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Evidence from Thai Manufacturing

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Does Export Creation of FTAs exist? :
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ABSTRACT

This paper examines the effect of FTA export creation on the Thai manufacturing sector. Thailand is selected because there were several FTAs that have entered in force for a year (2005). The methodology employed in this paper is a combination between quantitative index, record of preferential exports and firm interview in which rules of origin (RoO) are well taken into consideration. The key finding is that RoO undermined FTA export creation effect on Thai manufacturing export. As suggested by the uncovered negative relationship between backward linkage index, a proxy of ability to comply with RoO and export-sale ratio of 92 industries, the higher the degree of export orientation the less the ability to comply with RoO. This statistical relationship is consistent with the FTA utilization rates (the ratio of preferential export to total export) for all FTAs. Only did a handful of industries registered preferential rates greater than 70 per cent, one of which is car manufacturing industry. Firm interviews point to an insignificant effect of FTA export creation. There has not been any significant difference in export pattern between before- and after-FTA implementation periods. Evidence from this paper provides a case against FTA-led liberalization. Fear of exclusion from not being FTA members is unlikely to be creditable.

1. Issue

The proliferation of free trade agreements (FTAs) is a very recent phenomenon (World Bank, 2005).[1] Frustration with the slow and halting speed of multilateral trade negotiations has encouraged several trading partners to look to bilateral opportunities for liberalization that serve their interest. It is readily apparent from the proliferation of new bilateral agreements since the completion of Uruguay Round that negotiations between two or several parties are simpler and can go farther more quickly than can negotiations involving all 149 members of WTO. Bilateral agreements allow 'like-minded' countries to make more progress on a wider range of issues in a shorter period of time than is possible in the diverse and complex WTO environment. Therefore, many countries are now actively pursuing bilateralism as a competitive strategy for broad based trade liberalization. The expansion in number of FTAs and FTAs partners would eventually contribute to global trade liberalization (Lawrence, 1996; Baldwin, 1997).

On the other hand, FTAs, though liberal-oriented, are by far different from unilateral and/or multilateral liberalization. It is rather selective for only selected trading partners and its liberalization impact is conditional on the implementation of rules to prove good originality (i.e. rules of origin or RoO). A number of studies argue that RoO have been used as vital commercial policy instruments.[2] More importantly, the proliferation of FTAs took place in terms of increasing the number rather than enlarging member of the existing ones.[3] This could create different speed of liberalization as well as different rules of origin. Hence its net impact on global trade liberalization is unclear but its proliferation could jeopardize multilateralism as countries refocus their energies on reaching FTAs and hardly compromise in multilateral negotiation (Bhagwati and Panagariya, 1996; Krueger, 1999).

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[1] FTAs may be an integration of more than two countries. In fact, the prevailing FTAs are signed between two countries so that we emphasize bilateral FTAs in this study.

[2] For example, Vermulst and Waer (1990), Krueger (1993), Bhagwati et al. (1999), Falvey and Reed (2002), Estevadeordal and Suominen (2004), James (2005) and Krishna (2005)

[3] A number of FTAs jumped from less than 50 agreements in 1995 to almost 200 agreements by 2006 (Economist, 2006).

Even though this phenomenon fundamentally alters the world trade landscape, empirical evidence how private businesses respond to FTAs are sparse. Studies in this research area have been reliant on simulation experiments of computable general equilibrium (CGE) model and Global Trade Analysis Project (GTAP) model (e.g. Chirathivat, 2004). Nevertheless, such experiments cannot well take care of the effect of RoO. Therefore, this paper aims to fill this knowledge gap by examining impact of FTA export creation using Thai manufacturing as a case study. Impact on export is emphasized because it is the main target for developing countries that expect to benefit from signing FTAs. It is manufactured products where RoO are important and complex than agricultural products and raw materials where the wholly obtained criteria is sufficient to confer origin (James, 2006). Hence, only is the former emphasized in this study.

The methodology in this paper is unique from the existing literature. We combine quantitative index, record of preferential exports (granted RoO certificates) and firm interview. Backward linkage index of 92 industries is constructed as a proxy of the industry's ability to comply with RoO. The higher the index number the less the likelihood that enterprises have to alter their existing input combination between member and nonmember sources to obtain the origin. Correlation coefficient between the constructed backward linkage index and export-sale ratio across 92 industries is estimated to draw inference of the likelihood export would benefit from FTA tariff preferential. This statistical figure is complement with FTA utilization rates, the ratio of value of rules-of-origin certificate application to export value as well as firm-interview evidence of industry which had experience of applying FTA preferential.

Thailand is suitable for the issue in hand because Thailand has been very enthusiastic in signing FTAs compared to Southeast Asian neighbours. So far there have been five FTAs that have entered into force and eight agreements under negotiation. More importantly, in ASEAN Free Trade Area (AFTA) and Thailand-Australia Free Trade Agreement (TAFTA) tariff reduction in 2005 covered most of tariff lines. Hence, examining them would provide evidence for assessing FTA export creation. So far there has not been a systematic analysis examining the impact of FTA on export where effect of rules of origin (RoO) is properly taken into

consideration. Its outcome could be beneficial not only to Thailand, but also to any developing countries in determining international trade policies in the future.

The organization of this paper begins with the analytical framework of FTAs with a great emphasis on impact of rules of origin (RoO) in Section 2. Section 3 will illustrate FTAs surrounding Thailand and examine characteristics of Thai FTA partners. Section 4 presents analysis of backward linkage index (*BLI*) of 92 industries as well as their market orientation. Section 5 analyzes preferential rates of effective FTAs whereas Section 6 presents evidence of firm interview in the car manufacturing industry. Conclusions and policy inferences are presented in the final section.

2. Analytical Framework

Free trade agreements (FTAs) are a form of economic integration in which two or more countries (referred to member country) offer each other duty free whereas maintain their own external tariffs. Since FTAs are to some extent offer zero import tariffs, it could promote trade among member countries and eventually improve their welfare (i.e. trade creation). Because of its discriminatory nature in favour member countries, nonetheless, FTAs could diverse trade from more efficient non-member countries to less efficient member ones (i.e. trade diversion). Although prices of goods offering to consumers would be lower but in the presence of trade diversion lowered price is less than foregone tariff revenues thereby lowering social welfare. Therefore, net welfare effect is ambiguous, depending on the relative strength between trade creation and diversion.[4]

It was the ability in maintaining their own external tariffs that makes its liberalization impact of FTAs far different from custom union agreement where all member countries have a common external tariff. As external tariffs could vary

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[4]Following research shift the interest towards conditions that induce trade creation effect be larger than trade diversion one. Wonnacott and Lutz (1989); Summers (1991); Krugman (1993) and Frankel et al. (1995) proposed that geographical proximity and high volume of trade prior to the integration are likely to make countries acquire positive net benefits from FTAs, and trade diversion effect is not large. It is known as 'natural trading partners' hypothesis. Nevertheless, Bhagwati and Panagariya (1996) and Panagariya (2002) argue against natural trading Partners Hypothesis.

across member countries, non-member countries could take advantage by exporting to the country which has the lowest tariff rate and then export to other member countries. Such action is referred to as trade deflection (Viner, 1950: Shibata, 1967). In order to prevent trade deflection, FTAs have to be coupled with rules of origin (RoO) which specify the conditions under which a good becomes eligible for zero tariffs in an FTA. As argued by Krishna (2005:1), this is an area that has been neglected in economics until quite recently. Therefore, FTAs are regarded as conditional and discriminatory liberalization.

