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How ready are we? Measuring the Philippines' readiness for digital trade integration with the Asia-Pacific

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How Ready Are We? Measuring the Philippines' Readiness for Digital Trade Integration with the Asia-Pacific

*Francis Mark A. Quimba, Sylwyn C. Calizo Jr.,
Jean Clarisse T. Carlos, and Jose Ramon G. Albert*



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**How Ready Are We?
Measuring the Philippines' Readiness
for Digital Trade Integration with the Asia-Pacific**

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Abstract

This study assessed the Philippines' readiness for regional digital trade integration with the Asia-Pacific by using the Regional Digital Trade Integration Index (RDTII) framework to provide an analytical overview of the Philippines' digital trade policy and regulatory environment. Using the RDTII framework, the Philippines reported an overall RDTII score of 0.342 in 2020, which rates the country as having a relatively open digital trade environment. In the same year, the Philippines performed best in three pillars, particularly: pillar 1 (tariffs and trade defense measures); pillar 6 (cross-border data policies); and, pillar 8 (intermediary liability and content access). All of these three pillars scored less than 0.200, thus, indicating a non-restrictive policy and regulatory environment. In contrast, the Philippines performed worst in three pillars, namely: pillar 2 (public procurement); pillar 3 (foreign direct investment); and, pillar 5 (telecommunications infrastructure and competition). These three pillars reported a score of above 0.610, so these pillars were characterized with having a strongly restrictive policy and regulatory environment. Meanwhile, the Philippines was found to be slightly restrictive in intellectual property rights (pillar 4), domestic policies on the use of data (pillar 7), quantitative trade restrictions (pillar 9), standards (pillar 10), and online sales and transactions (pillar 11), which all received a score ranging from 0.210-0.400. This study finds that the Philippines generally has an open policy environment for digital trade, which suggests that it is ready for digital trade integration with the region. However, the proper implementation of some of these policies has not been fully achieved, and this could be a great obstacle or challenge to regional integration.

Keywords: *digital economy, regional integration, digital trade, Philippines, RDTII, regional digital trade integration index*

Table of Contents

Executive Summary	9
I. Introduction.....	13
A. About the project	15
B. Objectives of the study	15
II. Why is Regional Digital Trade Integration Worth Pursuing by the Philippines?	15
A. Digitalization is quickly transforming how the world trades.....	15
B. Regional trade agreements are getting deeper	17
C. The Philippines is in a good position to pursue regional digital trade integration	18
III. Methodology.....	23
A. The Regional Digital Trade Integration Index	23
B. Sources of data	25
IV. Results and Discussion	26
A. Measuring the Philippines' readiness for digital trade integration	26
1. Pillar 1: Tariffs and trade defense measures applied on intraregional imports of ICT-related goods.....	29
2. Pillar 2: Public procurement on digital goods and services	33
3. Pillar 3: Foreign investment in sectors relevant for digital trade	35
4. Pillar 4: Intellectual Property Rights.....	37
5. Pillar 5: Telecom infrastructure and competition	41
6. Pillar 6: Cross-border data policies	43
7. Pillar 7: Domestic data policies	45
8. Pillar 8: Intermediary liability and content access.....	47
9. Pillar 9: Quantitative trade restrictions.....	49
10. Pillar 10: Standards.....	51
11. Pillar 11: Online sales and transactions.....	52
B. Exploring the Philippines' collaboration with the international community.....	54
1. The Boracay Action Agenda to Globalize MSMEs	55
2. Digital Science and Analytics Competencies	55
3. WIPO Internet Treaties	56
4. ASEAN Single Window.....	57
5. Budapest Convention on Cybercrime.....	57
V. Conclusion and Policy Recommendations.....	57
A. The Philippines is Ready for Regional Digital Trade Integration	57

B. What can the Philippines do to successfully integrate its digital trade with the Asia-Pacific region?	60
1. Low-Hanging Fruits	61
2. Whole-of-Government	63
References	65
Appendix 1 Key messages from the consultation meetings with stakeholders	77
Appendix 2 Relevant laws, regulations, and jurisprudence affecting each RDTII pillar	84
Appendix 3 List of digital goods	87
Appendix 4 List of Asia-Pacific economies included in this study	92
Appendix 5 Technical notes for pillar 2 (public procurement on digital goods and services)	93
Appendix 6 Technical notes for pillar 3 (foreign direct investment in sectors relevant for digital trade)	95

List of Tables

Table 1 Philippine trade in digitally deliverable services	14
Table 2 Stakeholder participation, by sector and sex.....	26
Table 3 Overall RDTII scores in the Philippines from 2015 to 2020 by pillar	27
Table 4 Philippine scores vis-à-vis the regional average in 2020 by pillar	29
Table 5 RDTII pillar 1 scores in the Philippines from 2015 to 2020	30
Table 6 Products identified in the Information Technology Agreements	31
Table 7 RDTII pillar 2 scores in the Philippines from 2015 to 2020	34
Table 8 RDTII pillar 3 scores in the Philippines from 2015 to 2020	36
Table 9 RDTII pillar 4 scores in the Philippines from 2015 to 2020	38
Table 10 RDTII pillar 5 scores in the Philippines from 2015 to 2020	41
Table 11 RDTII pillar 6 scores in the Philippines from 2015 to 2020	44
Table 12 RDTII pillar 7 scores in the Philippines from 2015 to 2020	46
Table 13 RDTII pillar 8 scores in the Philippines from 2015 to 2020	48
Table 14 RDTII pillar 9 scores in the Philippines from 2015 to 2020	51
Table 15 RDTII pillar 10 scores in the Philippines from 2015 to 2020	52
Table 16 RDTII pillar 11 scores in the Philippines from 2015 to 2020	53
Table 17 Number of approved projects in the IAI III by strategic area and funding source.....	54

List of Figures

Figure I Overall DigiSRII scores for selected Asia-Pacific countries in 2017.....	19
Figure II Conventional and sustainable integration DigiSRII scores for selected Asia-Pacific countries in 2017	20
Figure III Conventional and sustainable integration DigiSRII scores in digital economy integration for the Philippines in 2017.....	21
Figure IV Overall DTRI score for selected Asia-Pacific countries in 2018	22
Figure V DTRI scores for the Philippines in 2018 by cluster.....	23
Figure VI RDTII framework.....	24
Figure VII Overall RDTII scores in selected Asia-Pacific economies in 2020	28
Figure VIII Effectively applied tariff rates and coverage rate of duty-free digital goods imported from the Asia-Pacific.....	30
Figure IX Exports of ITA products from the ASEAN-5 in 1996 and 2015.....	32
Figure X Imports of ITA products by the ASEAN-5 in 1996 and 2015	32
Figure XI Intellectual property protection in the ASEAN-5 from 2015-2019	40
Figure XII Infrastructure performance in the ASEAN-5 from 2012-2016.....	43
Figure XIII Business-to-consumer internet use in the ASEAN-5 in 2014 and 2016.....	47

List of Abbreviations

ABIF	ASEAN Banking Integration Framework
ADB	Asian Development Bank
AFP	Armed Forces of the Philippines
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
ASW	ASEAN Single Window
ATIGA	ASEAN Trade in Goods Agreement
AWSC	ASEAN-Wide Self-Certification
BAA	Boracay Action Agenda
BOC	Bureau of Customs
BPO	Business Process Outsourcing
BPS	Bureau of Philippine Standards
BSP	Bangko Sentral ng Pilipinas
CBPR	Cross-Border Privacy Rules
COVID-19	Coronavirus Disease of 2019
CPCN	Certificate of Public Convenience and Necessity
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CSP	Cloud Service Provider
DARE	(Project) Data Analytics Raising Employment
DFA	Department of Foreign Affairs
DICT	Department of Information and Communications Technology
DigiSRII	Digital and Sustainable Regional Integration Index
DOF	Department of Finance
DOJ	Department of Justice
DSA	Data Science and Analytics
DTI	Department of Trade and Industry
DTRI	Digital Trade Restrictiveness Index
ECIPE	European Centre for International Political Economy
EO	Executive Order
FDI	Foreign Direct Investment

FINL	Foreign Investment Negative List
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GPA	Agreement on Government Procurement
GPPB	Government Procurement Policy Board
IAI	Initiative for ASEAN Integration
ICT	Information and Communications Technology
IEO	Intellectual Property Rights Enforcement Office
IFC	International Finance Corporation
IP	Intellectual Property
IPOPHL	Intellectual Property Office of the Philippines
IPR	Intellectual Property Rights
IRR	Implementing Rules and Regulations
ISP	Internet Service Provider
ITA	Information Technology Agreement
IT-BPM	Information Technology and Business Process Management
JSI	Joint Statement Initiative
LDC	Least Developed Countries
MOU	Memorandum of Understanding
MRA	Mutual Recognition Agreement
MSME	Micro, Small, and Medium Enterprises
NEDA	National Economic and Development Authority
NPC	National Privacy Commission
NRI	Network Readiness Index
NSW	National Single Window
NTB	Non-Tariff Barrier
NTC	National Telecommunications Commission
NTM	Non-Tariff Measure
OMB	Optical Media Board
PECR	Philippine E-Commerce Roadmap
PhP	Philippine pesos
PIDS	Philippine Institute for Development Studies

PSA	Philippine Statistics Authority
PTE	Public Telecommunications Entities
QR	Quick Response (Code)
RA	Republic Act
RCEP	Regional Comprehensive Economic Partnership
RDTII	Regional Digital Trade Integration Index
RIA	Regulatory Impact Assessment
SDO	Standards Development Organizations
SDR	Special Drawing Right
SEC	Securities and Exchange Commission
SPS	Sanitary and Phytosanitary
STC	Strategic Trade Control
STMO	Strategic Trade Management Office
TBT	Technical Barriers to Trade
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USTR	United States Trade Representative
VAS	Value-Added Service
WCT	WIPO Copyright Treaty
WEF	World Economic Forum
WIPO	World Intellectual Property Office
WITS	World Integrated Trade Solution
WPPT	WIPO Performances and Phonogram Treaty
WTO	World Trade Organization

Executive Summary

- ***Digitalization is quickly transforming the global economy.*** The rapid advancement of new technology encouraged the formation of a borderless world, but this progress also gave rise to new and highly complex digital issues. For instance, economies can face issues on handling cross-border data flows, enforcing Intellectual Property Rights (IPR), and protecting consumer welfare, among others. These issues are not only domestic concerns but also regional as well, which is why cooperation between and among economies is important.
- ***In fact, economies already recognized the need to cooperate about these new issues, and this manifests in regional trade agreements becoming deeper.*** The scope of regional trade agreements already expanded to cover not only trade but also emerging issues, such as the environment, foreign investments, and cross-border data flows, to name a few. In the Asia-Pacific, for instance, both the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP) are primary examples of deep regional trade agreements. These deep trade agreements are important because these helps to integrate economies – something that is important for a borderless digital world.
- ***Based on the United Nations Economic and Social Commission for Asia and the Pacific's (UNESCAP) Regional Digital Trade Integration Index (RDTII),¹ the Philippines can be described as having a relatively open digital trade environment.*** The Philippines' overall score was computed as 0.342 in 2020, which is an improvement from the more restrictive 0.351 score in 2018. Moreover, the Philippines ranked as the ninth least restrictive economy from among all the 22 Asia-Pacific economies that were assessed² in 2020 and has also performed slightly better against the Asia-Pacific regional average of 0.420 during the same year.
- ***In 2020, the Philippines performed best in three pillars, particularly: pillar 1 (tariffs and trade defense measures); pillar 6 (cross-border data policies); and, pillar 8 (intermediary liability and content access).*** All of these three pillars scored less than 0.200, thus, indicating a non-restrictive policy and regulatory environment.
- ***In contrast, the Philippines performed worst in three pillars, namely: pillar 2 (public procurement); pillar 3 (foreign direct investment); and, pillar 5 (telecommunications infrastructure and competition).*** These three pillars reported a score of above 0.610, so these pillars were characterized with having a strongly restrictive policy and regulatory environment.

¹ For more information about UNESCAP's RDTII, see: <https://www.unescap.org/projects/dtra>. Accessed on 01 June 2021.

² As of 02 May 2021, the 22 Asia-Pacific economies are: Australia; Brunei Darussalam; Cambodia; China; Hong Kong (China); Indonesia; India; Japan; Kazakhstan; Lao PDR; Malaysia; Nepal; New Zealand; Pakistan; the Philippines; the Republic of Korea; Thailand; Turkey; Vanuatu; and, Viet Nam.

- ***Meanwhile, other pillars were characterized as being slightly restrictive.*** In particular, these other pillars cover issues on intellectual property rights (pillar 4), domestic policies on the use of data (pillar 7), quantitative trade restrictions (pillar 9), standards (pillar 10), and online sales and transactions (pillar 11), which all received a score ranging from 0.210-0.400.
- ***Perhaps the best factor strengthening the Philippines' position to integrate itself with the Asia-Pacific is its exceptionally low tariffs (pillar 1) that synergizes well with having only slightly restrictive Non-Tariff measures (NTMs) being imposed (pillars 9 and 10) on digital goods.*** Effectively applied tariff rates on digital goods imported from the Asia-Pacific was reported at just 0.09 per cent in 2019 and the coverage rate of duty-free tariff lines reached a high of 92.3 per cent during the same year. The Philippines, however, faces two issues on NTMs: first is that the trade of dual-use strategic goods (e.g., electronics, computers, and telecoms of a specified technical standards) have become highly regulated since October 2020; and, second is that the Philippines does not recognize enterprises' self-certification for product safety. These two issues prevent the Philippines from further reducing trade barriers for the trade of digital goods.
- ***Another factor strengthening the Philippines' position is its continuous improvement on IPR enforcement (pillar 4) that complements the country's liberal access to online content (pillar 8).*** The protection of IPR is a key factor enabling growth in the digital economy. Thus, it is important that policies form a conducive environment that protects IPR. On this aspect, the Philippines has scored 0.289 in 2015, which improved to 0.274 in 2018 and improved further to 0.271 in 2020. The Philippines' IPR performance is a promising indicator because IPR enforcement is an important part of the digital economy as digital sectors are dramatically producing and distributing information-driven products and services, including digital creative products. However, IPR could be rendered irrelevant if online content cannot be accessed in the first place. Fortunately, the Philippines enjoys a non-restrictive policy and regulatory environment on this matter since consumers are free to access online content and license schemes are non-discriminatory albeit the country could face some challenges because of its content-specific safe harbor provisions.
- ***Another key strength is the Philippines' strong policies on data (pillars 6 and 7).*** On this aspect, the Philippines has been performing well on both cross-border data policies (pillar 6) and on domestic policies on the use of data (pillar 7). In 2020, the Philippines scored 0.100 on the former and 0.363 on the latter. These scores can be considered low, suggesting that existing data policies, especially the Data Privacy Act of 2012, are strong enough to create a conducive environment for regional digital trade integration. However, the Philippines' strong policies on data could also increase trade costs. For instance, Philippine laws require minimum data retention requirements on certain contents and hiring data protection officers.

- ***However, foreign equity limitations (pillar 3) possibly banning foreign equity on some electronic commerce and electronic retailing is a major challenge to the Philippines' digital trade integration with the Asia-Pacific.*** The Philippines has consistently imposed strong restrictions on foreign direct investments in sectors relevant for digital trade. Since 2015, the Philippines' performance for pillar 3 has scored a high of 0.625. The strongest restriction is felt by retail trade enterprises with paid-up capital of less than US\$2.5 million since this sector is prohibited from having any foreign equity. In certain circumstances, foreign equity on electronic commerce can also be prohibited. For example, leasing and subleasing advertising space or operating an online voucher platform intended to increase the sales of a particular product or service can both be considered as mass media activities, thereby prohibiting any foreign equity for these business activities. Electronic commerce represents an important part of digital trade, which means that bans on foreign investment can impede the digital economy's growth, thereby making digital trade integration difficult.

- ***Another major challenge to the Philippines is its highly discouraging policies affecting foreign bidders' participation to public procurement (pillar 2).*** The Philippines' performance on public procurement related to digital goods and services has been relatively high since 2015 where the score was 0.745. This worsened in 2018 when the score slightly rose to 0.751 owing to a lower 2016 Network Readiness Index (NRI) score for government procurement of advanced technology products (relative to the 2015 NRI score). No score changes were reported since 2018. While foreign bidders are permitted to participate in public procurement, there are certain policies that are either highly restrictive or discouraging. For instance, foreign consultants are required to transfer their technology and knowledge in order to be hired under public procurement. Foreign bidders also participate at a disadvantage because of domestic preference and foreign equity restrictions. This suggests that public procurement for digital goods and services are skewed towards domestic bidders, which may have an adverse effect on competition.

- ***Strong barriers to entry also restrict the Philippine telecommunications sector (pillar 5) from growing, thereby undermining an important part of the digital economy.*** Public utilities are highly regulated in the Philippines and this includes the telecommunications sector. In 2015, the Philippines reported a pillar 5 score of 0.604 on telecommunications infrastructure and competition. This worsened in 2018 when the score slightly rose to 0.620 because of a lower 2016 NRI score for infrastructure relative to the 2015 NRI score. The telecommunications sector serves as the bedrock of the digital economy, so the sector's performance affects multiple industries. Despite the telecommunications sector already having been deregulated in 1995, barriers to entry form an ill-conducive environment for the sector's growth. For instance, Public Telecommunications Entities³ need to secure a legislative franchise from Congress and a Certificate of Public Convenience and Necessity from the National

³ Public Telecommunications Entities is a legal term used in the Philippines that refers to "any person, firm, partnership or corporation, government or private, engaged in the provision of telecommunications services to the public for compensation (RA 7925, Philippines, 1995)."

Telecommunications Commission before they are allowed to operate. In addition, the lack of local loop unbundling poses high infrastructure costs for new entrants.

- ***The infrastructure gap on both Information and Communications Technology (ICT) and transportation is also a key concern affecting online sales and transactions (pillar 11).*** Essential services to remote areas rely on a dependable and affordable ICT service, which the Philippines does not have. Moreover, developing the transportation sector remains important, even if transactions occur digitally, because the actual product still needs to go through logistics services in order to be delivered, and logistics is affected by the quality of transportation infrastructure.
- ***Given all of these findings, this study finds that the country generally has an open policy environment for digital trade.*** This suggests that the country is ready for digital trade integration with the Asia-Pacific. However, the proper implementation of some of these policies has not been fully achieved, and this could be a great obstacle or challenge to regional integration.

How ready are we? Measuring the Philippines' readiness for digital trade integration with the Asia-Pacific

**Francis Mark A. Quimba, Sylwyn C. Calizo Jr., Jean Clarisse T. Carlos,
and Jose Ramon G. Albert⁴**

I. Introduction

The rapid rise of digital technology has created a global market that is more seamless than the traditional brick-and-mortar models of the past. This is especially true for digitizable products and digitally-deliverable services that can reach consumers almost anywhere else in the world for as long as they are connected to the internet. This development has, however, brought forth new issues, such as adequately enforcing Intellectual Property Rights (IPRs), protecting businesses through safe harbor provisions, or ensuring that consumers' data privacy is kept intact and protected.

These new issues are not only domestic concerns but are also, more importantly, regional concerns as well. Ensuring that digital trade within the region is sufficiently integrated is essential because this would allow smoother transactions among trading partners and enable stronger digital growth and innovation for all involved.

In the Philippines, digital trade, in the context of electronic commerce,⁵ was recognized as an important economic growth driver when the Philippine E-Commerce Roadmap (PECR) launched in 2016.⁶ The PECR identified six key areas that the Philippines needed to improve in order to facilitate better growth in electronic commerce and these areas include infrastructure, Foreign Direct Investment (FDI), innovation, intellectual capital, information flows, and integration.

One of the PECR's key messages about integration is that: "electronic commerce enables domestic industries and enterprises to integrate into global value chains and to directly access the global market. [It is, therefore,] an equalizer as it will enable even Micro, Small, and Medium Enterprises (MSMEs) to directly penetrate the global market [Philippines, Department of Trade and Industry (DTI), 2016]."

⁴ Senior Research Fellow, Research Specialist, Project Evaluation Officer III (Philippine APEC Study Center Network), and Senior Research Fellow, respectively, from the Philippine Institute for Development Studies. This paper was funded by the United Nations Economic and Social Commission for Asia and the Pacific. Any mention of a firm, product, service, or licensed process does not imply endorsement or criticism by either the United Nations or by the Philippine Institute for Development Studies.

⁵ In this paper, digital trade and electronic commerce will be considered synonymous.

⁶ The PECR's implementation ended in 2020, so crafting an updated strategic plan was announced in 2020. As of April 2020, the PECR 2022 focuses on Security, Speed, and Structure that results in Sales. Additional information about the PECR 2022 can be found here: <https://ecommerce.dti.gov.ph/ecommerce-philippines-2022/ecom-phl-2022/>. Accessed on 20 March 2021.

The Philippines strongly supports the development of MSMEs because this sector accounts for 99.5 per cent of establishments in the country and employs 62.4 per cent of the workforce.⁷ However, Quimba and Calizo (2019) found that the average adoption rate of electronic commerce among Philippine establishments is just 14.1 per cent in 2015. In the same year, micro-, small-, and medium-sized enterprises reported adoption rates of only 6.2, 14.6, and 13.4 per cent, respectively. These low adoption rates signal that Philippine establishments are unable to fully participate in digital trade, primarily because of these top three bottlenecks: preference to maintain their current business model (i.e., brick-and-mortar); security and privacy concerns; and, unreliable internet connection – of which the last two are key areas of concern for digital trade integration.

Electronic commerce though is not the only reason that the Philippines should pursue digital trade integration. According to Google, Temasek, and Bain (2020), the Philippines' digital economy slightly grew from US\$7.1 billion in 2019 to \$7.5 billion in 2020. In fact, Albert (2020), who used the National Information and Communications Technology (ICT) Household Survey, reported that, in 2019, Filipinos spent roughly 15.5 billion Philippine Pesos (PhP) on online purchases, which is approximately \$310.0 million – a third of this was spent on clothing, a fifth on household goods, and a tenth on electronics and cosmetics. He also found that Filipinos earned an average monthly income of about \$90.0 doing online selling. The most common products sold online were clothing, cosmetics, and food. All of these illustrate an active digital economy in the Philippines that could benefit from regional digital trade integration.

The Philippines' active digital economy also complements its role as a net exporter of digitally-deliverable services, which reached a value of \$13.6 billion in 2019 (see Table 1). This is actually equivalent to 3.6 per cent of 2019 Gross Domestic Product (GDP). Serafica, Quimba, and Cuenca (2020) reported that the key sector driving Philippine services exports is Information Technology and Business Process Management (IT-BPM), which is included in the category: technical, trade-related, and other business services. In fact, the Philippines is considered as a strong competitor against India for the provision of voice-related services, and the Philippines is also quickly becoming a global provider of non-voice services.

Table 1

Philippine trade in digitally-deliverable services by sector

(Millions of United States dollars)

	2015	2016	2017	2018	2019
Insurance and pension services	(778.52)	(1 268.53)	(1 416.61)	(1 378.65)	(1 479.09)
Financial services	(36.51)	(164.26)	(268.41)	(287.35)	(524.02)
Telecommunications services	(117.83)	36.51	20.12	263.62	(133.60)
Computer services	2 822.34	4 802.47	4 797.19	4 729.12	4 697.29
Information services	(16.47)	(17.30)	(30.66)	(44.09)	50.04
Research and development	56.55	25.34	9.69	41.32	52.84
Professional and management consulting services	(86.59)	(65.54)	(142.55)	(154.95)	(152.67)
Technical, trade-related, and other business services	12 469.78	10 254.24	10 728.83	12 138.77	11 902.23
Audiovisual and related services	17.65	13.60	(9.84)	(29.57)	(12.80)
Total	13 728.98	13 079.61	12 953.27	14 405.32	13 595.38

Source: United Nations Conference on Trade and Development (UNCTAD) as cited by Serafica, Quimba, and Cuenca (2020)

⁷ Based on the Philippine Statistics Authority's 2019 List of Establishments. Additional statistics about MSMEs can be found here: <https://www.dti.gov.ph/resources/msme-statistics/>. Accessed on 20 March 2021.

The importance of electronic commerce in internationalizing Philippine MSMEs, the country's active digital economy, and the Philippines' strong position as a net exporter of digitally-deliverable services are reasons enough to pursue better regional digital trade integration.

A. About the project

Focusing on regional integration, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) commissioned the Philippine Institute for Development Studies (PIDS) to contribute to their project titled "Measuring, monitoring, and improving performance in regional integration within ECA, ESCWA, and ESCAP regions." This project aims to strengthen the capacity of selected developing countries to measure, monitor, and improve their performance in regional integration within Africa, Western Asia, and the Asia-Pacific.

This study assesses the Philippines' readiness for regional digital trade integration with the Asia-Pacific by providing an analytical overview of the Philippines' digital trade environment. This report also serves as a guide to crafting the Philippines' National Action Plan for digital trade integration with the Asia-Pacific.

B. Objectives of the study

This study analyzes the Philippines' performance in integrating its digital trade with the Asia-Pacific region. To achieve this general objective, this study did the following:

1. Utilize the United Nations Economic and Social Commission for Asia and the Pacific's (UNESCAP) Regional Digital Trade Integration Index (RDTII)⁸ to measure the Philippines' readiness for integrating itself with the Asia-Pacific region;
2. Explore the Philippines' involvement in international collaborations for digital trade integration; and,
3. Recommend policy interventions in areas critical for regional digital trade integration.

II. Why is Regional Digital Trade Integration Worth Pursuing by the Philippines?

A. Digitalization is quickly transforming how the world trades

Digitalization and the rise of the digital economy has influenced how countries trade. In fact, the World Trade Organization (WTO, 2018) recognizes that digitalization has already transformed and is continuing to shape how the world trades, who trades, and what is traded. This transformation can influence trade costs and international trade, but the differences in the levels of regulation across economies and the digital divide experienced in different regions prevent economies from fully taking advantage of the opportunities created by this

⁸ For more information about UNESCAP's RDTII, see: <https://www.unescap.org/projects/dtra>. Accessed on 01 June 2021.

transformation. Thus, it is important that governments learn not only how to reap the benefits that digitalization creates but also how to resolve critical issues, such as access to the digital economy and the protection of privacy, to name a few.

Reaping the benefits of digitalization is in the interest of governments because digital trade actually drives sustained economic growth, so the government's role as a regulator and enabler of digital trade is important. However, Ferracane, Lee-Makiyama, and van der Marel (2018) reported that emerging economies actually exhibited high levels of restriction in digital trade. This can be alarming because restrictive regulatory environments can hamper growth in not only digital trade itself but also in several non-digital sectors.

It is reasonable then that governments in emerging economies should explore easing their restrictions on digital trade because, as Cheng and Brandi (2019) has explained, digitalization is already transforming the global economy and redefining trade in the world. However, from a global perspective, digital trade policies may be influenced by the countries⁹ most restricted in digital trade as these affects nearly half of the world's population (Ferracane, Lee-Makiyama, and van der Marel, 2018).

Meanwhile, by exploring how globalization is changing, Briones and others (2019) adds that the rise in digital technology may actually result in a virtuous cycle of regional integration. For instance, with regional integration's promise of free movement of goods, digital products would be more accessible to both consumers and businesses, thereby improving consumer welfare and competition.

At the same time, better access to digital products could also result in the digitization of trade procedures facilitating regional integration. In fact, WTO members have already discussed how trade policies and rules should adapt to address this digital transformation. As of December 2020, a total of 86 WTO Members (accounting for more than 90.0 per cent of global trade) participated in a Joint Statement Initiative (JSI, 2020) convened by Australia, Japan, and Singapore. The JSI covers a wide range of themes, including: enabling electronic commerce; openness and electronic commerce; trust and electronic commerce; cross-cutting issues; telecommunications; market access; and scope and general provisions.

