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Use of FTAs from Thai Experience

Archanun Kohpaiboon*
Faculty of Economics, Thammasat University

and

Juthathip Jongwanich
School of Management, Asian Institute of Technology

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Abstract: *This paper examines in depth the use of free trade agreements (FTAs) in Thailand to shed light on the ongoing negotiation of the Regional Comprehensive Economic Partnership (RCEP). The key finding is that while certificate of origin records significantly increased over the period in consideration, their value remained less than one-third of total trade.* The *ASEAN Free Trade Area (AFTA) and its successor, ASEAN Economic Community (AEC), accounted for the largest share with a noticeably declining relative importance. Products that are often traded under an FTA preferential trade scheme are highly concentrated, dominated by automotive (both vehicles and auto parts), electrical appliances, petrochemical products, and processed foods. Firms in these sectors are generally large in size and their products have a high level of local content. Evidence that the top 15 items are usually subject to high tariff margins suggests the presence of costs incurred to firms when applying for a certificate of origin. Our analysis suggests that we should be avoid maximizing a number of signed FTAs as a mercantilism style policy tool kit to open up market as well as maximize net export earnings as we tried in the early years of the new millennium. Instead, FTAs could be used as a gradual step in making a progress of unfinished business in trade and investment policy reform. To encourage firms to use the signed FTA, policy focus should be on the rules of origin and their related administrative procedures.*

Keywords: Thailand, Free Trade Agreement, Asian Economic Community, Regional Comprehensive Economic Partnership
JEL Classification: F15, O24, O53

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1. Introduction

A flurry of free trade agreements (FTAs) and bilateral ones is reshaping the architecture of the world trading system. The number of FTAs involving reciprocal tariff reductions jumped from 124 in 1994 to 575 agreements by July 2013.[1] While consensus among economists about the net gain of FTAs to the world trading system (i.e., whether FTAs are building blocks or stumbling blocks) remains an ongoing debate, FTAs continue to proliferate. Given the increasing importance of FTAs in the world trading system, a better understanding of the extent to which the signed FTAs are utilised and of the perception of firms to business opportunities (i.e., trade and investment) emerged by these FTAs is necessary.

On the one hand, a bilateral FTA signed between two countries is expected to open the market for them against non-member countries. Any given tariff is lower and often eliminated so that the price of goods from member countries tends to be lower and spurs consumer demand. The domestic demand enlarged by an FTA to some extent would make member countries become more attractive for foreign investors worldwide. All in all, they would promote trade and investment into member countries.

In reality, however, the expected effect on trade and investment induced by a signed FTA might not materialize. How much the price is reduced depends on how complex the rules of origin (RoO) (criterion/criteria to prove product originality) are imposed and implemented. This varies not only across products but also across FTAs. Occasionally, additional requirements are imposed on some products and sensitive ones in particular. In addition, administrative work is involved in obtaining a certificate of origin (c/o).

The uncertainty of expected outcomes from a signed FTA necessitates a comprehensive study reviewing the extent to which firms utilise signed FTAs and the problems that firms have encountered so far in using preferential trade schemes. This would be a crucial input for the ongoing negotiation of region-wide FTA such as the Regional Comprehensive Economic Partnership (RCEP). In this paper, official records of preferential trade (both export and import) of Thai firms are examined, together

[1] World Trade Organization website available at http://www.wto.org/english/tratop_e/region_e/region_e.htm (accessed on October 2013).

with other primary and secondary relevant information. Note that our study mainly emphasizes the effect on trade as the link between FTAs and trade is explicitly measurable. Despite on par policy relevant, the effect of FTAs on investment is conditioned by the nature of direct investment (market vs. efficiency seeking) and other factors that affect investment climates. Examining the effect is far beyond the scope of the current study.

2. Literature Review

This section provides a comprehensive review of studies examining the effect of FTAs on trade. It can be separated into two broad groups. The first group examines the effect of FTAs on total trade, regardless of whether transactions are applied for FTA tariff preferential schemes or not. The second group directs to the relative importance of transaction applied for FTA tariff preferential schemes. Both are important although the second group is more relevant for the main objective of this study. The first group is popular in research papers circulated in the policy- making circles of developing countries so that it is worth bringing these together and exploring the pros and cons of each method.

2.1. Effect of FTAs on Trade

This group's hypothesis is to examine whether FTAs have a positive impact on trade. Said positive impact is an indicator on the use of FTA. Studies in this group can be further classified into two subgroups.

2.1.1. Simulation Experiment of the Computable General Equilibrium (CGE) Model

The first subgroup consists of studies based on simulation experiments of the Computable General Equilibrium (CGE) model. In the past, the modified version of Global Trade Analysis Project (GTAP) model was popular. A recent trend of CGE simulation studies is to use original CGE models such as MIRAGE, LINKAGE,

GEMAT, and Michigan models where features of firm heterogeneity and imperfection competition in non-agriculture can be incorporated.[2]

While CGE-based studies could assess the net welfare effect of FTAs (i.e., trade creation vs. trade diversion), the model is static and its outcome is at best ex ante. Whether FTAs actually promote trade remains unknown. While another superior aspect of CGE-based studies is that they are built on economy-wide equilibrium, many key ongoing issues such trade facilitations, factor mobility, and services trade cannot be examined. Besides, sector disaggregation in this study is often limited because of data availability problems and technical constraints. Hence, it is possible that two totally different products are grouped under a common classification. It is unlikely to provide policy insights of any complicated uses of FTA.

2.1.2. Gravity Equation Model

The second subgroup employs the gravity equation, the contemporary workhorse trade model due to its empirical robustness and explanatory power. Basically, bilateral trade flows are largely influenced by the economic size of the two parties and inversely proportional to the distance between them. In practice, there are other relevant controlling variables such as GDP per capita, country-specifics like a common border, a common official language. To examine the effect of FTAs, a binary zero-one dummy is usually introduced in the model. The dummy variable equals to one when trading partners is a member of a given FTA and zero otherwise. When the estimated coefficient turns out to be positive, it indicates a positive effect of FTA on trade. Studies in this subgroup include Aitken (1973), Brada and Mendez (1985), Bergstrand (1985), Frankel *et al.* (1995, 1997), Breuss and Egger (1999), Wilson *et al.* (2003), Martinez–Zarzoso and Nowak–Lehmann (2003), Bergstrand (1985), Gilbert *et al.* (2004), and Huot and Kakinaka (2007).

In contrast to CGE-based studies, their assessment is based on actual trade[3]; that is, the positive estimated coefficient indicates bilateral trade expansion between member countries when FTAs are signed or are in effect. There are several points of concern before concluding that the positive coefficient reflects the effect of FTAs on trade. First, the dummy variable could be a catch-all unless other controlling variables

[2] See Table 3 in Ando (2009) for more details.

[3] Endoh (1999) proposed how to use the gravity equation model to examine trade creation and trade diversion. Two different dummy variables are introduced in the model.

are carefully chosen. There is no consensus when the dummy variable equals to one. In some studies, the dummy is assigned one when countries signed the agreement.[4] In other words, the effect of FTAs is assumed to take place instantaneously. This seems restrictive in the context of developing countries where government leaders often signed FTAs quickly and left the negotiation details for later discussion. In some cases, the coefficient is negative so that interpretation is very difficult as the effect of FTAs for member countries is non-negative. All in all, the statistical significance of the coefficient corresponding to the dummy must be interpreted with caution.

Second, liberalisation through FTAs and those where developing countries are involved is likely to be undertaken gradually. Tariffs of some products can be cut or eliminated instantaneously whereas those of sensitive products might be postponed. This makes the use of the binary zero-one dummy variable in measuring the effect of FTA problematic. In addition, as revealed in a number of empirical studies such as Krishna and Krueger (1995), Cadot *et al.* (2002), Falvey and Reed (2002), Estevadeordal and Suominen (2005), Augier *et al.* (2005), and Kohpaiboon (2010), complying with RoO is costly. This makes the use of binary dummy even more risky business.

The only exception among the gravity equation–based studies is Jongwattanakul (2013) who used the average tariff margin adjusted by the estimated cost in complying with RoO. Results between the adjusted tariff margin and binary dummy variable are far different, suggesting that the effect of FTAs on trade is overestimated in the case of the binary dummy variable. The key inference from Jongwattanakul (2013) is that when the binary dummy variable is replaced by a theoretical superior tariff margin, the positive effect of FTA found in the previous studies is no longer warranted. The positive effect is found only in a few FTAs.

2.2. Use of FTAs

Research was conducted through questionnaire survey and c/o record analyses. The former focused on actual firm experience in using FTAs while the latter examined the flow of transactions applied for FTA tariff preferential schemes.

[4] Studies include Soloaga and Winters (2001), and Elliot and Ikemoto (2004) in the case of AFTA or in effect, i.e., Cheng and Tsai (2005), and Sarker and Jayasinghe (2007) in the case of NAFTA.

2.2.1. Questionnaire Survey Studies

Questionnaire survey was used to study firms. Both groups of firms were covered in the sampling—those that use FTAs and those that have not. These studies include JETRO (2007) for Japanese firms[5] and Kawai and Wignaraja (2011) for six selected East Asian firms (namely, Japan, China, Korea, Singapore, Thailand, and Philippines). The superiority of this approach is that all questions centred to the policy circle can be explicitly addressed. For example, Kawai and Wignaraja (2011, Chapter 2, p.33) posed the following questions to firms:

- Are FTA preferences being used?
- What are the most important benefits of FTAs?
- Where do their costs come from (intensified competitive pressure and documentation burdens)?
- What do the attendant rules and administrative procedures imply for the cost of doing business?
- Are multiple RoOs a burden on business, especially on small and medium-sized enterprises (SMEs)?
- Is there enough support for domestic firms to use FTA preferences?
- What private sectors need help from the government?

These questions are all relevant for resolving the ongoing debate on the effect of FTAs. In addition, the research outcomes would be highly beneficial in policy design to enhance the use of FTAs**.** Nonetheless, it is subject to several shortcomings. First, this approach is demanding in terms of budget and resources such as time, and cooperation with firms and related organisations. This is especially true when undertaking a comprehensive analysis across countries**.** Second, how the questionnaire is proceeded (whether random or not) matters to the quality of research outcomes. If the sample is randomly selected, selected samples possibly might be irrelevant to the issue at hand, such as small firms whose niche is limited to a few groups of local consumers. Including them might not provide additional knowledge on the subject at

[5] Many works, such as Takahashi and Urata (2008), Hayakawa (2013), and Hayakawa et al (2013), analyse questionnaire returns.

hand. In fact, purposive sampling techniques[6] would be more appropriate or at least would serve as a complement.

Third, information from the returned questionnaires might be subject to social desirability bias where respondents tend to answer in a manner that will be viewed favourably. In this case, firms that do not have any intention to use FTAs anytime soon might simply reveal their future plan to use.

Finally, whether the samples covered in the survey could be a good representative for the whole private sector remains questionable. As mentioned above, this approach demands sizeable resources and cooperation from the private firm so that it is not surprising that the sample size is quite small, compared with the whole economy. For example, Kawai and Wignaraja (2011) cover only 835 samples (38 Japanese, 226 Chinese, 120 Korean, 75 Singaporean, 221 Thais, and 155 Filipinos). For the JETRO survey which has been regularly conducted since 1987, the valid responses in 2008 were about 1,852 out of 5,107 questionnaires sent. Hence, the use of FTAs tends to vary across studies, and it is difficult to draw an inference. Table 1 reports the results of FTA use in Hayakawa, *et al*. (2013) and Kawai and Wignaraja (2011). Note that they are not perfectly comparable as the former focuses on Japanese affiliates whereas the latter is based on firms operating in the country in interest regardless of their nationality. Nonetheless, putting them together could provide our argument on the variety of inference to be made. In Table 1, the most contradictory pattern is the case of Singapore. While Hayakawa, *et al*. (2013) argued that Japanese affiliates in Singapore are the most active in using FTAs, Kawai and Wignaraja just found the opposite. The contradictory results are also found in other studies undertaking the questionnaire survey. For example, JETRO (2007) and Kawai and Wignaraja (2011) showed that about 30 percent of their samples thought that multiple RoOs in East Asian FTAs complicated procedures to prove the country of origin which led to increased business costs. The corresponding percentage in Takahashi and Urata (2008) is only five percent.

[6]In purposive sampling techniques, samples are purposively chosen from information-rich cases for in-depth analysis related to the central issues under study. For example, the main objective is to qualitatively examine the behaviour of particular groups of firms, i.e., firms with a certain degree of global market participation. Firms with certain characteristics of individual industries were then selected. See Kohpaiboon (2006) for the example on the use of purposive sampling technique to understand how indigenous firms benefit from multinational enterprises in Thai manufacturing.

Table 1: Use of FTAs in East Asia by Firm Survey (% of Firms That Either Use or Plan to Use FTAs)

Country	Hayakawa *et al.* (2013)	Kawai and Wignaraja (2011)
Japan		47.4 (29)
China		77.9 (45.1)
Korea		54.2 (20.8)
Indonesia	61 (24 –26)	
Malaysia	34 –47 (16 –25)	
Philippines	30 –39 (10 –15)	40.7 (20)
Singapore	78 (43)	28 (17.3)
Thailand	54 –56 (21 –22)	45.7 (24.9)
Viet Nam	38 –41 (9 –14)	

Note: Numbers in parentheses indicate actual use. The range reported in Hayakawa *et al.* (2013) is from imports and exports.

Source: Data for Hayakawa *et al.* (2013, Table 1: 249) and Kawai and Wignaraja (2011, Figure 2.1: 35).

2.2.2. Analysis of Certificate of Origin Records

Since goods must prove their originality to benefit FTA tariff preferential schemes, the official record of certificate of origin (henceforth referred to as c/o record) is a true measure, instead of proxy, of transactions applied for FTA tariff preferential schemes. Despite studies on the c/o record such as those of JETRO (2009), TDRI (2008), Kohpaiboon (2009 and 2010), and Athukorala and Kohpaiboon (2012), only Kohpaiboon (2010) conducted a systematic analysis on the c/o record countrywide and examined the characteristics of firms and industries using FTAs intensively. His key finding (2010) is that products that have benefited from FTA tariff preferences so far are highly concentrated. For example, in 2008, administrative records of the top 20 items out of more than 5,000 items accounted for 45 percent for Viet Nam (lower bound) and 72 percent for Australia (upper bound). So far the utilisation of FTAs is moderate, ranging between 22.7 percent and 62.5 percent. The ability to comply with RoO, as well as tariff margins, does matter in firms' decisions to use FTAs. Another interesting finding is the relative importance of pre-signing FTA trade, casting doubt on the effectiveness in using FTAs to open new markets. FTAs would less likely have significant impact in promoting bilateral trade for totally new products yet to be traded before an FTA is signed. So far local firms, particularly large local conglomerates, predominantly utilise FTA tariff concessions, compared to foreign firms and SMEs. Companies trading products under global production sharing are less likely to apply for FTA tariff preference

The superiority of this approach to the questionnaire survey is the actual measure of transactions applied for FTA tariff instead of a proxy or representative. It is not subject to several problems like those in conducting questionnaire survey such as limited sample size problems, selection process problems, any social desirability bias.

There are two shortcomings as well. The first is that the records are not always available to the public. Second, there is no direct link between the Harmonized System (HS) classification to firm characteristics. Such a link is crucial for policy making. Government officials have full information of companies which applied for the c/o record. They are reluctant to share said information because of the concern for privacy. In practice, as found in Kohpaiboon (2011), firm and industry specifics from industrial census are used. In general, the classification system used in the industrial census is

the International Classification of Industrial Statistics (ISIC Rev 3) whereas the c/o record is in the HS. Despite imperfect matching, the standard concordance between ISIC and the HS is used.

In addition**,** how to use the c/o record to reflect FTA utilisation is an ongoing discussion. In general, the c/o record is collected according to the HS classification. When the record is compared with total transaction (total export or import), it can indicate the relative importance of transaction using FTA preferential schemes. It can be done for both exports and imports. For example, FTA utilisation of passenger vehicles (HS 8703) exporting from Thailand to Australia can be measured by the ratio of c/o record of passenger vehicles to total passenger vehicle exports from Thailand to Australia. The maximum ratio would be 100 percent, meaning, that all passenger vehicle exports from Thailand to Australia apply for FTA preferential schemes. The minimum would be zero, i.e., no firm uses the scheme in exporting to Australia. The higher the ratio, the high the FTA utilisation.

Calculating FTA utilisation at the product level (HS 2, 4, or 6 digits) as illustrated above is rather straightforward. When the overall assessment of FTAs is concerned, however, there is disagreement whether the denominator in calculating the FTA utilisation is total value or value of non-zero tariff items only.[7] Consider the assessment on the export side. On the one hand is the argument that there are many items whose tariff is already zero. In these items, firms have no incentive to use FTAs. Including them in the denominator would underestimate the FTA utilisation. Hence, it would be more appropriate to use non-zero tariff items value in the denominator. This method is popular among many policy makers[8].

On the other hand, there are at least three reasons running against the use of non-zero-tariff items as the denominator. First, in every FTA negotiation, the potential

[7] Plummer, *et al.* (2010) distinguish the measures by how much firms use FTAs into three categories. They are utilisation rate, utility rate, and usage rate. Utilisation rate is referred to the ratio of dutiable imports that use FTA preferences to total imports. When the denominator is changed to dutiable imports (MFN greater than zero), it is referred to as utility rate. Usage rate is dutiable imports that use FTA preferences to dutiable imports with MFN tariff rate greater than FTA rate. Choosing one over the other among these three depends largely on the main purpose of the study.

[8] It is based on the interview with the Department of Foreign Affairs and Trade, Australia conducted by the authors on June 5, 2013 in Canberra.

trade highlighted in press is based on total trade. Figure 1 illustrates the sample of European Union (EU)–Thailand FTA press release, usually referring to total trade between two partners worth of 32 billion euros (€). If non-zero-tariff trade is considered, trade value would be much lower because external tariff of European countries is already low. Second, negotiation in designing RoOs is done in all HS items, regardless their existing most-favoured-nation (MFN) tariff. If zero-tariff items are not relevant for FTA uses, RoO negotiation should focus on non-zero-tariff items only. Finally, the appropriate definition of non-zero-tariff items remains unclear when other tariff exemption schemes exist. A clear example is an export processing zone where tariffs of inputs used for export can be exempted. As the argument in favour of using only non-zero-tariff items goes, such exempted items should be excluded from the denominator. If so, it is very difficult to exclude them in practice as it is not clear how much import values are subject to tariff exemption schemes.

Figure 1: Sample of Press Release of Thailand–EU FTA

EUROPEAN COMMISSION

MEMO

Brussels, 6 March 2013

EU and Thailand launch negotiations for Free Trade Agreement

On 6 March 2013, European Commission President, José Manuel Barroso, and the Thai Prime Minister, Yingluck Shinawatra, launched negotiations for a Free Trade Agreement (FTA) between the European Union and Thailand. EU Trade Commissioner De Gucht and the Thai Minister of Commerce Boonsong had met the day before to formally agree on the start of negotiations. The ambition is to conclude a comprehensive agreement covering tariffs, non-tariff barriers and other trade related issues, such as services, investment, procurement, regulatory issues, competition, and sustainable development.

The launch of FTA negotiations marks an important step in EU-Thai relations, already strengthened by a Partnership and Cooperation Agreement. The first negotiating round is expected to take place before the summer break.

Thailand is the EU's third largest trading partner inside ASEAN and the EU is Thailand's third largest trading partner, trade between them in 2012 reaching nearly €32 billion. The EU is also one of the largest investors in Thailand with investment stocks worth over €14 billion in 2011. The FTA with Thailand should deliver substantial economic gains and put the EU on par with partners who have already concluded FTAs with Thailand (China, India, Japan, Korea, Australia and New Zealand).

Source: http://europa.eu/rapid/press-release_MEMO-13-179_en.htm

In conclusion, all methodologies reviewed here contain both advantages and shortcomings. Selecting one methodology over others in research depends on the purpose of the study. The first group (i.e., the effect of FTAs) is to give potential trade opportunities that FTAs can generate based on historical data whereas the latter is to gain better understanding on whether potentials are materialized and why. In the latter, an analysis of the c/o record is more appropriate to assess how active firms use FTAs as said assessment is based on what actually happens, instead of the sampling method used in the questionnaire survey. Table 2 provides a summary of pros and cons of these two methods. To overcome shortcomings in analysing the c/o record, purposive sampling firm interviews must be conducted. Sharing the advantage of the

questionnaire survey approach, the purposive sampling firm interview allows researchers to gain an insight into problems in using FTA preferential schemes and any obstacles that might ensue. Candidate samples in this context are firms which actually used/use FTAs. Problems of social desirability bias and representatives can be mitigated with a careful interview guide.

Table 2: Pros and Cons of the Methodology in Assessing FTA Use

Pros	Cons
Questionnaire survey	
1. All questions relevant to policy debate can be explicitly addressed. 2. The result outcomes could be highly beneficial in policy design to enhance the use of FTAs**.**	1. Highly demanding in terms of budget and resources such as time, and great cooperation with firms and related organisations. 2. Quality of research hinges on how questionnaire is proceeded (whether is random or not). 3. Information from the questionnaire return might be subject to social desirability bias. 4. Sample coverage problem, i.e., whether the samples covered in the survey could be a good representative for the whole private sector, remains questionable.
Analysis of c/o record	
1. The actual measure of transactions is applied for FTA tariff instead of a proxy or representative. 2. It is not subject to several problems common in conducting questionnaire survey, such as limited sample size, selection process problems, any social desirability bias.	1. The records are not always available to the public. 2. Inference from analysis of c/o record to characteristics of firms and industries is subject to a certain degree of discretion.

Source: Developed by authors.

3. Development of FTAs in Thailand

This section reviews Thailand's commitments in FTAs. It starts with a summary of a shift of Thailand trade policy from non-discriminatory (unilateral and multilateral) liberalisation to (bilateral/plurilateral) FTAs (Section 3.1). Section 3.2 presents all FTAs Thailand is involved in and their patterns, followed by Section 3.3 on tariff cuts commitments, Thailand's core commitments in FTA negotiations.

3.1. Policy Shift: From Non-discriminatory Liberalisation to FTAs

Over the past three decades, Thailand benefited from unilateral tariff reduction and success of multilateral agreements in the context of the General Agreement on Tariffs and Trade and the World Trade Organization (WTO). The former contributed to improving international competitiveness and made the country attractive for export-oriented foreign direct investment (FDI) inflows during the mid-1980s whereas the latter created a conducive global environment for international trade expansion (Kohpaiboon, 2006; Schott, 2003, 2004; Sally, 2007). This eventually contributed to the export take-offs of Thai manufacturing products and economic boom during the late 1980s and the first half of 1990s. It was consistent with the global pattern where unilateral and multilateral frameworks accounted for almost 90 percent of the global tariff reduction over the past three decades (Martin & Ng, 2005).

The slowdown of WTO liberalisation negotiation resulted in a switching in political attention and in negotiating resources toward preferential trade agreements and bilateral free trade agreements in particular. It was also accelerated by a significant change in Thai political situation (Sally, 2007). Not until 2001 the bureaucracy was more powerful in the context of weak and short-lived governments. Between 2001 and 2006, Mr. Thaksin's Thai Rak Tha party came into power with a strong mandate. Riding with several supporting factors such as the wake of a deep recession and painful reforms following the Asian crisis, a wave of nationalism, and anti-IMF (International Monetary Fund) sentiment, the government took full charge of policy which meant subordinating the bureaucracy to its will (Sally, 2007). One of the government mandates is to sign FTAs as much as possible to secure preferential market access. It

reflects the ‘CEO style’ of Mr. Thaksin who would take decisions lightning-fast and expect officials to carry them out quickly and unquestionably (Baker & Pongpijit, 2004).

Right now there are 19 FTA deals/negotiations in Thailand, 15 of which were initiated during the Thaksin administration period (2001–2006). These 15 FTAs were largely initiated by the government without consultation with government officials in charge. As argued in Kohpaiboon (2006), there were no clear characteristics of FTA partners such as region/location and pre-FTA trade. For example, Thailand began negotiating with the US and Japan, the country’s major trading partners as well as Chile and Peru whose trade value accounted less for than 0.01 percent by 2000. At that time, Thailand was the first runner-up among ASEAN members in signing FTAs after Singapore. FTA commitments made during this period largely involved tariff liberalisation and market access for goods.