In general, RoO on manufactured products can be set in at least four different forms (Krishna, 2005; Krishna and Krueger, 1995). These are requirements in terms of member content; those in terms of change in tariff heading; those in terms of specified processes that must be performed within the FTA; and those that the product has been 'substantially transformed'. In practice, there appear to be four criteria used singly and in combination with each other.

While it is tempting to think of FTAs as liberalizing, they are often not. In theory, the presence of ROO is needed to ensure that an FTA yields net welfare gains to all member countries (Kemp and Wan, 1976). Complying with RoO is not costless. RoO could be in principle hidden protection because they is a requirement of using parts and components or making a production within member countries. When it is in place, private businesses might need to alter optimal inputs combination to obtain origin. Hence, they can be regarded as tariffs on imported intermediate inputs. In addition, RoO is often quite expensive to document. This incurs additional cost of applying for FTAs.

In reality as mentioned above, RoO is widely used as a useful indispensable instrument of commercial policy. So far internationally accepted RoO has not been reached due to its complex nature (Imagawa and Vermulst, 2005; Baldwin, 2006; James, 2006). In addition, they are not covered by binding disciplines in the multilateral trading system. RoO tend to divert across bilateral agreements even within given hub-and-spoke systems. Countries signing FTAs create their own ROO. RoO are usually negotiated industry by industry and there is enormous scope for well organized industries to essentially insulate themselves from the liberalization effects

of the FTA by devising suitable RoO (Krueger,1993; Bhagwati et al.,1999; Falvey and Reed, 2002; Estevadeordal and Suominen, 2004; Krishna,2005). The increased complication of RoO is referred to as Spaghetti Bowl Effect.

As it is not obligation for any exporters in member countries to apply for preferential tariffs in FTAs, decision to apply for preferential tariffs depends on the net gain which depends on current applied tariff rates, preferential rates and cost in complying with RoO. Therefore, RoO plays a vital role in determining the presence of trade creation and diversion. Nonetheless, it is very hard to predict distortion effect arising from presence of RoO for a given FTA. With a given type of RoO, different industries could have different distortion effect. In addition, as two FTAs apply the exactly same RoO to a given industry, it could have different distortion effect because these two FTAs have different country coverage.

Details in RoO really matter. A small detail could play a vital role in altering their distortion effect. For example, under the FTA member content requirement, cost- and price-based definition could have different distortion effect in which the latter tends to require higher member content in dollar value (Krishna and Krueger, 1995; Krishna 2005).

3. Thailand in Era of FTA Proliferation

Over the past three decades, Thailand benefited from unilateral tariff reduction and success of multilateral agreements in the context of GATT/WTO. The former contributed to improve international competitiveness and placed the country to be attractive for export-oriented FDI inflows during the mid 1980s whereas the latter created conducive global environment for international trade expansion (Kohpaiboon, 2006; Schott, 2003, 2004). 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 per cent of the global tariff reduction over the past three decades (Martin and Ng, 2005).

For the past two years, Thailand has been enthusiastic in doing FTAs with countries around the world. Five FTAs have been into force and the other eight FTAs are under negotiation. The country's FTA partners consisted of both developed and developing countries, referred to as North-South and South-South FTAs (Table 1). This number is relatively high, comparing with the world standard at around 5 FTAs a country (World Bank, 2005).

Table 1 presents three characters of Thailand's FTA partner, namely annual trade value, share to total trade, geographical distance between their capital city and Bangkok, and applied tariff rates. Suggested by traditional theory of economic integration, the first three characters are the two key factors in determining net gains for member countries from economic integration.[5] The last one is to approximate magnitude of FTA tariff preferential. The key finding of this table is, Thailand is in the race of maximizing a number of bilateral FTAs without considering their pre-FTA trade volume and geographical proximity. Most of FTA partners had trade share under 3 per cent. Where geographical proximity is concerned, the partners are not only with our neighbours in East Asia but also Middle East and Latin American countries, some of which distance from their capital cities to Bangkok are more than 15,000 kilometers. Indeed, Thailand's FTA policy is pursued because of fear of exclusion (àla Baldwin, 1997). Maximizing a number of bilateral FTAs is to ensure that Thai exporters will not be excluded from tariff privileges granted through FTAs.

Nonetheless, it seems likely that Thailand has overstated such fear. Where North-South FTAs are concerned, a margin of tariff preference (i.e. the difference between MFN/applied tariff rate and FTA preferential rate) seems to be very limited because tariffs in developed countries are already low. For example, the average applied tariff rates of the United States is 2.6 with almost 40 per cent subject to duty free. This is similar to the case of Japan where applied tariff rate is 1.6.

On the other hand, a margin of tariff preference from South-South FTAs varies from country to country. In the case of Peru and Chile where applied tariffs are already low, the margin seems to be very limited. Where countries like India, Peru

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[5] See footnote 4 above.

and Mexico are concerned, signing FTAs would create the large margin as a result of the remained high applied tariff rates. Margin of tariff preference is moderate in the case of ASEAN Free Trade Area (AFTA) and China. Nonetheless, a number of studies (e.g. Baldwin, 2006; Sally, 2006; World Bank, 2005) argue that South-South FTAs negotiations are usually involved with long lists of exceptions and long transition periods. In addition, each FTA has its own liberalization speed and consequences as well as their own rules of origin.[6] The complicated rules could incur dollar costs for exporters in dealing with FTAs tariff privileges and discourage the exporters to exercise the privileges. It is very uncertain that the country's export will be beneficial from FTA liberalization.

So far five FTAs have been effective, namely AFTA, Thailand-Australia FTA (TAFTA), Thailand-New Zealand FTA, Thailand-China FTA and Thailand-India FTA. However, it was only AFTA and TAFTA in which tariff preferential is offered in a comprehensive range of manufacturing goods. In addition, they have been in place for a year so that official records of preferential export (i.e. granted RoO certificates) are available for assessing their impact of export creation. While preferential tariffs offered in Thai-New Zealand FTA are also widely covered, it adopted paperless approach so that record of preferential trade are not available to examine. Where FTAs with China and India are concerned, tariff preferential was granted for a few items of manufactured products. In Thai-China FTA, tariff cuts have been in effect since October 2003 but limited to only HS 07 and 08. Tariff preferential on manufacturing goods just began in September 2005 so that it is too early to examine its impact. Nonetheless, a margin of tariff preference was marginal, averaging out at 1 per cent.[7] Similarly, Thai-India FTA began with immediately cutting tariffs of 82 items accounting less than 2 per cent of total tariff lines.

Where AFTA is concerned, the first six members (i.e. members, namely Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand) lowered tariffs

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[6] Baldwin (2006) shows that in ASEAN-China FTAs, it is like there are 10 sub-agreements between China and each ASEAN countries.

[7] Author's calculation is based on official data collected by Bureau of Trade Preference Development, Department of Foreign Trade, Ministry of Commerce.

to a range between 0 and 5 per cent for other members.[8] In addition, more than 60 per cent was subject to zero tariffs by 2005.   In this study, we will emphasize three major economies, i.e. Indonesia, Malaysia and the Philippines.   Singapore is not included because its applied tariff rate is already zero. A margin of tariff preference was moderate.   There are 30 per cent of total tariff lines whose margin of tariff preference is more than 10 per cent so that FTAs could generate export creation effect (Table 2).   It was TAFTA where zero tariff rates have been applied to more than 80 per cent of total tariff lines by 2005.   Nonetheless, a margin of tariff preference in TAFTA is very small.   There is no item whose margin of tariff preference is greater than 10 per cent because of the already low applied tariff rates.

