Chapter 2

Possible Impact of TPP on Trade in Goods in Asia

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Abstract: The Trans Pacific Partnership (TPP) agreement was officially signed by the 12 member countries in February 2016. This paper examines how tariff elimination through TPP impact trade in goods not only among the 12 member countries but also between the TPP members and TPP-non-members in Asia. TPP will substantially eliminate tariffs or create trade in goods largely between the Asia-Oceania countries and North American countries, because TPP will be the first FTA among these countries. The positive impact will be larger on trade to the U.S and the maximum saving of customs duties in the U.S. will reach US$6 billion. Thirdly, by industry, trade in garments/textiles and footwear will be positively created on exports by Vietnam to the U.S., because the tariff margin for garments and footwear in the U.S. is higher, and the exports by Vietnam in these products to the U.S. has a substantial share. Fourthly, any negative impact is likely to be larger on exports by TPP-non-members to the U.S. in garments and footwear, because the U.S. GSP scheme is not granted on almost all of these products. Furthermore, the yarn-forward rule for garments under TPP will negatively divert exports by TPP-non-members in textiles to trade among TPP-members or expand domestic supplies in TPP-members. Fifthly, trade in automobiles/automotive products will be positively affected, especially for exports by Japan to the U.S.

Keywords: FTA; TPP; Tariffs

JEL Classification: F15; F53

1. Introduction

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§ I would like to thank Kazunobu Hayakawa, Akira Yasuda and Itsuko Yamazaki for their invaluable comments. The views expressed in this paper are those of the author. JETRO does not guarantee the accuracy of the data included and accepts no responsibility for any consequences arising from its use. Any errors remaining are mine.

The Trans Pacific Partnership (TPP) agreement was concluded in October 2015, and officially signed by 12 countries in February 2016. TPP member countries include the U.S., Canada, Mexico, Peru, Chile, Australia, New Zealand (hereinafter referred to as NZ), Singapore, Vietnam, Malaysia, Brunei, and Japan, across Asia-Pacific region. TPP will create a massive regional economic zone, covering 37.3% of the world's GDP and 11.1% of its population (2015). It is likely to create a positive economic impact on the TPP members, and the World Bank estimates it will raise the sum of GDP by an average of 1.1% and increase total trade by 11% by 2030 (World Bank, 2016). The key features of TPP are, 1) To commit to a higher level of liberalisation of the trade in goods and services, and 2) To form new rules across many sectors, which the WTO rules do not cover, including investment, e-commerce, competition policy, state-owned-enterprises, labour, the environment, and anti-corruption activities.

TPP will have a positive impact on the trade in goods, mainly between the Asia-Oceania countries and the North American countries, because TPP will create new FTAs mainly among these countries. On the contrary, it will have a negative impact on the trade by TPP-non-members in Asia. Furthermore, the impact is likely to differ depending on industries due to different tariff margins, the volume of trade, or eligibility for GSP.

In this paper, we examine how tariff elimination through TPP impact the trade in goods, not only among the 12 members but also between TPP members and TPP-non-members in Asia. Although TPP is a comprehensive economic partnership agreement, this paper focuses on how TPP impacts the trade in goods among the TPP members and the TPP-non-members in Asia.

The rest of this paper is organised as follows. The next section overviews the key features of the trade in goods and the rules of origin (hereinafter referred to as ROO) under TPP. In section 3, firstly, it captures the export structures and level of comparative advantage by the industries of the TPP members, and secondly, it discusses how far the TPP members pay custom duties in the U.S., which is the largest market among the TPP members, and examines how the U.S. GSP scheme impacts TPP members and non-TPP members, and thirdly, it discusses the possible impact on the trade in goods in Asia, focusing on garments/textiles, footwear, and automobile/automotive parts. Section 4, concludes this paper.

2. Key Features of the Trade in Goods and the Rules of Origin

This section discusses the key features of the commitment to tariff elimination and

ROO under TPP. A key characteristic of the TPP is the high level of liberalisation in the trade in goods, under which member countries will eliminate tariffs on almost all items. The tariff elimination rates are reported in Table 1. The TPP members will eventually eliminate tariffs on 99% to 100% of all products, except Japan. The rate for Japan is 95%, which is the highest level of liberalisation for the FTAs concluded by Japan. NZ, Singapore, and Brunei will completely eliminate all tariffs, and the rest of the countries will set exempt some items, mainly agricultural products including dairy products, sugar, and so forth, on which the tariffs will not be completely eliminated or tariff-rate-quotas will apply. Tariffs on most industrial products will be removed immediately once the TPP comes into effect. Tariffs on the rest of the items will be eliminated in a phased manner, among which the longest period is the 30 years required to eliminate the tariffs on some trucks in the U.S.

Furthermore, the country-specific concession is applicable for certain items, under which the tariff elimination schedules differ depending on the exporting members. The U.S., Canada, Mexico, Chile, and Japan will eliminate tariffs according to different schedules on some items, while the common concession is applicable on most items.

=== Table 1 ===

Next, looking at the currently-existing FTAs among TPP members, there are pairs of countries that have existing FTAs in effect, or pairs of countries that do not have any existing FTAs. Table 2, reports the trade matrix among TPP members and the relationship between pairs of countries. The cells in lighter (yellow) colour indicate trade between countries which already have effective FTAs, such as bilateral FTAs or regional FTAs. The ASEAN TPP-members (Vietnam, Malaysia, Singapore, and Brunei), for instance, are also members of the ASEAN Economic Community (AEC), under which 96.0% of all tariff lines on average have already been eliminated[1]. Furthermore, they have FTAs in effect with Japan, Australia, NZ, and Chile respectively[2][3]. Among the

[1] The average rate of tariff elimination for the ASEAN 6 including Singapore, Thailand, Indonesia, Malaysia, the Philippines, and Brunei has achieved 99.2% since 2010, the rate by CLMV(Cambodia, Laos, Myanmar and Vietnam) has achieved 90.8% since 2015. CLMV will increase the rate by 7.0%, up to 97.8%, in 2018.

[2] FTAs in effect among these countries are Japan-Singapore FTA(Effective year: 2002), Trans-Pacific Strategic Economic Partnership (P4, 2006), Japan-Malaysia FTA (2006), Japan-Brunei FTA (2008), ASEAN-Japan FTA (2008), Japan-Vietnam FTA (2009), ASEAN-Australia-NZ FTA (2010), Malaysia-Chile FTA(2012), and Vietnam-Chile FTA (2014).

[3] The tariff elimination rates for the ASEAN-Japan FTA and ASEAN-Australia-NZ FTA are 92.6% and 95.6% respectively (Fukunaga, Kuno, 2012).

pairs of countries, firms can choose either existing the FTAs or TPP after the TPP comes into effect. It is expected that firms will choose the TPP instead of existing the FTAs if the TPP tariff margins are greater than those of the existing FTA, or the goods can meet ROO using the broader accumulation basis of TPP, or firms may prefer the self-certification system of TPP to the third-party certification system adopted by most existing FTAs in Asia. However, the impact on trade creation among the pairs of countries are expected to be limited since firms have already enjoyed the benefits of the existing FTAs on most items.

On the other hand, the cells in darker (orange) colour indicate the trade between countries for which the TPP will be their first FTA. It is noteworthy that new FTAs will be established mainly between the Asia-Oceania countries and the North American countries. These will include between the U.S. and five members (Vietnam, Malaysia, Brunei, Japan, and NZ), between Canada and seven members (Vietnam, Malaysia, Singapore, Brunei, Japan, Australia, and NZ), and between Mexico and six members (Vietnam, Malaysia, Singapore, Brunei, Australia, and NZ). In addition to these countries, FTAs will be concluded for the first time between Peru and five members (Malaysia Vietnam, Brunei, Australia, and NZ), and between Japan and NZ. Among the pairs of countries, higher FTA utilisation or larger trade creation effects are expected. The numbers shown in the cells are the share of export values by TPP member countries out of the total export value in each member country. In the ranking by the share of exports to countries for which the TPP will be the first FTA, Japan ranks first with 21.7%, followed by Vietnam (21.3%), NZ (20.2%), and Malaysia (10.7%).

=== Table 2 ===

Looking at the relationship between TPP members and non-TPP members in Asia, the Asian non-TPP members do not have FTAs with the North American countries, excluding South Korea, which has bilateral FTAs in force with the U.S. and Canada. China, Thailand, Indonesia, the Philippines, CLM (Cambodia, Laos, Myanmar), India, and the other south Asian countries have not concluded FTAs with the U.S, Canada, and Mexico, while TPP members in Asia including Vietnam and Malaysia will newly gain preferential market access to these countries. Furthermore, the Asian non-TPP members have no effective FTAs with Peru, except for China, South Korea and Thailand. India, Bangladesh, the Philippines and Sri Lanka have also not concluded FTAs with NZ.

Next, we examine how far TPP members currently impose tariffs on the Most Favoured Nation (MFN) basis. The simple average tariff rate applied by all TPP

members is 4.1%, ranging from the highest at 9.5% in Vietnam, to the lowest at 0.2% in Singapore[4]. The simple average applied tariff rates by industries in TPP members and Asian non-members are reported in Table 3. Higher tariffs are relatively imposed on food in Vietnam, Mexico, the U.S., and Japan. Among industrial products, higher average rates of tariff are applied for textiles/garments, footwear, and transport equipment by many members. In other words, higher preferential margins and more FTA utilisation will be expected in these products, as the literature found that in general the larger the preferential margin, the more likely is the use FTA (Hayakawa et al., 2016).

=== Table 3 ===

Next, we look at the key features of ROO, and the certification procedure stipulated under TPP. Firstly, unified ROO shall apply to the 12 member countries. Secondly, the co-equal rule is adopted on many products, under which firms can choose either to the change in tariff classification criteria (hereinafter referred to as CTC), [5]or the value-added content criteria (hereinafter referred to as RVC)[6] in general. However, there are items for which other rules apply, e.g., either the build-down method of RVC [7]with 55%, or the net cost method with 45% for motor cars/vehicles, the yarn-forward rule for garments, and so forth. The yarn-forward rule is the specific process criterion that requires three processes, including manufacturing yarn (spinning), manufacturing fabric (weaving/knitting) and cutting/sewing. It is one of differences from the currently-existing FTAs in Asia which adopts the two-process rule (e.g., spinning and cutting/sewing) in principle for garments.

It should be noted that products under the country-specific concession of the U.S.,

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[4] The rate is based on the World Tariff Profile 2016 (WTO, ITC, UNCTAD). The average applied rate weighted by imports is also 4.1%. The rates in other countries include the U.S. (3.5%), Canada (4.2%), Mexico (7.1%), Peru (2.4%), Chile (6.0%), Australia (2.5%), NZ (2.0%), Malaysia (6.1%), Brunei (1.2%), and Japan (4.0%).

[5] CTC is the criterion to determine the country of origin by whether the tariff classification (HS code) assigned to the final goods produced shows a change from the tariff classification of the non-originating materials.

[6] RVC is the criterion to determine the country of origin of goods by whether a certain level of value is added to the product.

[7] There are four types of RVC depending on the goods, which are 1) Build-down method (value of the goods－value of non-originating materials/value of the goods), 2) Build-up method (value of originating materials/value of the goods), 3) Net cost method (net cost of the goods－value of non-originating materials/net cost of the goods), 4) Focused value method (value of the goods－value of specific non-originating materials/value of the goods).

Mexico, and Japan need, additionally, to meet the applicable requirements set in appendices (tariff differentials) in general, aiming to prevent circumventing goods through member countries with lower tariffs.