Many signed FTAs were done in a rush manner without careful studies and public consultations, some of which were first signed before the advantages and disadvantages were studied. There was inadequate consultation with interested parties outside government. To begin with, the government said it could put FTAs into effect by executive decree, i.e., without parliamentary scrutiny or ratification. It was later challenged by parliamentarians and nongovernment organisations subsequently on grounds that it violates the Thai constitution. In addition, there were complaints about the lack of consultation and transparency. The government has not made a serious attempt to explain the issues intelligently to the public. The main business associations and some individual business groups have, in contrast, been reasonably well plugged into FTA consultations. Participation of representatives of small rural farmers and others was limited. Such conflicts led to a deep politicization of FTAs that later contributed to the bigger Thai political crisis in 2006.

Between 2006 and May 2011, FTA enthusiasm in Thailand was stalled. The new constitution was promulgated in 2007, replacing an interim constitution promulgated in 2006. Under the new constitution, execution of international trade agreements is subject to parliamentary approval (Article 190) to prevent any rush manner in any international trade agreement without careful studies and public consultations. Article 190 ensures that all international trade agreements must be carefully studied and

subject to country-wide public hearings. More time to enact the international trade agreement is now needed compared to that during the Thaksin period. The constitutional amendment would have a significant impact for any FTA to be in effect. For example, the chair of the Board of Trade of Thailand claimed that the ASEAN–Korea agreement was postponed because of Article 190 (Nation, 2007).

During this period, the government was far less active in initiating any bilateral FTAs. Roughly speaking, no single bilateral FTA was ratified from 2006 to May 2011. During this period, new FTA negotiations are in the ASEAN plus format. The possible exception would be the Thailand–EU FTA which replaced the ASEAN–EU FTA as a consequence of unsolved issues about Myanmar during the negotiations. The rest of FTA negotiations during this period were regional, like ASEAN plus.

From May 2011, Prime Minister Yingluck Shinawatra, the younger sister of former Prime Minister Thaksin Shinawatra, paid attention on FTA negotiations again. Negotiations of several FTAs such as those of Thailand–EFTA, Thailand–Chile, and Thailand–Peru were resumed and progressed, all of which were stalled between 2006 and May 2011. In addition, the current administration also launched several FTA talks, including negotiations with Canada in March 2012 and expressing interest to be a member of the Trans-Pacific Partnership (TPP) during the US President's visit to Thailand in November 2012.

3.2. Signed FTAs in Thailand and Their Coverage

Table 3 presents all FTAs in which Thailand has been involved since the 1990s, some of them remain under study. The final column in Table 3 illustrates tariff cut commitments in each FTA. Basically, there were 18 FTAs but only 7 FTAs have been into force. They are the ASEAN Free Trade Area (AFTA), Thailand–Australia FTA (TAFTA), Thailand–New Zealand FTA (TNFTA), Japan–Thailand Economic Partnership Agreement (JTEPA), ASEAN–China FTA, ASEAN–Japan FTA, and ASEAN–Korea FTA. They are all FTAs where tariff reduction covered about 90 percent of product lines by 2010.

Table 3: FTAs Where Thailand Is a Signatory, from 1990 Onwards

FTA	Signed	Effective	Remarks
ASEAN	1990	2006	Tariff reduction completed in 2010 for original ASEAN members; 2015 for new members.
Australia	Jul-04	Jan-05	Australia's tariff reduction–83% (2005), 96.1% (2010), and 100% (2015) Thailand's tariff reduction–49.5% (2005), 93.3 % (2010), and 100% (2025)
New Zealand	Apr-05	Jul-05	New Zealand's tariff reduction–79.1 (2005), 88.5% (2010), and 100% (2015) Thailand's tariff reduction–54.1% (2005), 89.7% (2010), and 100% (2025)
China	2003	2003	China's tariff reduction–60% in 2006; and 90% in 2010 Thailand's tariff reduction–33.3% in 2009; 90% in 2010 and more than 90% in 2012
India	Oct-03	n.a.	82 items under Early Harvest Program; the rest under negotiation
Japan	Apr-07	Nov-07	Japan's tariff reduction–86.1% (2007) and 91.2 % (2017) Thailand's tariff reduction–31.1% (2007) and 97.6% (2017)
Peru	Nov-05	Dec-11	Tariff reduction between Thailand and Peru–50% (2011) and 70% (2015)
Chile	2006		Under negotiation and expected to be implemented in 2014

(cont.)

Table 3 *(cont.)*

FTA	Signed	Effective	Remarks
BIMSTEC	Jul-10	2013	Tariff reduction program for India, Sri Lanka, and Thailand–10% (2013) and 60% (2016) Tariff reduction program for Bangladesh, Bhutan, Nepal, and Myanmar–10% (2011) and 60% (2014)
ASEAN–Japan	Apr-08	Jun-08	Japan's tariff reduction–85.51 % in December 2008; and 90.16% in April 2018 Thailand's tariff reduction: 30.94% in June 2009, and 86.17% in Apr 2018
ASEAN–Korea	Feb-09	Jan-10	Korea's tariff reduction–90% (2010) Thailand's tariff reduction–83% (2010), 84% (2012), 89% (2016), and 90% (2017)
ASEAN–Australia–New Zealand FTA	Feb-09	Jan-10	Australia's tariff reduction–95.96 % in 2010; and 100% in 2020 New Zealand's tariff reduction–90.13 % in 2010; and 100% in 2020 Thailand's tariff reduction–89.5% in 2015; and 98.8% in 2020
ASEAN–India	Aug-09	Jan-10	Tariff reduction for Thailand, Malaysia, Indonesia, Singapore, Brunei Darussalam, and India–71% in 2013; 80% in 2016
ASEAN plus 3*	Under negotiation		Initiated by November 1999 in Manila (3rd Informal Asian Summit)

(cont.)

Table 3 *(cont.)*

FTA	Signed	Effective	Remarks
Regional Comprehensive Economic Partnership (RCEP)	Under negotiation		Initiated by August 2006, known as ASEAN+6; changed to RCEP in 2011; targeted for implementation in 2015
Thailand–EU	Under negotiation		Initiated by November 2007 under ASEAN–EU; shift to bilateral agreement with individual ASEAN members in 2009; targeted for implementation in 2015
Thai–Canada	Under negotiation		Initiated by March 2012
Thai–EFTA (European Free Trade Association)	Under negotiation		Initiated by October 2005
Trans–Pacific Partnership (TPP)	Under preparation		The Thai Prime Minister expressed interest in TPP during the US President's visit to Thailand in November 2012

Source: Author's compilation from official data source. Available at http://www.thaifta.com/thaifta/Home/FTAbyCountry/tabid/53/Default.aspx

When issues beyond tariff cuts are concerned, the commitments that Thailand made under the FTAs were rather weak and at most in line with WTO commitments as illustrated in Table 4. Issues covered in Table 4 include government procurement; service liberalisation (air transports, professionals, education, health, tourism, marine transport, financial service, and movement of natural persons); environmental standards; competition policy; sanitary and phytosanitary (SPS); technical barriers to trade; intellectual property protection; labour standards; environmental obligation; agricultural export subsidies; import licensing; and customs procedures. The legal documents of each FTA are reviewed and the commitments made there are ranked using three discretionary numbers: 1, 2 and 3. Number 1 indicates there is no commitment or no legal documents in an FTA whereas number 2 shows that Thailand and FTA counterparts address them in the agreement and follow the WTO commitment. Number 3 is WTO plus commitments.

Two observations are made from Table 4. First, FTAs with developed countries including Korea (i.e., North–South FTA) have a more comprehensive scope than those with developing countries (i.e., South–South FTA). Even though issues beyond tariff cuts are raised in South–South FTAs, any FTA partners are unlikely to materialize. For example, under the ASEAN–China FTA, investment liberalisation was listed (Article 5). However, texts related to investment liberalisation are rather broad and unlikely to lead to actual liberalisation. For example, Article 5 states: (a) Enter into negotiation in order to progressively liberalise the investment regime; (b) Strengthen co-operation in investment, facilitate investment, and improve transparency of investment rules and regulations; and (c) Provide for investment protection. It is unlikely to have any effect. In the ASEAN Economic Community (AEC), service liberalisation seems to be the most advanced among the FTAs Thailand has entered into so far. Sectors such as telecommunication, computers, health care, tourism, and air transport were treated as priority integration sectors where the liberalisation schedule on mode 3 (commercial presence) was faster than the other service sectors. Nonetheless, there is no enforcement mechanism. Any progress is based on consensus and own national compliance. Hence, the commitment is rather weak and number 1 is given throughout.

Table 4: Issues beyond Tariff Cuts in PTAs where Thailand Is Involved

	ASEAN–Australia–New Zealand	ASEAN–China	ASEAN–India	ASEAN–Japan	ASEAN–Korea	Thailand–Australia	Thailand India	Japan–Thailand EPA	Thailand–New Zealand	ASEAN Economic Community*
Government procurement	1	1	1	1	1	1	1	1	1	1
Air transport	1	1	1	1	1	2	1	2	2	1
Professionals	2	1	1	1	2	2	1	2	3	1
Education	2	1	1	1	2	2	1	2	2	1
Health	2	1	1	1	2	2	1	2	2	1
Tourism	2	1	1	1	2	2	1	2	2	1
Marine transport	2	1	1	1	1	2	1	2	2	1
Financial services	2	1	1	1	2	2	1	2	2	1
Movement of natural persons (mode 4)	2	1	1	1	1	2	1	2	2	1
Environmental standards	1	1	1	1	1	1	1	1	1	1

(Cont.)

Table 4 (*cont*.)

	ASEAN–Australia–New Zealand	ASEAN–China	ASEAN–India	ASEAN–Japan	ASEAN–Korea	Thailand–Australia	Thailand India	Japan–Thailand EPA	Thailand–New Zealand	ASEAN Economic Community*
Competition policy	1	1	1	1	1	1	1	2	1	1
Sanitary and phytosanitary (SPS)	2	1	1	2	2	1	1		2	1
Technical barriers to trade	2	1	1	2	2	1	1			1
Intellectual property protection	2	1	1	1	2	1	1	2	1	1
Labour standards	1	1	1	1	1	2	1		1	1
International enviromental obligation	1	1	1	1	1	2	1		2	1
Agricultural export subsidies	2	1	1	1	1	1	1		1	1
Import licensing	2	1	1	1	1	1	1		1	1
Customsprocedures	2	1	2	2	1	1	1		1	1

Note: * There is no enforcement mechanism. Any progress is based on consensus and national own compliance.
Source: Author's compilation from official documents.

Second, even in North–South FTAs, any commitments beyond tariff cuts are passive, on voluntary basis, and often in line with the WTO. For example, as regards customs procedures, commitments usually listed in the FTA are to comply with the standard and recommended practices of the World Customs Organization (Article 4 of the ASEAN–Australia–New Zealand FTA). Another example is SPS measures under the ASEAN–Australia–New Zealand (Chapter 5, Article 5 [2]):

> To facilitate trade, the competent authorities of the relevant Parties '*may*' develop equivalence arrangement and make equivalence decisions, in particular in accordance with Article 4 in the SPS agreement and with the guidance provided by the relevant international standard setting bodies and by the WTO Committee on Sanitary and Phytosanitary measures established pursuant to Article 12 of the SPS Agreement.

3.3. Tariff Cuts in the FTAs

Table 5 presents characteristics of preferential tariffs offered to Thailand by major FTA partners whose preferential schemes have been applied for more than 80 percent of tariff lines. The first two rows in Table 5 show the unweighted average tariff rate between the mid-1990s and mid-2000s to indicate tariff reduction progress in the past decades. The third row indicates the unweighted average of preferential tariff offered in FTAs to Thailand in 2006 except China, Viet Nam, and Korea whose data are in 2010 instead. The distribution of tariff margin, the difference between MFN and preferential tariff, is presented to demonstrate the potential benefit in terms of market access as a result of the presence of tariff margins. All are expressed in terms of percent of total tariff lines. Note that total tariff lines vary a bit across countries because specific tariffs are imposed on certain items and the ad valorem tariff rate equivalent is not available. In this case, they are excluded. There are five categories of tariff margin, i.e., 0, 0–5, 5–10, 10–20, 20–30, and more than 30 percent.

Table 5: Distribution of the Margin between General and Preferential Tariff Rates (%)

	Indonesia	Malaysia	Philippines	Viet Nam	Australia	Japan	China	Korea
MFN Tariff								
1995	19.4*	13.0*	20	12.8	5.5**	4.1	23.6**	19.4*
2006	6.9	7.2	6.2	16.8	3.4	3.1	9.9***	6.3***
Preferential Tariffs in 2006	2	2	2.1	2.5***	1.1	2.4	1.9***	3.9***
Distribution of the margin between general and preferential tariffs (% of total tariff lines)								
$\Delta t = 0$ ****	34.1 (10.4)	59.4 (53.6)	9.5 (2.3)	33.4 (30.7)	85 (83.7)	53.9 (49.6)	21.7 (5.7)	65.5 (59)
$0 < \Delta t \leq 5$ ****	41.9	12.7	70.7	18.7	15	27.8	23.4	20.6
$5 < \Delta t \leq 10$ ****	15.2	6.8	16.9	6.3	0	15.5	40.4	10.8
$10 < \Delta t \leq 20$ ****	8.3	15.4	1.7	10.1	0	3	12.6	0.5
$20 < \Delta t \leq 30$ ****	0.2	4.4	0.7	9.6	0	0	1.7	2.4
$30 < \Delta t$ ****	0.3	1.2	0.6	21.9	0	0	0.1	0.0
# tariff lines (% of total tariff lines)	5,391	5,222	5,390	5,224	5,218	5,039	5,051	5,036

Notes: * and ** denote data for 1994 and 1996, respectively; *** indicates data for 2010; **** represents % of total tariff lines; and a number in parenthesis indicates percentage of tariff lines whose MFN tariff is zero.

Sources: Data of 1994/95 are from Jongwanich and Kohpaiboon (2007) whereas the others are based on the author's calculation using official documents.

It is clear that developed country FTA partners such as Australia, Japan, and to a less extent Korea already have low MFN tariff rates so the tariff margin in the signed FTAs would be limited. For instance, 85 percent of Australia's tariff lines have zero tariff margin mainly because 83.7 percent of them are subject to zero tariff. The corresponding percentage in the case of Japan and Korea is 53.9 and 65.5 percent, respectively. When items whose tariff margin is less than five percent are included, the percent to total tariff lines reached more than 80 percent in these three countries. This would explain the generous offer of immediate tariff reduction in FTA negotiation by these countries without hesitation as they are fully aware of the limited additional market access.

This is in contrast to developing country FTA partners. Even though tariff was substantially reduced between the mid-1990s and mid-2000s, the current MFN rates remained higher than the developed country. This highlights the potential of FTAs to be a vehicle for trade liberalization. Hence, the following discussion would emphasize the developing country FTA partners.

China and Viet Nam, relatively newcomers to economic globalisation, generally have higher than the average MFN tariff. In 2010, the average MFN registered at 9.9 and 16.8 percent, respectively. In contrast, the average MFN rate of original ASEAN members was considerably lower, narrowly ranging between 6.2 and 7.2 percent.

Noticeably, preferential tariff rates offered by these FTA partners are lower compared with the MFN rate. The average preferential tariff rate is between 1.9 and 2.5 percent. Given the difference in MFN, the tariff margin is vastly different across countries, ranging from 4.1 to 14.3 percent. Viet Nam registered the highest tariff margin at 14.3 percent, followed by China (8 percent). Indonesia, Malaysia, and the Philippines registered a tariff margin of four to five percent.

When the distribution of tariff margin is concerned, the pattern is different among the three original ASEAN members (Indonesia, Malaysia, and the Philippines) and the two newcomers (China and Viet Nam). In the former, almost 80 percent of tariff lines have less than or equal to five percent tariff margin. In contrast, more than 40 percent of tariff lines have a tariff margin greater than 5 percent. In the case of Viet Nam, more than one-fifth of tariff lines registered 30 percent or more tariff margin, indicating business attractiveness to apply for preferential tariff schemes. About 50 percent of

tariff lines have a tariff margin between 5 and 20 percent. Interestingly, zero tariff margin in the case of China is driven by no preferential offer. Only 5.7 percent of tariff lines were subject to zero MFN tariff.

On the other hand, tariff cuts offered by Thailand in each FTA are in the narrow range between 6.3 and 10.2 percent as opposed to the MFN rate (Table 6). The highest tariff margin is in the case of AFTA (10.2 percent) and the least is in the JTEPA case (6.3 percent). The distribution of five tariff margin categories offered by Thailand is not different among the FTAs. In general, about half of product lines are subject to tariff margins less than five percent. Given that Thailand has the highest average of MFN rate among original ASEAN members, more than 20 percent of tariff lines are subject to 10 percent or more preferential tariffs.

Table 6: Margin between General and Preferential Tariff Rates Offered by Thailand and their Distribution in 2010 (%)

	AFTA	ASEAN–China	Thailand–Australia	Thailand–New Zealand	Japan–Thailand	ASEAN–Korea
Tariff Margin	10.2	9.3	9.7	9.5	6.3	8.6
Distribution of the margin between general and preferential tariffs (% of total tariff lines)						
$\Delta t = 0$	20.1	25.3	21.2	20.7	30.7	26.7
$0 < \Delta t \leq 5$	39.9	38.3	39.3	39.6	42.5	37.9
$5 < \Delta t \leq 10$	15.3	13.3	15.6	15.6	13.1	13.8
$10 < \Delta t \leq 20$	6.6	6.3	6.6	6.7	4.5	7.9
$20 < \Delta t \leq 30$	14.8	13.6	14.4	14.4	8.0	11.0
$30 < \Delta t$	3.4	3.1	3.0	3.1	1.3	2.7
#tariff lines	4995	4996	4996	4996	4985	4996

Notes: The average MFN rate of Thailand in 2010 is 10.7 percent. There are 993 items whose MFN tariff is zero.
Sources: Data are based on the author's calculation using official documents.

4. FTA Use in Thailand

To illustrate FTA use in Thailand, the c/o records are analysed. In Thailand, the Bureau of Preferential Trade, Department of Foreign Trade, Ministry of Commerce is the government office in charge of collecting on the export side. Those on the import side are the responsibility of the Customs Department, Ministry of Finance. In general, the c/o record is classified according to the HS.

Table 7 reports the c/o record on export between 2006 and 2012. The year 2006 is chosen as many FTAs whose scope is comprehensive were in effect. Theirdollar value jumped from $12.8 billion in 2006 to $53.2 billion in 2012. AFTA and its successor, the AEC, accounted for about 34 percent of total c/o records on export averaging out between 2006 and 2012. Even though the export value through AEC continued to grow from $5.5 billion in 2006 to $14.9 billion in 2012, its share dropped from 54.9 percent to 28 percent during this period.

China becomes the most important non-ASEAN FTA partner in terms of the c/o record. The c/o record of Thai firms' export to China increased from $1.5 billion in 2006 to $11.3 billion in 2012. FTAs with Japan and Australia are the first and second runners-up after the ASEAN–China FTA. In 2012, total c/o records were $6.3 and $5.1 billion, respectively, for Japan and Australia.

Table 7: Preferential Export Value (US$ billion)

	2006	2007	2008	2009	2010	2011	2012
AEC	**5.5**	**7.9**	**10.7**	**9.7**	**14.1**	**15.3**	**14.9**
Original AEC Member	*4.2*	*6.0*	*8.3*	*6.9*	*10.7*	*11.8*	*11.7*
Brunei Darussalam	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Indonesia	*1.7*	*2.6*	*3.8*	*2.7*	*4.5*	*6.0*	*6.1*
Malaysia	*1.4*	*1.8*	*2.5*	*2.2*	*3.0*	*3.1*	*2.9*
Philippines	*1.0*	*1.3*	*1.6*	*1.7*	*2.7*	*2.2*	*2.4*
Singapore	*0.2*	*0.3*	*0.4*	*0.3*	*0.4*	*0.5*	*0.4*
New Member	*1.3*	*1.9*	*2.4*	*2.8*	*3.3*	*3.5*	*3.2*
Cambodia	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.1*	*0.1*
Lao PDR	*0.0*	*0.0*	*0.0*	*0.1*	*0.1*	*0.1*	*0.1*
Myanmar	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*
Viet Nam	*1.2*	*1.8*	*2.3*	*2.7*	*3.1*	*3.2*	*2.8*
Non-ASEAN	**4.5**	**6.9**	**11.6**	**12.9**	**20.1**	**24.7**	**26.9**
Australia	*2.7*	*4.1*	*4.9*	*4.3*	*5.6*	*5.0*	*5.1*
- Thai–Australia	*2.7*	*4.1*	*4.9*	*4.3*	*5.6*	*5.0*	*4.9*
- AANZ	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*
New Zealand	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
- Thai–New Zealand	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
- AANZ	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
China	*1.5*	*1.8*	*1.7*	*4.0*	*7.4*	*9.4*	*11.3*
India	*0.3*	*0.4*	*0.4*	*0.4*	*1.4*	*2.0*	*2.1*
Japan	*0.0*	*0.6*	*4.5*	*4.2*	*4.8*	*6.1*	*6.3*
- JTEPA	*0.0*	*0.6*	*4.5*	*4.2*	*4.8*	*6.0*	*6.3*
- ASEAN–Japan	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*
Korea	*0.0*	*0.0*	*0.0*	*0.0*	*0.9*	*2.2*	*2.1*
Total	**12.8**	**19.4**	**31.7**	**31.1**	**44.7**	**51.1**	**53.2**
% of total preferential export							
AEC	43.1	40.4	33.8	31.1	31.6	29.9	28.0
Original AEC Member	33.2	30.8	26.3	22.1	24.1	23.1	22.1
Brunei Darussalam	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Indonesia	13.2	13.3	12.1	8.7	10.1	11.7	11.4
Malaysia	10.7	9.5	7.8	7.1	6.8	6.0	5.4
Philippines	7.7	6.5	5.1	5.4	6.1	4.2	4.4
Singapore	1.6	1.3	1.2	0.9	1.0	1.0	0.8

(cont.)

Table 7 *(cont.)*

	2006	2007	2008	2009	2010	2011	2012
New Member	9.9	9.7	7.5	9.0	7.5	6.8	6.0
Cambodia	0.0	0.0	0.0	0.1	0.2	0.2	0.3
Lao PDR	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Myanmar	0.0	0.0	0.1	0.1	0.0	0.1	0.2
Viet Nam	9.7	9.5	7.3	8.6	7.0	6.3	5.3
Non-ASEAN	35.4	35.4	36.4	41.4	45.1	48.3	50.5
Australia	21.5	20.9	15.6	13.9	12.6	9.9	9.5
- Thai–Australia	21.5	20.9	15.6	13.9	12.6	9.9	9.1
- AANZ	0.0	0.0	0.0	0.0	0.1	0.0	0.4
New Zealand	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Thai–New Zealand	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- AANZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
China	11.3	9.1	5.3	12.8	16.5	18.3	21.2
India	2.6	2.1	1.3	1.1	3.2	3.9	3.9
Japan	0.0	3.3	14.2	13.6	10.7	11.9	11.9
- JTEPA	0.0	3.3	14.2	13.6	10.7	11.8	11.8
- ASEAN–Japan	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Korea	0.0	0.0	0.0	0.0	2.0	4.3	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Authors' calculation from official data source: preferential export from the Bureau of Preferential Trade, Ministry of Commerce.

Note that both countries have two FTAs with Thailand—for Japan, there are JTEPA and AJFTA; and for Australia, there are TAFTA and AANZFTA. In both countries, preferential transaction has been on bilateral FTAs (i.e., JTEPA and TAFTA for Japan and Australia, respectively) instead of those through ASEAN. For example, in 2012 where total preferential export to Australia from Thailand was $5.1 billion, $4.9 billion was under TAFTA. It would be too early to make a strong conclusion about the use of TANZFTA as it was just in effect in 2010. Similar to Australia, the total preferential export value from Thailand to Japan was $6.3 billion in 2012. AJFTA accounted for less than one percent of the total value. Even though the regional wider FTA like AJFTA and TANZFTA generally allows for accumulation inputs across regions, it seems there are some obstacles for firms to apply the preferential trade schemes.