4. RoO and Compliance Ability

Most of Thai manufactured products so far have been subject to member-content-requirement type of RoO.   In AFTA, RoO require at least 40 per cent of gross output value to use ASEAN member inputs.   Note that primary factor services (e.g. labour services) is countable to confer origin.   The only exception is textile and clothing that require 55 per cent of regional content and substantial transformation criteria. In TAFTA, RoO which is applied for most of the products is change-in-tariff-heading type.   In each item, detail can be different so that there are more than 1000 rules applied to each individual item.   Many of them are subject to change in tariff heading at 4-digit HS system whereas some are at 6-digit HS.   Over and above change in tariff heading, member content requirements are imposed on many manufactured goods. Hence, it seems reasonable for Thai manufacturing to use the degree of local content of goods as a proxy of the ability to comply with RoO.   The higher the local content, the greater the ability to comply with RoO.

Backward linkage index (in short referred to *BLI*) is constructed to measure the degree of local content of 92 industries, By construction, *BLI* is based on the Leontief inter-industry accounting framework which provides for the capture of both direct and indirect (inter-sectoral) repercussions in the measurement process. Following an input-output framework of the 'complementary import' type (i.e. the

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[8] There are still few exceptions for sensitive lists.

input-output table, in which the import content of each transaction is separately identified and allocated to an import matrix)[9];

$$X = A^d X + Y^d + E \tag{1}$$

where X is the vector of total gross output, $A^d = \left| a_{ij}^d \right|$, $a_{ij}^d = X_{ij} / X_j$ is the domestic input-output coefficient matrix, Y^d and E are vectors of domestic and export demand on domestically produced goods.

Solving equation (1) for X,

$$X = \left(1 - A^d\right)^{-1} \left[Y^d + E\right] \tag{2}$$

where $\left(1 - A^d\right)^{-1}$ is the Leontief domestic inverse matrix. An element of this matrix ($\tilde{a}_{ij}^d$) indicates output required of the ith sector to sustain one unit of output of sector j. Thus, the sum of the jth column of $\left(1 - A^d\right)^{-1}$ gives a measure of total backward linkages when domestic final demand or exports for the jth commodity increases by one unit;

$$BLI_j = \sum_{i=1}^{n} \tilde{a}_{ij}^d \tag{3}$$

Note that BLI_j shows the total units of output required directly and indirectly from all sectors (including the unit of output delivered to final demand by the given sector) when the demand for the jth commodity rises by one unit. Therefore, the higher the BLI_j, the greater the ability an industry jth in complying with RoO.

BLI will be examined a statistical relationship with export-sale ratio (*XSR*) to indicate the ability of manufacturing export to comply with RoO. The positive (negative) relationship would suggest that an industry with a high (low) level of *BLI* exhibits high degree of export oriented and it would be less (more) likely that RoO would create significant distortion effect on export. Both simple and (Spearman's) rank correlation coefficients between *BLI* and *XSR* are calculated to examine the

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[9] Another type of Input-output (I-O) table is a 'competitive import' type in which all imports (intermediate plus final) are treated as competing with domestic production and thus imports are not separated from domestic transactions (Bulmer-Thomas, 1982).

sensitivity of results to unit measurement. Data from Input-Output Table 2000 (the latest version) of NESDB are used, covering which comprises 92 industries in code 44-134.

The correlation between *BLI* and *XSR* of 92 industries is found negative. Simple and rank correlation coefficients are -16 and -20 per cent, respectively (Table 3). The export-oriented industry tends to be less reliant on local inputs and it is likely that presence of RoO could alter optimal input combination to confer origing and incur dollar costs. All industries in Table 3 are categorized into 3 broad groups according to their *XSR*(less than 50 per cent, between 50 to 80 per cent and greater than 80 per cent). Firstly, in a group of *XSR* greater than 80 per cent, processed food industries (e.g. IO43 and IO46) seem to be exception. They exhibit a high *BLI,* comparing to highly export-oriented manufacturing goods. Canning and preserving of meat (IO43) dominated by frozen chicken has a high *BLI* because of its backward linkage to local chicken farm. In canning and preserving of fish and seafood (IO46), there are two main items, canned fish and frozen seafood. The former is heavily reliant on imported fish whereas the latter is more or less the same as frozen chicken. Hence, its *BLI* of IO 46 tends to slightly lower than that of IO 43. Secondly, *BLI* of electronics industry (IO122, IO117, IO116) is among the lowest in 92 industries. Their *BLI*s of office equipment and machinery, electrical industrial machinery and appliances, and other electrical apparatuses and supplies are at the rank 68, 86 and 90 respectively out of 92 industries. This is due to the so called product fragmentation phenomenon where their whole production process is sliced according to value chain and allocated around the world according to cost competitiveness so that their production process is heavily reliant on imported intermediates. Hence, *BLI* would be very low as opposed to the standard of manufacturing goods.

Finally, *BLI* of automobile industry (IO 125) must be interpreted with caution because in Thailand's input-output table vehicle assembly and parts manufacturing industries are combined together. In fact both of them are far different in nature. As argued in Kohpaiboon (2005, 2006) points out that Thailand's locally assembled vehicles exhibited a high degree of local content. This would be far different from auto parts manufacturing, many of which still depend on imported raw materials and intermediate goods. The quite low value of *BLI* seems to mislead the ability to

comply with RoO of car manufacturing industry. All in all, excluding these exceptions from the sample does not seem to alter our findings. In fact, the simple and rank correlation coefficients increase to 24 and 27 per cent, respectively.

5. FTA Utilization

Outcome from Section 4 is to some extent suggestive because of the complicated nature of RoO so it is worth to examine how Thai exporters actually respond to FTA tariff preference. A claim that products are eligible for preferential concession shall be supported by a Certificate of Origin (C/O) so in this section, official record of C/O is used to represent record of preferential export. To reflect FTA utilization, the preferential export is converted to a ratio of actual export referred to as the FTA utilization rate according to the formula in equation 4.

$$FTAUR_{ij} = \frac{Cerfiticates_{ij}}{X_{ij}} \qquad (4)$$

where $FTAUR_{ij}$ = FTA utilization rate of industry i to country j.

$Cerfiticates_{ij}$ = value of issued RoO certificates to industry i for exporting to country j.

X_{ij} = Export value of industry i to country j.

The high value of FTA utilization rate indicates a large number of exporters apply for FTA tariff preference. It could further imply that a margin of tariff preference is considerably large and cost in complying with RoO is not prohibitive. Since the official record of C/O represents expected preferential export, it can be different from the actual one. In fact, many exporters tend to apply slightly higher than what they actually want in order to gain flexibility in doing business. In the case that the preferential export is greater than the actual one, FTA utilization rate is greater than 100 per cent. To avoid this problem, in such a case we assume that the preferential export is equal to the actual one.

