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How Do FTAs Affect Exporting Firms in Thailand?

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Abstract

Thailand—an outward-oriented regional production hub—is one of East Asia's most active users of free trade agreements (FTAs) as an instrument of commercial policy. By December 2009, Thailand had 11 concluded FTAs, and more were either under negotiation or proposed. Thai trade negotiators have striven to secure market access via FTAs, but little is known on how FTAs actually affect exporting firms. A survey of 221 exporters in leading sectors forms the basis for the first systematic study of the business impact of FTAs in Thailand. Key findings are as follows: (i) 24.9% of respondents used Thai FTAs as of 2007–2008, and this figure seems set to rise; (ii) 45.9% of respondents said that FTAs had influenced their business plans; (iii) 26.2% of firms felt that dealing with multiple rules of origin adds to business costs, and this is estimated to be less than 1% of export sales; (iv) more than half the sample firms have consulted with government and business associations on FTAs; and (v) a significant demand existed for business development services to adjust to FTAs, particularly for small and medium enterprises (SMEs). The findings suggest that Thailand should refine its FTA strategy to take better advantage of regional trade agreements. The study concludes with specific recommendations to improve business awareness of FTAs, encourage greater utilization of FTA preferences, increase competitiveness of local firms, and mitigate the potential effect of multiple rules of origin.

JEL Classification: F1, F15, O24

Contents

Abbreviations

ADB	-	Asian Development Bank
ASEAN	-	Association of Southeast Asian Nations
ASEAN+3	-	ASEAN plus People's Republic of China, Japan, and Republic of Korea
ASEAN+6	-	ASEAN plus People's Republic of China, Japan, Republic of Korea, India, Australia, and New Zealand
ASEM	-	ASEAN-Europe Meeting
AFTA	-	ASEAN Free Trade Area
APEC	-	Asia-Pacific Economic Cooperation
APTA	-	Asia-Pacific Trade Agreement
BIMSTEC	-	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
CEPA	-	Comprehensive Economic Partnership Agreement
CEPEA	-	Comprehensive Economic Partnership in East Asia
CGE	-	computable general equilibrium
CO	-	Certificate of Origin
CTH	-	Change of Tariff Headings
DTAT	-	DENSO Training Academy Thailand
EAFTA	-	East Asian Free Trade Agreement
EFTA	-	European Free Trade Association
EHP	-	Early Harvest Program
EPA	-	Economic Partnership Agreement
EDI	-	Electronic Data Interchange
EU	-	European Union
FDI	-	foreign direct investment
FTA	-	free trade agreement
GATT	-	General Agreement on Tariffs and Trade
GDP	-	gross domestic product
GTAP	-	Global Trade Analysis Project
IT	-	information technology
ITA	-	Information Technology Agreement
MERCOSUR	-	Mercado Comun Sur
MFN	-	most-favored nation
NTM		nontariff measure
OEM	-	original equipment manufacturing
PRC	-	People's Republic of China
ROO	-	rules of origin
RVC	-	Regional Value Content
SME	-	small and medium enterprises
TDRI	-	Thailand Development Research Institute
VC	-	Value Content
WTO	-	World Trade Organization
$	-	US dollar

1. INTRODUCTION

Since the 1970s, outward-oriented policies have transformed Thailand into a regional production hub and improved economic prosperity. Automobiles and automobile parts and electronics make up a quarter of exports from this upper-middle-income economy as of 2010. From the 1990s, Thailand has emphasized regional trade agreements as a vehicle of commercial policy. It has participated in the Association of Southeast Asian Nations (ASEAN) Free-Trade Area (AFTA) since 1993 and pursed bilateral free trade agreements since 2001. By December 2009, Thailand was one of East Asia's most active free trade agreement (FTA) users, having concluded 11 FTAs and engaged in another six FTA negotiations.

In response to the trend toward FTAs, there is growing academic interest in *ex ante* and *ex post* evaluation of Thailand's FTAs. *Ex ante* studies use global computable general equilibrium (CGE) models to simulate the economic effects of alternative FTA scenarios. Thailand Development Research Institute (TDRI) (2006) suggested that higher welfare effects of tariff reduction were visible from bilateral FTAs with traditional markets (e.g., Japan and the United States [US]) than those with new markets. Kawai and Wignaraja (2009b) found that ASEAN's FTAs generated significantly larger welfare gains for Thailand, especially if the CGE analysis incorporated reductions in tariffs, services barriers, and improvements in trade facilitation.

Ex post studies rely on industry analysis to assess the effect of FTAs. In a study of the automobile sector, Kohpaiboon and Jongwanich (2006) concluded that overall FTA utilization rates were relatively low and that FTA export creation was not significant. In contrast, TDRI (2006) found relatively high utilization rates for the Thailand-Australia FTA and the Thailand-India FTA but relatively low rates for the ASEAN-PRC FTA. TDRI (2006) also found that automobiles benefited more from implemented FTAs than textiles. Using revealed comparative advantage analysis, Sussangkarn (2003) suggested that the full impact of the ASEAN-PRC FTA may be underestimated as the People's Republic of China's (PRC) range of comparative advantages over Thailand was broad.

The few available studies of Thailand's FTAs provide only partial insights. The CGE estimates highlight welfare gains from bilateral FTAs with traditional markets and ASEAN's FTAs. Yet they are unable to clarify how much such welfare gains are realized. Furthermore, industry studies seem inconclusive on FTA utilization rates and effects on different sectors. In the absence of adequate industry information, enterprise surveys can help investigate the impact of FTAs on Thailand's exporters.

This study is the first systematic analysis of how FTAs affect exporting firms in Thailand. The research explores five key issues in current academic and policy debates: (i) awareness of FTA provisions and use of FTA preferences; (ii) the relative importance of different FTAs and net benefits of FTAs; (iii) enterprise responses to FTAs; (iv) the burden imposed by multiple rules of origin (ROO) and the extent of the Asian "noodle bowl" effect[1]; and (v) the demand for institutional support for adjustment to FTAs. These issues were investigated using a survey of 221 exporters in three leading Thai exports—textiles/garments, electronics, auto/auto parts—undertaken from April 2007 to May 2008.

2. FTA POLICIES AND TRADE WITH FTA PARTNERS

This section briefly describes Thailand's FTA policies and trade with FTA partners as the backdrop for the analysis of the results of the Thai firm survey. It undertakes three related

[1] See Kawai and Wignaraja (2009a) for a summary of the FTA "noodle bowl" phenomenon.

tasks: (i) it reviews the country's evolving trade policies since the 1970s, highlighting the recent coexistence of outward orientation with FTAs; (ii) it examines the direction of trade to show a shift in exports toward FTA partners; and (iii) it analyzes use of FTAs and influences on FTA use, including the risk of Asian noodle bowl effects in overlapping FTAs.