Even though the early harvest program in the Thailand–India FTA began in 2005, the negotiation progress was slow. The c/o record was $2.1 billion in 2012, increasing from $0.3 billion in 2006. That of the ASEAN–Korea FTA grew remarkably after signing in 2008. The dollar value of the c/o record increased from $0.9 billion in 2010 to $2.1 billion in 2012. Note that data on New Zealand were very low because both countries under TNZFTA signed in 2005 adopted a paperless c/o so that no c/o record for TNZFTA exists. The reported c/o record from 2010 onward was under the ASEAN–Australia–New Zealand FTA so that the figure was underestimated the true c/o transaction.

To illustrate the use of FTAs, the ratio of the c/o record to actual export value (FTA and non-FTA export) is calculated. It is referred to as the FTA utilisation rate. Two technical notes are raised here. First, as mentioned in Section 2 on the unsettled method to calculate the FTA utilisation rate (the appropriate denominator) and the absence of the clear definition of non-zero-tariff items, the denominator used here is total export including those subject to zero MFN tariff rates. Second, in practice, the Department of Foreign Trade, Ministry of Commerce (the government office in charge of issuing the c/o record on export) allows firms to request for the official c/o in advance (i.e., three months). Actual transactions applied for FTA preferential scheme might be changed due to customers' request. Firms are unlikely to know exactly the dollar value of actual transactions. In practice, firms tend to overstate their actual transactions and apply the c/o records in advance to gain business flexibility. Hence, the ratio between the c/o record to actual export value tends to be slightly overestimated.

Table 8 presents the FTA utilisation of all FTA partners. When all partners were combined, the utilisation rate was rather low, averaging at 36.4 percent from 2006 to 2012. In other words, about one-third of total export value to FTA partners applied for FTA preferential schemes. It increased from 19.9 percent in 2006 to about 41.5 percent in 2012. The utilisation rate seems to vary across FTA partners. Among ASEAN members, Indonesia had the highest utilisation rate. From 2006 to 2012, its utilization rate ranged from 50.9 to 61.5 percent. This was followed by the Philippines and Viet Nam. The average of their utilisation rates in 2006–2012 was 48.6 and 47.6 percent, respectively. No clear pattern was observed from these ASEAN top-3 in FTA

utilisation over said period. Malaysia, another major economy in ASEAN, recorded a rather low utilisation rate at about 25.1 percent between 2006 and 2012. The low utilisation rate found in Singapore was not surprising because the country is tariff free. In new ASEAN members, the low utilisation rate would be a result of their gradual adjustment in tariff reduction.

Table 8: FTA Utilisation Rate on Export Side (% of Export Value from Thailand to FTA Partners)

	2006	2007	2008	2009	2010	2011	2012	2006–2012
AEC	20.5	24.0	27.1	29.8	31.8	28.1	26.3	27.2
Original AEC Member	20.4	23.8	28.2	29.9	33.6	30.4	29.7	28.6
Brunei Darussalam	8.3	10.0	9.7	6.9	10.9	20.9	13.5	12.0
Indonesia	50.9	53.6	61.5	57.9	61.5	59.5	54.1	57.4
Malaysia	20.6	23.7	25.2	28.7	28.7	24.9	23.1	25.1
Philippines	38.1	43.4	46.9	56.1	55.9	46.6	48.6	48.6
Singapore	2.5	2.7	3.9	3.7	5.0	4.5	4.0	3.8
New Member	20.8	24.9	23.8	29.6	27.0	22.3	18.4	23.4
Cambodia	0.0	0.0	0.5	2.2	3.9	3.9	3.6	2.5
Lao PDR	2.3	2.3	2.6	4.0	4.3	3.9	3.6	3.5
Myanmar	0.4	1.0	1.7	1.3	1.0	0.9	2.7	1.5
Viet Nam	40.1	46.6	46.6	57.3	53.8	45.7	42.1	47.6
Non-ASEAN	12.1	15.3	22.4	27.4	33.5	35.2	37.6	28.1
Australia	63.0	70.9	62.5	50.3	60.2	63.1	51.9	59.2
New Zealand	*	*	*	*	0.4	0.9	1.7	0.6
China	12.4	11.9	10.6	24.7	34.3	34.2	42.0	27.5
India	18.2	14.1	12.4	10.9	32.8	38.0	38.0	26.6
Japan	0.0	3.6	22.7	26.9	23.5	25.3	26.9	19.3
Korea	0.0	0.0	0.0	0.1	24.4	48.4	44.6	20.9
Total	19.9	25.0	34.8	39.2	42.8	41.1	41.5	41.7

Note: * indicates the effect of paperless system adopted under the TNZFTA so that official records are not available.
Sources: Authors' calculation from official data source: preferential export from Bureau of Preferential Trade, Ministry of Commerce, trade data from UN Comtrade.

Where non-ASEAN partners are concerned, the utilisation rate was slightly lower. The average figure in 2006–2012 was 28.1 percent with an increasing trend. Australia had the highest utilisation rate, ranging between 51.9 and 70.9 percent with a clear downward trend. The observed downward trend reflects the unilateral tariff reduction that Australia undertook hand in hand with FTA liberalisation. When the MFN tariff was eliminated/reduced, the need for FTA became less. For other non-ASEAN FTA partners, the utilisation rate showed an upward trend. This is especially true for China and India.

Table 9 presents the pattern of c/o record on the import side between 2006 and 2012. The dollar value of preferential imports grew rapidly. The value increased from $3.9 billion in 2006 to $30.2 billion in 2012. Imports from ASEAN accounted for the largest share in spite of the declining relative importance. Out of total preferential imports, the share of ASEAN was 35.6 percent in 2012. Its share declined from 79.8 percent in 2006 as many FTAs have been signed and in effect since 2007. Among ASEAN members, Indonesia, Malaysia, and the Philippines are the most important sources of preferential imports, accounting for 12.5, 9.2, and 3.6 percent of total preferential imports in 2012, respectively. While the dollar value of preferential imports from the relatively new ASEAN members increased from 2006 to 2012, these mainly came from Viet Nam. See detailed discussion in Section 4.

Table 9: Preferential Import Value ($ billion)

	2006	2007	2008	2009	2010	2011	2012
AEC	3.07	3.05	3.64	4.06	7.18	9.65	10.74
Original AEC Member	2.91	2.81	3.22	3.55	6.27	8.14	8.90
Brunei Darussalam	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indonesia	0.98	1.08	1.53	1.52	2.47	3.35	3.78
Malaysia	0.83	0.84	0.81	0.88	1.79	2.42	2.77
Philippines	0.48	0.45	0.51	0.70	1.12	1.14	1.08
Singapore	0.61	0.45	0.36	0.46	0.90	1.23	1.28
New Member	0.16	0.24	0.42	0.51	0.90	1.50	1.83
Cambodia	0.00	0.00	0.00	0.03	0.04	0.04	0.11
Lao PDR	0.00	0.01	0.15	0.17	0.34	0.55	0.51
Myanmar	0.01	0.01	0.01	0.03	0.04	0.04	0.05
Viet Nam	0.15	0.22	0.26	0.28	0.49	0.87	1.16
Non-ASEAN	0.78	1.10	2.80	2.73	5.34	13.91	19.46
Australia	0.47	0.44	0.38	0.41	0.61	0.90	1.12
- Thai–Australia	0.45	0.44	0.38	0.41	0.61	0.89	1.10
- AANZ	0.02	0.00	0.00	0.00	0.00	0.01	0.02
New Zealand	0.12	0.16	0.17	0.14	0.22	0.28	0.34
- AANZ	0.04	0.00	0.00	0.00	0.00	0.00	0.01
- Thai–New Zealand	0.08	0.16	0.17	0.14	0.22	0.28	0.33
China	0.14	0.46	0.10	0.00	0.00	6.54	9.16
India	0.04	0.03	0.04	0.04	0.02	0.12	0.32
Japan	0.00	0.05	2.12	2.14	3.97	5.06	7.03
- JTEPA	0.00	0.05	2.12	2.13	3.93	5.01	6.92
- ASEAN–Japan	0.00	0.00	0.00	0.01	0.04	0.06	0.11
Korea	0.00	0.00	0.00	0.00	0.51	1.00	1.50
Total	3.9	4.2	6.4	6.8	12.5	23.6	30.2
	% of total preferential export						
AEC	79.8	73.5	56.5	59.7	57.4	41.0	35.6
Original AEC Member	75.5	67.7	49.9	52.3	50.1	34.6	29.5
Brunei Darussalam	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	25.5	26.0	23.8	22.4	19.7	14.2	12.5
Malaysia	21.7	20.2	12.5	12.9	14.3	10.3	9.2
Philippines	12.5	10.8	8.0	10.2	8.9	4.9	3.6
Singapore	15.9	10.8	5.7	6.7	7.2	5.2	4.2

(Cont.)

Table 9 *(cont.)* **Preferential Import Value ($ billion)**

	2006	2007	2008	2009	2010	2011	2012
New Member	4.3	5.8	6.6	7.5	7.2	6.4	6.1
Cambodia	0.0	0.0	0.1	0.4	0.3	0.2	0.4
Lao PDR	0.1	0.2	2.3	2.5	2.7	2.3	1.7
Myanmar	0.1	0.2	0.2	0.4	0.3	0.2	0.2
Viet Nam	4.0	5.3	4.0	4.2	3.9	3.7	3.9
Non-ASEAN	20.2	26.5	43.5	40.3	42.6	59.0	64.4
Australia	12.3	10.6	5.9	6.0	4.9	3.8	3.7
- Thai–Australia	11.8	10.6	5.9	6.0	4.9	3.8	3.6
- AANZ	0.5	0.0	0.0	0.0	0.0	0.0	0.1
New Zealand	3.1	3.9	2.6	2.1	1.8	1.2	1.1
- AANZ	1.1	0.0	0.0	0.0	0.0	0.0	0.0
- Thai–New Zealand	2.0	3.8	2.6	2.1	1.8	1.2	1.1
China	3.7	11.1	1.6	0.0	0.0	27.8	30.3
India	1.1	0.7	0.6	0.6	0.2	0.5	1.1
Japan	0.0	1.2	32.8	31.5	31.7	21.5	23.3
- JTEPA	0.0	1.1	32.8	31.4	31.4	21.3	22.9
- ASEAN–Japan	0.0	0.0	0.0	0.1	0.3	0.3	0.4
Korea	0.0	0.0	0.0	0.0	4.1	4.2	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Authors' calculation from official data: preferential import from the Customs Department, Ministry of Commerce.

The dollar value of preferential imports from non-ASEAN partners grew noticeably from 2008 onwards where an FTA between Thailand and Japan was in effect. Preferential import from Japan tripled from $2.1 billion in 2008–2009 to $7 billion in 2012. The export side showed a similar trend since most preferential import transactions were under the JTEPA. In 2012, for example, $6.9 billion out of the total $7.0 billion were applied for JTEPA instead of the ASEAN–Japan FTA. As a result, Japan became the most important FTA partner in terms of import and accounted for 23.3 percent. The preferential import from Japan consists of two main products, iron and steel, mainly used in the automotive industry (HS 72) and auto parts (HS 870840 and HS 870899).

China is another interesting FTA partner whose preferential import grew rapidly in 2011–2012. The dollar value of preferential import increased from less than $0.1 billion in 2006–2010 to $6.5 and $9.2 billion in 2011 and 2012, respectively. For Australia and New Zealand which have signed FTAs with Thailand since 2005,

preferential import values remain small, together accounting for less than five percent of total preferential imports.[9] Again most preferential import transactions applied for TAFTA and TNZFTA instead of TANZFTA. Due to the slow progress in further FTA negotiations, the preferential import value from India was lower than $1 billion during the considering period.

Table 10 presents the FTA utilisation on import from 2006 to 2012. The utilisation increased gradually from 5.2 percent in 2006 to 11.5 and 20.8 percent in 2010 and 2012, respectively. The ratio on the import side is much lower than that on the export side. All in all, utilisation on both import and export suggests that less than one-third of trade (export plus import) between Thailand and FTA partners has applied for existing FTA preferential schemes (Figure 2).

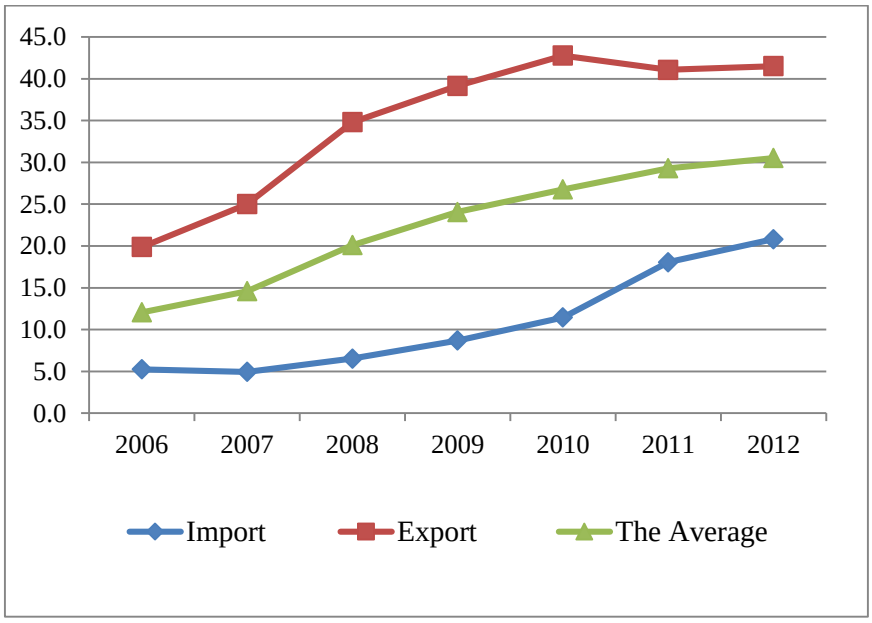
Table 10: FTA Utilisation Rate on Import Side (% of Import Value to Thailand from FTA partners)

	2006	2007	2008	2009	2010	2011	2012	2006–2012
AEC	13.0	12.1	12.1	16.4	23.7	26.1	26.6	19.6
Original AEC Member	14.7	13.3	13.1	17.7	24.9	26.9	27.7	20.7
Brunei Darussalam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	28.3	27.1	28.4	40.0	43.5	45.5	46.7	38.9
Malaysia	9.9	9.7	8.3	10.2	16.7	19.6	21.1	14.4
Philippines	22.6	21.0	22.6	39.0	47.1	42.3	39.8	34.0
Singapore	10.8	7.2	5.2	8.0	14.3	15.8	16.3	11.3
New Member	4.4	6.1	7.6	10.8	17.5	22.8	22.5	14.7
Cambodia	1.1	0.0	3.8	32.5	19.3	22.5	42.8	24.4
Lao PDR	0.8	2.1	23.9	37.4	45.2	48.9	41.2	33.7
Myanmar	0.2	0.4	0.4	1.0	1.3	1.1	1.5	0.9
Viet Nam	17.1	19.8	18.0	20.4	35.0	43.1	39.0	30.6
Non-ASEAN	1.6	1.9	4.1	5.1	6.8	14.9	18.6	9.1
Australia	13.8	11.2	7.3	10.8	10.4	11.3	20.5	12.2
New Zealand	37.9	38.8	26.0	46.4	43.0	47.8	55.8	42.2
China	1.0	2.7	0.5	0.0	0.0	21.4	24.8	10.3
India	2.7	1.4	1.4	2.2	0.9	4.1	10.1	3.7
Japan	0.0	0.2	6.3	8.6	10.5	12.0	14.2	8.4
Korea	0.0	0.0	0.0	0.0	6.4	10.9	16.7	6.1
Total	5.2	4.9	6.5	8.7	11.5	18.1	20.8	12.2

[9] On the import side, the preferential record of Thailand import from New Zealand covers both TNZFTA and AANZFTA. This is different from the export side where data on AANZFTA are collected only.

Sources: Authors' calculation from official data: preferential import from Customs Department, Ministry of Commerce; trade data from UN Comtrade.

Figure 2: Overall FTA Utilisation between 2006 and 2012



Source: Authors' calculation from official data source discussed in the text.

The ASEAN utilisation rate on import increased from 13.0 percent in 2006 to 16.4 percent in 2009, and then moved within a narrow range between 23.7 and 26.6 percent in the next three years (2010–2012). There was not much difference in the utilisation rate between original and new ASEAN members like in the case of export. Indonesia, Lao, Viet Nam, and the Philippines were on the top in terms of utilisation on import. The utilisation of Cambodia reached 42.8 percent in 2012 due to the increasing importance of cassava import to Thailand in recent years. For Indonesia, the high utilisation was due to the operation of the global production network of multinational automotives. In the network, Indonesia has been positioned as a production base for multipurpose vehicles (e.g., Toyota Innova, Toyota Avanza, Honda Freed, and GM Spin). These vehicles produced in Indonesia are sold to other countries in Southeast Asia and Oceania. The high utilisation rate for the Philippines was due to automotive intra-regional specialization. That is, transmission mechanisms and passenger vehicles were imported from the Philippines to Thailand using preferential tariff schemes.

For non-ASEAN members, the utilisation rate was slightly lower than that for ASEAN members. In 2012, the utilisation rate was 18.6 percent, as opposed to the

corresponding figure of ASEAN at 26.6 percent. Interestingly, said rate varied across individual partners significantly. New Zealand was top in terms of FTA utilisation. Its utilisation rate in recent years exceeded 40 percent, dominated by milk and dairy products. Note that import values from New Zealand were rather small, averaging under $1 billion a year. For other FTA partners, the utilization rate was less than 20 percent in spite of the present upward trend.

5. Who and Which Products Mostly Apply for FTA Preferential Trade Schemes

Table 11 presents the cumulative share of preferential trade of the top 10 and top 15 products in 2011–2012 to indicate the extent of concentration of products traded under FTA preferential trade schemes. Note that the calculation was undertaken at the six-digit HS level which consists of more than 5,000 product items. Table 11 reports both export from and import by Thailand. Since there is no major difference between 2011 and 2012, the following discussion is based on 2012.

On the export side, products from Thailand that applied for FTA schemes are highly concentrated. For AEC, the top 10 and top 15 export items of Thailand to other ASEAN members through the AEC scheme in 2012 were 25.9 and 32.0 percent, respectively. For original ASEAN members, the corresponding shares were even higher at 32 and 39.2 percent, respectively.

Preferential exports of individual ASEAN members have a clear pattern. The members, to which preferential export value from Thailand was relatively low, register a far higher degree of product concentration. They include Brunei Darussalam, Cambodia, Lao PDR, and Myanmar whose cumulative share of the top 15 products is approaching 80 percent. By contrast, the degree of product concentration dropped to about 29–50 percent for Indonesia, Malaysia, Viet Nam, and the Philippines.[10] There is no huge difference in export products of these top 15 from Thailand to each ASEAN member. They are dominated by five subsections— completely built up (CBU)

[10] Preferential export from Thailand to these four countries accounted for more than 95 percent of total preferential export to ASEAN. See details in Table 7.

vehicles, auto parts, electrical appliances (air conditioning, washing machines), tires, and primary petrochemical products. See details of top 15 products in Appendix 1).

Table 11: Cumulative Shares of Top 10 and Top 15 Preferential Trade in 2011–2012

Export	Top 10		Top 15	
	2011	2012	2011	2012
AEC	27.7	25.9	34.3	32.0
Original AEC	34.4	32.0	42.1	39.2
Brunei Darussalam	55.5	60.8	63.1	69.1
Indonesia	43.2	40.0	50.2	46.5
Malaysia	29.8	28.3	37.2	35.4
Philippines	48.5	43.2	56.4	50.2
Singapore	48.5	51.4	54.7	58.0
New AEC	22.4	21.1	29.4	27.6
Cambodia	87.1	72.1	97.2	80.4
Lao PDR	77.7	64.5	90.5	75.0
Myanmar	100.0	77.6	100.0	84.6
Viet Nam	22.9	22.2	30.1	29.1
Australia	50.0	50.1	57.4	57.5
New Zealand	100.0	46.6	100.0	56.7
China	66.1	52.4	76.7	60.8
India	52.9	46.1	59.7	52.1
Japan	51.6	50.2	59.0	57.4
Korea	42.2	40.5	49.4	47.4

(cont.)

Table 11 *(cont.)*

Import	Top 10		Top 15	
	2011	2012	2011	2012
AEC	36.4	33.4	41.2	38.9
Original AEC	36.7	35.1	42.5	41.8
Brunei Darussalam	100.0	100.0	100.0	100.0
Indonesia	51.5	53.3	58.1	62.5
Malaysia	32.4	32.7	38.9	40.0
Philippines	75.8	67.6	80.7	74.3
Singapore	67.1	63.1	76.8	75.8
New AEC	54.0	48.4	60.3	55.1
Cambodia	98.8	53.1	99.6	53.6
Lao PDR	96.5	176.5	98.1	100.0
Myanmar	95.2	100.0	97.2	100.0
Viet Nam	39.6	33.7	48.0	42.1
Australia	63.5	71.9	68.9	75.1
New Zealand	78.3	80.2	84.6	86.1
China	13.8	11.8	18.1	15.5
India	43.4	4.9	51.6	6.8
Japan	46.6	34.5	53.6	41.8
Korea	51.5	1.4	59.1	1.6

Sources: Authors' calculation from official data sources: preferential export from the Bureau of Preferential Trade, Ministry of Commerce, preferential import from the Customs Department, Ministry of Commerce

For non-ASEAN members, the degree of product concentration was even higher. For example, top 10 and top 15 products in the case of Australia were 50.1 and 57.5 percent, respectively. The corresponding figures for Japan were 50.2 and 57.4 percent, respectively. Nonetheless, only Australia whose export preferential pattern is similar to that of ASEAN members dominated by CBU vehicles, electrical appliances (air conditioning, washing machines), and primary petrochemical products. The others were processed foods and jewellery.

In the case of China, the top15 items are dominated by primary food–related products (such as cassava, fresh fruits, and natural rubber products); primary petrochemical products; and primary chemical products. The top 15 preferential exports from Thailand to Japan were dominated by processed foods and processed shrimp, in particular. The others include petrochemical products, auto parts, jewellery, and aluminium products. The pattern of the top 15 preferential exports of Korea was more diversified as opposed to China and Japan. They included natural rubber

products, petroleum products, primary petrochemical products, sugarcane molasses, compressors for refrigerators, processed foods, and air conditioning.

To a certain extent, the pattern of the top 15 preferential products revealed above suggests that the top 15 items of each FTA partner are likely to be the same, dominated by four sectors—automotive (both vehicles and auto parts), electrical appliances, petrochemical products, and processed foods—all of which share the following characteristics.

First, firms in these sectors are generally large in size. It is clear in the case of the automotive sector and electrical appliances where multinational enterprises play a dominant role in global production and sale network. They also have their affiliations in other ASEAN members. In Thailand's petrochemical sector, business is dominated by joint ventures between foreign firms and two Thai leading conglomerates, Siam Cement group (known under SCG Chemical) and Petroleum Authority of Thailand (PTT Group). In addition, this is related to its nature where scale economies are important and capital intensity is high so that firms are generally large. Indigenous and leading firms in the processed food sector are also relatively large and globally competitive. Large firms seem to be sensible with the nature of the process to acquire a c/o in Thailand that incurs a fixed cost to firms. Hence, large firms would be in a better position than smaller firms. This finding is in line with previous studies that large firms are more likely to apply for an FTA preferential trade scheme. Our finding does not confirm the role of firm nationality as foreign firms either wholly owned or joint ventures are usually large.