Table 4 presents three indicators of how Thai exporters respond to FTA tariff preference. The first top indicators aim to reflect the concentration of products applying for tariff preference. The former focuses a number of tariff line whereas value share is calculated in the latter. These two indicators cannot examine the

relative importance of FTA channel (subject to preferential tariff) as opposed to usual export channel (subject to applied rate) so that the third indicator is constructed to reflect FTA utilization rate

At least, two inferences can be drawn from Table 4. Firstly, only did a limited number of export items apply for FTA tariff preference. There were less than 35 per cent of export items of these four markets which Thai exporters apply for FTA tariff preference. Australia registered the highest and Malaysia was the lowest concentration. The Philippines and Indonesia were in the middle. The high concentration ratio is also found when measuring in terms of value share. The cumulative share of preferential export value of the top 10 items accounted for more than 50 per cent in every market. The cumulative share was greater than 70 when altering from the top 10 to 20 items in all markets except Malaysia.

Secondly, FTA utilization rate of these four markets averaged out at 38.7 per cent. The utilization rate is higher for other markets. Australian market registered the highest utilization rate by 53.3 per cent, followed by Indonesia and the Philippines (43 and 37.7 per cent, respectively). Malaysia had the lowest utilization rate registering at around 20.6 per cent. The above utilization rates are low in the international standards especially ASEAN countries in which AFTA was long established. For example, utilization rate of Mexican export for the US market under Northern American Free Trade Agreement was at around 60 per cent in 2004-05. The utilization rate of Chilean export for the US was around 55-56 per cent in 2005-06 (James, 2006). In addition, in all markets but the Philippines variation coefficient is high. Within a group of products applying for tariff preference, some registered a very high record of utilization.

All in all, signing FTA tends to offer net tariff preference to only a small group of products. While this may be due to the nature of trade complementary within the region, the low FTA utilization rate to some extent reflects the greater difficulty Thai exports has in complying with RoO.

FTA utilization is calculated at the HS 2-digt level to reflect industry level (Table 5). In general, the utilization rate is far different from one industry to the other. A systematic relationship between export share and utilization rate cannot be observed. It implied FTA is not for enhancing export *per se*. A margin of tariff preference would to some extent be one of important factors explaining the variation of FTA utilization rate across industry. For example, in the Australian market, the utilization rate tends to exceed 50 per cent when the different tariff rates were around 5 per cent or more.

Interestingly, vehicle industry (HS87) is the only one among manufactured products which had the very high FTA utilization rate (close to 100 per cent) and accounting for a significant share in total export in all markets. In these four markets, automotive industry accounted for more than 25 per cent of total export preference (Table 6). This is especially true in the case of Australia where the industry accounted almost 60 per cent of total value of issued RoO certificates. Indonesia, the Philippines and Australia share the similar pattern which almost all completely built-up (CBU) vehicle exports applied for FTA tariff preferential. The exception is Malaysia, where HS870899 instead of CBU vehicles (HS8701-8705) accounted the lion share of HS8708 and had the very high record of utilization rate. CBU vehicles have been one of sensitive items of Malaysia and tariffs from other ASEAN countries are at 20 per cent. HS870899 covers other auto parts that cannot be classified in other items. Trade in this item reflected the transaction in ASEAN Industrial Cooperation (AICO)[10] by multinational enterprises in the automotive industry instead of AFTA tariff preferential.[11]

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[10] In AICO, firms, which operated in more than one ASEAN country (defined by the 30 per cent or more by the ASEAN equity within a given company) trade goods with lower tariff rates in order to enhance production efficiency and international competitiveness. Under the AICO scheme, firms benefit a preferential tariff rate in the range of zero per cent for intra-ASEAN trade. The benefit is immediate upon approval under the Common Effective Preferential Tariff (CEPT) scheme under the ASEAN Free Trade Area (AFTA) that a preferential tariff will take effect in 2003. 90 per cent of these approved applications were related to the automotive and electronic industries.

[11] General pattern observed from official record of AICO transactions reported to Ministry of Industry.

6. Interview Evidence of FTA Impact on Automotive Industry

To gain greater understanding the effect of FTA export creation, semi-structured interview was conducted with car assemblers during April-September 2006. As seen in the previous section, car manufacturing is the one industry which FTA utilization rate was very high and accounted for a considerable share in the country's export. Hence, firm interview would well complement with the analysis done so far. Based on prior knowledge of industry development[12], interview questions were directed to their attitudes toward the impact of FTA (e.g. whether FTAs could positively contribute to export growth and whether there will be new investment expansion in the foreseeable future as a result of FTA). Sample coverage is four major car assemblers (accounting more than 60 per cent of total sales in 2002-05) as well as senior staffs of the Ministry of Industry and Ministry of Commerce.

Evidence from firm interview suggests that car assemblers agree that they would be beneficial from the existing FTAs. Regard to the present forms of RoO, it has not generated any distortion effect significantly.[13] This is due to the fact that when production base in a country was selected to be a regional hub, locally assembled vehicles will be heavily reliant on locally manufactured parts to minimize logistic costs in procuring numerous parts (Kohpaiboon, 2006).

Nevertheless, despite the presence of tariff preference, it *per se* could not create significant and positive effect in promoting export. FTA seems to facilitate trade so that there are not any car assemblers altering their investment plans positively in response to its proliferation. This is consistent with trade pattern observed during the period 2000-05 (Table 7). Export values in the period 2000-01 are separated from those in the period 2002-04 (pre-FTA) in order to guard against the possible effect of the onset of the crisis on automotive industry. The annual growth of vehicle export increased from 23.5 per cent in the pre-FTA period to 35.3 per cent in 2005 (FTA

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[12] See detail in Kohpaiboon (2005).

[13] During the interview, an interviewee is concerned about the increased complication of RoO that would create a significant distortion effect. It is especially a type of RoO whose requirement is based on the net cost as happening in FTA between the US and other developing countries (See, for example in Table AIII.1 in WTO (2006), *The US: Trade Policy Review*.

period). Australian market seems to considerably contribute to the increased growth rate in 2005. Out of the total, Australian market contributed to 35 per cent to the 2005 growth rate whereas the contributions of Indonesia and the Philippines were 5.4 and 6 per cent, respectively. The rest of the world still accounted for more than 50 per cent. Despite the significant contribution of Australian market, an interviewed firm clearly points out that the role of Australia as export destination of Thai assembled vehicle was expected regardless of the effect of TAFTA. This is because the magnitude of tariff preferential under TAFTA for vehicle exports is very small, at around 10 per cent. Hence, when documentation cost is taken into consideration, TAFTA would not generate insignificant price advantage as opposed of the usual export channel.

7. Conclusion and Suggestion

This paper examines export creation of FTAs, using Thai manufacturing as a case study. The pursued methodology combines quantitative index, FTA utilization rate and firm interview together in our analysis. The found negative relationship between *BLI* an *XSR* points out the likelihood that RoO could constrain potential effect of FTA export creation on Thai manufacturing. This would be explained by the low utilization rates of FTAs and the high concentration in a handful industry. Car manufacturing industry plays a dominant role in utilizing FTA tariff preferential. Firm interview suggests there has not been any significant effects of FTA export creation on automotive industry. No car assemblers have expanded their investment plan as a result of FTA export creation. In other words, 'Fear of Exclusion of FTA is not always creditable.

