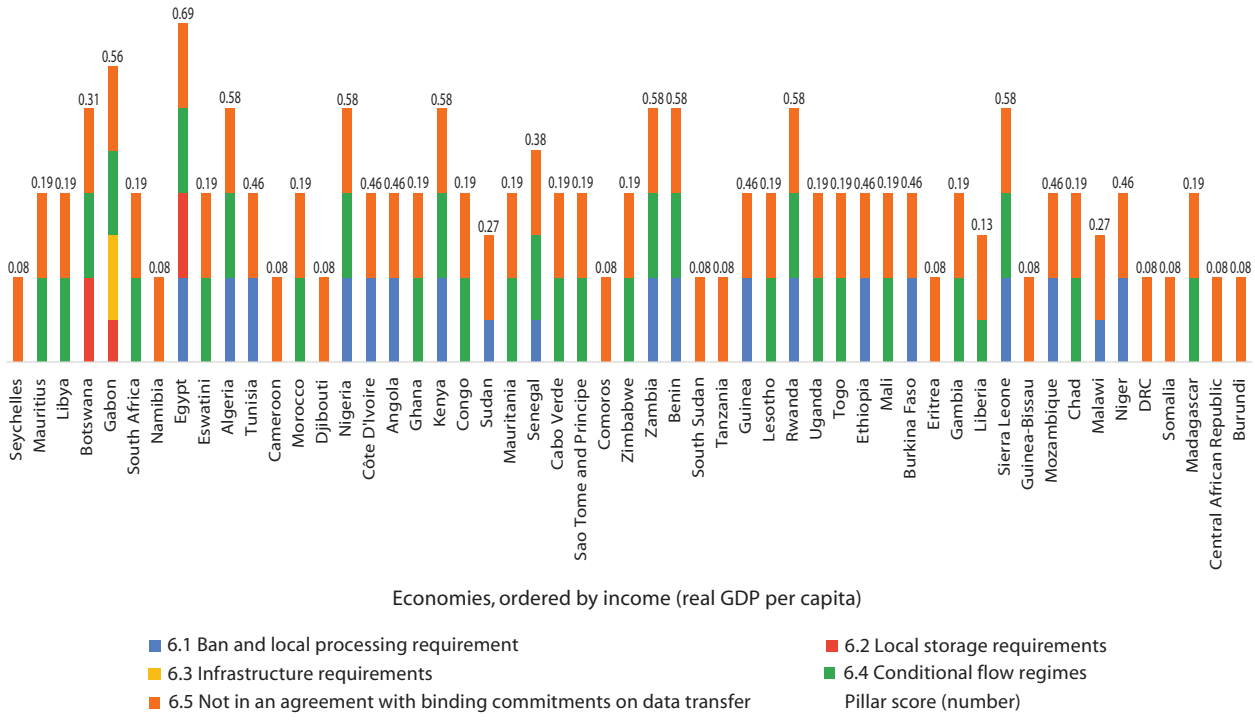
C. Digital governance policies

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 of 0.28 (figure 28). Across Pillar 6, similarities exist between African countries as a conditional flow regime on data seems prevalent. In most African countries, there is an absence of requirements related to bans for transfer and local processing of personal and specific data. Local storage requirements affect only Botswana, Egypt, and Gabon. Regarding infrastructure requirements, Gabon is the sole African country mandating electronic communications network operators to maintain operational management centres within its national territory. Compared to 2022, Senegal has recently moved away from such type of infrastructure requirements as well as Rwanda when it comes to local storage requirements. Finally, none of the African countries have yet 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, 2024

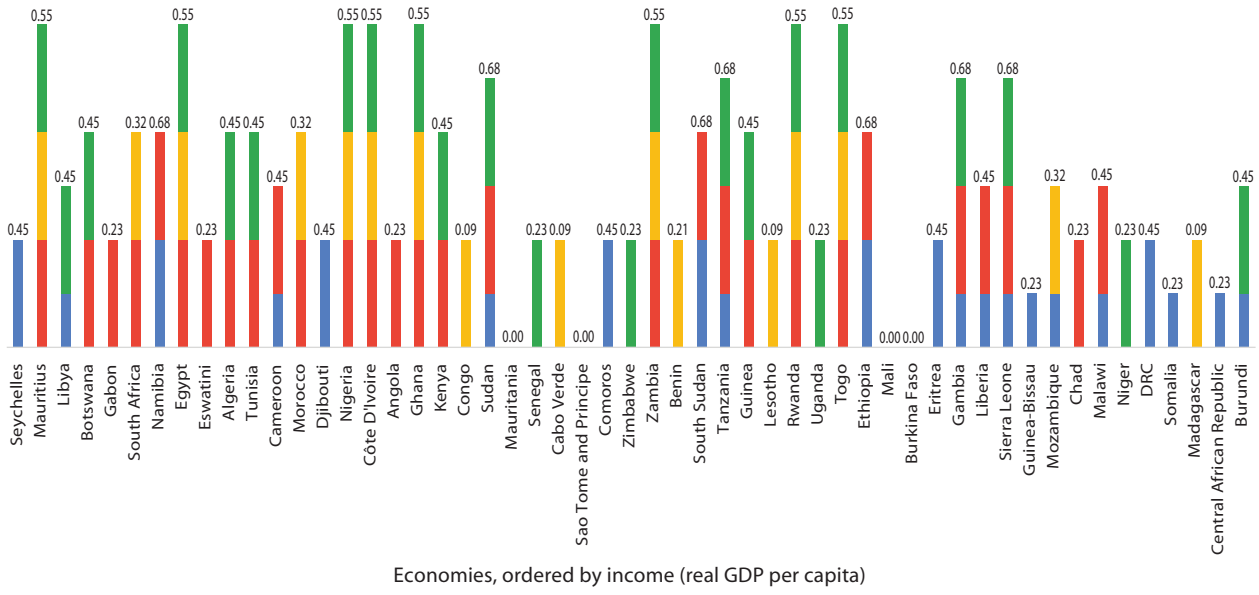


Source: ECA calculation, data as of February 2024.

Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

Pillar 7 considers policies related to data privacy and protection. With Africa's average score of 0.37 (figure 29), this Pillar has a moderate score. Whereas 15 countries still have a relatively high score (above 0.5), only four countries do not have any regulatory restrictions on data privacy and protection. Forty-five African countries have put a data protection framework in place. However, 13 of them are limited to sectoral coverage. Seychelles, Namibia, Djibouti, Comoros, South Sudan, Ethiopia, Eritrea and DRC are still without a data protection framework. A total of 22 countries have specific requirements allowing Governments to access personal data, making Africa's data governance model a relatively 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 databases with critical data are allowed. A minimum period is required for data retention (from 1 to 10 years) in more than half of the countries. However, only 16 countries require firms processing personal data to appoint a data protection officer (DPO) or perform an impact assessment (DPIA) to ensure compliance with data protection acts.

Figure 29 **Pillar 7 (Domestic data protection and privacy) scores in Africa, 2024**



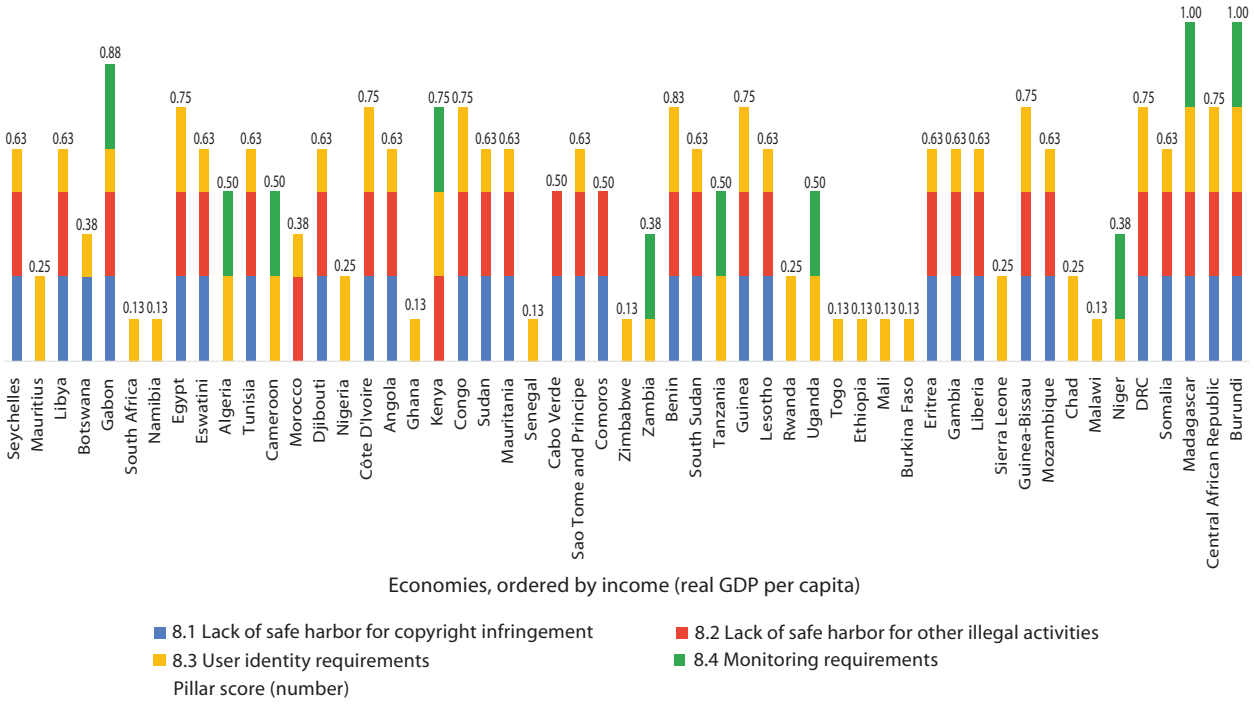
Source: ECA calculation, data as of February 2024.

Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

Pillar 8 focuses on Internet intermediary liability with a relatively high African average of 0.50, the highest of all Pillar scores (figure 30). User identity requirements for both SIM card registration and Internet access prevail in all African countries except Cabo Verde and Comoros. At least 21 countries provide a safe harbour for copyright infringement and other activities, whereas Kenya and Morocco provide a safe harbour only for copyright infringement, and Botswana provides it only for activities other than copyright infringement. Only 10 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, 2024



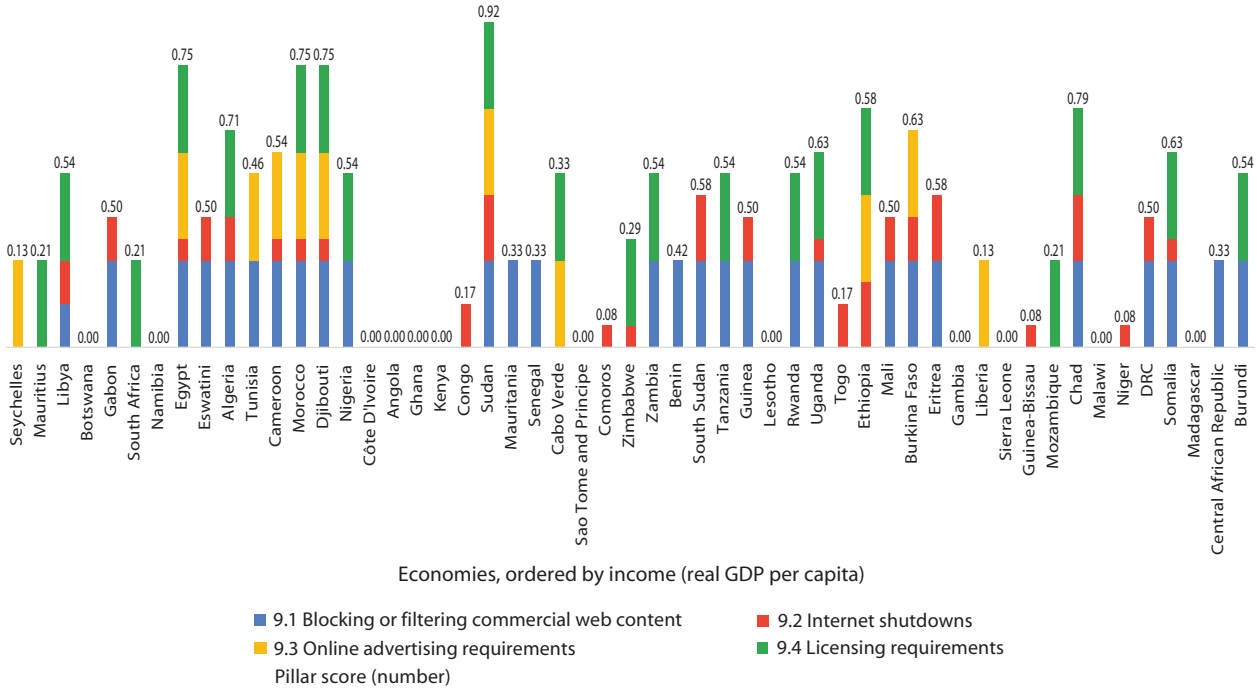
Source: ECA calculation, data as of February 2024.

Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

Pillar 9 examines content access regulations. Africa's average is 0.35 (figure 31). Half of the African countries covered either block or filter some foreign commercial websites, and online advertising is restricted in 11 countries. In 25 African countries, Governments interfere with Internet access, which can sometimes result in Internet shutdowns. Getting a licence to provide online content is mandatory in at least 20 countries. Interestingly, this pillar also has the second-highest number of African countries with no restrictions at all. Indeed, a quarter of the covered African countries has no restrictive regulations on access to content.

Figure 31

Pillar 9 (Content access) scores in Africa, 2024



Source: ECA calculation, data as of February 2024.

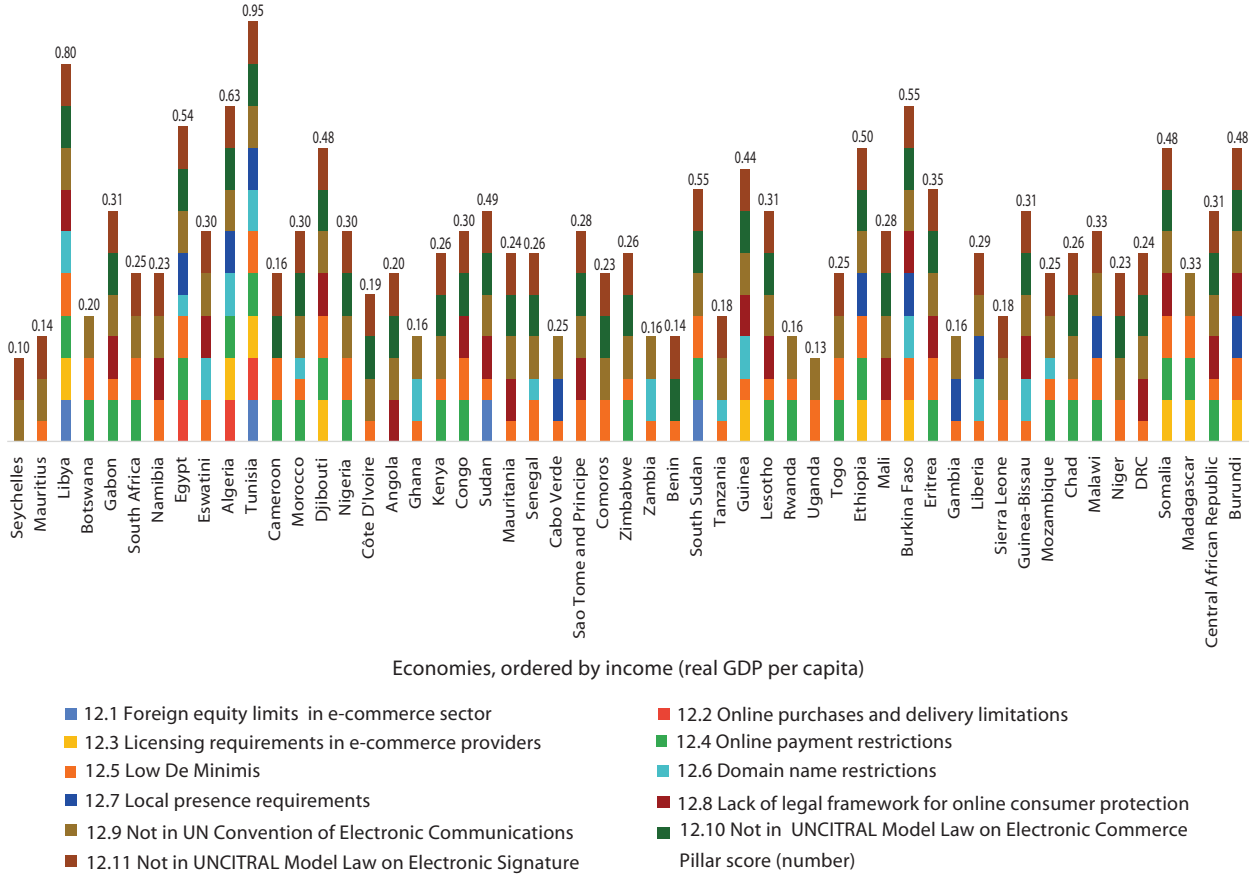
Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

Pillar 12 examines policies as they relate to online sales and transactions. The relatively low average group score, 0.31, is mainly due to the absence of restrictive measures, except for online payments (where restrictions are found in 26 countries) and the de minimis rule is some lesser extent (figure 32). Few countries (i.e., Libya, Tunisia, Sudan and South Sudan) limit maximum foreign equity shares in the e-commerce sector, while 10 countries, including Algeria and Tunisia, require a specific licence for e-commerce providers. The latter, together with Egypt, apply for a limit on online purchases and deliveries. A local domain name can also be attributed without a physical presence for digital services providers except for 10 countries. However, 20 countries operate within a framework that fails to protect consumers. In addition, while 27 countries do not have a de minimis threshold, 23 others apply it for goods priced below US$ 200.[18] Nigeria, Seychelles, Algeria and Angola are the exceptions 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 and Electronic Commerce by most of the African countries.

[18] 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 version 1.0.

Figure 32

Pillar 12 (Online sales and transactions) scores in Africa, 2024



Source: ECA calculations, data as of February 2024.

Note: The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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.[19] Economic digitalization is an essential step towards facilitating inclusive trade, and market opportunities can reach previously marginalized populations like women, the young[20] and micro, small and medium enterprises (MSMEs). In this sense, digital trade can be a catalyst for economic growth in the African region and could help Africa.

Several studies have assessed the relationship between regulation and digital trade, and tend to show that 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

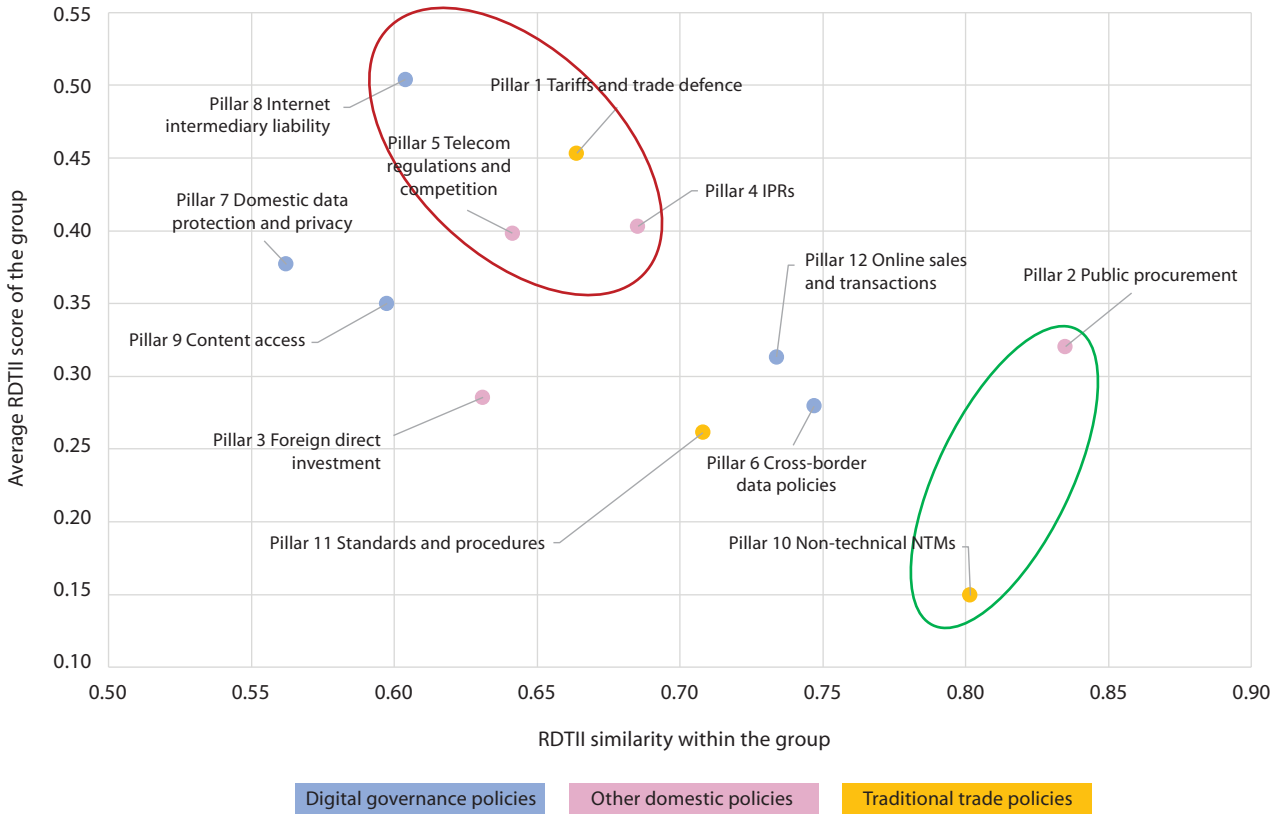
[19] A survey conducted by the ECA in 2021 shows that 65% of African businesses and companies have accelerated their digital transformation through training, acquisition of tools and developing product lines that are orientated to online selling. For more information, see https://www.uneca.org/sites/default/files/uploaded-documents/ATPC/reactions-and-outlook-to-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

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

investors, restrictive regulations can significantly hinder digital trade 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 RDTII 2.0 suggest significant regulatory heterogeneity and policies inducing business costs across Africa currently exist (figure 33).

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

Figure 33 **Digital-trade policy diversity in the African region in 2023, by RDTII 2.0 policy pillar**



Source: ECA calculation based on RDTII v2.0 data of 53 African countries, data as of January 2024

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.

The map shows a decreasing slope, demonstrating that greater similarity between countries is associated with a lower pillar score. Based on the group average, African countries have high homogeneity in terms of non-technical NTMs policies (Pillar 10) and fewer policy-induced costs

to businesses. Indeed, non-technical NTM have the lowest scores of the RDTII 2.0 (0.15), mainly due to the absence of restrictive measures or specific regulations. Similarly, technical standards applied to ICT goods and online services (Pillar 11) have also a significantly low score (0.26), which reflects the lack of a binding legal framework, although there is a relatively higher degree of divergence among countries than Pillar 10. At the country level, the adoption of a policy agenda on NTMs and technical standards would provide instructions for the import/export of ICT goods and online services. On the multilateral level, adopting technical standards on certification and encryption that are internationally recognized could advance Africa's digital regulatory integration.

