

Elms, Deborah; Nguyen, Minh Hue

Working Paper

Trans-Pacific partnership rules for digital trade in Asia

ADB Working Paper, No. 746

Provided in Cooperation with:

Asian Development Bank Institute (ADBI), Tokyo

Suggested Citation: Elms, Deborah; Nguyen, Minh Hue (2017) : Trans-Pacific partnership rules for digital trade in Asia, ADB Working Paper, No. 746, Asian Development Bank Institute (ADBI), Tokyo

This Version is available at:

<https://hdl.handle.net/10419/179202>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by-nc-nd/3.0/igo/>



ADB Working Paper Series

TRANS-PACIFIC PARTNERSHIP RULES FOR DIGITAL TRADE IN ASIA

Deborah Elms and
Minh Hue Nguyen

No. 746
June 2017

Asian Development Bank Institute

Deborah Elms is the executive director and Minh Hue Nguyen is a research assistant, both at the Asian Trade Centre in Singapore.

The views expressed in this paper are the views of the author and do not necessarily reflect the views or policies of ADBI, ADB, its Board of Directors, or the governments they represent. ADBI does not guarantee the accuracy of the data included in this paper and accepts no responsibility for any consequences of their use. Terminology used may not necessarily be consistent with ADB official terms.

Working papers are subject to formal revision and correction before they are finalized and considered published.

The Working Paper series is a continuation of the formerly named Discussion Paper series; the numbering of the papers continued without interruption or change. ADBI's working papers reflect initial ideas on a topic and are posted online for discussion. ADBI encourages readers to post their comments on the main page for each working paper (given in the citation below). Some working papers may develop into other forms of publication.

ADB recognizes "China" as the People's Republic of China; "Hong Kong" as Hong Kong, China; and "Korea" as the Republic of Korea.

Unless otherwise stated, boxes, figures and tables without explicit sources were prepared by the authors.

Suggested citation:

Elms, D. and M. H. Nguyen. 2017. Trans-Pacific Partnership Rules for Digital Trade in Asia. ADBI Working Paper 746. Tokyo: Asian Development Bank Institute. Available: <https://www.adb.org/publications/trans-pacific-partnership-rules-digital-trade-asia>

Please contact the authors for information about this paper.

Email: elms@asiantradecentre.org, minhhue@asiantradecentre.org

Asian Development Bank Institute
Kasumigaseki Building, 8th Floor
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500
Fax: +81-3-3593-5571
URL: www.adbi.org
E-mail: info@adbi.org

© 2017 Asian Development Bank Institute

Abstract

Digital trade is upending the way consumers and companies do business. Digital trade and e-commerce have become major drivers of economic development by enhancing productivity and lowering costs of trade in goods. But government policies have been slow to catch up with the increasing importance of cross-border data flows and the way that domestic regulations can help or hinder trade internationally.

The first trade agreement to consider the importance of digital trade, the Trans-Pacific Partnership (TPP), introduced several new rules that deal with these critical issues. Why did seven Asian countries (Australia, Brunei, Japan, Malaysia, New Zealand, Singapore and Viet Nam) in the TPP with very different domestic policies in place to address digital trade and e-commerce agree to follow a similar set of policies for the sector?

Keywords: digital trade, TPP, Asia, free trade agreement

JEL Classification: F13

Contents

1.	THE RESEARCH PUZZLE	1
2.	INTRODUCTION	1
3.	DEFINITION AND SCOPE OF DIGITAL TRADE	4
4.	LITERATURE REVIEW	5
5.	TPP PROVISIONS ON DIGITAL TRADE	7
5.1	Market Access for Digital Goods and Services	7
5.2	Protecting Innovation, Technology Choice, and Copyrights	9
5.3	Protecting Privacy of Consumers	10
6.	CURRENT STATE OF DIGITAL TRADE IN SEVEN ASIAN TPP COUNTRIES	11
6.1	Market Access for Digital Goods and Services	11
6.2	Protecting Innovation, Technology Choice, and Copyrights	13
6.3	Protecting the Privacy of Consumers	15
7.	GAPS BETWEEN CURRENT STATUS AND TPP STANDARDS	16
7.1	Domestic Level	16
7.2	Regional Level	19
8.	WHY ADDRESS DIGITAL TRADE IN THE TPP?	20
8.1	Attract Investment	20
8.2	Enhance and Facilitate the Business Environment	21
8.3	Modernize Regulations	22
8.4	Loss of Competitive Advantage	22
8.5	Facilitate Digital Trade and Supply Chains	23
8.6	Facilitate Regional Integration	23
9.	IMPLICATIONS AND CONCLUSIONS	23

1. THE RESEARCH PUZZLE

Why did seven Asian countries in the Trans-Pacific Partnership (TPP) trade agreement, with very different domestic policies in place to address digital trade and e-commerce, agree to follow a similar set of policies for the sector? This question is especially puzzling given a lack of consensus about the appropriate regulatory frameworks needed to encourage digital trade, particularly early in the negotiating period.

This paper traces the evolution of the digital trade provisions in the TPP agreement with a particular focus on the seven Asian participants: Australia, Brunei, Japan, Malaysia, New Zealand, Singapore and Viet Nam.

Understanding the motivations for joining the TPP and harmonizing provisions for the digital economy matters regardless of what ultimately happens to the TPP agreement.

2. INTRODUCTION

The Trans-Pacific Partnership (TPP) is one of the most important trade agreements negotiated to date. It was negotiated with 12 members including Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States and Viet Nam. The agreement was concluded in October 2015 and final texts were signed in February 2016.¹

Under US President Donald Trump, the US has officially withdrawn from the TPP and is no longer involved. It is now up to the 11 remaining TPP countries to decide what will happen next. Four options available include: (i) the TPP will be killed, (ii) the TPP will be put in the “freezer”, (iii) the TPP will be saved in some other forms, and (iv) the TPP will move forward as it currently exists at least on a “provisional” basis.²

By the time of US withdrawal in January 2017, Japan and New Zealand had fully ratified the TPP. The first high-level ministerial meeting after the US announcement was held in Chile in March 2017 to discuss next steps. Another meeting is to take place on the sidelines of APEC in May. These are clear signs that TPP11 countries have not given up on the TPP.

Regardless of what happens in the end with the TPP, the digital trade and e-commerce provisions in the agreement are important. These elements are the most likely to be “picked up” and transferred to other trade forums and carried forward in different settings.

In addition, the research puzzle remains—what prompted seven Asian countries with widely different domestic regulatory approaches to agree to converge under a single set of TPP rules?

The TPP is not a standard trade agreement. It is deeper and broader than existing trade arrangements. It includes not just tariff reductions, but tariff cuts to zero in nearly every product category. It also addresses non-tariff barriers that plague businesses. A large regional agreement is better suited to supply chains and the production

¹ Full texts and schedules are available at: <https://www.tpp.mfat.govt.nz/text> [Accessed: 29 November 2016]

² Deborah Elms. “TPP: Not Dead Yet.” *Asian Trade Centre Talking Trade Blog*. Retrieved from: <http://www.asiantradecentre.org/talkingtrade//not-dead-yet> [Accessed on March 27, 2017]

processes of companies. The agreement also tries to tackle many of the newer issues like regulatory barriers.

Of particular importance for this paper, the TPP has more extensive commitments than nearly any other agreement for e-commerce and digital trade.

Given the rising importance of the internet to future economic growth, this aspect is essential. A 2012 McKinsey report shows that SMEs with Web technologies gained an 11% productivity increase on average.³ In developed countries, internet access extension could enhance long run productivity by as much as 25% in developing countries.⁴ The Internet Association estimates the internet has contributed 21% of GDP growth of advanced economies in the last five years.⁵ This report also shows that economies with more internet connections could see additional 40% in benefits compared to less connected economies.⁶

Internet access, of course, does not automatically translate into digital trade. There is not a clear division between digital trade and e-commerce. Many regard the latter as a smaller element of the former, focused more narrowly on the shipment of goods using the internet. But for many (or perhaps most) trade officials, e-commerce is the generic term used to describe any form of commerce using the internet including digital services and digital products. Hence this paper uses both terms. Of particular relevance for trade officials negotiating the TPP was the movement (or potential movement) of digital trade and e-commerce across country borders and the rules and regulations that would allow or constrain such behavior.

Digital trade is thus one crucial economic driver for many countries. The proliferation of the internet has increasingly connected digital to almost all aspects of the economy. McKinsey shows that from 1990 to 2014 the value of global flows of goods, services and finance increased six fold from \$5 trillion to \$30 trillion, equivalent to 39% of global GDP.⁷ In 2014, cross-border data flows contributed \$2.8 trillion to global GDP—or approximately 3.6%.⁸ This impact is higher than the flows of goods—which was at \$2.7 trillion in 2014.⁹

³ Olivia Nottebohm, James Manyika, Jacques Bughin, Michael Chui and Abdur-Rahim Syed (2012, January). *Online and upcoming: the Internet's impact on aspiring countries*. McKinsey. Retrieved from: <http://www.mckinsey.com/industries/high-tech/our-insights/impact-of-the-internet-on-aspiring-countries> [Accessed: 29 November 2016]

⁴ Deloitte (2014, February). *Value of connectivity: Economic and social benefits expanding internet access*. Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/TechnologyMediaCommunications/2014_uk_tmt_value_of_connectivity_deloitte_ireland.pdf [Accessed: 29 November 2016]

⁵ Internet Association (IA) (2015, January). *The Internet & Global Trade: Launching small businesses into the global marketplace*. Retrieved from: http://internetassociation.org/wp-content/uploads/2015/01/Final_Print_IA_CaseStudies.pdf [Accessed: 29 November 2016]

⁶ Internet Association (IA) (2015, January). *The Internet & Global Trade: Launching small businesses into the global marketplace*. Retrieved from: http://internetassociation.org/wp-content/uploads/2015/01/Final_Print_IA_CaseStudies.pdf [Accessed: 29 November 2016]

⁷ Manyika, J., Lund, S., Bughin, J., Woetzel, J., Stamenov, K., Dhingra, D., & Al-Jaghoub, S. (2016). "Digital globalization: The new era of global flows." *McKinsey Global Institute*, February. Retrieved from: <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows> [Accessed: 29 November 2016]

⁸ In 2014, world GDP was USD\$78,088,515,958,673 according to World Bank World Development Indicators. Retrieved from: <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#> [Accessed: 29 November 2016]

⁹ Manyika, J., Lund, S., Bughin, J., Woetzel, J., Stamenov, K., Dhingra, D., ... & Al-Jaghoub, S. (2016). *Digital globalization: The new era of global flows*. *McKinsey Global Institute*, February. Retrieved from:

Even though some free trade agreements (FTAs) have addressed digital trade issues to some extent, none are as comprehensive and consequential as the TPP (as shown in Figure 1)¹⁰. The high standards of TPP promise an advanced playing field for the digital economy in Asia and the Pacific.