2.1 Overview of Trade and FTA Policies

In the early 1970s, following a decade of import substitution, Thailand gradually started shifting toward outward-oriented policies under the Third National Economic and Social Development Plan.[2] An escalating tariff structure (ascending from raw materials to finished goods) was used to support exports, but overall tariffs remained high in the 1970s. The 1980s and 1990s saw renewed emphasis on achieving outward orientation (World Trade Organization [WTO] 2003, 2007a). Further tariff reform was facilitated by Thailand's membership of the General Agreement on Tariffs and Trade (GATT) in 1982. Export processing zones, tax incentives, and access to duty-free imports were also introduced to attract export-oriented foreign direct investment (FDI) into manufacturing, which was rapidly growing. Significant tariff reform started in the late 1980s to reduce industrial tariffs. In addition, Thailand became a member of the Information Technology Agreement (ITA) in 1996, which accelerated tariff reduction in electronics.[3]

Table 1: Thailand's Average MFN Tariff Rates (%)

Sector	1989	1993	1995	2000	2001	2003	2005	2007
Agriculture	47.7	49.9	44.8	41.1	28.9	29.1	25.3	23.9
Industrial Goods	39.0	45.1	19.7	15.1	14.1	13.3	9.9	7.7
Textiles/Garments	66.4	82.0	32.6	24.4	23.7	21.9	18.8	14.4
Electronics	43.4	41.6	16.3	13.9	11.7	11.8	7.8	3.8
Auto/Auto Parts	57.1	57.1	39.5	38.9	42.6	41.7	33.3	32.9
All Sectors	39.8	45.7	23.1	18.5	16.1	15.4	11.9	10.0

Source: Authors' calculations based on UNCTAD (2008).

As a measure of the economy's growing outward-orientation, between 1993 and 2007 Thailand's average most-favored nation (MFN) tariffs for all sectors fell significantly from 45.7% to 10.0% and for industrial goods from 45.1% to 7.7% (Table 1). The three sectors of interest to this study had different speeds of liberalization, reflecting the influence of national trade strategy and industrial lobbies. Electronics had large tariff cuts (from 41.6% to 3.8%) during the same period, followed by textiles/garments (82.0% to 14.4%). Meanwhile, auto/auto parts experienced more modest tariff reduction (57.1% to 32.9%) and remained relatively protected.

Thailand's exports surged, reflecting outward-oriented policies, the entry of export-oriented FDI, cheap labor costs, investments in infrastructure, and strategic geographical location. As Table 2 shows, the value of total exports nearly trebled between 1995 and 2007 to $152.1 billion. Electronics also trebled in value to $30.3 billion to emerge as the country's largest manufactured export. The value of auto/auto parts increased twelvefold to $15.2 billion. Targeted to become the "Detroit of Asia," auto/auto parts is considered a rising star in Thailand and received significant policy support. By contrast, textiles/garments stagnated at under $7 billion due to increased competition from lower-cost competitors like the PRC and Viet Nam. Taken together, the three sectors accounted for around one-third of total exports in 2007.

[2] See Appendix 1 for a background of Thailand's trade policies and Appendix 2 for trade performance.

[3] ITA members also include Australia, the EU, India, Indonesia, Japan, Malaysia, New Zealand, Philippines, the PRC, Singapore, and the US. As an ITA member, Thailand pledged to reduce tariffs imposed on electronic products to other ITA members to zero within a designated period (tariffs of three-fourths of tariff lines were reduced to zero in 2000, and tariffs of the other lines were reduced to zero in 2003).

Table 2: Thailand's Exports, by Sector

	1995	2000	2003	2005	2007
Exports, US$ million					
All Sectors	56,725	69,624	80,040	110,938	152,095
Textile/Garments	6,487	5,586	5,465	6,699	6,967
Electronics	10,649	18,250	17,810	22,814	30,344
Auto/Auto Parts	1,235	3,186	5,124	10,109	15,200
Exports, % share					
All Sectors	100.0	100.0	100.0	100.0	100.0
Textile/Garments	11.4	8.0	6.8	6.0	4.6
Electronics	18.8	26.2	22.3	20.6	20.0
Auto/Auto Parts	2.2	4.6	6.4	9.1	10.0

Source: Authors' calculations based on Thailand Ministry of Commerce (2009).

From the early 1990s onwards, Thailand's outward orientation was tempered with an emphasis on regionalism. Participation in AFTA, beginning in 1993, strengthened economic ties with neighboring ASEAN countries. In the 2000s, a marked shift toward bilateral FTAs occurred as Thailand sought to ensure greater market access and to develop as a strategic investment location in Asia. Tantivasadakarn (2006) pointed out that Thailand's approach to FTAs has two objectives. First, FTAs are used to strengthen ties with important traditional markets such as the US and Japan. Second, FTAs are used to gain access to new markets, classified into three groups: a) potential markets such as the PRC, India, Australia, and New Zealand; b) gateways to other markets, such as Bahrain (gateway to the Middle East) and Peru (gateway to South America); and c) new regional markets such as the countries that comprise the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Moreover, as Thailand's major competitors (e.g., Viet Nam and Malaysia) are negotiating to establish FTAs with its major current and potential trading partners, Thailand is forced to move faster toward FTA negotiations to protect market shares in these markets.

Appendix 3 summarizes Thailand's FTAs by status and Appendix 4 lists the market access features for selected FTAs by sector. By December 2009, Thailand had concluded 11 FTAs, was involved in another six negotiations, and was studying the feasibility of six others. The earliest agreements were concluded with Lao PDR in 1991 and with ASEAN in 1993.Later, Thailand signed bilateral FTAs with major regional trading partners including Australia (2005), New Zealand (2005), and Japan (2007). Through ASEAN's concluded FTAs, Thailand also gained access to PRC (2005), Japan (2008), Republic of Korea (2008), and most recently Australia and New Zealand (2009) and India (2009). Turning to FTAs under negotiation, framework agreements were signed with Bahrain (2002) and Peru (2005) for strategic reasons including energy security and gaining access to the Middle East and Latin America. Negotiations on a Thailand-US FTA, which began in 2003, were suspended in March 2006 due to domestic political issues. In addition, there are several FTAs under study, including an East Asian FTA (or ASEAN+3 FTA), a Thailand-Pakistan FTA, a Thailand-Chile FTA, and a Thailand-Mercado Comun Sur (MERCOSUR) FTA.

CGE models are often used to simulate the economic effects of FTAs and a valuable tool of *ex ante* evaluation. Box 1 shows estimated welfare gains for Thailand from a range of bilateral and ASEAN FTAs from two recent studies. Welfare gains for Thailand seem to differ significantly among FTAs. Two conclusions can be drawn from the results. First, bilateral FTAs with large traditional markets (like Japan) generate larger welfare gains for Thailand than those with smaller markets. Furthermore, ASEAN FTAs generate even larger gains for Thailand than bilateral FTAs with large markets.

Box 1: Simulated Gains for Thailand from FTAs

CGE simulation studies by TDRI (2006) and Kawai and Wignaraja (2009b) showed potential welfare gains for Thailand from alternative FTA scenarios. Both studies used the Global Trade Analysis Project (GTAP) database but employed different methods to analyzing gains. TDRI (2006) used a static GTAP model to predict welfare gains for Thailand from creating selected bilateral FTAs when all the tariff reductions are completed. Meanwhile, Kawai and Wignaraja (2009b) focused on the effects of alternative regional FTAs, mostly involving ASEAN, and used a more dynamic GTAP model. Their model incorporated regional tariff elimination for goods, liberalization of services trade, and trade facilitation including improved trade-related infrastructure, and projected the database to 2017 to reflect trade and production patterns in a post-Uruguay Round world.[4]

Table 3: Estimated Impacts of Selected FTAs on Thailand

Bilateral FTAs (a)	$ Million	Regional FTAs (b)	$ Million
Thailand-Australia FTA	67	ASEAN+PRC FTA	16,324
Japan-Thailand EPA	1,183	ASEAN+Japan FTA	14,107
Thailand-India FTA	86	ASEAN+Korea FTA	2,640
Thailand-New Zealand CEPA	11	ASEAN+3 FTA	26,728

Sources: (a) TDRI (2006) and (b) Kawai and Wignaraja (2009b).