The key finding above reconfirms the main theme of trade policy development. It was not economic integration that marginally contributes to global tariff reduction and economic development in the past three decades. Instead most of developing countries benefited from their unilateral tariff reform for resource allocation improvement as well as strengthening international competitiveness whereas gained market access from several rounds of multilateral agreements (i.e. GATT). Being in a race of maximizing FTAs would not create the considerable effect of export creation but incurred negotiation costs and inefficiently used limited

resources. It also constrains advancement of WTO negotiation because negotiators tend to become less willing to compromise in a negotiation process.

Table 1

Lists and Economic Characteristics of FTAs Thailand signed and is under

negotiation

FTA	Annual Trade Value (percentage share of total trade)	Great Circle Distance between Bangkok and Capital Cities (kms)	Applied Rate 2004 (%)
North-South FTAs			
Australia	4,134 (2.5)	7,471	3.5
New Zealand	521 (0.3)	9,738	3.1
the US	21,834 (13.1)	14,156	2.6
Japan	30,983 (13.6)	4,606	1.6
South-South FTAs			
ASEAN	31,764 (19)	1,385	6.5
China	12,464 (7.5)	3,299	9.1
India	1,741 (1)	2,916	33.9
BIMSTEC	4,648 (0.3)*	1,984	19.7
Peru	74 (0.04)	19,677	13.6 (1999)
Bahrain	90 (0.05)	5360	7.7 (2000)
EFTA	1,927 (0.1)*	9,208	n.a.
Mexico	481 (0.27)**	15,738	16.5 (2001)
Chile	87 (0.05)**	17,637	1.3 (2004)
South Africa	320 (0.18)**	8,962	n.a.

Note: Annual trade value is in $million averaging out between 2001 and 2005, except * 2003-05 and ** 2001-04. The number in parenthesis is the percentage share of total trade in the considering period. BIMSTEC consists of Myanmar, Sri Lanka, India, Bhutan, and Bangladesh. EFTA is European Free Trade Area.
Sources: FTA agreement is compiled from Department of Foreign Trade, Ministry of Commerce. Data of external trade are from World Trade Atlas. Great circle distance is available at http://www.wcrl.ars.usda.gov/cec/java/lat-long.htm. Applied rates are from ADB Outlook 2006, *Asian Development Bank* except Peru, Bahrain, and Chile. These three countries are summarized from Trade Policy Review, *World Trade Organization* website at available year cited in the parentheses.

Table 2
Distribution of Margin of Tariff Preference in Selected FTAs in 2005

	Malaysia	Indonesia	Philippines	Australia
Percentage share to total tariff lines (Δt)				
$\Delta t = 0$	53.9	31.3	2.3	51.3
$0 < \Delta t \leq 5$	18.3	44.1	77.5	47.6
$5 < \Delta t \leq 10$	6.7	15.6	17.0	1.1
$10 < \Delta t \leq 15$	10.0	8.1	8.8	0.0
$15 < \Delta t$	11.1	1.0	1.7	0.0
Total number of tariff lines (at 6 digit HS)	5,168	5,161	5,199	5,223

Notes: Margin of tariff preference is the difference between MFN rate and preferential tariff rates in 2005.

Source: Author's compilation from the following data sources. ASEAN tariff data are available at www.aseansec.org whereas Australian tariff database is from Custom Department, Ministry of Finance (Thailand)

Table 3
Backward Linkage Index (*BLI*) and Export-sale Ratio (*XSR*) in 2000

IO code	Description	*BLI*	*XSR*
XSR less than 50 per cent		1.8	
51	Grinding Corn	2	0
58	Monosodium Glutamate	2.2	0
69	Textile Bleaching, Printing & Finishing	1.8	0
101	Structural Clay Products	1.8	0
127	Repairing Of Vehicle	1.7	0
57	Ice	1.7	0
103	Concrete And Cement Products	1.8	0.5
63	Breweries	1.4	0.7
91	Matches	1.8	0.8
66	Tobacco Products	1.2	1.2
124	Railway Equipment	1.9	3.2
83	Printing & Publishing	1.6	3.6
59	Coffee & Cocoa & Tea Processing	2.4	3.8
64	Soft Drinks & Carbonated Water	1.7	5
44	Dairy Products	1.9	5.5
48	Other Vegetable & Animal Oils	1.4	8.1
47	Coconut and Palm Oil	2.3	8.2
87	Paint	1.9	9.1
123	Ship Building	1.7	9.4
62	Distilling & Blending Of Spirit	1.9	10.5
52	Flour & Other Grain Milling	2	10.9
93	Petroleum Refinery & Gas Separated Plant	1.2	11.4
128	Aircraft	1.5	11.5
88	Drug And Medicine	1.6	11.9
56	Confectionery & Snack	2.2	13.6
108	Cutlery And Hand Tools	1.5	14.6
53	Bakery And Other	2	15.4
89	Soap & Cleaning Preparations	1.7	17.7
54	Noodle & Similar Products	2.3	18.3
85	Fertilizer, Pesticide And Insecticide	1.6	19.2
102	Cement	1.7	19.2
61	Fish Meal & Animal Feed	1.8	20.4
105	Iron And Steel	3.1	21.2
82	Paper & Paperboard Products	1.6	21.7
68	Weaving	1.9	23.9
67	Spinning	1.9	24.2

Table 3
Backward Linkage Index (*BLI*) and Export-sale Ratio (*XSR*) in 2000 (contd)

IO code	Description	*BLI*	*XSR*
XSR less than 50 per cent		**1.8**	
76	Leather Products	1.6	25.9
72	Wearing Apparels	2.1	28.3
94	Other Coal & Petroleum Products	1.1	28.8
81	Paper And Paper Board	1.4	28.9
132	Jewelry & Related Articles	1.6	28.9
70	Made-Up Textile Goods	1.8	30.7
96	Types And Tubes	1.8	30.9
90	Cosmetic	1.6	34.6
104	Other Non-Metallic Products	2	37.4
50	Flour & Sagu Mild Products & Tapioca Milling	2.6	38.8
125	Motor Vehicle	1.3	39
115	Special Industrial Machinery	1.6	40.3
126	Motorcycle & Bicycle & Other Carriages	1.9	40.7
78	Saw Mill & Wooden Construction Materials	1.4	40.8
106	Secondary Steel Products	1.7	41.1
98	Plastic Wares	1.9	42.1
55	Sugar Refineries	1.8	42.5
49	Rice Milling	2.1	44.2
134	Other Manufacturing Goods	1.8	45
86	Petrochemical Products	1.7	45.3
131	Watches And Clocks	1.5	45.5
113	Agricultural Machinery & Equipment	1.8	46.4
112	Engine And Turbine	1.6	47.1
111	Other Fabricated Metal Products	1.4	48.6
XSR more than 50 but less than 80 per cent		**1.6**	
80	Wooden Furniture & Fixture	1.4	50.3
60	Other Food Products	1.7	51.4
65	Tobacco Processing	1.8	51.5
129	Scientific Equipments	1.5	51.5
120	Insulated Wire And Cable	1.5	53.9
119	Others Electric Appliances	1.6	54.5
45	Canning & Preserving Of Fruits & Vegetables	1.9	54.8
100	Glass & Glass Products	1.6	56.2
75	Tannery And Leather Finishing	1.3	58.5

(contd)

Table 3
Backward Linkage Index (*BLI*) and Export-sale Ratio (*XSR*) in 2000 (contd)

