Chapter 11

Maximizing Benefits from FTAs in ASEAN

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CHAPTER 11

Maximizing Benefits from FTAs in ASEAN

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FTA has proliferated in East Asia. Currently, there are more than thirty RTAs enforced involving East Asia, of which fourteen are intra-regional RTAs. However, we do not know how intensively Asian FTAs are actually utilized. The regionalism in the ASEAN+6 region is consolidating the hub-and-spoke FTA structure with ASEAN as the hub and other East Asian countries as the spokes. The spaghetti bowl problem may not be serious since the hub-and-spoke FTA structure can be viewed as a trade agreement matrix. However, the utilization rates of FTAs may seem rather low in East Asia. The paper investigated the reasons of it by using the econometric analysis. We obtained the results that FTAs are selectively utilized: textile and automobile are well utilized while electronics and electrical machinery not. We find also that the larger the firms' scale, the more likely they would be to utilize FTA schemes. Lastly, and equally importantly, firms in the Philippines and Vietnam are less likely to utilize FTA schemes. Thus, these estimated results might suggest that the operational procedures to obtain certificates are cumbersome, in particular, in those countries, and that East Asia has to improve the operational procedures in order to maximize the benefits of FTAs.

1. Introduction

FTA has proliferated in East Asia. Currently, in fact, there are more than thirty RTAs enforced involving East Asia, of which fourteen are intra-regional RTAs, either bilateral agreements or plurilateral agreements. There are numerous ex ante studies on the impacts of FTAs which use the computable general equilibrium (CGE) models. Assuming that any firm can maximize profits and completely utilize FTAs under perfect information, those studies predict that FTAs substantially increase welfare and income (Harrigan *et al*, 2006, and Kawai and Wignaraja, 2007). However, we do not know how intensively Asian FTAs are actually utilized. Hiratsuka *et al*. (2008 and 2009) pointed out that Japanese firms and their affiliates operating in ASEAN are not very familiar with FTAs, and that the operational procedures to meet the conditions of the rules of origin (ROOs) are cumbersome, and concluded that high administrative costs to obtain certificate of origin impedes the utilization of FTAs.

In addition, ROOs, operational procedures to obtain certificate of origin, sensitive lists that are excluded from tariff elimination schedule, and phase-out tariff elimination schedules differ by FTA in East Asia. Preferential tariffs, therefore, vary by product and by FTA. This raises a concern about the overlapping FTA problem or the so-called spaghetti bowl problem that administrative costs that firms which utilize FTAs would be high, and as a result, some FTAs are utilized but some are not.

In August 2008, ASEAN revised the ROO system from the 40% value content rule to the option system of value content rules and change of tariff line. The new system is expected to increase the utilization of AFTA. The AEC blueprint, which presents the schedule to realize the ASEAN Economic Community (AEC), ASEAN reviewed all the

ROOs implemented by ASEAN member countries, individually and collectively, and explored possible better mechanisms.

At the onset of the proliferation in East Asia, it is a critical task to evaluate the existing FTAs, and suggest the best practices of FTAs to maximize benefits to the region. With the aim of suggesting the best practice of the ASEAN CEPT ROOs and the other East Asia' FTA ROOs, this study will identify the revealed and potential problems of existing bilateral and plurilateral FTAs involving ASEAN and explore best practices to facilitate trade in the region.

2. Proliferation of FTAs in East Asia

2.1. The ASEAN hub- and others-spoke Structure

ASEAN has led regionalism in East Asia. ASEAN Free Trade Area (AFTA) will eliminate import duties on all products placed on normal track to be 0% and tariffs on products placed in sensitive lists to be 0-5% by 2010 for ASEAN-6 (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand). On the other hand, the new member countries of Cambodia, Laos, Myanmar and Vietnam will eliminate tariffs on normal track to be 0% by 2015, and tariffs on products placed in sensitive lists to be 0-5% by 2013 for Vietnam, by 2015 for Laos and Myanmar, and by 2017 for Cambodia.

It should also be noted that the regionalism in the ASEAN+6 region is consolidating the hub-and-spoke FTA structure with ASEAN as the hub and other East Asian countries as the spokes. Tariffs between ASEAN-6 and China, and between ASEAN-6 and Korea, will be eliminated to be 0% on products placed on the normal track in the

ASEAN-China FTA and ASEAH-Korea FTA respectively. Furthermore, the ASEAN-Japan FTA has been partially implemented since December 2008, and the ASEAN-CER (Australia and New Zealand) FTA will be enforced in 2009. The ASEAN-hub FTA networks are expanding rapidly in East Asia. Currently, in total, five ASEAN+1 FTAs are enforced or are under negotiation.

In contrast, East Asia's region-wide FTAs are still at a phase of conceptualization. In the ASEAN+3 process, the East Asia Study Group (EASG) proposed the East Asian Free Trade Area (EAFTA) as one of the nine long-term measures proposed at the eighth ASEAN+3 Summit in November 2004. A feasibility study on the proposed EAFTA conducted by a Track Two study (an academic expert group study) chaired by a Chinese national was presented in brief at the 2006 ASEAN+3 Economic Minister Meeting. The ASEAN ministers, however, insisted on the necessity of expeditiously concluding ASEAN-plus-one FTAs before concluding an EAFTA. The ASEAN+3 Summit in January 2007 welcomed South Korea's proposal to conduct a Phase II EAFTA study focusing on a sector-by-sector analysis, and on the other hand, the summit leaders decided to examine other possible FTAs, such as the Comprehensive Economic Partnership in East Asia (CEPEA) to cover the ASEAN+6 countries, proposed by Japan. The EAS in January 2007 agreed to launch a Track Two study on CEPEA and requested the ASEAN Secretariat to prepare a time frame for the study. Study group meetings on CEPEA have already been held several times with Japan as chair, and participants have been assigned to report on issues related to CEPEA. At the strong request of ASEAN, the ASEAN-hub and six-countries-spoke FTAs are progressing before the region-wide FTAs such as EAFTA and CEPEA.

2.2. Spaghetti Bowl Phenomenon

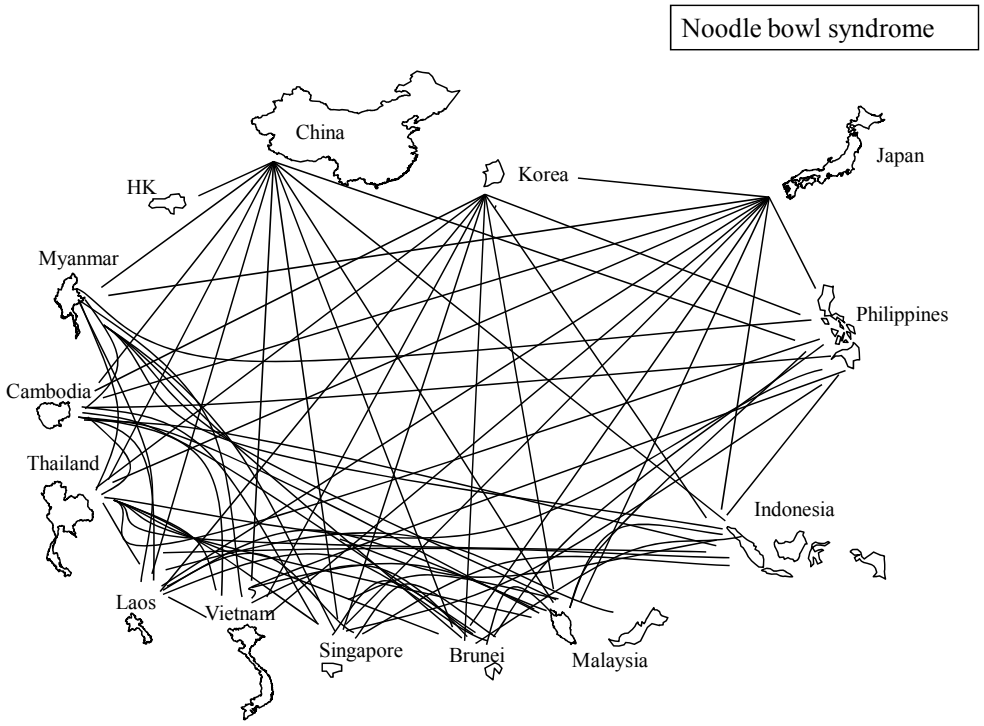
The proliferation of FTAs in East Asia might have caused a spaghetti bowl phenomenon. As of December 2008, AFTA, ASEAN-China FTA, ASEAN-Korea FTA, and ASEAN-Japan FTA have become effective, and ASEAN-CER (Australia and New Zealand) will be implemented in 2009. Each FTA sets several tariff levels such as a 0% tariff, 0%-5% tariff, 50% tariff and so on. Each FTA has a different phase-out tariff elimination schedule. ROOs vary by products and by FTA. Kawai and Wignaraja (2007) showed the different ROOs applied on automobile and auto parts. Consequently, exporters are faced with different tariffs, phase-out schedules and ROOs on a product depending on the destination.

Baldwin (2008) pointed out that the degree of market access available to an AFTA exporter of any particular product varies according to the ASEAN destination market concerned, meaning AFTA is not a single FTA but is composed of 45 (10×9÷2=45) bilateral FTAs (see Figure 1)[1]. This means that one ASEAN+1 FTA creates 55 (11×10÷2) bilateral FTAs, since each member can freely offer FTA preferential tariffs on a product. Three ASEAN+1 FTAs have been forced so far: ASEAN-China, ASEAN-Korea, and ASEAN-Japan. These three ASEAN+1 FTAs mean 165 (3×11×10÷2) bilateral FTAs. In addition, ASEAN-CER FTA was signed in February 2009, which creates 66 (12×11÷2) bilateral FTAs since it is composed of twelve countries. If regional-wide FTAs are realized, the number of bilateral FTAs in the region will increase further. The ASEAN +3 FTA potentially creates 78 different bilateral FTAs (13×12÷2), and ASEAN+6 produces 120 different bilateral FTAs (16

[1] AFTA is composed of ten member countries. Each of the ten members freely places sensitive lists with nine partners. This includes the same match, i.e., Singapore –Thailand and Thailand-Singapore. So, ten member countries can generate forty-five (10×9÷2=45) cases.

×15÷2). After all, East Asia potentially creates 474 bilateral FTAs. This complexity has been created by the system that each country can freely place strategic products on sensitive lists. So, as long as each country can freely set tariffs on products, the complex situation caused by the proliferation of FTAs will be serious.