Moreover, Pillars on public procurement (Pillar 2), cross-border data policies (Pillar 6), and online sales and transactions (Pillar 12) also have high similarities, and they reflect a relatively non-binding environment. None of the African countries have made formal commitments to GPA and any multilateral trade agreement relative to cross-border data flows, while most of them are not party to the United Nations Convention on the Use of Electronic Communication, and have not adopted the UNCITRAL Model Law on Electronic Signatures and the UNCITRAL Model Law on Electronic Commerce. Compleying with obligations under international agreements, such as the WTO GPA, may facilitate FDI flows 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 requirements. 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 FDIs than other domestic regulations (Pillars 2, 4 and 5), with an RDTII 2.0 score of 0.29. However, they also indicate more regulatory heterogeneity among countries than in previous Pillars (Pillars 2, 6, 10, 11 and 12). For example, under Pillar 3 Angola and Sierra Leone, which have almost the same score, use very different policies to restrict digital integration via FDI. Indeed, while commercial presence and residency criteria are mandatory in Sierra Leone, Angola uses an investment screening mechanism, requires joint ventures and limits foreign equity shares. More broadly, 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 to 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 covered 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 continental integration. The establishment of the African Continental Free Trade Area (AfCFTA) should enable regulatory convergence through harmonized customs, regulations, IPRs and competition issues.[21] 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,

[21] 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.

mainly dominated by the public sector, remains strongly regulated, which may have an impact on the country's 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 covered 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 intermediaries, whether for copyright infringement or other activities, 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 towards 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, the recently adopted Digital Trade Protocol under the African Continental Free Trade Area (AfCFTA)[22] Agreement may seek to address the heterogeneity of digital policy frameworks across the continent.

[22] 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

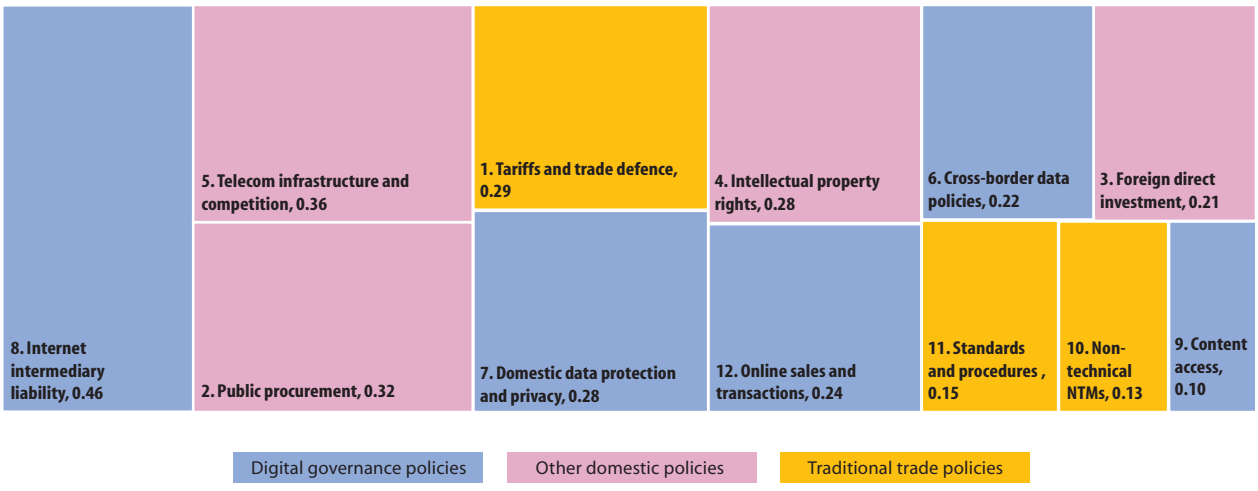
Since 2021, the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) has collected, processed and analysed data on the regulatory environment for digital trade in Latin America and the Caribbean (LAC). This work is part of its Regional Digital Trade Integration (RDTI) project in LAC. Until December 2023, 28 countries out of 33 countries were covered in three successive phases.[23] 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 0.34.[24] A closer examination of the RDTII and its indicator scores provides 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 foreign direct investments (FDIs). In this work insufficient safeguards due to a regulatory vacuum, for example, in areas of online consumer protection are 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) and public procurement (Pillar 2) (figure 34).

Figure 34

LAC RDTII 2.0 score by pillar, group average score, 2023



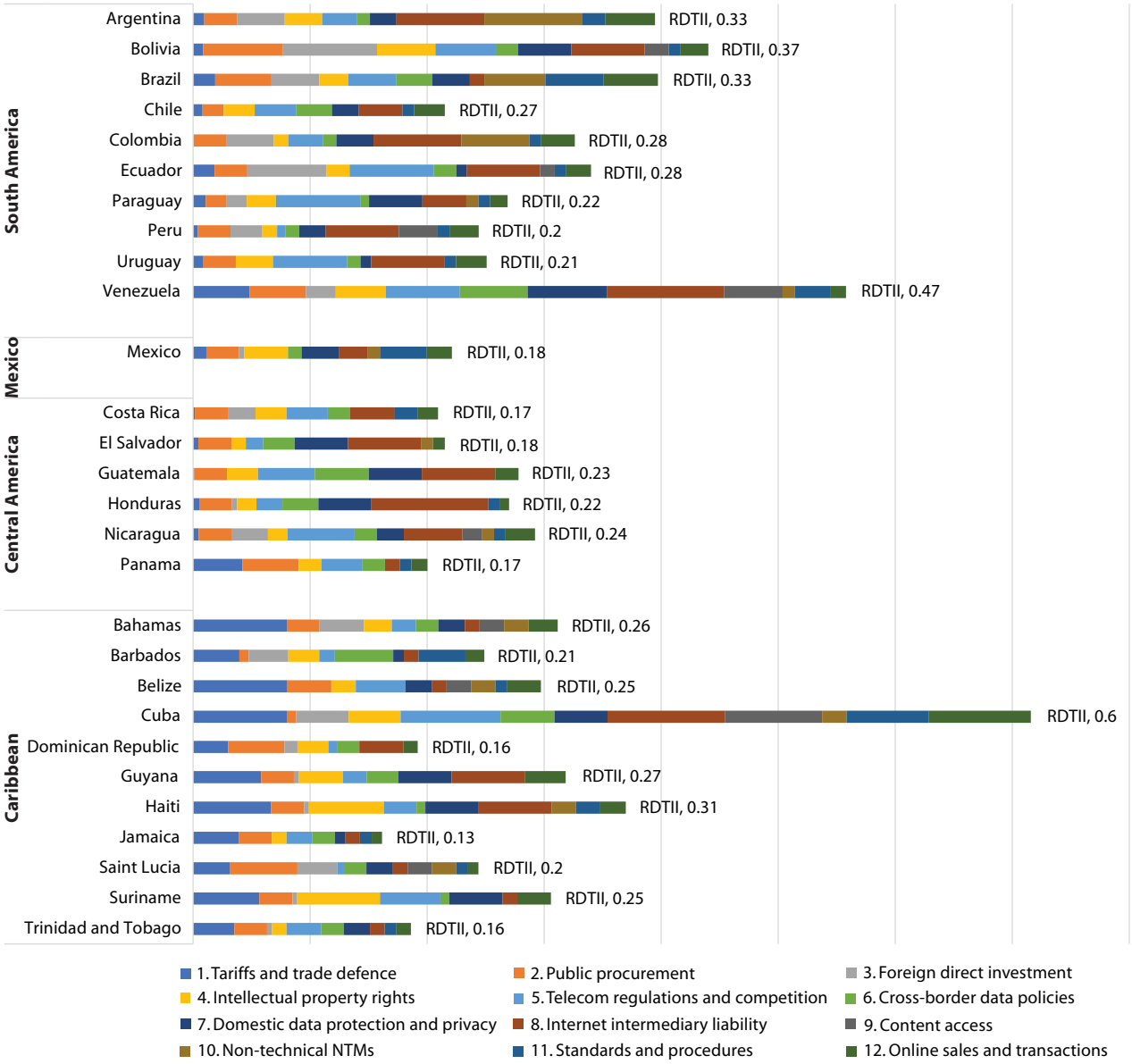
Source: ECLAC and EUI calculations, as of December 2023.

[23] The countries covered in Phase 1 were Argentina, Brazil, Chile, Costa Rica and Mexico. In Phase 2 they were 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). In Phase 3, they were The Bahamas, Barbados, Belize, Guyana, Haiti, Suriname, Saint Lucia and Uruguay.

[24] Calculations by the European University Institute (EUI) covering 123 countries, including 28 Latin American and Caribbean countries. See https://dti.eui.eu/

LAC countries' scores show a spectrum of digital trade integration. Scores range from 0.13 for Jamaica (the lowest) to 0.60 for Cuba (the highest) (figure 35). Among the countries studied, 16 have an RDTII score below the overall LAC average, with a few countries driving the average, particularly Cuba and Venezuela (B.R.). Low scores generally suggest a regulatory environment with low compliance costs. Conversely, high scores indicate a more challenging environment to engage in digital trade, especially for small and medium-sized businesses. 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, 2023**

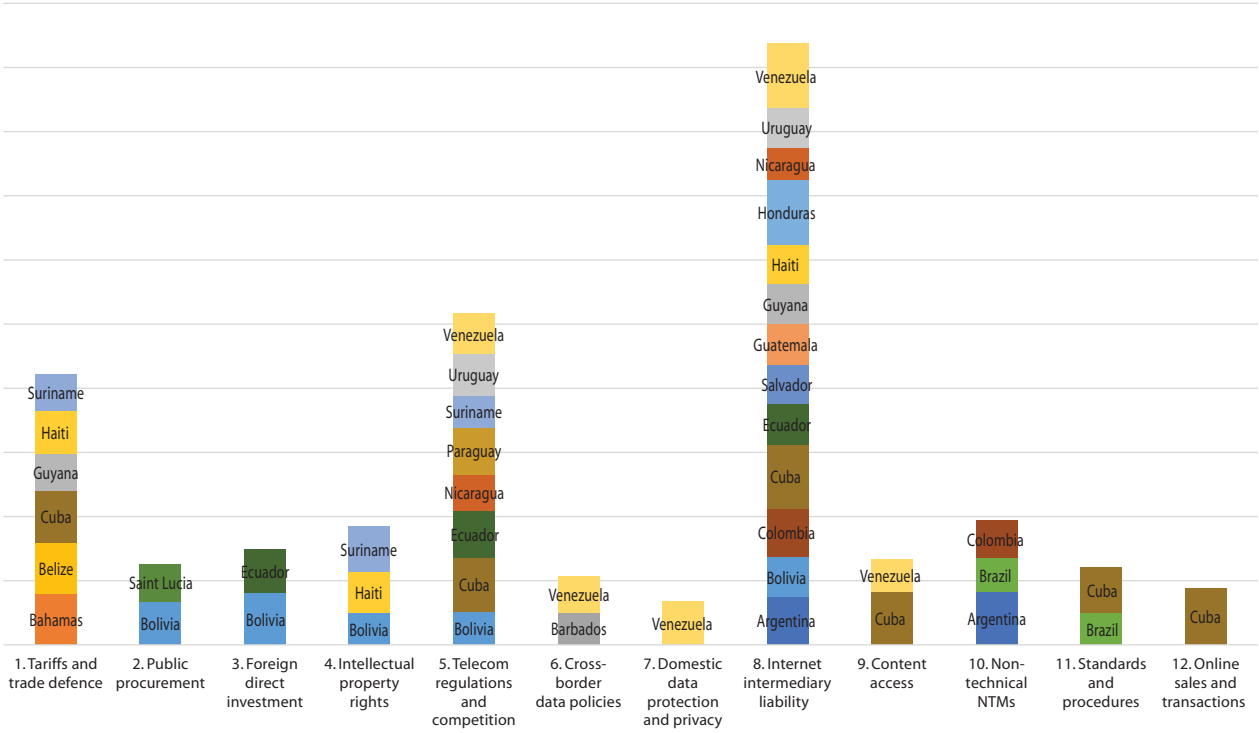


Source: ECLAC and EUI calculations, as of December 2023.

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 exceeding 0.5. Cuba has substantial digital trade restrictions in six Pillars. Bolivia (P.S of) and Venezuela (B.R. of) score high on five Pillars, and Ecuador, Haiti and Suriname on three Pillars. Intermediary liability is the only Pillar with scores above 0.5 for half of the covered countries, i.e., Argentina, Bolivia (P.S. of), Colombia, Cuba, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Nicaragua, Peru, Uruguay and Venezuela (B.R. of).

Figure 36 **LAC countries with high RDTII 2.0 scores, by pillar, 2023**



Source: ECLAC and EUI calculations, as of December 2023.