IO code	Description	*BLI*	*XSR*
XSR more than 50 but less than 80 per cent		**1.6**	
114	Wood & Metal Working Machine	1.7	60.5
92	Other Chemical Products	1.5	61.1
121	Electric Accumulator & Battery	1.6	61.6
109	Metal Furniture & Fixture	1.5	61.7
107	Non-Ferrous Metal	1.4	62.8
74	Jute Mill Products	1.4	68.3
79	Wood And Cork Products	1.9	68.6
110	Structural Metal Products	1.4	70.8
130	Photographic & Optical Goods	1.5	71.8
77	Foot Wear, Except Of Rubber	1.9	78.9
XSR greater than 80 per cent		**1.7**	
43	Canning & Preserving Of Meat	2.5	81.8
95	Rubber Sheet & Block Rubber	1.8	83.3
73	Carpets And Rugs	2.1	84.5
71	Knitting	1.9	85.8
97	Other Rubber Products	1.8	85.9
122	Other Electrical Aparatuses & Supplies	1.2	85.9
117	Electrical Industrial Machinery & Appliances	1.4	86.2
84	Basic Chemicals	1.4	86.9
133	Recreational & Athletic Equipment	2	89.3
118	Radio, Television Set & Communication Equipment	1.2	90.8
99	Ceramic And Earthen Wares	1.6	91.2
116	Office Equipment & Machinery	1.6	91.5
46	Canning & Preserving Of Fish & Seafood	2.1	94.7

Source: Author's calculation from the Input-Output table 2000, *NESDB*.

Table 4
Selected Indicators of FTA Utilization in Thailand 2005

	Indonesia	Malaysia	Philippines	Australia
Number of items applying for RoO certificates	836	1381	804	656
(per cent of total export item)	25.2	33.6	24.4	18.8
Product concentration				
Cummulative share of top 10 items (per cent)	59	50.8	62.3	76.0
Cummulative share of top 20 items (per cent)	73	65.1	73.4	84.7
FTA utilization rate (per cent of total export)	43	20.6	37.7	53.3
Coefficient of Variation of FTA Utilization rate (per cent)	173	184	107	214

Source: Author compilation from official record of certificate of origin available at Bureau of Trade Preference Development, Department of Foreign Trade, Ministry of Commerce. International Trade data are from World Trade Atlas database.

Table 5
FTA Utilization Rate, Export Share and Difference between preferential and MFN tariff rates, 2005

HS 2	Description	Australia			Philippines			Malaysia			Indonesia		
		Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates
1	Live animals	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	2.5
2	meat and ediblemeat offals	0.0	0.0	0.0	73.2	0.0	4.7	0.0	0.0	0.0	0.0	0.0	5.0
3	Fish and crustaceans	0.1	1.7	0.0	0.1	0.0	3.8	28.7	0.9	0.6	28.3	0.0	4.8
4	Diary products	0.0	0.0	0.0	30.5	1.5	-2.0	15.4	0.2	1.6	75.4	0.3	5.0
5	Products of animal origin n.e.s	0.0	0.0	0.0	0.0	0.0	3.0	6.2	0.0	0.0	0.0	0.0	4.0
6	Live treees and other plants	0.0	0.0	0.0	0.6	0.0	4.6	0.4	0.0	0.0	7.8	0.0	12.4
7	Edibleevegitables , roots and tubers	7.5	0.1	0.5	17.0	0.0	2.7	0.4	0.2	0.0	66.5	0.0	5.0
8	Edible fruits and nuts	6.4	0.1	0.7	19.3	0.1	5.2	71.6	0.0	2.4	59.3	0.6	5.0
9	Coffee, tea, mate and spices	36.8	0.0	0.0	69.5	0.0	7.0	63.4	0.0	0.2	13.8	0.0	4.9
10	Cereals	1.3	1.1	0.0	0.1	1.2	38.5	0.0	2.5	0.0	12.3	0.8	0.6
11	Products of the milling industry	0.1	0.2	0.0	87.5	0.5	5.6	2.0	0.6	0.1	72.4	0.9	4.2
12	Oil seeds and oileaginuos fruit	0.0	0.0	0.5	0.0	0.0	2.3	3.5	0.0	0.2	0.0	0.0	0.1
13	Lacs, gums and other vege.slaps	0.0	0.0	0.3	38.3	0.0	1.1	24.4	0.0	0.0	98.9	0.0	5.0
14	Vegetable planting materia	0.0	0.0	0.0	0.5	0.0	3.0	10.5	0.0	0.0	0.0	0.0	2.2
15	Animal of vegetable fats and oil	1.4	0.0	0.0	1.2	0.1	9.7	41.9	0.9	1.2	26.0	0.3	0.8
16	Preparations of meat, or fish or crustaceans	63.5	4.6	1.6	19.0	0.0	8.9	26.6	0.4	4.5	2.9	0.2	2.7
17	Sugar and sugar confectionary	84.0	0.1	4.3	77.7	0.9	9.3	14.8	0.8	1.6	3.7	6.7	3.9
18	Cocoa and cocoa preparations	0.0	0.1	0.0	0.5	0.0	2.2	100.0	0.0	7.2	96.9	0.0	2.5

Table 5
FTA Utilization Rate, Export Share and Difference between preferential and MFN tariff rates, 2005 (contd)

HS 2	Description	Australia			Philippines			Malaysia			Indonesia		
		Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates
19	Preparations of cereals, flour, starch or milk	49.2	0.4	1.2	95.2	0.4	4.4	12.1	1.6	0.6	26.4	0.1	1.8
20	Preparationsof vegetables, fruit or nuts	49.8	0.7	3.9	60.3	0.2	6.5	71.6	0.3	3.1	25.5	0.1	2.7
21	Miscellaneous vegetable preparations	18.7	1.0	2.2	59.3	5.3	4.8	86.0	0.4	7.5	18.7	0.2	34.2
22	Beverages spirits and venegar	0.0	0.1	0.9	98.7	0.3	4.3	11.3	0.2	15.7	97.4	0.3	2.8
23	Residues and waste from the food industry	1.3	1.0	0.0	72.5	0.6	6.8	0.2	0.7	0.0	14.1	0.2	1.7
24	Tobacco and manufactured tobacco susbtitutes	0.0	0.0	0.0	75.2	0.6	3.8	100.0	0.0	n.a.	21.7	0.0	8.3
25	Salts, sufer,earth and stones	1.5	0.1	0.3	27.1	0.4	1.1	26.7	0.5	3.6	94.6	0.5	4.9
26	Ores, slag and ash	67.6	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	1.5
27	Material fuel, mineral ets	0.0	2.7	0.0	0.8	4.1	0.6	0.3	2.0	0.0	1.3	9.4	0.4
28	Inorganic chemicals	20.6	0.2	1.7	68.3	0.4	0.3	23.2	0.3	2.3	53.6	0.3	2.1
29	Organic chemicals	0.0	0.3	0.2	47.9	1.2	1.3	1.6	3.3	0.6	1.1	9.4	0.5
30	Pharmaceutical products	1.3	0.1	0.6	28.8	0.4	0.9	0.6	0.2	0.0	1.6	0.1	3.3
31	Fertilizer	0.0	0.1	0.0	0.0	0.2	1.2	0.0	0.2	0.0	0.0	0.1	0.0
32	Tanning or dyeing extracts	40.3	0.2	5.0	36.4	0.3	1.8	14.0	0.3	4.8	29.4	0.3	3.2
33	Essential oils and resinolds	83.8	0.9	5.0	93.0	3.5	4.0	57.6	1.4	5.3	85.7	1.9	7.6
34	Soap and wahing preparations	26.4	0.4	2.8	61.2	0.3	3.2	5.5	0.6	1.5	30.0	0.2	1.6