Figure 1. Spaghetti/Noodle Bowl Syndrome



Source: Baldwin (2008).

Will the overlapping FTAs in East Asia really cause complexity for firms? Petri (2008) doubted such a view raised by Baldwin (2008) and argued that the complexly intertwined FTAs should be viewed as a trade agreement matrix. In fact, exporters in ASEAN use AFTA when they export within the region, but do not use other ASEAN-related plurilateral FTAs such as ASEAN-China FTA and ASEAN-Japan FTA.

They use ASEAN-China FTA when exporting to China. However, it is possible that one FTA may lessen the effects of other FTAs.

2.3. Evaluation of East Asia's FTA

Kawai and Wignaraja (2007) undertook the CGE analysis by using a variant of the GTAP model. The model is characterized by an input-output structure that captures the linkages by modeling firms' use of factors and intermediate inputs. They estimated the impacts of the five East Asian FTA scenarios: (1) ASEAN+China FTA; (2) ASEAN+Korea FTA; (3) ASEAN+Japan FTA; (4) ASEAN+3 (free trade among the 10 ASEAN members, China, Japan and Korea) FTA; and (5) ASEAN+6 FTA scenario (free trade among the 10 ASEAN members, PRC, Japan, Korea, India, Australia and New Zealand). The two East Asia-wide FTA scenarios—ASEAN+3 FTA and ASEAN+6 FTA offer larger gains to world income than any of the three ASEAN+1 FTA scenarios. ASEAN+6 generates larger impacts than ASEAN+3: 0.45% and 0.54% on world income, and 5.23% and 5.66% on ASEAN income.

Harrigan *et al.* (2006) evaluated East Asia's FTAs such as AFTA, ASEAN+3, ASEAN+6, the ASEAN-hub+3 spokes (China, Japan and Korea), and the ASEAN-hub+6 spokes (ASEAN FTA plus PRC, Japan, Korea, India, Australia, and New Zealand). The results show that region-wide FTAs, such as the ASEAN+3 FTA (liberalization among +3 countries) or the ASEAN+6 FTA (liberalization among +3 countries), are likely to generate greater benefits for global economies than other FTAs (Table 1). Looking at the impact by country, the consequences differ. They predict that ASEAN can reap a larger benefit from the ASEAN-hub+6 spokes than the ASEAN+6 FTA although the difference is very small.

Table 1. Welfare Effects of Trade Liberalization (as % of Baseline GDP)

	ASEAN	ASEAN+3	ASEAN+6	ASEAN-HUB+3 spokes	ASEAN-HUB+6 spokes
East Asia	0.00	0.27	0.34	0.03	0.03
Japan	0.00	0.17	0.24	0.04	0.04
PRC	0.02	0.16	0.25	0.04	0.03
Hongkong, China	0.00	0.21	0.21	0.04	0.02
Taipei,China	0.04	-0.26	-0.31	-0.10	-0.11
ASEAN	0.57	2.01	2.45	2.00	2.52
Indonesia	0.29	0.38	0.94	0.46	1.11
Malaysia	0.34	2.36	3.70	2.61	4.11
Philippines	0.02	0.86	0.88	1.21	1.29
Singapore	-0.01	1.15	1.01	-0.04	-0.41
Thailand	0.21	3.80	4.19	4.07	4.72
Vietnam	0.00	6.76	6.81	7.00	7.06
India	0.59	-0.04	1.34	-0.02	1.33
Australia&New Zealand	-0.01	-0.02	0.89	-0.02	-0.01
USA	0.00	0.00	0.00	0.00	0.00
Europe	0.00	0.01	0.01	0.00	0.00
Latin America	0.00	-0.01	-0.02	0.00	-0.01
Global	0.01	0.09	0.14	0.04	0.07

Source: Harrigan (2006), GEMAT simulations.

However, to what extent those estimated benefits are realized is not certain: some firms may use several FTAs but some may use none at all, meaning that FTAs are not fully utilized. Then a question arises: what consequences will be brought about by the reality that several FTAs exist at the same time? Oyamada (2004) developed a forward-looking, multi region, and multi sector model that make it possible to catch the impacts overtime when one FTA is implemented in a period, and sequentially another FTA is implemented in another period. He found that sequential implementation of two FTAs produced quite different consequences on regions from the expected results if each FTA were to be implemented individually. To put it differently, one FTA may offset the impact of other FTAs.

3. The Utilization of FTA by Custom Clearance Base

So, how intensively FTAs involving East Asia is utilized is a great concern not only to academicians but also to policy makers. How intensively FTAs are utilized can be measured by the utilization rates of custom recorded FTA utilized export (import) value to total export (import) value on a product by HS code. These records can be collected by the custom offices. However, due to the custom trade data collection software systems in East Asia have not been arranged to collect information on the FTA preferential trade, except in Malaysia and Thailand. Thailand and Malaysia have released the values of their trade utilizing FTAs, and these values are basic data for evaluating the status of FTA utilization in Asia. The total value of Thai exports taking advantage of AFTA amounted to 30.9% of the total value of exports in 2007, while the figure for Malaysia was 19.1%; these are the highest figures on record since 1998 (JETRO, 2008a). As for the ASEAN-China FTA, the value of Thai exports to China in 2007 that took advantage of preferential tariffs accounted for only 11.1% of the total.

Kohpaiboon (2008) analyzed administrative records for AFTA implementation of Thai exporters for the period 2003-06. This allows us to undertake a systematic analysis of AFTA utilization by Thai exporters. Transactions recorded in the administrative records of AFTA implementation, which indicate the response of the private sector to AFTA export creation. The utilization of AFTA (AFTAU) measured by the ratio of administrative records to total export was low at around 15-20% during the period 2003-06. The utilization rates on the import side were around 11-16 per cent, lower than the rates corresponding to the export side. AFTAU observed from both export and import sides are low by international standards. Kohpaiboon (2008)

concluded the AFTA utilization rates were lower than the performances of NAFTA: the utilization rate of Mexican exports to the United States under NAFTA was at around 60 per cent in 2004-05. The utilization rate of Chilean exports to the United States was around 55-56 per cent in 2005-06 (James, 2006).

4. JETRO Survey of Japanese-affiliate Firms in Asia

JETRO has carried out a survey of the state of Japanese affiliates operating in Asia for 22 years since 1987. The study had been targeted on manufacturing companies at first, but in the wake of the growth of the service sector, it started to include non-manufacturing companies as well in 2008 (the 21st survey). The 22nd survey conducted in 2009 was expanded from 7 countries consisting of ASEAN 6 (Indonesia, Thailand, Malaysia, the Philippines, Singapore and Vietnam) and India to 13 countries including Myanmar, Pakistan, Sri Lanka, Bangladesh, Australia and New Zealand. While the WTO multinational negotiations toward trade liberalization are under difficult conditions these days, Asia-Pacific countries/areas lay more emphasis on FTAs and EPAs. To study the influence of this trend, the JETRO survey has added a question on how manufacturing companies take advantages of them in the last 3 surveys. The last survey results are summarized into "Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania." FY2008 Survey was conducted, from September 25th to October 31st, on 5107 Japanese affiliates operating in ASEAN7 (Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam), Bangladesh, India, Pakistan, Sri Lanka, Australia and New Zealand. Of these, 1852 valid responses came from the thirteen

countries, for the valid respondent rate, 36.3%. Among the 1852 respondents, 1354 are in ASEAN 7, 235 are in South-East Asia, and 263 in Oceania (see Table 2).

Table 2. Number of Valid Respondents by JETRO Survey

	FY2006 (11/27/06 - 12/27/06)		FY2007 (10/29/07 - 12/3/07)				FY2008 (9/25/08 - 10/31/08)			
	Response	Valid Respons	Response	Mfg.	Non-Mfg	Valid Respons	Response	Mfg.	Non-Mfg	Valid Respons
Total	830	40.1	1,051	637	414	40.3	1,852	944	908	36.3
ASEAN Total	793	39.7	994	601	393	40.3	1,354	786	568	33.7
Indonesia	141	35.8	110	82	28	26.1	166	110	56	22.3
Malaysia	134	55.8	247	145	102	45.6	180	108	72	52.0
Myanmar	-	-	-	-	-	-	20	6	14	100.0
Philippines	162	57.0	188	129	59	57.5	172	115	57	53.3
Singapore	86	53.8	135	60	75	40.5	194	48	146	26.1
Thailand	202	24.8	261	158	103	35.4	493	317	176	31.4
Vietnam	68	67.3	53	27	26	49.1	129	82	47	46.6
SW Asia Total	37	50.0	57	36	21	41.3	235	107	128	50.5
Bangladesh	-	-	-	-	-	-	35	18	17	42.7
India	37	50.0	57	36	21	41.3	139	61	78	51.9
Pakistan	-	-	-	-	-	-	32	13	19	68.1
Sri Lanka	-	-	-	-	-	-	29	15	14	42.6
Oceania Total	-	-	-	-	-	-	263	51	212	42.4
Australia	-	-	-	-	-	-	201	35	166	38.8
New Zealand	-	-	-	-	-	-	62	16	46	60.8

Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania

4.1. The Utilization Rates of FTA

FTA use by Japanese firms differs, depending on whether they are exporting or importing. When exporters make use of FTAs, they must secure certificates of origin (COO) certifying that goods were locally produced, for which they must prepare every document that the investigating authorities require. The additional cost burden for certificate issuance, personnel, and procedures is unavoidable, and the exporting company must complete these procedures before the tariff reductions in question are applied by the importing countries. In contrast, when importers take advantage of

FTA, they need only present the COO they have acquired from the exporter at customs. Those who benefit from this arrangement are the importers, who formerly had to pay tariffs. The exporters and those who produce the parts that go into exported goods for which these procedures are necessary do not benefit directly, despite having to bear the burden of going through the necessary procedures.

In most cases, Japanese firms doing business in ASEAN have operated on the assumption of relatively low labor costs and seen ASEAN countries as a base for finishing and export. Many export-oriented firms have taken advantage of investment incentives provided by national governments and, thus, do not pay import duties. In some cases, the investment incentives for parts manufacture and export have eliminated duties altogether and have also made it unnecessary to secure COO.

In recent years, however, purchasing power has increased in ASEAN countries and elsewhere in the region, making markets there more attractive. As a result, the ASEAN operations of Japanese firms now supply local demand as well as producing for export to a third country. As described above, putting aside special cases like Vietnam, export-oriented Japanese operations, with exports accounting for 70% or more of sales, are declining. Among ASEAN nations, the role of the lower tariffs through FTA in developing markets in Indonesia and Thailand, the largest ASEAN economies, which have a low percentage of export-oriented Japanese operations, is significant indeed.