Note: A high score (above 0.5) suggests more regulatory interventions that may increase the cost of regulatory compliance and regional digital trade integration.

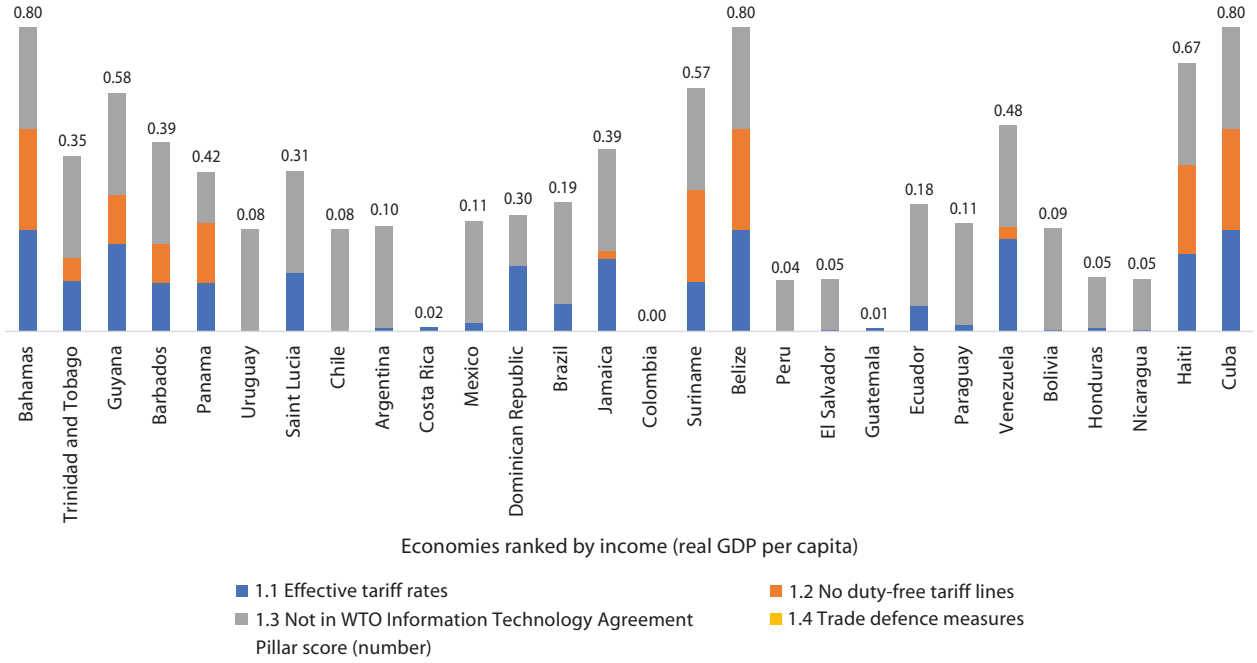
A. Traditional trade policies

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

Pillar 1 of the RDTII 2.0 focuses on tariffs and trade defence measures imposed on ICT goods imports from other countries in the region (figure 37). The average score is 0.29. The Bahamas, Belize, Cuba, Haiti, Guyana and Suriname 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, 2023



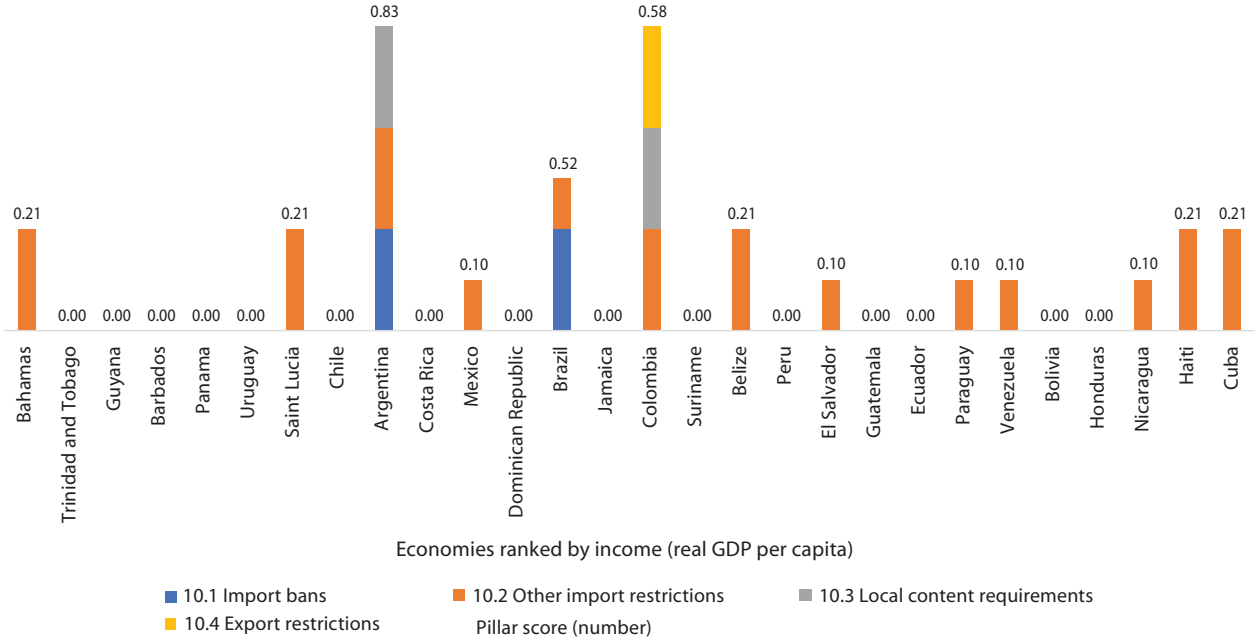
Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater are the indicators values. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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. Among the import restrictions applied to ICT goods, Argentina issued a Resolution in 2022 that added new entries to the list of products subject to non-automatic import licences, including cylinders coated with photoelectric semiconductor material, and machines and apparatus for the manufacture of semiconductors. Colombia is also the only country imposing export restrictions on certain ICT goods, specifically smartphones or mobile phones (with some exceptions). Fifteen countries do not have any quantitative trade restrictions: Barbados, Bolivia (P.S. of), Chile, Costa Rica, Dominican Republic, Ecuador, Guatemala, Guyana, Honduras, Jamaica, Panama, Peru, Suriname, Trinidad and Tobago, and Uruguay.

Figure 38

Pillar 10 (Non-technical NTMs) scores in LAC, 2023



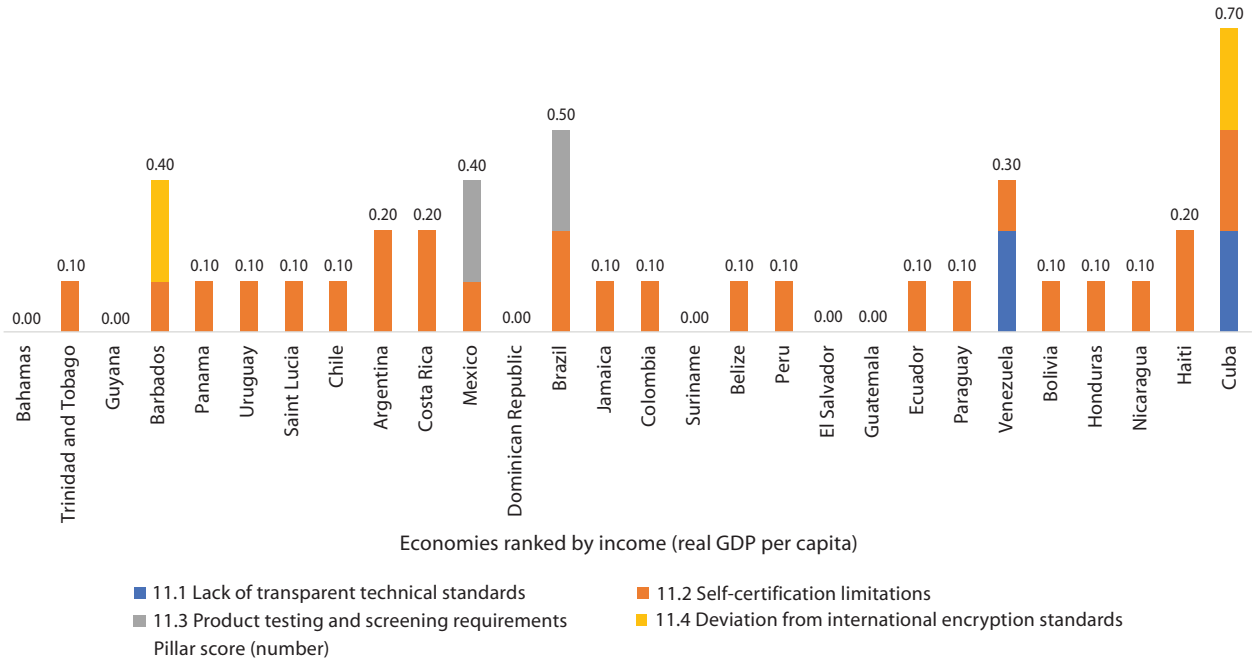
Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT online, https://statistics.cepal.org/) except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater are the indicators values. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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 other countries, third-party certification from accredited laboratories is accepted. Only Brazil and Mexico impose screening of certain ICT products. The encryption standards applied by countries generally align with the internationally recognized encryption standards. Barbados and Cuba are the only countries imposing restrictions on the use of encryption.

Figure 39

Pillar 11 (Standards and procedures) scores in LAC, 2023



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/Orctober

Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater are the indicators values. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

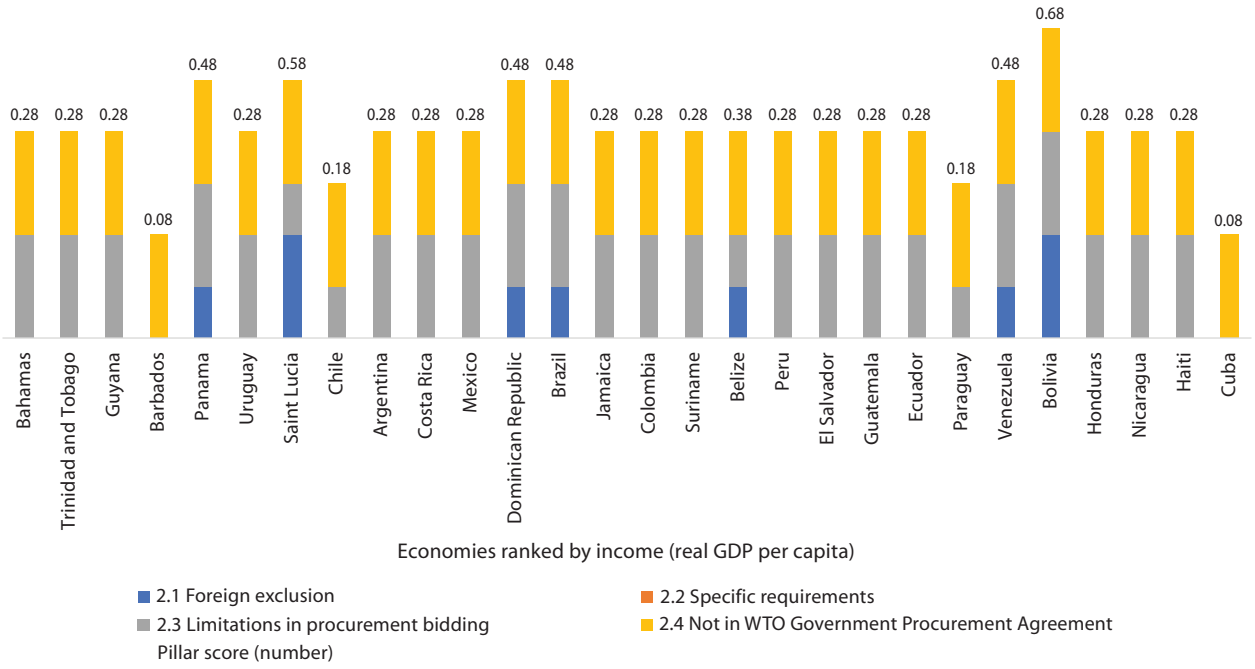
B. Domestic regulations

Policy measures under Pillars 2, 3, 4 and 5 are related 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 0.32; individual results are presented in figure 40. There are few restrictions under this Pillar, as only two countries score above 0.5, i.e., Bolivia and Saint Lucia. Seven countries (Belize, Bolivia (P.S. of), Brazil, Dominican Republic, Panama, Saint Lucia and Venezuela (B.R. of)) 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 Barbados and Cuba. These kinds of provisions are found in both laws and regulations, for example, the Public Procurement and Contracting Law of Paraguay that entered into force in 2023 and a General Regulations to the Organic Law of the National Public Procurement System of Ecuador that entered into force in 2022, respectively. In addition, none of the countries have joined the WTO Government Procurement Agreement (GPA).