(contd)

Table 5
FTA Utilization Rate, Export Share and Difference between preferential and MFN tariff rates, 2005 (contd)

HS 2	Description	Australia			Philippines			Malaysia			Indonesia		
		Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates
35	Albuminoidal substances	0.1	0.2	0.0	78.9	0.2	3.1	13.5	0.2	7.6	58.4	0.4	3.2
36	Explosives, matches etc.	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	12.7	0.0	0.0	3.7
37	Photographic or cinemagraphic goods	9.2	0.0	1.9	10.6	0.1	4.3	16.4	0.0	3.0	34.4	0.1	3.2
38	Miscellaneous chemical products	40.8	0.1	4.6	14.5	0.4	1.1	5.4	0.4	1.7	16.5	0.5	2.4
39	Plastic and article thereof	31.7	4.1	1.8	53.4	6.5	5.0	30.0	5.4	11.3	51.7	6.0	6.5
40	Rubber and articles thereof	48.2	2.3	4.8	51.1	2.4	2.2	9.2	12.4	3.2	73.5	2.1	2.8
41	Raw hides, skins and leather	37.6	0.0	5.0	18.9	0.1	2.0	0.2	0.3	0.0	2.5	0.9	0.0
42	Articles of leather	11.8	0.2	4.5	8.3	0.0	9.9	45.9	0.0	5.7	65.4	0.0	7.4
43	Furskins and articles of fur	0.0	0.0	2.4	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	5.0
44	Wood and articles of wood	59.4	0.4	4.0	47.0	0.1	9.0	24.9	1.0	9.3	82.4	0.2	5.3
45	Cork and articles of cork	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	12.5	0.0	0.0	1.3
46	Manufactures of straw	4.7	0.0	0.0	1.0	0.0	10.0	100.0	0.0	11.5	83.5	0.0	10.0
47	Pulp of wood	0.0	0.4	0.0	53.7	0.0	2.6	8.3	0.0	0.0	0.5	0.2	1.9
48	Paper and paperboards	60.6	1.4	5.0	77.8	1.9	6.0	48.7	1.7	8.2	77.5	0.7	0.6
49	Printed books, newspapers ectc.	1.8	0.1	2.3	1.5	0.1	3.7	11.5	0.0	1.2	43.8	0.0	1.8
50	Silk	0.0	0.0	0.6	0.3	0.0	1.0	100.0	0.0	3.3	16.0	0.0	7.2
51	Wool, fur ort animal hair	72.8	0.0	2.0	0.0	0.0	1.0	0.1	0.1	0.0	0.0	0.1	4.6
52	Cotton	48.8	0.1	3.9	3.7	0.4	4.9	16.3	0.4	4.8	18.1	0.3	8.2

Table 5
FTA Utilization Rate, Export Share and Difference between preferential and MFN tariff rates, 2005 (contd)

HS 2	Description	Australia			Philippines			Malaysia			Indonesia		
		Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates
53	Other vegetable textile fibres	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	8.0	0.0	4.8
54	Man-made filaments	44.8	0.3	3.6	11.7	1.7	5.2	45.2	0.2	4.0	25.4	0.2	7.6
55	Manpmade staple fibre	70.4	0.2	2.6	64.5	1.6	3.3	12.0	0.4	3.5	19.5	1.9	4.1
56	Wadding yarns	41.2	0.2	2.2	71.2	0.3	8.1	31.6	0.2	5.5	6.9	0.6	8.8
57	Carpets and floor coverings	27.1	0.1	0.0	51.9	0.1	10.0	67.9	0.1	9.2	50.4	0.1	12.5
58	Woven fabrics, lace etc.	14.2	0.0	2.0	2.6	0.2	5.0	81.0	0.0	16.5	8.1	0.1	6.4
59	Impregnated,coasted or covered textilefabrics	15.3	0.2	4.3	1.9	0.1	5.1	9.4	0.2	7.1	54.2	0.2	5.0
60	Knitted fabrics	14.8	0.0	4.7	14.8	0.2	2.8	30.3	0.2	10.0	8.0	0.4	6.5
61	Apparel and clothing, knitted	49.4	0.4	4.9	21.9	0.4	10.0	77.6	0.1	14.3	31.4	0.0	10.9
62	Apparel and clothing, not knitted	17.0	0.4	4.9	17.4	0.4	10.0	77.9	0.1	13.6	18.0	0.1	10.2
63	Other made-up textile articles	61.6	0.4	9.0	51.4	0.0	11.0	66.6	0.0	14.1	11.0	0.0	7.4
64	Footwear	13.6	0.3	1.0	77.4	0.1	8.2	89.0	0.0	12.3	3.7	0.0	7.4
65	Headgear	3.2	0.0	0.4	5.7	0.0	4.0	86.2	0.0	10.8	1.6	0.0	7.1
66	Umbrellas	0.0	0.0	4.8	95.9	0.0	10.0	100.0	0.0	15.0	15.5	0.0	11.7
67	Prepared feathers and downs	3.0	0.0	0.0	1.5	0.0	5.1	94.6	0.0	14.1	100.0	0.0	10.0
68	Articles of stone	25.2	0.2	5.6	50.5	0.2	2.2	78.0	0.1	13.9	49.4	0.2	2.8
69	Ceramic products	57.5	0.6	2.9	70.3	0.3	6.2	66.4	0.3	19.8	85.3	0.2	2.7
70	Glass and glasswear	75.8	0.4	4.0	27.9	0.3	6.2	63.7	0.4	17.7	33.1	0.4	1.6

Table 5
FTA Utilization Rate, Export Share and Difference between preferential and MFN tariff rates, 2005 (contd)

HS 2	Description	Australia			Philippines			Malaysia			Indonesia		
		Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates
71	Pearl, precious and semi-precious stones	64.4	1.7	3.6	0.0	0.0	3.7	5.7	0.1	0.8	0.0	0.3	8.0
72	Iron and steal	14.2	2.1	0.9	16.5	1.1	0.8	37.9	2.3	27.4	42.5	1.9	8.6
73	Articles and iron and steal	55.8	4.8	3.9	11.1	1.7	5.2	24.6	1.5	13.1	45.6	2.8	11.0
74	Articles of iron and steal	73.2	0.2	4.1	20.6	0.4	2.9	2.2	1.1	0.2	43.5	0.3	4.7
75	Nickle and articles thereoff	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	4.7
76	Aluminuametc.	12.0	0.6	4.7	39.5	1.0	5.9	37.7	0.5	16.2	12.5	0.6	2.6
78	Lead and articles thereoff	0.0	0.0	3.2	0.0	0.0	3.0	69.6	0.0	3.6	84.6	0.0	5.2
79	Ninc and articles thereoff	0.0	0.0	3.1	1.8	0.0	1.4	0.7	0.0	2.5	46.6	0.2	3.0
80	Tin and articles trereoff	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.1	0.0	0.0	0.0	10.0
81	Other basemetals	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	4.2
82	Tools, implements. Cutlery etc	2.8	0.0	4.7	1.5	0.1	2.4	11.3	0.1	0.5	2.8	0.0	1.2
83	Misc. articles of basemetals	26.7	0.4	5.0	17.3	0.2	4.5	85.8	0.3	11.4	48.6	0.4	7.1
84	Non-electrical mechinery	48.8	13.6	4.0	17.2	13.0	2.2	16.1	22.0	3.1	49.1	13.0	4.0
85	Electrical machinery and equipment	28.5	5.1	2.8	9.2	19.4	1.2	4.9	18.2	1.7	42.8	5.8	3.9
86	Railway or railway locomotives	7.0	0.0	4.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.5
87	Vehicles (other than railway)	75.6	39.1	6.8	64.3	19.6	17.7	76.5	7.7	16.7	88.4	23.1	25.8
88	Aircrafts	0.0	0.2	0.0	0.0	0.0	3.0	0.0	0.2	0.0	0.0	0.0	0.0
89	Skips, boats etc	35.1	0.0	5.0	0.0	0.0	5.3	0.0	1.1	0.0	0.0	0.8	0.0