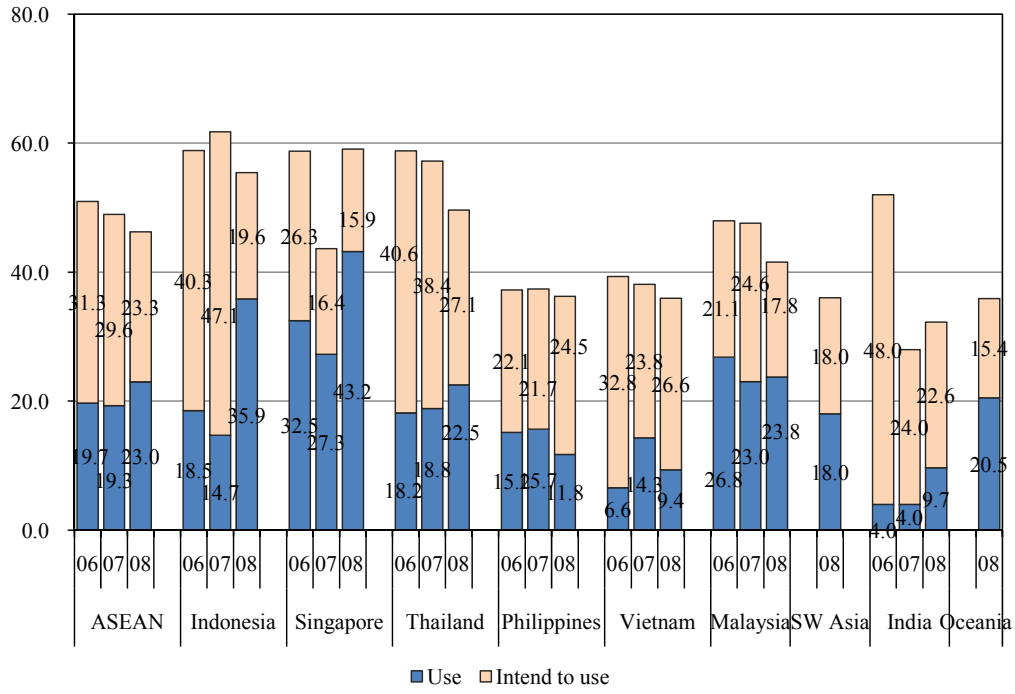
For this report, we have surveyed the use of FTA for exports and imports (with 670 exporters and 635 importers responding). When exporters decide whether to use FTA, important considerations include the following: (1) how much reduction in tariffs will result from using an FTA? (2) Can tariffs on the item in question be eliminated altogether by investment incentives provided by the destination country? (3) Are the

added paperwork costs in line with export volume? And (4) do the products in question satisfy local content criteria?

4.1.1. Exports

Of 670 Japanese affiliates with export operations in ASEAN nations, 154 affiliates (23.0%) take advantage of FTA. The highest level of FTA usage is in Singapore (43.2%), followed by Indonesia (35.9%) and Thailand (22.5%). In contrast, in the Philippines and Vietnam, which are positioned primarily as processing bases for export, the ratio is less than 10%. In Southwest Asia and Oceania, the corresponding figures are 18.0% and 20.5% respectively (Figure 2).

Figure 2. Utilization of FTA by Exporter



Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania.

Among the firms responding to our survey, around one in four (23.3%) are considering taking advantage of FTA in their ASEAN operations, a proportion almost identical with those already doing so. When answers are broken down by country, the highest scores were for Thailand (27.1%), Vietnam (26.6%), and the Philippines (24.5%), where hopes for benefits from FTA/EPA run high. When we combine "already using" and "considering use" scores, the resulting shares for "firms interested in FTA/EPA" include 46.3%, nearly half, for ASEAN as a whole. High scorers include Singapore (59.1%), Indonesia (55.5%), and Thailand (49.6%).

Next, we looked at exporter use of particular FTAs of which ASEAN countries are signatories. To eliminate high scores due to small numbers of cases in the denominator, we restricted our analysis to agreements for which (1) we had qualified responses from 20 or more firms and (2) the proportion of firms taking advantage of the agreements was 5% or more (Table 3). The most widely used FTA around the Pacific Rim is Singapore's AFTA. Of Japanese manufacturing firms in Singapore, 31.8% make use of this agreement. The next most commonly used agreement is JIEPA, the EPA concluded between Japan and Indonesia, at 21.7%. JIEPA went into effect in July 2008, and, while this survey was conducted only four months later, one firm in five was already utilizing it. Of Japanese firms operating in Indonesia, those taking advantage of JIEPA for exports to Japan come mainly from the textiles, apparel, cloth products, lumber and wood products, and plastic products industries. The third most commonly used agreement is ACFTA, the ASEAN-China FTA, which is utilized by 18.2% of Japanese firms in Singapore. Here the most active users are firms in the food and agricultural and fisheries products, chemicals, and electrical and electronic components categories. Japanese firms based in Singapore are more likely to be exporting to China

than those based in neighboring countries; China accounts for 11.4% of their exports on average.

Figure2 show that the use of these agreements has grown in Indonesia, Singapore, Thailand, and India in these three years. The signing of the JIEPA agreement between Japan and Indonesia in July 2008 added to this trend. Another important factor was the agreement with Thailand, which became effective as of November 2007. (The AJECP agreement with Vietnam was signed on December 1, 2008, after this survey was conducted, so its effects do not appear in these results, and the usage rate therefore is not reported to have risen.) If we combine the figures for firms already using or considering use of FTA in a single "proportion of firms interested in FTA" score, we find this total score steadily declining over the past three years in the ASEAN countries. Conversely, the number of firms responding that they have no interest in FTA has gradually increased. The major reasons for these trends are that tariffs have already been lowered, and Japan has no FTAs with export destination countries in Europe and America. (Details will be included in another analysis.)

Turning to use of FTAs by Japanese firms broken down by country or region, we find that 5 out of 16 cases, nearly a third, involve operations in Singapore. Singapore has, since the signing of its first bilateral FTA, with New Zealand, in 2001, vigorously pursued additional agreements with its export partners, concluding further agreements in the Asia-Pacific region with Japan (2002), Australia (2003), India (2005) and Korea (2006). As a result, it now possesses Asia's largest network of FTAs, and Japanese firms have benefited from these agreements.

The FTA most utilized by Japanese firms with operations in the Pacific Rim is the ASEAN Free Trade Area (AFTA; six participants) and four countries' EPA with Japan.

Table 3. Utilization of FTA by Exporter (20+ Valid Responses, Usage Rate at 5% or More)

Rank	Base Country	FTA Partner	Valid Responses	Use FTA %	FYI: % of firms in the country using FTA
1	Singapore	ASEAN	44	31.8	43.2
2	Indonesia	Japan	92	21.7	35.9
3	Singapore	China	44	18.2	43.2
4	Australia	New Zealand	24	16.7	20.8
5	Malaysia	ASEAN	101	14.9	23.8
6	Thailand	ASEAN	262	13.7	22.5
7	Malaysia	Japan	101	12.9	23.8
8	Thailand	Japan	262	11.5	22.5
9	Singapore	Japan	44	11.4	43.2
10	Singapore	Korea	44	9.1	43.2
11	Singapore	Australia	44	9.1	43.2
12	Philippines	ASEAN	102	8.8	11.8
13	Vietnam	ASEAN	64	7.8	9.4
14	Indonesia	ASEAN	92	6.5	35.9
15	India	Thailand	31	6.5	9.7
16	Malaysia	China	101	5.0	23.8

Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania

When AFTA went into effect in 1993, the reduction in tariffs attracted great attention. According to materials from the ASEAN Secretariat, as of August 2008, Singapore had eliminated tariffs on all listed items. Brunei had eliminated tariffs on 85.4% of listed items, the Philippines on 82.9%, Malaysia on 82.6%, Thailand on 80.6% and Indonesia on 80%. All the ASEAN-6 countries had, thus, achieved the agreement's 80% mid-term target. As a result, by 2008, the average tariff had fallen in ASEAN-10 countries to 1.95% and, in the ASEAN-6, to less than one percent (0.97%). The ASEAN countries are now in the final stage towards complete elimination of tariffs in 2010. August 2008 also saw changes in conditions for utilizing AFTA, which were hoped to

promote greater use of the agreement. The criterion for taking advantage of AFTA had been 40% local or regional added value. Alternative criteria now included Product Specific Rules (PSR, i.e. Change in Chapter (CC) or Change in Tariff Heading (CTH) or Change in Tariff Sub Heading (CTSH) or Process Rule). As a result, it suddenly became possible to enjoy AFTA's preferential tariff rates, the lowest in Asia, for previously excluded products.

In contrast, for most of Japan's EPA, apart from that with Singapore, have only been in effect since 2006, and tariffs have not yet been eliminated. Nonetheless, Indonesia at 21.7%, followed by Malaysia, Thailand and Singapore, all rank high in the share of exports covered by FTA. Japan's own tariffs on manufactured and other nonagricultural goods are the lowest in the world. According to the WTO' World Tariff Profiles 2008, Japan's tariffs in the nonagricultural sector average 2.6%, lower than either the USA (3.2%) or the EU (3.8%). Japan retains, however, an average 21.8% tariff on agricultural and processed agricultural products, including 154.7% on dairy products and 64.3% on grains and grain-based products. As of February 2009, Japan has given a generalized tariff preference (GSP) status, imposing lower than the usual tariffs, on 337 agricultural and fisheries products and 5,980 mineral products from developing nations. Under Japan's EPA, for GSP items on which the GSP rate is lower than the EPA preferential rate, the GSP rate can be applied. Since, however, in almost all cases, the EPA tariff is lower, these items are excluded from GSP coverage. This explains why we find in this survey that many companies are now taking advantage of the EPA has switched from the GSP.

For example, Thailand's FTA with Japan came into effect in November 2007. Following the FTA's coming into effect, use of GSP shrank dramatically. According to

Thailand's Department of Commerce, the total value of exports to Japan taking advantage of GSP between January and November 2008 was US$127.08 million, an 88.8% decline from the US$1.1345 billion reported for the same period in the previous year. Exporters were switching from use of the GSP to the FTA.