Figure 40

Pillar 2 (Public procurement) scores in LAC, 2023



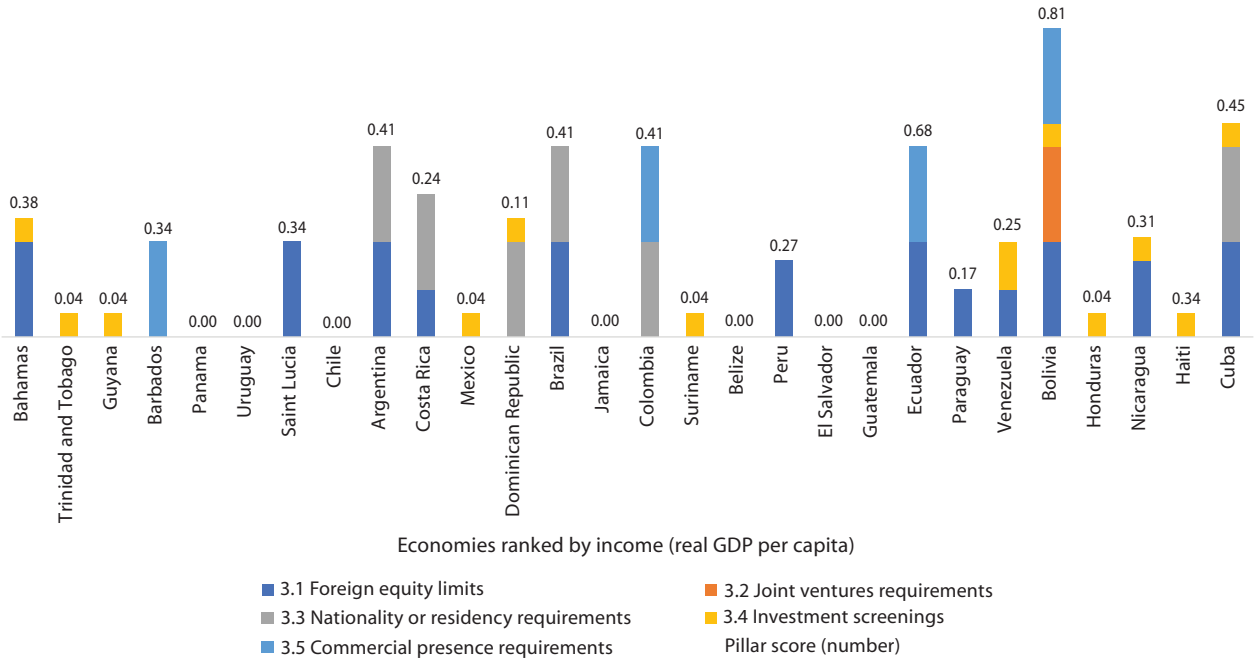
Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] at https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] at https://www.imf.org/en/Publications/WEO/weo-database/2023/October

Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater are the indicators values. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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 0.21. On the one hand, seven countries have a fully open environment for FDI – Belize, Chile, El Salvador, Guatemala, Jamaica, Panama and Uruguay. On the other hand, two countries have a score exceeding 0.50 – Bolivia (P.S. of) and Ecuador (figure 41). More specifically, majority ownership by foreigners is not allowed in specific sectors in Argentina, the Bahamas, Bolivia (P.S. of), Brazil, Cuba, Ecuador and Saint Lucia. At the same time, FDI restrictions in certain State-owned enterprises are applied in Costa Rica, Nicaragua, Paraguay, Peru and Venezuela (B.R. of). The restricted sectors include the telecom, newspapers, media, social media and postal sectors.[25] 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 the Bahamas, Bolivia (P.S. of), Cuba, Dominican Republic, Guyana, Haiti, Honduras, Mexico, Nicaragua, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). Finally, commercial presence requirements are imposed by Barbados, Bolivia (P.S), Colombia and Ecuador. These cover mainly the telecom sector and companies involved in public procurement, while in some instances, they apply horizontally.

Figure 41

Pillar 3 (Foreign direct investment) scores in LAC, 2023



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

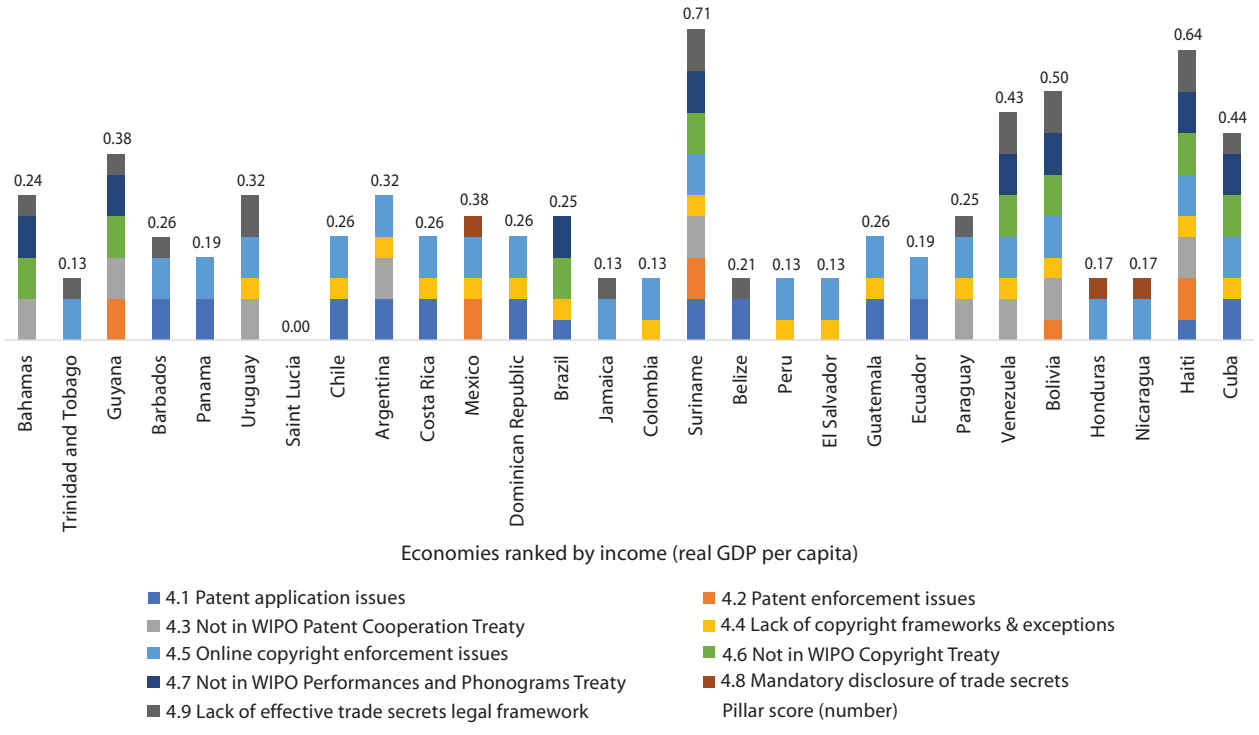
Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater the indicator values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

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

Pillar 4 examines Intellectual Property Rights (IPR) regulations. LAC's average score in this Pillar is 0.28 (figure 42). Most Latin American countries have signed the Patent Cooperation Treaty (PCT), the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) – the two WIPO agreements are referred to as "Internet Treaties." Nine countries have not joined the PCT, i.e., Argentina, the Bahamas, Bolivia (P.S. of), Guyana, Haiti, Paraguay, Suriname, Uruguay and Venezuela (B.R. of). Eight countries have not joined the WIPO Internet Treaties: the Bahamas, Bolivia (P.S. of), Brazil, Cuba, Guyana, Haiti, Suriname and Venezuela (B.R. of). Thirteen countries impose domestic restrictions on applying for patents, while five face limitations on patent enforcement. All countries have implemented copyright laws, with certain exceptions for using copyrighted works. Eleven countries (the Bahamas, Barbados, Belize, Ecuador, Guyana, Honduras, Jamaica, Nicaragua, Panama, Saint Lucia, 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 the Bahamas, Belize, Brazil, Guyana and Santa Lucia. Thirteen 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, 2023



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] athttps://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] at https://www.imf.org/en/Publications/WEO/weo-database/2023/October

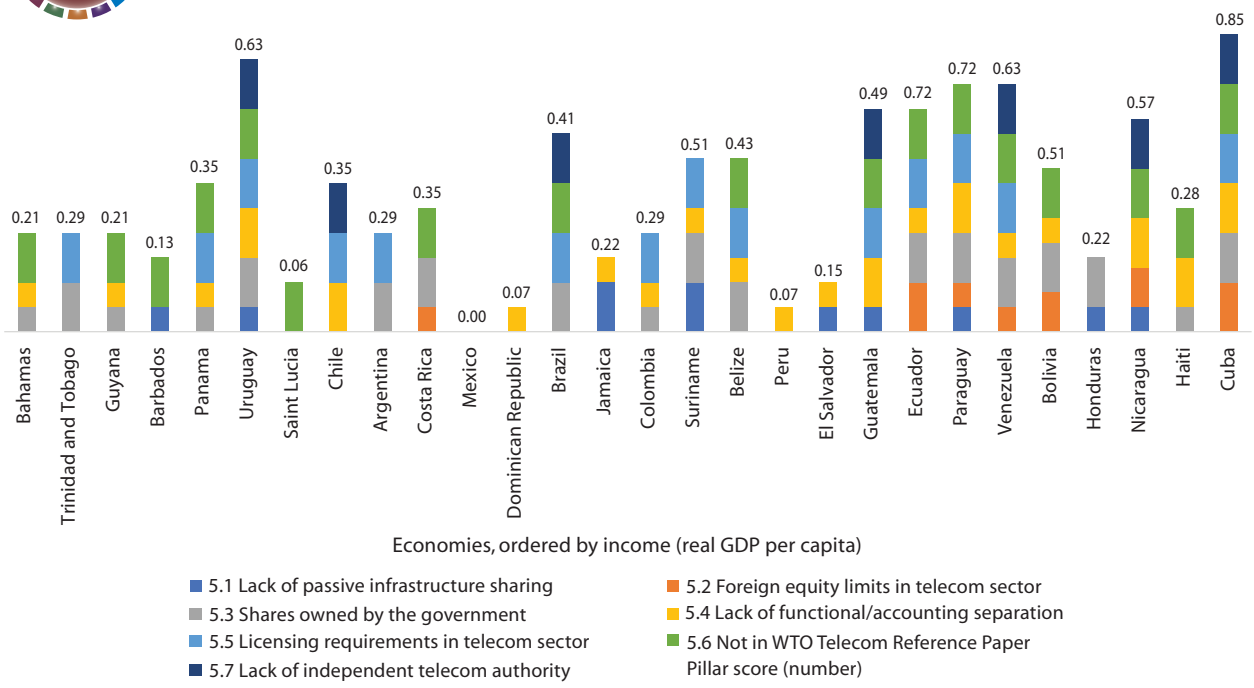
Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater are the indicator values. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