To support the Philippines' participation in the JSI, DTI has been conducting consultation workshops with stakeholders in order to discuss issues related to digital trade. Examples would include the World Economic Forum's (WEF) Virtual Workshop on Dataflows held in November 2020 and the Stakeholder Consultation on Source Code and Algorithm held on 16 December 2020.¹⁰ Various government agencies were also consulted on the proposed WTO Joint Statement on Electronic Commerce. These consultation workshops allowed stakeholders to voice their perspectives on the different issues related to digital trade.

Another important issue regularly discussed in the WTO is the idea of banning tariffs on electronic transmissions. This idea originated at the WTO's Ministerial Conference in Geneva back in May 1998 when WTO Members first declared that they would "continue their current practice of not imposing customs duties on electronic transmissions (WTO, 1998)." In December 2019, the WTO's General Council Decision continued to uphold this declaration until the 12th Ministerial Conference (WTO, 2019).

⁹ In decreasing order of digital restrictiveness, these countries are China, Russia, India, Indonesia, Viet Nam, Brazil, Turkey, Argentina, France, and Thailand.

¹⁰ This study's authors were able to participate in these workshops led by the DTI.

In 2020, the Coronavirus Disease of 2019 (COVID-19) pandemic has thrown into sharp focus the importance of digital connectivity in daily life (WEF, 2020). For instance, office employees adapted to using remote work programs to remain productive while teachers had to learn how to effectively teach using virtual classrooms – at times at the difficulty of unreliable internet connection or lack of material access. The COVID-19 pandemic may have also accentuated the already existing digital divides in the region.

B. Regional trade agreements are getting deeper

Given all of these developments, regional cooperation, in the context of digital trade integration, is not only worth pursuing but is also an important initiative to undertake. Regional digital trade integration in the era of the new industrial revolutions and rapid digitalization is, however, made highly complex by new issues, such as cross-border data flows, IPR enforcement, and consumer protection in online transactions, among similar others. “Every industry-standard, investment rule, and technical agreement that is addressed requires not only significant expertise but also considerable time and effort from all parties involved. Overseeing this complexity and doing it at the speed of the Fourth Industrial Revolution, especially with the demands of the post-pandemic “new normal,” requires a new approach to organizing regional integration efforts (ADB and WEF, 2017, p.4).”

In understanding this possibly new approach, Mitchell and Mishra (2020, p.1) proposed a description of digital trade integration by stating that it is “a complex, multidimensional process that involves the integration of regulatory structures, policies, digital technologies, and businesses along with the entire global or regional value chain.” The integration would be manifested in the free cross-border movement of digital services, products, and technology, including manufactured goods, capital, ideas, and talent. It would also be manifested in the presence of an integration of both physical and virtual infrastructures in the region. To achieve this, digital trade integration would involve the removal of digital trade barriers, the integration of technology, and the coordination of both laws and policies.

One of the ways to pursue digital trade integration is to enter regional trade agreements that are deep,¹¹ which means that its scope is not only about trade but is also about emerging issues, such as the environment, foreign investments, and cross-border data flows, to name a few. Serafica, Quimba, and Cuenca (2020) narrated that electronic commerce provisions, which are important for digital trade, have been increasingly incorporated into recent regional trade agreements. Prominent examples of these provisions include promoting electronic commerce, cooperation, and the moratorium on custom duties. Other frequently included provisions are definitions, consumer protection, electronic authentication, paperless trading, personal information protection, and domestic legal frameworks. However, several of these provisions only require parties to exert their “best effort,” which are, in the end, not subject for dispute settlements.

Primary examples of deep regional trade agreements in the Asia-Pacific are the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP). The former has already been in force since

¹¹ To address the new issues brought about by digitalization, new forms of economic engagement and digital trade have emerged, such as the Digital Economy Partnership Agreement (first signed by Chile, New Zealand, and Singapore) and other deep trade agreements.

December 2018 (Panda, 2018) whereas the latter is still pending the ratification of six Member States of the Association of Southeast Asian Nations (ASEAN) and three non-ASEAN Member States.¹²

On the one hand, Serafica, Quimba, and Cuenca (2020) mentioned that the CPTPP contains “a relatively complete set of provisions on data movement [and local storage],” which can be found in Arts. 14.10 and 14.13, respectively. Art. 14.3 of the CPTPP also provides a moratorium on custom duties for “electronic transmissions, [but it] shall not preclude a Party from imposing internal taxes or other charges on content transmitted electronically, provided that [it is] in a manner consistent with [the CPTPP].”

On the other hand, RCEP contains a chapter for Intellectual Property (IP) and for electronic commerce (ASEAN Secretariat, 2020). The former upholds the usual provisions on IP, such as copyright, trademarks, geographical indications, patents, industrial designs, and unfair competition. Notably, there is a separate subsection specifically calling for effective action against infringement in the digital environment.

Meanwhile, RCEP’s chapter for electronic commerce features provisions on paperless trading, electronic authentication, electronic signatures, online consumer protection, location of computing facilities, and cross-border transfers of information by electronic means, among others. Similar to the CPTPP, RCEP also upholds the moratorium on customs duties on electronic transmissions between Parties.

C. The Philippines is in a good position to pursue regional digital trade integration

At least two indexes exist that can help countries assess their overall position in digital trade integration. The first is the UNESCAP’s (United Nations, 2020) Digital and Sustainable Regional Integration Index (DigiSRII) and the second is the European Centre for International Political Economy’s (ECIPE) Digital Trade Restrictiveness Index (DTRI, Ferracane, Lee-Makiyama, and van der Marel’s, 2018).

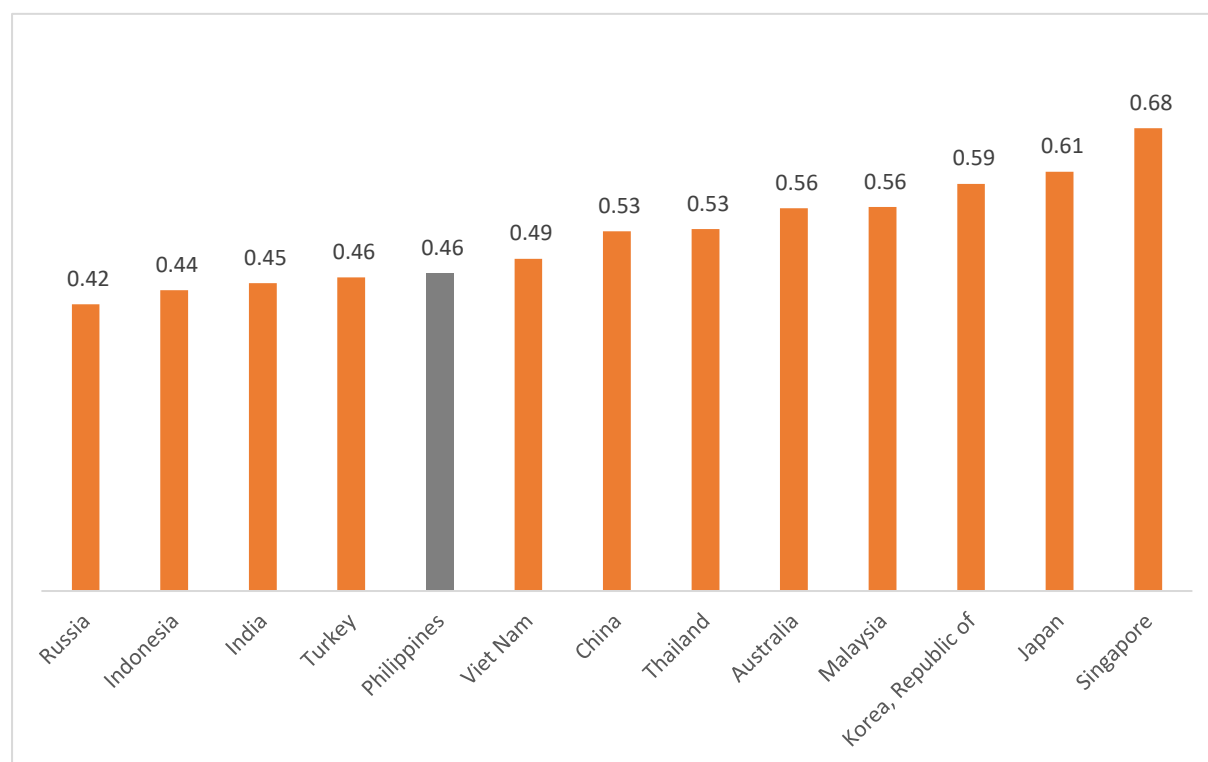
The DigiSRII is “an attempt to bring together the various dimensions of regional integration while also accounting for the growing importance of digital and sustainable development (United Nations, 2020, p.ii).” There is a total of seven core dimensions that helps the DigiSRII measure a country’s performance on regional integration and these dimensions are: (1) trade and investment integration; (2) financial integration; (3) regional value chains integration; (4) infrastructure integration; (5) the movement of people; (6) regulatory cooperation; and, (7) digital economy integration.

A distinct feature of the DigiSRII is that each of the seven core dimensions contain two sets of indicators: one for conventional integration and another for sustainable integration. The latter broadens the DigiSRII’s usefulness by allowing it to measure how countries are pursuing regional integration sustainably by addressing issues related to inclusivity and environmental protection, among others.

¹² As of March 2021, only China has ratified RCEP (Zhou, 2021).

Figure I shows the overall DigiSRII scores¹³ for 13 Asia-Pacific countries in 2017. Singapore is the most regionally integrated country with a score of 0.68, while Russia is the least integrated with a score of 0.42. The Philippines scored 0.46, which is 0.22 points lower than neighboring Singapore. The Philippines' score is also lower than fellow ASEAN Member States Malaysia, Thailand, and Viet Nam. In ASEAN, the Philippines outperformed only Indonesia, which had a slightly lower score of 0.44.

Figure I
Overall DigiSRII scores for selected Asia-Pacific countries in 2017
(Units)



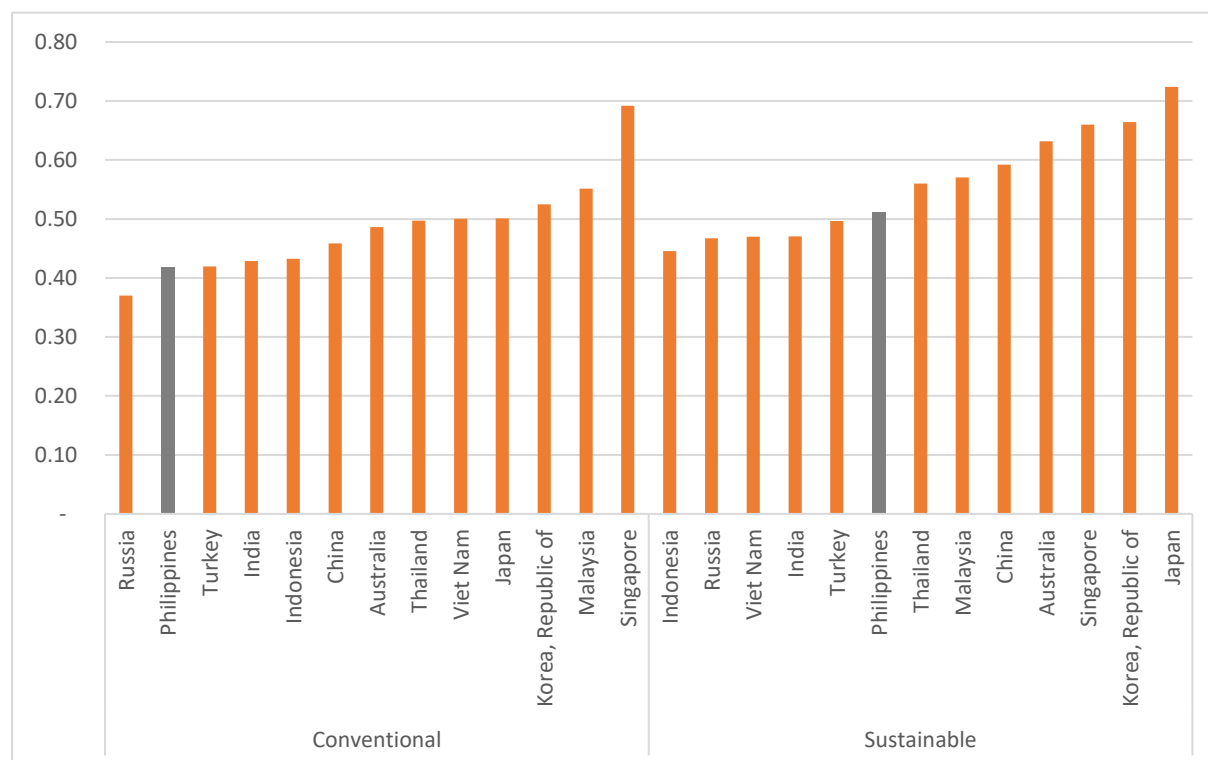
Source: UNESCAP DigiSRII 1.0 database available at <https://www.unescap.org/resources/DigiSRII>. Accessed on 22 March 2021.

Note: Scores are interpreted as 0 (not integrated) and as 1 (integrated).

Meanwhile, looking at the DigiSRII's key feature of distinguishing sustainable integration from a conventional integration shows some interesting observations (see Figure II). For instance, in 2017, Japan has outranked all other countries when it comes to sustainable integration even though Japan has a lower performance in conventional integration. A similar observation can be made for the Philippines, which had a better performance in sustainable integration than it did in the conventional one. This suggests that the Philippines, like Japan, emphasizes on sustainably integrating itself in the region.

¹³ The DigiSRII methodology follows a score ranging from 0 (not integrated) to 1 (integrated).

Figure II
Conventional and sustainable integration DigiSRII scores for selected Asia-Pacific countries in 2017
 (Units)



Source: UNESCAP DigiSRII 1.0 database available at <https://www.unescap.org/resources/DigiSRII>. Accessed on 22 March 2021.

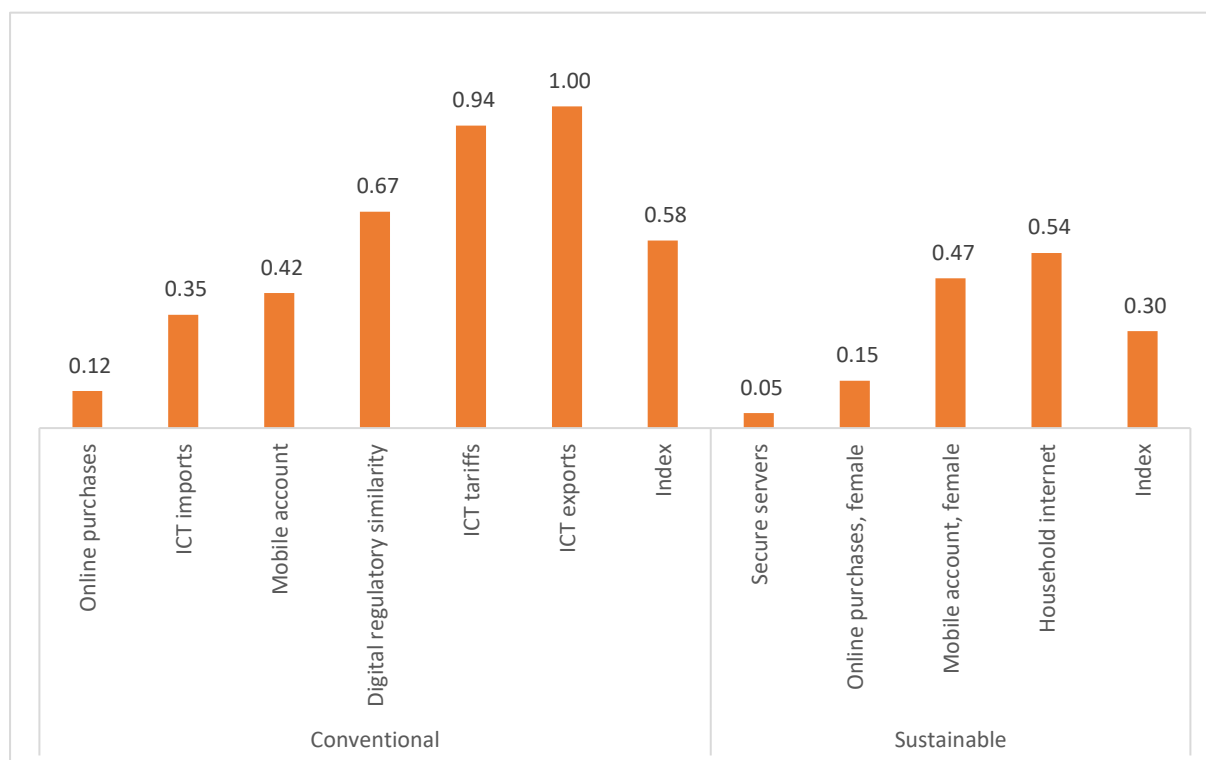
Note: Scores are interpreted as 0 (not integrated) and as 1 (integrated).

Focusing on the DigiSRII's digital economy integration dimension shows that, for the Philippines in 2017, it is integrated in a more conventional way than it is sustainably (see Figure III). In fact, the conventional integration index is 0.28 units higher than the sustainable integration index. With regard to conventional integration, the Philippines is already highly integrated in both ICT exports and ICT tariffs but lags behind in online purchases. Interestingly, the Philippines' digital regulatory similarity with other countries is at 0.67, which could be regarded as relatively high. As for sustainable integration, the Philippines has performed well on female mobile accounts and household internet, but it is alarmingly performing poorly on secure servers.

Complementing the DigiSRII is the DTRI that “[provides] transparency of applied digital trade restrictions and sheds light on how countries compare with each other [based on how costly each country's policies are on digital trade] (Ferracane, Lee-Makiyama, and van der Marel, 2018, p.5).” The DTRI is especially useful for describing a country's openness for digital trade because it assesses a country's policies on the basis of three important considerations, namely that it should be: discriminatory of foreign providers; discriminatory of digital providers; and, excessively burdensome to the point that it becomes trade-distortive to achieve non-economic objectives, such as national security or environmental conservation.

Figure III

Conventional and sustainable integration DigiSRII scores in digital economy integration for the Philippines in 2017
(Units)



Source: UNESCAP DigiSRII 1.0 database available at <https://www.unescap.org/resources/DigiSRII>. Accessed on 22 March 2021.

Note: Scores are interpreted as 0 (not integrated) and as 1 (integrated).

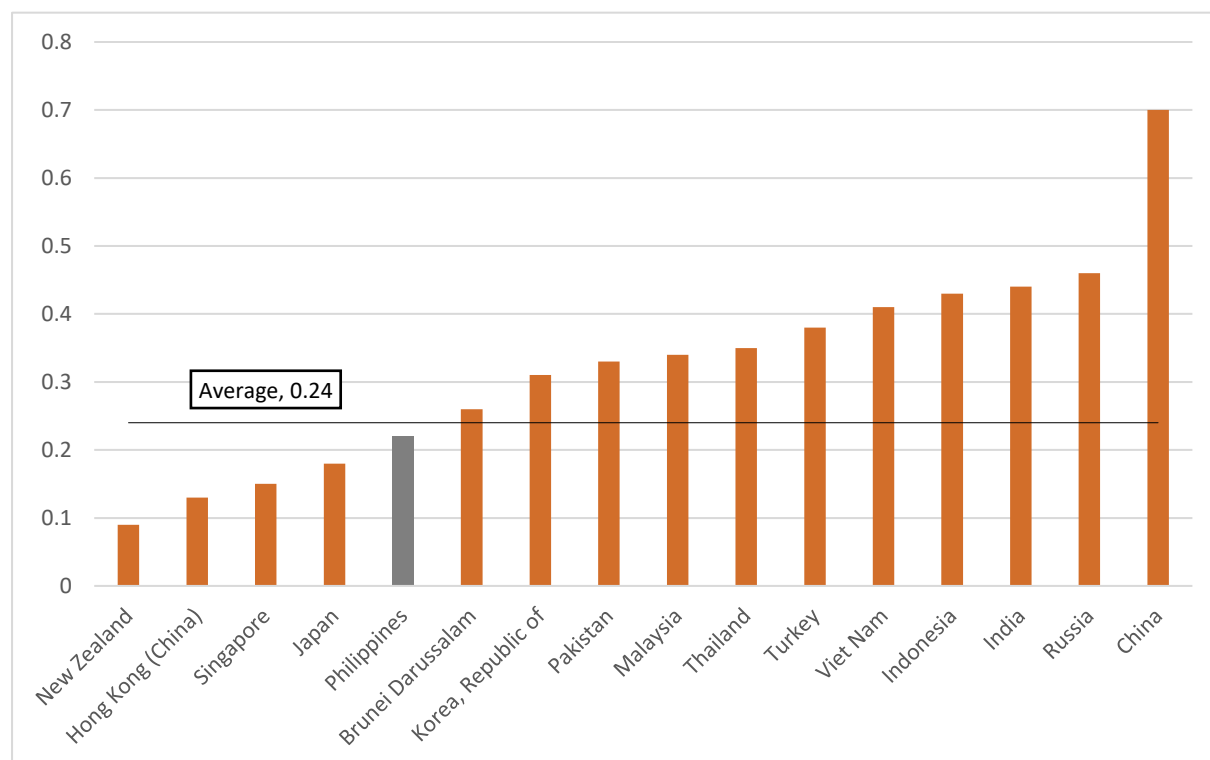
Figure IV shows that, among the 16 Asia-Pacific countries included in Ferracane, Lee-Makiyama, and van der Marel's (2018) study, the Philippines' places below the average with an overall score of 0.22.¹⁴ This makes the Philippines a relatively open country when it comes to digital trade. In comparison, fellow ASEAN Member States Indonesia, Malaysia, Thailand, and Viet Nam are placed at the more restrictive end of the spectrum. Notably, China tops the group as the most restrictive country on digital trade, whereas Brunei Darussalam, the Philippines, and Singapore are among ASEAN's open countries.

The DTRI actually contains more than 100 categories of policy measures that can be grouped into four clusters, namely:

1. Fiscal restrictions and market access, which includes tariffs and trade defense, taxation, subsidies, and public procurement;
2. Establishment restrictions, which includes foreign investment restrictions, IPR, competition policy, and business mobility;
3. Restrictions on data, which includes data policies, intermediary liability, and content access; and,
4. Trading restrictions, which includes quantitative trade restrictions, standards, and online sales and transactions.

¹⁴ The DTRI methodology follows a score ranging from 0 (completely open) to 1 (virtually restricted). It is worth noting that the score interpretation for DigiSRII and for the DTRI is reversed even though the range is the same.

Figure IV
Overall DTRI score for selected Asia-Pacific countries in 2018
 (Units)

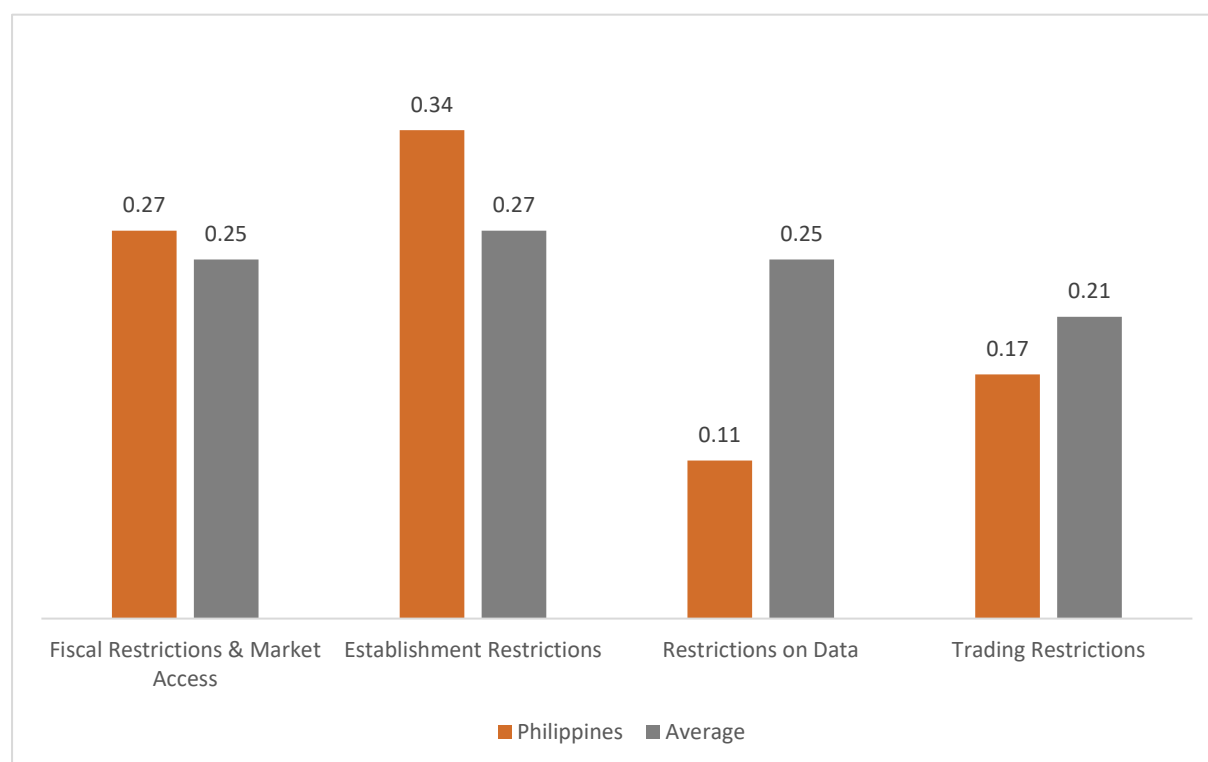


Source: Ferracane, Lee-Makiyama, and van der Marel (2018)

Note: Scores are interpreted as 0 (completely open) and as 1 (virtually restricted)

Probing deeper on these clusters, Figure V shows that the Philippines is actually more restrictive than the average when it comes to establishment restrictions, and fiscal restrictions and market access. Against the average, the former is 0.07 units higher while the latter is slightly above by just 0.02 units. The idea embodied in the DTRI is to continue liberalizing policies and easing regulations in order to promote more digital trade openness, so the Philippines' policies on foreign investment, IPR, competition, and business mobility needs to be reviewed since these are the components related to establishment restrictions. Meanwhile, the Philippines has a strong performance in the clusters for restrictions on data and for trading restrictions, which are below the average by 0.14 and 0.04 units, respectively.