Second, products from these sectors have a high level of local content. As shown in previous studies (Kohpaiboon and Jongwanich, 2013; Athukorala and Kohpaiboon, 2012), CBU vehicle exports from Thailand rely heavily on locally manufactured parts, and local content for some models is approaching 100 percent. While the import content for electrical appliances varies from product to product, air-conditioning and washing machines exhibit high local content. In particular, a major component—in compressors and cases, for example—are locally sourced. It is clear for petrochemical products which are wholly obtained from Thailand's petrochemical complex, one of the leading petrochemical complexes in the region. Similarly, a complete supply chain of processed shrimp has been long developed in Thailand so that processed shrimp

export exhibits remarkably high local content (Kohpaiboon, 2006). The high local content makes complying with existing RoO much easier.

Third, tariff margin does matter for firms to use FTA preferential export schemes. Table 12 reveals the tariff margin of the top 15 export products of selected FTA partners—Indonesia, Malaysia, Australia, Japan, China, and Korea. The general pattern is that the top 15 preferential export products usually have a relatively high tariff margin. The margin was averaged out at 15.5, 18.3, 4.7, 3.2, 7.4, and 7.9 percent, respectively, all of which were far higher than the average tariff margin (see Table 5). The observed pattern of high tariff margin is consistent with the finding above that complying with the RoO incurs fixed costs. Note that the average tariff margin of top 15 preferential export items in cases of developing country FTA partners is generally higher than that of a developed country. To a certain extent, this possibly reflects any cumbersome non-tariff measures/barriers as well as procedure cumbersome that might occur in applying FTA preferential trade schemes. This finding is in line with Kohpaiboon (2011) who estimated costs in complying with the RoO and found that the costs in developing country partners are higher than those in developed countries.

Other information revealed in Table 12 includes a percent of preferential export value to total preferential export value, utilisation rate in percent (preferential export value as a percent of actual export), and its actual export value as a percentage share of total actual export. For instance, the top export product Thailand applied for AEC preferential trade scheme and exported to Indonesia in 2012 was self-propelled mechanical shovels and excavators (HS 842952). Its preferential export value is $416.3 million, and accounted for 6.9 percent of total preferential export value from Thailand to Indonesia. Its utilisation rate is 100 percent and its tariff margin is 10 percent. Its actual export value accounted for only 3.7 percent of total actual export.

Utilisation rates of the top 15 products were generally high and there are cases whose utilisation rate far exceeds 100 percent. In theory, the highest number of utilisation rate is 100 percent which means that all export shipments apply for FTA preferential export scheme so that actual and preferential export values are identical. In reality, there might be some cases whose utilisation rate exceeds 100 percent, as earlier mentioned. Two possible explanations could explain this. The first explanation is data collection error. This occurs when preferential records are far higher than actual

trade records (referred to as type I error). The second explanation is a result from the fact that an official c/o can be issued in advance (see above) and exporters tend to overstate their true demand than what they actually need to gain flexibility in doing business. In this case, it is possible for the utilisation rate to exceed 100 percent but we would not expect vast differences between these two records (referred to as type II error). In this study, we arbitrarily use a 150 percent utilisation rate to identify a type I error. If there is a type II error, utilisation rate is replaced by 100 percent, i.e., fully utilised. When a type I error is found, * is reported. Interestingly, a type I error is often found on the export side more than the import side. One possible explanation is that preferential export-side records are collected by staff from the Ministry of commerce who have relatively less experience in identifying HS codes as opposed to those from customs duty who handle import-side records. Capacity builting program in collecting preferential export data is needed.

Another important observation from Table 12 is that export products at the top of the list of preferential export schemes are not always the top actual exports. The top 15 preferential exports are also the major export products observed only in Indonesia and Australia. The gap between cumulative share of top 15 preferential exports and that calculated from actual export value is narrow in both countries. For Australia, the cumulative share of the top 15 preferential exports was equal to 57.5 percent whereas that calculated from actual export was 45.7 percent. The corresponding figures for Indonesia are 46.5 and 36.5 percent, respectively. By contrast, China, Malaysia, and Japan, the three major export partners of Thailand, share the common pattern where the cumulative share of the top 15 preferential exports was very high but that calculated from actual export value was very low. The latter is about one fifth of the former in the cases of China and Japan. Figure 3 demonstrates the export performance of Thailand vs. major FTA partners to illustrate the effect of FTAs on bilateral export. As shown in Figure 3, export to Australia to Thailand's total export increased remarkably after signing FTAs. For other FTA partners, there was any major change between pre- and post-signing of FTAs. This observation points that FTAs potentially have a significant effect on trade in certain product items and some partners only.

Table 12.1: Top 15 Preferential Exports to Australia

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation	Tariff Margin (TAFTA)	Tariff Margin (AANZFTA)	Actual Export ($ million)	Trade Share
1	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	1,017.49	20.06	43	5	5	2367.03	24.25
2	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	505.77	9.97	73.3	5	1.25	690.01	7.07
3	160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	239.42	4.72	100	5	5	237.94	2.44
4	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	147.76	2.91	53.5	5	5	276.17	2.83
5	841590	Parts of the air-conditioning machines of 8415.10-8415.83	142.67	2.81	*	5	5	13.95	0.14
6	843139	Other parts suitable for use solely/principally with the machinery (excluding that of 84.25, 84.27, 84.28, & of lifts, skip hoists/escalators).	128.86	2.54	*	5	5	0	0
7	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	102.2	2.02	76.6	5	1.25	133.45	1.37
8	841810	Combined refrigerator-freezers, fitted with separate external doors, electric/other	94.53	1.86	100	5	5	83.09	0.85
9	940600	Prefabricated buildings	89.95	1.77	100	5	5	74.18	0.76
10	390120	Polyethylene having a sp.gr. of 0.94/more, in primary forms	87.56	1.73	65.8	5	5	132.98	1.36
11	392321	Sacks & bags (incl. cones), of polymers of ethylene	87.11	1.72	100	5	5	86.47	0.89
12	711311	Articles of jewellery & parts thereof , of silver, whether/not plated/clad with other precious metals	80.67	1.59	90.6	5	5	89.05	0.91
13	870332	Vehicles principally designed for the transport of persons (excl. of 87.02 & 8703.10-8703.24), with C-I internal combustion piston engine (diesel/semi-diesel), of a cylinder capacity >1500cc but not >2500cc	71.62	1.41	81.5	5	1.25	87.91	0.9
14	870431	Motor vehicles for the transport of goods (excl. of 8704.10), with spark-ignition internal combustion piston engine, g.v.w. not >5 tonnes	71.23	1.4	51.3	5	5	138.78	1.42
15	291020	Methyloxirane (propylene oxide)	70.42	1.39	100	0	0	69.76	0.71

Table 12.2: Top 15 Preferential Exports to China *(cont.)*

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation	Tariff Margin	Actual Export ($ million)	Trade Share
1	71410	Manioc (cassava)	1,137.46	10.08	100	0	1074.63	3.99
2	400591	Compounded rubber (excl. of 4005.10 & 4005.20), unvulcanised, in plates, sheets & strip, n.e.s.	1,038.94	9.2	*	0	224.28	0.83
3	270750	Aromatic hydrocarbon mixtures of which 65%/more by volume, incl. losses, distils at 250 ï–‘C by the ASTM D86 method (excl. benzol, toluol, xylol & naphthalene)	687.67	6.09	100	5	663.12	2.47
4	290243	P-xylene	652.72	5.78	100	5	652.58	2.43
5	291736	Terephthalic acid & its salts	589.14	5.22	100	0	560.45	2.08
6	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	529.73	4.69	*	0	196.78	0.73
7	400599	Compounded rubber (excl. of 4005.10 & 4005.20), unvulcanised, other than in plates, sheets & strip	513.35	4.55	45.2	0	1135.58	4.22
8	291020	Methyloxirane (propylene oxide)	473.89	4.2	100	0	460.36	1.71
9	390740	Polycarbonates, in primary forms	314.23	2.78	86.8	0	362.09	1.35
10	110814	Manioc (cassava) starch	251.26	2.23	100	0	244.21	0.91
11	400510	Compounded (carbon black, silica) unvulcanised rubber	240.45	2.13	47.6	0	504.73	1.88
12	81090	Fresh fruit, n.e.s. in Ch. 8	222.29	1.97	*	0	123.24	0.46
13	290723	Bisphenol A, diphenylolpropane, salts	185.53	1.64	98.7	2.5	188.02	0.7
14	81060	Durians, fresh	175.15	1.55	*	0	127.79	0.48
15	391590	Waste, parings & scrap, of plastics n.e.s. in 39.15	172.89	1.53	96.4	0	179.42	0.67

Table 12.3: Top 15 Preferential Exports to Indonesia *(cont.)*

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation	Tariff Margin	Actual Export ($ million)	Trade Share
1	842952	Self-propelled mechanical shovels & excavators with a 360 revolving superstructure	416.32	6.87	100	10	412.3	3.68
2	870332	Vehicles principally designed for the transport of persons (excl. of 87.02 & 8703.10-8703.24), with C-I internal combustion piston engine (diesel/semi-diesel), of a cylinder capacity >1500cc but not >2500cc	389.74	6.43	100	28.85	385.95	3.44
3	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	317.17	5.23	34.9	25	910.01	8.12
4	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	302.61	4.99	71.3	30	424.5	3.79
5	110814	Manioc (cassava) starch	290.38	4.79	100	10	283.18	2.53
6	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	260.08	4.29	100	10	192.52	1.72
7	870899	Other parts & accessories for the motor vehicles of 87.01-87.05, excl. 8708.91/92/93/94/95.	188.86	3.12	45.6	10	430.03	3.84
8	840820	Compression-ignition internal combustion piston engines (diesel/semi-diesel engines) of a kind used for the propulsion of vehicles of Ch.87	157	2.59	99.6	11.67	157.64	1.41
9	390210	Polypropylene, in primary forms	151.12	2.49	83.9	15	180.09	1.61
10	330510	Shampoos	115.74	1.91	100	10	109.85	0.98
11	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	115.1	1.9	49.2	29.39	233.77	2.09
12	871120	Motorcycles (incl. mopeds) & cycles fitted with an auxiliary motor, with/without side-cars, with reciprocating internal combustion piston engine of a cylinder capacity >50cc but not >250cc	89.45	1.48	76.7	15	116.65	1.04
13	840734	Spark ignition reciprocating piston engines of a kind used for the propulsion of vehicles of Ch.87, of a cylinder capacity >1000cc	73.12	1.21	85.4	10	85.57	0.76
14	870829	Parts & accessories of bodies (incl. cabs) of the motor vehicles of 87.01-87.05, n.e.s. in 87.08	71.46	1.18	45.3	10	157.64	1.41
15	845011	Household/laundry-type washing machines (incl. machines which both wash & dry), each of a dry linen capacity not >10kg, fully auto.	68.08	1.12	*	7.5	12.53	0.11

Table 12.4: Top 15 Preferential Exports to Japan *(cont.)*

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation	Tariff Margin JTEPA	Tariff Margin ASEAN	Actual Export ($ million)	Trade Share
1	160232	Prepared/preserved preparations of fowls of the genus Gallus domesticus (excl. homogenised preparations)	1,107.51	17.56	100	0.83	0.13	1063.03	4.52
2	160520	Shrimps & prawns, prepared/preserved	448.8	7.11	95.6	0	5.05	469.64	2
3	30613	Shrimps & prawns, whether/not in shell, frozen	322.24	5.11	87.3	0	1	369.32	1.57
4	390760	Poly(ethylene terephthalate), in primary forms	238.52	3.78	98.9	15	3.1	241.05	1.03
5	732010	Leaf-springs & leaves therefor, of iron/steel	224.57	3.56	*	5	1.65	7.37	0.03
6	350510	Dextrins & other modified starches	198.24	3.14	97.1	0	0	204.2	0.87
7	30490	Swordfish (Xiphias gladius), n.e.s.	170.47	2.7	100	0	2.3	150.55	0.64
8	392321	Sacks & bags (incl. cones), of polymers of ethylene	164.04	2.6	100	20	3.9	155	0.66
9	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	155.17	2.46	*	1	1.17	45.58	0.19
10	711319	Articles of jewellery & parts thereof , of other precious metal (excl. silver), whether/not plated/clad with precious metal	112.03	1.78	100	0	5.33	111.32	0.47
11	160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	111.53	1.77	55.9	0	1.7	199.67	0.85
12	280300	Carbon (carbon blacks & other forms of carbon, n.e.s.)	104.05	1.65	97.3	0	3.9	106.94	0.46
13	761090	Aluminium Structures (excl. prefabricated buildings of heading 94.06) & parts of structures (e.g., bridges & bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frame-works, shutters, balustrades, pillars & columns) aluminium plates, rods, profiles, tubes, & the like, prepared for use in structures	86.65	1.37	86.7	25	3	99.99	0.43
14	30799	Molluscs & invertebrates (excl. of 0307.10-0307.60), frozen/dried/salted/in brine; incl. flours/meals/pellets of aquatic invertebrates other than crustaceans, fit for human consumption	75.68	1.2	*	0	1.2	16.23	0.07
15	210390	Sauces & preparations therefor, n.e.s.; mixed condiments & mixed seasonings, n.e.s.	70.48	1.12	100	6.67	2.86	70.14	0.3

Table 12.5: Top 15 Preferential Exports to Malaysia *(cont.)*

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation	Tariff Margin	Actual Export ($ million)	Trade Share
1	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	250.56	8.74	64.9	20	386.34	3.11
2	870829	Parts & accessories of bodies (incl. cabs) of the motor vehicles of 87.01-87.05, n.e.s. in 87.08	106.57	3.72	100	12.5	75.29	0.61
3	840734	Spark ignition reciprocating piston engines of a kind used for the propulsion of vehicles of Ch.87, of a cylinder capacity >1000cc	94.12	3.28	75.5	5	124.73	1
4	401110	New pneumatic tyres, of rubber, of a kind used on motor cars (incl. station wagons & racing cars)	87.01	3.04	98.6	40	88.27	0.71
5	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	75.5	2.63	41.4	23.51	182.26	1.47
6	842952	Self-propelled mechanical shovels & excavators with a 360î–‘ revolving superstructure	73.45	2.56	99.6	5	73.72	0.59
7	441011	Particle board of wood, whether/not agglomerated with resins/other organic binding substances	61.06	2.13	100	20	45.48	0.37
8	721632	Iron and steel // Angles, shapes and sections of iron or non-alloy steel. // - U, I or H sections, not further worked than hot-rolled, hot-drawn or extruded of a height of 80 mm or more : // -- I sections	59	2.06	86.8	5	67.96	0.55
9	870899	Other parts & accessories for the motor vehicles of 87.01-87.05, excl. 8708.91/92/93/94/95.	57.86	2.02	14.9	15.83	397.92	3.2
11	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	52.13	1.88	83.8	40	62.18	0.5
12	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	48.03	1.82	20.8	21.82	230.45	1.85
13	220290	Non-alcoholic beverages other than waters of 2202.10 (not incl. fruit/vegetable juices of 20.09)	44.55	1.68	94.7	20	47.04	0.38
14	841821	Refrigerators, h-hold. type, compression-type, electric/other	43.15	1.55	94.7	30	45.56	0.37
15	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	42.88	1.51	76.1	1	56.35	0.45

Table 12.6: Top 15 Preferential Exports to Korea *(cont.)*

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation	Tariff Margin	Actual Export ($ million)	Trade Share
1	400122	Technically specified natural rubber (TSNR)	354.22	16.62	78.2	20	453.01	9.48
2	270900	Petroleum oils & oils obt. from bituminous mins., crude	188.38	8.84	88	0	214.05	4.48
3	291020	Methyloxirane (propylene oxide)	61.25	2.87	92.3	5.5	66.36	1.39
4	800110	Tin, not alloyed, unwrought	58.9	2.76	100	3	50.68	1.06
5	271119	Petroleum gases & gaseous hydrocarbons nes, liquefied	56.09	2.63	78.6	6.5	71.38	1.49
6	841430	Compressors of a kind used in refrigerating equip.	54	2.53	98.2	6.21	55.01	1.15
7	30613	Shrimps & prawns, whether/not in shell, frozen	47.33	2.22	94.1	6.2	50.28	1.05
8	170310	Cane molasses	38.75	1.82	100	8	37.95	0.79
9	382319	Industrial monocarboxyli	38.13	1.79	100	11	32.01	0.67
10	400121	Natural rubber (excl. latex), in smoked sheets	36.58	1.72	46.6	20	78.47	1.64
11	841810	Combined refrigerator-freezers, fitted with separate external doors, electric/other	36.03	1.69	97.6	8.33	36.91	0.77
12	270710	Benzol (benzene)	34.65	1.63	72.7	6	47.64	1
13	841490	Parts of the pumps, compressors, fans & recycling hoods of 8414.10-8414.20	34.27	1.61	100	7.5	28.71	0.6
14	852290	Parts (excl. pick-up cartridges) & accessories suit. for use solely/principally with the apparatus of 85.19-85.21	29.1	1.37	91.8	0	31.71	0.66
15	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	27.1	1.27	55.9	10	48.48	1.01

Table 12.7: Top 15 Preferential Imports from Australia *(cont.)*

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation	Tariff Margin	Actual Import ($ million)	Trade Share
1	740311	Copper cathodes and sections of cathodes unwrought	264.06	23.63	60.3	0.5	438.2	8.05
2	270112	Bituminous coal, not agglomerated	193.34	17.3	81.7	0	236.55	4.34
3	110710	Malt, not roasted	87.26	7.81	100	27	86.2	1.58
4	760612	Aluminium alloy rectangular plate/sheet/strip, t >0.2mm	77.44	6.93	99.3	3	78.03	1.43
5	740811	Wire of refined copper > 6mm wide	64.07	5.73	99.5	5	64.42	1.18
6	190190	Malt extract & limited cocoa pastry cooks products nes	57.76	5.17	100	5	57.42	1.05
7	260800	Zinc ores and concentrates	33.09	2.96	81.5	1	40.62	0.75
8	300490	Medicaments nes, in dosage	17.1	1.53	50.3	8.13	34.01	0.62
9	220421	Grape wines nes, fortified wine or must, pack < 2l	12.78	1.14	100	41	11.93	0.22
10	40590	Other milk fats and oils	9.98	0.89	97.2	6	10.27	0.19
11	790111	Zinc, not alloyed, unwrought, containing by weight 99.99%/more of zinc	8.74	0.78	91.5	1	9.55	0.18
12	300450	Medicaments containing vitamins/other products of 29.36 (excl. of 3004.10-3004.40), put up in measured doses/forms/packings for RS	8.16	0.73	100	10	8.13	0.15
13	40410	Whey	7.74	0.69	94.8	7.5	8.16	0.15
14	210690	Food preparations, n.e.s.	6.22	0.56	74.6	17.32	8.33	0.15
15	230910	Dog/cat food, put up for RS	6.17	0.55	100	9	6.14	0.11

Table 12.8: Top 15 Preferential Imports from China *(cont.)*

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation	Tariff Margin	Actual Import ($ million)	Trade Share
1	722530	Hot rolled alloy-steel, coils width >600mm, nes	36.59	0.42	9.2	3	398.65	1.08
2	721049	Flat rolled i/nas, coated with zinc, width >600mm, nes	33.42	0.39	13.5	5	247.35	0.67
3	690790	Unglazed ceramic flags, tiles > 7 cm wide	22.12	0.26	13.7	30	161.83	0.44
4	80520	Mandarin, clementine & citrus hybrids, fresh or dried	21	0.24	17.7	25	118.93	0.32
5	722830	Bar/rod, alloy steel nes, nfw hot rolled/drawn/extruded	18.95	0.22	16.3	5	115.99	0.31
6	80810	Apples, fresh	17.04	0.2	17.2	10	99.13	0.27
7	843149	Parts of cranes, work-trucks, shovels, constr machine	16.51	0.19	14.6	5	112.82	0.31
8	292242	Glutamic acid, salts	15.25	0.18	16.8	5.33	90.76	0.25
9	842952	Shovels and excavators with revolving superstructure	10.11	0.12	11.6	5	87.01	0.24
10	853931	Fluorescent lamps, hot cathode	8.08	0.09	10.3	10	78.54	0.21
11	852190	Video recording/repr. apparatus other than magnetic tape-type, whether/not incorporating a video tuner	74.91	0.87	87.6	10	85.55	0.23
12	848180	Taps, cocks, valves & similar appliances for pipes/boiler shells/tanks/vats/the like, incl. thermostatically controlled valves, n.e.s. in 84.81	69.82	0.81	48.6	5.48	143.58	0.39
13	870870	Road wheels & parts & accessories thereof for the motor vehicles of 87.01-87.05	69.18	0.8	85.1	28.18	81.26	0.22
14	590210	Tyre cord fabric of nylon, polyamides	66.88	0.77	91.5	5	73.1	0.2
15	721061	Flat-rolled products of iron/non-alloy steel, of a width of 600mm/more, plated/coated with aluminium-zinc alloys	65.46	0.76	100	5	63.64	0.17

Table 12.9: Top 15 Preferential Imports from Indonesia *(cont.)*

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation	Tariff Margin	Actual Import ($ million)	Trade Share
1	270119	Coal except anthracite or bituminous, not agglomerated	788.09	19.79	99.9	1	789.2	9.76
2	870322	Automobiles, spark ignition engine of 1000–1500 cc	276.51	6.94	98.8	16.67	279.93	3.46
3	870840	Transmissions for motor vehicles	167.63	4.21	78	20.27	214.91	2.66
4	870323	Automobiles, spark ignition engine of 1500–3000 cc	136.18	3.42	100	0.53	135.39	1.67
5	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	92.34	2.32	100	0	92.46	1.14
6	740811	Wire of refined copper > 6mm wide	88.52	2.22	50.3	5	176.15	2.18
7	740311	Copper cathodes and sections of cathodes unwrought	81.24	2.04	43.9	0	185.07	2.29
8	841430	Compressors for refrigerating equipment	79.44	1.99	96.5	0	82.29	1.02
9	840999	Parts for diesel and semi-diesel engines	74.05	1.86	68.5	0	108.18	1.34
10	842952	Shovels and excavators with revolving superstructure	71.74	1.8	99.5	5	72.1	0.89
11	41000	Edible products of animal origin, n.e.s.	68.44	1.72	90.2	30	75.91	0.94
12	870431	Motor vehicles for the transport of goods (excl. of 8704.10), with spark-ignition internal combustion piston engine, g.v.w. not >5 tonnes	65.69	1.65	100	40	65.29	0.81
13	850110	Electric motors of an output not >37.5W	59.65	1.5	93.2	0	63.98	0.79
14	840991	Parts suit. for use solely/principally with spark-ignition internal combustion piston engines	57.55	1.45	44.4	0	129.73	1.6
15	870893	Clutches & parts thereof for the motor vehicles of 87.01–87.05	33.64	0.84	48.3	0	69.58	0.86

Table 12.10: Top 15 Preferential Imports from Japan *(cont.)*

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation	Tariff Margin	Actual Import ($ million)	Trade Share
1	721049	Flat rolled i/nas, coated with zinc, width >600mm, nes	836.97	12.16	76	0	1101.04	2.22
2	870840	Transmissions for motor vehicles	313.46	4.55	17.9	16	1746.57	3.52
3	870210	Diesel-powered buses	294.14	4.27	96.8	0	303.92	0.61
4	720827	Flat rld prod/coils>3mm	274.11	3.98	55.2	0	496.19	1
5	720838	Flat rld prod/coils<3>4.	207.66	3.02	87.8	0	236.55	0.48
6	720839	Flat rld prod/coils>3mm	201.3	2.92	60.4	0	333.41	0.67
7	720826	Flat rld prod/coils>4.75	181.72	2.64	54.2	0	335.08	0.68
8	722830	Bar/rod, alloy steel nes, nfw hot rolled/drawn/extruded	177.94	2.58	88.9	5	200.25	0.4
9	720918	Flat rld prod/coils>.5mm	176.01	2.56	97	0	181.47	0.37
10	870899	Motor vehicle parts nes	159.54	2.32	8	0	1992.28	4.02
11	903289	Automatic regulating/controlling instr. & apparatus, n.e.s. in 90.32	155.62	2.26	26	5.77	598.42	1.21
12	842952	Self-propelled mechanical shovels & excavators with a 360î–‘ revolving superstructure	135.44	1.97	54	5	250.65	0.51
13	381590	Reaction initiators, reaction accelerators & catalytic preparations (excl. of 3815.11–3815.19)	112.66	1.64	35.6	5	316.47	0.64
14	540219	High tenacity yarn other than textured yarn/sewing thread, of nylon/other polyamides (excl. of 5402.11), not put up for retail sale	94.94	1.38	100	5	94.7	0.19
15	842720	Self-propelled works trucks, non-electric	93.07	1.35	69.3	5	134.38	0.27