Thirdly, the full accumulation rule will be introduced under TPP[8]. Although the accumulation rule means that materials produced in one FTA member country shall be regarded as the originating materials when used in the production in another FTA member country, the key feature of the full accumulation rule is to allow firms to add the value of materials which cannot meet the relevant ROO. The case of the full accumulation rule as well as the non-full accumulation rule is illustrated in Figure 1. It is assumed that an intermediate material produced in country A is used in the production of a final good in country B that is a member of the same FTA, which is exported to country C by taking advantage of the FTA. The ROO for the intermediate material as well as the final good are assumed for RVC with 40% applied. The total value of an intermediate material produced in country A can be accumulated in country B as long as it meets the relevant ROO, e.g. RVC more than 40%, in both the full accumulation and non-full accumulation (Case 1). However, it cannot be accumulated at all if it does not meet the ROO (e.g., the ratio of RVC is less than 40%) under the non-full accumulation rule (Case 2). On the contrary, the full accumulation rule allows firms to add the value of the originating parts out of the total value of the non-originating material to the value of the final good in country B (Case 3). In other words, the originating values in the production network proliferated by the FTA member countries can be accumulated to the maximum under the full accumulation rule.

There is also another difference from existing FTAs in Asia, the majority of which adopt the non-full accumulation rule. ASEAN+1 FTAs i.e., ASEAN-China FTA, ASEAN-Korea FTA, ASEAN-Japan FTA, ASEAN-Australia-NZ FTA, and the ASEAN-India FTA adopt the non-full accumulation rule, while AEC adopts the partial accumulation rule, under which the value of the originating parts can be accumulated provided that the ratio of RVC is more than 20%[9].

=== Figure 1 ===

Fourthly, the self-certification system is introduced as the certification procedure, under which an exporter or a producer or an importer will certify the origin of goods to the Customs authorities in the importing members by declaring it in any documents,

[8] The provision is referred to Article 3.10 of Chapter 3, TPP Agreement.
[9] The provision is referred to Article 30 of ASEAN Trade in Goods Agreement.

such as the invoices. There is also another difference from the existing FTAs in Asia, the majority of which adopt the third-party certification system[10], under which third-party organisations, such as a government agency or a designated agency, may issue the certificate of origin subject to judgement of the origin based on the information submitted by the exporter or producer.

3. Possible Impact among TPP members

3.1. Export structures and RTAs of TPP members

This section examines the export structures of TPP members and the level of comparative advantage by industry. Export value of major products and relative revealed comparative trade advantage (RTA) by industry of TPP members in 2015 is reported in Table 6. RTA roughly captures the level of comparative advantage of a certain industry, calculated by the simple formula below[11]. Based on this formula, if RTA of item i is above 0, it indicates that item i has a comparative advantage, or if RTA of item i is less than 0, it indicates that item i has a comparative disadvantage.

RTA = RCA − RCDA

RTA: Revealed Comparative Advantage

RCA Revealed Comparative Advantage

RCDA: Revealed Comparative Disadvantage

RCA = (EXij/EXj)/(EXiw/EXw) - 1

where EX = value of exports, i = item i, j = country j, w=world

RCDA = (IMij/IMj)/(IMiw/IMw) - 1

where IM = value of imports

By measuring the comparative advantage by industry of TPP members, there are some findings. Firstly, NZ has a higher level of comparative advantage with 6.6 in the food industry, followed by Chile (1.9), Peru (1.4), Australia (1.2), and Vietnam (1.0), but Japan (-1.2) and Malaysia (-0.5) have a comparative disadvantage. Secondly, Vietnam has a higher comparative advantage in garments with 4.7, but Japan (-1.6), Chile (-1.5), the U.S. (-1.4), Australia (-1.3), NZ (-1.1), and Canada (-0.8) are

[10] The number of effective FTAs in the Asia Oceania region is 56 (JETRO, 2016), out of which the number of FTAs which adopt the third-party certification system is 35, which adopt the self-certification system is 14, including the combination system to allow either the former or the latter. The rest of FTAs are not clear.

[11] See Isogai, Morishita, Rasmus , 2002.

positioned with a comparative disadvantage. Vietnam has a higher comparative advantage in footwear with 7.4, but the rest of the countries have a comparative disadvantage. Furthermore, Vietnam has the dominant share with 54.0% and 79.9% of the total value of exports in garments and footwear respectively among TPP members. Thirdly, Japan and Mexico have a higher level of comparative advantage in transport equipment with 1.8 and 1.2 respectively, and automobiles and automotive parts have a comparative advantage, but automobiles in the U.S. (-0.8) and automotive parts in Canada (-0.8) and transport equipment in the rest of countries have a comparative disadvantage.

Looking at the level of comparative advantage, it is expected that TPP will create trade in products from countries with a higher comparative advantage with countries with a lower comparative disadvantage, in particular among pairs of countries for which the TPP will be the first FTA.

=== Table 4 ===

3.2. Impact of Tariff Elimination in the U.S.

This section discusses FTA utilisation and the possible impact of tariff elimination in the U.S. The total value of imports by TPP members occupy 27.9% of global imports (US$ 16.8 billion, JETRO's estimate) and half of the import market is contributed by the U.S. By industry, the import share by TPP out of the total imports by 54 countries[12] is relatively higher for garments, general machinery, and automobiles and automotive parts due to the larger volume of imports by the U.S. (Table 5).

=== Table 5 ===

The value of intra-regional trade among TPP members based on export statistics achieved US$ 1,850 billion, out of which the U.S. is the largest market with 45.5%[13]. Furthermore, as mentioned in the previous section, the U.S. will have the first FTAs with Vietnam, Malaysia, Brunei, Japan, and NZ. The total value of trade between these pairs of countries accounts for 88.1% of the total value of trade among the pairs of countries for which TPP will be the first FTA (US$ 306 billion). Hence, analysing imports to the U.S. is to understand the major impact of tariff elimination under TPP.

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[12] The total import value by 54 countries accounts for 87.1% of global imports.

[13] It is the share of the total value of exports by TPP members to the U.S. out of the total regional trade.

The number of effective FTAs by the U.S. is 14 with 20 countries and the FTA coverage ratio, which is the ratio of trade with FTA partner countries as a proportion of the total value of trade, achieved 39.6% in 2015 (JETRO, 2016). Looking at the FTA utilisation of currently-existing FTAs by the U.S., the average ratio of FTA utilisation was 45.9% in 2015, which means nearly half of the imports from effective FTA partner countries to the U.S. utilise FTAs. This indicates that there are many dutiable items in the U.S. and tariff elimination under TPP will have a substantially positive impact on imports to the U.S. market.

Next, we discuss the extent that TPP members pay Customs duties in the U.S. The amount of Customs duties collected by the U.S. on imports from TPP members (2015) is estimated at US$5,958 million. In other words, the maximum saving of Customs duties in the U.S. may reach US$6 billion. By country, the amount of Customs duties on Vietnamese imports ranks first with US$2,805 million, followed by Japan (US$2,276 million). The amount of Customs duties on Vietnam and Japan accounts for 85.3% of the total amount of Customs duties paid by all TPP members.

By industry, the amount of Customs duties on garments (HS61-63) achieved US$ 2,110 million, which accounts for 35.4% out of the total, since the average rate of tariffs on dutiable items (Customs duties/value of dutiable items) on garments from TPP members is as high as 18.4%. Vietnam is the largest contributor in this sector, with 92.4% of the total Customs duties on garments. Furthermore, the average tariff rate on footwear reached 13.4% at US$577 million accounting for 9.7% of the total Customs duties, out of which Vietnam has the dominant share with 99.4%. Automobiles/ automotive parts (HS87) is another contributing sector in terms of the amount of Customs duties to the U.S., at US$1,226 million accounting for 20.7% of the total Customs duties. Japan has the most substantial share with 92.0% in this sector. Although the average rate of tariff on dutiable items of automobiles/ automotive parts is 2.5%, which is lower than the average (3.9%), the larger amount of dutiable value (import values being subject to tariffs), which accounts for 31.7%of the total imports of dutiable items from TPP members in the U.S., contributes to the higher value of Customs duties.

The share by garments, footwear, and automobiles/automotive parts achieved 65.7% out of the total Customs duties. Hence, focusing on the tariff elimination effect under TPP by industry, a larger positive impact will emerge for the trade in garments, footwear, and automobiles/automotive parts, as the TPP members are expected to make extensive use of TPP.

=== Table 6 ===

On the other hand, the amount of Customs duties on imports from non-TPP members (2015) is reported in Table 7. China ranks first in terms of the value of Customs duties with US$14 billion, followed by Indonesia (US$ 1.3), and India (US$1.1). The value of Customs duty on garments occupies almost all of the share out of the total Customs duties in Sri Lanka (99.3%), Bangladesh (96.9%), Cambodia (93.2%), Pakistan (92.3%) and majority share in Indonesia (75.8%), India (67.5%), the Philippines (68.9%), Laos (64.2%), and Myanmar (57.1%). The value of Customs duties on footwear has a significant share in Indonesia (14.7%), China (12.6%), Myanmar (9.1%), and so forth. Negative impacts will be larger on exports by non-TPP members in garments as well as footwear. Namely, exports to the U.S. by non-TPP members are likely to be diverted to some extent to TPP members. Although the value of Customs duties on automobiles/parts accounts for 65.3% of the total Customs duties on Korea in 2015, the tariff on passenger cars became duty-free in 2016 under the U.S.-Korea Free Trade Agreement (KORUS). Hence, the negative impact on exports of Korean automobiles/parts will be limited as the Customs duties on Korean passenger cars will substantially reduce after 2016.

=== Table 7 ===

3.3. GSP Schemes in the U.S.

In this section, we discuss the Generalized Scheme of Preference (GSP) mainly provided by the U.S., since GSP plays a key role in terms of the extent of market access by more advanced countries. GSP is the scheme for advanced countries to unilaterally provide preferential market access to developing countries for development of their industry. Advanced countries (donor countries) including the U.S., Japan, and the EU that provide GSP to developing countries under which the scope of beneficial products/beneficiaries or rules such as their graduation criteria differ depending on the donor country.

GSP of the U.S., Japan, and the EU distinguish the treatment for the least-developed countries (hereinafter referred to as GSP-LDC) and the treatment of developing countries (hereinafter referred to as standard GSP). The donor countries provide relatively better market access to LDCs than that to the developing countries. The number of eligible beneficial items is about 3,600 for 97 beneficiaries under the standard GSP of Japan, and about 6,000 items for 47 beneficiaries under GSP-LDC

respectively. According to Japan Customs, the share of non-dutiable items, including both GSP-LDC and duty-free items on MFN basis, is about 98% of total items. The EU provides standard GSP to 30 beneficiaries subject to about 66% of total items and GSP-LDC[14] to 49 beneficiaries subject to all items other than arms.

On the other hand, the number of eligible beneficial items is about 3,500 for 79 countries under the standard GSP of the U.S., and about 5,000 items for 43 countries under GSP-LDC. It is noteworthy that almost all textiles, garments, and footwear are not subject to GSP in the U.S. Hence, imports from developing countries remain dutiable except for some African countries that are beneficiaries of the African Growth and Opportunity Act (AGOA)[15], and the imports from TPP members including Vietnam will become non-dutiable immediately or in a phased manner after the TPP comes into effect, as long as they comply with the relevant ROO.

Indeed, looking at the import of products by the U.S., the value of total imports of garments and the import value using the GSP in 2015 was US$ 99.6 billion and US$ 1.1 billion respectively, indicating that the utilisation ratio of GSP was only 1.2%. Similarly, the utilisation rate for textiles and footwear was 0.3% (total imports: US$ 14.7 billion) and 0.1% (US$ 27.2 billion) respectively.