Figure V
DTRI scores for the Philippines in 2018, by cluster
 (Units)



Source: Ferracane, Lee-Makiyama, and van der Marel (2018)

Note: Scores are interpreted as 0 (completely open) and as 1 (virtually restricted)

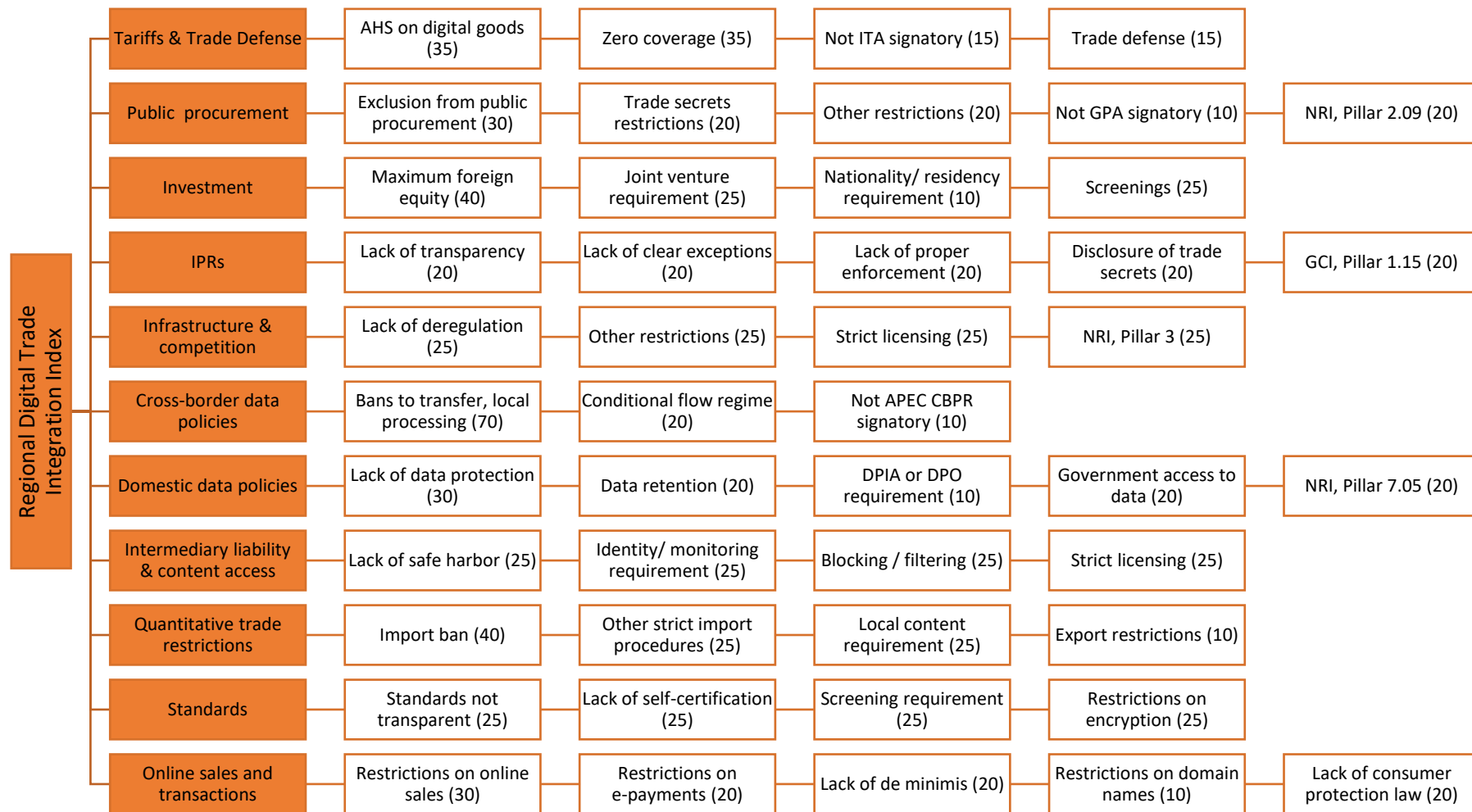
III. Methodology

A. The Regional Digital Trade Integration Index

This study adopts the RDTII framework, which is a specialized regional index developed from ECIPE's DTRI (Ferracane, Lee-Makiyama, and van der Marel's, 2018). Shown in Figure VI, the RDTII is similar to the DTRI's clusters, but the RDTII was modified to capture regional integration perspectives in the Asia-Pacific region. The RDTII does this by assessing an economy's readiness for digital trade integration using 11 pillars and 48 sub-pillars. "Digital trade integration is enabled by lower barriers for digital trade and higher levels of network openness,"¹⁵ which is why there are sub-pillars exploring not just traditional barriers, such as tariffs, but also the presence of enablers affecting connectivity, such as cross-border data policies.

¹⁵ As explained by Ferracane during the ESCAP-OECD Initiative on Digital Trade Regulatory Analysis, which the authors participated in. For brevity, this workshop will henceforth be referred to as just the "ESCAP-OECD workshop." For more about this workshop, see: <https://www.unescap.org/projects/dtra>. Accessed on 01 June 2021.

Figure VI
RDTII framework
 (Percentage Weight in Parentheses)



Source: Based on Ferracane's personal guidance during the ESCAP-OECD workshop. This framework is accurate as of 26 May 2021.

To ensure objectivity, the RDTII followed the DTRI's criteria (Ferracane, Lee-Makiyama, and van der Marel's, 2018) that can help researchers determine whether a policy, practice, or any similar provision should be included in the RDTII framework's measurement, namely:

1. It creates a more restrictive regime for online trade versus offline trade;
2. It implies a different treatment between domestic and foreign providers of digital goods or services; and,
3. It applies in a manner that is excessively burdensome (i.e., measures that are trade-distortive to achieve a non-economic objective).

Each entry in the RDTII gets a score that goes from 0 (not restricted) to 1 (most restricted). These scores are then used to compute for a pillar's average score, bearing in mind the different weights¹⁶ that each sub-pillar carries. It is important to note that while an individual pillar's score is computed as a weighted average of its sub-pillars, the RDTII overall score is computed as a simple average of all the pillars. This means that the RDTII does not discriminate on the impact of traditional barriers and enablers affecting connectivity.

B. Sources of data

This study builds on UNESCAP's initial exploration of policies, regulations, and practices in the Philippines that are relevant to digital trade by creating a time series (2015, 2018, and 2020) and by supplementing it through an in-depth analysis of the Philippines' readiness for regional digital trade integration. Expanding the RDTII analysis was accomplished by conducting a comprehensive review of primary texts and secondary reports from reliable institutions, such as the United States Trade Representative (USTR), namely:

1. Executive Documents
 - a. Presidential Decrees
 - b. Executive Orders (EO)
 - c. Department Orders / Circulars
 - d. Memorandum Circulars
 - e. Regulatory Opinions
2. Legislative Documents
 - a. 1987 Philippine Constitution
 - b. Republic Acts (RA)
 - c. House Bills
 - d. Senate Bills
3. Supreme Court Rulings
4. International treaties and agreements
5. Secondary reports from reliable institutions

¹⁶ The weights were determined by UNESCAP through global expert reviews. Thus, the weights are not contextualized to the Philippine experience.

Complementing these readings are consultation workshops designed to validate and to verify the accuracy of the study's assessment. The workshops invited representatives from both the private and the public sectors, particularly:

1. Foreign private sector, which includes Chambers of Commerce and Industry, and multinational companies;
2. Domestic private sector, which includes industry associations, business groups, and industry specialists; and,
3. Public sector, which includes key Departments and their attached agencies, Congress, and independent government bodies.

The consultation workshops, held in April 2021, were participated in by 29 institutions and offices, which were represented by a total of 23 males and 15 females (see Table 2). The consultation resulted in 38 key messages about competition, cybersecurity, and cross-border telebanking, among several others (see Appendix 1).

Table 2
Stakeholder participation, by sector and sex
(Number)

<i>Indicator</i>	<i>Institutions/ Offices^a</i>	<i>Representatives</i>		<i>Sub-Total</i>
		<i>Male (% to total)</i>	<i>Female (% to total)</i>	
Participants	29	23 (60.5%)	15 (39.5%)	38
Foreign Private ^b	4	4 (66.7%)	2 (33.3%)	6
Domestic Private ^b	11	10 (76.9%)	3 (23.1%)	13
Government ^c	14	9 (47.4%)	10 (52.6%)	19

Source: Authors' compilation based on the consultation workshops conducted

^a Divisions, such as departments and bureaus, are counted as a separate institution/office

^b Private sector stakeholders are anonymized per PIDS Data Privacy Policy

^c See Appendix 1 for the list of public sector participants

IV. Results and Discussion

A. Measuring the Philippines' readiness for digital trade integration

This section presents the Philippines' performance in each of the RDTII pillars following the in-depth analysis of laws, regulations, and jurisprudence surrounding them¹⁷ as well as insights gained from the consultation workshops with key stakeholders. A useful way to facilitate an intuitive understanding and discussion of these scores is by introducing categorical descriptions, namely:

1. Non-Restrictive (0.00-0.20), which means that these pillars or sub-pillars are already highly liberalized or integrated with the region;
2. Slightly Restrictive (0.21-0.40), which refers to pillars where restrictions were found but these are not really trade-distortive to the extent that it adversely affects regional digital trade integration;
3. Restrictive (0.41-0.60), which pertains to pillars where the restrictions are already trade-distortive in a way that it adversely affects regional digital trade integration;

¹⁷ Appendix 2 provides a compilation of relevant laws, regulations, and jurisprudence affecting each RDTII pillar.

4. Strongly Restrictive (0.61-0.80), which means that these pillars contain restrictions that are not only trade-distortive but also discourage or undermine possible attempts for regional digital trade integration; and,
5. Most Restrictive (0.81-1.00), which refers to pillars that exhibit a virtually closed environment.

Using these categories, Table 3 shows that the Philippines' policy and regulatory environment for digital trade can be characterized as being relatively open. The Philippines' overall RDTII score has remained relatively unchanged in the last five years, and in 2020, the Philippines reported an overall score of 0.342. Noticeably, 3 of the 11 pillars reported a score that is practically close to zero. These include pillars 1, 6, and 8, which can be described as non-restrictive. Meanwhile, three pillars reported scores that can characterize it as being strongly restrictive and these are pillars 2, 3, and 5.

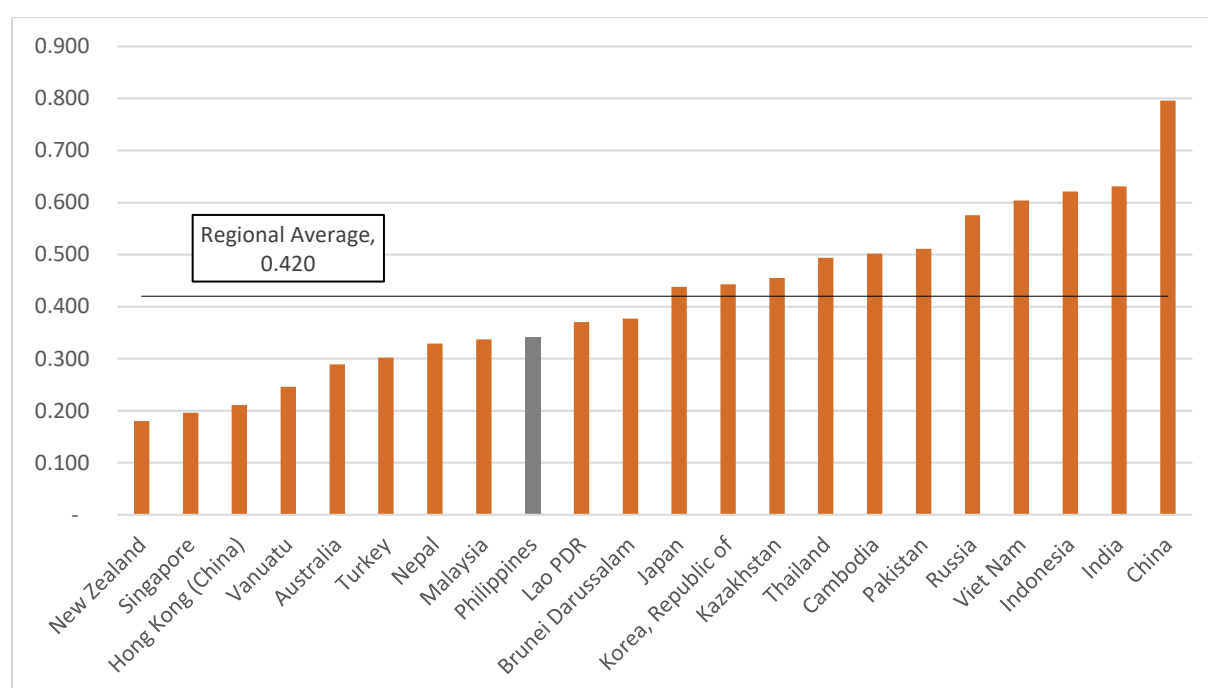
Table 3
Overall RDTII scores in the Philippines from 2015 to 2020 by pillar
(Units)

	2015	2018	2020	Remarks
1. Tariffs and trade defense measures applied on intraregional imports of ICT-related goods	0.006	0.005	0.003	Non-Restrictive
2. Public procurement related to digital goods and services	0.745	0.751	0.751	Strongly Restrictive
3. Foreign direct investment in sectors relevant for digital trade	0.625	0.625	0.625	Strongly Restrictive
4. Intellectual Property Rights	0.289	0.274	0.271	Slightly Restrictive
5. Telecommunications infrastructure and competition	0.604	0.620	0.620	Strongly Restrictive
6. Cross-border data policies	0.200	0.200	0.100	Non-Restrictive
7. Domestic policies on the use of data	0.365	0.363	0.363	Slightly Restrictive
8. Intermediary liability and content access	0.125	0.125	0.125	Non-Restrictive
9. Quantitative trade restrictions	0.125	0.350	0.350	Slightly Restrictive
10. Standards	0.250	0.250	0.250	Slightly Restrictive
11. Online sales and transactions	0.400	0.300	0.300	Slightly Restrictive
Overall RDTII score (simple average)	0.339	0.351	0.342	Slightly Restrictive

Source: Authors' calculation based on the RDTII methodology

In addition, Figure VII shows that the Philippines ranked as the ninth least restrictive economy from among all the 22 Asia-Pacific economies that were assessed in 2020.¹⁸ Leading the group is New Zealand with an overall score of 0.180, which is closely followed by Singapore (0.196). Meanwhile, China was reported as the most restrictive economy with an overall score of 0.796, which is preceded by India (0.631). Apart from rankings, it is also relevant to compare the Philippines' performance vis-à-vis the Asia-Pacific region (22 economies assessed). Compared against the Asia-Pacific regional average of 0.420, the Philippines has actually performed slightly better with an overall score of 0.342.

Figure VII
Overall RDTII scores in selected Asia-Pacific economies in 2020
(Units)



Source: Compilation by Ferracane during the ESCAP-OECD workshop (as of 02 May 2021)

Note: These scores are based on the national studies / assessments from the UNESCAP project to which this Philippine national study / assessment also belongs (see Chap. I, Sect. A of this report).

Meanwhile, Table 4 presents the Philippines' scores per RDTII pillar vis-à-vis the regional average in 2020. On average, the Asia-Pacific region has a non-restrictive policy and regulatory environment only for pillar 1, perhaps because of the region's tariff liberalization efforts in the past decades, whereas the region had slightly restrictive environments for pillars 9 and 10. Of greatest collective concern in the region is the strongly restrictive environment observed in pillar 8, which reached a score of 0.602 (the only pillar with practically a strongly restrictive environment).

Comparably, the Philippines performed better than the regional average for most pillars, except for pillars 2, 3, and 5 that exhibit strongly restrictive policy and regulatory environments.

¹⁸ As of 02 May 2021, the 22 Asia-Pacific economies assessed are: Australia; Brunei Darussalam; Cambodia; China; Hong Kong (China); Indonesia; India; Japan; Kazakhstan; Lao PDR; Malaysia; Nepal; New Zealand; Pakistan; the Philippines; the Republic of Korea; Russia; Singapore; Thailand; Turkey; Vanuatu; and, Viet Nam.

Interestingly, the Philippines' largest gap with the regional average is in pillar 8 where a gap of 0.477 was observed. In fact, the Philippines ranked as the second least restrictive economy (tied with Nepal) and bested only by New Zealand and Vanuatu that each scored 0.000 in pillar 8. This may suggest that the Philippines, alongside the three aforementioned economies, are sources for best practices in the region.

Table 4
Philippine scores vis-à-vis the regional average in 2020 by pillar
(Units)

	<i>Philippines</i>	<i>Regional average</i>
1. Tariffs and trade defense measures applied on intraregional imports of ICT-related goods	0.003	0.184
2. Public procurement related to digital goods and services	0.751	0.445
3. Foreign direct investment in sectors relevant for digital trade	0.625	0.459
4. Intellectual Property Rights	0.271	0.410
5. Telecommunications infrastructure and competition	0.620	0.499
6. Cross-border data policies	0.100	0.408
7. Domestic policies on the use of data	0.363	0.454
8. Intermediary liability and content access	0.125	0.602
9. Quantitative trade restrictions	0.350	0.356
10. Standards	0.250	0.297
11. Online sales and transactions	0.300	0.511

Source: Authors' calculation based on the compilation by Ferracane during the ESCAP-OECD workshop (as of 02 May 2021)

1. Pillar 1: Tariffs and trade defense measures applied on intraregional imports of ICT-related goods

One of the determinants that drive an economy's digitalization is market openness, which implies that pursuing digital integration requires lifting trade barriers. The Philippines has a non-restrictive policy environment for tariffs and trade defense measures applied on intraregional imports of ICT-related goods (see Table 5). Since 2015, the Philippines already reported practically a zero score in pillar 1.

Figure VIII shows the Philippines' effectively applied tariff rates on digital goods imported from the Asia-Pacific vis-à-vis ASEAN. Noticeably, the Philippines has gradually been decreasing its tariffs, and this has already gone below 0.1 per cent as of 2019. Moreover, the Philippines has generally imposed a lower tariff rate than ASEAN. For instance, tariff rates for digital goods¹⁹ imported from Asia-Pacific economies²⁰ have decreased from 0.16 in 2015 to 0.13 and 0.09 in 2018 and 2019, respectively. This suggests that the Philippines is already an open market for digital goods from the region.

¹⁹ The list of digital goods follows Lee-Makiyama (2011), which expanded the list of products identified in the WTO Information and Technology Agreements. Appendix 3 provides this list of digital goods.

²⁰ Appendix 4 provides the list of economies included in this study's assessment.

Table 5

RDTII pillar 1 scores in the Philippines from 2015 to 2020
(Units)

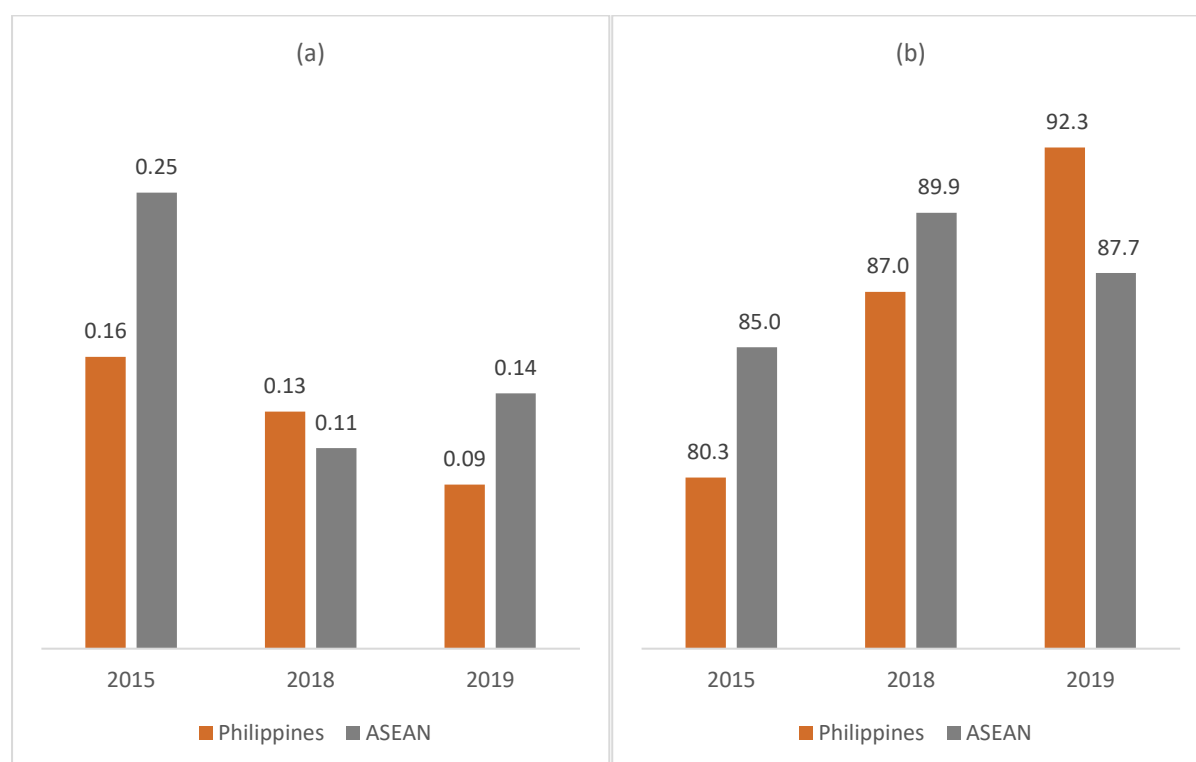
	2015	2018	2020	Remarks
1. Tariffs and defense measures applied on intraregional imports of ICT-related goods	0.006	0.005	0.003	Non-Restrictive
1.1 Effectively applied tariffs on digital goods (weighted average) imported from other Asia-Pacific economies	0.016	0.013	0.009 ^a	Non-Restrictive
1.2 Coverage rate of zero-tariffs on digital goods imported from other Asia-Pacific economies	0.000	0.000	0.000 ^a	Non-Restrictive
1.3 Not a signatory of Information Technology Agreement (ITA) I and ITA II	0.000	0.000	0.000	Non-Restrictive
1.4 Anti-dumping, countervailing duties, and safeguards on goods imported by other Asia-Pacific economies	0.000	0.000	0.000	Non-Restrictive

Source: Authors' calculation based on the RDTII methodology.

Note: Tariffs and coverage rates were computed using data downloaded from the World Integrated Trade Solution (WITS, data as of 5 January 2021).

^a Reported using 2019 data

Figure VIII

(a) Effectively applied tariff rates and (b) coverage rate of duty-free digital goods imported from the Asia-Pacific
(Percentage)

Source: UNCTAD TRAINS via the World Integrated Trade Solution (WITS, data as of 5 January 2021)

Note: Weighted average tariff rates

Similarly, the Philippines' coverage ratios of duty-free goods imported from the Asia-Pacific (computed as the number of free tariff lines divided by total tariff lines) reveal that it has steadily been increasing since 2015. In fact, it already crossed 92.0 per cent in 2019 (See Figure VIII). This is much higher than ASEAN's coverage rate in the same year. Both figures

demonstrate that the Philippines has already liberalized trade on digital goods imported from the Asia-Pacific.

Complementing these is the Philippines' participation to the WTO's Information Technology Agreement (ITA) of 1996 and the ITA II of 2015²¹ as well as the availability of trade remedies for anti-dumping, countervailing duties, and safeguards. The Philippines' accession to the WTO ITA I and ITA II commits the country to eliminating customs duties for all products identified in the agreement (see Table 6).

Table 6
Products identified in the Information Technology Agreements

<i>WTO Agreement</i>	<i>Included Products</i>
ITA of 1996	203 products, including: <ul style="list-style-type: none"> ▪ Computers; ▪ Telecommunication equipment; ▪ Semiconductors; ▪ Semiconductor manufacturing and testing equipment; ▪ Data storage media and software provided on physical media; ▪ Scientific instruments; and, ▪ Most of the parts and accessories of the products listed above.
ITA II of 2015 (expansion)	Additional 201 products, including: <ul style="list-style-type: none"> ▪ Electronic devices; ▪ Video games and consoles; ▪ Audiovisual/multimedia (e.g., GPS, DVD players, smart cards, and optical media); and, ▪ Machinery for the production of ICT goods and semiconductors.

Source: WTO (2017)

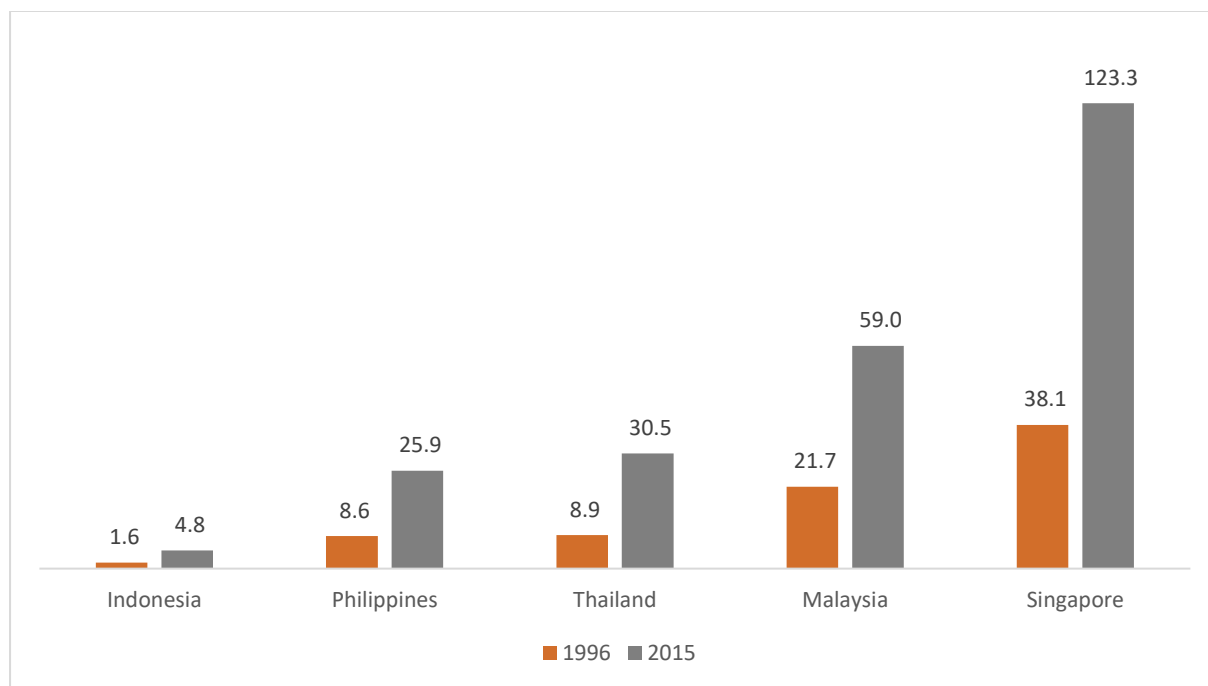
Both agreements allowed the Philippines to increase market access of ICT exports due to the elimination of tariffs in key export markets, such as the European Union, Japan, the Republic of Korea, Taiwan Province of China, and the United States of America. For instance, Figure IX shows that the Philippines' exports of ITA products grew from \$8.6 billion in 1996 to \$25.9 billion in 2015 (WTO, 2017). This means that the Philippines was able to triple its ITA exports, which made the Philippines the fourth largest exporter of ITA products among the ASEAN-5. Noticeably, Singapore's performance has been the most striking because it was able to more than triple its 1996 value in just two decades.

Similarly, Figure X shows that the Philippines' importation of ITA products grew from \$7.7 billion in 1996 to \$19.6 billion in 2015 (WTO, 2017). This means that the Philippines was able to more than double its ITA imports. Yet again, the Philippines ranked fourth among the ASEAN-5 and Singapore still had the best performance.

The Philippines also benefits from the lower tariff as most imported raw materials, intermediate goods, and capital equipment requirements of local manufacturers can be imported with zero tariffs. Moreover, participating in the ITA allows the Philippines to contribute to the continuing discussion on addressing Non-Tariff Barriers (NTBs) in the ICT sector and on expanding the coverage of the agreement to also cover products held under review (Philippines, DTI, 2018).

