Does FTA Export Creation exist?: Evidence from Thai Manufacturing[*]

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ABSTRACT

This paper examines the effect of FTA export creation on the Thai manufacturing sector in which rules of origin (RoO) are well taken into consideration. Thailand is selected because there were several FTAs that have entered in force for since 2005. The methodology in this paper is unique from the existing literature, combining between quantitative and qualitative analyses. Key findings are Thailand entered a race of maximizing bilateral FTAs as a consequence of the fear of exclusion. Nevertheless, it seems that such fear was overstated. Whilst North-South FTAs provided a narrow margin of tariff preference, South-South FTAs are usually involved with long lists of exceptions and long transition periods. We found the negative relationship between ability to comply with RoO and export-market orientation, implying FTA export creation seems to be very limited and concentrate on a certain group of manufactured goods especially completely-built-up (CBU) vehicles. This is consistent with the low FTA utilization in 2005, averaging out at 38.7 per cent in 2005. Based on the firm interview evidence, all car assemblers which extensively utilized preferential export had positive attitudes toward the existing FTAs, but they agree that FTA export creation toward the industry was not significant. Therefore, evidence from Thai manufacturing provides a case against FTA-led liberalization. Being in a race of maximizing FTAs would not necessarily create the considerable FTA export creation but certainly jeopardized multilateralism.
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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. 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 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 a number of FTAs 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 RoO. 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 in particular (e.g. Chirathivat, 2004). Nevertheless, such experiments cannot take into account the effect of RoO properly. Therefore, to the best of our knowledge so far this is the first empirical study in which RoO are well incorporated. The impact of FTA export creation is examined, using Thai manufacturing as a case study. The impact on export is emphasized because it was always a claim for developing countries made for 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. Instead of using the computable general equilibrium model simulation, quantitative and qualitative analyses are well combined in which the effect of RoO are emphasized. Firstly, backward linkage index (BLI) of 92 industries was constructed to measure an industry's ability to comply with RoO. The higher the index number the greater the degree an industry creates backward linkages. It also implies the less likelihood that enterprises have to alter their existing input combination between member and nonmember sources to obtain the origin. *BLI* index was further examined with its nature of export-market orientation to examine the extent to which RoO would hinder FTA export creation. The quantitative analysis was complemented by analysis of FTA utilization rates defined as the ratio of preferential export records to actual export values, as well as semi-structured firm interview evidence. In the latter, car assemblers were selected because they extensively applied preferential exports.

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 so that their record of preferential exports would be suitable for assessing

FTA export creation. So far there has not been a systematic analysis examining the impact of FTA on export where effect of 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 In Section 5 FTA utilization rates were examined, followed by evidence of car assemblers interview. 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). Prices of goods offering to consumers would be lower but in the presence of trade diversion lowered price would be 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]

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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. Such a hypothesis was rejected theoretically and empirically by Bhagwati and Panagariya (1996) and Krishna (2003).

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 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 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). They 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 are a requirement of using parts and components from 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). 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. Since RoO are usually negotiated on the industry-by-industry basic and each country tends to design its own RoO, 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.

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 is determined by 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.

It is very hard to predict distortion effect arising from presence of RoO for a given FTA. 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 2005). Besides, distortion effect of a given type of RoO could vary across industries. 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.

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. Thailand'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, they are the two key factors in determining net gains for member countries from economic integration.[5] 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. In some countries, distance from their capital cities to Bangkok are more than 15,000 kilometers. Maximizing a number of bilateral FTAs is to ensure that Thai exporters will not be excluded from tariff privileges granted through FTAs. In other words, Thailand's FTA policy is pursued because of fear of exclusion (àla Baldwin, 1997).

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.

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[5] See footnote 4 above.

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 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 RoO.[6] The complicated rules could incur dollar costs for exporters in dealing with FTAs tariff privileges and discourage the exporters to exercise the privileges. Therefore, FTA export creation does not always exist.

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 preferential trade records are not available. 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 two items, i.e. 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.

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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 country.

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

Where AFTA is concerned, the first six members (i.e. members, namely Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand) lowered tariffs to a range between 0 and 5 per cent for the others.[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 of these three ASEAN members was moderate. There are 30 per cent of total tariff lines whose margin of tariff preference is more than 10 per cent (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 because of the already low applied tariff rates. Most of goods are currently subject to tariff less than 5 per cent.

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. 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, details are 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 (*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 input-output table, in which

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

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 examine the likelihood RoO would hinder FTA export creation. 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 hinder FTA export creation . Both simple and (Spearman's) rank correlation coefficients between *BLI* and *XSR* are calculated to guard against any effect of unit

[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).

measurement on results. Data from Input-Output Table 2000 (the latest version) 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 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). Three remarks need to be clarified. 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, *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. 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 (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, especially imported steel. 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 remained negative at 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 that it is worth to examine how Thai exporters actually respond to FTA tariff preference. In this section, official record of certificate of origin (c/o) is used to represent records 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.

$$FTAUR_{ij} = \frac{X_{ij}^{c/o}}{X_{ij}} \tag{4}$$

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

$X_{ij}^{c/o}$ = 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 *FTAUR* indicates that there were a large number of exporters have applied for FTA tariff preference as a result of either a wide margin of tariff preference, low cost in complying with RoO or both. Since issuing c/o certificates takes a couple of days, a firm can request for official c/o in advance (i.e. 3 months). To gain flexibility in doing business, exporters tend to overstate their c/o request higher than what they actually want so that in some cases, preferential export records were higher than the actual one, i.e. *FTAUR* was greater than 100 per cent. In this circumstance, therefore, we will assume *FTAUR* equals to 100 per cent.