Table 12.11: Top 15 Preferential Imports from Malaysia *(cont.)*

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation	Tariff Margin	Actual Import ($ million)	Trade Share
1	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	217.94	7.96	*	0	216.65	1.65
2	903289	Automatic regulating/controlling equipment nes	135.48	4.95	63.4	5.77	213.85	1.63
3	390110	Polyethylene - specific gravity <0.94 in primary forms	77.17	2.82	97.6	2	79.04	0.6
4	870323	Automobiles, spark ignition engine of 1500–3000 cc	69.74	2.55	100	0.53	68.15	0.52
5	310210	Urea, including aqueous solution in packs >10 kg	59.64	2.18	30.2	5	197.18	1.5
6	841510	Air conditioners window/wall types, self-contained	56.19	2.05	100	0	55.92	0.43
7	190190	Malt extract & limited cocoa pastry cooks products nes	55.84	2.04	69.9	5	79.91	0.61
8	390330	Acrylonitrile-butadiene-styrene (ABS) copolymers	52.13	1.9	68.9	5	75.71	0.58
9	382370	Industrial fatty alcohol	49.95	1.82	81.9	5	61.02	0.47
10	151620	Veg fats, oils or fractions hydrogenated, esterified	45.52	1.66	98.9	27	46.03	0.35
11	852859	Other monitors, not of a kind solely/principally used in an automatic data processing system of heading 84.71	44.58	1.63	93.8	20	47.52	0.36
12	440799	Lumber, non-coniferous nes	40.12	1.46	26.5	3	151.68	1.16
13	841430	Compressors of a kind used in refrigerating equip.	35.02	1.28	63.6	0	55.03	0.42
14	392010	Plates, sheets, film, foil & strip, of polymers of ethylene, non-cellular & not reinforced, laminated, supported/similarly combined with other materials (excl. self-adhesive)	33.61	1.23	89.6	2.5	37.51	0.29
15	210112	Preparations with a basis of extracts/essences/concentrates of coffee/with a basis of coffee	31.45	1.15	100	40	31.45	0.24

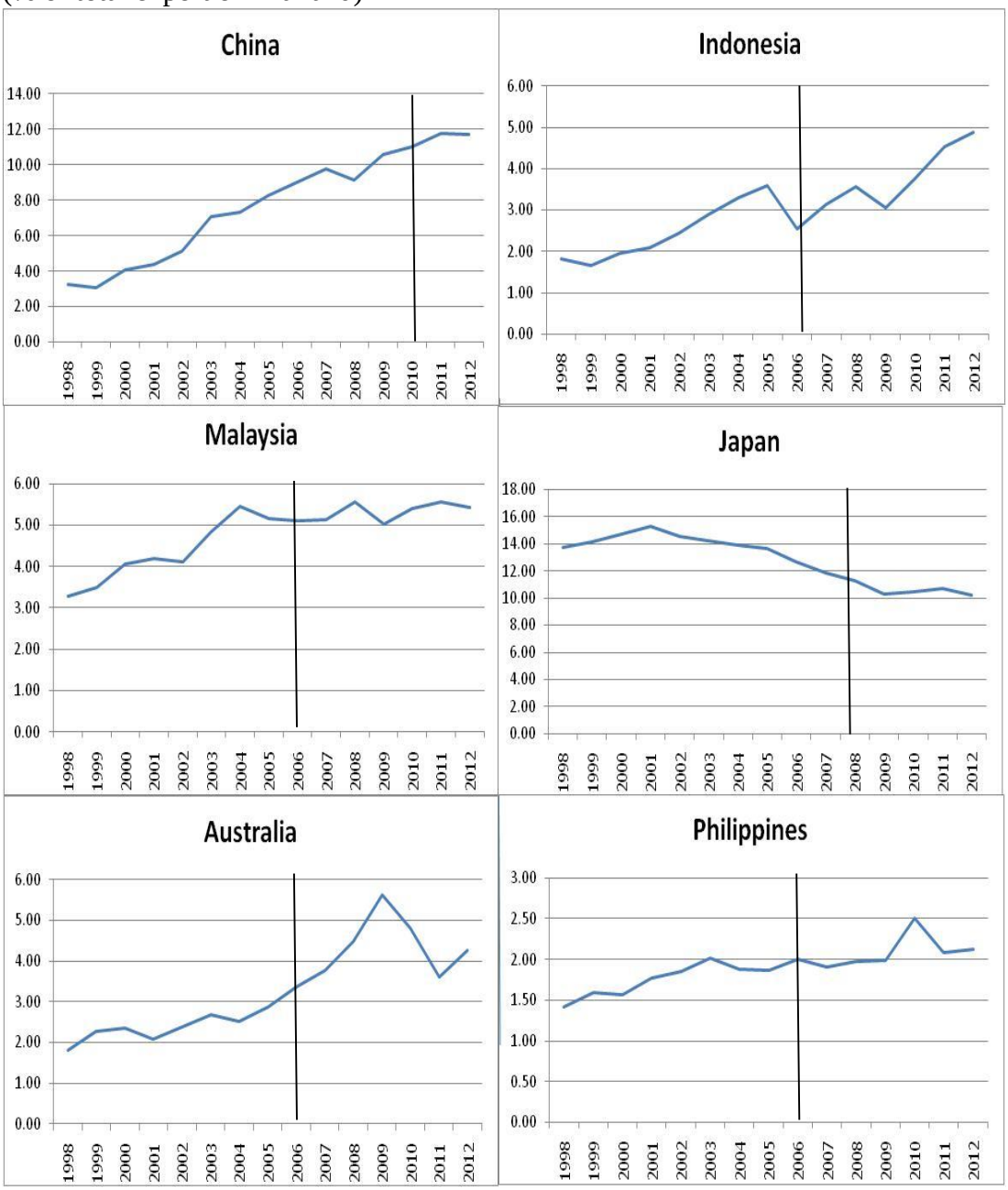
Table 12.12: Top 15 Preferential Imports from Korea *(cont.)*

No	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation	Tariff Margin	Actual Import ($ million)	Trade Share
1	722530	Hot rolled alloy-steel, coils width >600mm, nes	216.25	20.66	100	3	211.81	2.36
2	271019	Petroleum oils & oils obtained from bituminous minerals (other than crude) & preparations not elsewhere specified/incl., containing by weight 70 %/more of petroleum oils/of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, other than waste oils & light oils & preparations	143.01	13.66	82.5	7.69	173.33	1.93
3	842952	Shovels and excavators with revolving superstructure	79.57	7.6	99.2	5	80.22	0.89
4	400219	Styrene-butadiene rubber (SBR/XSBR) except latex	69.17	6.61	35.6	5	194.17	2.16
5	400220	Butadiene rubber (BR)	52.36	5	85.5	5	61.21	0.68
6	390330	Acrylonitrile-butadiene-styrene (ABS) copolymers	46.46	4.44	61.2	5	75.94	0.85
7	722830	Bar/rod, alloy steel nes, nfw hot rolled/drawn/extruded	42.99	4.11	92.6	5	46.45	0.52
8	590220	Tyre cord fabric of polyester	41.92	4.01	75.2	5	55.75	0.62
9	870829	Parts and accessories of bodies nes for motor vehicles	31.56	3.02	25.3	27.78	124.78	1.39
10	848071	Moulds, injection & compression, for rubber or plastic	28.51	2.72	45.8	5	62.28	0.69
11	870899	Other parts & accessories for the motor vehicles of 87.01–87.05, excl. 8708.91/92/93/94/95.	27.12	2.59	41.5	0	65.36	0.73
12	903289	Automatic regulating/controlling instr. & apparatus, n.e.s. in 90.32	26.33	2.52	*	5.77	14.62	0.16
13	842952	Self-propelled mechanical shovels & excavators with a 360î–‘ revolving superstructure	19.71	1.88	24.6	5	80.22	0.89
14	381590	Reaction initiators, reaction accelerators & catalytic preparations (excl. of 3815.11–3815.19)	19.66	1.88	*	5	0.92	0.01
15	540219	High tenacity yarn other than textured yarn/sewing thread, of nylon/other polyamides (excl. of 5402.11), not put up for retail sale	18.81	1.8	*	5	1.34	0.01

Sources: Authors' calculation from official data: preferential export from the Bureau of Preferential Trade, Ministry of Commerce, preferential import from the Customs Department, Ministry of Commerce; Tariff data from Thailand FTA website and World Trade Organization tariff database; trade data from UN Comtrade.

Figure 3: Export Performance of Thailand vis-a-vis Major FTA Partners between Pre- and Post-signing of FTAs

(% of total export of Thailand)



Source: UN Comtrade database.

On the import side, the degree of product concentration was higher for ASEAN but lower for the other partners. For AEC, the top 10 and top 15 product imports of Thailand from other ASEAN members through the AEC scheme in 2012 were 33.4 and 38.9 percent, respectively. When only original ASEAN members were concerned, the corresponding shares were even higher—35.1 and 41.8 percent, respectively.

When individual ASEAN members are concerned, Indonesia, Malaysia and Cambodia registered a relatively low level of product concentration. In 2012, the cumulative shares of the top 10 products were 53.3, 32.7, and 53.1 percent for Indonesia, Malaysia, and Cambodia, respectively. The cumulative shares slightly increased to 62.5, 40.0, and 53.6 percent when the top 15 preferential imports were concerned. For other ASEAN members, the cumulative share of the top 10 preferential imports exceeded 60 percent in 2012. The share of the top 20 preferential imports was 70 percent or more.

Product detail in the top 15 preferential imports varies across partners. The most important product among the top 15 was coal, accounting for 22.4 percent of the total preferential imports of Thailand from Indonesia in 2012. The others are CBU vehicles, certain auto parts, shovels, and excavators. The structure of the top 15 preferential imports of Thailand from Malaysia was much more diversified compared to that of Indonesia. They include electronics (other colour reception apparatus for television, automatic controlling equipment); petrochemical products; CBU vehicles; air-conditioning units; foods; lumber; plastic products; etc. In the Philippines, auto parts and transmissions for motor vehicles as well as CBU vehicles were among the top 15 preferential imports.

Despite the observed high degree of product diversification, preferential imports from Cambodia to Thailand were dominated by garment products (HS 61 and 62) and primary agricultural products such as cassava, maize, and sesame seeds. The latter is supposed to be traded at the border. Viet Nam's preferential imports covered a wide range of products—from primary agricultural products (such as coffee, cuttlefish, cashew nuts, and wheat) to steel, textiles, and motorcycles. The high product concentration found in the cases of Myanmar and Lao PDR was driven by the import of copper cathodes which accounted for 39 and 79 percent of total preferential imports with Thailand, respectively.

For non-ASEAN members, the degree of product concentration also varied. It was highly concentrated for those of Australia and New Zealand where the cumulative shares of the top 10 preferential imports were 71.6 and 80.2 percent, respectively. The cumulative shares of their top 15 slightly increased to 75.1 and 86.1 percent, respectively. The former was dominated by primary products such as copper, bituminous, aluminium, and zinc. In the latter, milk and cream powder alone accounted for 34.1 percent of total preferential imports between the two countries.

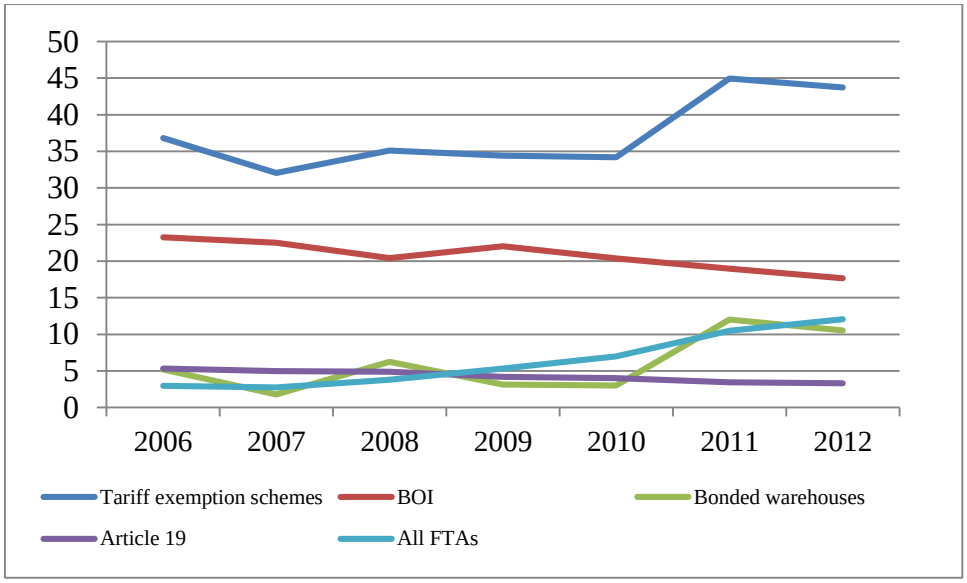
Similar to Viet Nam, the preferential import of Thailand from China covered a wide range of products—from fresh fruits (mandarin oranges, apples) to steel, textiles, electrical appliances (DVD players), and auto parts. Despite the relatively low product concentration, preferential imports from Japan to Thailand were dominated by two main product groups—steel (HS 72) mainly used in the automotive sector and auto parts. Preferential imports from Korea were the most highly concentrated, dominated by steel, petroleum products, petrochemical products, textiles, and auto parts.

Analysis of the top 15 preferential imports of Thailand from major FTA partners suggests that the nature of preferential imports is fresh agricultural products and raw materials/intermediates for further uses. The former is usually traded across borders due to their perishable nature so that business transaction tends to be small and perhaps seasonal. This would infer to the limited impact of FTAs on the overall bilateral trade. The latter is mainly primary manufactured intermediates such as chemical and mining products. For both product groups, the RoO is unlikely to be a significant barrier in using FTA preferential import schemes.

Interestingly, the relative importance of raw materials/intermediates in preferential import would explain to a certain extent why the utilisation rate on the import side is generally lower than that on the export side. Raw materials/intermediates are the ones eligible for tariff exemption schemes which have been long available for export business. Hence, firms have many options to bypass tariffs in addition to applying for FTA preferential trade schemes. This is different from preferential exports from Thailand which are largely finished products for direct consumption. Figure 4 illustrates the shares of total tariff exemption scheme as well as its three compositions (i.e. Board of Investment- BOI, bonded warehouses, and Article 19 tax rebates) to total imports, together with the share of preferential imports to total imports from 2006 to

2012. While the share of preferential imports increased steadily, the share of total tariff exemption schemes grew at a faster rate with composition changes. The relative importance of the BOI scheme has become less since 2006 and was replaced by the bonded warehouse scheme.

Figure 4: Relative Importance of Tariff Exemption Schemes in Thailand between 2006 and 2012



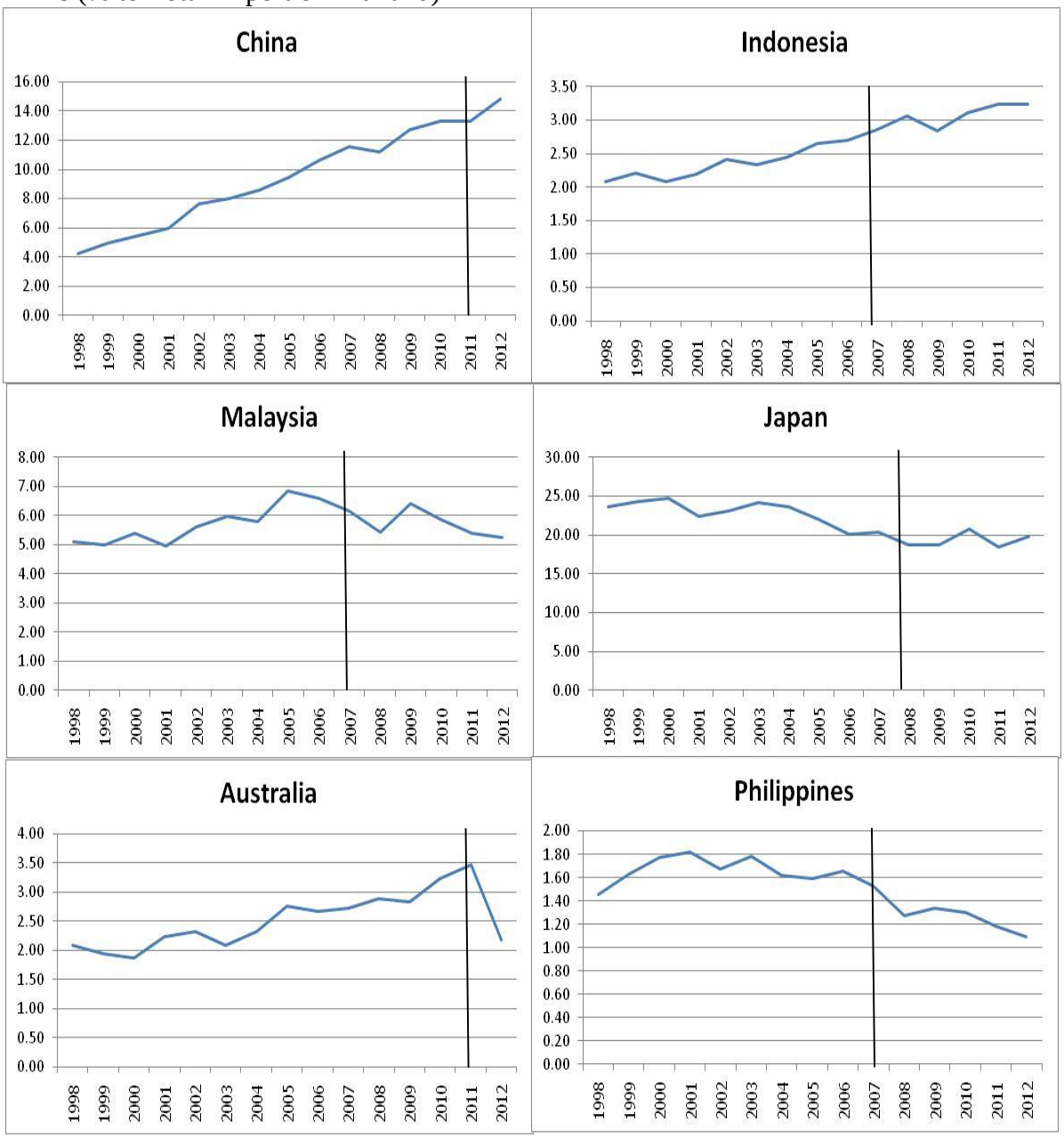
Source: Authors' calculation from data from the Customs Department, Ministry of Commerce.

As revealed in Table 12, these top 15 preferential imports from major FTA partners exhibited a relatively high tariff margin. This finding confirms our earlier finding based on preferential export analysis that complying with the RoO is costly. As mentioned above, the utilisation rate was high and a type I error is rare on the import side.

Interestingly, in most FTA partners, the cumulative share of the top 15 preferential imports was much larger than that calculated from actual import share, indicating the limited role of FTAs on overall import. The only exception would be China whose cumulative share of the top 15 preferential imports was slightly higher than that from actual import share. This reflects the nature of preferential imports that were largely border trade as well as handled by small and micro enterprises.

Figure 5 shows the import share of major FTA partners vis-a-vis Thailand's total imports to illustrate the effect of FTAs on bilateral import. As shown in Figure 5, there was no any major change between pre- and post-signing FTAs. In many cases, import shares declined. This confirms the finding on the export side on the limited effect of FTA on overall trade.

Figure 5: Import Share of Major FTA Partners between Pre-and Post-signing of FTAs (% to Total Import of Thailand)



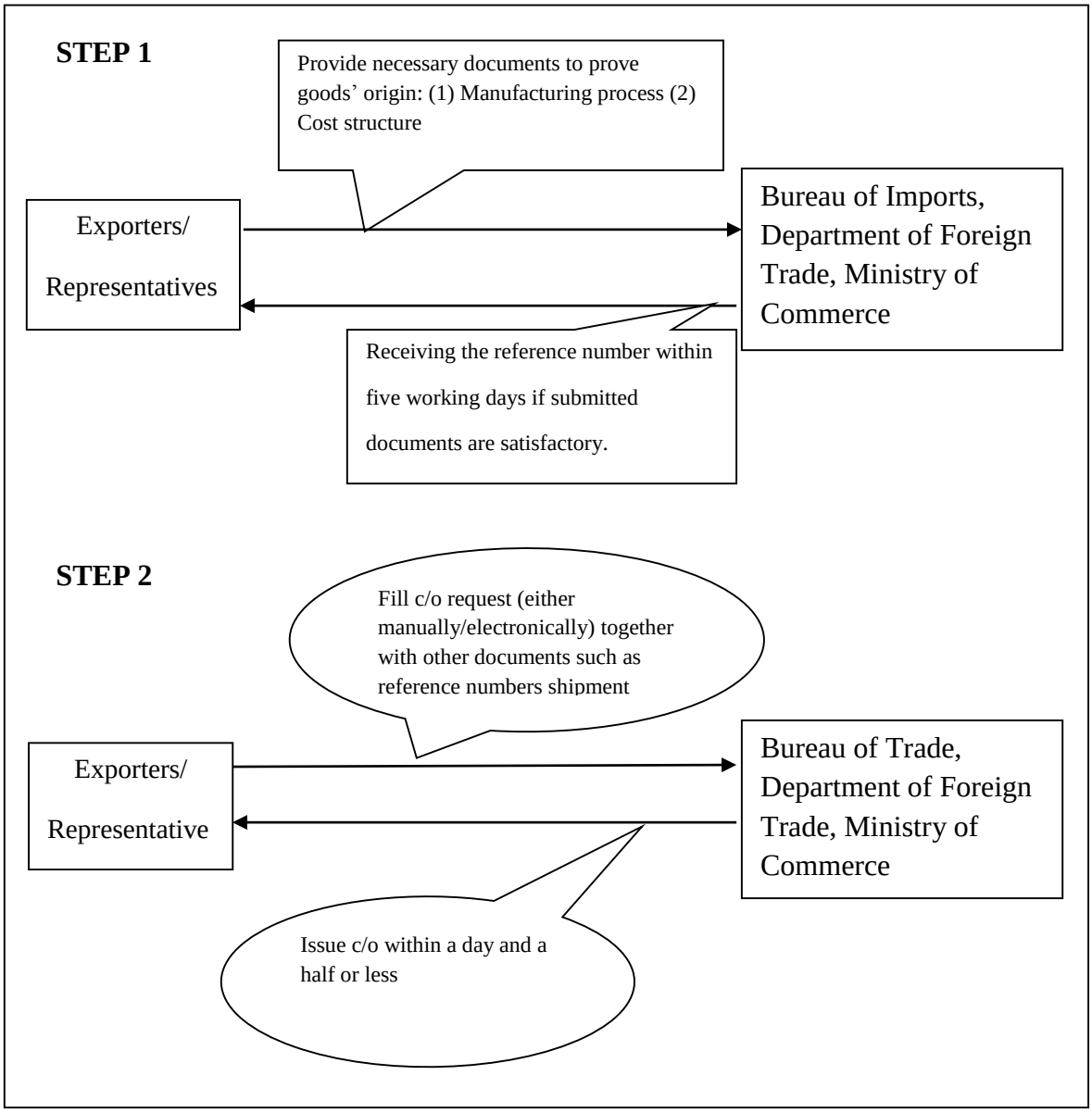
6. Problems Occurring When Using FTAs from a Business Viewpoint

To reveal problems occurring when using FTAs from a business viewpoint, this study examines the whole process for firms to obtain a (c/o) as summarized in Figure 6. To gain better understanding, interviews with eight samples who experienced obtaining a c/o were also conducted in September 2013. These comprised three private firms, a shipping agency, and four government officials. The interview's main purpose is to supplement other analyses in this report instead of it being a core methodology.