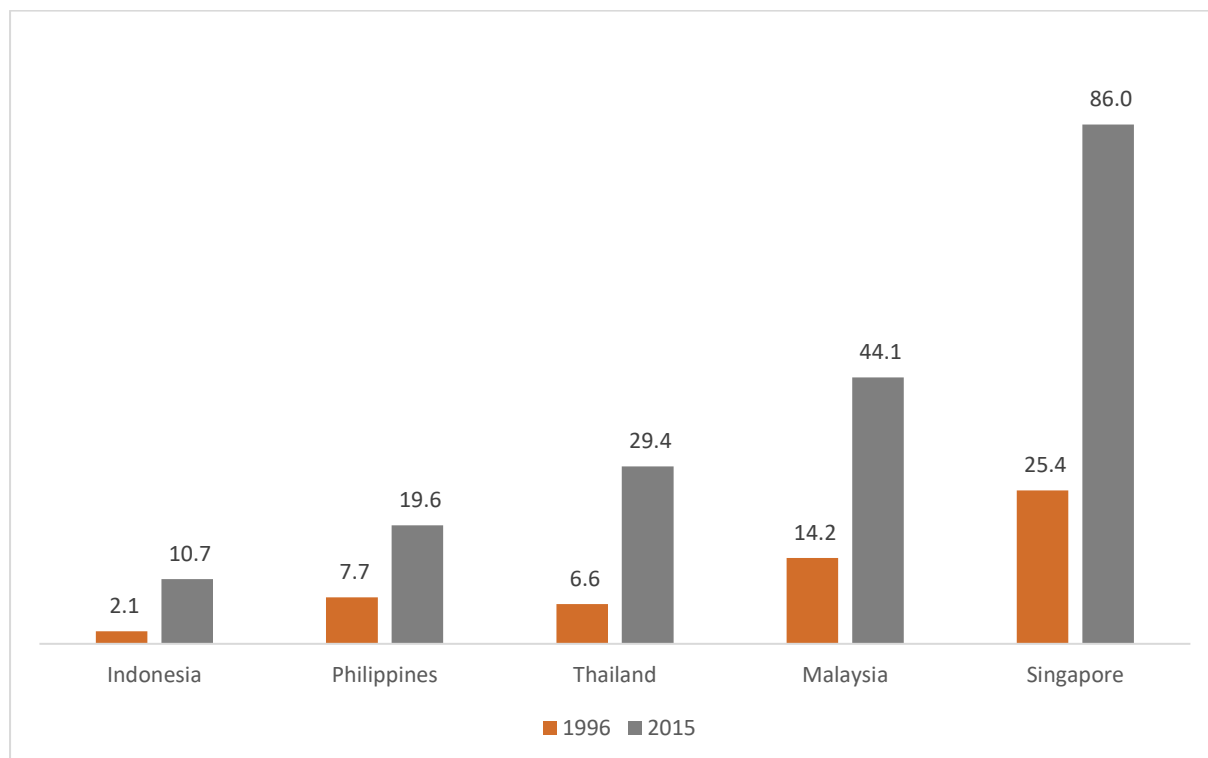
²¹ The WTO ITA II of 2015 is also known as the Ministerial Declaration on the Expansion of Trade in Information Technology Products, which was signed in 16 December 2015 at Nairobi, Kenya.

Figure IX
Exports of ITA products from the ASEAN-5 in 1996 and 2015
 (Billion United States dollars)



Source: WTO (2017)

Figure X
Imports of ITA products by the ASEAN-5 in 1996 and 2015
 (Billion United States dollars)



Source: WTO (2017)

Meanwhile, trade remedies in the Philippines' jurisdiction are granted through the Anti-Dumping Act of 1999 [RA 8752, Philippines, 1999a], the Safeguard Measures Act (RA 8800, Philippines, 2000a), and RA 8751 (Philippines, 1999b), which amended countervailing duties in the Tariff and Customs Code of the Philippines. In 2016, these three remedies were consolidated under the Customs Modernization and Tariff Act (RA 10863, Philippines, 2016a). Despite the availability of these measures, the Philippines has not raised any safeguard measures related to digital goods from 2015 to 2020.

2. Pillar 2: Public procurement on digital goods and services²²

As government expenditure is one policy instrument that the government can use to drive the economy, public procurement activities can have an impact on the development of digital trade. Table 7 shows that the Philippines' policy environment for public procurement of digital goods and services can be regarded as strongly restrictive because of its weighted score that is consistently at the border of 0.750. The consistency of the scores also suggest that improvements have not been pursued in at least the last five years, which means that this is a key area for policy intervention.

Public procurement in the Philippines is governed by the Government Procurement Policy Board (GPPB) in accordance with the Government Procurement Reform Act (RA 9184, Philippines, 2003a). One of the key issues identified for this pillar is the presence of highly discouraging policies affecting foreign bidders' participation in public procurement. RA 9184's 2016 Implementing Rules and Regulations (IRR, Philippines, GPPB, 2016) actually contains provisions discouraging for both foreign consultants and for foreign bidders.

Foreign consultants actually face two major blocks, namely: mandatory technology and knowledge transfer; and, the prohibition for them to directly render professional services. On the one hand, foreign consultants are required, under Sect. 4.4 of the 2016 IRR's Annex B, to transfer their technology and knowledge in order to be hired under public procurement, possibly covering patents and trade secrets. The exact provision states that "technology and knowledge transfer to the procuring entity shall be required in the provision of consulting services, where applicable (Philippines, GPPB, 2016, p.117)." This provision has been in place since the first IRR was released in 2003.

On the other hand, Sect. 24.3.2 of the 2016 IRR states that "when the types and fields of consulting services in which the foregoing persons/entities wish to engage involve the practice of professions regulated by law, those who will actually perform the services shall be Filipino citizens and registered professionals authorized by the appropriate regulatory body to practice those professions and allied professions (Philippines, GPPB, 2016, p.63)" This provision has already been in place since the first IRR in 2003 but were only affecting partnerships, corporations, and joint ventures. Notwithstanding, this provision in the 2016 IRR effectively prevents foreign consultants from directly providing their professional services.

²² For brevity, detailed information on the legal provisions affecting pillar 2 have been omitted from this section. Instead, Appendix 5 provides an extended assessment of public procurement for the interested reader.

Table 7

RDIII pillar 2 scores in the Philippines from 2015 to 2020
(Units)

	2015	2018	2020	Remarks
2. Public procurement related to digital goods and services	0.745	0.751	0.751	Strongly Restrictive
2.1 Exclusion of foreign firms from public procurement, including digital goods and services	0.500	0.500	0.500	Restrictive
2.2 Restrictions on source code, encryption, and trade secrets	1.000	1.000	1.000	Most Restrictive
2.3 Other restrictive practices (including local content requirements)	1.000	1.000	1.000	Most Restrictive
2.4 Not a signatory to the WTO Agreement on Government Procurement (GPA)	1.000	1.000	1.000	Most Restrictive
2.5 Government procurement of advanced technology products (NRI, Pillar 2.09)	0.476	0.506 ^a	0.506 ^a	Restrictive

Source: Authors' calculation based on the RDIII methodology

^a Reported using the 2016 NRI score

Meanwhile, there are at least three restrictions that place foreign bidders in a disadvantageous position, namely: domestic preference; foreign equity limitations; and, local reference requirement. First, domestic preference in both goods and services is found in the 1987 Philippine Constitution (Philippines, 1987), which is an attempt to increase local value content. This domestic preference is operationalized by Commonwealth Act 138 (Philippines, 1936a) that provides a price preference of 15.0 per cent for domestic bidders on materials and supply use. This price preference, however, eventually resulted to foreign suppliers of local bidders adjusting their prices in such a way that would work around this regulation but at the cost of taxpayers' welfare.²³

Second, RA 9184 actually restricts foreign participation in the public procurement of goods and consulting services to 40.0 per cent but with consideration of reciprocity.²⁴ The law also provides for some exceptions, such as when the goods are not available from local suppliers or when no local consultant can provide the project's required expertise.

Third, foreign contractors are required to present a local reference in order for them to qualify as a bidder for publicly-procured infrastructure projects.²⁵ A local reference refers to a project that a foreign contractor has previously completed in the Philippines. This practice is considered by businesses to be restrictive because digital infrastructure, such as cloud services, is often new, which means that a local reference cannot possibly be cited. The need for a local reference on digital infrastructure effectively bans the participation of foreign contractors.

These restrictions suggest that, while foreign bidders are permitted to participate in public procurement, the Philippines' policy is actually skewed towards domestic bidders and consultants. This discriminatory policy can not only discourage foreign participation but can also have an adverse effect on competition.

²³ Based on the consultation meeting with the foreign private sector.

²⁴ Foreign bidders are required to present a certification from their country's relevant government agency stating that Filipino nationals are allowed to participate in their government procurement activities for the same item or product (Philippines, GPPB, 2020).

²⁵ Based on the consultation meeting with the foreign private sector.

Following these restrictions, the Philippines' score for sub-pillars 2.1, 2.2, and 2.3 is highly restrictive. Another highly restrictive score is in sub-pillar 2.4 that arises from the Philippines being a non-signatory to the WTO Agreement on Government Procurement (GPA).²⁶ However, the Philippines has already been granted an Observer status as of 26 June 2019. Through its observer status, the Philippines is now able to participate in the discussions of the WTO GPA Committee in drafting the framework for the conduct of international trade in government procurement without undertaking any commitments. More importantly, the Philippines is now able to access relevant information and become better acquainted with the operation of the GPA, which the Philippines can now use to improve the management of its national procurement systems (Philippines, Department of Foreign Affairs (DFA), 2019).

On sub-pillar 2.5, the WEF's Network Readiness Index (NRI)²⁷ Pillar 2.09 was used as an indication of the government's commitment to foster innovation as reflected by its purchasing decisions. However, the NRI framework referenced in the RDTII has been discontinued since 2019. Thus, the 2016 NRI score was used to approximate both the 2018 and the 2020 score. Sub-pillar 2.5 has consistently been restrictive since 2015.

3. Pillar 3: Foreign investment in sectors relevant for digital trade²⁸

FDI can often be a key factor that drives growth in any sector, but in the Philippines, FDI in sectors relevant for digital trade has actually been strongly restrictive since 2015 where it scored a high of 0.625 (see Table 8). From among its sub-pillars, only sub-pillar 3.2 had a non-restrictive score of 0.000, particularly because the Philippines does not have any policy that requires foreign investors to engage in a joint venture agreement of any kind before entering the Philippine market.

The Philippine government regularly releases the Foreign Investment Negative List (FINL), which provides the limitations on foreign ownership for various sectors. The 11th FINL (Philippines, 2018) is the latest version as of May 2021. The strongest restrictions on FDI are felt by retail trade enterprises with paid-up capital of less than \$2.5 million since this sector is prohibited from having any foreign equity.²⁹

²⁶ The GPA is a plurilateral and legally binding international treaty that sought to ensure an open, fair, and transparent landscape for government procurement markets across the WTO's members. As of 22 March 2021, a total of 21 parties (48 WTO Members) participate in the GPA, while 35 more WTO Members are observers (11 of these 36 are in the process of acceding to the GPA). For more on the GPA, see: https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm. Accessed on 22 March 2021.

²⁷ The NRI is an index that has been helping economies measure their readiness for ICT adoption since 2002. The NRI was first published by WEF until it was transferred to the Portulans Institute in 2019. While with WEF, the NRI's framework focused on ICT infrastructure (e.g., presence, affordability, adoption, and relevance) and user perception (i.e., how they accept emerging technologies), but this old framework did not capture digital transformation, so a major redesign was done in 2019. The latest NRI framework now stands on four pillars, namely: technology, people, governance, and impact (Dutta and Lanvin, 2020).

²⁸ For brevity, detailed information on the legal provisions affecting pillar 3 have been omitted from this section. The interested reader is advised to read Appendix 6, which provides an extended assessment of foreign investment policies.

²⁹ House Bill 59 (Philippines, House of Representatives, 2019a) seeks to amend this provision, particularly to lower the \$2.5 million threshold to just \$200,000.

Table 8

RDTII pillar 3 scores in the Philippines from 2015 to 2020
(Units)

	2015	2018	2020	Remarks
3. Foreign direct investment in sectors relevant for digital trade	0.625	0.625	0.625	Strongly Restrictive
3.1 Maximum foreign equity share in sectors relevant for digital trade	1.000	1.000	1.000	Most Restrictive
3.2 Joint-venture requirement in sectors relevant for digital trade	0.000	0.000	0.000	Non-Restrictive
3.3 Nationality or residency requirement for board of directors or managers in sectors relevant for digital trade	1.000	1.000	1.000	Most Restrictive
3.4 Screening of investment and acquisitions in sectors relevant for digital trade	0.500	0.500	0.500	Restrictive

Source: Authors' calculation based on the RDTII methodology

Alongside retail trade is electronic commerce that represents an important part of the digital economy, which means that any ban on electronic commerce can have a detrimental effect to the digital economy. Unfortunately, foreign equity on electronic commerce can be prohibited in the Philippines.

Under existing laws, the Philippines imposes a complete ban on foreign ownership on mass media, except recording and internet business. However, no single definition of what constitutes “mass media” actually exists under Philippine law. Instead, it is defined through statutory definitions and opinions issued by the Department of Justice (DOJ) and by the Securities and Exchange Commission (SEC).

Electronic media, including the internet, became part of mass media only in 2003 when the Tobacco Regulation Act (RA 9211, Philippines, 2003b) was signed. Several SEC Opinions later on clarified what qualifies as mass media in the context of electronic media. Based on these opinions, online and digital platforms not only reach the masses but can also intend to increase the sales of a particular product or service by a third-party. It is important to emphasize that the condition is to provide **services to third-parties** because SEC Opinion 18-21 (Philippines, SEC, 2018a) highlighted that not all digital platforms are automatically considered as mass media. This interpretation actually allows online and digital platforms, such as Grab Philippines and Foodpanda Philippines, to operate with partial foreign equity. However, SEC evaluates business activities on a case-by-case basis, particularly to determine whether an activity qualifies under mass media or under advertising, thereby having implications on the foreign equity allowed.³⁰ This individualized approach can result in a regulatory environment that is uncertain and ambiguous, which can be restrictive to digital trade. The foreign equity ban on electronic retailing and some electronic commerce sets sub-pillar 3.1's score to most restrictive.

Meanwhile, sub-pillar 3.3 scrutinizes policies regarding the nationality or residency of members of the Board of Directors and Managers. Sect. 4 of the Revised Corporation Code of the Philippines (RA 11232, Philippines, 2019) mandates a residency requirement for select corporate officers, namely the treasurer and the secretary. This provision sets sub-pillar 3.3's score to most restrictive.

³⁰ Based on the consultation meeting with the public sector.

Philippine regulations also impose additional requirements, procedures, and scrutiny that needs to be completed for an investment in the Philippines to be carried forward. Examples of such procedures are the following:

1. The need to show economic benefits of its investment;
2. A screening on whether foreign investments can impair national security; and,
3. Other restrictions on mergers and acquisitions besides the general restrictions for competition reasons.

These measures are expected to create uncertainty for foreign investments and can imply complicated processes that delays the investment procedure, so sub-pillar 3.4 is considered restrictive. For the Philippines, the Radio Control Law (RA 3846, Philippines, 1931) requires all Public Telecommunications Entities³¹ (PTEs) to secure a legislative franchise from Congress before operating in the country. Standard legislative franchises typically contain a provision wherein acquisitions or mergers require prior approval from Congress.

Commonwealth Act 146 (Philippines, 1936b) also requires enfranchised PTEs to apply for a Certificate of Public Convenience and Necessity (CPCN) from the National Telecommunications Commission (NTC), which is a quasi-judicial process. Both of these requirements can be complicated, costly, and time-consuming, and, by making the process difficult, these strict licenses actually discourage foreign investments.

In comparison, the Philippines' banking sector is completely open to foreign investment – a best practice case which other sectors can emulate. RA 10641 (Philippines, 2013) permitted complete foreign ownership for foreign banks operating in the Philippines. Another key advancement in the Philippines' banking sector is by the Central Bank or the Bangko Sentral ng Pilipinas' (BSP) recognition of digital banks through BSP Circular No. 1105 (Philippines, BSP, 2020) that provided guidelines on the establishment of digital banks. This Circular created a new banking license that allows a bank to operate digitally without the need to establish a physical branch in the country. However, these digital banks must have a minimum capitalization of PhP1.0 billion and are also required to maintain a principal or head office in the Philippines, which will serve as the main point of contact for stakeholders. As of April 2021, the Philippines has already one digital bank, namely TONIK Bank, which also operates in India and Singapore.

4. Pillar 4: Intellectual Property Rights

IPR and its proper enforcement is an important part of the digital economy as digital sectors are dramatically producing and distributing information-driven products and services, including digital creative products. In the Philippines, regulations on IPR can be slightly restrictive but pillar 4's score has steadily been improving since 2015 (see Table 9).

³¹ Public Telecommunications Entities is a legal term used in the Philippines that refers to “any person, firm, partnership or corporation, government or private, engaged in the provision of telecommunications services to the public for compensation (RA 7925, Philippines, 1995).”

Table 9

RDTII pillar 4 scores in the Philippines from 2015 to 2020
(Units)

	2015	2018	2020	Remarks
4. Intellectual Property Rights (IPRs)	0.289	0.274	0.271	Slightly Restrictive
4.1 Restriction on application process for patents	0.000	0.000	0.000	Non-Restrictive
4.2 Lack of clear copyright exceptions	0.000	0.000	0.000	Non-Restrictive
4.3 Inadequate enforcement of copyright	1.000	1.000	1.000	Most Restrictive
4.4 Mandatory disclosure of trade secrets, such as source code	0.000	0.000	0.000	Non-Restrictive
4.5 Intellectual Property Rights environment (GCI, Pillar 1.15)	0.440 ^a	0.370 ^b	0.357 ^c	Slightly Restrictive

Source: Authors' calculation based on the RDTII methodology

^a Reported using the WEF (2015) Global Competitiveness Report 2015 score for indicator 1.02

^b Reported using the WEF (2018) Global Competitiveness Report 2018 score for indicator 1.16

^c Reported using the WEF (2019) Global Competitiveness Report 2019 score for indicator 1.15

Only sub-pillar 4.3, which concerns inadequate enforcement of copyright, is most restrictive. Based on a 2017 survey conducted by the Business Software Alliance, digital piracy remains high in the Philippines, particularly that 64.0 per cent of respondents admitted to using an unlicensed software (Pugatch and Torstensson, 2020). Unlicensed software cannot be patched, which means that hackers could gain control of these users' computer, smartphone, or other similar access device. Thus, the Philippines' high digital piracy rate actually increases the country's vulnerability to cyberattacks, which then reduces the Philippines' trustworthiness.³²

To address digital piracy, the Intellectual Property Office of the Philippines (IPOPHL) issued new rules in 2020 that expanded the powers of its Intellectual Property Rights Enforcement Office (IEO). In particular, Sect. 16 of IPOPHL (2020, p.10) Memorandum Circular 2020-049 states that "any person or business entity served with a compliance order relative to the complained violation of IPR or provisions of the IP code may avail of the compliance period within [72] hours or as stated in the compliance order to avoid being subjected to an administrative action." For comparison, the previous compliance period was 60 days. Another change that empowered the IEO is allowing *motu proprio* monitoring in both online and physical marketplaces, which allows the IEO to take a more proactive approach in their operations (Philippine News Agency, 2021).

Other initiatives from the IPOPHL include a baseline survey and a Memorandum of Understanding (MOU) that would help counter online counterfeiting and piracy. In 2020, the IPOPHL signed an MOU with the World Intellectual Property Office (WIPO) to conduct a baseline survey on intellectual property awareness (Lim, 2020), which the Philippines Statistics Authority (Philippines, PSA, 2021) granted clearance to in February 2021. The nationwide survey is expected to be conducted from April to June 2021.

Meanwhile, the IPOPHL's collaboration with the British Embassy in the Philippines resulted in an MOU between electronic commerce giants Lazada Philippines and Shopee Philippines

³² Based on the consultation meeting with the domestic private sector.

and several global and local brand owners and business associations. This MOU serves as an industry-wide online code of conduct that will promote and protect IP rights in the country (Lim, 2021).

Apart from IPOPHL's efforts, there are also pending bills in Congress that specifically addresses piracy, namely: House Bill 9148 (New IP Act, Philippines, House of Representatives, 2019b) and Senate Bill 497 (Philippine Online Infringing Act, Philippines, Senate of the Philippines, 2019). The former intends to address online piracy and counterfeiting by authorizing the IPOPHL to issue notice-and-takedown orders to websites and by empowering copyright owners in claiming damages from infringing sites. Meanwhile, the latter empowers IPOPHL to penalize an Internet Service Provider's (ISP) operating license should the ISP fail to remove the infringing content within 10 days from receiving a notification from IPOPHL (Pugatch and Torstensson, 2020).

Notwithstanding the benefits that these Bills can provide to the IPOPHL, it is important to understand that IPR enforcement, in the context of regional integration, is largely territorial.³³ For instance, site blocking and notice-and-takedown orders can be issued by the IPOPHL, but if the infringing party is situated in another jurisdiction, then these orders cannot be implemented.

Further contextualizing IPR protection, Figure XI shows the ASEAN-5's scores based on the WEF's Global Competitiveness Index (GCI) indicator for IP protection³⁴ (WEF, 2015; WEF, 2018; WEF, 2019). The figure shows that the Philippines ranked fourth in 2019 but what is actually remarkable here is that the Philippines experienced the greatest improvement across the ASEAN-5 during the time period 2015-2019. Improvements have certainly been achieved because the previously restrictive sub-pillar 4.5 changed to just slightly restrictive in 2020. Topping the list is Singapore and it sets a high benchmark for the region to emulate.

Apart from IPR enforcement, other similarly important matters to protect are patents and copyrights. On patents, the Philippines recognizes the Patent Cooperation Treaty, and the process of applying for a patent is clearly defined in the Intellectual Property Code (RA 8293, Philippines, 1997). There have also been significant actions by the IPOPHL in fast-tracking the procedure for trademark registration (Pugatch and Torstensson, 2020). The adequacy of a regulatory framework enabling patent applications makes sub-pillar 4.1 non-restrictive.

For copyrights, meanwhile, there needs to be a clear regime of copyright exception in place because the use of copyrighted materials can help promote innovation and knowledge exchange. Sub-pillar 4.2 assesses a country to be non-restrictive if it follows both fair use and fair dealing or at least fair use.

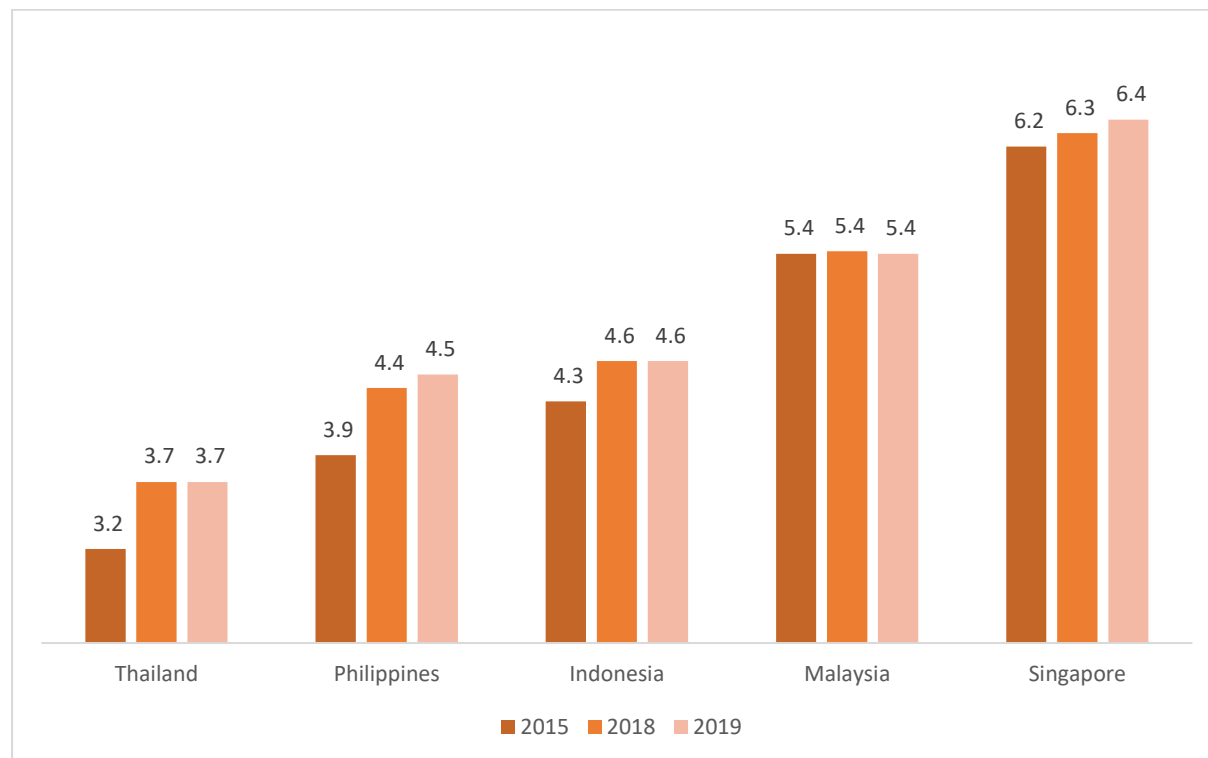
Broadly, copyright laws throughout the world recognize either of these two. Fair use refers to a limitation on exclusive rights in copyrighted works and is typically attributed to the United States, whereas fair dealing is an exception to copyright infringement and is a concept found commonly across Commonwealth nations. Inferior regimes of copyright exception include

³³ Based on the consultation meeting with the public sector.

³⁴ The GCI indicator for IP protection had different indicator numbers throughout the years. For reference, it was 1.02 in 2015, 1.16 in 2018, and 1.15 in 2019.

having an exhaustive but wide list of limitations and exceptions to copyright or the implementation of a three-step test as stipulated in the Berne Convention.³⁵

Figure XI
Intellectual property protection in the ASEAN-5 from 2015-2019
 (1-7, where 7 is the best)



Source: WEF (2015), WEF (2018), and WEF (2019)

Note: The GCI indicator for IP protection had different indicator numbers throughout the years. For reference, it was 1.02 in 2015, 1.16 in 2018, and 1.15 in 2019.

In the Philippines, RA 8293 practices fair use of a copyrighted work (Sect. 185), so sub-pillar 4.2 is non-restrictive. At the same time, RA 8293 also provides four factors to determine fair use, namely:

1. The purpose and character of the use, including whether such use is commercial or is for non-profit educational purposes;
2. The nature of the copyrighted work;
3. The amount and sustainability of the portion used with the copyrighted work as a whole; and,
4. The effect of the use upon the potential market for or value of the copyrighted work.

Perhaps more restrictive than the lack of framework for patents and copyrights is the presence of regulations requiring enterprises to disclose trade secrets. This becomes particularly important because digital platforms often rely on complicated algorithms that allow it to

³⁵ The Berne Convention, formally known as the Berne Convention for the Protection of Literary and Artistic Works, is an agreement adopted in 1886 that deals with the protection of works and the rights of their authors. It contains three basic principles, minimum standards of protection, and special provisions for developing countries. The Philippines acceded to the agreement in 1951. For more information on the Berne Convention, see: <https://www.wipo.int/treaties/en/ip/berne/>. Accessed on 4 January 2021.

compete. Losing possible advantages because of mandatory disclosures of trade secrets can be destructive to digital trade and its growth. Fortunately, Philippine laws do not require this mandatory disclosure. It should be noted as well that the Philippines does not actually have a statutory definition for a trade secret, but a Supreme Court of the Philippines (2007) ruling on *Air Philippines Corporation v. Pennswell, Inc.* has extensively discussed the concept.

5. Pillar 5: Telecom infrastructure and competition

The telecommunications sector serves as the bedrock supporting the digital economy, and this sector is a critical resource for many other sectors in the economy, especially for the digital services sector. Even companies not directly engaged in digital services make use of the internet to expand their services, so the development of and the conditions surrounding the telecommunications sector is important to understand.

In the Philippines, telecommunications infrastructure and competition can be described as strongly restrictive, primarily because of strict licensing requirements (see Table 10). The Radio Control Law (RA 3846, Philippines, 1931) requires PTEs to secure a legislative franchise from Congress whereas the Public Service Law (Commonwealth Act 146, Philippines, 1936b) causes these enfranchised PTEs to secure a CPCN from the NTC before they are allowed to operate. Barcenas and Serafica (2018) explained that the process of acquiring a legislative franchise could take around two years but can also extend to up to five years because of how Congress operates, which is that all bills are terminated once a new Congress convenes every three years. Terminated bills will then have to be re-filed.