The beneficiaries also differ depending on the donor country. GSP beneficiaries among major Asian countries in the U.S., Japan and the EU are reported in Table 8. Under the U.S. GSP, the Asian TPP members, i.e., Vietnam, Malaysia, Brunei, and Singapore, are currently not beneficiaries. Taking GSP into account, TPP will remain the first preferential scheme between the U.S. and Asian TPP members, excluding Singapore, which has concluded a bilateral FTA with the U.S.[16].

=== Table 8 ===

On the contrary, since the Asian non-TPP members including the rest of the ASEAN countries (i.e., Thailand, Indonesia, the Philippines, Cambodia, and Myanmar), except for Laos and the south Asian countries (i.e., India, Pakistan, Bangladesh, and Sri Lanka) are beneficiaries of U.S. GSP, these countries will lose their better market access to the U.S. to the ASEAN TPP members. Furthermore, GSP is not a permanent preferential scheme. It intends to promote the economic development in developing

[14] EU calls GSP-LDC as Everything But Arms (EBA).
[15] The U.S. provides special GSP schemes to some African countries based on AGOA, which expands the beneficial items including garments, etc.
[16] The U.S.-Singapore FTA came into effect in January 2004.

countries, and there is the graduation under which, 1) Beneficiaries will be removed entirely from GSP programme once the country is classified as a higher-income country based on the World Bank's statistics, or regarded as sufficiently developed or competitive in the U.S. (country graduation) [17], 2) Specific products will lose GSP eligibility if certain ceilings[18] are exceeded (product-by-graduation)[19]. Furthermore, the U.S. GSP is unstable, since the scheme can be suspended entirely if the extension bill is not passed by Congress. Indeed, the U.S. GSP was suspended entirely for two years in July 2013 until it resumed in July 2015, and the Customs duties during the GSP lapse can be refunded.

As discussed above, negative impacts will emerge especially with the trade in garments, thus among non-TPP members, the negative impact will be relatively larger on countries which depend on garment exports. As reported in Table 9, these include Bangladesh (88.3%), Cambodia (70.3%), Sri Lanka (45.2%), and Pakistan (37.3%), while the share of exports to the U.S. out of the total exports of garments occupy 18.8% in Bangladesh, 30.7% in Cambodia, 46.1% in Sri Lanka, and 35.5% in Pakistan.

=== Table 9 ===

3.4. Possible Impact on the Trade in Garments, Textiles, and Footwear

As discussed in the previous section, the trade in garments is likely to increase significantly between Vietnam and the U.S., because 1) TPP will be the first FTA between Vietnam and the U.S. and other North American countries, 2) The tariff margin is higher among the major industries in those countries, 3) GSP is not applicable to almost all garments in the U.S., indicating that TPP members including Vietnam will

[17] Criteria of country graduation differ depending on the donor country. Under the Japanese GSP, the beneficiaries will be removed entirely from GSP programme once a country is classified as a higher-income country for three consecutive years, while under the EU GSP once a country is classified as a higher or upper-middle income country for three consecutive years.

[18] According to the USTR, certain ceilings are defined as 1) Import of a specific product accounts for 50% or more of the total value of imports of the same product during a calendar year, or 2) Those exceeding a certain dollar value (US$175 million in 2016).

[19] Criteria of product-by-graduation also differ depending on the donor country. Under the Japanese GSP, specific products will lose GSP eligibility for three years if the average value of Japan's import of a product originating from a beneficiary for the past three years exceeds 1.5 billion yen, and 50% of the total import value of the product from the world. However, products that account for more than 25% of total imports granted preferential treatment from that beneficiary are not subject to this exclusion. Under the EU GSP, specific products will lose GSP eligibility if the average import of a product from a beneficiary exceeds 57.0% (47.2% for textiles/garments, 17.5% for some food products, and some minerals) of the imports of the same product from all GSP beneficiaries during the three consecutive years. The list of product-by-graduation is revised every three years.

have better market access to the U.S. against the competing countries, except for countries concluding a FTA with the U.S. and beneficiaries of AGOA, 4) Vietnam has a larger export share with higher comparative advantage in this sector, while the U.S. is the largest import market with a comparative disadvantage. In this regard, this section will further discuss how TPP will affect the trade in garments focusing on the trade between Vietnam and the U.S.

The import value of the U.S. in garments is US$100 billion (Table 5), accounting for 61.9% of the total imports from TPP members (US$162 billion). The trade matrix based on the export statistics for garments among TPP member countries is reported in Table 10. The export by Vietnam of garments to the U.S. had the most substantial share at 40.0% in 2015, out of the total value of the regional trade in garments among TPP members (US$28 billion).

=== Table 10 ===

Furthermore, it is likely that factors other than TPP will also contribute for Vietnam to expand its garment exports. Firstly, the widening gap of the labour cost between China and Vietnam due to the wage increase in China will attract more investment in the labour intensive sectors in Vietnam. Indeed, Vietnam's share of U.S. imports in garments has increased continuously, taking China's market share away even before TPP is in effect. China's share decreased by 2.7% to 38.6% between 2010 and 2015, while the share by Vietnam increased by 3.6% to 10.6%[20]. The changing factor price affecting the trade in labour-intensive products may have caused this trend. The JETRO Survey of Investment Related Costs[21] reveals that wages in China have risen steadily in recent years, e.g. the average wage for workers at Japanese affiliated firms in Guangzhou, which represents an agglomeration of manufacturing industries in China, increased from US$281 in 2010 to US$561 in 2015. On the other hand, the average wage for workers in Hanoi and in Ho Chi Minh increased from US$96 in 2010 to US$181 in 2015, and US$114 to US$193 respectively.

Secondly, the development of a port infrastructure in Lach Huyen will reduce logistical costs to the major foreign markets. In northern Vietnam, Haiphong Port currently works as a hub port in the river with a depth limited to eight meters. The Lach

[20] A similar tendency is found in Japan and the EU. In Japan, the share by China decreased by 14.7% to 69.1%, while the share by Vietnam increased by 5.9% to 10.4%. In the EU, the share by China decreased by 7.6% to 37.4%, while the share by Vietnam increased by 1.2% to 3.3%.

[21] The average wage was calculated based on a questionnaire survey to Japanese affiliated companies based in the relevant countries/cities.

Huyen Port, a deep-sea-port with a depth of fourteen meters, is planned to become operational in 2018. It is likely that opening of the new route with larger container vessels is expected to reduce transportation costs by sea to the major countries including the U.S.[22]

These factors, including the widening factor prices, the development of a deep-sea-port, and tariff elimination through TPP, will together push Vietnam to expand its garment exports.

Next, we discuss the impact on the trade in textiles including yarns and fabric. Manufacturing textiles is characterised as capital-intensive process, while cutting/sewing are labour-intensive processes. Although Vietnam has a comparative advantage in garments, the RTA in textiles was negative at -5.9 in 2015. The level of RTA fell from -5.4 in 2010, reflecting increased imports of textiles to meet the increasing demand for garments. Vietnam depends on textiles imported from neighbouring countries. As reported in Table 11, Vietnam sourced textiles in 2015 from China (43.3%), South Korea (15.7%), and other Asian countries (13.5%), mainly Taiwan, where 72.5% of textile imports depend on the non-TPP members. Other major sources among the non-TPP members include India (2.4%), Thailand (2.6%), and Indonesia (1.2%). On the other hand, the share by Japan, the U.S., Malaysia, and Australia were 5.3%, 5.7%, 0.7% and 0.7% respectively.

=== Table 11 ===

Under these conditions, the yarn forward rule as well as the accumulation rule shall apply in principle on garments, except those using non-originating materials stipulated in the short supply list. These rules are likely to create incentives for garment manufacturers in Vietnam to procure textiles from TPP members instead of non-TPP members, unless the margin is lower than the costs incurred by altering procurement sources. Therefore, the yarn forward rule under TPP is likely to create a trade in textiles positively among TPP members, while textile exports by non-TPP members will partially divert to TPP members.

Furthermore, another possible scenario is that foreign direct investment or domestic investment in Vietnam will be created for manufacturing textiles. In particular, it is likely that exporters of textiles by non-TPP members will have the incentives to invest in Vietnam in order to manufacture and supply textiles to the customers. Indeed, before

[22] A logistics expert says that logistics costs to the U.S. may possibly be reduced by one third after Lach Huyen becomes operational.

TPP comes into effect, foreign firms won approval to make new investments in this sector. These companies includes Hyosung (South Korea), Regina Miracle International (Hong Kong), and the Texhong Textile Group (China). In addition, VINATEX, the largest state-owned-enterprise in textiles/garments in Vietnam formed a strategic alliance in 2015 with Itochu, one of Japan's major trading firms, by selling its shares to a subsidiary of Itochu.

Furthermore, expanding the production of garments in Vietnam is likely to increase the demand for textile machinery. Japan has a comparative advantage of 4.0 of RTA and the Japanese export value of textile machinery occupies 67.9% of the total value of regional trade in the same products (US$266 million) among TPP members.

Similarly, as discussed above, trade in footwear is also likely to be created in particular between Vietnam and the U.S., since GSP is not applicable to almost all footwear in the U.S., and Vietnam has a larger export share with higher comparative advantage. The value of exports in footwear by Vietnam accounts for 74.9% of the total value of regional trade in the same products (US$7.5 billion) among TPP members, out of which the trade between Vietnam and the U.S. has a significant share at 54.7% of the total regional trade.

3.5 Possible Impact on Trade in Automobiles/Automotive Parts

This section discusses how TPP will affect trade in automobiles/automotive parts. TPP will create a new FTA between Japan, the largest exporter among the TPP members, and the U.S., the largest importer in this sector. The trade matrix based on the export statistics in automobiles/automotive parts by TPP members is reported in Table 12 and Table 13 respectively. The trade among the U.S., Canada, and Mexico had a substantial share at 68.6% (US$122 billion) in 2015 out of the total value of regional trade in automobiles among TPP members (US$178 billion), as the North American Free Trade Agreement (NAFTA) is currently applicable for trade within NAFTA, as long as complying with the ROO[23]. The share of exports by Japan to the U.S. was 20.3% (US$36 billion), occupying 88.0% of the trade among the pairs of countries for which TPP will be the first FTA, followed by exports by Japan to Canada with 1.4% (US$2.6 billion) and exports by Japan to NZ at 0.7% (US$1.2 billion).

[23] The ROO applicable for automobiles under NAFTA is a regional value content of 62.5% under the net cost method. On the other hand, the ROO under TPP is a regional value content with either 55% under the build-down method, or 45% under the net cost method. Although the calculation method is slightly different between the net cost method of NAFTA and TPP, the ROO of TPP in general is regarded as a more flexible rule. (JETRO, 2016)

=== Table 12 ===

=== Table 13 ===

Similarly, trade among NAFTA countries has a substantial share with 82.8% out of regional trade in automobile parts among TPP members. Exports by Japan to the U.S. has the highest share among the pairs of countries for which TPP will be the first FTA, accounting for 8.6% (US$8.0 billion) of the total regional trade, followed by exports by Japan to Canada at 1.7% (US$1.6 billion). Thus, Japan shall gain larger benefits for both automobiles and automotive parts.