In general, firms need to follow two major steps to obtain rights to be eligible for FTA tariff privileges (Figure 6). Step 1 entails providing documents to ensure that the firm's products comply with the RoO and are eligible for FTA tariff privileges. Step 2 involves documentation procedures to obtain a c/o.

To comply with step 1, firms must know their corresponding HS as well as their required RoO. The level of disaggregation of HS classification to be identified can vary from an FTA to another. In some cases, firms must identify 10 digits (e.g., export to Viet Nam through AFTA) whereas in others a 6-digit code is adequate. Firms must also submit documents to convince government officials in the Bureau of Preferential Trade, Ministry of Commerce whether their products comply with the RoO of an FTA. The submitted documents must provide details of the production process—i.e., how goods are manufactured and what their cost structure is—which are generally compulsory, regardless of the type of RoO given to a product. In particular, even when the RoO imposed entails a change in tariff heading type, firms must declare the whole production process and cost structures.

Figure 6: Flow Chart for Firms to Be Granted a Certificate of Origin



Source: Developed by authors.

When the submitted documents are satisfactorily filled up, a reference number for a product in consideration will be issued. The reference number is a prerequisite for applying for a c/o. The reference number can be used for two years for a given FTA. When trade partners change, a new number is required. In case the input structure will

have changes during the two-year period, whether a new reference number is required is subject to officials' judgment (i.e., policy discretion).[11]

When the documents are rejected because the products cannot satisfactorily comply with the RoO, either requests for a reference number are declined or additional information is requested. This often occurs for products that are relatively new to the officials because of their limited knowledge about the production process.

First-time applicants will usually go back and forth to obtain the reference number. Sometimes, additional information is requested. This would incur fixed costs to firms and supports the finding that large firms are more likely to apply FTA preferential trade schemes. In addition, firms experienced in dealing with government officials are also likely to apply. For those with limited exporting experience , and relatively small in size, this could be costly and become barriers to use.

Firms can obtain a c/o from four offices in Bangkok: Chiang Mai and Chiang Rai in the northern part; Hat Yao in the southern part; Chonburi in the eastern part; and Sa Kaew and Nong Kai in the northeastern area.

In addition, four problems arise from a business point of view. First, the main burden to firms is providing detailed information of the production process in step 1 in order to obtain the reference number. While this government procedure incurs direct cost, it does not seem to be a major concern.[12] Revealing detailed information can be sensitive to firms in some industries which treat this information part of their business secret and, hence, are reluctant to share. Such information must be prepared by firms themselves regardless of whether they outsource the documentation process.

Firms in the automotive sector, which have long experienced sharing the production process with government officials to comply with the local content requirement scheme, consider this usual business. All other things being equal, firms in the auto industry are likely to apply for FTA tariff privileges. On the other hand, details of the production process are highly sensitive for some businesses, such as for chemical compounds where input compositions do matter for business competition.

[11] The government officials also undertake post-auditing to prevent any false information provided by firms.

[12] For the first time where firms must undertake Steps 1 and 2, dollar cost estimates are 1,500–2,000 baht ($50–75) per FTA and subsequently drop to 300–500 baht ($10–17) per FTA. It is regardless of the shipment's dollar value. While many documents need to be filled out, inexperienced firms can easily outsource the tasks to the shipping agent without excessive cost.

This would explain the high product concentration nature found in preferential trade patterns as discussed above.

This also would be a big obstacle for others and SMEs. Although their production process is straightforward, sharing such information might be new to them. To a certain extent, this would also be related to issues of income tax bases, i.e., some firms underreport their true income to pay less corporate tax.

Second, the process in obtaining a reference number is rather cumbersome. As noted above, a given reference number is for a product (e.g., HS 6 digits) and applicable for only a given FTA. For firms whose production technology is mature and the input structure is stable, there would be no problem. Applying in another FTA would be costless. This is applicable for products that have their own niche market .

But for those whose production technology is subject to rapid change and the input structure evolves over time, such a process could be costly. In addition, new products require separate documents of good origin as proof. How to define the new products is still subject to discretion. For example, when there are changes in input structure, would it be regarded as a new product? If so, firms must resubmit all required documents.

Third, firms would find it difficult to identify the HS code at the very disaggregate level, e.g., HS 6 digits. The difficulty becomes more serious for firms with limited experience on international trade and/or new products. The problem becomes even more severe because of the fast changes in HS versions (from 2002 to 2007 and now 2012). The analysis in the previous section also points to the problem, i.e., type I error. Mismatching could cause delays in port clearance.

Finally, there is no guarantee that the c/o issued by the exporting country's government would be fully recognized by customs officials in the importing FTA counterparts. In some cases, the customs officials of the FTA counterpart might request for additional information to ensure that products comply with the RoO. This would make firms reluctant to share information, especially the local-content RoO type, and be further burdened of documentation.

7. The Impact on Trade and Investment Policy Reform to Enhance FTA Utilisation

Between 2001 and 2006 FTAs became the centrepiece of Thai trade policy. Until May 2011, FTAs returned to the core of trade and investment policy reform. There is no unilateral policy effort in trade and investment policy reform (WTO, 2011). As argued in Sally (2007), from 2001 to 2006, the key motivation for Thailand to jump into the FTA race was related to foreign policy aspirations. Thailand wanted to show that it can be up there with Singapore and others in negotiating with 'big beasts' like the US, Japan, China, and India. It also wants to strengthen political alliances as well as commercial relations with these and other countries. As a result, the impulse for FTAs came from the Prime Minister's Office and the Ministry of Foreign Affairs, not the Ministry of Commerce. Nonetheless, FTA making was also associated with economic purposes using FTAs to secure preferential market access to established and potential markets.

As revealed in the interview with government officials, many FTA initiatives were initiated by Prime Minister and/or ministers. Between 2001 and 2006, Prime Minister Thaksin Shinawatra clearly pursued the Agree First, Talk After (AFTA) strategy. To a certain extent, Prime Minister Yingluck followed suit as reflected in Thailand's move to participate in the TPP during the official visit by the US President in November 2012. Decision was made amidst ongoing debate of net gain to Thailand in participating in the TPP.[13]

This was done regardless of the capacity constraints of government officials. This has severely stretched Thai negotiating resources as well as utilising the potential of FTAs. As all government officials pointed out during the interviews, the most severe resource constraint is manpower. The number of staff involved in FTA negotiation and implementation remains more or less unchanged. As the number of FTA negotiations increases, a government official must handle more than one FTA. It is not surprising that ministers and officials have gone into negotiations without adequately informed positions. Hence, the government's impulse response is to pursue a mercantilist FTA

[13] As reflected in the Office of Industrial Economics Forum on August 6, 2013, there was disagreement among industry representatives.

negotiation, i.e. open up the market of FTA partners, and be reluctant to offer tariff cuts. Tariff cuts occur when private sector representatives agree that there is no local production. Particularly, the government seeks export market access in a narrow range of sectors for which it may be willing to concede access to the Thai market while defending the status quo of domestic protection. There has not been any major reform in trade and investment policy whose main purpose is to enhance the country's overall competitiveness.

8. Conclusions and Policy Recommendations

This paper examines the use of FTAs where official records of preferential trade (both export and import) of Thai firms are examined, together with other primary and secondary relevant information. Our prime purpose is to gain a better understanding of how FTA preferential trade schemes have been used so far as well as identify obstacles and/or constraints that might occur to firms using the scheme. Such understanding is also a crucial input for the ongoing negotiation of the RCEP. We are fully aware that the focus of FTA negotiations in recent years is widened to include many issues beyond tariff reduction such as technical barriers to trade, investment agreement, etc. Nonetheless, in the context of developing countries, these non-tariff-related issues remain at the initial stage and is too early to draw any sensible inference given the information available now. Therefore, analysis in this paper solely focuses on the impact of FTA preferential tariff on trade.

The key finding is that while c/o records significantly increased over the period in consideration, their value remained less than one-third of total trade. AFTA and its successor, the AEC, accounted for the largest share. Nonetheless, the relative importance of ASEAN was declining noticeably due to the faster growth of Japan and China. Additional FTAs on the existing one have not been much utilised. Firms prefer to apply preferential trade through TAFTA, TNZFTA, and JTEPA to AANZFTA and ASEAN–Japan FTAs.

Products often traded under an FTA preferential trade scheme are highly concentrated in a few product categories. On the export side (Thailand exports to FTA

partners), automotive (both vehicles and auto parts), electrical appliances, petrochemical products, and processed foods are the top products. Firms in these sectors are generally large in size and their products have a high level of local content. By contrast, preferential imports of Thailand from FTA partners are usually perishable/unprocessed agricultural products and basic manufacturing intermediates. Preferential trade of such products is unlikely to be constrained by any forms of RoO. In addition, the relative importance of raw materials/intermediates found in the top 15 items of preferential imports would explain to a certain extent why the utilisation rate on the import side is generally lower than that on the export side. It is raw materials/intermediates that are eligible for tariff exemption schemes which have been long available for export business so that business persons have many options to bypass tariffs in addition to applying for FTA preferential trade schemes.

Another interesting evidence found in both export and import analysis is that the top 15 items usually record a high tariff margin, a gap between MFN and FTA preferential tariff rate. This indicates the presence of costs incurred by firms when applying for a c/o. The procedure for obtaining a c/o is rather long and cumbersome for newcomers in the international trade business. In many cases, requests to declare detailed information on the production process discourage firms to use FTAs. In addition, other problems also discourage firms to use FTAs; these include policy discretion occurring in many steps of obtaining a c/o, difficulty in identifying the HS code at the very disaggregate level, and uncertainty that the c/o issued by the exporting countries' government would be fully recognized by customs officials in the importing FTA counterparts.

At least two policy inferences are drawn from this study. First, the low utilisation of FTAs suggests that bilateral trade taking place still largely determined by resource-endowment-based comparative advantage. Signing FTAs could not be used as a mercantilism style policy tool kit to maximize net export earnings. Instead, FTAs could be used as a gradual step in resuming unfinished business in trade and investment policy reform while the prospect of WTO negotiation progress remains bleak. It should be followed by unilateral trade and investment policy reform.

Second, how FTAs are designed matters tremendously for its net impact to trade among members. Our study points to the RoO and their related administrative

procedures where policy makers should pay attention. In principle, the RoO should be designed to facilitate trade as much as possible. There are at least four examples of specific measures to be done. First, harmonizing the rules across FTAs should be continued. The evidence that an incremental effect of adding other FTAs (AANZFTA over and above TAFTA) provides a strong support for harmonizing the rules. It is costly for firms to comply with new rules even if the export destination remains unchanged.

The second example is to introduce a flexibility in complying with the RoO. This can be done by introducing co-equal and cumulative rules. These are very important for region-wide FTAs like RCEP where firms in each member country can mutually benefit from FTAs amidst the growing importance of global production networks.

The third example is related to the burden of documentation required to obtain c/o records. While there have been efforts to ease the burden in related administrative procedures such as self-certification, applying for a c/o online and declaring detailed information on the production process remain to be major barriers. It is arguable that declaring such information might not be harmful to business but it would take time to convince firms and SMEs, in particular, to believe. It would be better to have common knowledge about the production process of many products for government officials to use in issuing a c/o instead of relying on information from firms themselves.

The fourth example of measures is to introduce RoO free items. Our study finds that firms will use FTAs depending on whether the tariff margin is large enough to cover incurred fixed costs in applying the preferential trade scheme. In some product lines where MFN tariff rates are already low but not zero, i.e., tariff margin is not zero, member countries will less likely experience trade deflection from non-member ones. Introducing a measure such as RoO free items would encourage firms to use more FTAs. This would encourage more firms to use FTAs. In practice, the MFN tariff rate can be used as a criterion to identify RoO free items, e.g., products whose MFN tariff is less than or equal to five percent. It can take place in a format of auto-c/o issuing system as well as post audit system. This does not only cut administrative procedures but also lower negotiation burden. In the latter, RoO negotiation should be concentrated on sensitive products only.

Appendix 1: Top 15 Preferential Trade between Thailand and Major FTA Partners in 2012

Top 15 Preferential Exports to AEC Member Countries

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	870332	Vehicles principally designed for the transport of persons (excl. of 87.02 & 8703.10-8703.24), with C-I internal combustion piston engine (diesel/semi-diesel), of a cylinder capacity >1500cc but not >2500cc	768.1	5.1	98.7
2	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	729.2	4.9	54.7
3	842952	Self-propelled mechanical shovels & excavators with a 360˚–'revolving superstructure'	518.9	3.5	83.7
4	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	422.9	2.8	33.5
5	841510	Window/wall type air-conditioning machines, self-contained/split system, comprising a motor-driven fan & elements for changing the temperature & humidity, including those machines in which the humidity cannot be separately regulated	410.4	2.8	77.4
6	110814	Manioc (cassava) starch	368.3	2.5	83.3
7	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	297.0	2.0	45.3
8	870899	Other parts & accessories for the motor vehicles of 87.01-87.05, excluding 8708.91/92/93/94/95.	266.7	1.8	26.5
9	210690	Food preparations, n.e.s.	230.5	1.5	75.5
10	840820	Compression-ignition internal combustion piston engines (diesel/semi-diesel engines) of a kind used for the propulsion of vehicles of Ch.87	219.5	1.5	66.3
11	845011	Household/laundry-type washing machines (including both wash and dry machines), each of a dry linen capacity not >10kg, fully auto.	216.7	1.5	*
12	271019	Petroleum oils & oils obtained from bituminous minerals (other than crude) & preparations not elsewhere specified/incl., containing by weight 70 %/more of petroleum oils/of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, other than waste oils & light oils & preparations	211.1	1.4	3.0
13	870829	Parts & accessories of bodies (incl. cabs) of the motor vehicles of 87.01-87.05, n.e.s. in 87.08	197.4	1.3	71.9
14	390210	Polypropylene, in primary forms	193.8	1.3	66.0
15	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	182.7	1.2	60.4

Top 15 Preferential Exports to Original AEC Member Countries.

No	HS	HS Description	Preferential Export Value ($ millionn)	% Total Preferential Export Value	% Utilisation
1	870332	Vehicles principally designed for the transport of persons (excl. of 87.02 & 8703.10-8703.24), with C-I internal combustion piston engine (diesel/semi-diesel), of a cylinder capacity >1500cc but not >2500cc	767.8	6.5	100.0
2	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	680.4	5.8	64.0
3	842952	Self-propelled mechanical shovels & excavators with a 360î–‘ revolving superstructure	518.9	4.4	98.7
4	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	421.6	3.6	33.9
5	110814	Manioc (cassava) starch	368.2	3.1	83.3
6	841510	Window/wall type air-conditioning machines, self-contained/split system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	324.9	2.8	80.1
7	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	294.3	2.5	47.0
8	870899	Other parts & accessories for the motor vehicles of 87.01-87.05, excl. 8708.91/92/93/94/95.	258.2	2.2	28.7
9	840820	Compression-ignition internal combustion piston engines (diesel/semi-diesel engines) of a kind used for the propulsion of vehicles of Ch.87	212.3	1.8	67.4
10	271019	Petroleum oils & oils obtained from bituminous minerals (other than crude) & preparations not elsewhere specified/incl., containing by weight 70 %/more of petroleum oils/of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, other than waste oils & light oils & preparations	211.0	1.8	4.2
11	210690	Food preparations, n.e.s.	203.8	1.7	100.0
12	870829	Parts & accessories of bodies (incl. cabs) of the motor vehicles of 87.01-87.05, n.e.s. in 87.08	189.1	1.6	72.4
13	390210	Polypropylene, in primary forms	185.0	1.6	79.7
14	840734	Spark ignition reciprocating piston engines of a kind used for the propulsion of vehicles of Ch.87, of a cylinder capacity >1000cc	173.1	1.5	78.9
15	330510	Shampoos	157.8	1.3	66.7

Top 15 Preferential Exports to New AEC Member Countries

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	291736	Terephthalic acid & its salts	112.4	3.5	99.2
2	390760	Poly(ethylene terephthalate), in primary forms	89.8	2.8	95.4
3	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	85.5	2.7	68.6
4	220290	Non-alcoholic beverages other than waters of 2202.10 (not incl. fruit/vegetable juices of 20.09)	80.2	2.5	19.5
5	845011	Household/laundry-type washing machines (incl. machines which both wash & dry), each of a dry linen capacity not >10kg, fully auto.	79.1	2.5	*
6	170199	Cane/beet sugar & chemically pure sucrose, in solid form, not containing added flavouring/colouring matter	77.8	2.5	24.3
7	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	70.9	2.2	47.1
8	871419	Parts & accessories of motorcycles (incl. mopeds), other than saddles	62.0	2.0	32.0
9	841821	Refrigerators, h-hold. type, compression-type, electric/other	61.6	1.9	86.2
10	841810	Combined refrigerator-freezers, fitted with separate external doors, electric/other	59.8	1.9	71.9
11	840991	Parts suit, for use solely/principally with spark-ignition internal combustion piston engines	51.0	1.6	35.0
12	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	48.8	1.5	18.1
13	190110	Preparations for infant use, put up for RS	47.4	1.5	100.0
14	441114	Medium density of fibreboard of wood/other ligneous materials, whether/not bonded with resins/other organic substances, of a thkns >9mm	47.3	1.5	*
15	252329	Portland cement (excl. white cement, whether/not artificially coloured), whether/not coloured	46.9	1.5	13.7

Top 15 Preferential Exports to Brunei Darussalam

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	854460	Electric conductors (excl. of 8544.11–8544.30), for a voltage >1000V	4.8	18.6	100.0
2	400510	Compounded (carbon black, silica) unvulcanised rubber	2.2	8.6	n.a.
3	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	1.8	6.9	95.1
4	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	1.7	6.5	*
5	401110	New pneumatic tyres, of rubber, of a kind used on motor cars (incl. station wagons & racing cars)	1.6	6.2	100.0
6	850423	Liquid dielectric transformers having a power handling capacity >10000kVA	1.0	3.9	*
7	850422	Liquid dielectric transformers having a power handling capacity >650kVA but not >10000kVA	1.0	3.8	100.0
8	283531	Sodium triphosphate (sodium tripolyphosphate)	0.6	2.4	n.a.
9	850720	Electric accumulators, incl. separators therefor, whether/not rectangular (incl. square), lead-acid (excl. of 8507.10)	0.6	2.4	87.3
10	850421	Liquid dielectric transformers having a power handling capacity not >650kVA	0.6	2.2	70.2
11	390210	Polypropylene, in primary forms	0.5	1.8	n.a.
12	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	0.5	1.8	42.0
13	850490	Parts of the machines of 85.04	0.4	1.6	*
14	200980	Juice of any single fruit/vegetable (excl. of 2009.11-2009.79), unfermented & not containing added spirit, whether/not containing added sugar/other sweetening matter	0.4	1.6	67.0
15	271019	Petroleum oils & oils obtained from bituminous minerals (other than crude) & preparations not elsewhere specified/incl. containing by weight 70 %/more of petroleum oils/of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, other than waste oils & light oils & preparations	0.4	1.6	77.4

Top 15 Preferential Exports to Indonesia

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	842952	Self-propelled mechanical shovels & excavators with a 360î–‘ revolving superstructure	416.3	6.9	100.0
2	870332	Vehicles principally designed for the transport of persons (excl. of 87.02 & 8703.10-8703.24), with C-I internal combustion piston engine (diesel/semi-diesel), of a cylinder capacity >1500cc but not >2500cc	389.7	6.4	100.0
3	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	317.2	5.2	34.9
4	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	302.6	5.0	71.3
5	110814	Manioc (cassava) starch	290.4	4.8	100.0
6	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	260.1	4.3	100.0
7	870899	Other parts & accessories for the motor vehicles of 87.01-87.05, excl. 8708.91/92/93/94/95.	188.9	3.1	45.6
8	840820	Compression-ignition internal combustion piston engines (diesel/semi-diesel engines) of a kind used for the propulsion of vehicles of Ch.87	157.0	2.6	99.6
9	390210	Polypropylene, in primary forms	151.1	2.5	83.9
10	330510	Shampoos	115.7	1.9	100.0
11	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	115.1	1.9	49.2
12	871120	Motorcycles (incl. mopeds) & cycles fitted with an auxiliary motor, with/without side-cars, with reciprocating internal combustion piston engine of a cylinder capacity >50cc but not >250cc	89.4	1.5	76.7
13	840734	Spark ignition reciprocating piston engines of a kind used for the propulsion of vehicles of Ch.87, of a cylinder capacity >1000cc	73.1	1.2	85.4
14	870829	Parts & accessories of bodies (incl. cabs) of the motor vehicles of 87.01-87.05, n.e.s. in 87.08	71.5	1.2	45.3
15	845011	Household/laundry-type washing machines (incl. both wash & dry machines), each of a dry linen capacity not >10kg, fully auto.	68.1	**1.1**	*****

Top 15 Preferential Exports to Malaysia

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	250.6	8.7	64.9
2	870829	Parts & accessories of bodies (incl. cabs) of the motor vehicles of 87.01-87.05, n.e.s. in 87.08	106.6	3.7	100.0
3	840734	Spark ignition reciprocating piston engines of a kind used for the propulsion of vehicles of Ch.87, of a cylinder capacity >1000cc	94.1	3.3	75.5
4	401110	New pneumatic tyres, of rubber, of a kind used on motor cars (incl. station wagons & racing cars)	87.0	3.0	98.6
5	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	75.5	2.6	41.4
6	842952	Self-propelled mechanical shovels & excavators with a 360 degree revolving superstructure	73.5	2.6	99.6
7	441011	Particle board of wood, whether/not agglomerated with resins/other organic binding substances	61.1	2.1	100.0
8	721632	Iron and steel // Angles, shapes and sections of iron or non-alloy steel. // - U, I or H sections, not further worked than hot-rolled, hot-drawn or extruded of a height of 80 mm or more : // -- I sections	59.0	2.1	86.8
9	870899	Other parts & accessories for the motor vehicles of 87.01-87.05, excl. 8708.91/92/93/94/95.	57.9	2.0	14.9
10	845011	Household/laundry-type washing machines (incl. machines which both wash & dry), each of a dry linen capacity not >10kg, fully auto.	54.0	1.9	*
11	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	52.1	1.8	83.8
12	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	48.0	1.7	20.8
13	220290	Non-alcoholic beverages other than waters of 2202.10 (not incl. fruit/vegetable juices of 20.09)	44.6	1.6	94.7
14	841821	Refrigerators, h-hold. type, compression-type, electric/other	43.2	1.5	94.7
15	390190	Polymers of ethylene, in primary forms (excl. of 3901.10–3901.30)	42.9	1.5	76.1

Top 15 Preferential Exports to the Philippines

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	870332	Vehicles principally designed for the transport of persons (excl. of 87.02 & 8703.10-8703.24), with C-I internal combustion piston engine (diesel/semi-diesel), of a cylinder capacity >1500cc but not >2500cc	342.6	14.5	100.0
2	210690	Food preparations, n.e.s.	156.4	6.6	100.0
3	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	127.2	5.4	57.3
4	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	103.7	4.4	61.5
5	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	71.0	3.0	*
6	220710	Undenatured ethyl alcohol > 80% by volume	64.8	2.7	63.6
7	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	56.5	2.4	87.7
8	210390	Sauces & preparations therefor, n.e.s.; mixed condiments & mixed seasonings, n.e.s.	44.1	1.9	95.6
9	330510	Shampoos	41.8	1.8	83.6
10	841810	Combined refrigerator-freezers, fitted with separate external doors, electric/other	41.3	1.8	*
11	840820	Compression-ignition internal combustion piston engines (diesel/semi-diesel engines) of a kind used for the propulsion of vehicles of Ch.87	41.2	1.7	90.8
12	871120	Motorcycles (incl. mopeds) & cycles fitted with an auxiliary motor, with/without side-cars, with reciprocating internal combustion piston engine of a cylinder capacity >50cc but not >250cc	36.9	1.6	100.0
13	330610	Dentifrices, in individual retail packages	36.8	1.6	94.0
14	842952	Self-propelled mechanical shovels & excavators with a 360 degree revolving superstructure	29.0	1.2	95.3
15	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	27.7	1.2	63.5