Table 10
RDTII pillar 5 scores in the Philippines from 2015 to 2020
(Units)

	2015	2018	2020	Remarks
5. Telecommunications infrastructure and competition	0.604	0.620	0.620	Strongly Restrictive
5.1 Lack of liberalization of the telecommunication sector	0.500	0.500	0.500	Restrictive
5.2 Anti-competitive practices in the telecommunication sector and other restrictions	0.500	0.500	0.500	Restrictive
5.3 Strict licensing requirements	1.000	1.000	1.000	Most Restrictive
5.4 Infrastructure (NRI, Pillar 3)	0.417	0.481 ^a	0.481 ^a	Restrictive

Source: Authors' calculation based on the RDTII methodology

^a Reported using the 2016 NRI score

An additional layer of restriction is imposed by foreign equity limitations affecting public utilities. The telecommunications sector is considered as a public utility under the Public Service Law (Commonwealth Act 146, Philippines, 1936b), which means that the 1987 Philippine Constitution's (Philippines, 1987) 40.0 per cent foreign equity limitation on public utilities affect it. However, King-Dominguez and Acebedo (2013, p.363) explained that "mobile phone content providers under private contracts with particular companies (as opposed to the general public) [are exempted] from the nationality restriction."

Apart from strict licensing requirements, infrastructure in the Philippines is also a major roadblock to developing the telecommunications sector. The NRI Pillar 3 shows that infrastructure development in the Philippines has performed poorly since 2012 (see Figure

XII). In fact, among the ASEAN-5, the Philippines (alongside Malaysia) have actually stagnated, which may suggest that there is no substantial improvement happening. The NTC opined that the strongly restrictive environment surrounding the telecommunications sector makes it difficult to attract foreign investment, which the Philippines needs since domestic investments from both the private and the public sector is insufficient.³⁶

While the telecommunications sector is already deregulated under the Public Telecommunications Policy Act (RA 7925, Philippines, 1995), a report by the International Finance Corporation (IFC, 2019, p.31) noted that “the Philippines does not have the necessary regulations to facilitate competition, such as the unbundling of the local loop” although interconnection among telecoms entities, while not a complete replacement for local loop unbundling, is mandatory and regulated by the NTC (King-Dominguez and Acebedo, 2013).

Quimba and Calizo (2018) adds to this discussion by illustrating the difficulties surrounding the Philippines’ physical infrastructure. First, the country’s cable system is actually a duopoly that involves PLDT and Globe Telecom. This can be problematic because consumer welfare can be undermined in a duopoly. In fact, this duopoly is considered highly profitable in ASEAN, which benefits investors from other countries, such as Indonesia, Japan, and Singapore, at the expense of Philippine consumers.³⁷ In 2021, DITO Telecommunity, which is backed by state-run China Telecommunications, has emerged to challenge this duopoly albeit PLDT has already dismissed DITO Telecommunity as a threat to their market dominance (Esmael, 2021).

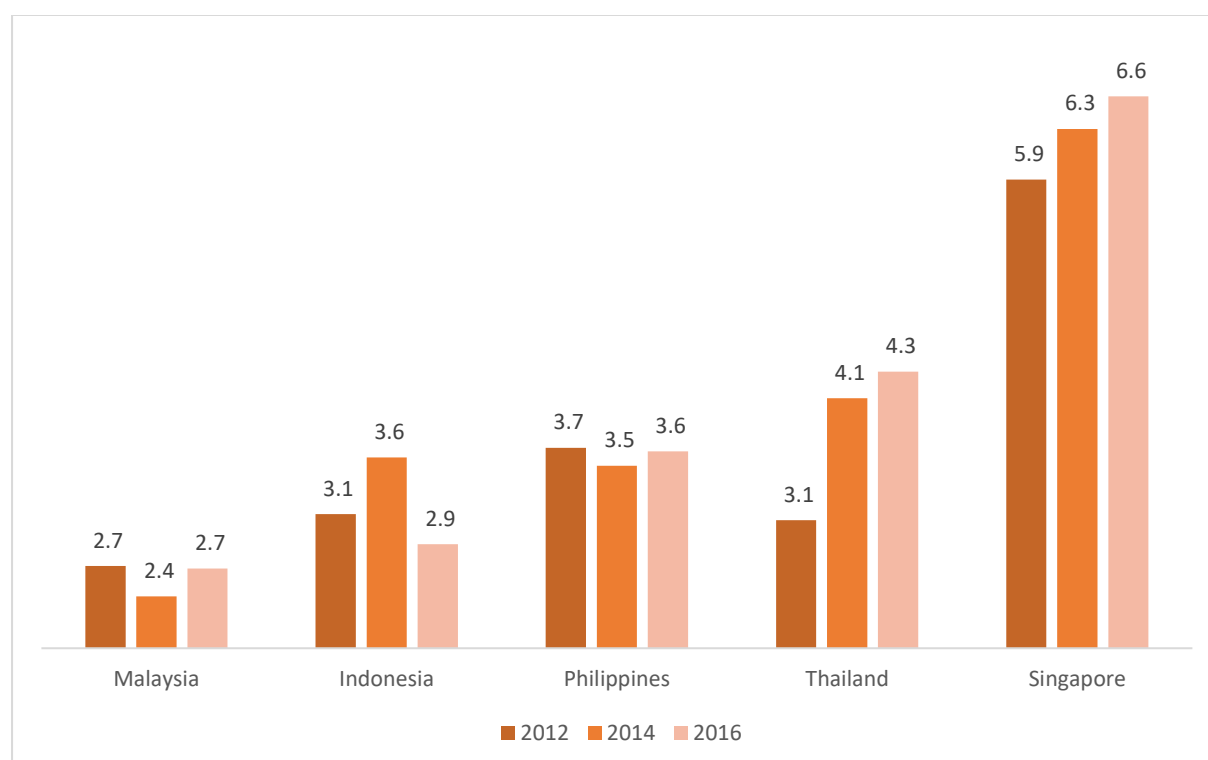
Quimba and Calizo (2018) also mentioned that ICT services offered in the Philippines are not only slow but also expensive. For instance, the price of fixed broadband services cost \$51.6 per month, which is the third highest in ASEAN in 2016, but the average internet speed is only at around 5.5 MBps. Cell tower density, a geographical proxy for network coverage, also shows that the Philippines lags behind other ASEAN peers since the country only has 54.7 cell towers per 1,000 km². compared to Viet Nam’s 225.0 towers per 1,000 km² or Thailand’s 102.7 towers per 1,000 km².

The Philippines has, however, two important policies that can help address physical infrastructure gaps. First, the Philippines adopted a Common Tower Policy in May 2020 through the Department of Information and Communications Technology’s (Philippines, DICT, 2020a, p.5) Department Circular No. 008, which seeks to “ensure universal access to quality, affordable, reliable, and secure ICT services [in the country].” Second, EO 127 (Philippines, 2021) expanded the provision of internet services through the inclusive access to satellite services. This EO is important because it allows enfranchised PTEs, together with Value-Added Services (VAS) providers and ISPs, to “[directly] access all satellite systems, whether fixed or mobile, international or domestic, to build and operate broadband facilities to offer internet services (p.2).”

³⁶ Based on the consultation meeting with the public sector.

³⁷ Based on the consultation meeting with the foreign private sector.

Figure XII
Infrastructure performance in the ASEAN-5 from 2012-2016
 (1-7, where 7 is the best)



Source: Authors' compilation using the Network Readiness Index 2012-2015 Historical Dataset, available at http://www3.weforum.org/docs/WEF_NRI_2012-2015_Historical_Dataset.xlsx (accessed on 24 March 2021) and WEF (2016)

These strict licensing requirements, aggravated by poor competition and weak physical infrastructure, can be strong barriers to entry that not only undermine consumer welfare but also restrict the telecommunication sector's growth. This can be problematic because a strong telecommunications sector is actually a necessary requirement to drive digital trade. The lack of improvement observed in the NRI also shows the telecommunications sector is an area that needs serious policy intervention.

6. Pillar 6: Cross-border data policies

Supporting digital trade also requires regulations related to the flow and transfer of data, which is why looking at the regulatory environment related to cross-border data transfers is important. This is especially true for the digital economy since businesses need a dependable ICT infrastructure and the free flow of data to efficiently operate. This means that restrictions on the movement of data across borders can create significant trade costs for digital trade.

Table 11 shows that the Philippines enjoys a non-restrictive policy environment for cross-border data flows, which is complemented by the Philippines' participation to the Asia-Pacific Economic Cooperation's (APEC) Cross-Border Privacy Rules (CBPR) system, which aims to promote interoperability of privacy regulation through the enforcement of minimum standards.

Moreover, the foreign private sector perceives the Philippines' policy environment for data to be one of the best in ASEAN.³⁸

Table 11
RDTII pillar 6 scores in the Philippines from 2015 to 2020
 (Units)

	2015	2018	2020	Remarks
6. Cross-border data policies	0.200	0.200	0.100	Non-Restrictive
6.1 Restrictions on location of data: ban on data transfers, local storage, and/or local processing requirement, including infrastructure	0.000	0.000	0.000	Non-Restrictive
6.2 Conditional flow regime	0.500	0.500	0.500	Restrictive
6.3 Signatory to the APEC Cross-Border Privacy Rules (CBPR) system	1.000	1.000	0.000	Non-Restrictive

Source: Authors' calculation based on the RDTII methodology

In 9 March 2020, the Philippines formally joined the APEC CBPR system as the ninth economy to do so. Other participating economies include Australia, Canada, Japan, Mexico, the Republic of Korea, Singapore, Taiwan Province of China, and the United States. The APEC CBPR's membership process requires the submission of a letter of intent to the Joint Oversight Panel and the accomplishment of an enforcement map that demonstrates adherence to the nine privacy principles under the APEC framework [Philippines, National Privacy Commission (NPC), 2019].

“The APEC CBPR certification serves as a seal of privacy compliance and accountability that creates a competitive advantage in both local and global markets. It also fosters trust among consumers, which assures that their personal data is securely transferred. This trust is gained by requiring business entities to observe transparency and by streamlining the customer complaint process (Philippines, NPC, 2019).”

Through this initiative, the Philippines is expected to adopt common standards for data privacy and eliminate data-flow barriers in transactions with APEC economies. This initiative also requires the Philippines to identify at least one APEC-recognized accountability agent to certify local companies as CBPR-compliant. The certified businesses will then be able to seamlessly and to safely transfer and receive personal data with other certified companies in the region. The Philippines' inclusion into the APEC CBPR system is a good step because it allows the country to integrate with other economies in the Asia-Pacific.

The only remaining issue then is with the presence of a conditional flow regime in the financial sector, which marked sub-pillar 6.2 with a restrictive score of 0.500. Conditional flow regimes are cases where data can be transferred abroad only if certain conditions are fulfilled. Ferracane, Lee-Makiyama, and van der Marel (2018, p.99) explained that “the conditions can apply either to the recipient country (e.g., some jurisdiction requiring that data can be transferred only to countries with an “adequate” level of protection) or to the company (e.g., a condition that might consist of the need to request the consent of the data subject for the cross-border transfers of his/her data).”

³⁸ Based on the consultation meeting with the foreign private sector.

For instance, the BSP issued BSP Circular No. 899 (Philippines, BSP, 2016) where Subsection X162.7 mandated that “offshore outsourcing of a bank’s domestic operations is permitted only when the service provider operates in jurisdictions which uphold confidentiality. When the service provider is located in other countries, the bank should [consider] and closely monitor, on [a] continuing basis, government policies and other conditions in countries where the service provider is based during [the bank’s] risk assessment process. [Moreover,] the [BSP] examiners shall be given access to the service provider and those relating to the outsourced domestic operations of the bank. Such access may be fulfilled by on-site examination through coordination with host authorities, if necessary.” This regulation, while entirely reasonable for the purpose of financial security, is still costly, particularly because of the need for close monitoring of not only Philippine regulations but also of foreign ones.

Except for this conditional flow regime, cross-border data policies in the Philippines can actually be described as non-restrictive. Philippine regulations actually allow cross-border data transfers, which is regulated under the Data Privacy Act of 2012 (RA 10173, Philippines, 2012a), but the Personal Information Controller remains accountable for any issue arising in the cross-border data transfer.³⁹

It might be worth mentioning also that DICT (2020b, p.4) Department Circular No. 10, series of 2020, mandates that highly sensitive government data⁴⁰ shall, if necessary, “be stored and processed in the cloud using a secure private cloud hosted in on-premise infrastructure within the territory or in other territories over which the Philippines has jurisdiction.” Note, however, that this highly sensitive government data only affects matters of national security, which suggests that its effect on commercial trade is remote, if any at all.

7. Pillar 7: Domestic data policies

Digital services and trade are mainly dependent on the use of data, so it is important to assess policies related to domestic data processing. By analyzing how countries are regulating data processing and, at the same time, protecting national interests, the best practices can be adopted for the Philippines. Data in the country is regulated under the Data Privacy Act of 2012 (RA 10173, Philippines, 2012a) and the Cybercrime Prevention Act of 2012 (RA 10175, Philippines, 2012b).

Table 12 shows that domestic policies on the use of data in the Philippines is actually slightly restrictive, particularly because of data retention requirements and of the need to appoint a data protection officer. Since 2015, pillar 7’s score has remained almost the same, experiencing only minimal changes across the years because of changes in the NRI score for business-to-consumer internet use.

³⁹ Based on the consultation meeting with the public sector.

⁴⁰ This would include official matters classified as top secret, secret, or other similar information defined by the Office of the President Memorandum Circular 78 (Philippines, Office of the President, 1964).

Table 12

RDTII pillar 7 scores in the Philippines from 2015 to 2020
(Units)

	2015	2018	2020	Remarks
7. Domestic policies on the use of data	0.365	0.363	0.363	Slightly Restrictive
7.1 Lack of data protection framework	0.000	0.000	0.000	Non-Restrictive
7.2 Data retention requirement	1.000	1.000	1.000	Most Restrictive
7.3 Requirement to appoint a Data Processing Officer (DPO) and/or to perform a Data Privacy Impact Assessment (DPIA)	1.000	1.000	1.000	Most Restrictive
7.4 Government access to personal data	0.000	0.000	0.000	Non-Restrictive
7.5 Business-to-Consumer Internet Use (NRI, Pillar 7.05)	0.323	0.319 ^a	0.319 ^a	Slightly Restrictive

Source: Authors' calculation based on the RDTII methodology

^a Reported using the 2016 NRI score

The NRI's pillar 7.05 probes on the internet usage by businesses to sell goods and services to consumers. It is expected that in countries with high restrictions on the domestic use of data, businesses would find it more expensive to reach consumers with goods and services through the internet. Business-to-consumer internet use has been slightly restrictive since 2015. In fact, among the ASEAN-5, the Philippines is actually the weakest performer in both 2014 and 2016 (see Figure XIII). Leading the ASEAN-5 is Malaysia, which saw a relatively large improvement between 2014 and 2016.

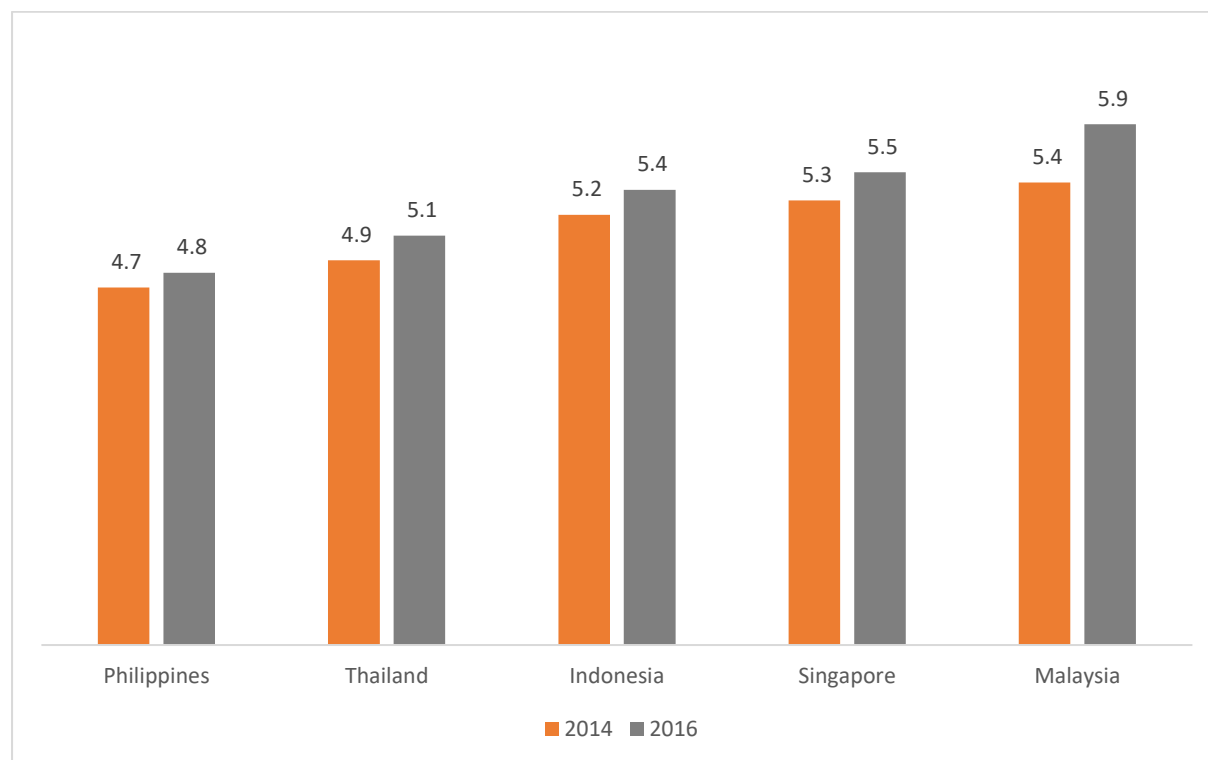
Data retention requirements, which regulate how and for how long a company should keep a copy of certain data within its premises, can be costly for enterprises. Data retention measures can define a minimum period of retention or a maximum period of retention. Incidentally, data retention requirements in the Philippines are relatively strict. For instance, Sect. 13 of RA 10175 mandates that "the integrity of traffic data and subscriber information relating to communication services provided by a service provider shall be preserved for a minimum period of six months from the date of transaction, [and] content data shall be similarly preserved for six months from the date of receipt of the order from law enforcement authorities requiring its preservation. [Moreover,] law enforcement authorities may order a one-time extension for another six months [or, if the content data has already been admitted as court evidence,] to preserve the computer data until the termination of the case." This six months minimum data retention requirement, which could extend further while under judicial procedure, can be costly for the service provider.

Another example can be found in how PTEs are required to retain call data records on voice calls and similar records for non-voice traffic within two months for non-metered services with fixed monthly charges and within four months for other telecommunication services (Philippines, NTC, 2007).

In addition to data retention requirements, Rule VI, Sect. 26(a) of RA 10173's IRR requires that "any natural or juridical person or other body involved in the processing of personal data [should] designate an individual or individuals who shall function as data protection officers (Philippines, NPC, 2012)." Again, this requirement can impose additional trade costs on firms

since data privacy compliance is a horizontally-applied⁴¹ measure, which means that its implementation affects not just one sector but is actually imposed on all sectors.

Figure XIII
Business-to-consumer use in the ASEAN-5 in 2014 and 2016
 (1-7, where 7 is the best)



Source: Authors' compilation using the Network Readiness Index 2012-2015 Historical Dataset, available at http://www3.weforum.org/docs/WEF_NRI_2012-2015_Historical_Dataset.xlsx (accessed on 24 March 2021) and WEF (2016)

Another factor that could negatively affect the capacity of firms to process data is the requirement for the government to access personal data without a court order. This restriction does not apply in the Philippines where the NPC (2017) issued Advisory Opinion No. 2017-65 clarifying that the government cannot compel access to personal data because the Bill of Rights [Art. III, Sect. 3(1)] found in the 1987 Philippine Constitution (Philippines, 1987) upholds that “the privacy of communication and correspondence shall be inviolable, except under lawful order of the court or when public safety or order requires otherwise.”

8. Pillar 8: Intermediary liability and content access

Intermediary liability defines the extent of legal culpability that internet intermediaries face when illegal content or harmful activities are undertaken by third-party users or by consumers. Internet intermediaries are those companies that act as an intermediary between content producers and the internet, thus, facilitating its use – an important service that ensures that

⁴¹ A horizontally-applied measure or provision applies to all industries.

digital trade operates smoothly. Such companies include ISPs, search engines, and social media platforms.

Since 2015, Philippine policies affecting intermediary liability and content access have been considered non-restrictive because consumers are free to access online content and because license schemes are not discriminatory (see Table 13). However, there is one remaining issue that needs to be addressed, and this is the lack of a horizontally-applied safe harbor provision for intermediaries. “The safe harbor regime is considered a strategic factor supporting the emergence of innovative services as it provides intermediaries with sufficient legal certainty to conduct a wide range of activities, free from the threat of potential [legal] liability and the [fear] of potential litigation.”⁴² If a country has a safe harbor in place, then internet intermediaries are granted broad or conditional immunity for third-party content.

Table 13
RDTII pillar 8 scores in the Philippines from 2015 to 2020
 (Units)

	2015	2018	2020	Remarks
8. Intermediary liability and content access	0.125	0.125	0.125	Non-Restrictive
8.1 Lack of safe harbor for intermediaries	0.500	0.500	0.500	Restrictive
8.2 User identity requirements or other monitoring requirements	0.000	0.000	0.000	Non-Restrictive
8.3 Blocking or filtering of web content	0.000	0.000	0.000	Non-Restrictive
8.4 Discriminatory use of license schemes	0.000	0.000	0.000	Non-Restrictive

Source: Authors’ calculation based on the RDTII methodology

Notably, a basic legal framework on intermediary liability is absent in Philippine law and jurisprudence (Razon, 2018). Arguably, safe harbor clauses are present in the Electronic Commerce Act of 2000⁴³ (RA 8792, 2000b) and the Cybercrime Prevention Act of 2012 (RA 10175, 2012b), but these laws’ definition of an intermediary limit their capacity to provide a safe harbor. Particularly, the scope of RA 8792 is limited to electronic documents, while RA 10175 is limited to cybercrimes defined under the law. This makes safe harbors in Philippine law content-specific, which in turn creates a restrictive policy environment.

Notwithstanding the restrictive effect of a content-specific safe harbor provision, the Philippines does enjoy free access to online content. First, the Philippines does not have a law that requires user identity and monitoring of digital space and content. However, Talabong (2020) reported that the Armed Forces of the Philippines (AFP) has suggested regulating and/or monitoring social media users through the Anti-Terrorism Act of 2020 (RA 11479, Philippines, 2020) – a practice that the DOJ has already deemed outside the scope of RA 11479 (CNN Philippines Staff, 2020). This possibility, however, remains a threat because the AFP has once declared its desire to monitor social media users – a practice that would most likely be destructive to not only digital trade but also to free speech.

⁴² As explained by Ferracane during the ESCAP-OECD workshop.

⁴³ Based on the consultation meeting with the public sector, DTI explained that RA 8792 focused more on the admissibility of electronic evidence but what the digital economy needs now is a provision for intermediary liability.

Second, Philippine regulations only block or filter illegal content, such as child pornography in accordance to the Anti-Child Pornography Act of 2009 (RA 9775, Philippines, 2009). For instance, in 2021, Globe Telecom reported that it has not only blocked a total of 2,521 sites that show child pornography but, at the same time, also invested \$2.7 million to empower its content filtering system. One challenge that ISPs face, however, is that these sites are “usually hosted in the cloud, or off-shore servers, and fully encrypted, which limits the effectiveness of [ISP’s] content-based filters [...], unless [ISPs] break the encryption, which would be difficult to do without being intrusive to [consumers] (Camus, 2021).”

An instance where legal content was actually blocked or filtered in the Philippines, was a blanket ban on access to porn websites. In 2017, the NTC confirmed that the government has blocked selected porn websites as a more aggressive attempt to eliminate child pornography (Remitio, 2017). However, this isolated event was brief perhaps because it was considered a case of regulatory overreach since RA 9775 does not prohibit all porn websites *per se* but only prevents child pornography. Considering that this is an isolated event, this study chose to mention this blanket ban on porn websites specifically for its regulatory overreach, which was eventually challenged. This issue however has no impact on sub-pillar 8.3’s score.

9. Pillar 9: Quantitative trade restrictions

Quantitative trade restrictions take the form of Non-Tariff Measures (NTMs), which have become prevalent ever since tariffs were continuously reduced. NTMs can take a broad range of policies and regulations, so the United Nations Conference on Trade and Development (UNCTAD, 2019) developed a system that will guide how to properly categorize NTMs. Using this system, quantitative trade restrictions are actually contained in Chapters E and I. The former is about non-automatic licensing, quotas, prohibitions, and quantity-control measures other than for Sanitary and Phytosanitary (SPS) measures or Technical Barriers to Trade (TBT) reasons, whereas the latter is about trade-related investment measures, such as local content requirements.

One way of understanding NTMs is to calculate prevalence scores, which shows the average number of NTMs that are applied to any given product or product group. In the Philippines, Quimba and Calizo (2020) reported that, in 2015, NTMs related to Chapter E⁴⁴ have a prevalence score of 0.5 for all goods traded, but this slightly increases to 0.9 when only machinery and mechanical appliances (e.g., semiconductors important for digital trade) are considered. This means that quantitative trade restrictions imposed by the Philippines can be negligible.

However, the Philippines does impose a restrictive policy on the import and exports of dual-use strategic goods (sub-pillars 9.2 and 9.4). The importation and exportation of dual-use strategic goods have become highly regulated pursuant to the Strategic Trade Management Act of 2016 (RA 10697, Philippines, 2016b), which was enacted to fulfill the Philippines’ international commitment and obligations, including the United Nations Security Council Resolution 1540 (United Nations, 2004). Some examples of these dual-use strategic goods are electronics, computers, and telecoms that reach a specified technical standard that qualifies

⁴⁴ Quimba and Calizo (2020) did not compute prevalence scores for Chapter I.

them to be fit for military use.⁴⁵ The Strategic Trade Management Office (STMO), however, noted that Strategic Trade Controls (STC) are outside the WTO's TBT and are not classified as an NTM.⁴⁶

Sect. 14 of RA 10697 requires that "any person, prior to engaging in the export, import, re-export, reassignment, transit, transshipment of strategic goods, or the provision of technical assistance or related services shall apply for an authorization from the STMO." However, Sect. 15 provides five exemptions from this authorization requirement, namely for circumstances where the:

1. Import of strategic goods by the government is for the use of the Philippine military or police forces;
2. Temporary export of strategic goods by the government for the use of the Philippine military or police forces assigned outside of Philippine jurisdiction;
3. Export, transit, and transshipment of strategic goods, which are provided in connection with a military, peacekeeping, or government humanitarian mission;
4. Export, import, transit, and transshipment of strategic goods by the government in connection with law enforcement activities; and,
5. Any other circumstances as provided by [law].

In addition, the STMO has issued guidelines and policies consistent with international best practices from already well-established regimes, such as the European Union, Japan, Malaysia, Singapore, and the United States. The STMO leverages the Philippines' STC system as a value proposition to attract investments in Advanced Technology Products and to generate jobs for skilled Filipino workers. For instance, the STMO has adopted the issuance of two license types. First, the global license for the trade of strategic goods and provision of related services to multiple end-users in one or more countries is valid for up to five years. Second, the general license for the trade of low-risk strategic goods to low-risk destination countries is valid for a lifetime.

While RA 10697 was passed in 2016, its implementation was actually delayed. Que (2020) reported that registrations for exports and imports of strategic goods started in September 2019, but the law's full implementation took place only in October 2020. Nonetheless, this study already considered RA 10697's impact in 2016 because enterprises would have already started adjusting their operations to comply, thereby incurring trade costs even before the law was fully implemented.

The private sector also complained that permits on the importation of ICT-related goods, such as drives and software, could impose a possible NTB.⁴⁷ Similarly, the Optical Media Board (OMB) issued Memorandum Circulars 2005-005 (Philippines, OMB, 2005a) and 2005-008 (Philippines, OMB, 2005b) that requires companies to secure a permit or license for the

⁴⁵ The actual list of products and technical specifications is extensive, so this study redirects the interested reader to just browse it here: <https://www.officialgazette.gov.ph/downloads/2017/08aug/20170831-RA-IRR-10697-RRD-Annex-2-List-of-Dual-Use-Goods.pdf>. Accessed on 22 December 2020.