In the U.S., applied tariff rate of 2.5% is currently imposed on all passenger cars, and 25% on many of trucks[24]. In Canada, most passenger cars and trucks are subject to a tariff of 6.1%, and in NZ most are duty-free, even though some are subject to a tariff of 10%. However, the U.S. will eliminate the tariff on automobiles originating in Japan over many years under the country specific concession, e.g. the tariff reduction under TPP on Japanese passenger cars will start from year 15 and shall be duty-free by year 25, with 25% of the tariff on trucks remaining at the current tariff rate until year 29 and shall be duty-free by year 30. On the other hand, in Canada, the tariff on passenger cars will be eliminated in year 5 by equal reductions in a phased manner, the tariff on trucks will be eliminated either immediately, or in year 6 or in year 11 in the same manner.

The tariff on automotive parts will be eliminated immediately, or within year 5 to year 10 in a phased manner in the U.S. and all dutiable automotive parts in Canada shall be eliminated immediately, while some automotive parts in the U.S. are currently subject to a tariff of 4%, or 2.5%, or duty-free, and those in Canada subject to a tariff of 6.0%, or 8.5%, or duty-free.

Hence, it will take some time for the benefit to emerge on Japanese exports in automobiles to the U.S., but exports of automobiles to Canada and exports of automotive parts to both the U.S. and Canada will benefit at an earlier stage.

Another possible scenario is that Japanese exports of automotive parts to Mexico will expand. Mexico is becoming a key production base to supply automobiles to the U.S., and the major automobile makers have made new investments or expanded the production capacity in recent years. Although NAFTA exists between Mexico and the U.S. and the bilateral FTA between Mexico and Japan, TPP will expand the accumulation base to the 12 member countries including Japan. Therefore, some

[24] Some trucks are subject to either 4% or duty-free.

automotive makers may benefit from enlargement of the accumulation basis, in particular for automotive makers which newly entered the North American market and do not comply with the ROO of NAFTA in their current supply chain within North America. However, as the major automotive makers exporting to the U.S. currently may comply with the ROO of NAFTA, the trade creation effect by this route may be limited.

Looking at the possible impact on Asian non-TPP members, the negative impact will be limited, because 1) Exports in automobiles and automotive parts to the U.S. and Canada are marginal, e.g. Thai exports to the U.S. and Canada were US$640 million in 2015, accounting for 2.6% of the total exports in this sector; Indonesian exports to the were US$70 million at 1.5% of total exports; Indian exports to the were US$ 1.1 billion at 10.0% of total exports, and 2) U.S. GSP is eligible on automotive parts. However, the beneficiaries of U.S GSP among the Asian non-TPP members will lose their advantage against the non-beneficiary TPP members.

4. Conclusion

In this paper, we examined how far TPP will impact the trade in goods in Asia. The conclusion of this paper can be summarised as follows. Firstly, TPP will substantially eliminate tariffs or create trade in goods largely between the Asian Oceania countries and North American countries, because TPP will be the first FTA among these countries. Secondly, the positive impact will be larger on trade between the U.S. and the Asian Oceania countries including Vietnam, Malaysia, Brunei, Japan, and NZ, because the total value of trade among these countries occupies 88.1% of the total value of trade among the pairs of countries for which TPP will be their first FTA. The maximum saving of Customs duties in the U.S. through TPP will reach US$6 billion. Thirdly, by industry, trade in garments/textiles will be created positively among TPP members, particularly exports by Vietnam to the U.S., because the tariff margin on garments in the U.S. is higher among the major industries of the TPP members, and garment exports by Vietnam to the U.S. has a substantial share with 40.0% of the total intra-regional trade in garments. Similarly, trade in footwear will also be affected positively for the same reasons. Fourthly, the negative impact is likely to be larger for exports of non-TPP members to the U.S. in these sectors, because the U.S. GSP scheme is not granted on almost all garments and footwear. Furthermore, the yarn-forward rule for garments under TPP will negatively divert exports of non-TPP members in textiles to trade among TPP members or expand domestic supplies by TPP members. Fifthly, trade in automobiles/automotive products will also be affected positively, especially for exports

by Japan to the U.S., because TPP will create a new FTA between Japan, the largest exporter among the TPP members, and the U.S., the largest importer, and the value of Customs duties on these products in the U.S. has a substantial share at 20.7%.

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Table 1. Tariff Elimination rates by country under TPP

	Tariff elimination rate (%)					Common concession/country-specific concession	Exempt items
	Total		Agricultural products	Industrial products			
	Number of items base	Trade value base	Number of items base	Number of items base	Trade value base		
U.S.	100	100	98.8 (55.5)	100 (90.9)	100 (67.4)	Common concession, Country-specific concession for certain items	Tariff-rate-quotas shall be applied on some dairy products and sugar/sugar-containing products.
Canada	99	100	94.1 (86.2)	100 (96.9)	100 (68.4)	Common concession, Country-specific concession for certain items	Tariff-rate-quotas shall be applied on some dairy products, chicken and eggs etc.
Mexico	99	99	96.4 (74.1)	99.6 (77.0)	99.4 (94.6)	Common concession, Country-specific concession for certain items	Custom duties shall be reduced but not eliminated on coffee,used cars etc. Tariff-rate-quotas shall be applied on some dairy products, oil etc.
Chile	100	100	99.5 (96.3)	100 (94.7)	100 (98.9)	Common concession, Country-specific concession for certain items	The conditions of bilateral FTAs shall be applied on wheat and sugar. MFN rate of customs duties shall be applied on some Canadian meat and dairy products etc.
Peru	99	100	96.0 (82.1)	100 (80.2)	100 (98.2)	Common concession	The ad-valorem dutiers shall be eliminated but non-ad valorem(specific) duties be applied on some dairy products, maize, rice and sugar etc.
Australia	100	100	100 (99.5)	99.8 (91.8)	99.8 (94.2)	Common concession	The ad-valorem dutiers shall be eliminated but non-ad valorem(specific) duties be applied on used cars.
New Zealand	100	100	100 (97.7)	100 (93.9)	100 (98.0)	Common concession	No exempt items.
Singapore	100	100	100 (100)	100 (100)	100 (100)	Common concession	No exempt items.
Malaysia	100	100	99.6 (96.7)	100 (78.8)	100 (77.3)	Common concession	Tariff-rate-quotas shall be applied on some poultries, dairy products and egg etc.
Vietnam	100	100	99.4 (42.6)	100 (70.2)	100 (72.1)	Common concession	MFN rate of customs duties shall be applied on some eggs, sugar, salt shall remain at base rate. Tariff-rate-quotas shall be applied on used vehicles etc.
Brunei	100	100	100 (98.6)	100 (90.6)	100 (96.4)	Common concession	No exempt items.
Japan	95	95	81.0 (51.3)	100 (95.3)	100 (99.1)	Common concession, Country-specific concession for certain items	MFN rate of customs duties or tariff-rate-quotas shall be applied on some agricultural products.

Source: TPP Taskforce, Cabinet Secretariat of Japan, TPP Agreement

Notes: 1) Tariff elimination rates are based on HS2007. The rates for agricultural products and industrial products are ratios applied to Japan or by Japan. 2) The rates in parentheses indicates the ratio of immediate tariff elimination items out of the total items/trade value.

Table 2. Existing FTAs among TPP members and between TPP members and Asian non-TPP members

(Unit: %)

		Ratio of export toward TPP member countries (value of export to each country/total export value)													Total export value (Unit: MillionUS$)
		U.S.	Canada	Mexico	Peru	Chile	Australia	New Zealand	Singapore	Malaysia	Vietnam	Brunei	Japan	Total for TPP	Total for new FTA or no FTA	
TPP members	U.S.		18.7	15.7	0.6	1.0	1.7	0.2	1.9	0.8	0.5	0.0	4.2	45.2	5.7	1,502,572
	Canada	76.8		1.3	0.2	0.2	0.4	0.1	0.3	0.2	0.1	0.0	1.9	81.2	2.9	410,081
	Mexico	81.1	2.8		0.4	0.5	0.3	0.0	0.1	0.0	0.0	0.0	0.8	86.1	0.5	380,789
	Peru	15.1	7.0	1.6		3.2	0.3	0.1	0.0	0.1	0.2	0.0	3.3	31.0	0.7	33,536
	Chile	13.4	2.1	2.1	2.5		0.8	0.1	0.1	0.1	0.4	0.0	8.9	30.5	0.0	62,042
	Australia	5.4	0.6	0.2	0.0	0.1		3.3	2.7	1.8	1.4	0.0	15.9	31.6	0.9	187,687
	New Zealand	11.8	1.4	0.7	0.3	0.3	16.9		2.2	1.9	1.1	0.0	6.0	42.6	20.2	34,359
	Singapore(Domestic)	7.1	0.2	0.5	0.0	0.0	3.6	0.6		11.2	3.1	0.2	4.3	30.9	0.7	169,996
	Malaysia	9.4	0.4	0.8	0.0	0.1	3.6	0.5	13.9		2.2	0.3	9.5	40.9	10.7	199,959
	Vietnam	20.7	1.5	1.0	0.1	0.4	1.8	0.2	2.0	2.2		0.0	8.7	38.6	23.2	162,017
	Brunei	0.8	0.0	0.0	0.0	0.0	3.5	5.2	3.5	4.6	0.7		36.3	54.8	0.8	6,353
	Japan	20.1	1.2	1.7	0.1	0.3	2.1	0.3	3.2	1.9	2.0	0.0		33.0	21.7	624,889
TPP-non-members	China	18.0	1.3	1.5	0.3	0.6	1.8	0.2	2.3	1.9	2.9	0.1	6.0	36.8	26.7	2,280,541
	South Korea	13.3	0.9	2.1	0.2	0.3	2.1	0.2	2.8	1.5	5.3	0.1	4.9	33.6	6.9	526,757
	Thailand	11.2	0.6	1.3	0.2	0.3	4.6	0.6	4.1	4.8	4.2	0.0	9.4	41.2	13.1	210,865
	Indonesia	10.8	0.5	0.5	0.1	0.1	2.5	0.3	8.4	5.1	1.8	0.1	12.0	42.2	12.0	150,393
	Philippines	15.0	1.0	0.8	0.1	0.1	0.8	0.1	6.2	2.0	1.2	0.0	21.1	48.3	16.9	58,648
	Cambodia	25.0	6.5	0.7	0.1	0.2	1.0	0.1	0.7	1.6	2.2	0.0	6.7	44.7	32.5	8,542
	Laos	0.9	0.4	0.0	0.0	0.0	0.1	0.1	0.3	0.1	17.6	0.0	2.0	21.4	1.4	4,374
	Myanmar	1.0	0.2	0.0	0.0	0.0	0.3	0.0	0.9	1.3	1.0	0.0	6.2	10.9	1.2	12,652
	India	15.0	0.8	1.0	0.3	0.2	1.2	0.1	2.9	1.8	2.0	0.0	1.8	27.2	18.4	267,930
	Bangladesh	13.9	2.6	0.4	0.0	0.1	1.8	0.2	0.4	0.4	0.2	0.0	2.1	22.0	22.0	29,925
	Pakistan	16.6	1.0	0.5	0.1	0.3	0.8	0.2	0.9	0.8	1.3	0.0	0.8	23.2	22.4	22,089
	Sri Lanka	27.4	1.8	1.0	0.2	0.4	1.6	0.2	0.8	0.3	0.7	0.0	2.1	36.5	36.5	10,225

Source: JETRO, trade statistics of the respective countries, "DOT August 2016" (IMF)

Notes: 1) Cells in light (yellow) colour indicate countries for which bilateral or regional FTAs have already entered into force. 2) Cells in orange colour indicate countries for which TPP will be the first FTA. 3) Cells in green colour indicate countries for which FTAs have not been concluded. 4) The figures are based on 2015 statistics. 5) Singapore (domestic) means exports excluding re-exports. 6) The statistics for Laos, Myanmar, and Bangladesh are based on DOT. Others are based on the trade statistics of the respective countries. 7) As for the Global System of Trade Preferences (GSTP) among developing countries, countries where this agreement has already become effective are defined as countries where FTAs have not come into effect yet.