Figure 1: Comparison between TPP and Other FTAs

Economic Partnership/ FTA	Entered into Force	Stated Duty-free Moratorium	Cross-border Trade in Services Chapter	Negative-list Approach	Digital Carve-outs	Balanced Copyright	Intermediary Liability Protections
Singapore–Australia	2003	YES	NO	NO	N/A	NO	NO
US–Singapore	2004	YES	YES	YES	YES	PARTIAL	YES
Republic of Korea–ASEAN	2007	YES	YES	YES	MINOR ⁺	NO	NO
Japan–ASEAN	2008	NO	NO	NO	N/A	NO	NO
US–Peru	2009	YES	YES	YES	YES	PARTIAL	YES
PRC–ASEAN	2010	NO	YES	NO	N/A	NO	NO
PRC–Korea	2015	YES	YES	NO [*]	MINOR ⁺	MINOR	NO
PRC–Hong Kong, China	2016	NO	YES	NO	YES	NO	NO
TPP	?	YES	YES	YES	MINOR [#]	YES	YES

^{*} However, planned MFN negotiations in two years are to proceed on negative list approach.

⁺ Online airline ticket reservation websites are not covered by agreement.

^{*} Only online sale of alcohol for Korea is exempt.

[#] Malaysia, Brunei and Viet Nam have longer implementation timelines.

Source: Asian Trade Centre (2016). Digital Trade and the TPP: How Asia Pacific Benefits.

<http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows> [Accessed: 29 November 2016]

¹⁰ Asian Trade Centre (2016). *Digital Trade and the TPP: How Asia Pacific benefits*. Retrieved from: <http://www.asiantradecentre.org/tpp/> [Accessed: 29 November 2016]

Reaching this standard, however, may be challenging for the seven Asian TPP members given their economic development and regulatory gaps.¹¹ While countries like Brunei, Malaysia and Viet Nam may have a long way to go in order to fulfill the standards TPP has set; countries like Australia and New Zealand have been more influenced by EU regulations as members of the OECD and Commonwealth. The first group has larger gaps between the TPP and existing policies and practices than the latter group. This suggests that TPP commitments by some members can be seen as a bold move. The reasons why these countries opted to sign up for such ambitious outcomes are worth serious investigation. The key question is why did these seven countries agree to TPP provisions on digital trade despite gaps and challenges? Answering this question will lead to better understanding of what TPP rules could do for digital trade in Asia and other FTAs in the future.

3. DEFINITION AND SCOPE OF DIGITAL TRADE

There have been different definitions for digital trade used in research papers and institutional reports. For example, the United States International Trade Commission (USITC)'s report on "Digital Trade in the U.S and Global Economies (Part 1)" defines digital trade as "commerce in products and services delivered via the Internet."¹² Whereas, in Peterson Institute for International Economics (PIIE)'s analysis on TPP "Assessing the Trans-Pacific Partnership – Volume 2: Innovations in Trading Rules," digital trade is discussed using a broader scope – covering not only online commercial transactions but also additional issues such as intellectual property rights, privacy and the protection of national interests.¹³

In the TPP legal text, Electronic Commerce chapter (chapter 14), **digital products** are defined as "a computer programme, text, video, image, sound recording or other product that is digitally encoded, produced for commercial sale or distribution, and that can be transmitted electronically." (Article 14.1)

Even though the TPP has one chapter for the topic of E-commerce, in other chapters of this trade deal there are also provisions that have significant impacts on digital trade such as Technical Barriers to Trade (TBT) and Intellectual Property Right (IPR) chapters. In order to cover more TPP provisions that will potentially influence the development of digital trade, this paper will discuss digital trade with a broad scope similar to PIIE's analysis¹⁴—including commercial issues and other aspects such as IPR, privacy and national interests.

¹¹ It should be noted that non-Asian members may also face challenges, but this paper focuses on only the Asian members.

¹² USITC (2013, July). Digital Trade in the U.S. and Global Economies, Part 1. Retrieved from: <https://www.usitc.gov/publications/332/pub4415.pdf> [Accessed: 29 November 2016]

¹³ Lee Branstetter (2016, March). TPP and Digital Trade, p72. In Jeffrey J. Schott and Cathleen Cimino-Isaacs (2016, March). Assessing the Trans-Pacific Partnership, Volume 2: Innovations in Trading Rules. *Peterson Institute for International Economics Briefing* 16-4. Retrieved from: <https://piie.com/publications/piie-briefings/assessing-trans-pacific-partnership-volume-2-innovations-trading-rules> [Accessed: 29 November 2016]

¹⁴ Lee Branstetter (2016, March). TPP and Digital Trade, p72. In Jeffrey J. Schott and Cathleen Cimino-Isaacs (2016, March). Assessing the Trans-Pacific Partnership, Volume 2: Innovations in Trading Rules. *Peterson Institute for International Economics Briefing* 16-4. Retrieved from: <https://piie.com/publications/piie-briefings/assessing-trans-pacific-partnership-volume-2-innovations-trading-rules> [Accessed: 29 November 2016]

4. LITERATURE REVIEW

There have been a number of academic papers devoted to the TPP. Most research papers either focus on the overall impact of TPP or analyze how TPP will affect some specific sectors. Not enough attention has been paid to some important aspects such as the impact of TPP on the regional economy in Asia or the effect of the TPP on non-TPP members.

As shown in table 1, most of TPP research papers either focus on the overall impact of TPP, its impacts on Asia and the Pacific, or on a few sectors. Even though these figures from Google Scholar Search do not represent all available academic papers, it can give a good sense of which direction the research interests are skewed towards and which important topics have not been adequately covered. This is particularly true for the case of digital trade and seven Asian TPP countries.¹⁵

Table 2 shows more results for the topic “Digital Trade and Trans-Pacific,” but none of them address the topic of how the TPP affects digital trade in Asia.

Table 1: Google Scholar Advance Search Result – As of 6 November 2016

Keywords in Title	No of Results
Trans-Pacific Partnership	765
Region-Specific Search Results	
Trans-Pacific Partnership + Asia and the Pacific	49
Trans-Pacific Partnership + Asia – Asia and the Pacific ¹⁶	9
Country-Specific Search Results	
Trans-Pacific Partnership + Japan	33
Trans-Pacific Partnership + Viet Nam	23
Trans-Pacific Partnership + New Zealand	9
Trans-Pacific Partnership + Malaysia	8
Trans-Pacific Partnership + Singapore	2
Trans-Pacific Partnership + Brunei	1
Sector-Specific Search Results	
Trans-Pacific Partnership + Trade	139
Trans-Pacific Partnership + Trade Agreement	71
Trans-Pacific Partnership + Investment	44
Trans-Pacific Partnership + IP/Intellectual Property	35
Trans-Pacific Partnership + Public Health	28
Trans-Pacific Partnership + Pharmaceutical	12
Trans-Pacific Partnership + Tobacco	11
Trans-Pacific Partnership + Environment	6
Trans-Pacific Partnership + Agriculture	6
Trans-Pacific Partnership + Food	5
Trans-Pacific Partnership + Copyright	5
Trans-Pacific Partnership + Textile	3
Trans-Pacific Partnership + Digital Trade	0

Source: Google.

¹⁵ In this paper, seven Asian TPP countries are Australia, Brunei, Japan, Malaysia, New Zealand, Singapore and Viet Nam.

¹⁶ To get results that cover Asia but not Asia and the Pacific.

Table 2: Google Advance Search Result – As of 6 November 2016

Keywords in Title	No of Results
Digital Trade Trans-Pacific Partnership	62
Digital Trade Trans-Pacific Partnership Asia	0

Source: Google.

Most of the available high-quality resources discuss the global effects of the TPP.¹⁷ Among these publications, only PIIE briefing's "Assessing the Trans-Pacific Partnership, Volume 2: Innovations in Trading Rules" has a chapter discussing the role of TPP on digital trade.¹⁸ A small number of papers focus on the regional impacts of TPP.¹⁹

Various TPP country Departments of Foreign Affairs and Trade (such as Australia's Department of Foreign Affairs and Trade, Canada's Global Affairs, and New Zealand's Ministry of Foreign Affairs and Trade) have published useful chapter summaries that point out the most significant provisions in TPP legal text. However, these are brief summaries without in depth analysis.

Hence, there is a gap in the literature in looking at the digital trade provisions and examining how and why these rules matter for Asian economies. Regardless of what ultimately happens with the TPP agreement, many of the commitments are likely to be implemented at the domestic level across the member states. The TPP texts may also be picked up and used in other trade arenas in the future. It is therefore important to understand what the rules are, how they are meant to be implemented, and why member states in Asia agreed to offer dramatic changes in domestic legislation to make the TPP happen for digital trade.