⁴⁶ Based on the consultation meeting with the public sector. The authors, however, maintain that STCs are still NTMs since it affects the trade of selected types of goods, but to determine whether it is an NTB or not is a different matter that could require further exploration or in-depth studies.

⁴⁷ Based on the consultation meetings with the foreign and the domestic private sector.

importation of magnetic media, such as solid-state drives, hard disc drives, secure digital cards, flash/thumb drives, and technical variations of such items.

In addition to the regulations on strategic dual-use goods and ICT-related goods, the Philippines is also undermined by issues of corruption and lack of transparency, which are complaints by trading partners who experience irregularities when dealing with the Bureau of Customs (BOC, Lighthizer, 2020). Notwithstanding, customs irregularities could be resolved through the BOC's Customs Modernization Program, which is expected to be completed by 2024.⁴⁸ This particular project is a big step for digital trade because it digitalizes the predominantly paper-based customs procedures of the Philippines, which could be a step towards mitigating corruption in customs

The combination of regulating strategic dual-use goods and the presence of customs irregularities make sub-pillars 9.2 and 9.4 most restrictive. Notwithstanding all these issues, the Philippines' policy and regulatory environment for quantitative trade restrictions is considered just slightly restrictive (see Table 14), perhaps because there is really no horizontal ban on digital goods and local content requirements for the commercial market are not being imposed. This regulatory environment synergizes well with the low tariffs on digital goods reported for pillar 1 because it reduces trade barriers for the exchange of digital goods.

Table 14
RDTII pillar 9 scores in the Philippines from 2015 to 2020
 (Units)

	2015	2018	2020	Remarks
9. Quantitative trade restrictions	0.125	0.350	0.350	Slightly Restrictive
9.1 Import ban on digital goods	0.000	0.000	0.000	Non-Restrictive
9.2 Other import restrictions on digital goods	0.500	1.000	1.000	Most Restrictive
9.3 Local content requirements for the commercial market	0.000	0.000	0.000	Non-Restrictive
9.4 Export restrictions on digital goods	0.000	1.000	1.000	Most Restrictive

Source: Authors' calculation based on the RDTII methodology

10. Pillar 10: Standards

In the Philippines, policies affecting product standards are actually slightly restrictive (see Table 15). The Standards Law (RA 4109, Philippines, 1964) created and empowered the Bureau of Philippine Standards (BPS) to “develop, promulgate, and implement standards for all products in the Philippines.”⁴⁹ Complementing RA 4109 is the BPS' adherence to international best practices and norms. Also, DTI (2019a) has formally recognized the important role of Standards Development Organizations (SDOs) through DTI Department Administrative Order No. 19-08.

⁴⁸ Based on the consultation meeting with the public sector.

⁴⁹ As explained by the BPS. For more on the agency's mandate, see: <http://www.bps.dti.gov.ph/index.php/about-us/about-the-bureau-of-philippine-standards-dti-bps>. Accessed 24 May 2021.

Table 15

RDTII pillar 10 scores in the Philippines from 2015 to 2020
(Units)

	2015	2018	2020	Remarks
10. Standards	0.250	0.250	0.250	Slightly Restrictive
10.1 Lack of foreign business participation in standard-setting bodies and non-transparent standards regime	0.000	0.000	0.000	Non-Restrictive
10.2 Lack of self-certification for product safety (EMC/EMI, radio transmission)	1.000	1.000	1.000	Most Restrictive
10.3 Product screening and testing requirements deviating from international norm	0.000	0.000	0.000	Non-Restrictive
10.4 Restrictions on encryption standards and trade secrets (standards deviating from the international norm and required disclosure of sensitive proprietary information for product certification)	0.000	0.000	0.000	Non-Restrictive

Source: Authors' calculation based on the RDTII methodology

One remaining issue is the absence of regulation allowing the country to recognize enterprises' self-certification for product safety although the Philippines does recognize self-certification for origin declaration through the ASEAN-Wide Self-Certification Scheme (AWSC). The AWSC is beneficial as it allows businesses to certify, on their own, that "their products meet the criteria used [in the ASEAN Trade in Goods Agreement (ATIGA)] to deem that they have originated from a particular country (Ibañez, 2020)." Despite the AWSC's benefit, it does not provide the more needed self-certification for product safety. This makes sub-pillar 10.2 most restrictive.

11. Pillar 11: Online sales and transactions

In the Philippines, the regulatory environment for online transactions can be described as just slightly restrictive (see Table 16). There are two issues barring online transactions from having a non-restrictive regulatory environment. First is the foreign equity ban on the foreign ownership of retail trade enterprises with paid-up capital of less than \$2.5 million as well as with electronic commerce whose business activity can be considered as mass media (recall the discussion of foreign equity in Sect. 4.1.3 on foreign investment in sectors relevant to digital trade). This ban, while not affecting all online sales and deliveries, still imposes a barrier for foreign investment and participation.

Second is the infrastructure gap on both digital infrastructure and transportation. Essential services to remote areas rely on a dependable and affordable ICT service, which the Philippines does not have. For instance, rural areas reportedly have less access to telemedicine services as compared to urban areas, especially metropolitan cities.⁵⁰ Developing the transportation sector is also an important factor that will drive digital trade because, while electronic commerce has digitalized the sale of merchandise, the actual product still needs to go through logistics services in order to be delivered, and logistics is affected by the quality of transportation infrastructure, particularly air, sea, and land freight. Given these two issues, sub-pillar 11.1 was marked with the most restrictive score of 1.00.

⁵⁰ Based on the consultation meeting with the domestic private sector.

Table 16

RDTII pillar 11 scores in the Philippines from 2015 to 2020
(Units)

	2015	2018	2020	Remarks
11. Online sales and transactions	0.400	0.300	0.300	Slightly Restrictive
11.1 Restrictions to online sales, including on delivery	1.000	1.000	1.000	Most Restrictive
11.2 Restrictions to e-payment, credit cards and other forms of online payment services/ Lack of legal framework for electronic transactions/e-signatures	0.000	0.000	0.000	Non-Restrictive
11.3 Low threshold for <i>De Minimis</i> value	0.500	0.000	0.000	Non-Restrictive
11.4 Domain Name System (DNS) registration requirements	0.000	0.000	0.000	Non-Restrictive
11.5 Lack of legal framework for consumer protection when purchasing online	0.000	0.000	0.000	Non-Restrictive

Source: Authors' calculation based on the RDTII methodology

For the most part, however, the Philippines does enjoy a regulatory environment that is conducive for online transactions to grow. For instance, the Philippines has adopted the United Nations Commission on International Trade Law (UNCITRAL) Model Laws on Electronic Commerce and on Electronic Signatures, which are considered important to enable and to facilitate online transactions.

Similarly, the Philippines also enjoys a legal framework for consumer protection. The key legislation here is the Consumer Act of the Philippines (RA 7394, Philippines, 1992) that advocates for consumer protection in the country although it does not specifically address electronic commerce. DTI recognizes this emerging issue and has taken the initiative to lobby for the amendment of two laws.⁵¹ First is to amend RA 7394, particularly to make it more responsive to the growing digital economy. Second is to amend the Electronic Commerce Act of 2000 (RA 8792, Philippines, 2000b) since this law might no longer be responsive in covering the challenges in digital trade advancement, especially as digital trade becomes global (i.e., a growing number of enterprises start to engage in cross-border electronic sales and regulatory differences between and among countries start to become a challenge to greater trade openness.)

Even the Philippines' *De Minimis* value, which was once just a meager PhP10 (\$0.20), is now at a more competitive PhP10,000 (\$200)⁵² value because of the Customs Modernization and Tariff Act (RA 10863, 2016a). The BOC (2016) also issued Customs Administrative Order No. 02-2016 that defined the *De Minimis* value as "the value of goods for which no duty or tax is collected. Goods with *De Minimis* value are considered importations of negligible amount (based on RA 10863, Sect. 423) and entitled to immediate release." A competitive *De Minimis* rule is important for digital trade because it allows small deliveries and orders to be transacted without additional costs to consumers, thereby encouraging more sales.

⁵¹ Based on the consultation meeting with the public sector.

⁵² The Philippines' *De Minimis* value is about 133 Special Drawing Rights (SDRs), which is an international reserve asset created by the International Monetary Fund in 1969 to supplement its member countries' official reserves. The RDTII methodology converts an economy's *De Minimis* value into SDRs before measuring it against a threshold, which for this assessment is at 133 SDRs.

B. Exploring the Philippines' collaboration with the international community

Regional digital trade integration involves the collaboration of different partners in the international community. This would require, for instance, technical assistance and capacity building, leniency for developing countries and Least Developed Countries (LDCs) to undertake regulatory reforms, or support for the digitalization of MSMEs.

A good example of an initiative undertaken to ensure that developing countries and LDCs can converge with their partners in the region is the Initiative for ASEAN Integration (IAI), which was launched in 2000 during the Fourth Informal Summit in Singapore. The IAI directs the efforts of ASEAN in narrowing the development gap within ASEAN and, in turn, enhancing the region's competitiveness. Since 2002, three work plans have already been launched.

The IAI Workplan I (2002-2008) has identified 232 projects covering infrastructure development, human resources development, ICT, and regional economic integration, whereas the IAI Workplan II (2009-2015) utilized the ASEAN Community Blueprints to identify 182 activities comprised of 78 policy and implementation support, 19 studies, and 85 training programs and capacity support. Meanwhile, the IAI Workplan III was launched in 2016.

While the Philippines has actively contributed to crafting these IAI workplans, there seems to be only a limited participation in the conduct of projects. Table 17 shows that, among the ASEAN Member States, only Singapore and Thailand have funded projects in the IAI.

Table 17

Number of approved projects in the IAI Workplan III by strategic area and funding source

<i>Sources of funding</i>	<i>Food & Agriculture</i>	<i>Trade Facilitation</i>	<i>MSMEs</i>	<i>Education</i>	<i>Health & Well-being</i>	<i>Enabling Actions</i>	<i>Total</i>
Australia	2	—	1	—	—	1	4
Canada	—	—	—	—	2	—	2
China	—	—	2	—	—	1	3
European Union	—	2	—	—	—	1	3
Germany	1	1	—	—	—	1	3
India	—	1	—	—	—	4	5
Japan	1	—	1	—	—	4	6
New Zealand	—	—	1	—	—	—	1
Singapore	3	9	5	16	5	34	72
Thailand	1	—	—	—	1	1	3
United States	—	1	—	—	—	—	1
Total	8	14	10	16	8	47	103

Source: alphaBeta (2020)

Note: Data as of 03 October 2019

Notwithstanding the Philippines' limited participation in the implementation of IAI projects, the Philippines does participate in capacity building and technical assistance through APEC's Boracay Action Agenda (BAA) to Globalize MSMEs and the APEC Project Data Analytics Raising Employment (DARE). The Philippines is likewise involved in not only inter-governmental collaboration but also multi-stakeholder, transnational, and private-public collaborations. For instance, this would include WIPO Internet Treaties, the ASEAN Single Window (ASW), and the Budapest Convention on Cybercrime.

1. The Boracay Action Agenda to Globalize MSMEs

To support digital trade integration, the Philippines has initiated the BAA during its hosting of APEC in 2015. This initiative recognized that MSMEs are “significant contributors of economic growth, trade, employment, poverty alleviation, and innovation. [Also,] their internationalization is key to realizing inclusive growth and development (APEC, 2015).” The BAA contains eight priority actions that can be surmised into five groups, namely: trade facilitation; financing; digital economy; institutional support; and, women MSMEs.

Quimba and Calizo (forthcoming) showed that, from 2016 to 2020, the Philippines has supported 43 out of the 132 BAA projects. Incidentally, this makes the Philippines (alongside the Republic of Korea) the second most supportive economy and next only to Taiwan Province of China that supported a total of 53 BAA projects. A similar ranking is reported for the support of digital economy-related projects. Other economies that supported at least 30.0 per cent of the total number of digital economy-related projects are Chile, Malaysia, the Republic of Korea, Russia, and the United States of America.

In addition, Quimba and Calizo (forthcoming) mentioned four key learnings arising from the digital economy-related BAA projects, namely:

1. Both ICT and adequate digital infrastructure are key components that will provide support for MSME growth (SME 03 2016T, SME 08 2016A, and SME 09 2016A);⁵³
2. Addressing cybersecurity issues is also important. This requires economies to discuss how best to protect, as a region, the welfare of internet users (SME 04 2017A). Having strong measures against cybercrime can also help promote and facilitate cross-border electronic commerce. APEC has at least one workshop for this (SME 08 2016A);
3. Governments’ initiative for digitizing public services is also important, especially when the government can simplify administrative procedures and related imports and export processes (SME 08 2016A and SME 04 2017A); and,
4. There is a need to improve existing regulatory systems, such as IPR laws, gender equality, and law dissemination. Doing this can potentially help facilitate MSMEs’ participation in the digital economy (SME 08 2016A).

2. Digital Science and Analytics Competencies

In 2017, the Philippines participated in Project DARE that resulted in the crafting of the APEC Data Science and Analytics (DSA) Competencies. Project DARE is an initiative of APEC that was led by the United States, particularly their Department of Labor. Other APEC economies that supported the project are Australia, Japan, Malaysia, Peru, Taiwan Province of China, and Viet Nam.

Project DARE aims to develop a data analytics-enabled workforce in APEC to support sustainable economic growth and prosperity in the Asia-Pacific region. Through this project, a set of recommended APEC DSA Competencies was developed. These competencies directly

⁵³ All approved APEC projects have its unique Project Number. For more information on APEC projects, see the APEC Projects Database here: <https://aimp2.apec.org/sites/PDB/default.aspx>. Accessed on 24 March 2021.

benefit industries in the region because it enables both academic institutions and skills training providers to align their curricula to the industries' needs. Moreover, these competencies also help government policymakers to design policies for the development of DSA skills (APEC, 2017).

Integration in terms of digital skills is also important for the Philippines. Quismorio, Pasquin, and Tayco (2020) have shown that there is a demand for digital skills in the Philippines but there is a lack of supply for it. To address this problem, the Analytics Association of the Philippines has piloted an ambitious model to upskill and reskill 30,000 workers in three years based on the APEC DSA Competencies.

3. WIPO Internet Treaties

WIPO administers two important treaties, namely the WIPO Copyright Treaty (WCT, WIPO, 1996a) and the WIPO Performances and Phonogram Treaty (WPPT, WIPO, 1996b). These treaties identify the norms for the protection of creative works on the internet and other digital media. The WCT pertains to the protection of the rights of literary authors, artists, composers, and even computer programmers, while the WPPT protects the rights of the performers (e.g., actors, singers, and musicians) and producers of phonograms (i.e., persons or legal entities that take the initiative and have the responsibility for the fixation of sounds). The Philippines ratified both of these WIPO treaties in October 2002.

The WCT is actually a special agreement under the Berne Convention that protects computer programs (regardless of their mode or form of expression) and compilations of data or other material databases, in any form, that constitute intellectual creations. The rights granted to authors include: distribution; rental; and, a broader right of communication to the public.⁵⁴

The WPPT grants performers with economic rights in their performances that are fixed in phonograms, which means that audiovisuals are excluded. These rights include: reproduction; distribution; rental; and, making available to the public their performance.⁵⁵

Both of these treaties require countries “to provide a framework of basic rights, thereby allowing creators to control and/or be compensated for the various ways in which their creations are used and enjoyed by others. Most importantly, these treaties ensure that the owners of those rights will continue to be adequately and effectively protected when their works are disseminated through new technologies and communication systems, such as the internet.”⁵⁶

In effect, these treaties clarify that existing rights granted in the past continue to apply even in a digital environment. In addition, these could also spur the creation of new online rights. For instance, these treaties clarify that countries have reasonable flexibility in establishing exceptions or limitation to rights in the digital environment. This is made possible in order to maintain a fair balance of interest between the owners of rights and the general public.

⁵⁴ WIPO has provided a summary of the WCT's contents and implications. For more on the WCT, see: https://www.wipo.int/treaties/en/ip/wct/summary_wct.html. Accessed on 24 March 2021.

⁵⁵ WIPO has provided a summary of the WPPT's contents and implications. For more on the WPPT, see: https://www.wipo.int/treaties/en/ip/wppt/summary_wppt.html. Accessed on 24 March 2021.

⁵⁶ For more information about WIPO treaties, see: https://www.wipo.int/copyright/en/activities/internet_treaties.html. Accessed 24 May 2021

4. ASEAN Single Window

The ASW is an initiative that helped provide a secure ICT architecture and legal framework that improves trade facilitation in the region. The ASW does this by connecting and integrating the National Single Window (NSW) of ASEAN Member States, which results in a simplified system that enables “a single submission of data, a single synchronous processing of information, and a single decision-making for customs release and clearance among [ASEAN] and participating parties.”⁵⁷

On 30 December 2019, the Philippines formally joined the live operations of the ASW, which means that the BOC, along with its export coordination division and its export division in the Port of Manila, the Manila International Container Terminal, and the Ninoy Aquino International Airport are now issuing the electronic Certificate of Origin using the Philippines’ NSW [Philippines, Department of Finance (DOF), 2020]. However, the domestic private sector laments that the Philippine government has not only been the last country to adopt the ASW (taking 15 years to do so) but has also failed to fully implement the NSW system because of the government’s inability to coordinate the multiple agencies involved in import-export permits.⁵⁸

Ideally, the ASW should facilitate digital trade integration as it enables ASEAN to digitally exchange documents, to facilitate online processing of permits and other clearances, and to lower communication costs to as much as 10.0 per cent of the original trade costs incurred (Philippines, DOF, 2020).

5. Budapest Convention on Cybercrime

The Convention on Cybercrime is an international treaty that binds countries to adopt measures to combat cybercrime. The treaty was signed in November 2001 at Hungary, Budapest. In the Philippines, President Duterte signed this treaty in 2016 and the Philippine Senate passed a Senate Resolution adopting the same in 2018 (Elemia, 2018).

This becomes relevant for regional digital trade integration because, by becoming a party to the Convention, the Philippines is now bound to harmonize its domestic legal procedures with the international community in order to address the emergence of “safe havens” or areas where criminal activity can remain unchecked. It also strengthens the capability of the country to protect its citizens from cybercrimes by making cybercriminal investigations and proceedings more effective and the collection of electronic evidence more efficient.

V. Conclusion and Policy Recommendations

A. The Philippines is Ready for Regional Digital Trade Integration

The Philippines, as a member of ASEAN, is committed to the formation of an ASEAN Community by 2025. To this end, the country has committed itself to align its policies with its neighbors, especially in terms of trade in goods. However, the rapid development in digital

⁵⁷ For more on the ASW, see: <https://asw.asean.org/about-asw>. Accessed on 24 May 2021.

⁵⁸ Based on the consultation meeting with the domestic private sector.

technology has resulted in the need to expand the formation of the ASEAN Community, particularly to convert the ASEAN Economic Community to a single digital community. This would mean that the country looks at its digital policies and aligns these with its neighbors.

Using the RDTII, this research has found that the Philippines exhibited a relatively open policy and regulatory environment for digital trade. In fact, the country's overall 2020 assessment score was at just 0.342 (See Tables 3 and 4). Moreover, the Philippines ranked as the ninth least restrictive economy from among all the 22 Asia-Pacific economies that were assessed in 2020 and has also performed slightly better against the Asia-Pacific regional average of 0.420 during the same year.

In 2020, the Philippines performed best in three pillars, particularly: pillar 1 (tariffs and trade defense measures); pillar 6 (cross-border data policies); and, pillar 8 (intermediary liability and content access). All of these three pillars scored less than 0.200, thus, indicating a non-restrictive policy and regulatory environment.

In contrast, the Philippines performed worst in three pillars, namely: pillar 2 (public procurement); pillar 3 (foreign direct investment); and, pillar 5 (telecommunications infrastructure and competition). These three pillars reported a score of above 0.610, so these pillars were characterized with having a strongly restrictive policy and regulatory environment.

Meanwhile, other pillars were characterized as being slightly restrictive. In particular, these other pillars cover issues on IPR (pillar 4), domestic policies on the use of data (pillar 7), quantitative trade restrictions (pillar 9), standards (pillar 10), and online sales and transactions (pillar 11), which all received a score ranging from 0.210-0.400.

Perhaps the best factor strengthening the Philippines' position to integrate itself with the Asia-Pacific is its exceptionally low tariffs (pillar 1) that synergizes well with having only slightly restrictive NTMs being imposed (pillars 9 and 10) on digital goods. Effectively applied tariff rates on digital goods imported from the Asia-Pacific was reported at just 0.09 per cent in 2019 and the coverage rate of duty-free tariff lines reached a high of 92.3 per cent during the same year. The Philippines, however, faces two issues on NTMs: first is that the trade of dual-use strategic goods (e.g., electronics, computers, and telecoms of a specified technical standards) have become highly regulated since October 2020; and, second is that the Philippines does not recognize enterprises' self-certification for product safety. These two issues prevent the Philippines from further reducing trade barriers for the trade of digital goods.

Another factor strengthening the Philippines' position is its continuous improvement on IPR enforcement (pillar 4) that complements the country's liberal access to online content (pillar 8). The protection of IPR is a key factor enabling growth in the digital economy. Thus, it is important that policies form a conducive environment that protects IPR. On this aspect, the Philippines has scored 0.294 in 2015, which improved to 0.288 in 2018 and improved further to 0.271 in 2020. The Philippines' IPR performance is a promising indicator because IPR enforcement is an important part of the digital economy as digital sectors are dramatically producing and distributing information-driven products and services, including digital creative products. However, IPR could be rendered irrelevant if online content cannot be accessed in the first place. Fortunately, the Philippines enjoys a non-restrictive policy and regulatory environment on this matter since consumers are free to access online content and license

schemes are non-discriminatory albeit the country could face some challenges because of its content-specific safe harbor provisions.

Another key strength is the Philippines' strong policies on data (pillars 6 and 7). On this aspect, the Philippines has been performing well on both cross-border data policies (pillar 6) and on domestic policies on the use of data (pillar 7). In 2020, the Philippines scored 0.100 on the former and 0.363 on the latter. These scores can be considered low, suggesting that existing data policies, especially the Data Privacy Act of 2012 (RA 10173, Philippines, 2012a), are strong enough to create a conducive environment for regional digital trade integration. However, the Philippines' strong policies on data could also increase trade costs. For instance, Philippine laws require minimum data retention requirements on certain contents and hiring data protection officers.

However, foreign equity limitations (pillar 3) possibly banning foreign equity on some electronic commerce and electronic retailing is a major challenge to the Philippines' digital trade integration with the Asia-Pacific. The Philippines has consistently imposed strong restrictions on foreign direct investments in sectors relevant for digital trade. Since 2015, the Philippines' performance for pillar 3 has scored a high of 0.625. The strongest restriction is felt by retail trade enterprises with paid-up capital of less than \$2.5 million since this sector is prohibited from having any foreign equity. In certain circumstances, foreign equity on electronic commerce can also be prohibited. For example, leasing and subleasing advertising space or operating an online voucher platform intended to increase the sales of a particular product or service can both be considered as mass media activities, thereby prohibiting any foreign equity for these business activities. Electronic commerce represents an important part of digital trade, which means that bans on foreign investment can impede the digital economy's growth, thereby making digital trade integration difficult.

Another major challenge to the Philippines is its highly discouraging policies affecting foreign bidders' participation to public procurement (pillar 2). The Philippines' performance on public procurement related to digital goods and services has been relatively high since 2015 where the score was 0.745. This worsened in 2018 when the score slightly rose to 0.751 owing to a lower 2016 NRI score for government procurement of advanced technology products (relative to the 2015 NRI score). No score changes were reported since 2018. While foreign bidders are permitted to participate in public procurement, there are certain policies that are either highly restrictive or discouraging. For instance, foreign consultants are required to transfer their technology and knowledge in order to be hired under public procurement. Foreign bidders also participate at a disadvantage because of domestic preference and foreign equity restrictions. This suggests that public procurement for digital goods and services are skewed towards domestic bidders, which may have an adverse effect on competition.

Strong barriers to entry also restrict the Philippine telecommunications sector (pillar 5) from growing, thereby undermining an important part of the digital economy. Public utilities are highly regulated in the Philippines and this includes the telecommunications sector. In 2015, the Philippines reported a pillar 5 score of 0.604 on telecommunications infrastructure and competition. This worsened in 2018 when the score slightly rose to 0.620 because of a lower 2016 NRI score for infrastructure relative to the 2015 NRI score. The telecommunications sector serves as the bedrock of the digital economy, so the sector's performance affects multiple industries. Despite the telecommunications sector already having been deregulated in 1995,

barriers to entry form an ill-conducive environment for the sector's growth. For instance, PTEs need to secure a legislative franchise from Congress and a CPCN from the NTC before they are allowed to operate. In addition, the lack of local loop unbundling poses high infrastructure costs for new entrants.

Unfortunately, the constitutional restrictions on foreign equity may prevent or deter foreign investors from participating in the Philippines' electronic commerce and telecommunications industry altogether. It is important then that policies are reviewed to ensure that their main objectives are consistent with the government's goals for digital trade and that the ICT sector is not needlessly compromised.

The infrastructure gap on both ICT and transportation is also a key concern affecting online sales and transactions (pillar 11). Essential services to remote areas rely on a dependable and affordable ICT service, which the Philippines does not have. Moreover, developing the transportation sector remains important, even if transactions occur digitally, because the actual product still needs to go through logistics services in order to be delivered, and logistics is affected by the quality of transportation infrastructure.

The Philippines should also actively participate in international cooperation initiatives that actively discuss rules and standards related to digital trade. By collaborating with the international community, the Philippines can be better informed and can be empowered to actively voice its concerns. As a net exporter of digitally-deliverable services, there is an incentive for the country to ensure that digital trade services, together with its supporting services, remain free or, at most, slightly restrictive.

Despite some weaknesses, the Philippines' overall score of 0.342 suggests that the country is ready to successfully integrate itself with the Asia-Pacific. In fact, the Philippines has a generally open policy environment for digital trade, particularly when compared to its ASEAN neighbors, but the numerous complaints by the private sector indicate the need to further improve the implementation of these policies. Thus, the country should not be complacent and work towards improving the implementation of key regulations on digital trade. The digital economy has shown to evolve rapidly, so it becomes a continuous challenge for both government and the private sector to remain vigilant and to continuously equip itself with the right policies and regulations.

B. What can the Philippines do to successfully integrate its digital trade with the Asia-Pacific region?

This research has shown that there are pillars where serious policy intervention is needed. For instance, this would include pillars 2, 3, and 5. However, it is also in the interest of the Philippines to continuously move to lower levels of restriction and to higher levels of openness. By doing so, the Philippines can ensure that it can successfully integrate its digital trade with the Asia-Pacific region.

Policy interventions are important but these are often constrained by scarce resources and by the need to prioritize. A useful system then is to categorize these policy interventions, for instance, as: (1) "low-hanging fruits," which are policies that can be quickly accomplished by the Executive branch of government; and, (2) "whole-of-government," which are policies that

require the collaborative effort of the Executive and the Legislative branches of government, primarily, and the Judiciary, possibly.

1. Low-Hanging Fruits

1. *Continue the Philippines' active participation in international cooperation initiatives, such as the ITA I, ITA II, and the JSI*

Digital trade would require the coordination and alignment of policies with as many countries as possible. This is so that Philippine businesses would be able to tap into other foreign markets. Thus, the country's participation in international cooperation initiatives should be sustained and continued to be supported. The resources of Philippine representatives to these international cooperation meetings should be sustained as representation at the international level is critical.