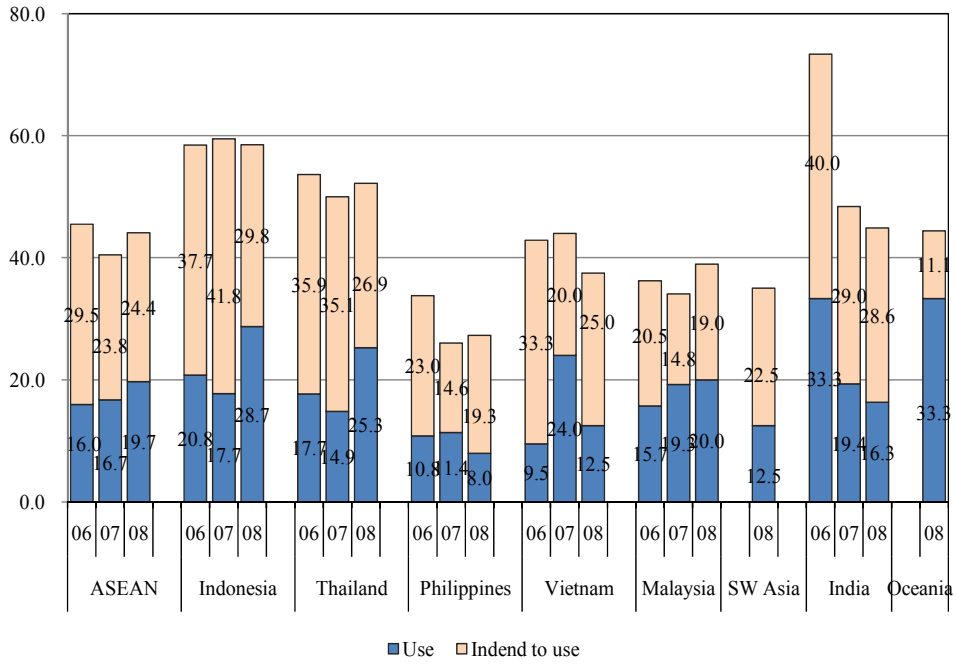
4.1.2. Imports

For ASEAN as a whole, of 635 Japanese affiliates with import operations in the ASEAN nations, 131 firms (20.6%) utilize FTA for imports, slightly less than the 23% for exports. Use of FTA for imports is especially prevalent in Oceania (33.3%); 42.1% of Japanese firms doing business in Australia report taking advantage of these agreements. Next come firms doing business in Indonesia (28.7%), Thailand (25.3%) and Malaysia (20.0%). Looking back over our latest three surveys, we find that the share of importers taking advantage of FTA has increased in Indonesia, Thailand, and Malaysia. As reported for exports, for imports too, the substantial increase in the usage rates in Indonesia and Thailand in 2008 demonstrates the impact of the FTA concluded between Japan and these countries. Of the 27 firms with operations in Indonesia that take advantage of FTA, the majority are making use of JIEPA, the FTA between Japan and Indonesia. Of the 27, 23 import goods from Japan, of which 16 (70%) take advantage of JIEPA. Three are firms in the iron and steel and metal products sector. Two are suppliers of transportation equipment.

The proportion of Japanese firms with operations in ASEAN that report that they are considering making use of these agreements is 24.4%. If we combine these firms with those already taking advantage of FTA, we see little change over the last three years in the interest in them, with the proportion about 45% for ASEAN as a whole.

We see similar figures from Oceania and India, included for the first time in the survey reported here. The degree of interest varies from country to country but is relatively high in Indonesia (Figure 3).

Figure 3. Utilization of FTA by Importer



Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania.

Note: Singapore put tax on only 6 alcoholic items including beer. Therefore Singapore is omitted from this figure.

To calculate the proportion of FTA usage by countries in which Japanese firms operate, we use the same method for imports as for exports, using only agreements for which we have valid answers from 20 or more firms and usage rates of 5% or more. The agreement most often made use of is JIEPA, the Japan-Indonesia FTA, at 17%. Next come Japan's EPA with Malaysia and Thailand. Thus, the top three are EPAs

with Japan. Except for TIFTA, Japan's FTA with India, with its early harvest lowering of tariffs at No. 5, all of the other agreements are within the ASEAN Free Trade Area (AFTA) (Table 4).

Table 4. Utilization of FTA Importer (20+ Valid Responses, Usage at 5% or More)

Rank	Base Country	FTA Partner	Valid Responses	Use FTA %	FYI: % of firms in the country using FTA
1	Indonesia	Japan	94	17.0	28.7
2	Malaysia	Japan	95	12.6	20.0
3	Thailand	Japan	253	12.3	25.3
4	Thailand	ASEAN	253	10.3	25.3
5	India	Thailand	49	10.2	16.3
6	Malaysia	ASEAN	95	9.5	20.0
7	Vietnam	ASEAN	64	9.4	12.5
8	Philippines	ASEAN	88	8.0	8.0
9	Indonesia	ASEAN	94	7.4	28.7

Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania

In Oceania, the Thailand-Australia FTA (TAFTA) came into effect in January 2005. Major Japanese corporations took advantage of this FTA to import cars and electrical products produced in Thailand into Australia. Since only 19 firms provided valid responses from Australia, these responses are not included in Figure 9. We should note, however, that 31.6% of Japanese firms active in Australia take advantage of the TAFTA, which, of the FTA into which Australia has entered, is the most often used. Among cars imported into Australia, passenger cars produced in Thailand rank No. 3, after cars from Japan and Germany. In the commercial vehicle segment, it is the largest source of imported vehicles, topping Japan and the USA.

4.2. Reasons for Not Utilizing FTA/EPA

Since the year 2000, awareness of FTA/EPA has increased sharply throughout Asia. Because, however, there is great variation from country to country, we still find that more than half of the firms we surveyed neither take advantage of nor consider making use of these agreements. As far as exports are concerned, the major reasons for not utilizing FTA/EPA in the ASEAN region are, first, "The countries to which we export have already reduced tariffs; FTA offers no additional benefit" (123 firms, 37.6%). Second is, "There are no FTA/EPA with the countries to which we export" (75 firms, 22.9%). Some companies say, "Tariffs are already low in the countries to which we export; there is no additional benefit to using FTA" (65 firms, 19.9%). When manufactured goods are sent back to Japan, tariffs are either extremely low or have been eliminated altogether, making it unnecessary to employ FTA or EPA, a point that underlies the results reported for ASEAN. In the cases of Southwest Asia and Oceania, however, nearly 40% of all the responding companies note that there are no FTA/EPA with the countries to which they export (Table 5).

Turning, then, to imports, we find that the overwhelmingly most important reason why FTA are neither employed nor considered is that in the ASEAN region, investment incentive schemes have already eliminated tariffs, a reason cited by 157 (48.9%) of the 351 firms that responded to that question. Other reasons mentioned include "low levies on products sold domestically" (13.4%) and "no FTA/EPA with the countries from which we import" (13.1%). In Oceania and Southwest Asia, however, the absence of FTA/EPA is the reason cited by 50% and 42.6% of responding firms respectively (Table 6).

Table 5. Reasons for not Using FTA (%): Exports

	Low tariff, no benefit from FTA	Tariff exempt, no benefit from FTA	COO hurdle too high	High cost of COO	COO procedures too complex	Unaware of FTA/EPA or can't get paperwork	Many different COO rules within the various FTA/EPA; too	No FTA/EPA with destination	Other
ASEAN (n=327)	19.9	37.6	4.0	2.5	4.6	1.5	4.6	22.9	22.6
Indonesia (n=34)	17.7	38.2	2.9	8.8	5.9	2.9	5.9	26.5	35.3
Malaysia (n=55)	23.6	52.7	-	-	1.8	-	1.8	14.6	14.6
Myanmar (n=4)	-	75.0	25.0	-	-	-	-	25.0	-
Philippines (n=61)	9.8	32.8	4.9	-	3.3	1.6	9.8	21.3	27.9
Singapore (n=15)	6.7	40.0	-	13.3	13.3	6.7	6.7	20.0	26.7
Thailand (n=122)	26.2	32.8	6.6	2.5	6.6	1.6	4.1	22.1	22.1
Vietnam (n=36)	19.4	33.3	-	-	-	-	-	38.9	16.7
SW Asia (n=37)	16.2	18.9	-	-	-	2.7	2.7	37.8	29.7
India (n=19)	10.5	5.3	-	-	-	5.3	-	42.1	42.1
Oceania (n=24)	12.5	29.2	-	-	-	-	-	41.7	25.0

Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania

Table 6. Reasons for not Using FTA (%): Imports

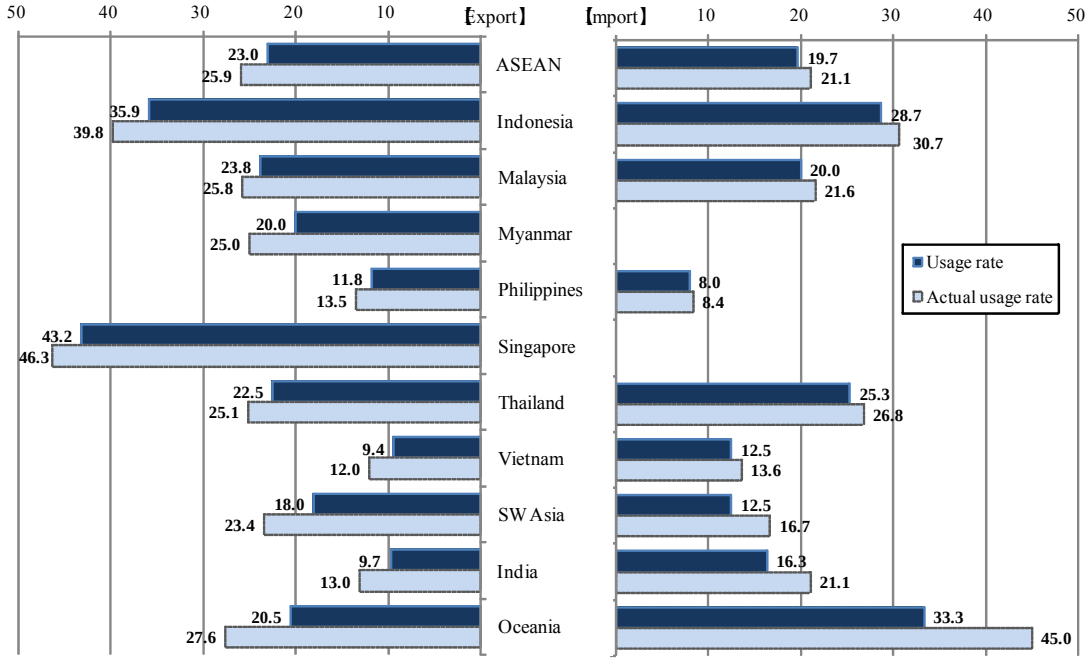
	Investment incentive scheme already lowers tariffs	Few domestic sales on which tariffs	Procurement sources unaware of FTA/EPA	FTA not applicable to intermediary trades	Ordinary tariffs low, no benefit from FTA	No benefit from stepwise FTA reduction	No FTA/EPA with source	Other
ASEAN (n=321)	48.9	13.4	2.2	0.3	12.8	4.1	13.1	15.9
Indonesia (n=35)	34.3	14.3	-	-	11.4	5.7	17.1	31.4
Malaysia (n=55)	45.5	20.0	-	1.8	14.6	3.6	12.7	10.9
Myanmar (n=5)	20.0	60.0	20.0	-	-	-	40.0	-
Philippines (n=60)	61.7	8.3	3.3	-	5.0	-	8.3	16.7
Singapore (n=18)	-	22.2	5.6	-	22.2	-	16.7	38.9
Thailand (n=113)	51.3	10.6	2.7	-	15.9	8.0	12.4	14.2
Vietnam (n=35)	68.6	8.6	-	-	11.4	-	14.3	2.9
SW Asia (n=47)	29.8	4.3	4.3	-	2.1	4.3	42.6	14.9
India (n=23)	4.4	-	8.7	-	4.4	8.7	47.8	30.4
Oceania (n=14)	-	-	-	-	14.3	7.1	50.0	28.6

Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania.

Unless an FTA exists between the importing and exporting countries, their utilization is simply impossible. Thus, when calculating FTA usage ratios, we first subtract from the qualified responses that form the denominator of the fraction those which indicate that no FTA exists between the importing or exporting countries in question and then recalculate our results. With this correction, both export and import usage increase. Export usage rises from 23.0% to 25.9%, while import usage rises

from 20.6% to 22.1%. In the case of Oceania the increase is dramatic, from 7.1% to 27.6% for exports and from 11.7% to 45.0% for imports (Figure 4).

Figure 4. FTA Usage and Real Usage Rates



Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania.

Note: Singapore put tax on only six alcoholic items such as stout & porter, samsu, etc. Therefore Singapore Import is omitted from this figure.

4.3. The Preferential Tariff Margin and Use of FTA/EPA

As noted above, when exporters make use of an FTA/EPA, they incur the added cost of securing COO. Thus, only when the preferential tariff margin gained by using FTA/EPA is greater than the additional cost of procedures involved will companies consider utilizing FTA. All the companies responding to this survey, both those that make use of FTA and those considering making use of FTA, compare the preferential tariff margin, the tariff reduction, from utilizing an FTA with that available Most

Favored Nation (MFN) status in deciding whether to use FTA. Of the 390 manufacturing firms doing business in Asia and Oceania, the largest proportion (28.2%) state that they would consider using an FTA with a preferential tariff margin in the 3%-5% range. Another 27.9% said that they would consider it if the margins were between 5-7%. At the other extreme, 15.6% of those companies reported that they would not consider making use of FTA unless the tariff margin is at 10% or more. Most of that group of companies have small volumes of exports and think that it would take a preferential tariff margin of 10% or more to over the added costs of obtaining COO.

Using the median in each category, we calculated the average preferential tariff margin at which Japanese firms will make use of FTA/EPA; the result is a trigger value of 5.3%. By region, that trigger is at its lowest in ASEAN (5.2%), followed by Oceania (5.9%) and Southwest Asia (6.2%). In ASEAN, securing COO is already a relatively widespread practice; since those costs are, thus, often already in the equation, the preferential tariff margin that will trigger FTA/EPA usage is lower. Indonesia, for example, is the ASEAN country in which, in terms of required paperwork, is the easiest to use FTA/ETA. There, the screening for local origin is carried out promptly, as early as the day of application or no later than three days of application, and the COO is then issued immediately. JIEPA, Japan's EPA with Indonesia, only came into effect in July 2008, but Japanese firms report that in most cases they have no trouble obtaining a COO, usually within one day. Thus, for Indonesia, the preferential tariff margin that would trigger the use of EPA was only 4.3%, 1% lower than the ASEAN average. Countries differ in the costs of the paperwork and procedures required to acquire COO; the more complicated the procedures, the higher the preferential tariff margin needs to

be. In general, however, more companies would start to use FTA if the added benefit of lower tariffs in the destination country was in the neighborhood of 5%-6% on average (Table 7).

Table 7. Preferential Tariff Margin Needed to Consider Use of FTA (# of firms): Exports

	Asia-Oceania	ASEAN	Thailand	Indonesia	Malaysia	Philippines	Vietnam	SW Asia	Oceania
Response	390	339	152	66	39	36	26	34	17
<1%	26	23	11	7	2	1		2	1
1-3%	56	50	26	10	5	5	3	3	3
3-5%	110	98	36	27	10	14	6	8	4
5-7%	109	97	44	15	17	6	9	9	3
7-9%	10	9	6	3				1	
9-10%	18	16	10	1	1	2	2	2	
≥10%	61	46	20	3	4	8	6	9	6

Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania

4.4. Investment Incentive Management Costs Affect Use of FTA/EPA

As reported above, nearly half (48.9%) of the Japanese firms not utilizing FTA in ASEAN already enjoy lower tariffs due to investment incentive schemes. In many ASEAN countries, incentives to promote inbound investment reduce or eliminate tariffs on materials or parts imported for assembly and exported as finished products. In these cases there is no need to make use of FTA/EPA. Specifics vary from country to country, but to take advantage of investment incentive schemes, normally requires, first, permission to invest, plus applications and licenses for imports. Regular reports must be submitted to the authorities in charge of these schemes, and parts and materials imported and assembled to meet local demand must be accounted for separately from the management of parts and materials imported and assembled for export.

For companies to switch from investment incentive schemes to taking advantage of

FTA would require that the costs of switching to FTA be lower than the management costs incurred by participation in the investment incentive scheme in question. When we asked firms doing business in Asia about the added management cost of participating in investment incentive schemes, nearly half answered that they were less than 1% of the cost of imported materials or parts. The next most common answer (33.3%) was between one to three percent. Calculations based on the median score in each category suggest that the cost of participation in investment incentive schemes, is, on average, 1.9% of the cost of imported materials or parts for all of Asia and for ASEAN, and 2.3% for Southwest Asia. A breakdown by country shows that the highest management cost is in Thailand (2.2%), followed by Vietnam (2.2%) and Malaysia (1.7%). The lowest cost is in Indonesia (1.3%) (Table 8).

Table 8. Ratio of Investment Incentive Scheme Management Costs to Imported Materials and Parts Costs (%)

	Asia-Oceania	ASEAN	Thailand	Indonesia	Malaysia	Philippin	Vietnam	SW Asia	Oceania
Response	390	339	152	66	39	36	26	34	17
<1%	6.7	6.8	7.2	10.6	5.1	2.8	0.0	5.9	5.9
1-3%	14.4	14.7	17.1	15.2	12.8	13.9	11.5	8.8	17.6
3-5%	28.2	28.9	23.7	40.9	25.6	38.9	23.1	23.5	23.5
5-7%	27.9	28.6	28.9	22.7	43.6	16.7	34.6	26.5	17.6
7-9%	2.6	2.7	3.9	4.5	0.0	0.0	0.0	2.9	0.0
9-10%	4.6	4.7	6.6	1.5	2.6	5.6	7.7	5.9	0.0
≥10%	15.6	13.6	13.2	4.5	10.3	22.2	23.1	26.5	35.3
Average	5.3	5.2	5.3	4.3	5.2	5.6	6.3	6.2	5.9

Source: Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania

At present, the FTA/EPA that has made the greatest progress in reducing tariffs is AFTA. Because of AFTA, in 2008 the ASEAN-6 reduced tariffs to an average of 0.97%. The cost of tariffs fell below the management cost of participating in

investment incentive schemes. However, the ASEAN share of Japanese firms' procurements is still limited. Our previous survey found that the proportion of procurements from ASEAN countries to total procurements (including local procurements) was at most 11.5%, far smaller than that of procurements from Japan (37.8%) or local procurements (40.0%). Thus, on the import side, most Japanese firms are still waiting for further tariff reductions before participating in individual EPA between ASEAN countries and Japan or the ASEAN-Japan Comprehensive Economic Partnership (AJCEP) agreement. Except for Singapore, EPA between Japan and ASEAN countries first became effective with Malaysia in July 2006, followed by Thailand in 2007, and Indonesia in 2008; the EPA to which Japan is a signatory requires up to 10 years to eliminate tariffs completely. Thus, Japanese firms now mainly importing materials or parts from Japan under investment incentive schemes are likely to continue to do so.

5. Econometric Analysis on FTA Utilization

This section is aimed to clarify firm characteristics encouraging or discouraging firms' use of FTA scheme by conducting econometric analysis for the firm-level data introduced in the previous section. Thus our sample is Japanese overseas affiliates in 2006, 2007, and 2008. In order to fix sample countries identical across years, we restrict to such affiliates in six ASEAN member countries: Thailand, Malaysia, Singapore, Indonesia, the Philippines, and Vietnam. Therefore, the main FTA scheme

in our mind here is CEPT scheme, though there are also other FTA schemes available for firms in ASEAN countries.

5.1. Empirical Framework

In this paper, we employ the following probit model, given by:

$$\Pr(FTA_i=1|X_i) = \Phi(X_i'\beta),$$

where $\mathbf{X}_i$ = (ln *Employment*$_i$, *Zero tariff share*$_i$, *Local input share*$_i$, *Local input share*^2$_i$). $\Phi(\cdot)$ is the standard cumulative normal probability distribution. FTA_i is an indicator variable taking unity if a firm *i* uses bilateral or multilateral FTAs and zero otherwise. We examine three kinds of firm characteristics: *Employment*, *Zero tariff share*, and *Local input share*. The second one is presumed to be important for the utilization in importing, and the first and last ones are for that in both importing and exporting.