¹⁷ World Bank (2016, January). *Topical Issue: Potential Macroeconomic Implications of the Trans-Pacific Partnership*. Retrieved from: <https://www.worldbank.org/content/dam/Worldbank/GEP/GEP2016a/Global-Economic-Prospect-2016-Implications-Trans-Pacific-Partnership-Agreement.pdf> [Accessed: 29 November 2016]; Peter A. Petri and Michael G. Plummer (2016, January). The Economic Effects of the Trans-Pacific Partnership: New Estimates. *Peterson Institute for International Economics Working Paper* 16-2. Retrieved from: <https://piie.com/publications/working-papers/economic-effects-trans-pacific-partnership-new-estimates> [Accessed: 29 November 2016]; Elliott, K. A., Freund, C., Gelpert, A., Hendrix, C. S., Hufbauer, G. C., Kotschwar, B., ... & Petri, P. A. (2016, February). Assessing the Trans-Pacific Partnership, Volume 1: Market Access and Sectoral Issues. *Peterson Institute for International Economics Briefing* 16-1. Retrieved from: <https://piie.com/publications/piie-briefings/assessing-trans-pacific-partnership-volume-1-market-access-and-sectoral> [Accessed: 29 November 2016]; and Jeffrey J. Schott and Cathleen Cimino-Isaacs (2016, March). Assessing the Trans-Pacific Partnership, Volume 2: Innovations in Trading Rules. *Peterson Institute for International Economics Briefing* 16-4.

¹⁸ Lee Branstetter (2016, March). TPP and Digital Trade, p72. In Jeffrey J. Schott and Cathleen Cimino-Isaacs (2016, March). Assessing the Trans-Pacific Partnership, Volume 2: Innovations in Trading Rules. *Peterson Institute for International Economics Briefing* 16-4. Retrieved from: <https://piie.com/publications/piie-briefings/assessing-trans-pacific-partnership-volume-2-innovations-trading-rules> [Accessed: 29 November 2016]

¹⁹ Peter A. Petri and Michael G. Plummer (2012, June). The Trans-Pacific Partnership and Asia-Pacific Integration: Policy Implications. *Peterson Institute of International Economics Policy Brief* 12-16. Retrieved from: <https://piie.com/publications/policy-briefs/trans-pacific-partnership-and-asia-pacific-integration-policy> [Accessed: 29 November 2016]; and Peter A. Petri, Michael G. Plummer and Fan Zhai (2011). *The Trans-Pacific Partnership and Asia-Pacific Integration: A Quantitative Assessment*. Publisher: Peterson Institute for International Economics.

5. TPP PROVISIONS ON DIGITAL TRADE

The TPP is the first FTA that has a deep focus on digital trade and puts considerable effort in promoting the development of this area.²⁰ TPP provisions on digital trade have gone well beyond WTO standards.²¹ The most influential provisions are on data localization, customs duties and trade discriminatory measures, cross-border data movement, technology transfer, cyber-security, copyright and consumer privacy. These provisions come from E-commerce chapter and other chapters such as Intellectual Property Rights (IPR), and Technical Barriers to Trade (TBT). In general, these provisions will have influences on three important aspects of the digital economy: (i) market access for digital goods and services, (ii) protection of innovation and copyright, and (iii) consumer privacy protection.²² This section will discuss each in turn.

5.1 Market Access for Digital Goods and Services

5.1.1 Preventing Data Localization

Data localization rules are requirements that companies keep data onshore. That is, companies are required to keep information in whole or in part in servers that are geographically located in a member state. Countries are starting to require this because they believe that data is more secure or that information will be more private if held onshore than allowed to transfer offshore or because they want to be able to hold someone accountable in cases of data breaches. Some governments appear to be fond of requiring data localization because they believe it will result in good jobs.

But it is not clear that data localization rules accomplish any of the stated objectives. Data held locally does not always result in better security or privacy and often results in worse outcomes in both aspects. The total number of jobs required for a server farm is quite small—often a literal handful of positions.

Also, data localization regulations often come at a cost for businesses because they are forced to locate their data storage centers onshore or use computing facilities onshore—which prevents businesses from making the most cost-effective decision. According to a study of ECIPE in 2014,²³ proposed or enacted data localization regulations would result in GDP losses in some countries. This study estimates the loss would be 0.2% in Brazil, 1.1% in People's Republic of China (the PRC), 0.4% in EU, 0.1% in India, 0.5% in Indonesia, 0.4% in Republic of Korea and up to 1.7% in Viet Nam. Another study on cloud computing by Leviathan Security Group estimates that

²⁰ USTR. *The Trans-Pacific Partnership – Promoting Digital Trade Fact Sheet*. Retrieved from: <https://ustr.gov/sites/default/files/TPP-Promoting-Digital-Trade-Fact-Sheet.pdf> [Accessed: 29 November 2016]

²¹ World Bank (2016, January). *Topical Issue: Potential Macroeconomic Implications of the Trans-Pacific Partnership*, p220. Retrieved from: <https://www.worldbank.org/content/dam/Worldbank/GEP/GEP2016a/Global-Economic-Prospect-2016-Implications-Trans-Pacific-Partnership-Agreement.pdf> [Accessed: 29 November 2016]

²² In Lee Branstetter (2016, March). TPP and Digital Trade, p72. In Jeffrey J. Schott and Cathleen Cimino-Isaacs (2016, March). *Assessing the Trans-Pacific Partnership, Volume 2: Innovations in Trading Rules*. Peterson Institute for International Economics Briefing 16-4, the analysis is also broken down into these three main categories. Retrieved from: <https://piie.com/publications/piie-briefings/assessing-trans-pacific-partnership-volume-2-innovations-trading-rules> [Accessed: 29 November 2016]

²³ Matthias Bauer, Hosuk Lee-Makiyama, Erik van der Marel and Bert Verscheide (2014, March). *The Costs of Data Localization: Friendly Fire on Economic Recovery*. ECIPE Occasional Paper. No. 3/2014. Retrieved from: <http://ecipe.org/publications/dataloc/> [Accessed: 29 November 2016]

forced data localization laws would make local companies to pay additional 30%-60% for their computing needs.²⁴

The two recent examples of data localization regulations are the PRC's Online Publishing Regulations²⁵ and Indonesia's Government Regulation 82 in 2012.²⁶ While the PRC requires all content published online to be hosted on servers inside the PRC, Indonesia only allows some public service providers to operate in the country on the condition that their data storage and disaster recovery centers have to be based in Indonesia.

Understanding the disadvantages that data localization requirements may cause to businesses, the TPP prevents member countries from requiring businesses to use or locate computing facilities in their territories (Article 14.13). Companies will no longer face the difficult decision of whether they should enter a market where they are forced to build costly data centers. This will give businesses more flexibility and certainty when conducting business in TPP countries.

5.1.2 Prohibiting Digital Customs Duties and Other Discriminatory Measures

TPP countries committed not to impose any customs duties on electronically transmitted content (Article 14.3). This will help ensure the free flow of music, video, software, and games throughout the region without any disadvantages.

The World Trade Organization (WTO) has had a moratorium in place for years on the collection of customs duties for digital content. But the TPP ensures that, should this global moratorium ever be lifted, member countries will not impose it for intra-TPP trade in digital products.

To make sure that foreign suppliers of digital products will not be treated less favorably in any countries, TPP provisions prevent discriminatory measures such as discriminatory taxation. This, however, does not apply to broadcasting.

5.1.3 Enabling Cross-border Data and Information Flows

TPP countries agreed to allow cross-border transfer of information by electronic means (subject to safeguards, such as for privacy) as long as this is for business purpose (Article 14.11). This applies to personal information as well. This will help prevent TPP countries from having unreasonable restrictions on cross border data and information flows.

²⁴ Leviathan Security Group (2015). *Quantifying the Cost of Forced Localization*. Retrieved from: <https://www.leviathansecurity.com/cloudsecurity/> [Accessed: 29 November 2016]

²⁵ This regulation requires all content published online to be hosted on servers inside People's Republic of China.

See more at: Josh Chin (2016, Feb 21). China Issues Broad New Rules for Web. *The Wall Street Journal*. Retrieved from: <http://www.wsj.com/articles/china-issues-broad-new-rules-for-web-1455900422> [Accessed: 29 November 2016]

²⁶ Under this regulation, some public service providers are required to establish data storage and disaster recovery centers in Indonesia territory.

See more at US Department of State – Bureau of Economic and Business Affairs (2014, June). *2014 Investment Climate Statement – Indonesia*. Retrieved from: <http://www.state.gov/e/eb/rls/othr/ics/2014/226611.htm> [Accessed: 29 November 2016]; and Mary R. Silaban (2014, June 10). *Unleashing Indonesia's Digital Innovation*. Retrieved from: <http://www.amcham.or.id/fe/4614-unleashing-indonesia-s-digital-innovation> [Accessed: 29 November 2016]

However, this chapter also recognizes each government's own regulatory requirements for the transfer of information in order to achieve their public policy objectives. For example, Australia's Privacy Act and Personally Controlled Electronic Health Record Act 2012²⁷ will not be affected by TPP provisions on cross-border data flows.

The important and interesting feature of this provision is that TPP prohibits cross-border data movement restrictions in cases where the measures do not satisfy the following requirements: (i) the measure has to "achieve legitimate public policy objectives," (ii) the measure should apply to all companies equally without any discrimination, and (iii) the measure should not impose more-than-necessary restrictions for objective achievement. This provision will be a good shield for companies to defend themselves from any cross-border data restriction measures from governments that are seen as harmful to business and discriminatory.²⁸

5.2 Protecting Innovation, Technology Choice, and Copyrights

5.2.1 Barring Forced Technology Transfers

Under the TPP, member countries will not require companies to transfer or hand over their source code as a condition for importation, distribution, sale or use of their mass-market software or products containing such software in a TPP territory (Article 14.17).²⁹

5.2.2 Promoting Copyright Protections and Important Exceptions and Limitations

The TPP chapter on Intellectual Property (IP) covers many important aspects of trade such as patents, copyrights, trademarks, pharmaceutical IP rights, and industrial designs. This chapter is one of the biggest TPP provisions³⁰ and is the longest chapter with 83 articles. Discussions about IP provisions in TPP deserve a full paper with in-depth analysis. For the scope of this paper, only the provisions on copyright will be discussed as these are most directly related to digital trade (Sections H and J in Chapter 18).