2. *Remove the case-by-case determination of mass media*

As discussed in the earlier sections, the case-by-case approach to determining whether an online business or digital platform activity should be categorized as either mass media or as advertising, which has different foreign equity limitations, can result in additional cost for companies. In addition, this approach could create a regulatory environment that is uncertain and ambiguous. Thus, it is recommended that a formal definition be adopted by SEC.

3. *Reduce digital piracy by strengthening digital enforcement capacity*

The 64.0 per cent digital piracy rate in 2017 suggests that a large majority of Philippine users are at risk for cyberattacks. Unlicensed software cannot be patched, which means that hackers could gain control of these users' computer, smartphone, or other similar access device. There may be a need to strengthen the capacity of IPOPHL by increasing the IEO personnel that would monitor and enforce online IP violation reports. While the government has facilitated the signing of an MOU with online platforms and brand owners on the Code of Conduct in Online marketplaces, this may be a weak regulation that may not be able to address the issues of piracy. It is recommended that a stronger regulation for online marketplaces be explored by continuous consultation and discussion with brand owners and marketplaces.

4. *Lift foreign equity limitations on electronic commerce and electronic retailing because these are inherently borderless business models*

Imposing restrictions on these sectors are protectionist policies. A possible way to lift foreign equity limitations, without involving Congress, is to rationalize SEC Opinions so that foreign equity in key sectors of the digital economy can be permitted.⁵⁹

⁵⁹ Based on the consultation meeting with the public sector.

5. *Quantify the cost of policies restricting foreign equity participation in telecommunications and electronic commerce*

While it is understandable that foreign equity participation in a number of sectors are enshrined in the 1987 Philippine Constitution, it is crucial that there is an understanding of the cost of these restrictions to the economy. The Philippine government should, therefore, adopt the Regulatory Impact Assessment (RIA) as a basic practice because this allows agencies to assess the costs and benefits of different regulations prior to implementation. The RIA is a common practice observed by advanced economies. Moreover, the Philippine government should conduct a gap analysis study to determine and delineate regulatory agencies' responsibilities currently implementing programs and initiatives relevant to digital trade.

Further, the Philippines finds it difficult to attract foreign investment in the telecommunications sector because of the strong restrictions to market entry. For instance, the Radio Control Law (RA 3846, Philippines, 1931) mandates telecommunications providers to secure a legislative franchise from Congress and the Public Service Act (Commonwealth Act 146, Philippines, 1936b) limits foreign equity to just 40.0 percent. The latter also requires PTEs, including VAS, to secure a CPCN from the NTC. Acquiring a CPCN, however, is a quasi-judicial process that is both costly and time-consuming.

Furthermore, tech start-ups find it difficult to enter the Philippine market because of the different permits and the multilayered bureaucracy that they need to transact with. This is in contrast to the ease of doing business experience in Singapore where special laws exist to encourage tech start-ups to enter their economy. In addition, the inability to attract tech start-ups disempower the Philippines from growing Unicorns (i.e., a privately-owned start-up with a value that exceeds \$1.0 billion.)

6. *Hasten the effective implementation of the NSW system*

The Philippines has failed to implement the NSW system because of the government's inability to coordinate the multiple agencies involved in import-export permits, which prevents this system from reducing the multiplicity of permits, especially relevant for medical products, and from ensuring that customs duties are implemented consistently and uniformly.

7. *Address implementation issues for a number of policies*

The Philippines has a good policy environment for the digital economy, particularly when compared to its ASEAN neighbors. However, the Philippine government severely lacks the proper mechanisms to implement these policies because the Philippine government is prone to both overregulation and weak inter-agency coordination. On the one hand, overregulation can result in multiple permits that are frustrating for businesses since each regulation adds a layer of complication that then results in additional trade costs. On the other hand, weak inter-agency coordination results in short-lived initiatives that are both inefficient and costly.

2. Whole-of-Government

1. *Amend the constitutional restrictions to foreign participation in key digital industries*

Congress should amend the economic provisions of the 1987 Philippine Constitution (Philippines, 1987), particularly to lift foreign equity restrictions on advertising and mass media, among others. Allowing full foreign ownership on advertising could incentivize foreign investors to operate in the Philippines, thereby creating employment opportunities for the creative workforce of the country. Other economies, such as Japan, the Republic of Korea, and Thailand allow full foreign ownership in advertising.

2. *Enhance consumer participation by addressing issues on cyber security*

Congress should support the Internet Transactions Bill (House Bill 6122, Philippines, House of Representatives, 2020) since this will allow the regulation of cross-border transactions by institutionalizing the Philippine Online Dispute Resolution System. This Bill also covers intermediary liability, which is important for the digital economy.

3. *Enable the digital delivery of government services and leverage government procurement to promote digital transactions and digital trade*

Congress should support the E-Government Bill (House Bill 1248, Philippines, House of Representatives, 2019c) because this institutionalizes the Philippine government's transition to electronic governance. In particular, this Bill would mandate the government to establish an integrated, interconnected, and interoperable information- and resource-sharing in the communications network spanning the entire national and local government. This Bill would also establish an internal records management information system, an information database, and different digital portals for the delivery of public services.

In addition, Congress should amend the Government Procurement Reform Act (RA 9184, Philippines, 2003a), particularly to remove the local reference requirement. This requirement is difficult to fulfill, especially for new technologies and/or novel projects. The need for a local reference effectively bans the participation of foreign contractors and prevents innovation from occurring in the country.

Congress should also amend Commonwealth Act 138 (Philippines, 1936a), particularly to remove the domestic price preference for public procurement amounting to 15.0 per cent since the resulting surcharge adversely affects consumer welfare. In practice, local bidders enter partnerships with foreign suppliers where both of them manipulate the price, thereby resulting in dishonest profits. This practice causes Philippine taxpayers to pay more than what is necessary.

4. *Intensify programs that address the Philippines' digital infrastructure gap*

Basic connectivity allows access to digital services. However, basic connectivity requires both a strong digital infrastructure and a widespread use of digital formats, which the Philippines currently lacks. Thus, strengthening the country's digital

infrastructure is essential to improving access to digital services, especially in remote areas of the country.

5. ***Promote stronger cooperation on IP among the economies in the Asia-Pacific since IP laws remain to be territorial despite trade becoming borderless***

One form of cooperation is in the area of site blocking and take down. While a government agency, such as the IPOPHL, may have the authority to order site blocking or takedown of infringing materials online, these orders do not have an effect if the intermediary (e.g., online platform) is located outside of the Philippines' jurisdiction.

6. ***Explore the adoption of best practices in the country, such as cross-border telebanking, to other sectors***

The banking sector is the Philippines' most advanced sector when it comes to digitalization, primarily because of banking services' repetitive and basic process that is easily automated. This development bodes well for the Philippines because the digital payments system is considered as the lynchpin for digital attraction. In addition to the private sector's efforts, the BSP has also played a key role in ensuring that the banking sector digitalizes successfully. For instance, the BSP has consistently adopted progressive policies, such as on Digital Banks, and programs, such as the National Retail Payment System, and has also regularly chosen to implement regulatory sandboxes and other similar soft-touch approaches to regulating the banking sector. The push for the interoperability of digital payments systems also improved the process among financial institutions, thereby preparing the Philippines for better cross-border payment transactions.

The banking sector has also successfully digitalized the creation of reports to regulatory agencies, such as the BSP, SEC, and the Anti-Money Laundering Council. Two decades ago, the preparation of reports was done manually by a department composed of 20-40 people, or even more. At present, these reports are already completed automatically without any human intervention.

In ASEAN, cross-border telebanking is made possible through the ASEAN Banking Integration Framework (ABIF). In this framework, an applicant bank will be evaluated bilaterally by the other ASEAN members' Central Bank and, if successful, will be allowed to operate in that country's jurisdiction as if they were a local bank. Successful banks are called as a Qualified ASEAN Bank. As of April 2021, the Philippines has already completed bilateral agreements with Malaysia and Viet Nam.

Given all of these advancements from both the private sector and the BSP, it would be beneficial for other sectors to learn from the banking sector's experience and to begin adopting similar policies that are contextualized to their own sector.

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Appendix 1 Key messages from the consultation meetings with stakeholders

This Appendix presents the 38 key messages that the authors summarized from the 29 participating institutions and offices from both the private sector and the public sector. Participants from the private sector are anonymized per PIDS' Data Privacy Policy, so only participants from the public sector can be listed here.

1. Bangko Sentral ng Pilipinas (Central Bank of the Philippines)
 - a. Technology Risk and Innovation Supervision Department
 - b. Monetary and Financial Policy Studies Group
2. Congressional Policy and Budget Research Department – Socio-Economic Research Bureau
3. Department of Justice – Office of Cybercrime
4. Department of Trade and Industry
 - a. Consumer Policy and Advocacy Bureau
 - b. Fair Trade Enforcement Bureau
 - c. Strategic Trade Management Office
5. Government Procurement Policy Board
6. Intellectual Property Office of the Philippines
 - a. Bureau of Copyright and Related Rights
 - b. Intellectual Property Rights Enforcement Bureau
7. National Economic and Development Authority
 - a. Infrastructure Staff
 - b. Social Development Staff
 - c. Trade, Service, & Industry Staff
8. National Privacy Commission
9. National Telecommunications Commission
10. Philippine Competition Commission
11. Securities and Exchange Commission
 - a. Company Registration and Monitoring Department
 - b. Enforcement and Investor Protection Department
 - c. Office of the General Counsel

1. The Philippine Digital Economy (General)

1. The Philippines has a good policy environment for the digital economy, particularly when compared to its ASEAN neighbors. However, the Philippine government severely lacks the proper mechanisms to implement these policies because the Philippine government is prone to both overregulation and weak inter-agency coordination. On the one hand, overregulation can result in multiple permits that are frustrating for businesses since each regulation adds a layer of complication that then results in additional trade costs. On the other hand, weak inter-agency coordination results in short-lived initiatives that are both inefficient and costly.
2. The Philippine government recognizes the importance of digital trade and digital health. In fact, different government agencies have issued policies and guidelines in support to digitalization. However, policies in the Philippines need to be all-encompassing. The Philippine government often enacts policies for the benefit of consumers but businesses

circumvent these policies by transferring the costs associated with the new policy back to consumers. For instance, when the BSP imposed a cap on credit card finance charges, banks responded by increasing their credit card service charges instead.

3. Digitalization helps transform how people conduct things in their daily life. For instance, Grab and Uber digitalized the taxi industry in the Philippines, which altered how on-demand transportation services are experienced. Unfortunately, the Philippines does not capitalize on the advantages associated with being a first-mover (i.e., the Philippines is reactive instead of proactive). This is problematic for the digital economy because digitalization requires innovation and novel ideas.
4. Basic connectivity allows access to digital services. However, basic connectivity requires both a strong digital infrastructure and a widespread use of digital formats. The Philippines currently lacks both.

1.1 Competition

5. The Philippines must be able to match international standards, especially on efficiency and pricing, in order to successfully compete in the region. For the digital economy, the telecommunications sector should be competitive vis-à-vis regional counterparts. However, the Philippines' telecommunications duopoly is hardly competitive. In ASEAN, the duopoly between Globe and PLDT is considered by foreign investors, such as from Indonesia, Japan, and Singapore, to be a highly profitable business at the expense of Filipino consumers (i.e., consumers pay more than what is necessary).
6. The Philippines has gained little from the expansion of global supply chains. Instead, both Indonesia and Viet Nam gained from this expansion by implementing strategic policies and programs.

1.2 Cybersecurity (including Intellectual Property Rights Protection)

7. The Philippines' weak IPR protection against digital piracy diminishes the country's trustworthiness for digital transactions. The 64.0 per cent digital piracy rate in 2017 suggests that a large majority of Philippine users are at risk for cyberattacks. Unlicensed software cannot be patched, which means that hackers could gain control of these users' computer, smartphone, or other similar access device. In response to this issue, the IPOPHL has intensified its enforcement efforts online by revising the IEO Rules and Regulation to cover online IP violation reports and by facilitating a Memorandum of Understanding between online platforms and brand owners on a Code of Conduct in Online Marketplaces. The IPOPHL also heightened IP awareness campaigns by offering free basic IP seminars and taking advantage of its social media presence.
8. The Philippines needs to identify who they consider as safe countries that adhere to international cybersecurity standards because the global order is becoming more protective of their data. In the United States, for instance, they launched the Clean Network Program that is a comprehensive approach to safeguarding the United States' assets, including citizens' privacy and companies' most sensitive information, from aggressive and malign activities. This Program strengthens cybersecurity by identifying

and restricting which telecommunications and broadband networks are allowed to connect to networks in the United States. For example, Chinese telecommunications networks and broadband equipment were banned through this Program, which means that businesses in the Philippines who transact with the United States cannot utilize these banned networks and equipment.

9. The censorship of digital content varies from country-to-country. Censorship is important for regional integration because a country needs to comply or align themselves with the censorship rules of their trading partners. For instance, if Singapore blocks a particular media content, does the Philippines need to block it as well for Singaporean citizens residing in the country? Alternatively, should Singapore also prevent Filipino nationals living in Singapore from accessing the same media content? Unfortunately, these rules are not yet well-defined, even more so at a global and regional scale, but this could have important implications for future regional integration.
10. Patients in the Philippines prefer receiving telemedicine services through social media platforms, such as Viber and WhatsApp, since this is convenient for them. However, this practice poses two problems. First, this increases the patient's risk for cybersecurity attacks, such as on their personal and medical information. Second, the consultation process becomes casual since patients can just send a direct message to their doctor similar to how they message their family and friends. This practice, in the context of the Filipino culture, discourages the doctor from charging the patient since the line between business and casual transactions have now been blurred.

1.3 Foreign Investments

11. The Philippines finds it difficult to attract foreign investment in the telecommunications sector because of the strong restrictions to market entry. For instance, the Radio Control Law (RA 3846, Philippines, 1931) mandates telecommunications providers to secure a legislative franchise from Congress and the Public Service Act (Commonwealth Act 146, Philippines, 1936b) limits foreign equity to just 40.0 percent. The latter also requires PTEs, including VAS, to secure a CPCN from the NTC. Acquiring a CPCN, however, is a quasi-judicial process that is both costly and time-consuming.
12. Tech start-ups find it difficult to enter the Philippine market because of the different permits and the multilayered bureaucracy that they need to transact with. This is in contrast to the ease of doing business experienced in Singapore where special laws exist to encourage tech start-ups to enter their economy. In addition, the inability to attract tech start-ups disempower the Philippines from growing Unicorns (i.e., a privately-owned start-up with a value that exceeds \$1.0 billion.)
13. The Philippines does not have a public cloud network hub, which means that businesses situated in the Philippines need to outsource network hubs from other countries, such as Australia, the Republic of Korea, and Singapore. This outsourcing results in having a slow and costly cloud service to the detriment of Filipino consumers. Foreign equity restrictions on VAS, where cloud services are included, also force foreign businesses to resell their cloud resources to local firms. Incidentally, foreign firms are restricted from building their own data centers in the Philippines.

14. The SEC adopts a case-by-case approach to determining whether an online business or digital platform activity should be categorized as either mass media or as advertising, which has different foreign equity limitations. In 2018, SEC issued Opinion 18-21 (Philippines, SEC, 2018a) that provided only guidelines for this determination since SEC considers online platform content to be variable and mutable.
15. There is no separate foreign equity requirement between physically-delivered and electronically-delivered retailing. SEC reaffirmed that the Retail Trade Liberalization Act (RA 8762, Philippines, 2000c) does not distinguish retail trade between physical and electronic means.
16. There are no foreign equity restrictions in the Philippines' banking sector. Republic Act 10641 (Philippines, 2013) granted the full entry of foreign banks in the Philippines.

1.4 Infrastructure

17. There is a digital infrastructure gap in the Philippines that hampers the digital economy. Essential services to remote areas rely on a dependable and affordable ICT service, which the Philippines does not have. For instance, rural areas reportedly have less access to telemedicine services as compared to urban areas, especially metropolitan cities.
18. There is a digital divide experienced in the Philippines that results to unequal access to social services and other economic opportunities. One example where poor digital infrastructure affects the digital economy can be observed in the banking sector. Back-end services in the Philippines are inefficient and expensive, so several banks choose to just outsource from other countries, such as India and Pakistan, thereby removing opportunities for domestic back-end providers.
19. The weak digital infrastructure found in rural areas often compromise the ability of health practitioners to practice telemedicine in the Philippines. The amount of bandwidth is an important factor for the success of telemedicine services, so reaching the minimum standards for bandwidth is important. In the United States, the minimum recommended bandwidth speed ranges from 4MBps, for a singly physician practitioner, to 100MBps, for a fully-operating hospital.
20. Developing the transportation sector is also an important factor that will drive digital trade. While electronic commerce has digitalized the sale of merchandise, the actual product still needs to go through logistics services in order to be delivered. Logistics is affected by the quality of the transportation sector, particularly air, sea, and land freight.

1.5 International Cooperation (including Cross-Border Data Transfers)

21. Mutual Recognition Agreements (MRAs) are important for regional integration. In ASEAN, for instance, three MRAs for healthcare professionals already exist but these MRAs were designed at a time where foreign practitioners need to travel physically to another country. These MRAs do not prohibit the practice of digital health services, but it does not specify anything either. However, these ASEAN MRAs are often highly

politicized. In practice, a healthcare professional would still need to acquire the proper license in order to practice in a particular ASEAN country, thus, leaving behind the spirit of harmonization supposedly found in the MRA. In the Philippines, both the Medical Act of 1959 (RA 2382, Philippines, 1959) and the 1987 Philippine Constitution mandates that only Filipinos can practice medicine in Philippine jurisdiction.

22. Data privacy and data sharing regulations, both domestically and internationally, is unclear. Domestically, there are bureaucratic issues in data sharing across offices in the public and private sectors. Likewise, the lack of common data standards makes data sharing difficult. Internationally, the Philippines is bound by the Data Privacy Act of 2012 (RA 10173, Philippines, 2012a) that states that the consent of the concerned parties should be gathered prior to sharing sensitive personal information. The law also limits off-site access to just 1,000 records at a time.
23. Unstandardized Health Information Systems and Electronic Medical Records may hamper the cross-border exchange of medical data. The lack of harmonization or standardization in data formats create a non-interoperable system in the region. Efforts to harmonize or standardize, however, is challenged by regulatory barriers on cross-border data privacy and cross-border data sharing.

1.6 Public Procurement

24. Foreign bidders are eligible to participate in public procurement, subject to certain limitations, such as domestic preference and local reference requirement. The Philippine government does not view domestic preference as an issue insofar as competition and free trade is concerned. The government, as the procuring agency, opined that it should be given the discretion to set conditions for public procurement, provided that it must ensure that minimum relevant standards are met and that such exercise of discretion is advantageous to it. Moreover, in such transactions, the government must not be engaged in a proprietary function.
25. The Philippine government does not require publicly procured goods to be sourced or manufactured using only local materials. The DTI (2019b) Department Order No. 19-01, series of 2019, emphasized the general policy that in the procurement of goods, regardless of the procurement method used, domestic preference shall be considered in favor of unmanufactured articles, materials, or supplies of the growth or production of the Philippines, and of manufactured articles, materials, and supplies to be produced, made, and manufactured **substantially** using articles, materials, or supplies from the Philippines.
26. Foreign businesses often become sub-contractors to local bidders who won public procurement biddings. This practice is particularly troublesome for technology-related sectors because local bidders often do not have the technical capability to successfully fulfill the awarded projects. Instead, local bidders rely on foreign suppliers that were sub-contracted, thereby slowing project completion, increasing costs, and losing efficiency relative to if the project had been awarded to the foreign contractor instead.
27. Data on public procurement needs to be made public in order to ensure transparency, accountability, and equitability in the procurement process. It is important to release this data in formats, such as spreadsheets, comma-separated values, or even JavaScript

Object Notation, that would make it easier for stakeholders to analyze, share, and re-use the data. Hence, there is a need to revisit the policies relative to the issuance of public procurement data.

2. Philippine Digital Trade (General)

28. Digital trade is a potential source of connectivity, especially to increase the Philippines' export growth. Financial services, ICT services, and electronic commerce benefit from digital trade. In fact, the contribution of digital trade was measured at PhP160 billion in 2017, or about 1.8 per cent of GDP, and this is expected to grow further to PhP1.9 trillion in 2030.
29. The Business Process Outsourcing (BPO) sector has experienced substantial growth in the Philippines, but the BPO sector's clients are primarily overseas. This suggests that the sector can grow further by also catering to domestic clients. For instance, digital health services in the Philippines often rely on in-house BPO services instead of capitalizing on the advanced knowledge that healthcare BPOs already have. This practice prevents knowledge transfer, which becomes a disservice to consumers.

2.1 Cross-Border Telebanking

30. The banking sector is the Philippines' most advanced sector when it comes to digitalization, primarily because of banking services' repetitive and basic process that is easily automated. This development bodes well for the Philippines because the digital payments system is considered as the lynchpin for digital attraction. In addition to the private sector's efforts, the BSP has also played a key role in ensuring that the banking sector digitalizes successfully. For instance, the BSP has consistently adopted progressive policies and programs, such as the National Retail Payment System, and has also regularly chosen to implement regulatory sandboxes and other similar soft-touch approaches to regulating the banking sector. The push for the interoperability of digital payments systems also improved the process among financial institutions, thereby preparing the Philippines for better cross-border payment transactions.
31. The majority, if not all, of Filipino banks have a designated digital transformation officer, which suggests that the Philippine banking sector is committed to digitalizing the sector. In addition, the banking sector views digitalization as an important factor that would help them maintain their competitiveness in the next decade. Banks that fail to digitalize their products and services could face difficulty surviving.
32. The banking sector has successfully digitalized the creation of reports to regulatory agencies, such as the BSP, SEC, and the Anti-Money Laundering Council. Two decades ago, the preparation of reports was done manually by a department composed of 20-40 people, or even more. At present, these reports are already completed automatically without any human intervention.
33. The BSP (2020) issued BSP Circular No. 1105 that provides Guidelines on the Establishment of Digital Banks. This Circular created a new banking license that allows a bank to operate digitally without the need to establish a physical branch in the country. However, these digital banks must have a minimum capitalization of PhP1.0 billion and

are also required to maintain a principal or head office in the Philippines, which will serve as the main point of contact for stakeholders. As of April 2021, the Philippines has already one digital bank, namely TONIK Bank, which also operates in India and Singapore.

34. In ASEAN, cross-border telebanking is made possible through the ABIF. In this framework, an applicant bank will be evaluated bilaterally by the other ASEAN members' Central Bank and, if successful, will be allowed to operate in that country's jurisdiction as if they were a local bank. Successful banks are called as a Qualified ASEAN Bank. As of April 2021, the Philippines has already completed bilateral agreements with Malaysia and Viet Nam.

2.2 International Trade

35. The Philippine government regulates the international trade of strategic goods. The Strategic Trade Management Act (RA 10697, Philippines, 2016b) was enacted to fulfill the Philippines' international commitment and obligations, including the United Nations Security Council Resolution 1540 (United Nations, 2004), to take and enforce effective measures to establish domestic controls to prevent the proliferation of Weapons of Mass Destruction, including their means of delivery, to maintain international peace and security, and to promote economic growth by facilitating trade and investment through the responsible management of strategic goods with the provision of related services. It is worth noting that STCs are outside the WTO's TBT and that STCs are not classified as an NTM. Further, Art. XXI of the General Agreement on Tariffs and Trade does not prohibit members from "taking any action in pursuance of its obligation under the United Nations Charter for the maintenance of international peace and security."
36. The STMO, recognizing the importance of proper and effective implementation of STCs, has issued guidelines and policies consistent with international best practices from already well-established regimes, such as the European Union, Japan, Malaysia, Singapore, and the United States. The STMO leverages the Philippine STC system as a value proposition to attract investments in Advanced Technology Products and to generate jobs for skilled Filipino workers. For instance, the STMO has adopted the issuance of two license types. First, the global license for the trade of strategic goods and provision of related services to multiple end-users in one or more countries is valid for up to five years. Second, the general license for the trade of low-risk strategic goods to low-risk destination countries is valid for a lifetime.
37. The BOC has recently launched their Customs Modernization Program that is expected to be completed by 2024. This particular project is a big step for digital trade because it digitalizes the predominantly paper-based customs procedures of the Philippines.
38. Permits on the importation of ICT-related goods, such as drives and software, impose a possible NTB. In addition, the OMB also requires companies to secure a permit before a QR code can be deployed. These requirements are archaic, and it is also frustrating for businesses operating in the Philippines.