Table 3. Simple average applied tariff rates by TPP members and Asian non-members

(Unit: %)

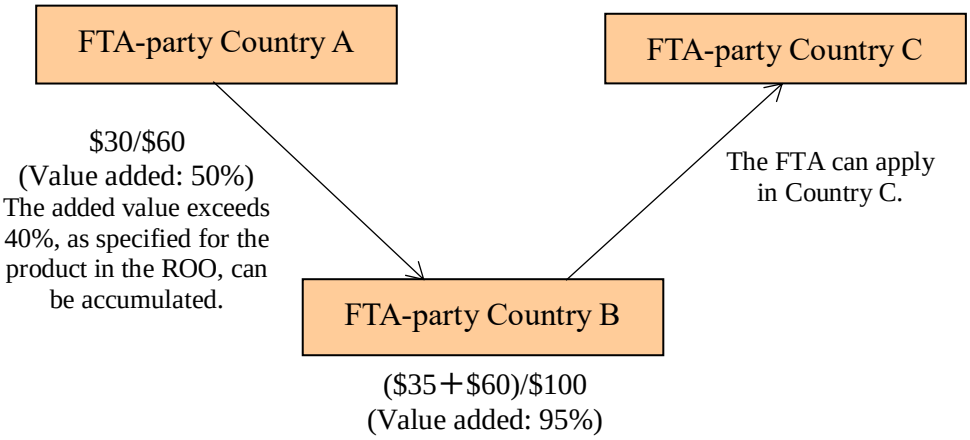
		TPP-members												TPP-non-members										
		U.S.	Canada	Mexico	Peru	Chile	Australia	New Zealand	Singapore	Malaysia	Vietnam	Brunei	Japan	China	South Korea	Thailand	Indonesia	Philippines	Cambodia	Myanmar	Laos	India	Bangladesh	Pakistan	Srilanka
Food	1-11,16-24	14.0	3.8	19.0	2.6	6.0	1.1	1.7	0.0	2.6	20.1	0.0	8.2	16.8	55.2	30.1	10.5	10.4	16.3	10.3	18.7	35.8	18.6	17.3	23.1
Ore	26	0.1	0.0	0.0	0.0	6.0	0.0	0.0	3.5	0.0	3.5	0.0	0.0	1.4	0.7	0.6	4.5	2.4	0.0	1.0	5.0	3.3	5.1	5.5	0.0
Mineral fuels etc.	27	0.5	0.7	0.1	0.0	6.0	0.3	0.2	3.5	0.4	2.9	0.0	0.8	5.3	4.1	1.9	2.8	1.7	7.2	0.9	6.1	6.2	9.8	5.8	2.8
Coal	2701	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.4	0.3	0.5	3.8	4.5	0.0	0.0	5.0	4.4	5.0	3.0	0.0
Natural gas	2711	0.0	1.8	0.0	0.0	6.0	0.0	0.0	0.0	0.0	3.6	0.0	1.5	4.4	3.9	0.0	3.9	0.0	0.0	1.0	5.0	4.3	3.6	1.9	0.0
Petroleum products	2708-10, 2712-13, 2715	1.1	0.6	0.2	0.0	6.0	0.8	0.6	0.0	1.3	3.4	0.0	0.7	5.6	5.1	3.4	4.0	1.2	12.8	1.3	6.6	4.9	12.4	6.0	7.0
Chemicals	28-40	2.2	2.3	4.0	2.2	6.0	2.4	1.4	0.0	5.8	6.0	1.5	1.9	8.8	8.9	7.1	6.5	4.5	10.3	4.1	8.8	9.6	11.8	12.1	7.3
Chemical products	28-38	2.1	2.4	4.0	2.4	6.0	2.1	1.2	0.0	4.1	5.7	1.4	1.9	8.5	9.3	6.9	6.0	4.1	10.6	4.3	8.9	9.6	11.6	11.5	6.5
Plastic, rubber	39-40	2.9	1.4	4.0	1.5	6.0	4.5	2.6	0.0	15.0	8.1	1.8	1.9	10.2	6.7	8.0	9.3	6.7	8.6	2.8	8.4	9.7	13.3	15.8	11.4
Textiles, Garments	50-63	6.8	4.6	10.8	5.7	6.0	3.6	3.2	0.0	6.5	10.7	0.9	5.6	10.9	9.1	12.2	12.5	9.4	6.7	9.9	8.9	10.0	20.0	17.4	5.1
Textiles	50-60	6.0	1.5	8.4	4.3	6.0	3.4	2.0	0.0	7.7	8.6	0.9	5.0	9.7	8.2	7.7	9.9	7.6	5.3	8.3	8.5	10.1	18.8	15.4	2.4
Garments	61-63	9.9	16.2	19.4	10.8	6.0	4.4	7.7	0.0	2.1	18.3	1.2	7.9	15.6	12.2	28.4	22.2	16.0	11.8	15.5	10.6	9.9	24.6	24.6	14.8
Footwear	64	10.5	12.1	12.8	11.0	6.0	3.6	5.9	0.0	1.6	27.3	4.9	16.4	19.3	11.8	26.7	13.2	12.4	14.7	5.7	10.0	10.0	25.0	24.8	6.9
Steel	72-73	0.8	0.7	1.6	1.0	6.0	4.2	2.7	0.0	9.2	7.3	0.1	0.4	7.4	2.5	6.8	9.6	5.4	7.6	1.9	5.2	8.8	14.9	14.5	10.3
General machinery	84	1.2	0.3	2.7	0.4	6.0	2.8	3.0	0.0	3.3	3.1	2.7	0.0	8.1	6.0	3.9	5.0	2.1	13.3	1.6	6.0	7.1	4.3	8.4	1.7
Electrical equipment	85	1.6	1.2	3.5	1.3	6.0	2.7	2.6	0.0	4.1	7.9	5.0	0.1	9.1	6.1	8.3	5.6	3.9	17.1	4.7	7.7	7.2	13.2	14.3	6.8
Transport equipment	86-89	2.3	6.7	6.4	0.6	5.0	2.7	2.5	0.0	6.0	8.3	1.0	0.0	7.3	3.7	10.7	11.4	5.4	15.2	2.2	10.8	13.5	9.2	14.2	3.9
Automobiles	8702-05	6.1	5.3	22.2	1.5	5.7	5.0	4.4	0.0	22.9	34.0	0.0	0.0	19.4	8.6	43.3	30.6	15.7	18.1	7.6	21.7	26.0	13.8	38.6	1.8
Automobile parts	8707-08	1.8	3.9	0.9	0.0	6.0	4.3	5.6	0.0	18.3	19.8	9.2	0.0	9.9	8.0	42.5	11.1	11.4	14.5	3.9	22.0	10.0	14.3	42.5	11.7
	840731-34	0.5	0.0	0.9	0.0	6.0	1.5	2.5	0.0	13.1	33.9	20.0	0.0	10.0	8.0	10.0	7.7	2.2	7.0	5.0	32.5	7.5	23.1	35.0	15.0
Precision equipment	90-91	2.6	2.0	1.2	1.8	6.0	0.6	0.7	0.0	0.7	10.3	3.6	0.2	11.5	7.0	6.1	6.1	3.1	15.2	5.8	7.9	8.8	8.0	7.9	7.9

Source: World Tariff Online

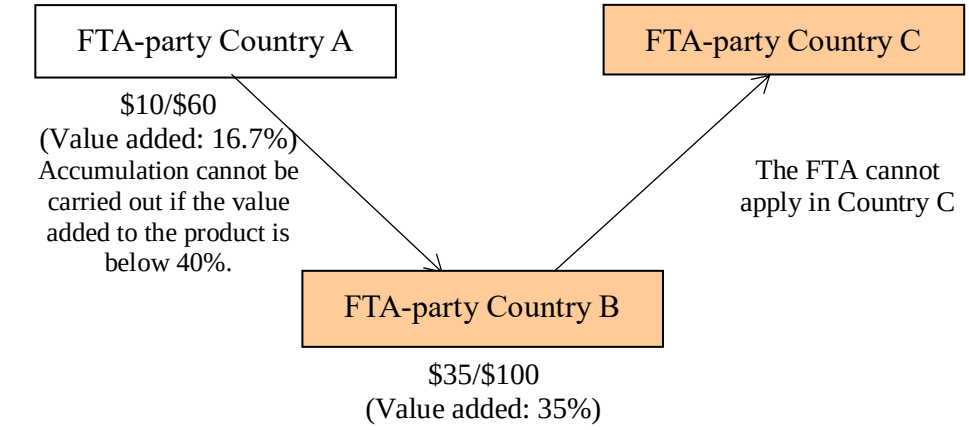
Notes: 1) The average applied tariff rates of Thailand, Cambodia, Laos and Pakistan are based on 2014 statistics. Malaysia, Myanmar, and Bangladesh are based on 2013statistics. The rest of the countries are based on 2015 statistics. 2) Cells are highlighted if the average applied tariff rates of TPP members exceed 5%.

Figure 1. Case of full accumulation or non-full accumulation

Case 1: Accumulation (both full accumulation and non-full accumulation)



Case 2: Non-full accumulation



Case 3: Full accumulation

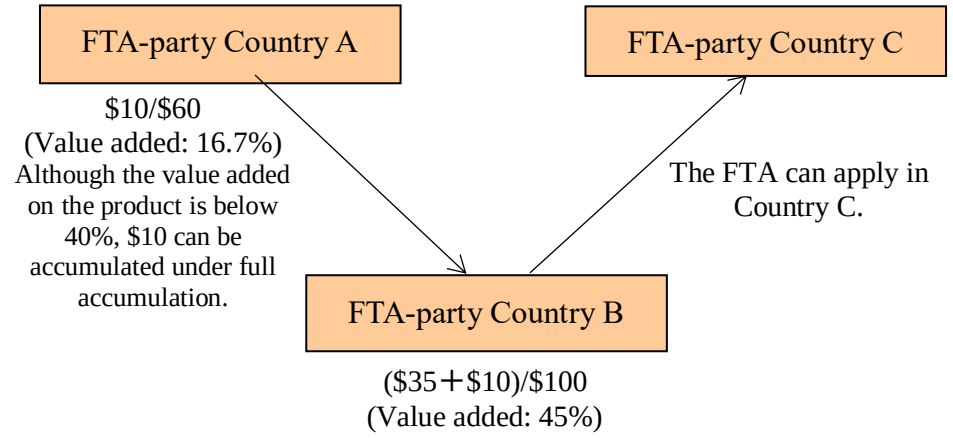


Table 4. Export value and RTA by industry by TPP members (2015)

(Unit: MillionUS$, %)