Pillar 5 reviews regulations and competition in the telecommunications sector. The LAC average in this Pillar is 0.36 (figure 43), reflecting significant restrictions. Cuba has the highest score (equal to 0.85). While most countries do not restrict FDI 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 18 countries. Passive infrastructure sharing is practiced or mandated in almost all the countries (except for Jamaica and Suriname), while only eight countries (i.e., Argentina, Barbados, Brazil, Costa Rica, Honduras, Mexico, Saint Lucia, Trinidad and Tobago) implement functional and accounting separation for operators with significant market power, which is considered good practice for enhancing competition. Also, 13 countries implement only accounting separation for operators with significant market power. In contrast, seven countries (Chile, Cuba, Guatemala, Haiti, Nicaragua, Paraguay and Uruguay) 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 seven countries (Brazil, Chile, Cuba, Guatemala, Nicaragua, Uruguay, and Venezuela). Licensing requirements are associated with discriminatory conditions in 14 countries, requiring – in most cases – commercial or local presence of the telecom companies, but also minimum capital requirements or non-transparent processes. Finally, only 11 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, 2023



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online at] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicators values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

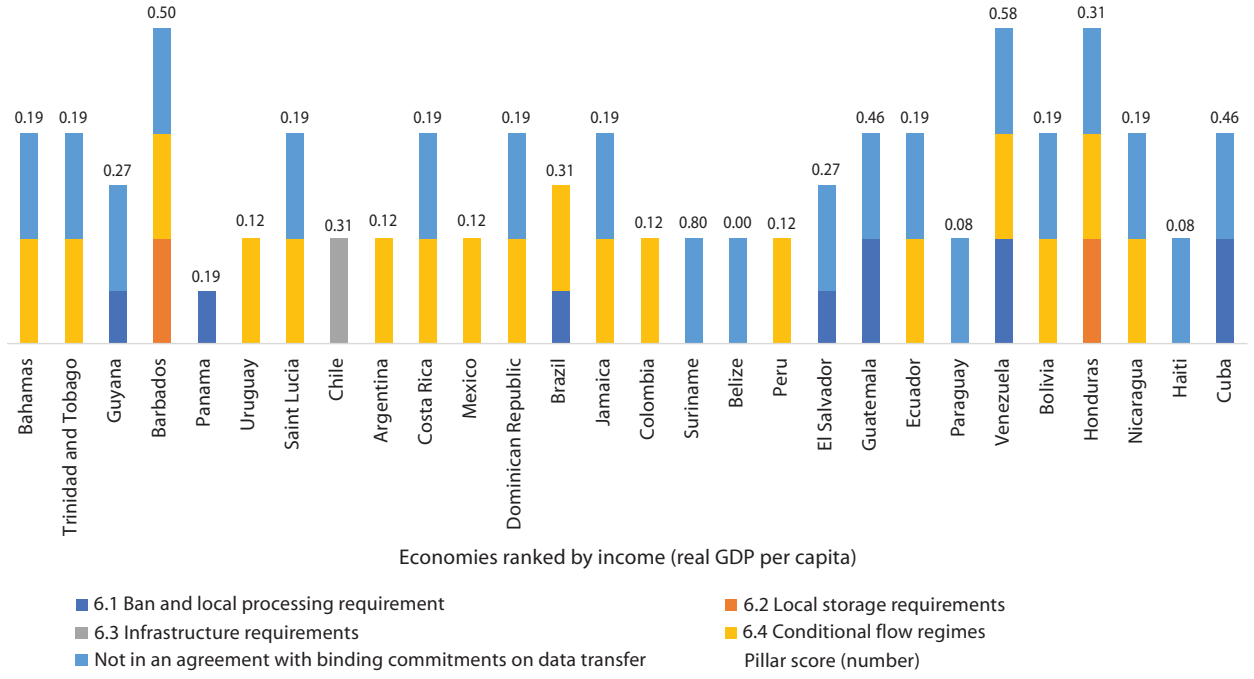
C. Digital governance policies

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 0.22 (figure 44). Nine countries – Belize, Haiti, Paraguay, Suriname, Argentina, Colombia, Mexico, Peru and Uruguay – have the lowest scores, indicating a higher integration. Seven countries impose certain restrictions on data location, while 18 countries impose some conditions for transferring data across borders, particularly personal data. Among the countries imposing restrictions on the location of data, Cuba, Guatemala and Venezuela (B.R. of) force the processing of specific data within their territories. Cuba requires hosting websites on local servers, Guatemala requires financial institutions to be authorized to process financial data outside the country, and 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 eight countries – Argentina, Brazil, Chile, Colombia, Mexico, Panama, Peru and Uruguay – have joined trade agreements committing them to open transfers of cross-border data flows; for example, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Digital Economy Partnership (DEPA) and the United States, Mexico and Canada Agreement (USMCA), besides bilateral free trade agreements.

Figure 44

Pillar 6 (Cross-border data policies) scores in LAC, 2023



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

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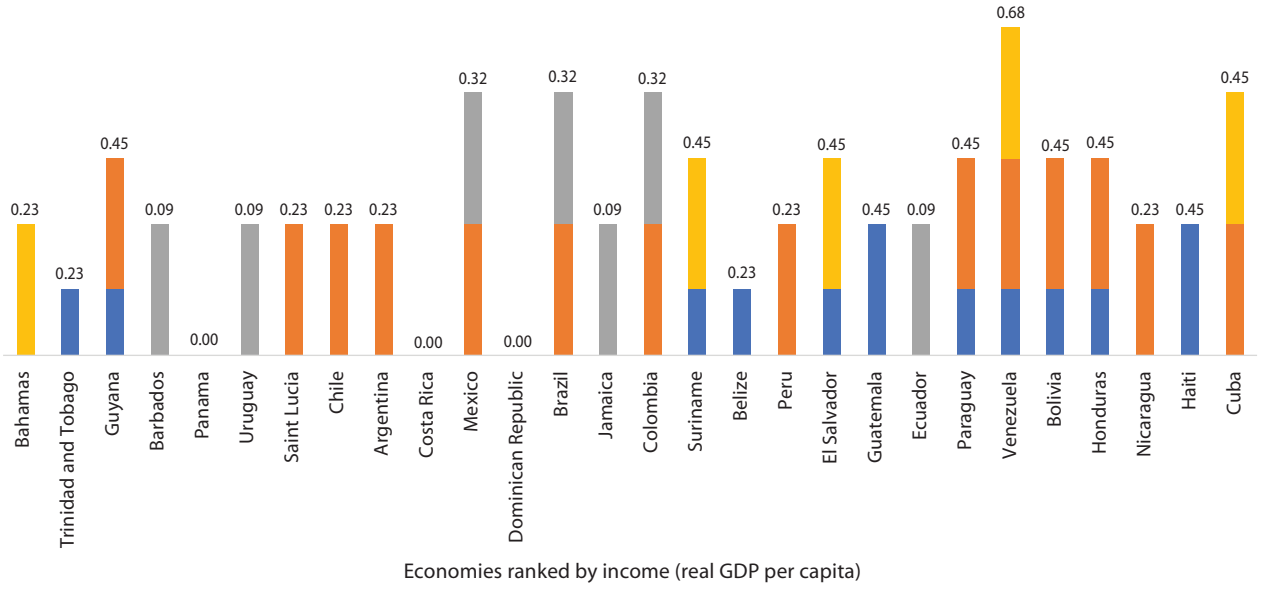
Pillar 7 considers policies that apply to data protection and privacy at the domestic level. The average LAC score is 0.28 for this Pillar (figure 45). Seventeen countries have a comprehensive data protection framework (e.g., Cuba has recently enacted a Personal Data Protection that entered into force in 2023), while nine others provide a sectoral data protection framework. Only Guatemala and Haiti have no framework to protect personal data, although Guatemala has a Bill pending approval by its Congress. Seven countries require firms processing personal data to appoint a data protection officer (DPO) or to perform an impact assessment (DPIA). In addition, half of the surveyed countries implement a minimum data retention period for specific data, mainly in the telecom sector. For example, Argentina requires mobile communications service providers to keep the receipts that correspond to the user identity validation process for a period of 10 years. Finally, five countries (the Bahamas, Cuba, El Salvador, Suriname 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, 2023



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

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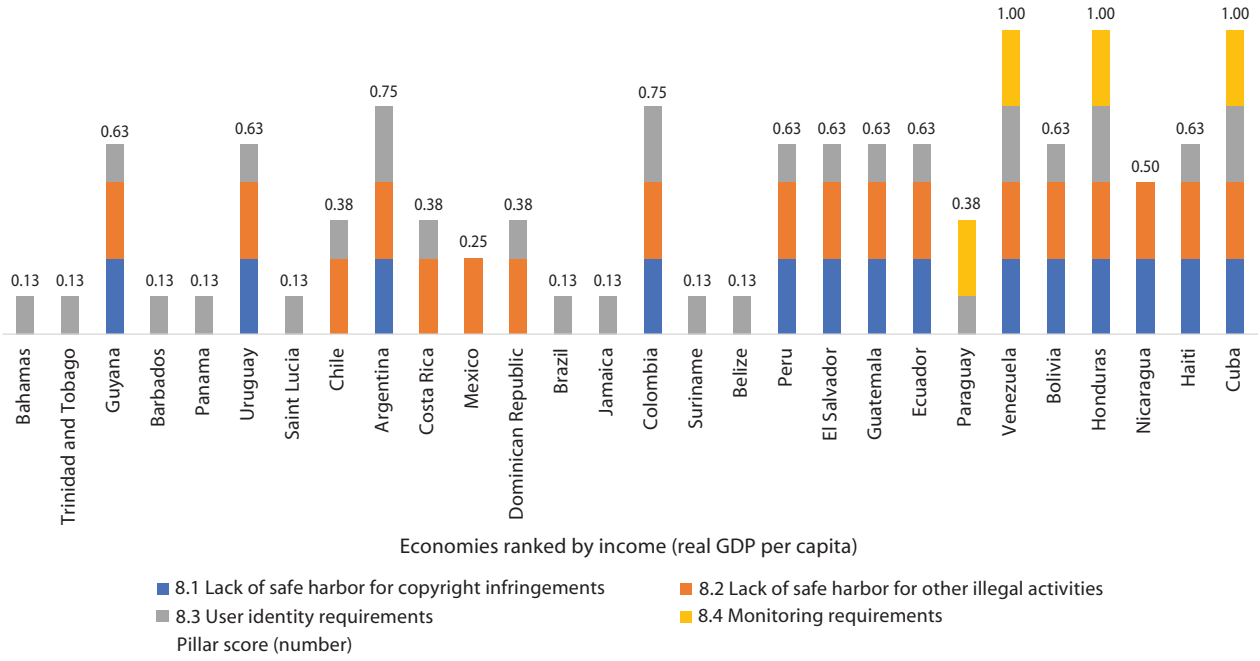
Pillar 8 focuses on intermediary liability with a regional average of 0.46, being the highest across all Pillars (figure 46). Nine countries – the Bahamas, Barbados, Belize, Brazil, Jamaica, Panama, Saint Lucia, Suriname, and Trinidad and Tobago – are the most open countries (a score of 0.13) in this Pillar, whereas Cuba, Honduras and Venezuela (B.R. of) show a high level of restrictions (a score of 1). Ten countries – the Bahamas, Barbados, Belize, Brazil, Jamaica, Panama, Paraguay, Saint Lucia, Suriname, and Trinidad and Tobago – provide a safe harbour for copyright infringement and other user activities. In addition, Chile, Costa Rica, the Dominican Republic and Mexico provide safe harbours limited to copyright infringement. All other countries have not implemented any regime to limit the liability of intermediaries. Twenty-six 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, 2023**