Table 3 shows the simulation results from the two studies. Among the bilateral FTAs, Thailand gains most from the Japan-Thailand Economic Partnership Agreement (EPA)—its welfare increases by about $1.2 billion when the tariff elimination process is completed. Among the alternative bilateral FTA scenarios, the Thailand-New Zealand Comprehensive Economic Partnership Agreement (CEPA) brings the least benefit to Thailand, increasing Thailand's welfare by only $11.3 million. Interestingly, Thailand gains even more from FTA arrangements centered on ASEAN than from bilateral FTAs, especially if such regionwide agreements are comprehensive and foster services and trade as well as reduce tariffs. The simulations show that an ASEAN+3 FTA (involving ASEAN, Japan, Republic of Korea, and the PRC) generates the largest gains for Thailand ($26.7 billion in economic welfare by 2017) and an ASEAN+Republic of Korea FTA the least ($2.6 billion). In between are the ASEAN-PRC FTA and the ASEAN-Japan FTA.

2.2 Trade with FTA Partners

Table 4 provides trends in Thailand's total trade with its FTA partners (both concluded FTAs and those under negotiation) since 1995. Total trade with concluded FTA partners amounted to $191 billion (or 51.8% of Thailand's exports) in 2008. The country's three major FTA trading partners are in East Asia—ASEAN, Japan, and the PRC. Some way behind are Australia, Republic of Korea and New Zealand. It is striking that trade with concluded FTA partners has grown faster (17.9% per year) than trade with FTAs under negotiation (6.7%) or the rest of the world from 2001 to 2008. Among concluded FTA partners, the PRC, India, and Australia have the fastest trade growth. Among FTAs under negotiation, the US is the largest partner but with moderate growth, while trade with Peru and Bahrain has accelerated.

Table 4: Thailand's Total Trade with FTA Partners

	Annual Average Growth Rate, %		Value, $ Million		% of Total Exports	
	1995–2000	2001–2008	1995	2008	1995	2008
Total Trade	**0.7**	**15.9**	**127,443**	**356,999**	**100.0**	**100.0**
Concluded FTAs:	**0.0**	**17.9**	**62,727**	**191,312**	**49.2**	**51.8**
Japan	-3.8	12.4	31,131	53,628	24.4	11.3
China, People's Rep. of	10.7	27.7	3,743	36,347	2.9	9.1
Korea, Rep. of	1.0	17.8	3,277	10,529	2.6	2.1
ASEAN	1.8	17.6	70,291	57,556	17.1	22.6
Australia	5.8	25.3	2,531	13,147	2.0	4.5
New Zealand	5.1	17.3	297	1,395	0.2	0.4
India	4.0	26.5	921	5,975	0.7	1.9
FTAs under negotiation:	**3.7**	**6.7**	**19,626**	**32,363**	**15.4**	**11.6**
US	3.6	6.5	18,607	31,698	14.6	11.4
Peru	21.8	17.8	38	328	0.0	0.1
Bahrain	7.4	20.8	60	337	0.0	0.1
Rest of the world	0.2	16.5	45,090	133,323	35.4	36.5

Source: Authors' calculations based on Thailand Ministry of Commerce (2009).

Table 5 shows trends in Thailand's exports with its FTA partners (both concluded FTAs and those under negotiation) for the three sectors of interest to the study. There are some differences in the export patterns for the three industries.

Around 49% of Thailand's electronics exports occur with FTA partners. The PRC has emerged as the largest and fastest-growing (39.1% per year in 2001–2007) FTA market for Thailand's electronics exports. The most important electronics exports include computer data storage units, monolithic integrated circuits and parts, and accessories of automatic data processing machines.

Some 54% of auto and auto parts exports are with FTA partners. ASEAN and Australia are the largest and fastest-growing FTA markets for auto and auto parts exports. Leading exports include diesel-powered trucks, automobiles with 1,500 to 3,000 cubic capacity engines, and gas-powered trucks.

By contrast, FTA partners only account for around 27% of textiles and garments exports. ASEAN is the largest FTA market and is growing rapidly. The PRC and India are next largest markets and are growing more rapidly than ASEAN. Key exports include brassieres and parts, staple fibers of polyesters (not carded or combed), and men's/boys shirts, trousers, and shorts, as well as women's/girls' trousers and shorts.

Table 5: Thailand's Exports to FTA Partners, by Sector

	Textiles/Garments			Electronics			Auto/Auto Parts		
	Growth Rate, %		Value, $ Mn	Growth Rate, %		Value, $ Mn	Growth Rate, %		Value, $ Mn
	1995–2000	2001–2007	2007	1995–2000	2001–2007	2007	1995–2000	2001–2007	2007
Total Trade	**-2.9**	**4.8**	**6,967**	**11.4**	**11.6**	**30,344**	**20.9**	**28.6**	**15,200**
Concluded FTAs:	**-4.8**	**10.6**	**1,879**	**8.1**	**12.4**	**14,754**	**19.7**	**33.0**	**8,130**
Japan	-9.2	2.1	379	11.2	6.4	3,324	44.7	19.8	1,176
PRC	4.0	15.9	264	78.9	39.1	5,473	19.1	24.5	82
Korea, Rep. of	9.4	6.7	99	39.1	13.0	829	47.6	28.5	27
ASEAN	-3.8	12.3	925	2.6	3.8	4,724	4.2	34.6	4,004
Australia	-7.0	9.8	77	13.4	14.7	198	173.6	40.0	2,398
New Zealand	5.9	10.9	13	10.8	13.4	17	101.2	20.6	151
India	1.7	13.5	122	45.2	5.9	189	117.8	32.9	292
FTAs Under Negotiation:	**9.3**	**-0.9**	**1,981**	**12.0**	**6.7**	**4,879**	**4.6**	**14.8**	**555**
US	9.7	-0.5	1,970	11.6	7.4	4,877	0.3	16.9	474
Peru	46.7	18.3	5	-3.0	30.1	1	64.1	63.8	58
Bahrain	-9.3	3.1	6	41.1	15.0	1	75.5	50.2	23
Rest of the World	-8.9	6.4	3,107	16.8	13.3	10,710	29.3	25.8	6,515

Source: Authors' calculations based on Thailand Ministry of Commerce (2009).

2.3 Utilization of FTAs and Possible Determinants

There is considerable debate in academic circles on FTA utilization rates in Thailand and possible determinants.[5] A lack of official time series data on FTA usage within industries makes it difficult to resolve the issue. Fortunately, two studies using different methods have prepared recent estimates of FTA usage for different years and sources (see TDRI 2006 and Chirathivat 2008).

Chirathivat (2008) shows that the overall utilization rate for Thailand's FTA partners has been rising, nearly doubling from 15.6% to 26.7% between 2005 and 2008. Utilization rates vary by market, with 71.8% for the Thailand-Australia FTA and 27.9% for AFTA. Unfortunately the study does not provide utilization rates by sector.

TDRI (2006) also reveals relatively high FTA utilization rates for AFTA, the ASEAN-PRC FTA, the Thailand-Australia FTA, and the Early Harvest Program under the Thailand-India FTA. The data suggest that AFTA, the region's oldest agreement, had the largest export value under preferences ($4.8 billion) and had a respectable overall FTA utilization rate (51.1%). Under the Thailand-Australia FTA, around $2.1 billion of exports benefited from preferences, and utilization rates were 88.2%.

Different sectors showed different utilization rates (see Table 6). Among the three sectors shown, auto/auto parts, under AFTA and the Thailand-Australia FTA, had relatively high utilization rates compared to electronics and textiles/ garments. The ASEAN-PRC FTA had exports of $1.4 billion under preferences and a modest utilization rate (38.0%). This FTA was in an early stage and there was relatively low demand for products covered. The Early Harvest Program under the Thailand-India FTA was characterized by low export values but relatively high utilization rates, which may point to a large future use of a full FTA.