Under the TPP, authors, performers and producers of phonograms are given exclusive rights to reproduction, communication, distribution and broadcasting of their works (Articles 18.58, 18.59, 18.60 and 18.62). On the basis of the life of a natural person, the protection will last over the life of the author and 70 years after the author's death. On other basis, the protection will last at least 70 years from the end of the year in which the work is published or at least 70 years from the end of the year in which the work is created or performed if there is no authorized publication within 25 years from the creation of the work (Article 18.63).

²⁷ Australia Department of Foreign Affairs and Trade (DFAT) (2016, Jul 6). *Chapter summary: Electronic Commerce*. Retrieved from: <http://dfat.gov.au/trade/agreements/tpp/summaries/Documents/electronic-commerce.PDF> [Accessed: 29 November 2016]

²⁸ UNCTAD report on Data Protection and International Data Flows also pointed to these requirements as important provisions on cross-border data flows. See more at: UNCTAD (2016). *Data Protection and International Data Flows: Implications for Trade and Development*, p36, 37. Retrieved from: http://unctad.org/en/PublicationsLibrary/dtlstict2016d1_en.pdf [Accessed: 29 November 2016]

²⁹ This does not include software used for critical infrastructure.

³⁰ The Economist (2016, April 2). *Trade, At What Price?*. Retrieved from: <http://www.economist.com/news/united-states/21695855-americas-economy-benefits-hugely-trade-its-costs-have-been-amplified-policy> [Accessed: 29 November 2016]

TPP provides technical protection measures (TPMs) for authors, performers and producers of phonogram use, such as a digital lock (Article 18.68).³¹ Rights management information (RMI) is another measure to protect copyrights for creators (Article 18.69).

Balanced copyright and related rights systems are also promoted in the TPP's IP chapter (Article 18.66). In recognizing the limitation and exceptions to exclusive rights, a balance in copyright and related rights should be provided to criticism, comments, news reporting, teaching, scholarship, research and other similar purposes as long as the work is not exploited (Article 18.65 and 18.66). This is an important provision that will give room for people who need to use content in daily work without authorization.³²

Another important provision in section J of this chapter is that TPP countries are required to provide safe harbors for internet service providers (ISPs). This framework will facilitate ISPs in dealing with copyright infringements that are beyond their control and in deterring unauthorized storage and transmission of copyrighted materials (Article 18.82). The implementation of safe harbor will contribute to the development digital economy.³³ If ISPs were to be held responsible for all potentially infringing content on their systems, it could rapidly become impossible for their platforms to manage the deluge of uploaded content.

Members also agreed to the importance of collective management societies for copyright in collecting and distributing royalties (Article 18.70).

5.2.3 Recognizing the Importance of Cybersecurity

The TPP recognizes the importance of cybersecurity in the development of digital economy and encourages cooperation among all Parties on cybersecurity to improve the current status in the region (Article 14.16). This can be done by using existing collaboration mechanisms to identify and mitigate malicious intrusions or dissemination of malicious code that might affect the electronic networks of the Parties.

5.3 Protecting Privacy of Consumers

5.3.1 Enhancing Consumer Protection and Tackling Spam

TPP countries committed to adopt and maintain consumer protection laws related to fraudulent and deceptive commercial activities online (Article 14.7).³⁴

Cooperation among TPP parties is encouraged in order to enhance consumer welfare in activities related to digital trade (Article 14.7).

³¹ Australia Department of Foreign Affairs and Trade (DFAT) (2015, Nov 11). *Chapter summary: Intellectual Property*. Retrieved from: <http://dfat.gov.au/trade/agreements/tpp/summaries/Documents/intellectual-property.PDF> [Accessed: 29 November 2016]

³² Australia Department of Foreign Affairs and Trade (DFAT) (2015, Nov 11). *Chapter summary: Intellectual Property*. Retrieved from: <http://dfat.gov.au/trade/agreements/tpp/summaries/Documents/intellectual-property.PDF> [Accessed: 29 November 2016]

³³ USTR. Chapter Summary: TPP and Intellectual Property. Retrieved from: <https://ustr.gov/sites/default/files/TPP-Chapter-Summary-Intellectual-Property.pdf> [Accessed: 29 November 2016]

³⁴ The logical thing to have done would be to have a robust online consumer protection policy. But since some TPP members had no offline consumer protection laws, the TPP agreement had to settle for a less ambitious Article 14.7. If the TPP is revised or updated in the future, this provision may be revisited and enhanced.

The agreement also requires members to adopt or maintain measures regarding unsolicited commercial electronic messages (or spam³⁵) to protect online customers³⁶ (Article 14.14).

6. CURRENT STATE OF DIGITAL TRADE IN SEVEN ASIAN TPP COUNTRIES

With the primary provisions of the TPP outlined for digital trade, it is time to turn to the domestic situation in the seven Asian member states for similar policies. As this section will show, several members, especially Brunei and Viet Nam, have quite different existing policies at the domestic level than the TPP requires. Hence domestic regulatory or legislative changes may be necessary to come into compliance with the agreement. Member states took risks to sign on to the TPP's digital trade provisions.

6.1 Market Access for Digital Goods and Services

6.1.1 Data Localization and Cross-border Data Movement

Each of the seven Asian TPP countries has different existing approaches to data localization and cross-border data movement. All have conflicts in whole or in part with TPP provisions.

Countries like Brunei and Viet Nam have explicit restrictions on data flows outside of the country. Viet Nam's Decree on Management, Provision, and Use of Internet Services and Information Content Online (Decree 72), requires Internet service providers to place at least one local server inside Vietnamese territory.³⁷ Meanwhile, Brunei requires companies to store data collected from Brunei on locally located servers.^{38,39}

Apart from these two countries, other countries have either partial or sector-specific regulations on data localization and cross-border data transfer. For example, in Australia, the Personally Controlled Electronic Health Records Act does not allow health data to be transferred or processed offshore.⁴⁰ Similarly, New Zealand requires

³⁵ See more at: Australia Department of Foreign Affairs and Trade (DFAT) (2016, Jul 6). *Chapter summary: Electronic Commerce*. Retrieved from: <http://dfat.gov.au/trade/agreements/tpp/summaries/Documents/electronic-commerce.PDF> [Accessed: 29 November 2016]

³⁶ For Brunei, a legal framework regarding unsolicited commercial electronic messages should be implemented before this article can apply.

³⁷ See more at Anupam Chander, Uyen P. Le (2015), Data Nationalism. *Emory Law Journal*. Volume 64, Issue 3. Retrieved from: <http://law.emory.edu/elj/content/volume-64/issue-3/articles/data-nationalism.html> [Accessed: 29 November 2016]; and Igor Runets (2016, Sep 27). *Meeting the Challenge of Data Localization Laws*. Retrieved from: <https://www.linkedin.com/pulse/meeting-challenge-data-localization-laws-igor-runets> [Accessed: 29 November 2016]

³⁸ Igor Runets (2016, Sep 27). *Meeting the Challenge of Data Localization Laws*. Retrieved from: <https://www.linkedin.com/pulse/meeting-challenge-data-localization-laws-igor-runets> [Accessed: 29 November 2016]

³⁹ BusinessRoundtable (2012, June). *Promoting Economic Growth through Smart Global Information Technology Policy*. Retrieved from: http://businessroundtable.org/sites/default/files/Global_IT_Policy_Paper_final.pdf [Accessed: 29 November 2016]

⁴⁰ Anupam Chander, Uyen P. Le (2015), Data Nationalism. *Emory Law Journal*. Volume 64, Issue 3. Retrieved from: <http://law.emory.edu/elj/content/volume-64/issue-3/articles/data-nationalism.html> [Accessed: 29 November 2016]

electronic business and tax records to be stored locally.⁴¹ Malaysia's Personal Data Protection Act (PDPA) requires all data about Malaysians to be stored on local servers only. Even though Japan does not have any specific regulations restricting cross-border data movement, at the moment, the country has prepared to have one in the new future. In June 2014, Japan's Strategic Headquarters for the Promotion of an Advanced Information and Telecommunication Network Society proposed the "Policy Outline of the Institutional Revision for Utilization of Personal Data"—which, if enacted, will require stricter procedures for companies when transferring personal data across borders.⁴²

The TPP rules on data privacy, however, did not spring out of nowhere. All TPP members are also members of APEC, and the agreement itself came out from the APEC process. The deal is meant to eventually lead to the Free Trade Area of the Asia Pacific (FTAAP).⁴³ TPP rules on data privacy were drawn in part from the APEC Privacy Framework.⁴⁴ This APEC initiative was followed by the development of the APEC Cross-Border Privacy Rules (CBPR) system, and then the Cross-Border Privacy Enforcement Arrangement (CPEA).⁴⁵

Australia, Japan, New Zealand and Singapore have participated in the CPEA since its commencement in 2010. The framework aims to improve the enforcement of privacy laws in member countries through cooperation.⁴⁶

CBPR system was launched two years later, in 2011. Four countries have participated in this system and Japan is the only Asian member.⁴⁷ The most important feature of CBPR is that it is a "voluntary accountability-based system." This system is considered as an innovative mechanism that is an alternative to traditional measures for cross-border data transfer management.⁴⁸ Japan became a fully participating member

⁴¹ Igor Runets (2016, Sep 27). *Meeting the Challenge of Data Localization Laws*. Retrieved from: <https://www.linkedin.com/pulse/meeting-challenge-data-localization-laws-igor-runets> [Accessed: 29 November 2016]

⁴² Read more at: Jeffrey and Grant (2015, Sep 8). *The Latest Cross-border Privacy Rules in Asia-Pacific*. Retrieved from: <http://www.law360.com/articles/699125/the-latest-cross-border-privacy-rules-in-asia-pacific> [Accessed: 29 November 2016];

And ESOMAR (2015, May 19). *Data Protection Reforms in Japan: Ready for the Digital Age*. Retrieved from: <https://www.esomar.org/news-and-multimedia/news.php?idnews=174> [Accessed: 29 November 2016]

⁴³ See the 2010 APEC Leaders Statement that notes multiple pathways for reaching FTAAP, including the TPP, the Regional Comprehensive Economic Partnership (RCEP) and others. This pathway approach was reconfirmed in 2014 and was noted again in the 2016 APEC study on FTAAP.