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

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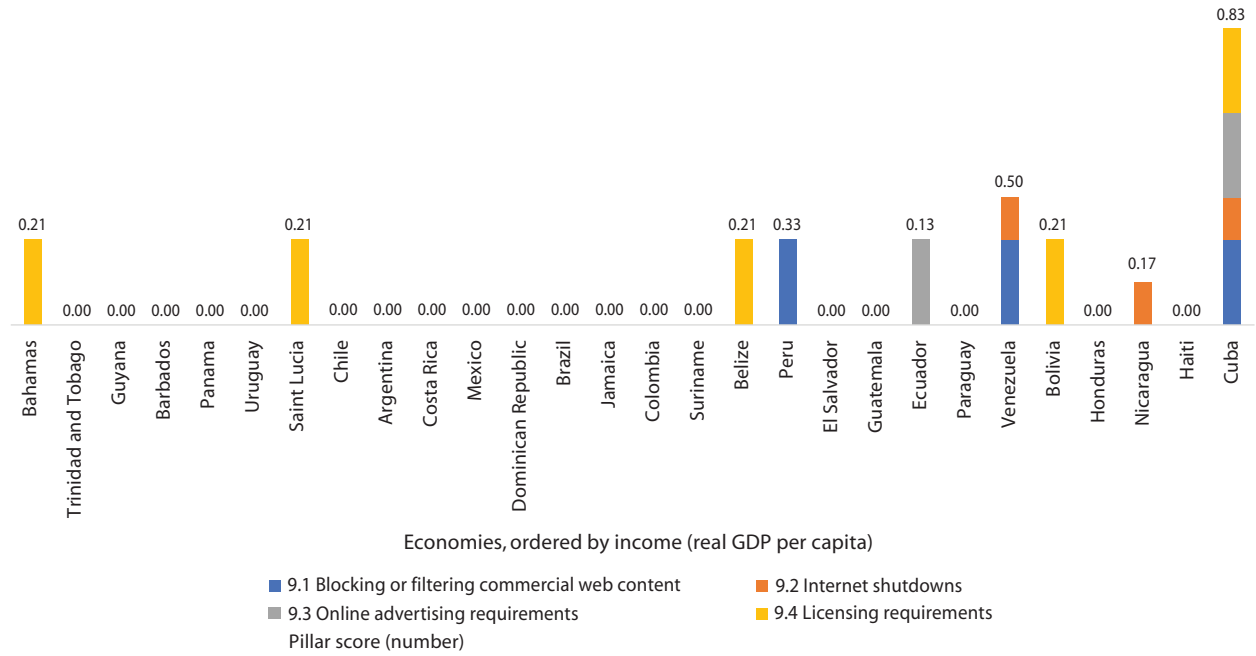
Pillar 9 examines content access regulations, and LAC's average is 0.10 (figure 47), reflecting a relatively open content-access environment. More than half of the selected LAC countries do not impose any restriction on access to commercial web content. In contrast, Cuba is the only country with a score 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, Peru, and Venezuela (B.R. of). In contrast, Internet shutdowns have been practiced, although rarely, in Cuba, Nicaragua, and Venezuela (B.R. of). Cuba and Ecuador are the only countries with restrictions on online advertising. Finally, getting a licence to provide certain online services is mandatory in the Bahamas, Belize, Bolivia (P.S. of), Cuba, and Saint Lucia.

Figure 47 **Pillar 9 (Content access) scores in LAC, 2023**



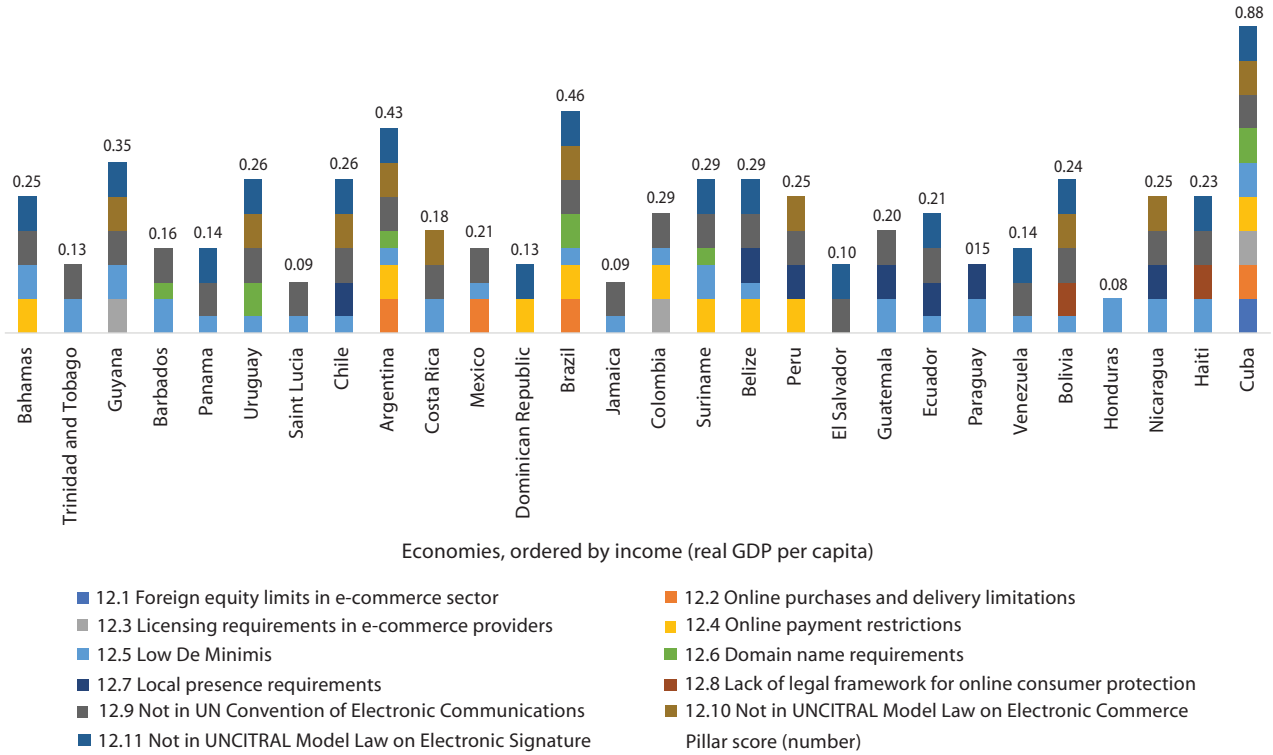
Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

Note: Countries are ranked according to their 2022 GDP per capita in descending order. The bar chart depicts the sum of indicator values within each pillar. The taller a bar, the greater the indicators values are. The numeric labels indicate the pillar scores, which are the weighted averages of the indicator values reflecting the compliance cost of all measures within the respective pillar.

Pillar 12 examines policies relating to online sales and transactions (figure 48). The average score for this Pillar is 0.24. 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, the Bahamas, Belize, Brazil, Colombia, Cuba, the Dominican Republic, Peru and Suriname 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, El Salvador 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. Twelve countries (the Bahamas, Barbados, Costa Rica, Cuba, Guatemala, Guyana, Haiti,

Honduras, Nicaragua, Paraguay, Suriname, and Trinidad and Tobago do not implement a *de minimis* rule. In addition, six countries (Argentina, Barbados, Brazil, Cuba, Suriname and Uruguay) impose certain restrictions on domain names, including local or commercial presence requirements for the application or registration of them. Furthermore, seven countries – Belize, Chile, Ecuador, Guatemala, Nicaragua, Paraguay and Peru – impose local presence requirements to offer certain online services; for example, the Belize Companies Act of 2022 requires foreign companies to have a registered agent in the country to engage in businesses. Bolivia (P.S. of) and Haiti are the only countries that have not adopted a consumer protection law. Recent policy changes can be observed; for instance, in 2023, Guyana enacted the Electronic Communications and Transactions Act. This legislation incorporates consumer protection provisions requiring e-commerce companies to furnish adequate information for electronic transactions. Finally, 25 countries have not joined the United Nations Convention on the Use of Electronic Communications. In comparison, 18 countries have adopted the UNCITRAL Model Law on Electronic Commerce, and 12 have adopted the UNCITRAL Model Law on Electronic Signatures.

Figure 48 **Pillar 12 (Online sales and transactions) scores in LAC, 2023**



Source: ECLAC and EUI calculations, as of December 2023; 2022 GDP per capita are from ECLAC, CEPALSTAT [online] https://statistics.cepal.org/, except for Guyana, Jamaica, Panama, Saint Lucia, Suriname, Trinidad and Tobago, and Venezuela (B.R. of). The latter countries' data are from IMF, World Economic Outlook Database, October 2023 [online] https://www.imf.org/en/Publications/WEO/weo-database/2023/October

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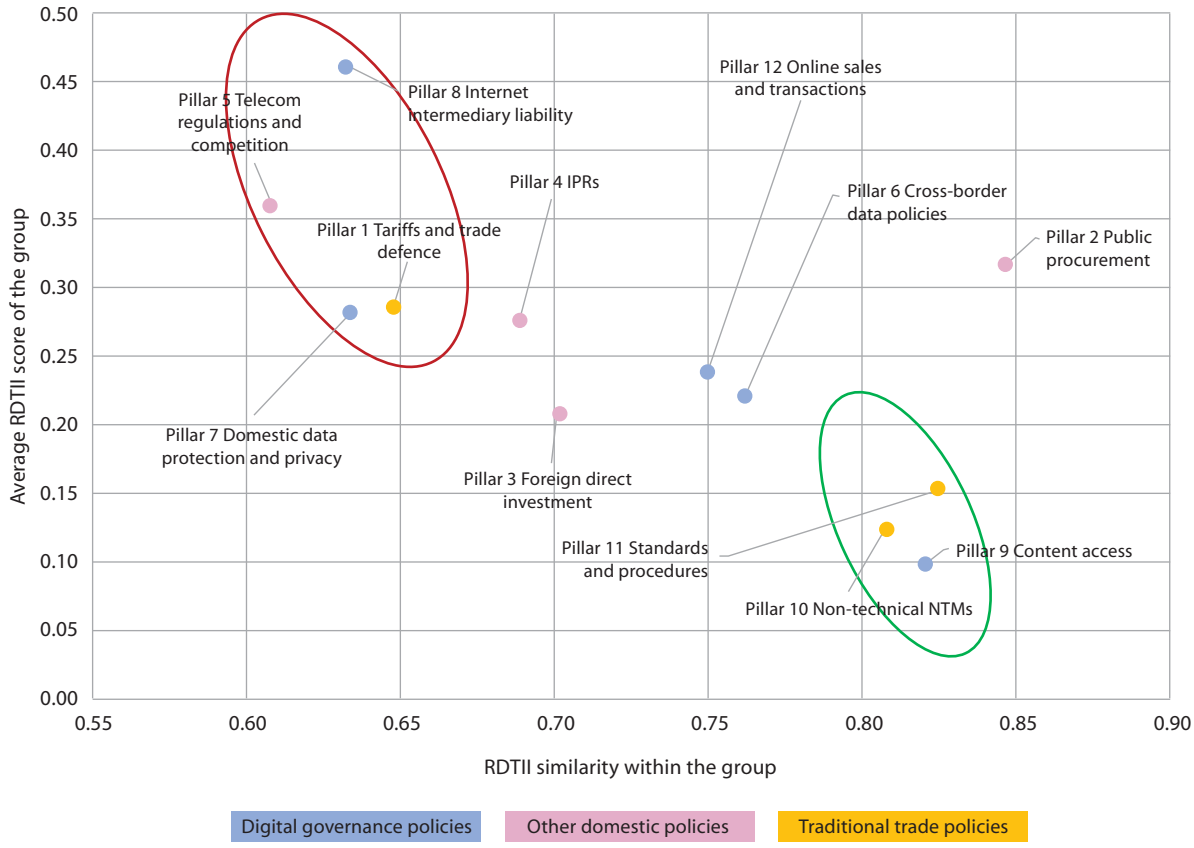
4.3. The need for regional regulatory harmonization to support digital trade integration

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).