The margin of preference is the difference between the MFN tariff rate and the FTA preferential tariff rate for a given product, and significant margins are an incentive for exporters to use FTA preferences. Table 6 shows that AFTA (6.1%) and the Thailand-Australia FTA (4.5%) had high overall margins compared to the other two FTAs. Margins

[5] For a selection, see Kohpaiboon and Jongwanich (2006), TDRI (2006), and Sally (2007).

were particularly high in auto/auto parts, moderate in textiles/garments, and negligible in electronics. Thus, Thai auto/auto parts firms had the most incentive to use FTA preferences, followed by textiles/garments firms, and electronics firms the least. Low use in electronics is linked to ITA membership, which provides for lower tariff rates for electronics exporters even without an FTA.[6]

Auto/auto parts firms, under AFTA and the Thailand-Australia FTA, have high utilization rates. This is linked to margins of preference, Thailand having a well-established auto/auto parts sector and some experience of dealing with ROO. Likewise, textiles/garments firms are making some use of the same two FTAs. In spite of ITA, some use is being made of AFTA preferences by electronics firms but not by firms in the other sectors. Kuroiwa (2006) suggested that the low utilization rate of AFTA for electronics could be due to the exporters' inability to comply with the ROO. He found that the electronics industries in the ASEAN-5 countries use less than 40% local content.[7] More generally, TDRI (2006) suggested that differences in utilization rates among the different FTAs may be due to several factors, including low margins of preference, notable administrative costs of complying with rules of origin, nontariff measures (NTMs) in export markets, and weak competitiveness of Thai firms relative to competitors.

Table 6: Weighted MFN and FTA Rates of Selected FTAs, 2005–2006 (%)

Sector	Item	AFTA	ASEAN-PRC FTA	Thailand-Australia FTA	Thailand-India FTA
Textiles/ Garments	MFN tariff rate, %	9.5	7.9	11.5	…
	FTA preferential tariff rate, %	2.9	7.7	7.1	…
	Margin of preference, %	6.6	0.1	4.4	…
	FTA utilization rate, %	28.3	9.9	55.5	…
	FTA utilization value, $ million	146.0	0.5	35.1	…
Electronics	MFN tariff rate, %	0.7	0.6	1.3	14.8
	FTA preferential tariff rate, %	0.2	0.2	0.2	12.4
	Margin of preference, %	0.5	0.4	1.1	2.5
	FTA utilization rate, %	34.2	0.0	4.1	69.8
	FTA utilization value, $ million	73.0	0.0	1.4	83.8
Auto/Auto parts	MFN tariff rate, %	28.0	16.4	7.1	15.0
	FTA preferential tariff rate, %	4.8	6.8	0.3	12.5
	Margin of preference, %	23.2	9.6	6.8	2.5
	FTA utilization rate, %	77.2	0.0	111.3	15.1
	FTA utilization value, $ million	1,362.3	0.0	1,351.6	1.9

…: not included in agreement.

Notes:
Weighted tariff margins of AFTA and ASEAN-PRC FTA are calculated by using 2006 data.
Weighted tariff margins of Thailand-Australia FTA and Thailand-India FTA are calculated by using 2005 data.
Thailand-India FTA rates refer to the Early Harvest Program.

Source: Authors' calculation based on TDRI (2006).

3. SURVEY FINDINGS

This section presents the main findings from the survey of 221 firms in textiles/garments, electronics, and auto/auto parts. The sample covers firms of different sizes (small and medium enterprises [SMEs], large firms, and giant firms) and ownership (domestic and

[6] This indicates that the countries may have unilaterally reduced tariffs of electronics prior to FTAs. It should be noted that all countries except less developed ASEAN countries are members of the ITA. Thus, tariff margins in those corresponding FTAs are low.

[7] ASEAN-5 consists of Thailand, Singapore, Philippines, Indonesia, and Malaysia.

foreign). The sample and sampling methodology are described in Appendix 5. The survey dealt with issues that can be arranged under six headings:

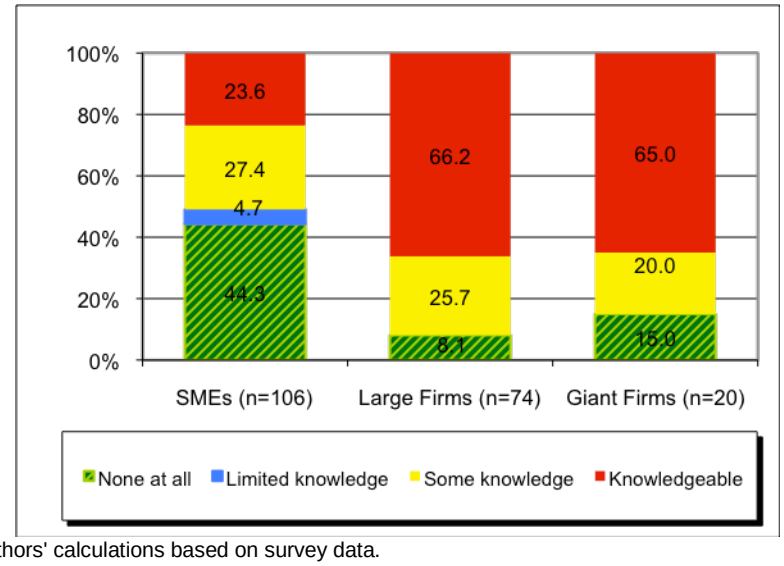
1. awareness and use of FTA preferences;
2. ranking of FTAs and net benefits;
3. business strategy responses;
4. burden imposed by multiple ROO;
5. harmonization of ROO; and
6. institutional support for enterprise adjustment.

3.1 Awareness and Use of FTA Preferences

FTA texts, particularly for comprehensive agreements, tend to be long and written in complex legal and technical language. Given their complexity, an important issue is the extent to which business has studied the detailed provisions in Thailand's FTAs and is fully aware of their implications.

Some firms claimed to be aware of provisions in Thailand's FTAs. Of the sample firms, 43.5% (87 firms) claimed to have thorough and detailed knowledge of the FTA provisions that affect their business. Another 26.0% of sample firms claimed to have some knowledge of some aspects of the relevant FTA provisions. Larger firms tended to be more knowledgeable of FTAs than smaller firms were. While 66.2% of large firms and 65.0% of giant firms claimed that they have thorough knowledge of FTA provisions, only 23.6% of SMEs provided the same response (Figure 1). Expectedly, a high proportion of SMEs (44.3%) reported that they have no knowledge at all of FTA provisions that affect their business.

Figure 1: Awareness of FTA Provisions that Affect Business (% of responding firms in each size category)



Source: Authors' calculations based on survey data.

Textiles/garments had the highest proportion of firms that claimed to be knowledgeable of FTA provisions (53.4%). However, without more detailed case studies of firms, it is hard to verify these claims. The levels of awareness of FTA provisions may reflect that the sample firms are mostly in (or near) major cities in Thailand and have access to information on FTAs, training, and other FTA-related services provided by government and business associations. Awareness levels are likely to decline with increasing distance from the capital city and ready access to FTA services.

Negotiating multiple FTAs requires investment of scarce resources. Yet there is speculation about the utilization of preferences in Thailand's concluded FTAs and plans for preference utilization in FTAs under negotiation. The pattern of current and future preference utilization should be examined. Another issue is how much FTAs have influenced behavior of businesses and the formulation of their business plans.