Table 4 presents selected indicators of how Thai exporters respond to FTA tariff preference. The first two indicators measure a degree of concentration of products applying for c/o. The former illustrated a relative importance as opposed to

the total product lines whereas the latter emphasized within preferential exports. Lastly, *FTAUR* was constructed to examine the relative importance of FTA channel (subject to preferential tariff) as opposed to usual export channel (subject to applied rate).

Three key inferences can be drawn from Table 4. Firstly, only did a limited number of export items apply for FTA tariff preference. In these four markets, a quarter of total export items applied for FTA tariff preference in 2005. Australia registered the lowest (18.8 per cent) and Malaysia was the highest concentration (33.6 per cent). The Philippines and Indonesia were in the middle at around 24.4 and 25.2 per cent, respectively.

Secondly, when considering among preferential exports, the high degree of product concentration ratio is also found. A sum of top 10 value shares of preferential exports accounted for more than 50 per cent in every market. Such a cumulated share increased to more than 70 per cent when altering from the top 10 to 20 items in all markets except Malaysia. Hence, FTA export creation tends to be beneficial only certain export items.

Thirdly, *FTAUR* of these four markets was averaged out at 38.7 per cent. While 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. Nevertheless, all of them were still low in the international standards. For example, *FTAUR* of Mexican export to the United States under Northern American Free Trade Agreement (NAFTA) was at around 60 per cent in 2004-05. The *FTAUR* of Chilean export for the United States was around 55-56 per cent in 2005-06 (James, 2006). To some extent, the relatively low *FTAUR* would reflect difficulty to comply with RoO of existing FTAs. In addition, in all markets but the Philippines the high coefficient of variation (CV) supports that it was only certain export items that could reap benefits of FTA export creation.

FTAUR is further disaggregated to the HS 2-digt level as reported in Table 5. Clearly, *FTAUR* varied largely among industries. Noticeably, there was not any systematic relationship between export share and *FTAUR*. A margin of tariff preference seems to be the only factor explaining patterns of *FTAUR* across industries. 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.   It implied that a FTA strategy of Thailand is not for enhancing export *per se*. Evidence found here supports the early argument that Thailand entered a race of maximizing a number of bilateral FTAs.

Interestingly, in all the markets, vehicle industry (HS87) was the only one among manufactured products which registered the very high FTA utilization rate (close to 100 per cent) and accounted 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 it accounted almost 60 per cent of total preferential exports.. Indonesia, the Philippines and Australia shared 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 would reflect 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] This pattern was 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 was the one industry which *FTAUR* 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.

All car assemblers had positive attitudes toward the existing FTAs. The current types of RoO that have applied so far did not generate any distortion effect significantly. Like Thailand which was selected to be a regional hub of many leading car multinational enterprises, locally assembled vehicles will be heavily reliant on locally manufactured parts to minimize logistic costs in procuring numerous parts (Kohpaiboon, 2006). It was unlikely to be affected by regional-content or changing-in-tariff heading types of RoO. Note that during the interview, some interviewees were 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.[13]

Interestingly, despite the presence of tariff preference, it did not create any significant export creation. FTA just did not hinder export plan so that there were not any car assemblers altering their investment plans positively in response to its proliferation. This was 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

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[12] See detail in Kohpaiboon (2006).
[13] See, for example, in Table AIII.1 in WTO (2006), *The US: Trade Policy Review*.

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 period).

Even though Australian market seems to considerably contribute to the increased growth rate in 2005, evidence from firm interview points to the export expansion was due to the general trend rather than the effect of TAFTA. Out of the total export expansion in 2005, Australian market contributed to 35 per cent 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. An interviewed firm clearly spelled out that it was very unlikely that tariff preferential that was less than 10 per cent would make such a difference in sale volume. When documentation cost is taken into consideration, TAFTA would not generate insignificant price advantage as opposed of the usual export channel.

7. Conclusion and Policy Inferences

This paper examines the effect of FTA export creation on the Thai manufacturing sector in which rules of origin (RoO) are well taken into consideration. Thailand is selected because there were several FTAs that have entered in force for since 2005. The methodology in this paper is unique from the existing literature. Instead of using the computable general equilibrium model simulation, quantitative and qualitative analyses are well combined in which the effect of RoO are emphasized.

Key findings are Thailand entered a race of maximizing bilateral FTAs as a consequence of the fear of exclusion. Nevertheless, it seems that such fear was overstated. Whilst North-South FTAs provided a narrow margin of tariff preference, South-South FTAs are usually involved with long lists of exceptions and long transition periods. FTA export creation does not always exist. It seems that FTA export creation tends to concentrate on a certain group of manufactured goods, especially completely built-up (CBU) vehicles. This was consistent with the low FTA Utilization in 2005, averaging out at 38.7 per cent. While all car assemblers had positive attitudes toward the existing FTAs because it is unlikely that the current form of RoO did not generate any distortion effect, it did not create any significant export

creation. Hence, there were not any car assemblers altering their investment plans positively in response to its proliferation.

Therefore, evidence from Thai manufacturing provides a case against FTA-led liberalization. FTA export creation does not always exist, largely depending on how FTA partners manage RoO. Hence, fear of exclusion tends to be overstated. Being in a race of maximizing FTAs would not necessarily 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 refocus their energies on reaching FTAs and hardly compromise in multilateral negotiation.

Table 1

Lists and Economic Characteristics of FTAs Thailand signed and is under

negotiation

FTA	Annual Trade Value (percentage share of total trade) 2001-05	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
United States	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: * 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

Correlation Coefficient between *BLI* and *XSR*			
Simple correlation			-16
Spearman's rank correlation			-20

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

(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
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

(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
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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