(contd)

Table 5
FTA Utilization Rate, Export Share and Difference between preferential and MFN tariff rates, 2005 (contd)

HS 2	Description	Australia			Philippines			Malaysia			Indonesia		
		Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates	Utilization Rate	Export Share	Difference between preferential and MFN rates
90	Optical and photographic equipment	36.0	0.5	2.6	3.5	1.5	2.2	0.7	0.6	0.0	9.4	0.8	4.6
91	Clocks and watches	0.0	0.0	0.0	0.0	0.0	2.3	17.4	0.0	2.1	0.0	0.0	5.2
92	Mucical instruments	0.1	0.0	0.0	73.1	0.0	6.4	10.5	0.0	0.0	0.0	0.0	10.8
93	Arms and ammuninitions	0.0	0.0	0.0	0.0	0.0	13.2	100.0	0.0	5.0	0.0	0.0	5.7
94	Furniture, bedding etc.	64.8	1.1	4.4	67.0	0.6	9.6	87.9	0.4	2.2	44.1	0.8	8.0
95	Toy, games etc	47.8	0.5	4.8	9.1	0.1	3.9	13.0	0.1	0.2	27.1	0.0	13.2
96	Misc. manufactured articles	24.1	0.2	4.5	77.5	0.1	1.7	91.4	0.1	10.6	45.8	0.1	6.7
97	Works of art	0.5	0.0	0.0	0.0	0.0	8.5	6.8	0.0	3.5	0.0	0.0	5.0

Source: Author compilation from official record of issued rules-of-origin certificates available at Bureau of Trade Preference Development, Department of Foreign Trade, Ministry of Commerce. International Trade data are from World Trade Atlas database. Australia's tariff rates are obtained from Department of Custom Duty, Ministry of Finance (Thailand) whereas those for Indonesia, the Philippines, and Malaysia are from ASEAN Secretariat available at www.aseansecretariat.org

Table 6
Value of Issued Rules-of-Origin Certificates, Share and FTA Utilization Rates of Automotive Industry 2005

		Malaysia			Indonesia		
		Value	Share	Utilization rate	Value	Share	Utilization rate
8701	Tractors	0.0	0.0	0.0	0.0	0.0	0.0
8702	Bus (more than 10 persons)	0.0	0.0	0.0	0.0	0.0	0.0
8703	Passenger vehicles	48.6	4.2	85.8	405.6	23.4	97.5
8704	Pick-up trucks	21.8	1.9	98.6	98.9	5.7	100.0
8705	Special purpose motor vehicles	0.0	0.0	0.0	0.0	0.0	0.0
8706	Chassis with engine	0.0	0.0	100.0	0.0	0.0	0.0
8707	Auto body including cabs	2.8	0.2	90.1	0.1	0.0	100.0
8708	Parts and accesseries for HS 8701-8705	230.3	19.7	72.2	224.0	12.9	100.0
8709	Works Trucks, Self-Prop, No Lift; Stat Tractrs; Pt	0.0	0.0	0.0	0.0	0.0	0.0
8710	Vehicles for military purpose (e.g.tank)	0.0	0.0	0.0	0.0	0.0	0.0
8711	Motorcycles	0.0	0.0	0.1	0.0	0.0	0.0
8712	Bicycles	0.0	0.0	0.0	41.0	2.4	88.4
8713	Carriages for disabled persons	0.0	0.0	0.0	0.0	0.0	0.0
8714	Parts & access for cycles & invalid carriages	29.8	2.6	100.0	0.0	0.0	0.0
8715	Baby carriages (inc strollers) and parts thereof	0.0	0.0	0.0	40.8	2.3	31.6
8716	Others	1.0	0.1	89.3	0.1	0.0	73.9
	sum	334.2	28.6	39.8	810.4	46.7	37.0

Table 6
Value of Issued Rules-of-Origin Certificates, Share and FTA Utilization Rates of Automotive Industry 2005 (contd)

	the Philippines			Australia		
	Value	Share	Utilization rate	Value	Share	Utilization rate
8701 Tractors	0.0	0.0	0.0	0.0	0.0	0.0
8702 Bus (more than 10 persons)	0.0	0.0	100.0	0.0	0.0	0.0
8703 Passenger vehicles	229.7	29.7	93.4	190.2	11.3	42.2
8704 Pick-up trucks	15.4	2.0	100.0	722.0	42.8	100.0
8705 Special purpose motor vehicles	0.0	0.0	0.0	0.0	0.0	0.0
8706 Chassis with engine	0.0	0.0	0.0	0.0	0.0	100.0
8707 Auto body including cabs	0.0	0.0	3.5	0.0	0.0	0.0
8708 Parts and accesseries for HS 8701-8705	4.2	0.5	7.7	23.3	1.4	40.0
8709 Works Trucks, Self-Prop, No Lift; Stat Tractrs; Pt	0.0	0.0	0.0	0.0	0.0	0.0
8710 Vehicles for military purpose (e.g.tank)	0.0	0.0	0.0	0.0	0.0	0.0
8711 Motorcycles	8.2	1.1	24.9	0.0	0.0	0.0
8712 Bicycles	0.0	0.0	0.0	0.0	0.0	0.0
8713 Carriages for disabled persons	0.0	0.0	0.0	0.0	0.0	0.0
8714 Parts & access for cycles & invalid carriages	0.3	0.0	0.7	0.0	0.0	0.0
8715 Baby carriages (inc strollers) and parts thereof	0.0	0.0	0.0	0.0	0.0	0.0
8716 Others	0.0	0.0	0.0	0.7	0.0	59.1
	257.9	33.4	20.6	936.1	55.5	21.3

Note: value is in $million. Share is a percentage of total value of certificates of origin

Source: Author compilation from official record of certificates of origin available at Bureau of Trade Preference Development, Department of Foreign Trade, Ministry of Commerce. International Trade data are from World Trade Atlas database.

Table7
Annual Export Growth of CBU Vehicles from Thailand and Its Contribution,
2000-05

	2000-01	2002-04	2005
Annual export growth (per cent)	32.8	23.5	35.1
Contribution to growth			
Australia	5.8	22.7	35.3
Indonesia	1.7	25.4	5.4
The Philippines	0.2	10.8	6.0
Other countries	92.4	41.0	53.3
sum	100.0	100.0	100.0

Note: CBU vehicles cover HS8701-8705.
Source: Author's compilation from World Trade Atlas database.

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