Utilization of preferences in existing Thai FTAs seemed reasonable and set to rise. Survey results suggest that 24.9% of respondents (55 firms) used Thai FTAs. When future use is factored in, the use/plan-to-use rate rises to 45.7% of respondents (100 firms). The utilization rate from survey findings generally accords with the utilization rate (26.7% in 2008) provided by Chirathivat (2008) based on certificate of origin data from the Thailand Ministry of Commerce. Table 7 provides a breakdown of the pattern of FTA preference utilization. Larger firms were more likely to use FTA preferences than SMEs were.

Table 7: Utilization of FTA Preferences
(% of responding firms in each size category)

Use of FTA Preferences	All	Textiles/Garments			Electronics			Auto/Auto Parts		
		SME	Large	Giant	SME	Large	Giant	SME	Large	Giant
Use or plan to use	45.7	37.5	45.8	50.0	32.3	66.7	85.7	31.0	50.0	57.1
Plan to use	28.3	28.1	54.2	12.5	25.8	27.3	0.0	11.9	39.3	42.9
Do not use	26.0	34.4	0.0	37.5	41.9	6.1	14.3	57.1	10.7	0.0
All firms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n	219	32	24	8	31	33	7	42	28	14

n = number of responding firms.

Source: Authors' calculations based on survey data.

It is interesting to consider which FTAs were important to firms that used or planned to use preferences. Around 32.4% of firms reported the five FTAs in effect (AFTA, ASEAN-PRC FTA, Thailand-Australia FTA, Thailand-New Zealand CEPA, and Thailand-India FTA). Meanwhile, 67.5% of these firms reported the FTAs under negotiation (US-Thailand FTA and Japan-Thailand EPA) to be the most important for their business. Thus, the evidence seems to suggest moderate levels of utilization of preferences in existing Thai FTAs as of 2007–2008, but FTA utilization rates in Thailand are likely to increase when the major FTAs under negotiation become effective.

Meanwhile, 26.0% of sample firms did not use preferences, mostly domestic SMEs. In-depth interviews with firms revealed interesting insights on why firms are not keen on using FTA preferences. Apart from the non-FTA preferences available to firms, such as ITA, the demand for products from the FTA partner may be too small relative to the administrative cost associated with utilizing FTA preferences. Furthermore, MFN rates are also available to firms, which can sometimes be more competitive than FTA preference rates.

3.2 Ranking of FTAs and Net Benefits

The growing number of FTAs involving Thailand raises the issue of the relative importance of different FTAs for business, particularly those concluded versus those under negotiation. FTAs are associated with positive (e.g., higher export sales) and negative aspects (e.g., increased competition from imported products), and a related issue is whether they have brought net benefits to business in Thailand.

The US-Thailand FTA and the Japan-Thailand EPA were the most important FTAs for the sample firms. Table 8 provides a ranking of the importance of Thai FTAs. Of the 221 firms, 22.6% of them chose the US-Thailand FTA while another 21.7% selected the Japan-Thailand EPA as being most vital to their businesses. A couple of FTAs under negotiation

thus emerged as being relatively more important for the sample firms than those already in effect. Other FTAs indicated include AFTA (14.5%), Thailand-Australia FTA (8.1%), Thailand-PRC FTA (Early Harvest Program [EHP]) (2.7%), ASEAN-PRC FTA (2.3%), Thailand-India FTA (EHP) (0.9%), and Thailand-New Zealand CEPA (0.4%). These findings underscore the role of Thailand's FTAs in strengthening its ties with large, traditional export markets (e.g., the US, Japan, and ASEAN) and gradually improving access to new markets (e.g., the PRC, Australia, New Zealand, and India).

Table 8: Ranking of FTAs
(no. of firms that indicated the FTA as the most important to business)[a]

FTAs	All	Textiles/Garments			Electronics			Auto/Auto Parts		
		SME	Large	Giant	SME	Large	Giant	SME	Large	Giant
Concluded										
AFTA	32	1	0	0	10	2	1	13	2	3
Thailand-Australia FTA	18	2	0	0	1	3	1	5	3	3
Thailand-PRC EHP [b]	6	3	0	0	0	0	0	3	0	0
ASEAN-PRC FTA	5	0	0	0	1	1	1	0	2	0
Thailand-India FTA [b]	2	0	0	0	0	0	0	1	1	0
Thailand-NZ CEPA	1	0	0	0	0	0	0	1	0	0
Under Negotiation										
US-Thailand FTA	50	11	16	7	3	5	0	3	2	3
Japan-Thailand EPA [c]	48	3	3	0	7	11	3	4	12	5
No. of respondents	162	20	19	7	22	22	6	30	22	14
No response	59	12	5	1	11	11	1	12	6	0
All firms	221	32	24	8	33	33	7	42	28	14

Notes:
[a] This table presents only FTAs with responses. See Appendix 3 for the list of FTAs involving Thailand.
[b] The Thailand-PRC agreement is under the ASEAN-PRC FTA.
[c] Signed and in effect since November 2007 but under official negotiation at the time of the survey.

Source: Authors' calculations based on survey data.

The majority of the firms that selected the US-Thailand FTA or the Japan-Thailand EPA were larger firms, accounting for more than half of large firms (56.6%) and 64.5% of giant firms.[8] Meanwhile, AFTA was the most popular among smaller firms. Of the 32 firms that selected AFTA to be the most important to their business, 75% were SMEs.

A distinct pattern of interest in given FTAs emerges by sector and ownership, reflecting linkages with global supply chains. The US-Thailand FTA was overwhelmingly the most important FTA for textiles/garments, particularly for domestic firms. Meanwhile, the Japan-Thailand EPA was the most important FTA for electronics and auto/auto parts, particularly for foreign firms.[9]

Among the concluded FTAs, firms saw AFTA as the most important to their business, followed by the Thailand-Australia FTA. Expectedly, these two FTAs were popular among auto/auto parts firms, given the lower FTA preferential tariff rates and higher tariff margins relative to other FTAs (see Table 6). However, even if AFTA preference is low for textiles/garments, it did not seem to be important for firms in this sector.

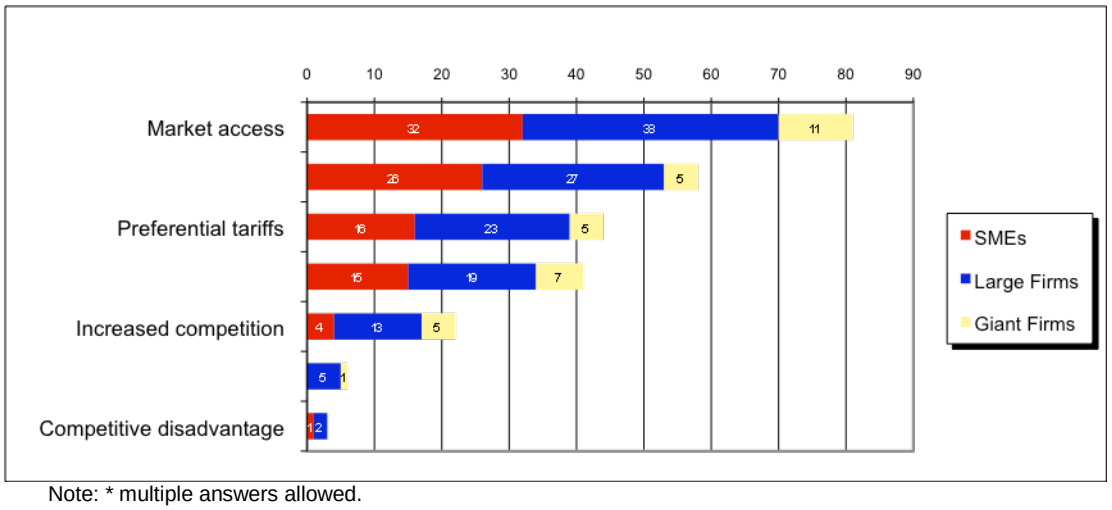
[8] Giant firms have over 1,000 employees, large firms have 101 to 1,000, and SMEs have 100 or fewer.