⁴⁴ APEC (2013, September 5). *The Cross-border Privacy Rules System: Promoting Consumer Privacy and Economic Growth Across the APEC Region*. Retrieved from: http://www.apec.org/Press/Features/2013/0903_cbpr.aspx [Accessed: 29 November 2016]

⁴⁵ APEC (2013, September 5). *The Cross-border Privacy Rules System: Promoting Consumer Privacy and Economic Growth Across the APEC Region*. Retrieved from: http://www.apec.org/Press/Features/2013/0903_cbpr.aspx [Accessed: 29 November 2016]; and APEC. *APEC Cross-border Privacy Enforcement Arrangement (CPEA)*. Retrieved from: <http://www.apec.org/Groups/Committee-on-Trade-and-Investment/Electronic-Commerce-Steering-Group/Cross-border-Privacy-Enforcement-Arrangement.aspx> [Accessed: 29 November 2016]

⁴⁶ APEC. *APEC Cross-border Privacy Enforcement Arrangement (CPEA)*. Retrieved from: <http://www.apec.org/Groups/Committee-on-Trade-and-Investment/Electronic-Commerce-Steering-Group/Cross-border-Privacy-Enforcement-Arrangement.aspx> [Accessed: 29 November 2016]

⁴⁷ *Cross-Border Privacy Rules System*. Retrieved from: <http://www.cbprs.org/GeneralPages/About.aspx> [Accessed: 29 November 2016]

⁴⁸ UNCTAD report on Data Protection and International Data Flows also pointed these requirements as important provisions on cross-border data flows. See more at: UNCTAD (2016). *Data Protection*

of the APEC Cross Border Privacy Rules (CBPR) program in 2016.⁴⁹ Under the CBPR, businesses can seek accreditation from an approved third party organization, known as the Accountability Agent. Accreditation needs to be recertified annually.

6.1.2 Digital Customs Duties

All TPP countries are also WTO members. As such, they currently abide by the existing moratorium on customs duties on electronic transmission.⁵⁰ The TPP prohibition locks in this commitment for the future and builds confidence for firms that the situation will not be reversed in these markets.

6.2 Protecting Innovation, Technology Choice, and Copyrights

6.2.1 Copyright Protection and Intellectual Property

Among the seven Asian countries, Viet Nam's intellectual property standards are the least ambitious. Viet Nam is the only Asian TPP country that is on the Watch List of the United States, the so-called Special 301 Report for 2016—a report that ranks the lack of IP protection and enforcement level of American trading partners.⁵¹ The main challenges faced by Viet Nam, as pointed out by this report, are government use of unlicensed software and piracy over the internet.⁵² This report also predicts an increase in online piracy and sales of counterfeit goods online when more and more Vietnamese now have access to internet and mobile phones.⁵³ The reasons lie in capacity constraints and ineffective administrative enforcement actions.⁵⁴ An amended Penal Code which came to effect in July 2016 and the drafting or revising of IPR-related circulars in Viet Nam are the positive signs of improvement for Viet Nam on IPR.⁵⁵

Brunei was also on the US Special 301 Watch List prior to 2013 due to weak action against piracy over the internet.⁵⁶ However, thanks to the country's determination in improving the situation, Brunei was removed from US watch list in 2013. Some of the meaningful efforts of Brunei government include the establishment of the first patent

and International Data Flows: Implications for Trade and Development, p34. Retrieved from: http://unctad.org/en/PublicationsLibrary/dtlstict2016d1_en.pdf [Accessed: 29 November 2016]

⁴⁹ "United States and Japan Commit to Improve and Advance Cross Border Privacy and Data Flows," Press Release, US ITA, October 19, 2016, accessed at: <http://trade.gov/press/press-releases/2016/united-states-and-japan-commit-to-improve-and-advance-cross-border-privacy-and-data-flows-101916.asp> [Accessed: 29 November 2016]

⁵⁰ WTO. E-commerce. Retrieved from: https://www.wto.org/english/tratop_e/ecom_e/ecom_e.htm [Accessed: 29 November 2016]

⁵¹ USTR (2016, April). *2016 Special 301 Report*, p3. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁵² USTR (2016, April). *2016 Special 301 Report*, p19. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁵³ USTR (2016, April). *2016 Special 301 Report*, p50. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁵⁴ USTR (2016, April). *2016 Special 301 Report*, p50. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁵⁵ USTR (2016, April). *2016 Special 301 Report*, p51. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁵⁶ USTR (2012, April). *2016 Special 301 Report*, p17. Retrieved from https://ustr.gov/sites/default/files/2012%20Special%20301%20Report_0.pdf [Accessed: 29 November 2016]

office, the enactment of patent laws, and actions taken against retailers selling pirated and counterfeit goods.⁵⁷

Malaysia has had issues with the trademark protection proceedings.⁵⁸ However, the country's efforts in addressing online piracy and strengthening IPR enforcement have been recognized as one of the best practices by the United States. Malaysia set up an inter-agency Special Anti-Piracy Task Force to fight against infringing distribution networks⁵⁹ and a Special Internet Forensics Unit in Malaysia's Ministry of Domestic Trade, Cooperatives and Consumerism to enforce IPR protection.⁶⁰

Other Asian countries have been active in joining global and regional IPR initiatives. For example, in March 2016, Australia, Japan, and Singapore jointly supported a World Trade Organization TRIPS⁶¹ Council initiative, called "IP and Innovation: Education and Diffusion," that promoted the role of education in innovation and creativity.⁶² Another example is the Anti-Counterfeiting Trade Agreement (ACTA) which was launched in October 2007 and aimed at strengthening IPR enforcement and cooperation among member countries. Australia, Japan, New Zealand and Singapore are members of this agreement.⁶³

Table 3 shows the 2016 International Property Rights Index for six Asian TPP countries.⁶⁴ Most Asian TPP countries have relatively good levels of property rights with higher scores, except for Malaysia and Viet Nam. Viet Nam's IPR score is even lower than the world average.⁶⁵ Do note, however, that this index is broader than IPR because it also covers legal and political environment and physical property rights in addition to intellectual property rights.

⁵⁷ USTR (2012, April). *2016 Special 301 Report*, p17. Retrieved from https://ustr.gov/sites/default/files/2012%20Special%20301%20Report_0.pdf [Accessed: 29 November 2016]; and USTR (2013, April). *2016 Special 301 Report*, p9. Retrieved from: <https://ustr.gov/sites/default/files/05012013%202013%20Special%20301%20Report.pdf> [Accessed: 29 November 2016]

⁵⁸ USTR (2016, April). *2016 Special 301 Report*, p18. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁵⁹ USTR (2016, April). *2016 Special 301 Report*, p10. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁶⁰ USTR (2016, April). *2016 Special 301 Report*, p10. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁶¹ The Agreement on Trade-Related Aspects of Intellectual Property Rights at the WTO

⁶² USTR (2016, April). *2016 Special 301 Report*, p13. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁶³ USTR (2016, April). *2016 Special 301 Report*, p16. Retrieved from: <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf> [Accessed: 29 November 2016]

⁶⁴ The IPRI is an index derived from 10 factors, under three components: Legal and Political Environment (LP), Physical Property Rights (PPR), and Intellectual Property Rights (IPR). See more at: Sary Levy-Carciente, Elena panaritis, Jorge Constantino Colindres, Matt Regan, Guillermo Pena Panting, Philip Stevens,..., & Maszlee Malik (2016). 2016 International Property Rights Index – Executive Summary. *A Project of the Property Rights Alliance*. Retrieved from: https://s3.amazonaws.com/ipri2016/IPRI_ES_HighRes.pdf [Accessed: 29 November 2016]

⁶⁵ Sary Levy-Carciente, Elena panaritis, Jorge Constantino Colindres, Matt Regan, Guillermo Pena Panting, Philip Stevens,..., & Maszlee Malik (2016). 2016 International Property Rights Index – Executive Summary. *A Project of the Property Rights Alliance*. Retrieved from: https://s3.amazonaws.com/ipri2016/IPRI_ES_HighRes.pdf [Accessed: 29 November 2016]

Table 3: The International Property Rights Index 2016 of Six Asian TPP Countries⁶⁶

Country	Score (Over 10)	Global Ranking (Over 128)
Australia	7.9	12
Japan	8.1	8
Malaysia	6.8	26
New Zealand	8.3	2
Singapore	8.1	6
Viet Nam	4.7	85
Global average	5.45	–

Source: Property Rights Alliance (2016).⁶⁷

6.2.2 Cyber-security

All seven countries have domestic regulations on cybercrimes. Australia and Singapore have specific regulations for cyber-security matters. Australia has a Cybercrime Act and Singapore has a Computer Misuse and Cyber-security Act. The other TPP countries regulate this area with provisions under broader regulations such as the Computer Misuse Act, Penal Code, Electronic Transaction Act or Criminal Law Act.⁶⁸

The first international initiative on cyber-security is the Convention on Cybercrime (2001) that was initiated by Council of Europe.⁶⁹ Up to now, this convention has received 55 signatures from both members and non-members of Council of Europe.⁷⁰ Among seven Asian TPP countries, only Australia and Japan have ratified and implemented this convention.

6.3 Protecting the Privacy of Consumers

6.3.1 Privacy Protection for Customers

Brunei is the only TPP country that has no existing data protection and privacy laws.⁷¹ Other countries have domestic regulations for consumer privacy.

⁶⁶ Data for Brunei is not available.