First, a variable *Employment* embodies a firms' scale. In utilizing FTA schemes, firms generally have to incur some costs to prepare documents, i.e. employing additional indirect staff to cope with the matters of FTAs, which become a kind of fixed cost for them. The well-known Melitz model indicates that only firms with higher productivity can afford to pay expenses for exporting (Melitz, 2003). Applying this argument to our context, such document costs generate selection effects in firms' use of FTA according to firms' productivity. To examine this claim, we introduce firms' employment as an independent variable because our dataset does not have convincing productivity measures, i.e. value-added and so on. Since firms with higher productivity produce more output and thus employ more employees, the use of the employment as a proxy for productivity would be plausible to some extent. As a result, the larger the firms' scale, the more likely they would be to utilize FTA schemes.

Next, in order to examine the influence of alternatives to benefit from zero import duty schemes on firms' FTA utilization, we introduce a variable *Zero tariff share*. This variable represents a share of imports with zero tariffs through channels other than FTA, in total imports. There are several channels to import goods through without paying tariffs. The first is an enjoyable one for all firms. When firms decide not to utilize FTA, they will pay general tariff rates, usually Most Favored Nations rates (MFN rates). Thus, as mentioned in section 4.3, if the MFN rates are already zero, they do not have to pay any import duties. Also, most of the information technology-related products can be traded without tariffs due to the Information Technology Agreement (ITA). The second is a channel for foreign-owned firms. They tend to obtain some investment promotion schemes from host countries' governments particularly when entering those countries. An example is tariff exemption on imported inputs for export purposes. If firms already have these alternatives, they do not need to further utilize FTA schemes, as mentioned in section 4.4. As a result, firms that already import without tariff burdens are less likely to utilize FTA in importing.

Last, a share of local inputs in total inputs, *Local inputs share*, is introduced. In utilizing an FTA scheme in exporting, exported goods must comply with ROOs. In CEPT scheme, for example, inputs from ASEAN member countries must account for at least 40 percent of their gross output value (regional value content rule[2]). Thus, given inputs from the other ASEAN countries, affiliates with the larger local inputs share in an ASEAN member country are more likely to be able to utilize CEPT scheme in exporting their products to other ASEAN countries. On the side of FTA utilization in importing, however, their extremely large share might discourage the use of an FTA scheme. This

[2] Since 1 August 2008, the CEPT ROOs include "Change in Tariff Headings Rule". But, since our sample hardly covers such period, we focus on the regional value content rule.

is because their larger share implies a smaller share of imports, which is more likely to fail to cover fixed costs, e.g. documentation costs, for an FTA scheme in importing. As a result, the share of local inputs is positively and negatively associated with FTA utilization in exporting and importing, respectively.

Before reporting data issues and estimation results, there are two points to be noted in our construction of a dependent variable. First, this paper takes as firms utilizing FTAs, not only firms that currently use any existing bilateral or multilateral FTAs already in force but also firms that are considering using them. This contributes to avoiding difficulties in our dataset. Although it is desirable to restrict our sample to firms exporting to or importing from countries with FTAs with countries in which those firms locate, our dataset cannot identify trading partner countries in each firm. However, such a restriction turns out to be not always necessary if we include firms under consideration. Furthermore, it also might not be necessary that the trading partner countries have already concluded FTAs. Hereafter, not only firms that currently use FTAs but also firms that are considering using them are collectively called "firms using FTAs".

Second, in this paper, we examine the correlation of the above-proposed firms' characteristics with FTA schemes in importing and exporting simultaneously, not separately. That is, our dependent variable takes unity if FTAs are used in either importing *or* exporting. There are two reasons for such simultaneous examination. The first one is based on an empirical fact: The FTA scheme tends to either be utilized in both importing and exporting or be not utilized at all. Indeed, in Japanese affiliates in ASEAN countries, the former type of affiliate occupies 37% of all the affiliates, and

the latter type 48%, as shown in Table 9[3]. Thus, from the empirical point of view, there are no qualitative differences in results between the separate examination and the simultaneous examination. The other is based on the above-mentioned theoretical prediction in *Local inputs share*. In order to utilize FTA in both importing and exporting, a medium share of local inputs would be optimal. If this prediction is correct, affiliates not utilizing FTA would have either a large or small share of local inputs. As a result, taking the above empirical fact into consideration, we will not obtain sharp results in *Local inputs share* in the separate examination.[4] In sum, there might be inverse U-shaped relationship between firms' FTA use and a share of local inputs. To examine such non-linear relationship, we also introduce the square term of local inputs ratio, *Local inputs share*^2.

Table 9. FTA Utilization between Exporting and Importing

ALL		Exporting	
		NO	YES
Importing	NO	48% (793)	10% (166)
	YES	5% (84)	37% (623)

Source: Authors' compilation by using "Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania"

5.2. Data and Basic Statistics

The source of our data for estimation is the one that was explored in the previous section, "Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania." After some cleaning, the total observations turn out to be 1,666 firms in 2006, 2007, and

[3] As argued above, also in this table, firms utilizing FTAs include those planning to use FTAs.
[4] Indeed, we could not obtain significant results in *Local inputs share* at all in the case of separate examination.

2008, as shown in Table 10. Although some items are answered within a certain range, we evaluate the answers of such items in their median. For example, a share of local inputs in total inputs is chosen among 0, 0-10, 10-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, and 100. These shares are replaced with 0, 5, 15, 25, 35, 45, 55, 65, 75, 85, 95, and 100, respectively.

Table 10. Basic Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
FTA	1,666	0.524	0.500	0	1
ln Employment	1,666	5.476	1.444	0.000	11.608
Zero Tariff Share	1,666	0.576	0.430	0	1
Local Input Share	1,666	0.382	0.319	0	1

Source: Authors' compilation by using "Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania".

Next, employing this dataset, we present another overview on the FTA utilization and firms' characteristics by country. Table 11 shows FTA utilization between exporting and importing by country. There are three points to be noted. First, as in table 9, we can see in any countries that the FTA scheme tends to either be utilized in both importing and exporting or not being utilized at all. Second, affiliates in Indonesia are more likely to use FTA schemes in both exporting and importing than those in the other ASEAN countries. There are a larger number of firms using these in both exporting and importing than firms not using these at all. Third, contrary to the second point, affiliates in the Philippines are less likely to use FTA schemes. Those in Malaysia and Vietnam also tend not to use these.

Table 11. FTA Utilization between Exporting and Importing, by Country

Thailand		EXP	
		NO	YES
IMP	NO	202	42
	YES	41	227

Singapore		EXP	
		NO	YES
IMP	NO	67	20
	YES	1	52

Philippines		EXP	
		NO	YES
IMP	NO	202	29
	YES	5	81

Malaysia		EXP	
		NO	YES
IMP	NO	166	40
	YES	5	96

Indonesia		EXP	
		NO	YES
IMP	NO	81	28
	YES	25	124

Vietname		EXP	
		NO	YES
IMP	NO	75	7
	YES	7	43

Source: Authors' compilation by using "Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania"

Table 12 shows mean values of the firms' characteristics in our analysis by country. In this table, two points are noteworthy. First, zero tariff shares are low in Thailand and Indonesia and are high in Malaysia, Philippines, and Vietnam. In these countries, incentive schemes are equally available, resulting in the pushing up of their zero tariff shares. One source of differences in the shares might be a main sector of Japanese affiliates in each country. For example, their main sectors in Thailand and Malaysia are automobile and electrical machinery, respectively. The automobile sector has relatively high tariffs, while the electrical machineries have zero MFN rates in many products under the ITA. As a result, such a difference might contribute to yield differences in zero tariff shares across countries. The second noteworthy point is that local input shares are high in Thailand and are low in Vietnam. The high share in Thailand might be again due to the general tendency of a high local procurements ratio in the automobile sector. In addition, differences in the maturity of local suppliers between Thailand and Vietnam should give rise to these differences in the local input shares.

Table 12. Mean Values in Variable, by Country

	Obs	Mean	Obs	Mean	Obs	Mean
	Thailand		Malaysia		Singapore	
FTA	512	0.605	307	0.459	140	0.521
ln Employment	512	5.619	307	5.267	140	4.185
Zero Tariff Share	512	0.368	307	0.734	140	0.678
Local Input Share	512	0.513	307	0.400	140	0.293
	Indonesia		Philippines		Vietnam	
FTA	258	0.686	317	0.363	132	0.432
ln Employment	258	5.766	317	5.720	132	5.625
Zero Tariff Share	258	0.419	317	0.783	132	0.718
Local Input Share	258	0.401	317	0.261	132	0.184

Source: Authors' compilation by using "Survey of Japanese-Affiliated Firms in ASEAN, India, and Oceania"

5.3. Empirical Results

Regression results are reported in Tables 13. The column (I) shows our baseline result, which is completely consistent with our expectation. The coefficient for *Employment* is significantly positive, indicating that the larger the affiliate, the more likely it is to utilize an FTA. Also, affiliates that often import their inputs with zero tariffs do not need to consider the use of FTAs significantly. This result confirms that investment promotion incentives and low general tariff rates surely play an alternative role to FTA utilization. In addition, we can find the significant inverse U-shaped relationship between FTA use and a share of local inputs. Calculating the maximum share (= - $\beta_{Local\ inputs\ share}$ / (2 $\beta_{Local\ inputs\ share\^2}$)), we can see that affiliates with 42% are most likely to utilize FTAs. It is interesting that such a maximum share of local inputs almost completely coincides with the required share of inputs from ASEAN countries in value content rule, 40%. This result might indicate that Japanese affiliates minimize costs for FTA utilization in both importing and exporting accurately to some extent, particularly in the share of local inputs.

Table 13. Empirical Results: Probit for FTA Utilization

Sample	ALL			Trading Affiliates		
Equation	(I)	(II)	(III)	(IV)	(V)	(VI)
ln *Employment*	0.084***	0.097***	0.096***	0.081***	0.094***	0.093***
	[0.022]	[0.027]	[0.027]	[0.022]	[0.027]	[0.027]
Zero Tariff Share	-0.627***	-0.339***	-0.346***	-0.634***	-0.348***	-0.354***
	[0.076]	[0.088]	[0.088]	[0.076]	[0.088]	[0.088]
Local Input Share	1.236***	1.046***	1.044***	1.148***	1.012***	1.012***
	[0.351]	[0.383]	[0.384]	[0.355]	[0.387]	[0.387]
Local Input Share ^2	-1.480***	-1.502***	-1.501***	-1.350***	-1.452***	-1.452***
	[0.373]	[0.403]	[0.404]	[0.380]	[0.411]	[0.412]
Maximum	42%	35%	35%	43%	35%	35%
Year dummy	NO	YES	NO	NO	YES	NO
Sector dummy	NO	YES	YES	NO	YES	YES
Country dummy	NO	YES	NO	NO	YES	NO
Country-year dummy	NO	NO	YES	NO	NO	YES
Observations	1,666	1,666	1,666	1,652	1,652	1,652
Pseudo R2	0.041	0.111	0.112	0.111	0.110	0.111

Notes: Robust standard errors are in parentheses. ***, **, and * show 1%, 5%, and 10% significance, respectively.