Top 15 Preferential Exports to Singapore

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	271019	Petroleum oils & oils obtained from bituminous minerals (other than crude) & preparations not elsewhere specified/incl., containing by weight 70 %/more of petroleum oils/of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, other than waste oils & light oils & preparations	138.3	32.0	5.2
2	853620	Automatic circuit breakers, for a voltage not >1000V	24.7	5.7	65.2
3	721633	Angles, shapes & sections of iron/non-alloy steel, H sections, not further worked than hot-rolled/hot-drawn/extruded, of a height of 80mm/more	21.2	4.9	25.4
4	110814	Manioc (cassava) starch	12.9	3.0	60.8
5	392010	Plates, sheets, film, foil & strip, of polymers of ethylene, non-cellular & not reinforced, laminated, supported/similarly combined with other materials (excl. self-adhesive)	11.2	2.6	100.0
6	852859	Other monitors, not of a kind solely/principally used in an automatic data processing system of heading 84.71	9.5	2.2	52.1
7	401031	Endless transmission belts of trapezoidal cross-section (V-belts), V-ribbed, of an outside circumference >60cm but not >180cm, of vulcanised rubber	8.3	1.9	*
8	711311	Articles of jewellery & parts thereof, of silver, whether/not plated/clad with other precious metals	7.5	1.7	67.6
9	852721	Radio-broadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles, combined with sound recording/reproducing apparatus	7.2	1.7	75.0
10	844331	Machines which perform two/more of the functions of printing, copying/facsimile transmission, capable of connecting to an automatic data processing machine/to a network	7.1	1.6	33.9
11	390410	Poly(vinyl chloride), not mixed with any other substance, in primary forms	6.8	1.6	66.2
12	220710	Undenatured ethyl alcohol > 80% by volume	6.6	1.5	49.5
13	220300	Beer made from malt	6.4	1.5	61.8
14	210690	Food preparations, n.e.s.	6.1	1.4	41.6
15	848210	Ball bearings	6.0	1.4	49.3

Top 15 Preferential Exports to Cambodia

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	252329	Portland cement (excl. white cement, whether/not artificially coloured), whether/not coloured	43.4	31.5	32.0
2	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	13.7	10.0	40.0
3	330510	Shampoos	11.4	8.3	39.0
4	170199	Cane/beet sugar & chemically pure sucrose, in solid form, not containing added flavouring/colouring matter	6.4	4.7	3.5
5	210390	Sauces & preparations therefor, n.e.s.; mixed condiments & mixed seasonings, n.e.s.	6.4	4.7	24.8
6	761290	Aluminium casks, drums, cans, boxes & similar containers, incl. rigid tubular containers but excl. collapsible tubular containers, for any material(other than compressed/liquefied gas),of a capacity not >300 l, whether/not line/heat-insulated, but not fitted with mechanical/thermal equipment	3.9	2.8	79.4
7	330499	Beauty/make-up preparations & preparations for the care of the skin (excl. meds.; excl. of 3304.10-3304.91), incl. sunscreen/sun tan preparations	3.7	2.7	14.5
8	210112	Preparations with a basis of extracts/essences/concentrates of coffee/with a basis of coffee	3.7	2.7	18.5
9	854430	Ignition wiring sets & other wiring sets of a kind used in vehicles/aircraft/ships	3.6	2.6	64.1
10	292242	Glutamic acid & its salts	3.0	2.2	10.8
11	330590	Preparations for use on the hair (excl. of 3305.10-3305.30)	2.8	2.0	36.7
12	340220	Surface-active preparations, washing preparations (incl. auxiliary washing preparations) & cleaning preparations, whether/not containing soap (excl. of 34.01/3402.11-3402.9), put up for RS	2.7	2.0	6.4
13	190190	Malt extract; food preparations of flour/grains/meal/starch/malt extract, not containing cocoa/containing less than 40% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.; food preparations of goods of headings 04.01 to 04.04, not containing cocoa/containing less than 5% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.	2.1	1.5	25.6
14	190110	Preparations for infant use, put up for RS	2.0	1.5	79.1
15	340120	Soap in other forms (excl. of 3401.11 & 3401.19)	1.8	1.3	37.4

Top 15 Preferential Exports to Lao PDR

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	871120	Motorcycles (incl. mopeds) & cycles fitted with an auxiliary motor, with/without side-cars, with reciprocating internal combustion piston engine of a cylinder capacity >50cc but not >250cc	27.9	21.2	91.3
2	210112	Preparations with a basis of extracts/essences/concentrates of coffee/with a basis of coffee	12.0	9.1	70.4
3	340220	Surface-active preparations, washing preparations (incl. auxiliary washing preparations) & cleaning preparations, whether/not containing soap (excl. of 34.01/3402.11-3402.9), put up for RS	9.8	7.5	49.5
4	220290	Non-alcoholic beverages other than waters of 2202.10 (not incl. fruit/vegetable juices of 20.09)	6.6	5.0	9.5
5	330510	Shampoos	6.2	4.8	69.9
6	854430	Ignition wiring sets & other wiring sets of a kind used in vehicles/aircraft/ships	4.7	3.5	87.5
7	330610	Dentifrices, in individual retail packages	4.6	3.5	62.3
8	401110	New pneumatic tyres, of rubber, of a kind used on motor cars (incl. station wagons & racing cars)	4.5	3.4	48.3
9	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	4.5	3.4	27.8
10	330499	Beauty/make-up preparations & preparations for the care of the skin (excl. meds.; excl. of 3304.10-3304.91), incl. sunscreen/sun tan preparations	4.3	3.3	60.1
11	210390	Sauces & preparations therefor, n.e.s.; mixed condiments & mixed seasonings, n.e.s.	4.1	3.1	32.9
12	340111	Soap & organic surface-active products & preparations, in the form of bars, cakes, moulded pieces/shapes, & paper, wadding, felt & nonwovens, impregnated, coated/covered with soap/detergent, for toilet use(incl. medicated products)	2.9	2.2	48.0
13	210500	Ice cream & other edible ice, whether/not containing cocoa	2.8	2.1	76.9
14	292242	Glutamic acid & its salts	2.4	1.8	8.0
15	190190	Malt extract; food preparations of flour/grains/meal/starch/malt extract, not containing cocoa/containing less than 40% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.; food preparations of goods of headings 04.01 to 04.04, not containing cocoa/containing less than 5% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.	1.8	1.3	26.8

Top 15 Preferential Exports to Myanmar

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	190190	Malt extract; food preparations of flour/grains/meal/starch/malt extract, not containing cocoa/containing less than 40% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.; food preparations of goods of headings 04.01 to 04.04, not containing cocoa/containing less than 5% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.	23.8	28.0	58.1
2	220290	Non-alcoholic beverages other than waters of 2202.10 (not incl. fruit/vegetable juices of 20.09)	14.5	17.0	12.0
3	210690	Food preparations, n.e.s.	7.9	9.3	10.1
4	210112	Preparations with a basis of extracts/essences/concentrates of coffee/with a basis of coffee	6.4	7.5	10.5
5	252329	Portland cement (excl. white cement, whether/not artificially coloured), whether/not coloured	3.5	4.1	2.2
6	340120	Soap in other forms (excl. of 3401.11 & 3401.19)	2.4	2.8	30.2
7	330510	Shampoos	2.2	2.5	16.1
8	330499	Beauty/make-up preparations & preparations for the care of the skin (excl. meds.; excl. of 3304.10-3304.91), incl. sunscreen/sun tan preparations	1.9	2.3	11.1
9	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	1.7	2.0	9.3
10	841821	Refrigerators, h-hold. type, compression-type, electric/other	1.6	1.9	66.9
11	330720	Personal deodorants & antiperspirants	1.5	1.8	28.2
12	300490	Medicaments (excluding goods of heading 30.02/30.05/30.06/3004.10-3004.50) consisting of mixed/unmixed products for therapeutic/prophylactic uses, put up in measured doses (including those in the form of transdermal administration systems)/in forms/packings for retail sale	1.3	1.5	3.4
13	340111	Soap & organic surface-active products & preparations, in the form of bars, cakes, moulded pieces/shapes, & paper, wadding, felt & nonwovens, impregnated, coated/covered with soap/detergent, for toilet use(incl. medicated products)	1.2	1.4	18.5
14	690210	Refractory bricks, blocks, tiles & similar refractory ceramic constructional goods..containing by weight..>50% of...Mg/Ca/Cr, expressed as MgO/CaO/Cr2O3	1.1	1.2	91.8
15	210111	Extracts, essences & concentrates of coffee	0.9	1.0	4.9

Top 15 Preferential Exports to Viet Nam

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	291736	Terephthalic acid & its salts	112.4	4.0	99.2
2	390760	Poly(ethylene terephthalate), in primary forms	89.4	3.2	100.0
3	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	84.4	3.0	76.1
4	845011	Household/laundry-type washing machines (incl. machines which both wash & dry), each of a dry linen capacity not >10kg, fully-auto.	78.7	2.8	*
5	170199	Cane/beet sugar & chemically pure sucrose, in solid form, not containing added flavouring/colouring matter	71.1	2.5	59.5
6	401120	New pneumatic tyres, of rubber, of a kind used on buses/lorries	64.7	2.3	77.0
7	871419	Parts & accessories of motorcycles (incl. mopeds), other than saddles	62.0	2.2	67.2
8	841810	Combined refrigerator-freezers, fitted with separate external doors, electric/other	59.8	2.1	85.8
9	841821	Refrigerators, h-hold. type, compression-type, electric/other	59.8	2.1	100.0
10	220290	Non-alcoholic beverages other than waters of 2202.10 (not incl. fruit/vegetable juices of 20.09)	58.4	2.1	46.0
11	840991	Parts suit. for use solely/principally with spark-ignition internal combustion piston engines	51.0	1.8	37.0
12	441114	Medium density of fibreboard of wood/other ligneous materials, whether/not bonded with resins/other organic substances, of a thickness >9mm	47.3	1.7	*
13	190110	Preparations for infant use, put up for RS	45.4	1.6	*
14	481159	Paper & paperboard coated/impregnated/ covered with plastics (excl. adhesives & of 4811.51), in rolls/rectangular (including square) sheets, of any size, other than goods of the kind described in heading 48.03,48.09/48.10	44.4	1.6	*
15	290321	Vinyl chloride (chloroethylene)	42.3	1.5	100.0

Top 15 Preferential Exports to Australia

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	870421	Motor vehicles for the transport of goods (excl. of 8704.10), with C-I internal combustion piston engine (diesel/semi-diesel), g.v.w. not >5 tonnes	1017.5	20.1	43.0
2	870323	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1500cc but not >3000cc	505.8	10.0	73.3
3	160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	239.4	4.7	100.0
4	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	147.8	2.9	53.5
5	841590	Parts of the air-conditioning machines of 8415.10-8415.83	142.7	2.8	*
6	843139	Other parts suitable for use solely/principally with the machinery (excluding that of 84.25, 84.27, 84.28, & of lifts, skip hoists/escalators).	128.9	2.5	*
7	870322	Vehicles (excl. of 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine, of a cylinder capacity >1000cc but not >1500cc	102.2	2.0	76.6
8	841810	Combined refrigerator-freezers, fitted with separate external doors, electric/other	94.5	1.9	100.0
9	940600	Prefabricated buildings	90.0	1.8	100.0
10	390120	Polyethylene having a sp.gr. of 0.94/more, in primary forms	87.6	1.7	65.8
11	392321	Sacks & bags (incl. cones), of polymers of ethylene	87.1	1.7	100.0
12	711311	Articles of jewellery & parts thereof , of silver, whether/not plated/clad with other precious metal	80.7	1.6	90.6
13	870332	Vehicles principally designed for the transport of persons (excl. of 87.02 & 8703.10-8703.24), with C-I internal combustion piston engine (diesel/semi-diesel), of a cylinder capacity >1500cc but not >2500cc	71.6	1.4	81.5
14	870431	Motor vehicles for the transport of goods (excl. of 8704.10), with spark-ignition internal combustion piston engine, g.v.w. not >5 tonnes	71.2	1.4	51.3
15	291020	Methyloxirane (propylene oxide)	70.4	1.4	100.0

Top 15 Preferential Exports to New Zealand

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	210690	Food preparations, n.e.s.	1.5	8.7	24.1
2	390410	Poly(vinyl chloride), not mixed with any other substance, in primary forms	1.2	6.9	9.7
3	611300	Garments made up of knitted/crocheted fabrics of 59.03/59.06/59.07	1.1	6.1	80.8
4	390760	Poly(ethylene terephthalate), in primary forms	0.9	5.3	11.5
5	330690	Preparations for oral/dental hygiene, incl. denture fixative pastes & powders, in individual retail packages (excl. of 3306.10 & 3306.20)	0.9	5.2	100.0
6	200820	Pineapples, prepared/preserved, whether/not containing added sugar/other sweetening matter/spirit, n.e.s.	0.8	4.7	24.9
7	392190	Plates, sheets, film, foil & strip (excl. cellular), of plastics, n.e.s. in 39.21	0.6	3.5	63.2
8	481190	Other paper, paperboard, cellulose wadding and webs of cellulose fibers	0.6	3.2	100.0
9	711311	Articles of jewellery & parts thereof , of silver, whether/not plated/clad with other precious metal	0.5	2.9	11.9
10	190490	Cereals other than maize (corn) in grain form/in the form of flakes/other worked grains (excl. flour/groats/meal), pre-cooked/othw. prepd, n.e.s.	0.5	2.8	34.0
11	160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	0.5	2.8	2.0
12	230310	Residues of starch manufacture & similar residues, whether/not in pellets	0.4	2.3	59.1
13	711319	Articles of jewellery & parts thereof , of other precious metal (excl. silver), whether/not plated/clad with precious metal	0.4	2.1	12.5
14	320412	Acid dyes, whether/not pre-metallised, & preparations based thereon; mordant dyes & preparations based thereon	0.3	1.8	76.6
15	481890	Paper of a kind used for h-hold./sanitary purposes, bed sheets & similar h-hold./sanitary/hospital articles, of paper pulp/paper/cellulose wadding/webs of cellulose fibres, n.e.s.	0.3	1.7	*

Top 15 Preferential Exports to China

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	071410	Manioc (cassava)	1137.5	10.1	100.0
2	400591	Compounded rubber (excl. of 4005.10 & 4005.20), unvulcanised, in plates, sheets & strip, n.e.s.	1038.9	9.2	*
3	270750	Aromatic hydrocarbon mixtures of which 65%/more by volume, incl. losses, distils at 250 ï–‘C by the ASTM D86 method (excl. benzol, toluol, xylol & naphthalene)	687.7	6.1	100.0
4	290243	P-xylene	652.7	5.8	100.0
5	291736	Terephthalic acid & its salts	589.1	5.2	100.0
6	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	529.7	4.7	*
7	400599	Compounded rubber (excl. of 4005.10 & 4005.20), unvulcanised, other than in plates, sheets & strip	513.3	4.5	45.2
8	291020	Methyloxirane (propylene oxide)	473.9	4.2	100.0
9	390740	Polycarbonates, in primary forms	314.2	2.8	86.8
10	110814	Manioc (cassava) starch	251.3	2.2	100.0
11	400510	Compounded (carbon black, silica) unvulcanised rubber	240.5	2.1	47.6
12	081090	Fresh fruit, n.e.s. in Ch. 8	222.3	2.0	*
13	290723	Bisphenol A, diphenylolpropane, salts	185.5	1.6	98.7
14	081060	Durians, fresh	175.2	1.6	100.0
15	391590	Waste, parings & scrap, of plastics n.e.s. in 39.15	172.9	1.5	96.4

Top 15 Preferential Exports to India

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	840820	Compression-ignition internal combustion piston engines (diesel/semi-diesel engines) of a kind used for the propulsion of vehicles of Ch.87	289.5	13.9	95.8
2	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	211.9	10.2	100.0
3	711319	Articles of jewellery & parts thereof , of other precious metal (excl. silver), whether/not plated/clad with precious metal	177.8	8.5	98.3
4	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	77.6	3.7	*
5	390740	Polycarbonates, in primary forms	66.5	3.2	83.9
6	290230	Toluene	59.8	2.9	100.0
7	760120	Aluminium alloys, unwrought	46.3	2.2	68.7
8	841430	Compressors of a kind used in refrigerating equip.	41.8	2.0	47.4
9	590210	Tyre cord fabric of nylon, polyamides	36.8	1.8	99.2
10	390730	Epoxide resins, in primary forms	33.1	1.6	93.1
11	390130	Ethylene-vinyl acetate copolymers, in primary forms	32.2	1.5	94.1
12	841590	Parts of the air-conditioning machines of 8415.10-8415.83	28.1	1.4	88.1
13	852721	Radio-broadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles...combined with sound recording/reproducing apparatus	27.7	1.3	36.0
14	840991	Parts suit. for use solely/principally with spark-ignition internal combustion piston engines	24.1	1.2	63.2
15	291736	Terephthalic acid & its salts	23.2	1.1	8.4

Top 15 Preferential Exports to Japan

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	160232	Prepared/preserved preparations of fowls of the genus Gallus domesticus (excl. homogenised preparations)	1107.5	17.6	100.0
2	160520	Shrimps & prawns, prepared/preserved	448.8	7.1	95.6
3	030613	Shrimps & prawns, whether/not in shell, frozen	322.2	5.1	87.3
4	390760	Poly(ethylene terephthalate), in primary forms	238.5	3.8	98.9
5	732010	Leaf-springs & leaves therefor, of iron/steel	224.6	3.6	*
6	350510	Dextrins & other modified starches	198.2	3.1	97.1
7	030490	Fish meat & mince, except liver, roe & fillets, frozen	170.5	2.7	n.a.
8	392321	Sacks & bags (incl. cones), of polymers of ethylene	164.0	2.6	100.0
9	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	155.2	2.5	*
10	711319	Articles of jewellery & parts thereof , of other precious metal (excl. silver), whether/not plated/clad with precious metal	112.0	1.8	100.0
11	160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	111.5	1.8	55.9
12	280300	Carbon (carbon blacks & other forms of carbon, n.e.s.)	104.1	1.6	97.3
13	761090	Aluminium structures (excl. prefabricated buildings of heading 94.06) & parts of structures (e.g. Bridges & bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frameworks, shutters, balustrades, pillars & columns) aluminium plates, rods, profiles, tubes & the like, prepared for use in structures	86.7	1.4	86.7
14	030799	Molluscs & invertebrates (excl. of 0307.10-0307.60), frozen/dried/salted/in brine; incl. flours/meals/pellets of aquatic invertebrates other than crustaceans, fit for human consumption	75.7	1.2	*
15	210390	Sauces & preparations therefor, n.e.s.; mixed condiments & mixed seasonings, n.e.s.	70.5	1.1	100.0

Top 15 Preferential Exports to Korea

No.	HS	HS Description	Preferential Export Value ($ million)	% Total Preferential Export Value	% Utilisation
1	400122	Technically specified natural rubber (TSNR)	354.2	16.6	78.2
2	270900	Petroleum oils & oils obt. from bituminous mins., crude	188.4	8.8	88.0
3	291020	Methyloxirane (propylene oxide)	61.3	2.9	92.3
4	800110	Tin, not alloyed, unwrought	58.9	2.8	100.0
5	271119	Petroleum gases & gaseous hydrocarbons n.e.s., liquefied	56.1	2.6	78.6
6	841430	Compressors of a kind used in refrigerating equip.	54.0	2.5	98.2
7	030613	Shrimps & prawns, whether/not in shell, frozen	47.3	2.2	94.1
8	170310	Cane molasses	38.7	1.8	100.0
9	382319	Industrial monocarboxyli	38.1	1.8	100.0
10	400121	Natural rubber (excl. latex), in smoked sheets	36.6	1.7	46.6
11	841810	Combined refrigerator-freezers, fitted with separate external doors, electric/other	36.0	1.7	97.6
12	270710	Benzol (benzene)	34.7	1.6	72.7
13	841490	Parts of the pumps, compressors, fans & recycling hoods of 8414.10-8414.20	34.3	1.6	100.0
14	852290	Parts (excl. pick-up cartridges) & accessories suit. for use solely/principally with the apparatus of 85.19-85.21	29.1	1.4	91.8
15	841510	Window/wall type air-conditioning machines, self-contained/split-system, comprising a motor-driven fan & elements for changing the temp. & humidity, including those machines in which the humidity cannot be separately regulated	27.1	1.3	55.9

Top 15 Preferential Imports from AEC Member Countries

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	270119	Coal except anthracite or bituminous, not agglomerated	807.4	7.5	99.8
2	740311	Copper cathodes and sections of cathodes unwrought	580.0	5.4	66.7
3	870840	Transmissions for motor vehicles	390.3	3.6	76.8
4	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	331.6	3.1	*
5	870322	Automobiles, spark ignition engine of 1000-1500 cc	278.8	2.6	98.8
6	271019	Petroleum oils & oils obt. from bituminous mins. (excl. crude) & preps. oth ...	233.0	2.2	29.7
7	870323	Automobiles, spark ignition engine of 1500-3000 cc	232.9	2.2	100.0
8	903289	Automatic regulating/controlling equipment n.e.s.	199.4	1.8	60.7
9	481159	Paper & paperboard coated/impregnated/ covered with plastics (excl. adhesives & of 4811.51), in rolls/rectangular (including square) sheets, of any size, other than goods of the kind described in heading 48.03,48.09/48.10	140.6	1.3	63.5
10	210690	Food preparations n.e.s.	128.9	1.2	85.2
11	841430	Compressors of a kind used in refrigerating equip.	118.2	1.1	59.1
12	190190	Malt extract; food preparations of flour/groats/meal/starch/malt extract, not containing cocoa/containing less than 40% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.; food preparations of goods of headings 04.01 to 04.04, not containing cocoa/containing less than 5% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.	112.1	1.0	80.3
13	390110	Polyethylene having a sp.gr. of <0.94, in primary forms	111.4	1.0	94.2
14	240220	Cigarettes containing tobacco	111.3	1.0	100.0
15	740811	Copper wire, of refined copper of which the maximum cross-sectional dim. exceeds 6mm	100.8	0.9	51.5

Top 15 Preferential Imports from Original AEC Member Countries

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	270119	Coal except anthracite or bituminous, not agglomerated	793.5	8.9	99.8
2	870840	Transmissions for motor vehicles	390.3	4.4	76.8
3	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	310.3	3.5	100.0
4	870322	Automobiles, spark ignition engine of 1000-1500 cc	278.8	3.1	98.8
5	271019	Petroleum oils & oils obt. from bituminous mins. (excl. crude) & preps. oth ...	233.0	2.6	29.7
6	870323	Automobiles, spark ignition engine of 1500-3000 cc	232.9	2.6	100.0
7	903289	Automatic regulating/controlling equipment n.e.s.	198.3	2.2	61.1
8	740311	Copper cathodes and sections of cathodes unwrought	162.8	1.8	49.8
9	481159	Paper & paperboard coated/impregnated/ covered with plastics (excl. adhesives & of 4811.51), in rolls/rectangular (including square) sheets, of any size, other than goods of the kind described in heading 48.03,48.09/48.10	140.6	1.6	63.4
10	841430	Compressors for refrigerating equipment	118.2	1.3	59.1
11	210690	Food preparations, n.e.s.	116.0	1.3	83.7
12	190190	Malt extract; food preparations of flour/groats/meal/starch/malt extract, not containing cocoa/containing less than 40% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.; food preparations of goods of headings 04.01 to 04.04, not containing cocoa/containing less than 5% by weight of cocoa calculated on a totally defatted basis, not elsewhere specified/incl.	112.1	1.3	80.4
13	390110	Polyethylene having a sp.gr. of <0.94, in primary forms	111.2	1.2	94.9
14	240220	Cigarettes containing tobacco	108.3	1.2	100.0
15	740811	Copper wire, of refined copper of which the maximum cross-sectional dim. exceeds 6mm	97.2	1.1	52.4