[9] In this study, a firm is classified as a foreign firm if the share of foreign equity is more than 10% (UNCTAD definition). The pattern of FTAs by sector and ownership is as follows: 31 domestic and 3 foreign firms from textiles/garments selected the US-Thailand FTA; 3 domestic and 18 foreign firms from electronics, and 5 domestic and 16 foreign firms from auto/auto parts indicated the Japan-Thailand EPA to be their most important FTA.

The 59 firms that had no response are noteworthy too. The majority of these are SMEs. Some firms are domestic electronics producers that supply parts and components to exporters (i.e., indirect exporters). Meanwhile, others are covered under agreements such as the ITA, which eliminate duties on selected information technology (IT) products.

On the net benefits of FTA, firms typically reported more positive than negative impacts. Around two-thirds of the sample (131 firms) reported at least one positive impact of FTAs to their business, while only 13.1% (29 firms) reported at least one negative impact (Figure 2).[10] The positive impacts of FTAs were reported to include wider market access that results in higher export sales (81 firms), concentration of production (58 firms), intermediate goods/raw materials that are easier to import due to lower preferential tariffs (44 firms), and new business opportunities including joint ventures (41 firms).

Figure 2: Perceived Positive and Negative Impacts of FTAs (no. of firms that reported an impact)*



Note: * multiple answers allowed.

Source: Authors' calculations based on survey data.

Meanwhile, the main negative impact of FTAs was increased competition from imported products (22 firms), while documentation of FTA use for clients and competitive disadvantage with other FTAs were chosen as reasons by 6 and 3 firms, respectively.

Figure 2 shows a breakdown of the impacts of FTAs by firm size.[11] The positive impacts are visible across all firm sizes. Accordingly, market access was indicated as a benefit by 32 SMEs, 38 large firms, and 11 giant firms. Interestingly, improved market access was generally perceived as positive across all three sectors, while increased competition was especially seen as negative by auto/auto parts firms and to some extent by textiles/garments firms.

3.3 Business Strategy Responses

Over half the firms reported that FTAs had influenced their business plans. Some 45.9% of respondents (100 firms) reported that they had changed or would change business plans in response to FTAs. Another 13.3% (29 firms) may do so. The positive response rate to FTAs (59.2% combined) was significantly higher than the rate of those that did not plan to change business plans (31.7%).

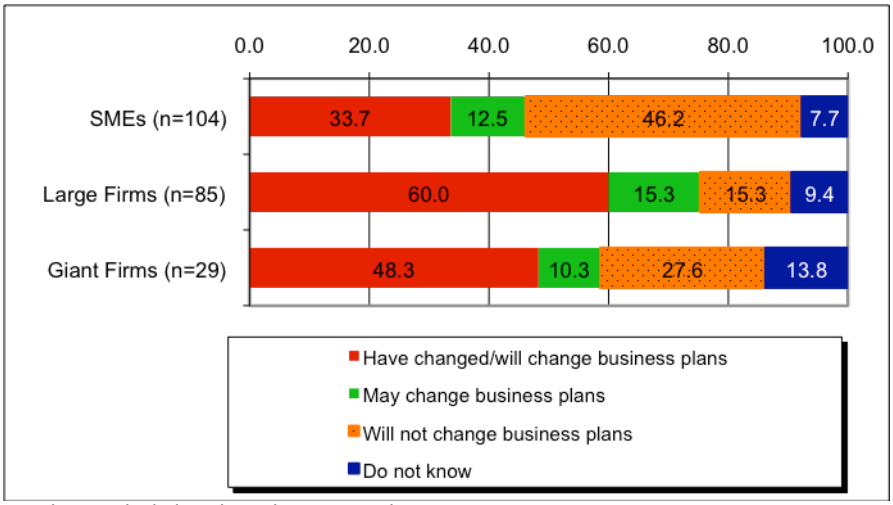
Figure 3 shows the distribution of the firms across firm sizes that reported business strategy responses to FTAs. Larger firms seemed to be more responsive to FTAs than smaller ones,

[10] Firms were allowed to provide multiple answers.

[11] For the purpose of this study, firm size is defined as follows: SME (1-100 employees), large firm (101 to 1,000 employees), and giant firm (more than 1,000 employees).

as higher proportions of large and giant firms had changed or would change business plans compared to SMEs. Only 33.7% of SMEs reported that they had or planned to change business plans, lower than the 60.0% and 48.3% of large and giant firms, respectively.

Figure 3: Business Strategy Responses to FTAs (% of responding firms in each size category)



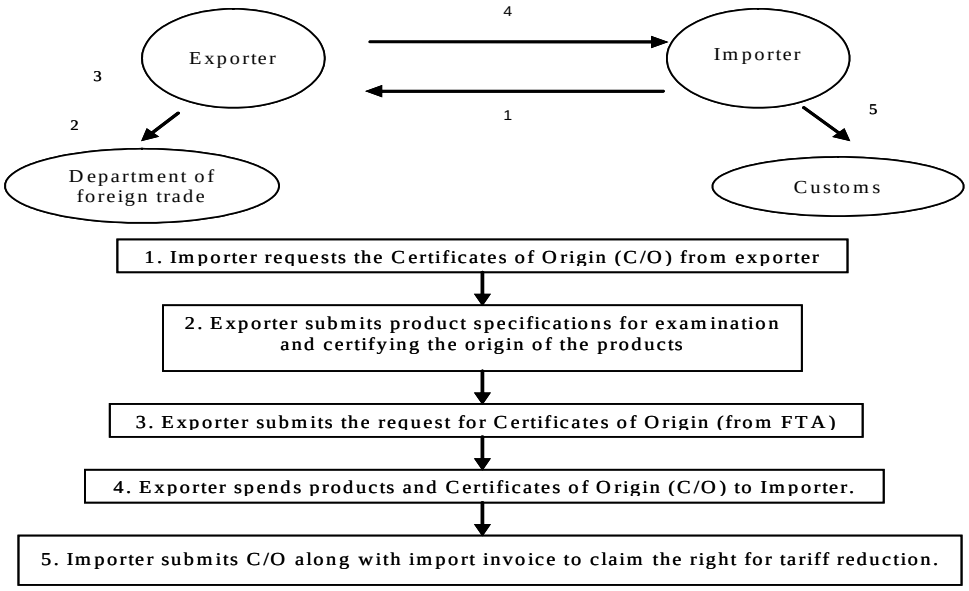
Source: Authors' calculations based on survey data.

One striking feature of the group of firms that have changed or will change business plans is that the majority chose the US-Thailand FTA and Japan-Thailand EPA as the most important FTAs to their business. This indicates that firms seem to anticipate the impact of FTAs on their business, since these two FTAs have not yet taken effect as of early 2010. Meanwhile, domestic firms dominate the groups that reported no change in business plans in electronics and auto/auto parts.