We conduct several kinds of robustness checks. The first one is to introduce fixed effects into our equation, and its results are reported in columns (II) and (III). Particularly in (III), we control all of the time-variant country specific characteristics such as potential administrative costs in each country. In fact, since August 2008, AFTA has employed the option system of ROO criterion, and Japan has lifted the obligation to submit invoices attached to documents. Therefore, potential administrative costs might change by country and by year. To control these changes, we introduce a country-year fixed effect into our equation. As a result, we can see that the results in firm characteristics are qualitatively unchanged with the previous one. That is, we can say that an affiliates' scale is important to cover some kinds of costs for preparing documents for FTA utilization, and that low tariff schemes serve as an

alternative to FTA schemes. In addition, affiliates with the larger share of local inputs are likely to comply with ROOs in exporting, but their extremely large share fails to cover fixed costs for FTA schemes in importing.

The second robustness check is to restrict our sample only to affiliates that are importing and/or exporting. Although, as argued above, it is not a severe problem basically to include non-trading firms in our sample because our dependent variable includes firms that are considering an FTA scheme, such a restriction would yield a cleaner picture on the choice of FTA utilization. These results in firm characteristics are reported in columns (IV), (V), and (VI), and are qualitatively unchanged with our baseline result. That is, an affiliates' employment is positively related to their FTA use, while their share of imports with zero tariffs is negatively associated with that. We can say that the maximum share of local inputs is again around 40%.

In this purer examination, the results of fixed effects are also worth being reported. They are in Table 14 and have three noteworthy points. First, the likelihood of affiliates' FTA utilization falls significantly from 2006 to 2008. Thus, we can say that the rise of FTA utilization in some countries, which was detected in Section 4, is induced by changes of firms' attributes in those countries rather than by the improvement of FTA scheme. In order to clarify the causes of such negative significance, the further investigation will be necessary. Second, the FTA is more likely to be utilized in textile and automobile sectors and is less likely in plastic products, electrical machinery and electronic equipment, and electric and electronic parts and components. The contrast between automobile and electrical machineries would be attributed to the differences in tariff rates. As pointed out above, most of the IT products can be imported without paying import duties under the ITA, while

automobile products including parts and components usually has high import duties. Interestingly, the estimated result on the textile industry shows positive signs at significant levels. This reflects that since FTAs by ASEAN mostly reduce tariffs on textiles to a low level and the units of trade volumes is rather big, the benefits are expected to be large in this industry. To put it differently, the large reduction of tariffs might encourage utilizing FTAs. Lastly, and equally important, even after controlling other factors including those due to the differences in the main sectors, firms in the Philippines and Vietnam are less likely to utilize FTA schemes. Thus, these estimated results might suggest that the operational procedures to obtain certificates in those countries are more cumbersome than other countries.

Table 14. Dummy Coefficients in Equation (IV)

Year Base: 2006		Sector Base: Food				Country Base: Thailand	
2007	-0.109	Textiles	1.358***	Glass and glass produc	-0.444	Malaysia	-0.121
	[0.082]		[0.460]		[0.315]		[0.102]
2008	-0.172**	Wearing apparel	0.355	Basic iron and steel	-0.221	Singapore	0.019
	[0.079]		[0.315]		[0.235]		[0.140]
		Wood products	0.061	Non-ferrous metals	-0.22	Indonesia	0.16
			[0.412]		[0.236]		[0.105]
		Furniture	-0.528	Metal products	-0.296	Philippine	-0.527***
			[0.400]		[0.201]		[0.106]
		Paper products	0.122	General machinery	-0.193	Vietnam	-0.315**
			[0.439]		[0.226]		[0.137]
		Chemicals	-0.15	Electric machinery	-0.493**		
			[0.207]		[0.205]		
		Petroleum product	0.391	Electric parts	-0.764***		
			[0.391]		[0.203]		
		Plastic products	-0.598***	Automobile	0.541*		
			[0.219]		[0.301]		
		Medical products	0.152	Automobile parts	0.227		
			[0.517]		[0.195]		
		Rubber products	-0.122	Precision machinery	-0.342		
			[0.258]		[0.343]		
				Others	-0.337*		
					[0.196]		

Notes: Robust standard errors are in parentheses. ***, **, and * show 1%, 5%, and 10% significance, respectively.

Furthermore, we conducted some estimation. The decline of firms using FTA schemes in either exporting or importing from the sample does not change our results at all. In addition, we eliminated firms located in Singapore. As argued before, answers for FTA utilization are doubtful in Singapore. Indeed, also in our sample, 53 firms answer that they utilize FTA schemes in importing (see Table 11). However, by dropping the firms in Singapore we obtained the qualitatively unchanged results. As a result, we conclude that our empirical results are robust.

6. Issues on Current FTAs

Rule of origin is at the center of discussions, when it comes to spaghetti bowl phenomenon. Currently, 19 FTAs have already come into effect in ASEAN + 6 region making up ASEAN10, Japan, China, Korea, Australia, New Zealand and India, however rules of origin adopted within those FTAs differ from each other.

There are three main issues to be discussed in relation to the rules of origin, which are 1) criterion to determine the origin of goods, 2) procedure to certify the origin of goods, and 3) intermediary trade. Rules of origin is likely to countervail custom tariff eliminations under FTAs to some extent through increasing administrative costs and affecting lead times, even though they are a prerequisite for any FTA except for complete customs union, in order to avoid circumvented imports from non-statutory countries. In other words, FTA needs rules of origin, but creates additional costs to countervail the benefits of an FTA. Therefore it is critical to discuss what a cost-efficient rule of origin is. A flexible criterion and a procedure to certify origin of

goods may be able to reduce them and increase its utilization.

6.1. A Flexible Criterion will Eliminate Administrative Costs

There are four main types of criteria to determine the origin of goods; these are 1) a value added content criterion, 2) a change in tariff classification criterion, 3) an optional criterion to allow firms a choice of whether to be of either a value added content criterion or a change in tariff classification criterion, and 4) a dual criterion to require firms the use of both of them. It is generally recognized that an optional criterion is the most flexible and cost efficient criterion because firms are allowed to choose one of the criterion they will use. As the value added content criterion would be generally more appropriate for goods using large numbers of components and the change in tariff classification criterion would be more suited for goods using less numbers of components, the optional criterion may contribute to help reducing administrative costs since firms can choose either of the cost efficient criterions.

On the other hand, a dual criterion unquestionably leads firms to cover higher administrative costs, because meeting both of the criteria simply causes increased costs in comparison with the optional criterion. Since it is the least cost efficient way to determine origin of goods, it should be avoided being adopted as the rule of origin in principle.

The change in tariff classification criterion is also an effective way in the sense of flexibility and predictability next to the optional criterion in general, because it is not affected by currency fluctuations or prices of imported components which may cause an alteration to the origin under a value added content criterion.

Table 15. Rules of Origin Adapted in Major FTAs in Asia Pacific Region

FTA	Criteria to determine origin	Procedures to certify origin
Japan-Malaysia FTA	Optional criterion	Third party certificate system
ASEAN-Korea	Optional criterion	Third party certificate system
Japan-Thailand FTA	Optional criterion	Third party certificate system
AFTA	Optional criterion. Shifted from Value added content criterion in 2008.	Third party certificate system
Japan-Singapore FTA	Change in tariff classification criterion	Third party certificate system
Thailand-Australia FTA	Change in tariff classification criterion	Third party certificate system
Thailand-New Zealand FTA	Change in tariff classification criterion	Self-certificate system
Australia-New Zealand FTA	Change in tariff classification criterion. Shifted from Value added content criterion in 2007.	Self-certificate system
ASEAN-China FTA	Value added content criterion	Third party certificate system
Singapore-New Zealand FTA	Value added content criterion	Self-certificate system
Singapore-Australia FTA	Value added content criterion	Hybrid system(approved product system)
Thailand-India FTA(Early Harvest or	Dual criterion	Third party certificate system
Singapore-India FTA	Dual criterion	Third party certificate system

Table 15 shows which criterion each FTA in the Asia Pacific region adopts to determine the origin of goods. Although criteria differ by FTAs, it is a tendency that the number of FTAs adopting the optional criterion or change in a tariff classification criterion has incremented in recent years. For instance, AFTA, which adopted a value added content criterion for a period of time after 1993, when AFTA came into effect, introduced an optional criterion after August 2008. In addition, the Japan-Malaysia FTA, Japan-Thailand FTA and ASEAN-Korea FTA, which recently have been in effect, adopted this flexible rule. The Japan-Singapore FTA, Thailand-Australia FTAs and Thailand-New Zealand FTA adopt a change in tariff classification criterion. Furthermore, the Australia-New Zealand FTA has been shifted to its rule of origin to a

change in tariff classification criterion from a value added content criterion in 2007. Meanwhile, India-Thailand FTA and India-Singapore FTA, which India is involved, require firms to use dual criterion.

6.2. Flexible Procedure to Certify Origin of Goods may Exclude Risks Affecting Lead Time

The other significant issue in terms of rules of origin is a procedure to certify origin of goods, because it may affect the lead time of goods from an exporting country to an importing country. The procedure has not yet been discussed in detail in relation with FTAs in the Asia Pacific region, even though discussion on criteria to determine the origin of goods has been made frequently.

There are mainly three methods of procedure to certify the origin of goods, 1) a third party certificate system, 2) a self-certificate system, and 3) a hybrid system of third party certification and self-certification.

A third party certificate system is literally a system that a third party officially appointed by a statutory government takes a role in issuing a certificate of origin after judging an application filed by firms utilizing a preferential rate of FTAs. A relevant ministry or a chamber of commerce is usually appointed as a third party to judge an application. Most of the FTAs in effect in the Asia Pacific region adopt this system. In the meantime, under a self-certificate system, all exporters declare an origin of goods on their own without external assistance or on a designated form, which is broadly adopted in FTAs involving the U.S. (see Table 16).