	HS code	U.S.		Canada		Mexico		Peru		Chile		Australia		New Zealand		Singapore		Singapore (Domestic)		Malaysia		Vietnam		Brunei		Japan		TPP	
		Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	RTA	Export Value	Share
Food	1-11 16-24	110,910	0.2	38,401	0.1	26,027	0.2	6,938	1.4	14,256	1.9	28,632	1.2	20,143	6.6	9,871	-0.2	4,839	n.a.	8,040	-0.5	21,679	0.7	7	-2.2	5,056	-1.2	289,960	7.3
Ore	26	6,812	0.4	6,590	1.1	3,899	1.0	9,958	30.6	14,952	24.4	47,971	26.2	5	0.0	46	-0.0	26	n.a.	1,424	0.1	131	0.0	0	-0.0	141	-2.5	91,927	2.3
Mineral fuels etc.	27	104,106	-0.1	77,840	1.1	22,780	-0.0	2,396	-0.2	228	-1.2	46,853	1.4	627	-0.7	43,739	-0.7	36,938	n.a.	33,059	0.5	4,997	-0.1	5,907	8.0	11,387	-1.8	353,918	9.0
Coal	2701	5,670	0.7	2,721	1.1	1	-0.2	26	0.0	28	-2.0	27,884	30.8	0	-0.0	0	-0.0	0	n.a.	10	-1.2	181	-0.2	0	-0.0	1	-4.1	36,521	0.9
Natural gas	2711	11,585	0.3	9,243	1.3	2	-0.7	484	1.0	12	-1.3	12,814	5.0	15	0.0	264	-0.7	191	n.a.	12,811	4.3	158	-0.1	3,539	41.4	111	-4.7	51,037	1.3
Petroleum products	2708-10, 2712-13, 2715	85,180	-0.2	62,807	1.1	22,588	0.1	1,882	-0.5	177	-1.3	6,088	-0.8	612	-0.9	43,172	-0.9	36,457	n.a.	19,414	-0.0	4,560	-0.1	2,368	3.8	9,829	-1.3	258,677	6.5
Chemicals	28-40	235,783	0.3	43,664	-0.2	21,395	-0.6	1,335	-1.0	3,483	-0.7	10,604	-0.5	2,202	-0.5	49,959	0.4	35,340	n.a.	23,986	-0.0	7,773	-0.7	144	-0.5	79,731	0.1	480,059	12.2
Chemical products	28-38	161,851	0.3	27,889	-0.2	10,503	-0.4	772	-0.9	2,632	-0.6	9,606	-0.3	1,824	-0.4	34,916	0.5	25,195	n.a.	10,675	-0.2	2,598	-0.6	138	-0.4	46,948	-0.1	310,352	7.9
Plastic, rubber	39-40	73,932	0.4	15,775	-0.3	10,892	-1.0	564	-1.2	851	-1.0	998	-0.8	378	-0.9	15,043	0.4	10,144	n.a.	13,311	0.3	5,174	-0.8	7	-0.7	32,783	0.6	169,707	4.3
Textiles, Garments	50-63	24,925	-0.9	3,122	-0.6	6,785	-0.3	1,357	-0.3	121	-1.3	3,423	-0.7	999	-0.6	2,120	-0.1	413	n.a.	6,858	-0.2	27,266	1.2	8	-0.5	7,831	-1.1	84,814	2.1
Textiles	50-60	17,414	0.2	1,529	-0.4	1,458	-1.2	437	-1.5	90	-0.8	3,149	0.4	758	0.4	715	-0.1	267	n.a.	3,059	-0.3	4,461	-5.9	0	-0.7	7,220	0.0	40,289	1.0
Garments	61-63	7,511	-1.4	1,593	-0.8	5,327	0.1	920	0.2	31	-1.5	274	-1.3	241	-1.1	1,405	-0.2	146	n.a.	1,492	-0.2	22,805	4.4	8	-0.4	611	-1.6	42,218	1.1
Footwear	64	1,464	-0.8	305	-0.4	621	-0.0	27	-0.7	7	-1.1	61	-0.6	31	-0.5	401	-0.1	28	n.a.	150	-0.1	12,439	7.4	0	-0.2	56	-0.6	15,561	0.4
Steel	72-73	34,179	-0.2	10,634	-0.4	7,952	-0.8	234	-1.7	504	-1.0	1,518	-0.9	465	-0.4	4,046	-0.3	1,515	n.a.	1,568	-0.6	3,966	-1.5	39	-3.4	37,776	1.1	102,880	2.6
General machinery	84	206,100	-0.0	31,083	-0.6	58,905	-0.1	272	-1.1	574	-1.1	5,144	-1.1	1,184	-0.8	50,944	0.0	23,369	n.a.	22,508	0.0	10,045	-0.5	73	-1.0	117,650	0.8	504,482	12.8
Electrical equipment	85	169,956	-0.1	13,212	-0.4	81,231	0.1	107	-0.7	334	-0.6	2,596	-0.6	744	-0.4	118,179	0.6	31,219	n.a.	59,520	0.4	47,400	0.4	30	-0.5	95,608	0.2	588,917	14.9
Transport equipment	86-89	266,341	0.2	73,090	-0.3	95,268	1.2	72	-1.0	389	-1.0	4,347	-1.1	535	-1.6	11,906	-0.2	3,429	n.a.	3,111	-0.4	3,112	-0.3	78	-1.7	151,497	1.8	609,745	15.4
Automobiles	8702-05	70,191	-0.8	47,265	0.4	54,701	2.2	36	-1.4	47	-1.7	1,780	-1.9	69	-2.2	533	-0.1	2	n.a.	304	-0.3	4	-0.3	5	-1.4	98,725	2.8	273,660	6.9
Automobile parts	8707-08, 840731-34	48,965	0.0	13,776	-0.8	28,757	0.6	6	-0.3	171	-0.2	646	-0.3	62	-0.2	1,855	-0.0	185	n.a.	836	-0.4	948	-0.1	1	-0.2	31,757	1.6	127,781	3.2
Precision equipment	90-91	84,762	0.6	6,275	-0.4	15,310	0.1	17	-0.5	52	-0.5	2,857	-0.7	597	-0.4	17,212	0.3	8,680	n.a.	7,164	0.1	3,533	0.0	33	-0.6	36,729	0.5	174,540	4.4
Total Export		1,502,572	-	410,081	-	380,789	-	33,536	-	62,042	-	187,687	-	34,359	-	346,701	-	169,996	-	199,959	-	162,017	-	6,353	-	624,889	-	3,950,985	100.0
Export/GDP	%	8.3	-	26.4	-	33.3	-	17.5	-	25.8	-	15.3	-	19.9	-	118.4	-	58.1	-	67.5	-	84.6	-	49.1	-	15.2	-	-	-

Source: JETRO, trade statistics of the respective countries.

Notes: Cells are highlighted if RTA is more than 2 or less than -2.

Table 5. Import value by product by TPP members (2015)

（Unit：millionUS$, %）

	U.S.		Canada		Mexico		Peru		Chile		Australia		New Zealand		Singapore		Malaysia		Vietnam		Brunei		Japan		TPP		World (54 countries)	
	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share	Import value	Share
Food	124,801	12.4	33,999	3.4	20,180	2.0	3,841	0.4	5,201	0.5	12,700	1.3	3,759	0.4	11,436	1.1	12,981	1.3	12,731	1.3	495	0.0	58,461	5.8	300,090	29.8	1,007,841	100.0
Ore	2,734	1.5	2,781	1.6	466	0.3	22	0.0	320	0.2	519	0.3	1	0.0	100	0.1	1,276	0.7	158	0.1	1	0.0	20,422	11.5	28,799	16.1	178,338	100.0
Mineral fuels etc.	190,658	11.1	29,622	1.7	26,455	1.5	3,934	0.2	8,529	0.5	21,766	1.3	3,437	0.2	64,730	3.8	21,792	1.3	7,932	0.5	202	0.0	150,794	8.8	529,649	30.8	1,718,210	100.0
Coal	794	0.9	680	0.8	558	0.6	34	0.0	728	0.8	13	0.0	6	0.0	35	0.0	1,307	1.5	452	0.5	0	0.0	16,342	18.4	20,949	23.6	88,814	100.0
Natural gas	9,388	3.8	2,661	1.1	4,979	2.0	40	0.0	1,230	0.5	202	0.1	6	0.0	3,622	1.5	1,419	0.6	538	0.2	0	0.0	51,081	20.9	75,165	30.8	244,394	100.0
Petroleum products	176,921	14.0	25,717	2.0	20,614	1.6	3,852	0.3	6,551	0.5	21,488	1.7	3,421	0.3	60,942	4.8	18,389	1.5	6,553	0.5	0	0.0	82,631	6.5	427,081	33.7	1,265,606	100.0
Chemicals	267,924	12.9	57,509	2.8	56,986	2.7	6,864	0.3	9,153	0.4	25,880	1.2	4,940	0.2	25,905	1.2	22,367	1.1	23,744	1.1	317	0.0	74,062	3.6	575,336	27.6	2,083,563	100.0
Chemical products	193,607	13.6	36,370	2.6	28,115	2.0	4,133	0.3	5,877	0.4	17,647	1.2	3,172	0.2	17,916	1.3	12,526	0.9	12,221	0.9	215	0.0	56,034	3.9	387,619	27.2	1,424,441	100.0
Plastic, rubber	74,317	11.3	21,140	3.2	28,871	4.4	2,731	0.4	3,277	0.5	8,233	1.2	1,768	0.3	7,989	1.2	9,841	1.5	11,523	1.7	101	0.0	18,027	2.7	187,717	28.5	659,123	100.0
Textiles,Garments	115,121	19.4	13,534	2.3	10,509	1.8	1,791	0.3	3,024	0.5	8,888	1.5	1,687	0.3	3,281	0.6	3,809	0.6	15,447	2.6	71	0.0	35,384	6.0	212,474	35.9	592,010	100.0
Textiles	14,838	8.0	3,227	1.7	6,469	3.5	1,037	0.6	607	0.3	1,459	0.8	406	0.2	759	0.4	1,613	0.9	14,894	8.0	27	0.0	5,078	2.7	50,387	27.2	185,363	100.0
Garments	100,283	24.7	10,307	2.5	4,040	1.0	754	0.2	2,417	0.6	7,429	1.8	1,281	0.3	2,522	0.6	2,195	0.5	553	0.1	44	0.0	30,306	7.5	162,087	39.9	406,647	100.0
Footwears	27,650	24.1	2,476	2.2	1,027	0.9	396	0.3	862	0.8	1,664	1.4	280	0.2	713	0.6	497	0.4	599	0.5	10	0.0	5,427	4.7	41,590	36.2	114,812	100.0
Steel	62,873	11.9	16,241	3.1	18,792	3.6	2,553	0.5	2,513	0.5	8,223	1.6	942	0.2	6,592	1.3	7,308	1.4	12,511	2.4	410	0.1	12,746	2.4	151,294	28.7	526,965	100.0
General machinery	322,848	18.0	63,253	3.5	67,683	3.8	5,446	0.3	7,880	0.4	31,768	1.8	4,668	0.3	43,067	2.4	19,860	1.1	21,113	1.2	423	0.0	59,539	3.3	647,125	36.1	1,792,990	100.0
Electrical equipment	328,286	14.0	41,244	1.8	85,410	3.7	4,440	0.2	6,198	0.3	20,545	0.9	2,949	0.1	84,803	3.6	47,056	2.0	41,857	1.8	263	0.0	90,266	3.9	753,054	32.2	2,338,650	100.0
Transport equipment	319,932	21.8	78,043	5.3	39,188	2.7	3,782	0.3	6,202	0.4	27,149	1.9	6,256	0.4	13,698	0.9	9,485	0.6	7,198	0.5	581	0.0	26,086	1.8	537,019	36.6	1,466,450	100.0
Automobiles	192,259	26.8	39,498	5.5	11,931	1.7	2,667	0.4	4,721	0.7	20,502	2.9	3,852	0.5	2,116	0.3	2,920	0.4	2,386	0.3	663	0.1	9,382	1.3	292,232	40.7	717,545	100.0
Automobile parts	75,408	20.4	23,668	6.4	25,226	6.8	297	0.1	482	0.1	2,332	0.6	266	0.1	1,848	0.5	2,675	0.7	1,650	0.4	418	0.1	7,808	2.1	141,660	38.2	370,550	100.0
Precision equipment	83,121	15.0	12,774	2.3	15,383	2.8	724	0.1	1,242	0.2	8,352	1.5	1,157	0.2	12,111	2.2	5,871	1.1	3,668	0.7	94	0.0	26,567	4.8	170,971	30.8	555,414	100.0
Total import	2,248,232	15.4	419,351	2.9	395,232	2.7	37,965	0.3	56,964	0.4	200,344	1.4	34,724	0.2	296,799	2.0	175,978	1.2	165,776	1.1	3,229	0.0	648,084	4.4	4,679,450	32.0	14,637,984	100.0

Source: JETRO, trade statistics of the respective countries/regions

Notes: The global import value is the sum of the 54 countries that account for 87.1% of global imports (US$16.8 billion, JETRO's estimate).