3.4 Burden Imposed by Multiple Rules of Origin

The growing number of FTAs in Thailand has triggered concerns that the attendant rules and administrative procedures might increase the cost of doing business. If the country's agreements were mutually consistent, especially concerning ROO, then the costs of a new FTA would be minimal for business. If not, such costs could be notable. Box 2 shows the typical procedure for firms to avail themselves of FTA preferences, which requires the Certificate of Origin. The key issues relating to ROO in Thailand are as follows: Are ROO an obstacle to using FTA preferences? Does this observation vary by firm size? If multiple ROO are a problem, would this significantly add to business costs? And are there benefits from harmonization of ROO?

Box 2: Procedure to Utilize FTA Preferences



Source: Thailand Department of Foreign Trade (2009), Thailand Ministry of Commerce (2009).

A few firms saw individual ROO as an obstacle to using FTA preferences. Table 9 shows whether firms perceive ROO as an obstacle to using FTA preferences. Around 14.9% of firms reported that ROO in Thailand's FTAs were an obstacle to using FTA preferences. Meanwhile, another 21.7% said ROO might be an obstacle in the future with the projected growth of Thai FTAs. In general, auto/auto parts firms, with large amounts of components and parts as well as complex manufacturing processes, perceived ROO to be more of a problem than the other two sectors (20.2% of firms in this sector).

Large firms seemed to be more concerned about ROO than SMEs and giant firms were. Except for auto/auto parts firms, large firms account for the highest proportion of firms that reported ROO were an obstacle to using preferences (25.0% for textiles/garments and 15.2% for electronics). Accordingly, giant firms accounted for the highest proportion of firms that did not see ROO as obstacles. This result suggests that giant firms, which have wider and deeper market penetration, can take advantage of FTA preferences and more easily prove origin of goods than smaller firms.

Table 9: Perception of Impact of Rules of Origin (% of responding firms in each sector)

Use of FTA Preferences	All	Textiles/Garments			Electronics			Auto/Auto Parts		
		SME	Large	Giant	SME	Large	Giant	SME	Large	Giant
Is an obstacle	14.9	9.4	25.0	0.0	6.0	15.2	0.0	11.9	28.6	28.6
May be an obstacle	21.7	6.2	41.7	0.0	15.2	24.2	42.9	30.9	21.4	7.2
Is not an obstacle	46.2	37.5	29.2	87.5	54.6	51.5	57.1	42.9	39.3	57.1
Don't know	17.2	46.9	4.1	12.5	24.2	9.1	0.0	14.3	10.7	7.1
All firms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n	221	32	24	8	33	33	7	42	28	14

n = no. of responding firms.

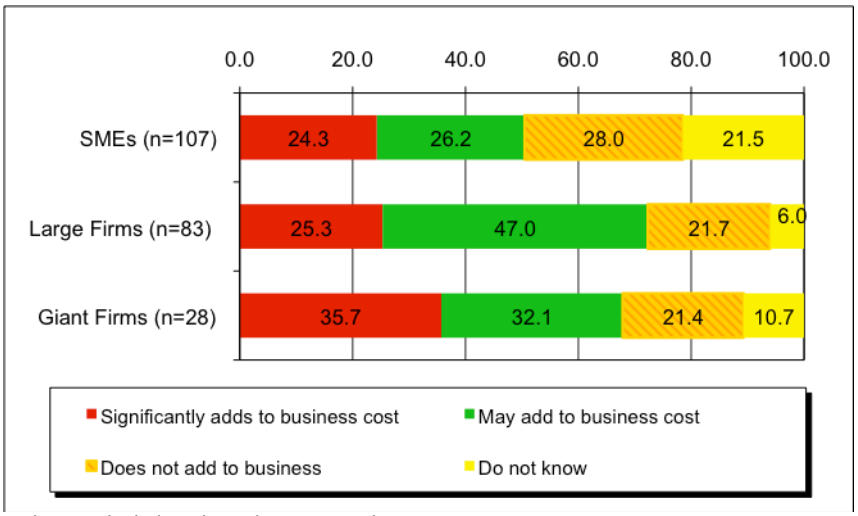
Source: Authors' calculations based on survey data.

Interestingly, 46.2% of sample firms said that ROO were not an obstacle to using FTA preferences. One reason was that at the time of the survey, Thailand had only concluded

seven FTAs, largely with new markets, while FTAs with the country's traditional markets were still under negotiation. Accordingly, by 2010 firms in Thailand were beginning to see multiple ROO as an obstacle to using FTA preferences, and this trend is likely to become more marked after 2010when more FTAs are concluded.

Some firms said that dealing with multiple ROO in Thai FTAs would significantly add to business costs. Of the responding firms, 26.2% (57 firms) indicated that dealing with multiple ROO would significantly add to business costs, including many electronics firms and a smaller percentage of textiles/garments firms.

Figure 4: Firm Size and Burden Imposed by Multiple ROO
% of distribution across firm size (according to number of employees)



Source: Authors' calculations based on survey data.

While firms of all sizes are concerned about the Asian “noodle bowl” effect, giant firms seemed to complain the most (Figure 4). Of the giant firms that responded, 35.7% (10 firms) reported that dealing with multiple ROO significantly adds to business costs while only 24.3% of SMEs (26 firms) and 25.3% of large firms (21 firms) shared the same view. As users of multiple FTAs, giant firms are more exposed to the business costs of dealing with multiple ROO than smaller firms.

Firms typically estimated that these costs would be less than 1% of total export sales. Our interviews with firms indicated that business costs of dealing with ROO can take several forms. These include wages of human resources employed to process customs documents and costs associated with changing business strategies to comply with the ROO (such as undertaking separate production runs, limiting product types, and changing import source).

3.5 Harmonization of ROO

There are benefits from the adoption of harmonized ROO. Large and giant firms seemed to recognize the benefits from harmonization of ROO, particularly textiles/garments and auto/auto parts firms, more than SMEs did (Table 10). This could be attributed to the finding that SMEs are less likely to use FTA preferences than larger firms (see discussion on FTA preference utilization in section 3.1).

Table 10: Benefits from Adoption of Harmonized ROO
(% of sample firms in each size category)

Responses	All	Textiles/Garments			Electronics			Auto/Auto Parts		
		SME	Large	Giant	SME	Large	Giant	SME	Large	Giant
There are benefits	40.4	46.7	66.7	50.0	36.4	42.4	28.6	14.3	51.9	42.9

There may be benefits	32.6	16.7	29.2	37.5	27.3	39.4	28.6	50.0	25.9	28.6
There are no benefits	11.0	6.7	0.0	0.0	12.1	6.1	0.0	21.4	14.8	21.4
Don't know	16.1	30.0	4.2	12.5	24.2	12.1	42.9	14.3	7.4	7.1
All firms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n	218	30	24	8	33	33	7	42	27	14

n = no. of responding firms.

Source: Authors' calculations based on survey data.

Accordingly, examining the profile of firms that saw benefits from the adoption of harmonized ROO (88 firms) reveals that a majority had studied the text of the FTA provisions that affect their business (58.7%). Most firms had also changed or planned to change their business plans in response to FTAs (64.8%) and were currently using or planning to use FTA preferences (61.4%).

3.6 Institutional Support for Enterprise Adjustment

A wide range of institutional support is required to help enterprises adjust to Thai FTAs and to enable firms to utilize FTA preferences effectively. By developing country standards, Thailand has a comprehensive institutional support system made up of government agencies and business associations that provide information, training, technical advice, and other services.[12] Three key issues need analysis in institutional support in Thailand: Which institutions do firms usually approach to get help in dealing with an FTA? What additional services are required from government agencies and business associations for adjustment to FTAs? And to what extent have firms consulted on FTAs with government agencies and business associations?