⁶⁷ Property Rights Alliance (2016). The International Property Rights Index 2016. Retrieved from: <http://internationalpropertyrightsindex.org/countries?f=&o=&r=AO> [Accessed: 29 November 2016]

⁶⁸ UNCTAD (2016, April 14). Cybercrime Legislation Worldwide. Retrieved from: http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Cybercrime-Laws.aspx [Accessed: 29 November 2016]

⁶⁹ Council of Europe. Convention on Cybercrime. Retrieved from: <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/185> [Accessed: 29 November 2016]

⁷⁰ Council of Europe (2016, November 8). Chart of signatures and ratifications of Treaty 185 (Convention on Cybercrime). Retrieved from: https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/185/signatures?p_auth=iZT6m8qH [Accessed: 29 November 2016]

⁷¹ UNCTAD (2016, April 14). Online Consumer Protection Legislation Worldwide: Brunei. Retrieved from: http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/CountryDetail.aspx?type=CPL&country=BN [Accessed: 29 November 2016]; and more at Brunei Attorney General's Chambers. List of Orders and Acts. Retrieved from: <http://www.agc.gov.bn/AGC%20Site%20Pages/Text%20of%20Orders.aspx> and <http://www.agc.gov.bn/AGC%20Site%20Pages/Text%20of%20Acts.aspx> [Accessed: 29 November 2016]

7. GAPS BETWEEN CURRENT STATUS AND TPP STANDARDS

7.1 Domestic Level

All seven Asian TPP countries have different levels of regulations over most issues of digital trade (Table 4). For countries like Brunei, Malaysia and Viet Nam, the lack of regulations or the existence of inefficient regulations might become the main challenges when implementing the TPP.⁷² In other countries like Australia, Japan, New Zealand and Singapore—where the regulatory systems are more effective and already aligned with regional and international standards⁷³—less work will need to be done once the TPP comes into force compared to other Asian TPP countries.

For some countries where the existing regulations in some areas go beyond TPP standards, other TPP members will recognize other members' regulations as long as they do not go against the purpose of the TPP provisions. For example, even though the TPP prohibits cross-border data movement restrictions, Australia's Privacy Act and Personally Controlled Electronic Health Record Act 2012—which bans the transfer of personal health records outside the country—will not be affected.⁷⁴ Exceptions to TPP rules like these were the subject of negotiations and are noted in the legal texts of the TPP agreement.⁷⁵

In Brunei, provisions on unsolicited commercial electronic messages will not apply until Brunei has implemented a legal framework on this issue (Footnote 8, Article 14.14).

Another important gap between TPP countries for digital trade is an infrastructure gap. Figure 2 shows how the seven Asian TPP countries score on the Global Connectivity Index designed by Huawei. This index ranks a country's ICT connectivity and digital transformation based on four main pillars (Supply, Demand, Experience and Potential) and five technology enablers (Internet of Things, Big Data, Cloud, DCs and Broadband).⁷⁶ Another index that is also related to digital trade is GSMA's Mobile Connectivity Index. Figure 3 shows the mobile connectivity index score for these seven Asian TPP countries. This index is ranked based on four main criteria including infrastructure, affordability, consumer, and content.⁷⁷

⁷² Brunei has no data protection and privacy laws; Malaysia has restriction on cross-border data movement; Viet Nam IP regulations are not effective—as discussed in previous sections.

⁷³ Thanks to the active involvement of these countries in regional and international initiatives on digital trade related issues—as discussed in previous sections.

⁷⁴ Australia Department of Foreign Affairs and Trade (DFAT) (2016, Jul 6). *Chapter summary: Electronic Commerce*. Retrieved from: <http://dfat.gov.au/trade/agreements/tpp/summaries/Documents/electronic-commerce.PDF> [Accessed: 29 November 2016]

⁷⁵ In the language of the agreement, exceptions are “scheduled” after members have agreed to allow exceptions to continue once the agreement comes into force. Any exceptions that are not scheduled must be changed to come into conformity with the TPP texts.

⁷⁶ To read more about this index: Huawei (2016). *Global Connectivity Index: Connect Where It Counts – Mapping your transformation Into a Digital Economy with GCI 2016*. Retrieved from: http://www.huawei.com/minisite/gci/en/index.html?pCountry=IN&pYear=2016_ [Accessed: 29 November 2016]

⁷⁷ Infrastructure score is based on quality of spectrum, mobile infrastructure, network performance and other enabling infrastructure. Affordability score is based on income, inequality, mobile tariffs, taxation and handset prices. Consumer score is based on gender equality and basic skills. Content score is based on local relevance and availability. Read more at: <http://www.mobileconnectivityindex.com/#zoneIsocode=AUS&analysisView=AUS> [Accessed: 29 November 2016]

Table 4: Some E-commerce Regulations in Seven Asian TPP Countries

	Australia	Brunei	Japan	Malaysia
E-transactions	– Electronic Transactions Act 1999	– Electronic Transactions Act (revised in 2008)	– Law Concerning Electronic Signatures and Certification Services (Law No. 102 of 2000)	– Electronic Commerce Act 2006 – Digital Signature Act 1997
Cybercrime	– Criminal Code Act No 12 of 1995 as amended in 2012 – Crimes Act No 12 of 1914 as amended in 2012; – Mutual Assistance in Criminal Matters Act No 85 of 1987 as amended in 2012; – Telecommunication (Interception and Access) Act No 114 of 1979 as amended in 2012; – Cybercrime Act 2001	– Computer Misuse Act (Revised in 2007); – Penal Code (Revised in 2001); – Electronic Transaction Act of 2008	– Penal Code	– Computer Crimes Act 1997 – Criminal Law Act 574 with amendments of 2006 – Evidence Act 1950 with amendments of 2006
Consumer Protection	– -Competition and Consumer Act 2010	– -Consumer Protection (Fair Trading) Order 2011; – -Sales of Goods Act 1999 – -Unfair Contract Terms Act 1999	– -Consumer Basic Act, revised in 2004 – -Consumer Contract Act in 2001 – -Product Liability Act in 1995 – -Whistleblower Protection Act in 2004 ⁷⁸	– -Consumer Protection Act 1999
Data Protection and Privacy Regulations	– -Privacy Act 1988	– -No Privacy and Data Protection Laws	– -Act on the Protection of Personal Information	– -Personal Data Protection Act 2010
	New Zealand	Singapore	Viet Nam	
E-transactions	– Electronic Transactions Act 2002	– Electronic Transactions Act 2010 (Cap 88)	– Law on E-Transactions 2005	
Cybercrime	– Crimes Act 1961	– Computer Misuse and Cybersecurity Act (Cap 50A) Revised in 2007	– Decree no. 55/2001/ND-CP of August 23, 2001 on the Management, Provision and Use of Internet Services	
Consumer Protection	– Fair Trading Act (as amended in 2013) – Consumer Guarantees Act	– Consumer Protection (Fair Trading) Act 2003	– Law on Protection of Consumer Rights 2010	
Data Protection and Privacy Regulations	– Privacy Act 1993	– Personal Data Protection Act 2012	– Law on Protection of Consumers' Rights 2010	

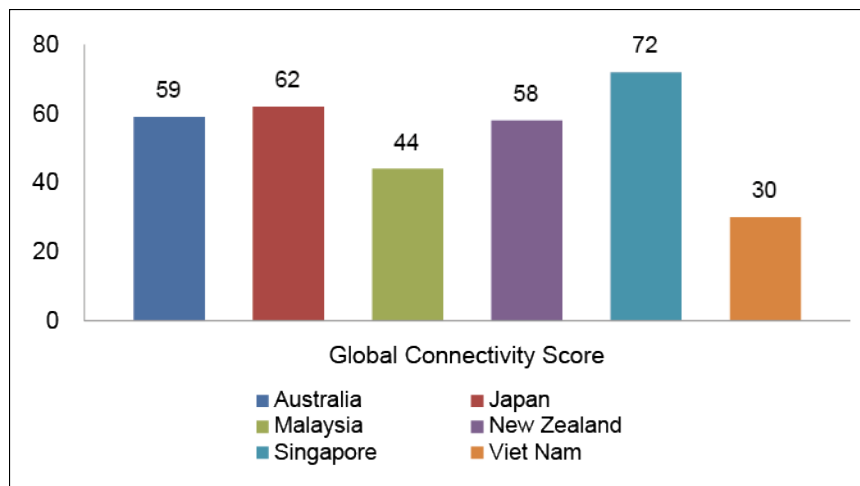
Source: UNCTAD (2016, April 14). Summary of Adoption of E-Commerce Legislation Worldwide.⁷⁹

⁷⁸ Data of Japan's Consumer Protection regulations is not available on UNCTAD summary. This data is taken from Japan's International Affairs Office Quality-of-Life Policy Bureau Cabinet Office (2006, September). Consumer Policy regime in Japan. Retrieved from: <http://www.consumer.go.jp/english/cprj/index.html> [Accessed: 29 November 2016]

⁷⁹ UNCTAD (2016, April 14). Summary of Adoption of E-Commerce Legislation Worldwide. Retrieved from: http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx [Accessed: 29 November 2016]

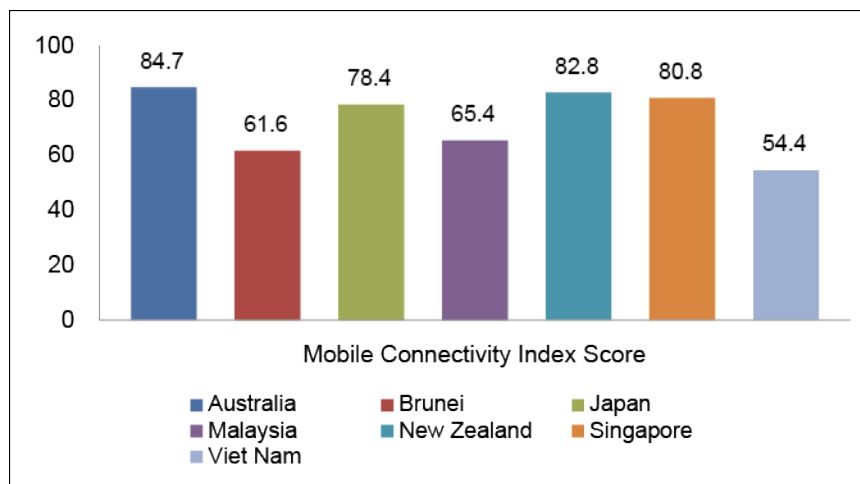
The substantial gaps in both indexes suggests that digital trade is likely to be unevenly distributed between the TPP countries, even if all seven parties are applying the same digital rules at the domestic level. But these figures also suggest that opportunities for improvement could be substantial in the lower ranked member countries, particularly if domestic level regulatory changes results in new investment by either local companies or new inward investment stimulated by a more positive framework for digital trade.