To do this, figure 49 shows the average RDTII Pillar-level scores (shown on the vertical axis) and the degree to which all LAC countries' policies are similar for each Pillar (shown on the horizontal axis). Policy similarity within the group is calculated as the average of the 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 in 2023, by RDTII 2.0 policy pillar**



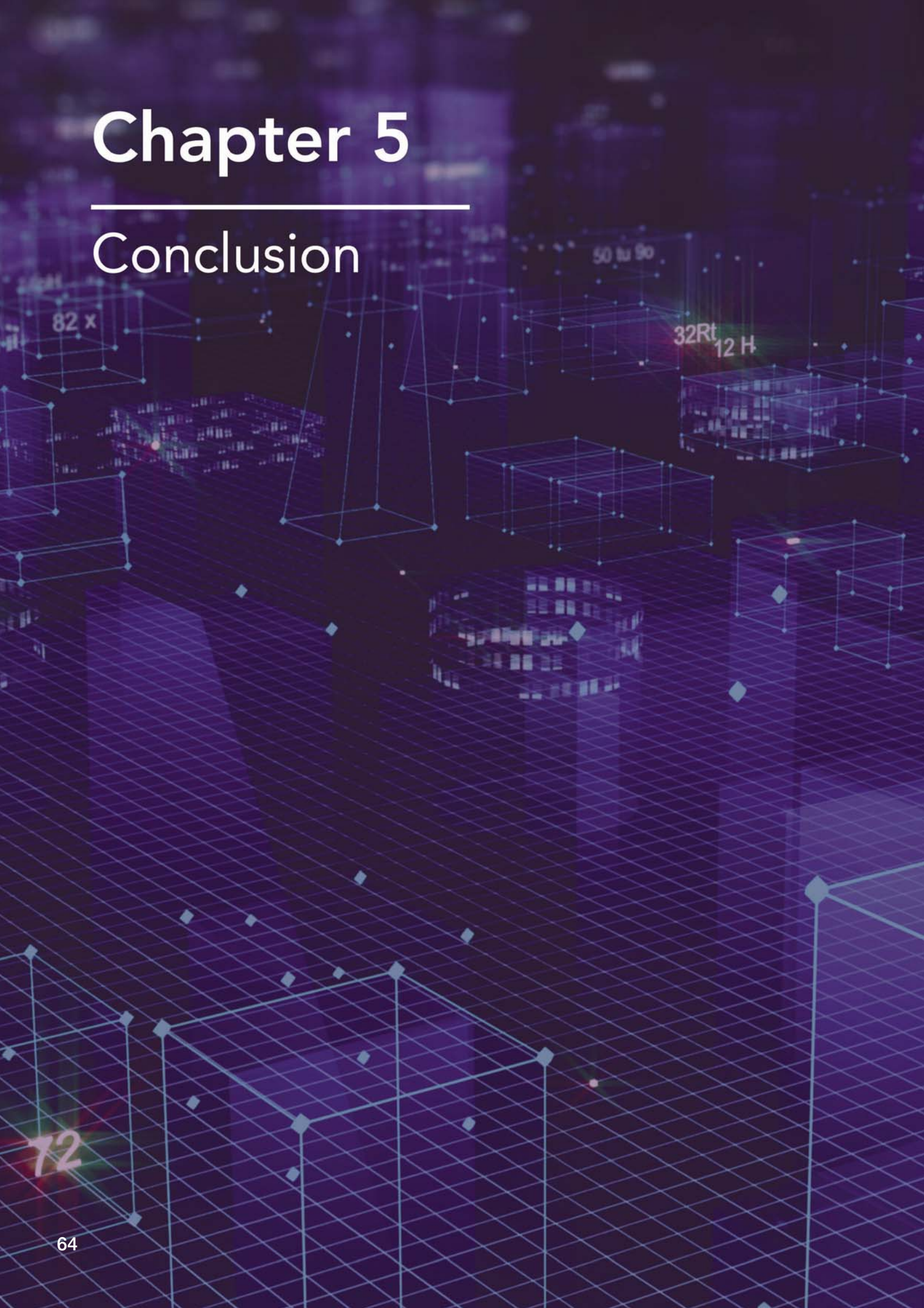
Source: ECLAC, ESCAP and EUI calculations.

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 heterogeneous 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 above the average. Therefore, these Pillars represent another potential area for 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 in regulatory harmonization, given the relatively similar regulatory framework and fewer restrictions across countries. It can be observed that although the public procurement sector has a high regulatory similarity, it has a high RDTII score.

Chapter 5

Conclusion



5. Conclusion

The RDTII 2.0 framework identifies 12 regulatory areas that affect firms engaged in, or looking to engage in digital trade flows. The varying RDTII 2.0 scores reflect different levels of regulatory readiness, policy priorities and socio-economic objectives in public policy agendas. However, concern arises from a low level of regulatory similarity, indicating potential challenges for national firms aspiring to expand regionally or globally.

The latest version of RDTII 2.0 encompasses data from 102 economies at various development stages, including 21 in the Asia-Pacific region, 53 in Africa and 28 in Latin America and the Caribbean (LAC). Data up to 2023 show the average score across these three regions is 0.34. Regionally, the average scores are 0.41 for the Asia-Pacific, 0.34 for Africa and 0.25 for LAC. These results suggest that the regulatory environment's complexity is highest in the Asia-Pacific, followed by Africa and LAC, respectively.

Moreover, the data within the RDTII 2.0 framework facilitate estimating a regulatory similarity index, which measures policy proximity across jurisdictions. This index reveals that the intra-regional regulatory similarity of the Asia-Pacific region is relatively low (0.64) compared to the African group (0.68) and the LAC group (0.73). The findings highlight the urgent need and potential advantages of improved regulatory cooperation, especially in the Asia-Pacific region and in Africa.

A detailed review of policy areas and measures shows Governments in those regions recognize the need to minimize procedural delays and are committed to improving transparency through technical standards that align with international norms, particularly concerning ICT equipment and ICT services. However, regulatory environment associated with telecommunications services and digital governance pose significant challenges to digital trade-related business. In terms of digital governance, complexities in intermediary liability and data protection policies are prevalent across all three regions. Despite a high priority on e-commerce development, regulations regarding online sales and transactions are a concern across the three regions, with the Asia-Pacific facing especially acute challenges.

Opportunities to improve the digital trade ecosystem lie in addressing regulatory gaps:

- In Asia-Pacific, the complexities in investment and public procurement regulations stand out as deserving high priority for policy reform. Furthermore, regional cooperation aimed at simplifying regulations, ensuring non-discrimination and enhancing regulatory harmony would be crucial, especially in areas where regional economies exhibit low regulatory similarity or commonly face high regulatory restrictions. The region's current regulatory scenario suggests that simplifying rules and requirements for foreign investors, public procurement tender processes, platform operators and online transaction operators would markedly benefit the digital trade ecosystem in the region. Moreover, the regional trend related to digital governance policies underscores the needs for increased regulatory cooperation on data protection and online transactions rules.
- Within Africa, while restrictive policies within digital governance (e.g., intermediary liability, domestic data protection, privacy and content access), domestic policies (e.g., IPR and telecom, and competition regulations), and traditional trade barriers exist (e.g., tariffs), 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 (except for public procurement). 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 NTMs applied to ICT goods.

Policy recommendations

The following policy recommendations are relevant across Asia-Pacific, Africa and LAC

- **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 benefits and provide certainty to firms seeking to access foreign markets. Thus, Governments should consider participation in the WTO ITA and its expansions.
- **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.[26] For this purpose, implementing conducive FDI policies in the telecommunications sector combined with an 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, online transactions and domestic data protection. The goal is to create a conducive regulatory framework that supports the development of online activities through platforms, while providing trust and confidence to digital trade participants.

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 establish mutual recognition in areas where a high degree of regional common ground already exists, such as online consumer protection,

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

cybersecurity, ICT standards, IPR and e-commerce facilitation. To facilitate the process, Governments should collaboratively conduct a stock-taking exercise and sharing experience in areas where considerable regulatory differences persist. In this context, the RDTII 2.0 framework and its related digital-trade regulatory analysis can be an instrument for these purposes.

- **Leverage existing regional and global initiatives to enhance 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.[27] 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).[28] 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.
- **Prioritize investment regulatory simplification and ensure public procurement rules promote competition in sectors that enable digital trade.** Streamlining regulations that govern investments in the digital trade and related sector to make it easier for both domestic and foreign investors to contribute to the development of digital trade and digital economy. Simplification could include reducing bureaucratic hurdles, clarifying legal requirements, and offering incentives for investment in digital infrastructure, digital services and startups. Public procurement policies should be designed to encourage competition and innovation in the digital trade ecosystem. This means ensuring that procurement processes are transparent, non-discriminatory and open to a wide range of suppliers, SMEs.
- **Bridge the regulatory gaps in countries with special needs.** Development partners should consider offering Aid for Digital Trade that includes support for capacity-building to close digital-trade regulatory gaps identified in the RDTII 2.0, particularly in countries with special needs. Specifically, this could involve improving their readiness to establish enforceable and recognized regulations that build digital trust both within and across borders, including regulations related to cybersecurity, data protection and online consumer protection.

[27] 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 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.

[28] More information on the CPTA, a United Nations treaty aimed at accelerating inclusive trade digitalization, is available at https://www.unescap.org/kp/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 International Telecommunication Union (ITU)[29] in 2022, only 40% of Africa's population had access to the Internet, with the cost of bringing broadband access to all in Africa estimated by the World Bank at a staggering US$100 billion in 2020.[30]
- **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.** The 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;
  - Accede to key international agreements that protect patents and (digital) copyrights. Implement and enforce a framework for data privacy and protection.
  - Establish a comprehensive data protection framework and reduce the data retention period or limit it to security-sensitive segments and ensure harmonization of rules in this area across the continent.

A concerted effort to address the areas identified in the 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.

[29] See ITU (International Telecommunication Union). 2023. ITU Statistics Database. Available at: https:// www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx. Accessed February 2023.

[30] 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

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.
- Consider **signing 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, it is recommended to 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 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.**
- **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 as well as mechanisms to monitor the realization of these kinds of policies. 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 strategic actions, including in digital trade regulations.

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 identified in the RDTII 2.0 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 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 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. Regional United Nations 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; the objective is 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 Least Developed Countries (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 identified in the RDTII 2.0 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.

References

ESCAP, ECA and ECLAC (2022). "Regional Digital Trade Integration Index (Version 1): A Guide", 20 June. Available at https://www.unescap.org/kp/2022/RDTII

_____(2023). "Digital Trade Regulatory Review for Asia, Africa, and Latin America and the Caribbean", 22 February. Available at https://www.unescap.org/kp/2023/dtr

_____(2024). "The Regional Digital Trade Integration Index (Version 2.0): A Guide". Available at https://repository.unescap.org/handle/20.500.12870/6849

ESCAP, UNCTAD, UNIDO (2023). "Asia-Pacific Trade and Investment Report 2023/24: Unleashing Digital Trade and Investment for Sustainable Development", 6 December. Available at https://www.unescap.org/kp/APTIR2023

Ezell S. and L. Dascoli (2021). "How an Information Technology Agreement 3.0 Would Bolster Global Economic Growth and Opportunity", 16 September. Information Technology and Innovation Foundation (ITIF). Available at https:// itif.org/publications/2021/09/16/how-an-information-technology-agreement-3-0-would-bolster-global-economic-growth-and-opportunity/

Jaller, L.D. and M. Molinuevo (2020). Digital Trade in MENA: Regulatory Readiness Assessment. Policy Research Working Paper No. 9199. Washington D.C.: World Bank. Retrieved from https://openknowledge.worldbank.org/ handle/10986/33521

Jaller, L.D., S. Gaillard and M. Molinuevo (2020). Regulation of Digital Trade; Key Policies and International Trends. Washington D.C.: World Bank. Retrieved from https://openknowledge.worldbank.org/handle/10986/33164

Lemma, A., M. Mendez-Parra, and L. Naliaka (2022). The AfCFTA: Unlocking the potential of the digital economy in Africa. ODI. Retrieved from https://odi. org/en/publications/afcfta-unlocking-the-potential-of-the-digital-economy-in-africa/

Nordås, H. (2016). "Services Trade Restrictiveness Index (STRI): The Trade Effect of Regulatory Differences", OECD Trade Policy Papers, No. 189, 13 May, OECD Publishing. Available at https://www.oecd-ilibrary.org/trade/services-trade-restrictiveness-index_5jlz9z022plp-en

Trivedi J., Y. Duval, D. Bajt and J.H. Yoo (2019). "Non-Tariff Measures in Regional Trade Agreements in Asia and the Pacific: SPS, TBT and Government Procurement", Working Paper No. 03/2019, 26 September. Bangkok: ESCAP. Available at https://www.unescap.org/publications/non-tariff-measures-regional-trade-agreements-asia-and-pacific-sps-tbt-and-government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