Appendix 2 Relevant laws, regulations, and jurisprudence affecting each RDTII pillar

<i>Pillar</i>	<i>Relevant laws, regulations, and jurisprudence; year entered into force in the Philippines</i>
1. Tariffs and trade defense measures applied on intraregional imports of ICT-related goods	<ul style="list-style-type: none"> ▪ WTO Information Technology Agreement (ITA), 1996 ▪ RA 8751 (An Act strengthening the mechanisms for the imposition of countervailing duties on imported subsidized products, commodities or articles of commerce to protect domestic industries from unfair trade competition, amending for the purpose Section 302, part 2, title II, book I of Presidential Decree No. 1464, otherwise known as the Tariff and Customs Code of the Philippines, as amended.), 1999 ▪ RA 8752 (Anti-Dumping Act of 1999), 1999 ▪ RA 8800 (Safeguard Measures Act), 2000 ▪ WTO ITA II, 2015 ▪ RA 10863 (Customs Modernization and Tariff Act), 2016
2. Public procurement related to digital goods and services	<ul style="list-style-type: none"> ▪ Commonwealth Act 138 (An Act to give native products and domestic entities the preference in the purchase of articles for the government), 1936 ▪ WTO Agreement on Government Procurement, not in force ▪ 1987 Philippine Constitution (Art. XII, Sects. 10 and 12), 1987 ▪ RA 9184 (Government Procurement Reform Act), 2003 ▪ RA 10667 (Philippine Competition Act), 2015 ▪ DICT Department Circular 2017-002 (Prescribing the Philippine Government's Cloud First Policy), 2017 ▪ DTI Department Order No. 19-01 (Guidelines in the issuance of a certificate of preference for domestic bidders participating in government procurement projects), 2019
3. Foreign direct investment in sectors relevant for digital trade	<ul style="list-style-type: none"> ▪ RA 3846 (An Act providing for the regulation of radio stations and radio communications in the Philippine islands, and for other purposes), 1931 ▪ Commonwealth Act 146 (Public Service Act), 1936 ▪ Presidential Decree No. 1018 (Limiting the ownership and management of mass media to citizens of the Philippines and for other purposes), 1976 ▪ 1987 Philippine Constitution, 1987 ▪ RA 7042 (Foreign Investments Act of 1991), 1991 ▪ RA 7925 (Public Telecommunications Policy Act of the Philippines), 1995 ▪ NTC Memorandum Circular No. 08-09-95 (Implementing rules and regulations for Republic Act No. 7925 re: an act to promote and govern the development of Philippine telecommunications and the delivery of public telecommunications services), 1995 ▪ RA 8179 (An Act to further liberalize foreign investments, amending for the purpose Republic Act No. 7042, and for other purposes), 1996 ▪ DOJ Opinion No. 040 (Is Internet Considered Mass Media), 1998 ▪ RA 8762 (Retail Trade Liberalization Act of 2000), 2000 ▪ GR 124293 (JG Summit Holdings, Inc. v. Court of Appeals, Committee on Privatization, its Chairman and members; Asset Privatization Trust and Philyards Holdings, Inc.), 2003 ▪ RA 9211 (Tobacco Regulation Act of 2003), 2003 ▪ SEC Opinion No. 12-16 (Marketing and sale of discount coupons), 2012 ▪ RA 10641 (An Act allowing the full entry of foreign banks in the Philippines, amending for the purpose Republic Act No. 7721), 2013

	<ul style="list-style-type: none"> ▪ SEC Opinion No. 14-06 (Marketing and sale of digital publication through the internet and mobile technology; advertising; mass media), 2014 ▪ RA 10667 (Philippine Competition Act), 2015 ▪ SEC Opinion No. 16-21 (Entities engaged in mass media and advertising), 2016 ▪ SEC Opinion No. 17-07 (Foreign equity limitation), 2017 ▪ 11th Foreign Investment Negative List, 2018 ▪ SEC SP Case No. 08-17-001 (In Re: Rappler, Inc. and Rappler Holdings Corporation), 2018 ▪ RA 11232 (Revised Corporation Code of the Philippines), 2019 ▪ House Bill 59 (An Act setting the minimum paid-up capital and locally produced stock inventory requirements for foreign retail business enterprises, amending for the purpose Republic Act No. 8762, otherwise known as the “Retail Trade Liberalization Act of 2000”), 2019 ▪ House Bill 78 (An Act providing for the definition of public utility, further amending for the purpose Commonwealth Act No. 146, otherwise known as the “Public Service Act”, as amended), pending bill
4. Intellectual Property Rights	<ul style="list-style-type: none"> ▪ Berne Convention for the Protection of Literary and Artistic Works, 1951 ▪ RA 8293 (Intellectual Property Code), 1997 ▪ WIPO Copyright Treaty, 2002 ▪ WIPO Performances and Phonograms Treaty, 2002 ▪ GR 172835 (Air Philippines Corporation v. Pennswell, Inc.), 2007 ▪ House Bill 9148 (New IP Act), pending Bill ▪ Senate Bill 497 (Philippine Online Infringing Act), pending Bill
5. Telecommunications infrastructure and competition	<ul style="list-style-type: none"> ▪ RA 3846 (An Act providing for the regulation of radio stations and radio communications in the Philippine islands, and for other purposes), 1931 ▪ Commonwealth Act 146 (Public Service Act), 1936 ▪ 1987 Philippine Constitution, 1987 ▪ RA 7925 (Public Telecommunications Policy Act), 1995 ▪ DICT Department Circular No. 008 (Policy guidelines on the co-location and sharing of passive telecommunications tower infrastructure for macro cell sites), 2020
6. Cross-border data policies	<ul style="list-style-type: none"> ▪ Office of the President Memorandum Circular 78 (Promulgating rules governing the security of classified matter in government offices), 1964 ▪ RA 10173 (Data Privacy Act of 2012), 2012 ▪ BSP Circular No. 899 (Amendments to the guidelines on outsourcing), 2016 ▪ APEC Cross-Border Privacy Rules system, 2020 ▪ DICT Department Circular No. 10 (Amendments to Department Circular No. 2017-002, Re: Prescribing the Philippine government’s cloud-first policy), 2020
7. Domestic policies on the use of data	<ul style="list-style-type: none"> ▪ 1987 Philippine Constitution (Art. III, Sect. 3(1)), 1987 ▪ NTC Memorandum Circular No. 04-06-2007 (Datalog retention of telecommunications traffic), 2007 ▪ RA 10173 (Data Privacy Act of 2012), 2012 ▪ RA 10175 (Cybercrime Prevention Act of 2012), 2012 ▪ NPC Advisory Opinion No. 2017-65 (Child online protection (COP) and government access to suspect’s media accounts and e-mail), 2017
8. Intermediary liability and content access	<ul style="list-style-type: none"> ▪ RA 8792 (Electronic Commerce Act of 2000), 2000 ▪ RA 10175 (Cybercrime Prevention Act of 2012), 2012 ▪ Convention on Cybercrime, 2018 ▪ RA 11479 (Anti-Terrorism Act of 2020), 2020

9. Quantitative trade restrictions	<ul style="list-style-type: none"> ▪ RA 10697 (Strategic Trade Management Act), 2016
10. Standards	<ul style="list-style-type: none"> ▪ RA 4109 (Standards Law), 1964 ▪ DTI Department Administrative Order No. 19-08 (National recognition for standards development organizations), 2019
11. Online sales and transactions	<ul style="list-style-type: none"> ▪ Presidential Decree No. 1018 (Limiting the ownership and management of mass media to citizens of the Philippines and for other purposes), 1976 ▪ 1987 Philippine Constitution, 1987 ▪ RA 7042 (Foreign Investments Act of 1991), 1991 ▪ RA 7394 (The Consumer Act of the Philippines), 1992 ▪ UNCITRAL Model Law on Electronic Commerce, 1996 ▪ DOJ Opinion No. 040 (Is Internet Considered Mass Media), 1998 ▪ RA 8792 (Electronic Commerce Act of 2000), 2000 ▪ UNCITRAL Model Law on Electronic Signatures, 2001 ▪ RA 9211 (Tobacco Regulation Act of 2003), 2003 ▪ SEC Opinion No. 12-16 (Marketing and sale of discount coupons), 2012 ▪ SEC Opinion No. 14-06 (Marketing and sale of digital publication through the internet and mobile technology; advertising; mass media), 2014 ▪ SEC Opinion No. 16-21 (Entities engaged in mass media and advertising), 2016 ▪ RA 10863 (Customs Modernization and Tariff Act), 2016 ▪ SEC Opinion No. 17-07 (Foreign equity limitation), 2017 ▪ 11th Foreign Investment Negative List, 2018 ▪ SEC SP Case No. 08-17-001 (In Re: Rappler, Inc. and Rappler Holdings Corporation), 2018 ▪ House Bill 6122 (Internet Transactions Act), pending Bill

Source: Authors' compilation (as of 29 April 2021)

Appendix 3 List of digital goods⁶⁰

Section 1: inclusion by category

3818 Chemical elements doped for use in electronics, discs wafers etc, chemical compounds for use in electronics

8443 Printing machinery used for printing by means of plates, cylinders and other printing components of heading 84.42; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof

8456 Machine tools for working any material by removal of material, by laser or other light or photon beam, ultrasonic, electro-discharge, electro-chemical, electron beam, ionic-beam or plasma arc processes.

8464 Machine tools for working stone, ceramics, concrete, asbestos-cement or like minerals or for cold working glass

8469 Typewriters other than printers of heading 84.43; word processing machines

8470 Calculating machines and pocket-size data recording, reproducing and displaying machines with calculating functions; accounting machines, postage-franking machines, ticket-issuing machines and similar machines, incorporating a calculating device; cash registers

8471 Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, nesoi.

8472 Other office machines (for ex hectograph or stencil duplicating machines, addressing machines, automatic banknote dispensers, coin-sorting machines, coin-counting or wrapping machines, pencil-sharpening machines, perforating or stapling machines)

8473 Parts and accessories (other than covers, carrying cases and the like) suitable for use solely or principally with machines of heading 84.69 to 84.72

8486 machines and apparatus of a kind used solely or principally for the manufacture of semiconductor boules or wafers, semiconductor devices, electronic integrated circuits or flat panel displays; machines and apparatus specified in Note 9 (C) to this Chapter

8504 Electrical transformers, static converters (for ex rectifiers) and inductors

⁶⁰ This entire list was lifted from Lee-Makiyama (2011, pp.27-30).

8514 Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss

8517 Telephone sets, including telephones for cellular networks or for other wireless networks, other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network

8518 Microphones and stands therefore; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers, audio-frequency electric amplifiers

8519 Sound recording or reproducing apparatus.

8521 Video recording or reproducing apparatus, whether or not incorporating a video turner

8522 Parts and accessories suitable for use solely or principally with the apparatus of heading 85.19 to 85.21

8523 Discs, tapes, solid-state non-volatile storage devices, smart cards and other media for the recording of sound or of other phenomena, whether or not recorded, including matrices and masters for the production of discs

8525 Transmission apparatus for radio broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras, digital cameras and video camera recorders

8526 Radar apparatus, radio navigational aid apparatus and radio remote control apparatus

8527 Reception apparatus for radio broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock

8528 Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio broadcast receivers or sound or video recording or reproducing apparatus

8529 Parts suitable for use solely or principally with the apparatus of heading 85.25 to 85.28

8532 Electric capacitors, fixed, variable or adjustable (pre-set)

8533 Electrical resistors (including rheostats and potentiometers) other than heating resistors

8534 Printed circuits

8536 Electrical apparatus for switching or protecting electrical circuits, or for making connections to or electrical circuits (for example, switches, relays, fuses, surge suppressors, plugs, sockets, lamp-holders and other connectors, junction boxes)

8540 Thermionic, cold cathode or photo-cathode valves and tubes (for example, vacuum or vapour or gas filled valves and tubes, mercury and rectifying valves and tubes, cathode-ray tubes, television camera tubes)

8541 Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes; mounted piezo-electric crystals

8542 Electronic integrated circuits

8543 Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter

8544 Insulated (including enamelled or anodised) wire, cable (including co-axial cable) and other insulated electric conductors, whether or not fitted with connectors; optical fibre cables, made up of individually sheathed fibres

9001 Optical fibres & optical fibre bundles etc, polarising sheets, unmounted optical elements

9010 Apparatus and equipment for photographic (including cinematographic) laboratories, not specified or included elsewhere in this chapter; negatoscopes, projection screens

9011 Compound optical microscopes, including those for photomicrography or microprojection

9012 Microscopes other than optical microscopes; diffraction apparatus

9017 Drawing, marking-out or mathematical calculating instruments (for example, drafting machines, pantographs, protractors, drawing sets, slide rules, disc calculators); instruments for measuring length, for use in the hand (for example, measuring rods)

9026 Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (for example, flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of heading 90.14, 90.15, 90.28

9027 Instruments and apparatus for physical or chemical analysis (for ex. Polarimeters, refractometers, gas or smoke analysis apparatus); instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension

9029 Revolution counters, production counters, taximeters, mileometers, pedometers and the like; speed indicators and tachometers, other than those of heading 90.14 or 90.15; stroboscopes

9030 Oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities, excluding meters of heading 90.28

Section 2: inclusion by product / product currently covered by ITA and additions

701710 Laboratory glassware, whether/not graduated/calibrated, of fused quartz/other fused silica

841989 Machinery, plant & equipment, not elsewhere specified in Chapter 84, other than for making hot drinks/for cooking/heating food, whether/not electrically heated

841990 Parts of machinery, plant/laboratory equipment, whether/not electrically heated (excluding furnaces, ovens & other equipment of heading 85.14

842119 Other centrifuges, including centrifugal dryers, excluding cream separators & clothesdryers

842489 Other mechanical appliances (whether/not hand-operated) for projecting, dispersing/spraying liquids/powders; excluding 8424.10, 8424.20, 8424.30, 8424.81

842490 Parts of mechanical appliances (whether/not hand-operated) for projecting, dispersing/spraying liquids/powders; fire extinguishers, whether/not charged; spray guns & similar appliances; steam/sand blasting machines & similar jet projecting machines

846691 Parts & accessories for machines of heading 84.64

846693 Parts & accessories for machines of heading 84.56 to 84.61

847710 Injection-moulding machines

847790 Parts of machinery for working rubber/plastics/for the manufacture of products from these materials, not specified/included elsewhere in this Chapter

847950 Industrial robots, not elsewhere specified/included

847989 Other machines & mechanical appliances, other than machines & mechanical appliances for treating metal

847990 Parts of machines & mechanical appliances having individual functions, not specified/included elsewhere in this Chapter

848071 Moulds for rubber/plastics, injection/compression types

850650 Primary cells & primary batteries lithium

853120 Indicator panels incorporating liquid crystal devices (chemically defined)/light emitting diodes (LED)

853190 Parts of the apparatus of 85.31

903141 Optical instruments & appliances for inspecting semiconductor wafers/devices/for inspecting photomasks/reticles used in manufacturing semiconductor devices (excluding 9030.82)

903149 Other optical instruments & appliances, other than 903141

903190 Parts & accessories of the instruments, apparatus & machineries of 9031

Appendix 4 List of Asia-Pacific economies included in this study

A total of 52 economies were included in this study's assessment.

AFG	Afghanistan	SLB	Solomon Islands
ARM	Armenia	THA	Thailand
AUS	Australia	TJK	Tajikistan
AZE	Azerbaijan	TKM	Turkmenistan
BGD	Bangladesh	TMP	East Timor
BRN	Brunei Darussalam	TON	Tonga
BTN	Bhutan	TUR	Turkey
CHN	China	TUV	Tuvalu
FJI	Fiji	UZB	Uzbekistan
FSM	Micronesia, Federated States of	VNM	Viet Nam
GEO	Georgia	VUT	Vanuatu
HKG	Hong Kong (China)	WSM	Samoa
IDN	Indonesia		
IND	India		
IRN	Iran, Islamic Republic of		
JPN	Japan		
KAZ	Kazakhstan		
KGZ	Kyrgyz Republic		
KHM	Cambodia		
KIR	Kiribati		
KOR	Korea, Republic of		
LAO	Lao PDR		
LKA	Sri Lanka		
MAC	Macao		
MDV	Maldives		
MHL	Marshall Islands		
MMR	Myanmar		
MNG	Mongolia		
MYS	Malaysia		
NPL	Nepal		
NRU	Nauru		
NZL	New Zealand		
PAK	Pakistan		
PHL	Philippines		
PLW	Palau		
PNG	Papua New Guinea		
PRK	Korea, Democratic Republic of		
PYF	French Polynesia		
RUS	Russia		
SGP	Singapore		

Appendix 5 Technical notes for pillar 2 (public procurement on digital goods and services)

NTMs that restrict the eligibility of firms from participating in public procurement can hinder the free flow of digital goods and services in the Philippines. For this purpose, RDTII pillar 2 identified five indicators that probe into the competition and intellectual property issues. These indicators include (1) measures that exclude foreign firms from public procurement, including digital goods and services; (2) restrictions on source code, encryption, and trade secrets; (3) other restrictive practices (including local content requirements); (4) an economy's participation to the WTO GPA; and, (5) an economy's NRI score for government procurement of advanced technology products.

RA 9184 (Government Procurement Reform Act, Philippines, 2003a) created and authorized the GPPB to “protect [the] national interest in all matters affecting public procurement, having due regard to the country's regional and international obligations [and] to formulate and amend public procurement policies, rules and regulations, and amend its IRR, whenever necessary (Philippines, GPPB, 2016, p.109).”

The GPPB's revised 2016 IRR defines an eligible bidder to be: (1) a duly licensed Filipino citizen/sole proprietorship; (2) a cooperative; or, (3) a partnership, corporation, or joint venture that has at least a 60.0 per cent Filipino ownership.⁶¹ This precludes completely foreign-owned entities from participating albeit the IRR does allow foreign bidders under certain circumstances.

Appendix 9 of the GPPB revised 2016 IRR defined foreign suppliers and foreign contractors differently. The former are “citizens of a foreign country or an entity where Filipino ownership or interest is less than sixty per cent (60 per cent) who is engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid,” whereas the latter is “a citizen of a foreign country or an entity where Filipino ownership or interest is less than seventy-five per cent (75 per cent) offering infrastructure-related services other than consulting services.”

Foreign bidders are allowed only: (1) when the goods sought to be procured are not available from local suppliers; (2) when there is a need to prevent situations that defeat competition or restrain trade; (3) when the foreign supplier, manufacturer, and/or distributor is a citizen, corporation or association of a country the laws or regulations of which grant reciprocal rights or privileges to citizens, corporations or associations of the Philippines, irrespective of the availability of goods from local suppliers; or, (4) when provided for under any treaty or international or executive agreement. Incidentally, the procurement of infrastructure projects is more restrictive. Foreign contractors are allowed only when provided for under any treaty or international or executive agreement, or if they form a joint venture with local contractors. Hiring foreign consultants, meanwhile, is allowed by law but only when “local consultants do not have the sufficient expertise, capability, and capacity to render the services required under the project (Philippines, GPPB, 2016, p.231).”

⁶¹ In cases where no entity with a 60.0 per cent Filipino ownership adequately satisfies a procurement's requirement, the law grants that entities with less than 60.0 per cent Filipino ownership be made eligible for as long as Filipino ownership does not fall below 25.0 per cent.

These provisions show that foreign firms, under certain circumstances, are eligible to participate in government procurement. However, domestic preference in goods, legislated by Commonwealth Act No. 138 (Philippines, 1936a) and duly expressed by the GPPB's IRR Rule XII, may be allowed for public procurement when: "(1) a domestic entity's bid is not more than fifteen per cent (15 per cent) over the lowest foreign bid; and, (2) that the domestic bidder has secured from DTI a certification that the articles forming part of its bid are substantially composed of articles, materials, or supplies grown, produced, or manufactured in the Philippines."

Domestic preference will continue to remain for as long as it is included in the 1987 Philippine Constitution (Philippines, 1987) where "in the grants of rights, privileges, and concessions covering the national economy and patrimony, the State shall give preference to qualified Filipinos (Art. XII, Sect. 10) [and that] the State shall promote the preferential use of Filipino labor, domestic materials, and locally produced goods, and adopt measures that help make them competitive (Art. XII, Sect. 12)."

Incidentally, the Constitutional grant for domestic preference is in conflict with the Philippines' possible accession to the WTO GPA, which requires complete non-discrimination of domestic and foreign bidders. Thus, it is unlikely that domestic preference would be removed from Philippine policy under the present Constitution. However, the Philippines has already been granted Observer status to the GPA as of 26 June 2019. It joins Indonesia, Malaysia, Thailand, and Viet Nam as fellow ASEAN observers. Singapore remains to be the sole ASEAN party that is a signatory to the GPA.

Particular to cloud services, Philippine policy provided through the DICT's (2017) Department Circular 2017-002 (Prescribing the Philippine Government's Cloud First Policy) requires that government agencies procure only the services of accredited Cloud Service Providers (CSPs). The Circular mandates a baseline certification and/or protocol for accrediting CSPs, which includes industry-tested and accepted standards and algorithms.⁶² Nonetheless, foreign firms are not prohibited from applying for accreditation, thus, enabling them to participate in the public procurement for cloud services.

⁶² Security assurance requirements include ISO/IEC 27001 (information security management) and payment card industry data security standard, while encryption requirements include AES (128 bits and higher), TDES (minimum double-length keys), RSA (1024 bits or higher), ECC (160 bits or higher) and ElGamal (1024 bits or higher).

Appendix 6 Technical notes for pillar 3 (foreign direct investment in sectors relevant for digital trade)

FDI promotes competition and helps domestic economies integrate with the rest of the world, and this can promote innovation and economic growth to host economies. FDI is one key factor that would enable digital trade integration. RDTII pillar 3 has four pillar categories that assess how much business equity is allowed for foreigners, whether nationality or residency is an issue for businesses' top management, or whether special requirements or procedures take place before FDI is accepted.

In the Philippines, FDI is regulated by RA 7042 (Foreign Investments Act of 1991, Philippines, 1991), which was amended by RA 8179 in 1996 (Philippines, RP, 1996). One of the key features of RA 7042 is mandating the National and Economic Development Authority (NEDA) to regularly formulate and issue the FINL, which provides “a list of areas of economic activity whose foreign ownership is limited to a maximum of forty per cent (40 per cent) of the equity capital of the enterprises engaged therein [Sect. 3(g)].”

The FINL contains two important components. On the one hand, list A provides the areas of activities reserved for Philippine nationals. These areas limit foreign ownership to a maximum of 40.0 per cent, in accordance with the Constitution and specific laws. On the other hand, list B enumerates all other sectors where foreign ownership is limited due to reasons of security, defense, a risk to health and morals, and protection of small and medium scale enterprises. As of November 2020, the Philippines continues to follow the 11th FINL (Philippines, 2018).

Under existing laws, the Philippines imposes a complete ban of foreign ownership on mass media, except recording and internet business,⁶³ and retail trade enterprises with paid-up capital of less than \$2.5 million.⁶⁴ This ban greatly restricts FDI for telecommunications and electronic commerce, which then have consequences to digital trade integration.

No single legal definition of what constitutes “mass media” exists under Philippine law. Instead, it is defined through statutory definitions and opinions issued by DOJ and SEC. Notably, SP Case No. 08-17-001 mentioned that “the constitutional and statutory foreign equity restrictions in mass media must be related to the broader state policy in Art. II, Sect. 19 of the Constitution, which declares that the State shall develop a self-reliant and independent national economy effectively controlled by Filipinos (Philippines, SEC, 2018b, p.8).”

In 1976, Sect. 1 of Presidential Decree No. 1018 defined “mass media” as “the print medium of communication, which includes all newspapers, periodicals, magazines, journals, and publications and all advertising therein, and billboards, neon signs and the like, and the

⁶³ The 11th FINL exempts internet business from mass media. DOJ (1998) issued Opinion No. 40 (whether the Internet constitutes “mass media”) that defined internet business as “internet access providers that merely serve as carriers for transmitting messages, rather than being the creator of messages or information.”

⁶⁴ Foreigners are allowed to wholly own retail trade enterprises if it has a paid-up capital of \$2.5 million or more (provided that investments for establishing their business is not less than \$250,000). However, the Retail Trade Liberalization Act of 2000 (RA 8762, Philippines, 2000c) provides an exemption. Businesses that specializes in high-end or luxury products are allowed full foreign ownership for as long as the paid-up capital per store is not less than \$250,000.

broadcast medium of communication, which includes radio and television broadcasting in all their aspects and all other cinematographic or radio promotions and advertising (Philippines, 1976).” Excerpts from DOJ (1998) Opinions added to this definition by describing mass media as those “designed to reach the masses and that tends to set standards, ideals, and aims of the masses (DOJ Opinion No. 163, s.1973). The distinctive feature of any mass media undertaking is the dissemination of information and ideas to the public, or a portion thereof (DOJ Opinion No. 120, s.1982)”

Electronic media, including the internet, became part of mass media only in 2003 when RA 9211 (Tobacco Regulation Act of 2003, Philippines, 2003b) took effect. Several SEC Opinions further clarified what qualifies as electronic media as part of mass media. For instance, SEC Opinion No. 17-07 (Philippines, SEC, 2017) clarified that the internet per se is not necessarily mass media. Instead, it is how the internet is used that determines if it qualifies as a mass media activity. The same opinion considered firms that offer to post a client’s customized digital content in their proprietary platform to be a form of mass media activity. Other examples of mass media activity, include: leasing and subleasing advertising space or structure to others is also another example of mass media activity (Philippines, SEC, 2016); and, the operation of an online voucher platform intended to increase the sales of a particular product or service (Philippines, SEC, 2012).

It is important to emphasize that the condition is to provide services to third-parties because a SEC (2018a) Opinion 18-21 highlighted that not all digital platforms are automatically considered as mass media. In the same opinion, SEC also provided guidance for enterprises rendering services to third-party clients to determine whether their business activity falls under the scope of mass media or advertising.

On the one hand, in order to not be an advertising activity, an online or mobile app platform operator should not:

1. Write or prepare commercial messages or materials for the products of their third-party clients to be posted in their platform or mobile app.
2. Select for or advise their third-party clients what medium or vehicle to use to disseminate the advertising materials and commercial messages.

On the other hand, in order to not be a mass media activity, an online or mobile app platform operator should:

1. [Have] no pervasive or indiscriminate display to the general public of any promotional materials or advertisements on the products or services being offered by the third-party clients or even the platform or mobile app itself.
2. Only [have] the following information [...] made available in the app, website, or platform:
 - a. Enumeration of the services offered by the platform itself;
 - b. Instruction on how to use the said platform;
 - c. Enumeration of third-party partner, and this shall only be limited to the listing of the name or logo of the third-party client;
 - d. Any other information on the platform required to be disclosed by any law or regulatory measures.

3. [Ensure that] the disclosure of the products and services offered by its third-party clients is only for the purpose of completing the transaction enabled by the app, website, or platform.

Other sectors with foreign equity limitations are: advertising⁶⁵ (up to 30.0 per cent foreign equity); the operation of public utilities⁶⁶ (up to 40.0 per cent foreign equity); and, domestic market enterprises with paid-in equity capital of less than the equivalent of \$200,000, or those which involve advanced technology or employ at least 50 direct employees with paid-in equity capital of less than the equivalent of \$100,000 (up to 40.0 per cent foreign equity).

The Philippine Congress recognizes this restrictive environment and has sought to liberalize the telecommunications sector and retail trade. For the former, House Bill 78 (Philippines, House of Representatives, 2019d) seeks to exclude telecommunications from public utilities, thus, allowing full foreign ownership. However, retired Supreme Court Associate Justice Antonio Carpio explained that House Bill 78 is unconstitutional (Manila Standard, 2020). For the latter, House Bill 59 (Philippines, House of Representatives, 2019a) lowers the required minimum capital for foreign retail investors from \$2.5 million to \$200,000, and also reduces the required locally manufactured products carried by foreign retailers from 30.0 per cent to 10.0 per cent of the aggregate cost of their stock inventory.

Foreign ownership restrictions also extend to members of a firm's management. For instance, mass media firms cannot employ foreign nationals as part of their Board of Directors. Moreover, Sect. 4 of the Revised Corporation Code of the Philippines (RA 11232, Philippines, 2019) mandates a residency requirement for select corporate officers, namely: the treasurer and the secretary.

⁶⁵ Art. 4(b) of RA 7394 (Consumer Act of the Philippines, Philippines, 1992) defined advertising as "the business of conceptualizing, presenting, or making available to the public, through any form of mass media, fact, data, or information about the attributes, features, quality or availability of consumer products, services or credit."

Advertising and mass media were differentiated by SEC (2012, p.3) Opinion No. 12-16 where "advertising agencies do not actually disseminate the materials they prepare as they have to utilize or avail of the facilities of mass media [...] for this purpose. Advertising agencies falling within this concept are not mass media, considering that they do not operate or control any medium of communication designed to reach or influence the masses, although the activities of such agencies, by their nature, are closely related to those of mass media. However, where the advertising agency actually disseminates information, or operates, controls or otherwise engages in the business of mass media, [...] then such advertising agencies would fall within the purview of the constitutional limitation."

An important caveat provided by SEC (2014) Opinion No. 14-06 is that the foreign equity limitation imposed on advertising qualifies only for wholesale activities. Retail activities are instead governed by RA 8762 (Retail Trade Liberalization Act of 2000, Philippines, 2000c).

⁶⁶ Philippine jurisprudence (JG Summit Holdings v. Court of Appeals, et al., GR No. 124293, Philippines, Supreme Court of the Philippines, 2003) defined a public utility as "a business or service engaged in regularly supplying the public with some commodity or service of consequence, such as electricity, gas, water, transportation, telephone or telegraph service."

Screening of FDI also exists in the telecommunications sector, primarily through the necessity of acquiring licenses and even a legislative franchise from Congress.⁶⁷ Barcenas and Serafica (2018) mentions that the process of acquiring a legislative franchise could take around two years but can extend up to five years because of how Congress operates (i.e., all bills are terminated once a new Congress convenes, which happens every three years. Terminated bills will then have to be re-filed.) Apart from a legislative franchise, telecommunications service providers also need to apply for CPCN issued by the NTC, which is a quasi-judicial process. Barcenas and Serafica (2018) explains that a provider's application can be opposed by affected parties (e.g., those whose assigned frequencies might be affected, the Office of the Solicitor General, local legislative bodies, and NTC Regional Offices, among others).

⁶⁷ PTEs are required to secure a legislative franchise from Congress. However, the National Telecommunications Commission's (NTC, 1995) Memorandum Circular No. 08-09-95 explicitly mentions that a non-PTE VAS "shall not be required to secure a franchise from Congress (p.6)." Sect. 3(h) of RA 7925 (Philippines, 1995) defined VAS as an "entity relying on transmission, switching and local distribution facilities of the local exchange and inter-exchange operators, and overseas carriers, offers enhanced services beyond those ordinarily provided for by such carriers."

Further, standard legislative franchises granted thus far include a provision for the sale, lease, transfer, grant of usufruct, or assignment of franchise, which explicitly states that "the grantee shall not sell, lease, transfer, grant the usufruct of, nor assign this franchise or the rights and privileges acquired thereunder to any person, firm, company, corporation, or other commercial or legal entity, nor merge with any other corporation or entity, nor the controlling interest of the grantee be transferred, simultaneously or contemporaneously, to any person, firm, company, corporation, or entity without the prior approval of the Congress of the Philippines."