Figure 2: Global Connectivity Index Score (Maximum 100)



Source: Huawei Global Connectivity Score (2016).⁸⁰

Figure 3: Mobile Connectivity Index Score (Maximum: 100)



Source: GSMA Mobile Connectivity Index.⁸¹

⁸⁰ Huawei (2016). *Global Connectivity Index: Connect Where It Counts – Mapping your transformation Into a Digital Economy with GCI 2016*. Retrieved from: <http://www.huawei.com/minisite/gci/en/index.html?pCountry=IN&pYear=2016> [Accessed: 29 November 2016]

⁸¹ Retrieved from: <http://www.mobileconnectivityindex.com/?search=brunei#zoneIsocode=MYS,SGP,VNM> [Accessed: 29 November 2016]

7.2 Regional Level

One of the main areas of attention in the TPP is improving cooperation among member countries and strengthening the enforcement of domestic regulations. Together with strong commitments from each member, this suggests meaningful regional impacts will ensue.

Even though these seven countries have been involved in many bilateral and multilateral trade agreements as well as regional and global initiatives on many aspects, there has not been an opportunity like TPP to bind these seven countries with strong commitments and high standards in many areas.

The two most influential alternative cooperation opportunities among these seven countries could be Asia-Pacific Economic Cooperation (APEC) and Regional Comprehensive Economic Partnership (RCEP).

APEC is a non-binding group of 21 members that includes all TPP members. It has had an Electronic Commerce Steering Group (ECSG) under way since 1999 to help shape and guide APEC's agenda, and was brought into the Committee on Trade and Investment (CTI) in 2007. As with many initiatives in APEC, the agenda is driven by members and by host country governments.

One important element of the ECSG's work has been a focus on cross-border privacy rules. APEC members have been involved in a number of different, related initiatives, including the APEC Cross-Border Privacy Enforcement Arrangement and the APEC Cross-Border Privacy Rules System (discussed above).⁸²

At any given time, APEC officials are working on hundreds of different projects. But most of the work of APEC has not been focused on digital trade beyond privacy and some limited projects on e-commerce that are largely about customs for e-commerce goods trade.⁸³ APEC is a voluntary organization, which means that members may or may choose to pick up and implement APEC initiatives.

If APEC were to move ahead with the plan for the Free Trade Area of the Asia Pacific (FTAAP) in the future, it is likely that this 21 member trade agreement would include digital trade provisions. By the time FTAAP launches, it will be difficult to ignore the contributions of the digital economy or, potentially, the harm done by inconsistent, contradictory or fragmented regulations.

The other primary alternative outlet for digital trade regulations in Asia is through the ongoing RCEP negotiations. The 16 members of RCEP include all 7 Asian TPP countries along with the PRC, Republic of Korea, India, and the rest of ASEAN including Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Myanmar, Philippines, and Thailand.

RCEP held 16 rounds of negotiations through 2016. There is a working group on e-commerce that is preparing texts with rules on data flows and privacy issues. It is not yet clear how far RCEP rules will go in these areas. RCEP, unlike the TPP, has several provisions that allow member states flexibility in applying the rules. For example, least developed members will not have to apply as many rules as the more developed

⁸² For more details, see http://www.apec.org/Groups/Committee-on-Trade-and-Investment/~/_media/Files/Groups/ECSG/CBPR/CBPR-PoliciesRulesGuidelines.ashx. [Accessed: 29 November 2016]

⁸³ The telecommunications working group spent part of 2016 considering topics like digital services (described as internet+services), conformity assessment procedures for information technology products, and providing e-government services. Many of these projects apply only to a subset of members that are actively engaged in various pathfinder initiatives, while others have wider application.

economies. The RCEP countries have four additional rounds scheduled for 2017 with a plan to conclude talks by the end of the year.⁸⁴

Finally, four TPP members are also part of the Association of Southeast Asian Nations (ASEAN). The ASEAN Economic Community (AEC) Blueprint 2025 that was adopted in November 2015 is intended to continue the regional integration of ASEAN.⁸⁵ ASEAN has added e-commerce to the agenda for Blueprint 2025 and is working out how this might be effectively implemented in the region.

In short, while there are other regional integration efforts underway in Asia, none has the same depth or breadth as the TPP. None address digital trade as comprehensively as the TPP, although since negotiations are still ongoing in RCEP it is possible that future rules might be more significant.

8. WHY ADDRESS DIGITAL TRADE IN THE TPP?

Officials negotiating in the TPP must have been aware of the gaps between proposed TPP standards and domestic regulations in various countries. Members must have considered carefully whether the benefits of joining the trade deal would offset any costs they might have to pay. Their decision to stay implies that these countries have seen benefits from the TPP that are significant enough for them to make a bold move and join such an ambitious and high-standard agreement. Officials from Asia have tried to improve public awareness on the TPP by explaining what the TPP could do to their economy. Their objectives in joining the TPP can be summarized in the following six points:

8.1 Attract Investment

Most countries that care about foreign investment understand that investors pay a lot of attention to the regulatory system in the countries where they invest. According to Fifth Era, 89% of investors in a survey said that an uncertain legal environment had “modest or strongly negative impact” on their investing decisions.⁸⁶ Seventy five percent of the investors surveyed said they were reluctant to invest in countries where the level of regulatory ambiguity is high. A majority of them also showed great concern about potential regulations governments might have in various aspects of digital economy such as security/surveillance (81%), freedom of expression (79%), data localization (67%), and third party liability (71%).

For countries like Brunei, Malaysia and Viet Nam, officials assume that implementing TPP standards will help them attract more foreign investment. According to Datuk Seri Abdul Wahid Omar, Former Minister in the Prime Minister’s Department in charge of Economic Planning, the TPP will help “uplift and safeguard the standards of

⁸⁴ Depending on the level of ambition in RCEP, it may be easy or difficult to meet this deadline. It is timed to coincide with ASEAN’s 50th anniversary. More ambitious outcomes will take longer to achieve than less bold outcomes.

⁸⁵ For more information and the text of the blueprint, visit: ASEAN Economic Community. Retrieved from: <http://asean.org/asean-economic-community/> [Accessed: 29 November 2016]

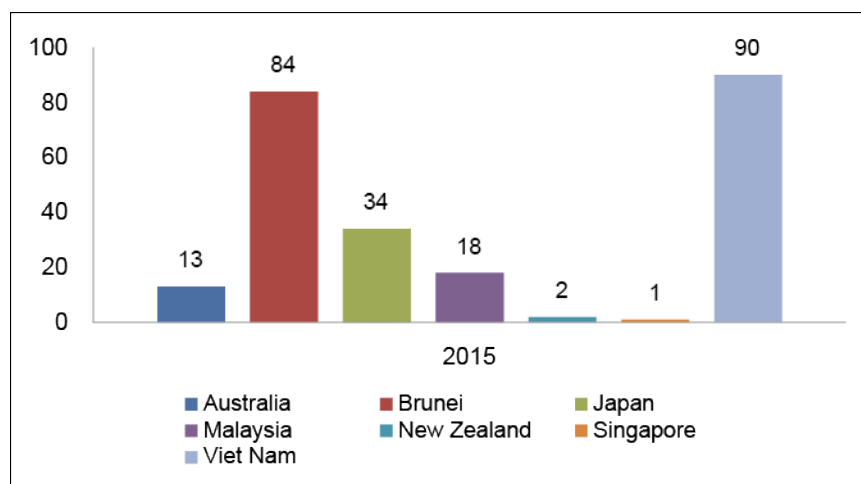
⁸⁶ The survey was conducted in 15 countries with the participation of 475 Internet investors. Matthew C. Le Merle, Alison Davis and Felix O. Le Merle (2016, January). *The impact of internet regulation on investment* 2016. Fifth Era Report. Retrieved from: <http://www.fifthera.com/perspectives-blog/2016/1/7/report-the-impact-of-internet-regulations-on-investment> [Accessed: 29 November 2016]

investments” which is why Malaysia joined this trade deal.⁸⁷ Mr. Lim Jock Hoi, Permanent Secretary (Trade) of Brunei expected the country to be a more open economy post-TPP, which will be a key advantage for them to attract foreign direct investments (FDI).⁸⁸ With a similar viewpoint, Mr. Nguyen Tan Dung, former Prime Minister of Viet Nam, and Mr. Tran Dinh Tuyen, former Trade Minister of Viet Nam, both believe that the TPP will help Viet Nam attract more investment from big countries with advanced technologies.⁸⁹

8.2 Enhance and Facilitate the Business Environment

In TPP countries where the efficiency of business environment is not rated highly by companies, TPP rules will give them a chance to improve or reform the business environment in order to improve the ease of doing business.

Figure 4: Difficulty of Doing Business in Seven Asian TPP Countries (1-lowest, 189-highest)



Source: World Bank, World Development Indicators, Ease of doing business index.