Table 6. Customs duties and the average tariff rates by TPP members in the U.S.

(Unit:MillionUS$, %)

Description	HS code	Vietnam			Japan			Mexico			Malaysia			Canada			Singapore		
		Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV
Food	1～11 16～24	18	0.6	5.5	14	0.6	4.3	0.4	0.1	2.7	3.1	1.3	3.1	14.7	7.5	7.1	0.2	0.5	3.6
Chemicals	28～40	20	0.7	3.9	295	13.0	4.6	24	7.1	4.6	36	15.7	3.3	19	9.4	4.9	3	6.1	4.9
Textiles	50-60	15	0.5	5.9	33	1.5	7.6	1	0.3	5.2	2	0.9	9.6	3	1.6	6.1	0	0.2	7.4
Garments	61-63	1,950	69.5	18.6	10	0.4	13.7	35	10.5	10.9	104	45.5	18.7	3	1.7	12.2	3	6.3	22.6
Footwear	64	573	20.4	13.3	1	0.0	15.6	2	0.5	17.5	0	0.2	24.9	0	0.2	16.4	0	0.0	6.4
Steel	72-73	4	0.2	3.7	26	1.1	5.0	3	0.7	3.5	6	2.5	4.4	3	1.6	3.5	1	1.2	3.5
General machinery	84	37	1.3	17.5	311	13.7	3.4	59	17.5	2.4	6	2.4	3.2	29	14.5	2.8	7	16.5	2.9
Electrical equipment	85	37	1.3	3.8	195	8.6	2.7	112	33.1	3.0	38	16.7	2.9	16	7.9	2.6	5	11.2	3.0
Transport equipment	86-89	4	0.1	2.9	1,133	49.8	2.5	56	16.6	2.5	3	1.4	3.3	33	16.5	2.5	0	0.6	2.5
Automobiles/parts, other vehicles	87	4	0.1	2.9	1,129	49.6	2.5	56	16.5	2.5	3	1.3	3.8	32	16.3	2.5	0	0.6	2.6
Precisiton equipment	90-91	3	0.1	2.9	63	2.8	1.7	11	3.2	2.2	13	5.8	2.0	7	3.3	2.2	5	11.8	3.3
Total		2,805	100.0	14.3	2,276	100.0	2.9	339	100.0	2.6	229	100.0	4.9	198	100.0	0.6	44	100.0	3.7

Description	HS code	New Zealand			Australia			Peru			Chile			Brunei			TPP member countries		
		Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV
Food	1～11 16～24	32	78.7	1.4	7	42.0	2.4	0	6.4	2.0	1	22.2	2.7	0	0.0	n.a.	90	1.5	2.6
Chemicals	28～40	2	5.3	1.6	2	10.5	3.0	0	1.0	3.6	0	2.8	3.7	0	23.6	5.5	400	6.7	4.4
Textiles	50-60	1	3.4	6.7	1	3.2	6.8	0	6.3	6.5	1	14.3	24.0	0	0.0	n.a.	57	1.0	7.0
Garments	61-63	0	0.4	10.1	1	8.9	15.2	2	31.1	16.3	0	1.3	15.1	1	73.5	16.1	2,110	35.4	18.4
Footwear	64	0	0.1	8.5	0	0.4	9.3	0	0.4	10.3	0	0.0	9.5	0	1.2	19.9	577	9.7	13.4
Steel	72-73	0	0.3	3.4	0	1.0	3.8	0	0.0	4.0	0	0.2	3.1	0	0.0	n.a.	43	0.7	4.5
General machinery	84	1	3.4	3.4	1	8.8	2.8	0	3.3	2.7	1	18.1	2.5	0	1.3	2.5	453	7.6	3.4
Electrical equipment	85	1	3.3	1.9	1	4.8	2.5	0	0.2	2.7	0	0.7	2.9	0	0.0	3.5	405	6.8	2.9
Transport equipment	86-89	0	0.8	2.1	2	9.7	2.4	0	0.2	2.5	1	11.8	2.4	0	0.3	2.5	1,232	20.7	2.5
Automobiles/parts, other vehicles	87	0	0.2	3.0	2	9.1	2.5	0	0.2	2.5	0	11.3	2.5	0	0.3	2.5	1,226	20.6	2.5
Precisiton equipment	90-91	0	0.7	1.9	0	2.2	2.1	0	0.1	1.8	0	0.4	1.7	0	0.0	0.0	103	1.7	1.9
Total		40	100.0	1.5	17	100.0	2.5	5	100.0	1.8	4	100.0	2.3	1	100.0	10.3	5,958	100.0	3.9

Source: United States International Trade Commission.

Note: Calculated duties (CD) are estimated by the US ITC. DV stands for dutiable value, which is the import value subject to tariffs, and CV/DV indicates the average tariff on dutiable products. Cells are highlighted if the CD/DV exceeds 10%.

Table 7. Customs duties and the tariff average rate by non-TPP members in the U.S.

(Unit:MillionUS$, %)

Description	HS code	China			South Korea			Thailand			Indonesia			Pilippines			Cambodia		
		Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV
Food	1～11 16～24	120.5	0.8	5.7	12.8	2.0	6.3	53.9	11.4	4.5	7.9	0.6	4.6	12.6	4.2	4.3	0.0	0.0	1.4
Chemicals	28～40	1,039	7.2	4.4	66	10.4	2.1	53	11.2	3.9	40	3.2	4.0	1	0.4	4.1	1	0.2	3.2
Textiles	50-60	238	1.7	7.8	29	4.6	5.4	8	1.7	7.3	16	1.3	9.1	1	0.3	7.8	0	0.0	4.3
Garments	61-63	5,508	38.4	14.6	11	1.7	10.0	187	39.5	18.0	950	75.8	19.1	208	68.9	18.8	444	93.2	17.9
Footwear	64	1,810	12.6	10.7	0	0.1	11.8	13	2.7	12.5	185	14.7	13.1	0	0.1	12.3	21	4.4	10.3
Steel	72-73	172	1.2	3.7	6	1.0	2.7	3	0.7	5.2	0	0.0	4.9	0	0.0	3.1	0	0.0	4.2
General machinery	84	451	3.1	3.0	46	7.2	2.4	9	1.8	3.5	2	0.1	5.0	2	0.6	3.1	0	0.0	2.5
Electrical equipment	85	1,210	8.4	3.2	21	3.3	2.8	27	5.7	3.2	14	1.1	3.4	37	12.2	4.2	0	0.0	4.9
Transport equipment	86-89	385	2.7	3.2	411	65.3	2.5	8	1.6	2.5	1	0.0	2.9	0	0.1	2.5	0	0.1	8.9
Automobiles/parts, other vehicles	87	372	2.6	3.3	411	65.3	2.5	8	1.6	2.5	1	0.0	2.9	0	0.1	2.5	0	0.1	8.9
Precisiton equipment	90-91	173	1.2	3.1	4	0.7	2.1	9	1.9	2.7	3	0.2	2.1	8	2.7	6.2	0	0.0	0.0
Total		14,356	100.0	6.9	629	100.0	2.5	473	100.0	6.3	1,253	100.0	13.0	301	100.0	10.2	477	100.0	16.9

Description	HS code	Laos			Myanmar			India			Bangadesh			Pakistan			Sri Lanka		
		Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV	Calculated duties(CD)	Share	CD/DV
Food	1～11 16～24	0	0.1	4.2	0	1.2	1.4	8	0.7	2.0	2	0.2	11.3	0	0.1	1.1	0	0.0	2.7
Chemicals	28～40	1	16.5	4.9	0	0.0	3.9	58	5.2	5.3	0	0.1	3.1	0	0.0	4.3	0	0.1	3.3
Textiles	50-60	0	0.0	4.0	0	0.0	0.0	53	4.8	0.0	0	0.0	0.0	11	3.2	0.0	0	0.1	0.0
Garments	61-63	2	64.2	22.8	6	57.1	13.7	750	67.5	12.6	883	96.9	16.4	323	92.3	11.8	351	99.3	17.3
Footwear	64	0	0.3	7.5	1	9.1	9.1	40	3.6	9.1	9	0.9	8.1	0	0.1	9.8	0	0.0	8.7
Steel	72-73	0	6.1	3.9	0	0.0	2.0	3	0.3	3.8	0	0.0	4.9	0	0.0	3.4	0	0.0	2.9
General machinery	84	0	0.0	0.0	0	0.0	0.0	18	1.6	0.0	0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Electrical equipment	85	0	0.0	0.0	0	0.0	0.0	9	0.8	0.0	0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Transport equipment	86-89	0	0.0	0.0	0	0.0	0.0	10	0.9	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Automobiles/parts, other vehicles	87	0	0.0	0.0	0	0.0	0.0	9	0.9	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Precisiton equipment	90-91	0	0.9	2.0	0	0.0	2.3	3	0.3	2.2	0	0.0	2.4	0.0	0.0	2.4	0.0	0.0	1.5
Total		3	100.0	9.5	10	100.0	11.4	1,111	100.0	7.2	912	100.0	15.9	350	100.0	11.2	354	100.0	17.0

Source: United States International Trade Commission

Note: Calculated duties (CD) are estimated by the US ITC. DV stands for dutiable value, which is the import value subject to tariffs, and CV/DV indicates the average tariff on dutiable products. Cells are highlighted if the CD/DV exceeds 10%.

Table 8. GSP beneficiaries of the major Asian countries to Japan, the EU and the US

	U.S.	Japan	EU
Cambodia	○ (LDC)	○ (LDC)	○ (EBA)
Bangladesh	Suspended in 2013 (LDC)	○ (LDC)	○ (EBA)
Myanmar	Reinstated in November 2016 (LDC)	○ (LDC)	Reinstated in July 2013 (EBA)
Laos	not granted	○ (LDC)	○ (EBA)
Pakistan	○ (standard)	○ (standard)	○ (GSP+)
India	○ (standard)	FTA in effect, some items eligible to GSP	○ (Standard)
Vietnam	not granted	FTA in effect, some items eligible to GSP	○ (Standard)
Sri Lanka	○ (standard)	○ (standard)	○ (Standard)
Philippines	○ (standard)	FTA in effect, some items eligible to GSP	○ (GSP+)
Indonesia	○ (standard)	FTA in effect, some items eligible to GSP	○ (Standard)
Thailand	○ (standard)	FTA in effect, some items eligible to GSP	not granted (graduated in 2015)
China	not granted	○ (standard)	not granted (graduated in 2015)
Malaysia	not granted	FTA in effect, some items eligible to GSP	not granted (graduated in 2014)
Brunei	not granted	not granted	not granted (graduated in 2014)

Source: The governments of Japan, the EU and the U.S.