Table 16. Classification of Operational Certificate Procedures

Classification		Outline of System	Examples of Applicable FTA
Third-party certificate system		An exporter provides a third-party organization (government or designated agency) with information to prove that its export products satisfy rules of origin and the third-party organization, upon judgment of the origin of such products, issues a certificate of origin.	Japan-Singapore, Japan-Mexico, Japan-Malaysia, Japan-Thailand, Japan-Chile, AFTA, ASEAN-China, ASEAN-ROK, Singapore-India, etc.
Hybrid type	Approved products system (Third-party certification in the initial stage followed by invoice declaration for a limited period)	For all exporters, a third-party organization will certify origins of the products at the first time of exportation. In a limited period thereafter, certificates of origin for individual exports are not required.	Singapore-Australia
	Approved exporter system	The self-certificate system and other more simplified methods of application are made available to exporters authorized by the government or designated authorities. Other exporters than those approved by the government or designated authorities are required to apply for judgment of origin by a third-party organization.	EU -EFTA (excluding Switzerland), EU-Mexico, EU-Chile, EFTA-Mexico, EFTA-Chile
Self-certificate system		All exporters certify origins of their products on their own responsibility.	NAFTA、US-Australia, US-Singapore, Trans-Pacific, Singapore-New Zealand, Mexico-Chile, Thailand-New Zealand, US-ROK (not in effect yet), etc.

Note: Trans-Pacific is joined by Singapore, Brunei, New Zealand and Chile.
Source: 2008 JETRO White Paper on International Trade and Foreign Direct Investment (Original source: The websites of the respective countries and the 2008 Report on the WTO Inconsistency of Trade Policies by Major Trading Partners).

Both of the third party certificate and self-certificate systems have pros and cons. The self-certificate system can reduce a part of the administrative costs, mainly a fee for issuance of a certificate of origin, in comparison with a third party certificate system. However internal administrative costs to certify an origin cannot be reduced, because applicants have to judge an origin of goods, abiding by a criterion stipulated under each FTA, and are required to retain documents to certify the origin of goods for a certain period stipulated by FTA as well as the third party certificate system. In addition, a self-certificate system consequently requires firms to govern themselves more than a third party certificate system, in order to avoid an unintentional false declaration. In the case of a third party certificate system, a third party may be able to hold the function

to check an application and provide consultation to firms. In the U.S. which adopts a self-certificate system, there was a case that a heavy fine was imposed on a firm for a false declaration.

Furthermore, a self-certificate system may hold a disadvantage increasing the chances of circumvented imports from non-statutory countries. Allowing firms to declare an origin of goods on their own, it may be relatively more difficult to detect a fraudulent declaration than a third party certificate system.

On the other hand, a self-certificate system has an advantage that it can completely exclude possibility of affecting the lead time of goods in a negative manner. A certificate of origin under a third party certificate system is usually issued right after completing the shipping of goods, since a bill of landing is one of documents required for the issuance of a certificate of origin. Therefore it might be possible to create a case of delay in reaching a certificate of origin at an importing country. The delay would add the unnecessary costs of warehouse fees or administrative costs like the tax refund, in the case imports of goods which are permitted along with a tentative payment of custom duty. In this regard, the self-certificate system is free to accumulate extra costs to partially counteract the benefits of FTAs.

Even under the third party certificate system, sometimes it is possible to avoid those unnecessary costs, if a bill of landing is not required by a third party or a certificate of origin is issued prior to shipping. In Japan, it is not required by a third party, while it is generally demanded to be presented to third parties in ASEAN countries.

A hybrid system is a certificate system that allows an approved exporter to use the self-certificate system, which is broadly adopted by EU in their FTAs. Under the system, approved exporters are qualified, under a criterion of the number of exports in a

year and a degree of governance by an authority, to use a self-certificate system, while the rest of the exporters utilize a third party certificate system. It is characterized as a system involving benefits of both systems.

6.3. Allowing an Intermediary Trade will Contribute to an Increase in FTA Utilization

A final issue, which can avoid countervailing benefits of the elimination of custom duties, is an intermediary trade, which is defined as re-invoicing and back to back certificates.

An intermediary trade is defined as a trade going through a third country, and is widely observed in trades in the Asia Pacific region. Particularly large scale firms operating in the region generally have regional headquarters in a country of ASEAN such as in Singapore, which control the entire management of group firms in the region. Re-invoicing means a way of billing that an invoice is issued not by a firm manufacturing a product in one country but by a firm in another country where the regional headquarters are generally located. Taking AFTA for instance, a regional headquarters in Singapore purchases products manufactured by a group firm in one country of ASEAN and sells them to the other ASEAN countries, along with this, goods are directly exported to an importing country. In other words, it means that a commercial transaction flows indirectly while a distribution of goods passes through directly.

There is another way of intermediary trade that both a commercial transaction and a distribution of goods go through indirectly. In this case, in order to take advantage of an FTA in an importing county, a back to back certificate is required to be presented,

which is re-issued by a statutory country based on a certificate of origin issued in advance by the other statutory country in which a firm actually manufactures a product. Therefore, a back to back certificate is applicable to an FTA making up of more than three statutory countries.

The significant advantage of the above mentioned method is that firms are able to keep inventories of their products at the most convenient place and export part of them depending on demands separately, if it is allowed under the FTA.

However, whether these ways of trade are allowed also differs by FTAs in effect in the Asia Pacific region. Some FTAs such as AFTA, Japan-Thailand FTA and Japan-Malaysia FTA explicitly incorporate a provision permitting use of intermediary trade in the operational certificate procedure parts of agreements. On the other hand, some FTAs or some of the statutory countries do not permit using it, because these agreements do not incorporate the relevant provisions. There are some cases that firms gave up utilizing FTAs due to an intermediary trade being unavailable in their countries.

A rule of origin is indispensable with FTAs, while it is also true that it incurs additional costs to countervail the benefits of customs elimination. Therefore it is of vital importance that a flexible criterion, procedure and rules are effective in addressing this issue, which will contribute to an increased utilization of FTAs in effect.

7. Conclusions

1. Almost all of the customs offices in East Asia have failed to collect transaction records on export and import to utilize FTA preferential tariffs. It might be costly

to establish a system to collect the transaction records. Instead, a business survey method may be reasonable and useful to investigate the utilization of FTAs. JETRO has conducted the business survey which contains several questions concerning FTAs. The survey, however, covers only Japanese affiliates. ERIA should conduct a business survey to investigate the operations of indigenous firms and other foreign affiliates in ASEAN.

2. The utilization rate of FTAs in terms of number of firms is not high in ASEAN. It is rather low compared to that in NAFTA although the rules of origin criterion are less restrictive in ASEAN than in NAFTA. This fact suggests that administrative costs to use FTAs in ASEAN are high due to the demanding operational procedures and inefficient administrative procedures. Operational procedures to certify the origin of goods has not yet been discussed in detail in relation with FTAs in the Asia Pacific region.
3. The investment promotion schemes that exempt tariffs on intermediate goods for export purpose are widely utilized in ASEAN. Such schemes, however, are viewed as opposed to the Trade Related Investment Measures (TRIMs). The administration costs of investment promotion schemes are about 1.9% on average within ASEAN. If the administrative costs in obtaining the FTA preferential tariffs are reduced to be lower than this figure, FTAs would be utilized more.
4. Firms in Malaysia, the Philippines, and Vietnam are less likely to utilize FTA schemes. These estimated results suggest that the operational procedures to obtain certificates in those countries may be more cumbersome than in other countries.
5. Econometric analysis obtained the results that Firms with a larger size in the number of employees tend to utilize FTAs more. This suggests that current FTAs

don’t benefit all equally. To realize an equitable development for SMEs and small countries, tariffs reductions at the WTO Doha round should be pursued at the same time.

6. FTAs in the ASEAN countries seem to be selectively utilized according to each industry: the textile industry utilizes FTAs well but electrical machinery, electronics and precision machinery don’t use FTAs. This indicates that the margin between the MFN tariffs and FTA preferential tariffs provide incentive to utilize FTAs. A substantial reduction in FTA's preferential tariffs might encourage FTA utilization within these nonparticipating industries.

References

Baldwin, R. (2008). "The East Asian Noodle Bowl Syndrome" in Hiratsuka and Kimura (eds.), East Asia's Economic Integration: Progress and Benefit. London: Palgrave Macmillan.

Chia, S. Y. (2008). "Singapore Case Study on FTA Impact on Business". Paper presented at the ADB Research Workshop in Bangkok, 31 January 2008.

Harrigan, F.; W. James; M. Plummer; and F. Zhai (2006). "Bilateralism or Regionalism: Alternative Scenarios for Asian Trade Liberalization". Paper presented at the conference, *Shaping the Future: Prospects for Asia's Long-term Development Over the Next Two Decades*, ADB Resident Mission, Bangkok, December.

Hiratsuka, D.; I. Isono; H. Sato; and S. Umezaki (2008). "Escaping from FTA Trap and Spaghetti Bowl Problem in East Asia: An Insight from the Enterprise Survey in Japan", in Hadi Soesastro (ed.), *Deepening Economic Integration in East Asia: The ASEAN Economic Community and Beyond*, IDE-JETRO: Chiba.

Hiratsuka, D.; I. Isono; and H. Sato (2009). "A Study on the Impact of Free Trade Agreements on Business Activity in Asia: the Case of Japan". Paper presented at a conference on FTA Impact Study organized by ADB/ADBI/IDB on 26 January 2009, Tokyo.

James, W. (2006). "Rules of Origin in Emerging Asia-Pacific Preferential Trade Agreements: Will PTAs Promote Trade and Development", Asia-Pacific Research and Training Network on Trade Working Paper Series, No.19.

Kawai, M. and G. Wignaraja (2007). "ASEAN+3 or ASEAN+6: Which way forward?. ADB." Paper presented at the Conference on *Multilateralising Regionalism*, sponsored and organized by WTO-HEI Co-organized by the Centre for Economic Policy Research (CEPR).

Kohpaiboon A. (2008). "Export Creation of AFTA and the Response of the Private Sector: Evidence from Thai Manufacturing". Paper prepared at the 11th International Convention of the East Asian Economic Association 15-16 November 2008, Manila.

Melitz, M. (2003). "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity," *Econometrica*, **71**(6): 1695-1725.

Oyamada, K. (2004). “Forward-Looking Effects of Trade Liberalization between Japan and ASEAN Members: In the Framework of Ramsey-Cass-Koopmans Type Economic Growth.” Paper presented to the 7th Annual Conference on Global Economic Analysis, the World Bank, Washington, D.C.

Petri, P. (2008). “Multitrack Integration in East Asia: Noodle Bowl or Matrix?” *Asia Pacific Issues*, No. 86, East-West Centre.