As shown in Figure 4, among seven Asian countries, Brunei and Viet Nam have a more difficult environment for business operation. This partly explains why these two countries expect the TPP to help enhance business environment and facilitate companies. According to Mr. Lim Jock Hoi, Permanent Secretary (Trade) of Brunei, the TPP will help Brunei facilitate business by adopting international best practices through the implementation of TPP provisions.⁹⁰ Mr. Tran Quoc Khanh, Deputy Minister of

⁸⁷ Koi Kye Lee (2015, November 7). Malaysia To Benefit From TPP in Market Access and Investments. *New Straits Times Online*. Retrieved from: <http://www.nst.com.my/news/2015/11/malaysia-benefit-tpp-market-access-and-investments> [Accessed: 29 November 2016]

⁸⁸ Sally Piri (2016, April, 3). AEC, TPP can create opportunities for Brunei. *Asia News Network*. Retrieved from: <http://www.asianews.network/content/aec-tpp-can-create-opportunities-brunei-13456> [Accessed: 29 November 2016]

⁸⁹ Bach Duong (2016, March 4). Mr Truong Dinh Tuyen: Better system for Viet Nam to run ahead People's Republic of People's Republic of China. *VNexpress*. Retrieved from: <http://kinhdoanh.vnexpress.net/tin-tuc/vi-mo/ong-truong-dinh-tuyen-the-che-uu-viet-thi-moi-chay-nhanh-hon-trung-quoc-3364764.html> [Accessed: 29 November 2016]

⁹⁰ Sally Piri (2016, April, 3). AEC, TPP can create opportunities for Brunei. *Asia News Network*. Retrieved from: <http://www.asianews.network/content/aec-tpp-can-create-opportunities-brunei-13456> [Accessed: 29 November 2016]

Ministry of Industry and Trade from Viet Nam, explained to the country's media that the TPP will help reform and improve the business environment to facilitate companies in Viet Nam.⁹¹ Sharing the same message, Mr. Tran Dinh Tuyen, Former Trade Minister of Viet Nam, emphasized that the TPP will help reform the system and enhance the business environment.⁹²

8.3 Modernize Regulations

For countries where the current regulatory system is effective in tackling new challenges faced by companies in the digital economy, TPP provisions can support the country in modernizing the regulations with more up-to-date provisions for new issues. Moreover, the TPP provides a valuable platform for countries like Viet Nam to speed up economic reforms.

According to Mr. Nguyen Tan Dung, former Prime Minister of Viet Nam, the TPP will help the country address challenges in the modern economy by encouraging innovation and creativity, developing the digital economy and competition policies.⁹³ The deal will also be a great opportunity for Viet Nam to push forward its economic reform. Mr. Tran Dinh Tuyen, Former Trade Minister of Viet Nam, shared his view on the TPP to local media.⁹⁴ For non-TPP countries like Taipei, China, joining TPP has been one of the key components of their economic reform plan, according to Tsai Ing-wen.⁹⁵

8.4 Loss of Competitive Advantage

While most countries look at the benefits of joining the TPP, some other countries are also concerned about the costs they might have to pay for *not* being a part of the agreement. The risk of losing competitive advantage to their neighbors is one of the main motivations for countries to join TPP or to plan to do so in the next phase.

According to Mr. Tim Groser, former Trade Minister of New Zealand, not joining the TPP—a grouping that included major trading partners of New Zealand—would have put the country at a severe disadvantage.⁹⁶ According to Indonesia's former Trade Minister

⁹¹ Phuoc Nguyen (2015, December, 10). Why Viet Nam was invited to join TPP? *Dien Dan Doanh Nghiep*. Retrieved from: <http://enternews.vn/vi-sao-viet-nam-duoc-moi-tham-gia-tpp.html> [Accessed: 29 November 2016]

⁹² Bach Duong (2016, March 4). Mr. Truong Dinh Tuyen: Better system for Viet Nam to run ahead People's Republic of China. *VNexpress*. Retrieved from: <http://kinhdoanh.vnexpress.net/tin-tuc/vi-mo/ong-truong-dinh-tuyen-the-che-uu-viet-thi-moi-chay-nhanh-hon-trung-quoc-3364764.html> [Accessed: 29 November 2016]

⁹³ Nguyen Tan Dung (2016, February 15). PM Nguyen Tan Dung: TPP, opportunities and challenges – our reactions. *Thanh Nien News*. Retrieved from: <http://thanhvien.vn/thoi-su/thu-tuong-nguyen-tan-dung-tpp-co-hoi-va-thach-thuc-hanh-dong-cua-chung-ta-667516.html> [Accessed: 29 November 2016]

⁹⁴ Bach Duong (2016, March 4). Mr. Truong Dinh Tuyen: Better system for Viet Nam to run ahead People's Republic of China. *VNexpress*. Retrieved from: <http://kinhdoanh.vnexpress.net/tin-tuc/vi-mo/ong-truong-dinh-tuyen-the-che-uu-viet-thi-moi-chay-nhanh-hon-trung-quoc-3364764.html> [Accessed: 29 November 2016]

⁹⁵ Bloomberg (2016, July 20). Tsai Ing-wen says structural reforms will help fix island's slowing economy. *South China Morning Post*. Retrieved from: <http://bit.ly/2r7Yy4Z> [Accessed: 29 November 2016]

⁹⁶ John Key and Todd McClay (2016, Feb 25). TPP – NZ's biggest trade deal. *Beehive.Govt.Nz*. Retrieved from: <https://www.beehive.govt.nz/feature/tpp> [Accessed: 29 November 2016]

Tom Lembong, not joining the TPP will create competitive disadvantage for Indonesia against other neighbor countries like Viet Nam.⁹⁷

8.5 Facilitate Digital Trade and Supply Chains

The potential impact that the TPP can make at the regional level is also an important factor that motivated these seven countries in joining the trade deal. With better regulatory harmonization at higher standards, the TPP can facilitate the growth of digital trade and the development of supply chains in the region.

Mr. Nguyen Tan Dung, former Prime Minister of Viet Nam, said that the TPP will facilitate the development of manufacturing and supply chains in order to boost regional trade.⁹⁸ He also emphasized the importance of regional supply chain development to each country's economic growth.⁹⁹

8.6 Facilitate Regional Integration

The role of TPP in facilitating regional integration is also undeniable. The commitment to work towards higher standards with stronger cooperation is a firm foundation for the current and future integration of other countries in the region.

Mr. Shinzo Abe, Prime Minister of Japan, in an opening speech at a press conference expressed his firm belief that the high-quality standards of the TPP will help “construct a sustainable economic zone.”¹⁰⁰ The former Prime Minister of Viet Nam also shared the same vision and expected the TPP to open a new era of integration among countries in the region by setting up a new foundation for cooperation and growth.¹⁰¹

9. IMPLICATIONS AND CONCLUSIONS

TPP members have successfully created a trade agreement with digital trade provisions that go beyond existing arrangements. These rules are likely to survive, regardless of what happens to the rest of the agreement.

First, the TPP has shown governments which areas in digital trade are important and deserve better focus. The fact that leaders and policymakers agreed to TPP provisions on digital trade despite knowing the gaps and the challenges they might have to face domestically is strong evidence that the right digital trade rules are seen as critically important to future economic growth.

⁹⁷ Reuters (2015, November 24). Indonesia must join TPP trade deal or risk being 'left behind': Trade minister. *The Straits Times*. Retrieved from: <http://www.straitstimes.com/asia/se-asia/indonesia-must-join-tpp-trade-deal-or-risk-being-left-behind-trade-minister> [Accessed: 29 November 2016]

⁹⁸ Nguyen Tan Dung (2016, February 15). PM Nguyen Tan Dung: TPP, opportunities and challenges – our reactions. *Thanh Nien News*. Retrieved from: <http://thanhnien.vn/thoi-su/thu-tuong-nguyen-tan-dung-tpp-co-hoi-va-thach-thuc-hanh-dong-cua-chung-ta-667516.html> [Accessed: 29 November 2016]

⁹⁹ Nguyen Tan Dung (2016, February 15). PM Nguyen Tan Dung: TPP, opportunities and challenges – our reactions. *Thanh Nien News*. Retrieved from: <http://thanhnien.vn/thoi-su/thu-tuong-nguyen-tan-dung-tpp-co-hoi-va-thach-thuc-hanh-dong-cua-chung-ta-667516.html> [Accessed: 29 November 2016]

¹⁰⁰ Shinzo Abe (2015, October 6). Opening Statement by PM Abe at the Press Conference. *PM of Japan and His Cabinet*. Retrieved from: http://japan.kantei.go.jp/97_abe/statement/201510/1213579_9930.html [Accessed: 29 November 2016]

¹⁰¹ Nguyen Tan Dung (2016, February 15). PM Nguyen Tan Dung: TPP, opportunities and challenges – our reactions. *Thanh Nien News*. Retrieved from: <http://thanhnien.vn/thoi-su/thu-tuong-nguyen-tan-dung-tpp-co-hoi-va-thach-thuc-hanh-dong-cua-chung-ta-667516.html> [Accessed: 29 November 2016]

Second, TPP provisions provide a comprehensive framework in digital trade. These provisions were agreed on by 12 countries across Asia and the Pacific with a great diversity in economic development, providing strong evidence that these rules were carefully considered and believed to benefit these countries. The framework that the TPP provides for digital trade, therefore, deserves careful attention from policymakers elsewhere who are planning to make changes to their current regulations on digital trade issues.

Third, the TPP has set a new level of standards and ambition for free trade agreements (FTAs), especially in Asia. The bold move of these countries not only shows how much they are prepared to take up such a challenge but also suggests increasing expectation and demand these countries have for trade agreements in general. This is a useful example for future FTAs in the region including Regional Comprehensive Economic Partnership (RCEP) and the Free Trade of the Asia Pacific (FTAAP).

Last, but not least, a unique and strong message from the TPP lies in the great diversification of economic development across TPP members. The inclusion, in particular, of Viet Nam—a developing country in the TPP—has drawn a lot of attention to both the country and the deal itself. If the TPP moves forward and succeeds in helping Viet Nam achieve better economic growth, it will send a strong message to other developing countries in the world as well as future FTAs that a trade deal can reach high ambition even when the agreement includes developing countries in its members.

If the TPP moves forward, it will undoubtedly create significant changes to digital trade at both domestic and regional level for the seven Asian TPP countries. But even if the deal does not happen, the regulatory framework for digital trade and e-commerce that it has introduced is worth attention of policy makers. This framework is useful for domestic regulatory changes and regional commitments which aims at facilitating the development of digital trade in Asia.