Note: ○means that GSP is granted. GSP+ is the EU scheme to provide additional preferential market access, provided that the beneficiaries of standard GSP comply with the criteria in terms of ratifying and implementing international conventions relating to human/labour rights and the

environment, etc.

Table 9. Export value by product by non-TPP members (2015)

（Unit: MillionUS$, %）

	China		South Korea		Thailand		Indonesia		Philippines		Cambodia		Laos		Myanmar		India		Bangladesh		Pakistan		Sri Lanka	
	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share
Food	63,271	2.8	6,605	1.3	29,550	14.0	12,153	8.1	3,351	5.7	411	4.8	274	8.9	1,526	13.1	28,135	10.5	736	2.5	4,576	20.7	2,504	24.5
Ore	245	0.0	160	0.0	76	0.0	3,378	2.2	1,532	2.6	0	0.0	415	13.4	425	3.7	709	0.3	8	0.0	84	0.4	13	0.1
Mineral fuels etc.	27,950	1.2	33,124	6.3	8,294	3.9	34,692	23.1	775	1.3	0	0.0	518	16.7	4,486	38.5	33,114	12.4	30	0.1	265	1.2	186	1.8
Coal	498	0.0	4	0.0	4	0.0	14,662	9.7	148	0.3	0	0.0	0	0.0	0	0.0	126	0.0	0	0.0	0	0.0	0	0.0
Natural gas	2,045	0.1	276	0.1	37	0.0	10,341	6.9	6	0.0	0	0.0	n.a.	n.a.	4,368	37.5	269	0.1	0	0.0	0	0.0	0	0.0
Petroleum products	22,274	1.0	32,003	6.1	7,130	3.4	8,329	5.5	603	1.0	0	0.0	0	0.0	71	0.6	32,303	12.1	30	0.1	262	1.2	0	0.0
Chemicals	192,460	8.4	69,050	13.1	33,827	16.0	16,440	10.9	2,122	3.6	279	3.3	215	7.0	147	1.3	40,693	15.2	144	0.5	659	3.0	1,011	9.9
Chemical products	106,261	4.7	34,225	6.5	9,847	4.7	8,275	5.5	1,237	2.1	44	0.5	143	4.6	21	0.2	33,309	12.4	52	0.2	358	1.6	161	1.6
Plastic, rubber	86,199	3.8	34,826	6.6	23,980	11.4	8,165	5.4	884	1.5	235	2.8	72	2.3	125	1.1	7,385	2.8	92	0.3	301	1.4	850	8.3
Textiles, Clothing	273,584	12.0	14,039	2.7	6,847	3.2	12,283	8.2	1,637	2.8	6,045	70.8	219	7.1	1,511	13.0	37,221	13.9	26,758	90.4	12,918	58.5	4,937	48.3
Textiles	84,273	3.7	11,518	2.2	3,843	1.8	4,716	3.1	175	0.3	43	0.5	1	0.0	9	0.1	15,411	5.8	610	2.1	4,671	21.1	317	3.1
Garments	189,311	8.3	2,521	0.5	3,004	1.4	7,567	5.0	1,462	2.5	6,003	70.3	219	7.1	1,501	12.9	21,810	8.1	26,149	88.3	8,247	37.3	4,620	45.2
Footwear	53,533	2.3	476	0.1	664	0.3	4,507	3.0	62	0.1	637	7.5	n.a.	n.a.	n.a.	n.a.	2,763	1.0	n.a.	n.a.	117	0.5	86	0.8
Steel	109,865	4.8	31,320	5.9	5,351	2.5	3,210	2.1	580	1.0	11	0.1	7	0.2	237	2.0	12,939	4.8	17	0.1	170	0.8	13	0.1
General machinery	364,564	16.0	62,125	11.8	37,133	17.6	5,215	3.5	7,194	12.3	55	0.6	6	0.2	43	0.4	13,341	5.0	30	0.1	163	0.7	82	0.8
Electrical equipment	600,738	26.3	138,349	26.3	29,304	13.9	8,562	5.7	25,919	44.2	321	3.8	279	9.0	56	0.5	7,957	3.0	45	0.2	93	0.4	212	2.1
Transportation machinery	107,370	4.7	110,104	20.9	28,240	13.4	5,968	4.0	3,495	6.0	287	3.4	1	0.0	4	0.0	22,335	8.3	103	0.3	77	0.3	244	2.4
Automobiles	11,795	0.5	44,889	8.5	17,651	8.4	2,662	1.8	43	0.1	75	0.9	1	0.0	1	0.0	6,522	2.4	0	0.0	5	0.0	6	0.1
Automobile parts	29,769	1.3	24,038	4.6	7,316	3.5	1,975	1.3	1,307	2.2	1	0.0	0	0.0	1	0.0	4,091	1.5	0	0.0	17	0.1	5	0.0
Precision equipment	79,559	3.5	32,606	6.2	5,800	2.8	554	0.4	2,481	4.2	20	0.2	9	0.3	62	0.5	2,421	0.9	53	0.2	375	1.7	47	0.5
Total Export	2,280,541	100.0	526,757	100.0	210,865	100.0	150,393	100.0	58,648	100.0	8,542	100.0	3,092	100.0	11,647	100.0	267,930	100.0	29,602	100.0	22,089	100.0	10,225	100.0
Export/GDP	20.4	-	38.2	-	53.3	-	17.5	-	20.1	-	48.0	-	24.6	-	18.5	-	12.9	-	14.3	-	8.1	-	12.6	-

Source: JETRO, trade statistics of the respective countries/regions

Notes: Export value by Laos, Myanmar, and Bangladesh are JETRO's estimate.

Table 10. Trade matrix of garments by TPP members in 2015

(Unit:%, US$ million)

	U.S.	Canada	Mexico	Peru	Chile	Australia	NZ	Singapore	Malaysia	Vietnam	Brunei	Japan	Total
U.S.	-	8.6	5.3	0.1	0.4	0.5	0.1	0.1	0.0	0.0	0.0	0.9	16.1
Canada	4.2	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.4
Mexico	17.8	0.2	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2
Peru	2.0	0.1	0.1	-	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Chile	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	-	0.1
Australia	0.1	0.0	0.0	0.0	0.0	-	0.4	0.0	0.0	0.0	0.0	0.0	0.6
NZ	0.0	0.0	0.0	0.0	0.0	0.7	-	0.0	0.0	0.0	0.0	0.0	0.7
Singapore (Domestic)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.1	0.0	0.0	0.0	0.2
Malaysia	1.8	0.1	0.0	0.0	0.0	0.3	0.0	0.4	-	0.0	0.0	0.4	3.1
Vietnam	40.0	2.0	0.4	0.0	0.3	0.5	0.1	0.2	0.2	-	0.0	10.1	53.8
Brunei	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Japan	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	-	-	0.5
	66.3	11.1	5.8	0.2	1.0	2.1	0.5	0.8	0.6	0.1	0.0	11.6	27,916

Source: JETRO, trade statistics of the relevant countries

Note: 1) Cells in light (yellow) colour indicate countries where bilateral or regional FTAs have already entered into force. 2) Cells in dark (orange) colour indicate countries for which TPP will be the first FTA.

Table 11. Sourcing countries of textiles by Vietnam

(US$ million, %)

	TPP	Import value								Share							
		2000	2005	2010	2011	2012	2013	2014	2015	2000	2005	2010	2011	2012	2013	2014	2015
China	Non-member	72	831	2,701	3,425	3,779	4,771	5,794	6,444	4.6	21.6	33.1	33.1	35.9	38.6	41.4	43.3
South Korea	Non-member	405	780	1,454	1,783	1,862	2,190	2,340	2,341	25.8	20.3	17.8	17.2	17.7	17.7	16.7	15.7
Other Asian region	Non-member	550	959	1,445	1,716	1,658	1,794	1,933	2,013	35.0	25.0	17.7	16.6	15.8	14.5	13.8	13.5
U.S.	Member	18	75	295	575	309	532	578	847	1.2	2.0	3.6	5.6	2.9	4.3	4.1	5.7
Japan	Member	202	311	512	707	783	749	771	784	12.8	8.1	6.3	6.8	7.4	6.1	5.5	5.3
Thailand	Non-member	45	115	316	401	390	431	403	383	2.8	3.0	3.9	3.9	3.7	3.5	2.9	2.6
India	Non-member	7	23	220	236	218	341	416	357	0.4	0.6	2.7	2.3	2.1	2.8	3.0	2.4
Hong Kong	Non-member	89	331	423	474	450	453	358	344	5.7	8.6	5.2	4.6	4.3	3.7	2.6	2.3
Indonesia	Non-member	35	63	121	134	131	130	170	176	2.2	1.7	1.5	1.3	1.2	1.1	1.2	1.2
Brazil	Non-member	0	3	37	106	168	87	137	199	0.0	0.1	0.5	1.0	1.6	0.7	1.0	1.3
Malaysia	Member	26	62	95	136	103	116	113	101	1.6	1.6	1.2	1.3	1.0	0.9	0.8	0.7
Australia	Member	5	6	19	36	63	94	159	98	0.3	0.2	0.2	0.3	0.6	0.8	1.1	0.7
Total import value		1,570	3,839	8,154	10,355	10,520	12,356	13,986	14,894	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Vietnam's trade statistics

Note: The category of textiles includes HS50 - 60.

Table 12. Trade matrix of automobiles by TPP members in 2015

(Unit:%, US$ million)

	U.S.	Canada	Mexico	Peru	Chile	Australia	NZ	Singapore	Malaysia	Vietnam	Brunei	Japan	Total
U.S.	-	14.3	2.3	0.1	0.3	1.2	0.1	0.0	0.0	0.1	0.0	0.3	18.7
Canada	25.5	-	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8
Mexico	24.5	1.9	-	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	26.7
Peru	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	0.1	0.0	0.0	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	0.0	0.3
NZ	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
Singapore (Domestic)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Malaysia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0
Vietnam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0
Brunei	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Japan	20.3	1.4	1.0	0.2	0.4	3.3	0.7	0.4	0.5	0.3	0.0	-	28.5
	70.4	17.6	3.4	0.4	0.9	4.5	0.9	0.5	0.5	0.4	0.0	0.4	178,431

Source: JETRO, trade statistics of relevant countries

Note: 1) Cells in light (yellow) colour indicate countries where bilateral or regional FTAs have already entered into force. 2) Cells in dark (orange) colour indicate countries for which TPP will be the first FTA.

Table 13. Trade matrix of automotive parts by TPP members in 2015

(Unit:%, US$ million)

	U.S.	Canada	Mexico	Peru	Chile	Australia	NZ	Singapore	Malaysia	Vietnam	Brunei	Japan	Total
U.S.	-	21.2	19.3	0.1	0.3	0.7	0.0	0.1	0.0	0.0	0.0	0.7	42.3
Canada	13.8	-	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4
Mexico	26.8	1.1	-	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	28.3
Peru	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	0.1	0.0	0.0	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	0.0	0.3
NZ	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
Singapore (Domestic)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.1
Malaysia	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-	0.0	0.0	0.1	0.3
Vietnam	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.4	0.6
Brunei	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Japan	8.6	1.7	1.7	0.0	0.0	0.3	0.0	0.1	0.8	0.3	0.0	-	13.6
	49.6	24.0	21.7	0.2	0.4	1.2	0.2	0.3	0.8	0.3	0.0	1.4	93,336

Source: JETRO, trade statistics of relevant countries

Note: 1) Cells in light (yellow) colour indicate countries where bilateral or regional FTAs have already entered into force. 2) Cells in dark (orange) colour indicate countries for which TPP will be the first FTA.