Top 15 Preferential Imports from New AEC Member Countries

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	740311	Copper cathodes and sections of cathodes unwrought	417.2	22.7	76.9
2	071410	Manioc (cassava), fresh or dried	93.5	5.1	100.0
3	090111	Coffee, not roasted, not decaffeinated	59.3	3.2	96.7
4	871120	Motorcycles, spark ignition engine of 50-250 cc	55.2	3.0	96.4
5	721070	Flat rolled i/nas, painted/plastic coated, width>600mm	52.4	2.8	100.0
6	721061	Flat rolled with aluminium zinc alloys	50.9	2.8	100.0
7	540233	Textured yarn n.e.s., of polyester filaments, not retail	43.7	2.4	98.1
8	080132	Cashew nuts, shelled dried	36.9	2.0	99.9
9	030749	Cuttle fish, squid, frozen, dried, salted or in brine	36.3	2.0	95.0
10	690890	Glazed ceramic flags, tiles wider than 7 cm	30.8	1.7	100.0
11	854430	Ignition wiring sets & other wiring sets of a kind used in vehicles/aircraft/ships	28.8	1.6	66.8
12	030499	Fish fillets & other fish meat (excl. of 0304.11-0304.29, whether/not minced), n.e.s.	23.7	1.3	91.9
13	100590	Maize (corn), other than seed	23.4	1.3	99.5
14	110100	Wheat/meslin flour	23.2	1.3	99.3
15	871410	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	22.2	1.2	84.3

Top 15 Preferential Imports from Brunei Darussalam

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	030520	Livers and roes, dried, smoked, salted or in brine	0.0	46.8	100.0
2	030342	Tunas (yellow fin) frozen, whole	0.0	36.1	100.0
3	030343	Skipjack, stripe-bellied bonito, frozen, whole	0.0	10.2	100.0

Top 15 Preferential Imports from Indonesia

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	270119	Coal except anthracite or bituminous, not agglomerated	788.1	19.8	99.9
2	870322	Automobiles, spark ignition engine of 1000–1500 cc	276.5	6.9	98.8
3	870840	Transmissions for motor vehicles	167.6	4.2	78.0
4	870323	Automobiles, spark ignition engine of 1500–3000 cc	136.2	3.4	100.0
5	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	92.3	2.3	100.0
6	740811	Wire of refined copper > 6mm wide	88.5	2.2	50.3
7	740311	Copper cathodes and sections of cathodes unwrought	81.2	2.0	43.9
8	841430	Compressors for refrigerating equipment	79.4	2.0	96.5
9	840999	Parts for diesel and semi-diesel engines	74.1	1.9	68.5
10	842952	Shovels and excavators with revolving superstructure	71.7	1.8	99.5
11	041000	Edible products of animal origin, n.e.s.	68.4	1.7	90.2
12	870431	Motor vehicles for the transport of goods (excl. of 8704.10), with spark-ignition internal combustion piston engine, g.v.w. not >5tonnes	65.7	1.6	100.0
13	850110	Electric motors of an output not >37.5W	59.6	1.5	93.2
14	840991	Parts suit. for use solely/principally with spark-ignition internal combustion piston engines	57.6	1.4	44.4
15	870893	Clutches & parts thereof for the motor vehicles of 87.01-87.05	33.6	0.8	48.3

Top 15 Preferential Imports from Malaysia

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	217.9	8.0	*
2	903289	Automatic regulating/controlling equipment n.e.s.	135.5	4.9	63.4
3	390110	Polyethylene - specific gravity <0.94 in primary forms	77.2	2.8	97.6
4	870323	Automobiles, spark ignition engine of 1500-3000 cc	69.7	2.5	100.0
5	310210	Urea, including aqueous solution in packs >10 kg	59.6	2.2	30.2
6	841510	Air conditioners window/wall types, self-contained	56.2	2.1	100.0
7	190190	Malt extract & limited cocoa pastry cooks products n.e.s	55.8	2.0	69.9
8	390330	Acrylonitrile-butadiene-styrene (ABS) copolymers	52.1	1.9	68.9
9	382370	Industrial fatty alcohol	49.9	1.8	81.9
10	151620	Veg fats, oils or fractions hydrogenated, esterified	45.5	1.7	98.9
11	852859	Other monitors, not of a kind solely/principally used in an automatic data processing system of heading 84.71	44.6	1.6	93.8
12	440799	Lumber, non-coniferous n.e.s	40.1	1.5	26.5
13	841430	Compressors of a kind used in refrigerating equip.	35.0	1.3	63.6
14	392010	Plates, sheets, film, foil & strip, of polymers of ethylene, non-cellular & not reinforced, laminated, supported/similarly combined with other materials(excl. self-adhesive)	33.6	1.2	89.6
15	210112	Preparations with a basis of extracts/essences/concentrates of coffee/with a basis of coffee	31.4	1.1	100.0

Top 15 Preferential Imports from the Philippines

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	870840	Transmissions for motor vehicles	222.7	20.9	76.5
2	240220	Cigarettes containing tobacco	102.2	9.6	100.0
3	740311	Copper cathodes and sections of cathodes unwrought	81.6	7.6	58.1
4	903289	Automatic regulating/controlling equipment n.e.s	61.5	5.8	86.7
5	854430	Ignition/other wiring sets for vehicles/aircraft/ship	57.1	5.3	96.1
6	853710	Electrical control and distribution boards, < 1kV	53.8	5.0	88.6
7	902920	Speed indicators, tachometers, stroboscopes	41.7	3.9	92.5
8	870899	Motor vehicle parts n.e.s.	39.4	3.7	88.0
9	190110	Infant foods of cereals, flour, starch or milk, retail	33.3	3.1	93.5
10	870323	Automobiles, spark ignition engine of 1500-3000 cc	26.9	2.5	100.0
11	851290	Parts of the equip. of 85.12	16.1	1.5	98.7
12	841330	Fuel/lubricating/cooling medium pumps for internal combustion piston engines	15.4	1.4	100.0
13	300490	Medicaments (excluding goods of heading 30.02/30.05/30.06/3004.10-3004.50) consisting of mixed/unmixed products for therapeutic/prophylactic uses, put up in measured doses (including those in the form of transdermal administration systems)/in forms/packings for retail sale	14.5	1.4	95.3
14	870850	Drive-axles with differential, whether/not provided with other transmission components, & non-driving axles; parts thereof of the motor vehicles of headings 87.01 to 87.05.	14.1	1.3	91.3
15	850110	Electric motors of an output not >37.5W	12.8	1.2	25.8

Top 15 Preferential Imports from Singapore

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	271019	Petroleum oils & oils obt. from bituminous mins. (excl. crude) & preps. oth	199.7	18.8	35.8
2	481159	Paper & paperboard coated/impregnated/ covered with plastics (excl. adhesives & of 4811.51), in rolls/rectangular (including square) sheets, of any size, other than goods of the kind described in heading 48.03,48.09/48.10	139.5	13.1	63.3
3	381121	Lubricating oil additives with petroleum, bitumen oils	87.8	8.3	83.5
4	210690	Food preparations n.e.s.	83.5	7.8	93.2
5	390230	Propylene copolymers in primary forms	82.8	7.8	91.1
6	290250	Styrene	54.3	5.1	100.0
7	190110	Infant foods of cereals, flour, starch or milk, retail	49.7	4.7	100.0
8	330290	Mixed odoriferous substances - industrial use n.e.s.	46.3	4.4	34.8
9	190190	Malt extract & limited cocoa pastry cooks products n.e.s.	46.3	4.4	98.3
10	390120	Polyethylene - specific gravity >0.94 in primary forms	41.1	3.9	82.6
11	330210	Mixtures of odoriferous substance & mixtures (incl. alcoholic solutions) with a basis of one/more of these substance, of a kind used in the food/drink industries	35.0	3.3	41.6
12	390190	Polymers of ethylene, in primary forms (excl. of 3901.10-3901.30)	33.0	3.1	79.8
13	390110	Polyethylene having a sp.gr. of <0.94, in primary forms	32.3	3.0	89.0
14	390690	Acrylic polymers other than poly(methyl methacrylate), in primary forms	29.6	2.8	80.3
15	271012	n.a.	22.9	2.1	n.a.

Top 15 Preferential Imports from Cambodia

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	071410	Manioc (cassava), fresh or dried	90.2	84.5	100.0
2	100590	Maize except seed corn	6.2	5.8	100.0
3	240220	Cigarettes containing tobacco	3.1	2.9	92.1
4	830990	Stoppers, caps, lids, packing items n.e.s. of base metal	2.6	2.4	100.0
5	610910	T-shirts, singlets and other vests, of cotton, knit	0.6	0.6	49.4
6	620462	Womens, girls trousers & shorts, of cotton, not knit	0.6	0.5	82.1
7	120740	Sesamum seeds	0.4	0.4	100.0
8	610462	Women’s, girls’ trousers & shorts, of cotton, knit	0.3	0.3	43.1
9	110814	Manioc (cassava) starch	0.3	0.3	100.0
10	080450	Guavas, mangoes and mangosteens, fresh or dried	0.3	0.3	99.9
11	850300	Parts suit. for use solely/principally with the machines of 85.01/85.02	0.3	0.2	81.4
12	071190	Vegetables (excl. olives/cucumbers & gherkins/mushrooms & truffles) & mixtures of vegetables provisionally preserved, but unsuitable in that state for immediate consumption	0.2	0.2	98.0
13	620342	Men's/boys' trousers, bib & brace overalls, breeches & shorts (excl. swimwear; excl. knitted/crocheted), of cotton	0.2	0.2	45.4
14	610443	Women's/girls' dresses, knitted/crocheted, of synthetic fibres	0.2	0.2	62.3
15	610343	Men's/boys' trousers, bib & brace overalls, breeches & shorts (excl. swimwear), knitted/crocheted, of synthetic fibres	0.2	0.2	14.2

Top 15 Preferential Imports from Lao PDR

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	740311	Copper cathodes and sections of cathodes unwrought	401.3	41.8	78.0
2	100590	Maize except seed corn	17.2	1.8	99.1
3	070490	Edible brassicas n.e.s., fresh or chilled	14.9	1.5	100.0
4	270119	Coal except anthracite or bituminous, not agglomerated	13.9	1.4	99.8
5	854430	Ignition/other wiring sets for vehicles/aircraft/ship	9.1	0.9	82.3
6	071420	Sweet potatoes, fresh or dried	7.1	0.7	99.8
7	310590	Fertilizers, mixes, n.e.s.	6.8	0.7	99.9
8	120242	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder // Ground-nuts, not roasted or otherwise cooked, whether or not shelled or broken. // - Other : // -- Shelled, whether or not broken	4.7	0.5	n.a.
9	081090	Fruits, fresh n.e.s.	4.3	0.5	100.0
10	071410	Manioc (cassava), fresh or dried	3.3	0.3	99.7
11	80390	n.a.	3.3	0.3	100.0
12	120241	n.a.	2.3	0.2	98.3
13	100890	Cereals (excl. those which have been hulled/othw. worked), n.e.s.	2.2	0.2	100.0
14	170310	Cane molasses	1.9	0.2	100.0
15	070690	Salad beetroot, salsify, celeriac, radishes & similar edible roots (excl. carrots & turnips), fresh/chilled	1.9	0.2	100.0

Top 15 Preferential Imports from Myanmar

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	740311	Copper cathodes and sections of cathodes unwrought	15.8	30.9	57.3
2	071331	Urd, mung, black or green gram beans dried shelled	8.4	16.4	100.0
3	120242	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder // Ground-nuts, not roasted or otherwise cooked, whether or not shelled or broken. // - Other : // -- Shelled, whether or not broken	6.4	12.5	n.a.
4	090421	Coffee, tea, and spices // Pepper of the genus Piper; dried or crushed or ground fruits of the genus Capsicum or of the genus Pimenta. // - Fruits of the genus Capsicum or of the genus Pimenta : // -- Dried, neither crushed nor ground	3.5	6.9	n.a.
5	441231	Plywood, consisting solely of sheets of wood (other than bamboo), each ply not> 6 mm thickness with at least one outer ply of tropical wood specified in Subheading Note 1 to this Ch.	3.3	6.4	n.a.
6	120740	Sesamum seeds	2.8	5.4	96.5
7	080132	Cashew nuts, shelled dri	1.9	3.7	96.3
8	040900	Honey, natural	1.8	3.5	100.0
9	070310	Onions and shallots, fresh or chilled	1.1	2.2	97.6
10	071390	Leguminous vegetables dried, shelled	1.0	2.0	100.0
11	080510	Oranges, fresh/dried	0.8	1.5	100.0
12	090220	Tea, green (not fermented), whether/not flavoured, in immediate packings of a content >3kg	0.5	1.1	46.4
13	030289	n.a.	0.5	1.1	1.6
14	030624	Crabs, whether/not in shell, other than frozen	0.5	1.0	43.4
15	110814	Manioc (cassava) starch	0.5	1.0	100.0

Top 15 Preferential Imports from Viet Nam

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	090111	Coffee, not roasted, not decaffeinated	59.0	5.6	97.0
2	871120	Motorcycles, spark ignition engine of 50-250 cc	55.2	5.3	100.0
3	721070	Flat rolled i/nas, painted/plastic coated, width>600mm	52.4	5.0	100.0
4	721061	Flat rld prd al-zinc alo	50.9	4.8	100.0
5	540233	Textured yarn n.e.s., of polyester filaments, not retail	43.7	4.2	98.1
6	030749	Cuttle fish, squid, frozen, dried, salted or in brine	35.9	3.4	98.4
7	080132	Cashew nuts, shelled dri	35.0	3.3	100.0
8	690890	Glazed ceramic flags, tiles wider than 7 cm	30.8	2.9	100.0
9	030499	Fish fillets & other fish meat (excl. of 0304.11-0304.29, whether/not minced), n.e.s.	23.7	2.3	n.a.
10	110100	Wheat or meslin flour	23.2	2.2	99.3
11	871410	n.a.	22.2	2.1	84.3
12	852872	Other colour reception apparatus for television, whether/not incorporating radio-broadcast receivers/sound/video recording/reproducing apparatus,	21.4	2.0	100.0
13	854430	Ignition wiring sets & other wiring sets of a kind used in vehicles/aircraft/ships	19.8	1.9	86.9
14	160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	19.3	1.8	99.2
15	940600	Prefabricated buildings	18.9	1.8	89.2

Top 15 Preferential Imports from Australia

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	740311	Copper cathodes and sections of cathodes unwrought	264.1	23.6	60.3
2	270112	Bituminous coal, not agglomerated	193.3	17.3	81.7
3	110710	Malt, not roasted	87.3	7.8	100.0
4	760612	Aluminium alloy rectangular plate/sheet/strip, t >0.2mm	77.4	6.9	99.3
5	740811	Wire of refined copper > 6mm wide	64.1	5.7	99.5
6	190190	Malt extract & limited cocoa pastry cooks products n.e.s.	57.8	5.2	100.0
7	260800	Zinc ores and concentrates	33.1	3.0	81.5
8	300490	Medicaments n.e.s., in dosage	17.1	1.5	50.3
9	220421	Grape wines n.e.s., fortified wine or must, pack < 2l	12.8	1.1	100.0
10	040590	Other milk fats and oils	10.0	0.9	97.2
11	790111	Zinc, not alloyed, unwrought, containing by weight 99.99%/more of zinc	8.7	0.8	91.5
12	300450	Medicaments containing vitamins/other products of 29.36 (excl. of 3004.10-3004.40), put up in measured doses/forms/packings for RS	8.2	0.7	100.0
13	040410	Whey	7.7	0.7	94.8
14	210690	Food preparations, n.e.s.	6.2	0.6	74.6
15	230910	Dog/cat food, put up for RS	6.2	0.6	100.0

Top 15 Preferential Imports from New Zealand

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	040221	Milk and cream powder unsweetened > 1.5% fat	112.2	33.4	100.0
2	190190	Malt extract & limited cocoa pastry cooks products n.e.s.	40.3	12.0	100.0
3	080810	Apples, fresh	31.2	9.3	100.0
4	440710	Lumber, coniferous (softwood) thickness < 6 mm	27.2	8.1	99.1
5	040390	Buttermilk, curdled milk, cream, kephir, etc.	23.7	7.0	69.8
6	481092	Paper & paperboard(excl. of 4810.13-4810.39), coated on one/both sides with kaolin (China clay)/other inorganic substances, with/without a binder, & with no other coating, whether/not surface-coloured, surface-decorated/printed, in rolls/rectangular (including square) sheets, of any size, not containing fibres obtained by a mechanical/chemi-mechanical process/of which not more than 10 % by weight of the total fibre content consists of such fibres, multi-ply	7.4	2.2	*
7	030739	Mussels, frozen, dried, salted or in brine	6.7	2.0	99.4
8	200410	Potatoes, prepared, frozen	6.0	1.8	100.0
9	440320	Logs, poles, coniferous not treated or painted	4.8	1.4	100.0
10	210690	Food preparations n.e.s.	4.3	1.3	90.8
11	081050	Kiwifruit, fresh	4.2	1.3	100.0
12	190110	Preparations for infant use, put up for RS	4.0	1.2	100.0
13	020230	Bovine cuts boneless, frozen	3.9	1.2	54.1
14	510610	Yarn of carded wool, not put up for retail sale, containing 85%/more by weight of wool	3.6	1.1	*
15	040210	Milk powder < 1.5% fat	3.5	1.0	4.8

Top 15 Preferential Imports from China

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	722530	Hot rolled alloy-steel, coils width >600mm, n.e.s.	36.6	0.4	92.7
2	721049	Flat rolled i/nas, coated with zinc, width >600mm, n.e.s.	33.4	0.4	79.5
3	690790	Unglazed ceramic flags, tiles > 7 cm wide	22.1	0.3	100.0
4	080520	Mandarin, clementine & citrus hybrids, fresh or dried	21.0	0.2	98.3
5	722830	Bar/rod, alloy steel n.e.s., nfw hot rolled/drawn/extruded	19.0	0.2	96.8
6	080810	Apples, fresh	17.0	0.2	100.0
7	843149	Parts of cranes, work-trucks, shovels, constr machine	16.5	0.2	88.7
8	292242	Glutamic acid, salts	15.2	0.2	95.8
9	842952	Shovels and excavators with revolving superstructure	10.1	0.1	96.0
10	853931	Fluorescent lamps, hot cathode	8.1	0.1	96.5
11	852190	Video recording/repr. apparatus other than magnetic tape-type, whether/not incorporating a video tuner	74.9	0.9	87.6
12	848180	Taps, cocks, valves & similar appliances for pipes/boiler shells/tanks/vats/the like, incl. thermostatically controlled valves, n.e.s. in 84.81	69.8	0.8	48.6
13	870870	Road wheels & parts & accessories thereof for the motor vehicles of 87.01-87.05	69.2	0.8	85.1
14	590210	Tyre cord fabric of nylon, polyamides	66.9	0.8	91.5
15	721061	Flat-rolled products of iron/non-alloy steel, of a width of 600mm/more, plated/coated with aluminium-zinc alloys	65.5	0.8	100.0

Top 15 Preferential Imports from India

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	722530	Hot rolled alloy-steel, coils width >600mm, n.e.s.	90.7	28.7	95.6
2	630510	Sacks & bags, packing, of jute or other bast fibres	55.6	17.6	95.1
3	701090	Carboys, bottles, flasks, jars, pots, phials & other containers, of glass, of a kind used for the conveyance/packing of goods; preserving jars of glass	11.7	3.7	100.0
4	080132	Cashew nuts, shelled dried	9.8	3.1	100.0
5	940190	Parts of seats	8.7	2.7	80.4
6	300490	Medicaments n.e.s., in dosage	8.5	2.7	11.3
7	722830	Bar/rod, alloy steel n.e.s., nfw hot rolled/drawn/extruded	8.3	2.6	97.1
8	080610	Grapes, fresh	4.8	1.5	100.0
9	382319	Industrial monocarboxyli	4.7	1.5	97.3
10	401161	New pneumatic tyres, of rubber, having a herring-bone/similar tread, of a kind used on agricultural/forestry vehicles & machines	4.2	1.3	*
11	130232	Mucilages & thickeners, whether/not modified, derived from locust beans/locust bean seeds/guar seeds	4.0	1.3	43.5
12	870190	Tractors n.e.s. in 87.01 (excl. of 87.09)	3.7	1.2	29.7
13	540774	Woven fabrics (excl. of 5407.10-5407.30), containing 85%/more by weight of synthetic filaments, printed	3.4	1.1	76.2
14	843290	Parts of the agricultural/horticultural/forestry machinery of 84.32	3.3	1.0	91.9
15	030749	Cuttle fish (Sepia officinalis, Rossia macrosoma, Sepiola spp.) & squid (Ommastrephes spp., Loligo spp., Nototodarus spp., Sepioteuthis spp.), other than live/fresh/chilled	3.2	1.0	7.5

Top 15 Preferential Imports from Japan

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	721049	Flat rolled i/nas, coated with zinc, width >600mm, n.e.s.	837.0	12.2	76.0
2	870840	Transmissions for motor vehicles	313.5	4.6	17.9
3	870210	Diesel powered buses	294.1	4.3	96.8
4	720827	Flat rld prod/coils>3mm	274.1	4.0	55.2
5	720838	Flat rld prod/coils<3>4.	207.7	3.0	87.8
6	720839	Flat rld prod/coils>3mm	201.3	2.9	60.4
7	720826	Flat rld prod/coils>4.75	181.7	2.6	54.2
8	722830	Bar/rod, alloy steel n.e.s., nfw hot rolled/drawn/extruded	177.9	2.6	88.9
9	720918	Flat rld prod/coils>.5mm	176.0	2.6	97.0
10	870899	Motor vehicle parts n.e.s.	159.5	2.3	8.0
11	903289	Automatic regulating/controlling instr. & apparatus, n.e.s. in 90.32	155.6	2.3	26.0
12	842952	Self-propelled mechanical shovels & excavators with a 360Ì–‘ revolving superstructure	135.4	2.0	54.0
13	381590	Reaction initiators, reaction accelerators & catalytic preparations (excl. of 3815.11-3815.19)	112.7	1.6	35.6
14	540219	High tenacity yarn other than textured yarn/sewing thread, of nylon/other polyamides (excl. of 5402.11), not put up for retail sale	94.9	1.4	100.0
15	842720	Self-propelled works trucks, non-electric	93.1	1.4	69.3

Top 15 Preferential Imports from Korea

No.	HS	HS Description	Preferential Import Value ($ million)	% Total Preferential Import Value	% Utilisation
1	722530	Hot rolled alloy-steel, coils width >600mm, n.e.s.	216.3	20.7	*
2	271019	Petroleum oils & oils obtained from bituminous minerals (other than crude) & preparations not elsewhere specified/incl., containing by weight 70 %/more of petroleum oils/of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations, other than waste oils & light oils & preparations	143.0	13.7	n.a.
3	842952	Shovels and excavators with revolving superstructure	79.6	7.6	100.0
4	400219	Styrene-butadiene rubber (SBR/XSBR) except latex	69.2	6.6	98.3
5	400220	Butadiene rubber (BR)	52.4	5.0	68.7
6	390330	Acrylonitrile-butadiene-styrene (ABS) copolymers	46.5	4.4	*
7	722830	Bar/rod, alloy steel n.e.s., nfw hot rolled/drawn/extruded	43.0	4.1	64.4
8	590220	Tyre cord fabric of polyester	41.9	4.0	64.8
9	870829	Parts and accessories of bodies n.e.s. for motor vehicles	31.6	3.0	68.0
10	848071	Moulds, injection & compression, for rubber or plastic	28.5	2.7	*
11	870899	Other parts & accessories for the motor vehicles of 87.01-87.05, exclud. 8708.91/92/93/94/95.	27.1	2.6	41.5
12	903289	Automatic regulating/controlling instr. & apparatus, n.e.s. in 90.32	26.3	2.5	*
13	842952	Self-propelled mechanical shovels & excavators with a 360î–‘ revolving superstructure	19.7	1.9	24.6
14	381590	Reaction initiators, reaction accelerators & catalytic preparations (excl. of 3815.11-3815.19)	19.7	1.9	*
15	540219	High tenacity yarn other than textured yarn/sewing thread, of nylon/other polyamides (excl. of 5402.11), not put up for retail sale	18.8	1.8	*

Sources: Authors' calculation from official data: preferential export from Bureau of Preferential Trade, Ministry of Commerce, preferential import from the Customs Department, Ministry of Commerce; trade data from UN Comtrade.

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