Use is being made of public and business institutions to deal with business adjustment to FTAs. Table 11 provides enterprise responses on a range of public and private institutions that provide assistance to enterprises in Thailand. Overall levels of awareness and use of public and business support institutions among Thai businesses are typically low, in line with other developing countries. In general, the sample firms make some use of public institutions, particularly the Ministry of Commerce. Furthermore, a few firms make use of business institutions.

[12] Online information on FTAs, consultation workshops on FTAs, training, computerized software to calculate value added, quality and standard checks, and support for upgrading technology to meet FTA standards, are among the services provided by the government. Meanwhile, business associations issue the Certificate of Origin to their members and provide venues for discussions on provisions of relevant FTAs.

Table 11: Institutions that Support Firms on FTAs (no. of responding firms)*

Public and Business Institutions	No. of firms
Government Agencies	
Ministry of Commerce	131
Department of Foreign Trade	40
Department of Export Promotion	33
Ministry of Industry	29
Customs Department	26
Ministry of Foreign Affairs	21
Department of Trade Negotiations	3
National Science and Technology Development	1
Business Associations	
Thai Export Association	46
Federation of Thai Industries	22
Thai Chamber of Commerce	21

Note: * multiple answers allowed.

Source: Authors' calculations based on survey data.

Box 3: Government Support for Custom Procedures

For firms engaged in international trade, importing and exporting require tremendous documentation. In the past, this documentation was usually done in paper, at significant cost. However, with information technology advancing, the Electronic Data Interchange (EDI) was introduced to convert paper transactions into a paperless electronic format. EDI is very helpful in customs procedures. In Thailand, EDI was introduced in 1997 by the Thai Customs Department. The Thai government established the TradeSiam Company Limited National EDI Center in 1997, which is a joint venture company between governmental and nongovernmental agencies. TradeSiam provides an EDI switching gateway for both public and private agencies, which then feed information directly to the Customs Department. In 2003, WTO estimated that approximately 85% of declarations are administered using EDI.

The Thai Customs Department began employing a paperless e-customs procedure in January 2005 and stopped using the EDI by September 2005. This further reduced the import-export procedures, and the Thai Customs Department suggests that e-customs costs less than EDI for import and export documentation.

Source: Thailand Department of Foreign Trade (2009), Thailand Ministry of Commerce (2009).

Significant demand remains for more support for business adjustment to FTAs. Interviews with firms indicated that a wide range of additional support services are needed to help them to respond effectively to existing FTAs and to take advantage of future FTAs. Table 12 provides responses from firms about the types of services demanded. The main services demanded are more information on the implications of FTAs for businesses, upgrading of technical standards and quality, and more training on FTAs. There are also some requests for financial support for upgrading technology and skills, adoption of EDI, and enhanced consultations during FTA negotiations. Issues such as technical standards and extension services for SMEs and more surveillance of NTMs in partner countries are likely to become more important as more FTAs take effect.

Table 12: Services Demanded by Firms to Adjust to FTAs (no. of responding firms)*

Type of Services	No. of Firms
More information on the implications of FTAs for business	99
Upgrading of technical standards and quality	90
Financial support for upgrading technology and skills	73
More awareness training on FTAs under implementation	68
Enhanced consultations during FTA negotiations	56
Adoption of EDI to speed up and simplify procedures for ROO certification	52
Improved extension services for SMEs	44
More effective surveillance of NTMs in FTA partner country market	39

Note: * multiple answers allowed.

Source: Authors' calculations based on survey data.

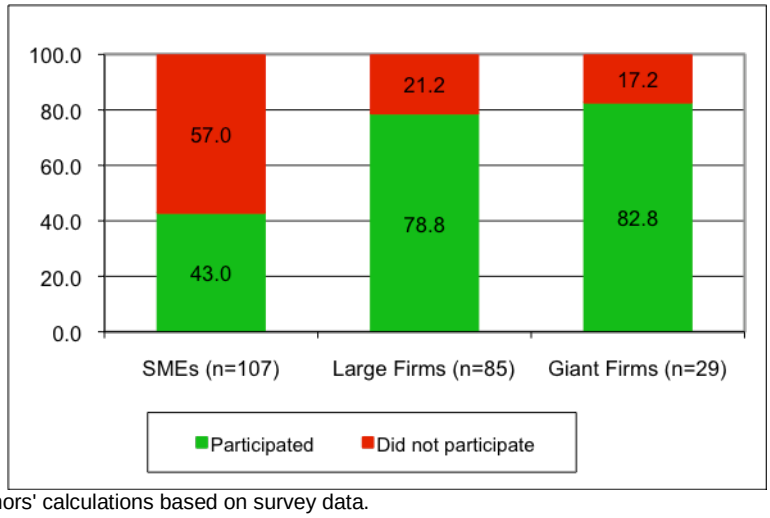
Box 4: Case Study on DENSO Training Academy Thailand (DTAT)

As the Thai government promotes Thailand as a hub of automotive manufacturing in ASEAN, DENSO has been one of the leading companies cooperating with the government and providing support to the development of Thailand's auto/auto parts industry. Aiming to make this one of the best in the world, DENSO International (Thailand) established DENSO Training Academy Thailand (DTAT) in June 2005, as one of its departments. A ¥200 million DTAT facility is in DENSO (Thailand) Co. Ltd.'s facilities in Amata Nakorn Industrial Estate, Chonburi, which is within an hour's driving distance from other companies in the DENSO group. DTAT emphasizes the development of human resources and maximizing employees' performance and capabilities. The main task of DTAT is to provide training to employees in companies in the DENSO Group. DTAT offers 92 training courses, both theoretical and practical, in management, language, safety, engineering, and technical skills. Since its opening, DTAT has trained to 3,826 people (as of January 2007). The knowledge and know-how that Thai employees have received benefit not only individuals or their companies but also Thailand's auto/auto parts industry.

Source: Based on detailed firm interviews and survey data.

A majority of firms consulted on FTAs with government and business associations. Government agencies and business associations in Thailand organize periodic consultations with businesses on FTAs in general and prior to specific FTA negotiations. More than half of sample firms (62.0% or 137 firms) consulted on FTAs with either government agencies or business associations. Larger firms seemed to be more involved in consultations than smaller ones. Figure 5 shows the proportion of firms in each size category that consulted on FTAs, where the SMEs reported the lowest proportion (43.0%).

Figure 5: Participation in Consultations with Government/Business (% of respondents in each size category)



Source: Authors' calculations based on survey data.

4. SUMMARY AND POLICY IMPLICATIONS

This study dealt with a pressing policy issue for Thailand—how do the country's FTAs affect the behavior of exporting firms? Using a relatively large sample (221 firms) in three key sectors (textiles/garments, electronics, and auto/auto parts) in Thailand, the study analyzed FTA use, costs and benefits of FTAs, ROO, and demand for services for business adjustment. Where possible, these issues were examined by sector, firm size, and ownership.

Key findings from the study are as follows:

- FTAs with Thailand's major traditional markets—especially the Japan-Thailand EPA and US-Thailand FTA (of which the latter is still under negotiation)—were more important for the sample firms than those with nontraditional markets;
- Firms typically reported that FTAs have had more positive impacts (e.g., market access, concentration of production, new business opportunities, and preferential tariffs) than negative ones (e.g., increased competition);
- The evidence suggests reasonable use of preferences in existing Thai FTAs. Also, more firms used (or planned to use) tariff preferences in FTAs than otherwise thought. Survey results show that 24.9% of respondents (55 firms) used Thai FTAs, and 45.7% either used or planned to use them; the utilization rate generally matches up with the utilization rate (26.7%) provided by Chirathivat (2008) based on certificate of origin data.
- Over half the firms, particularly foreign electronics and auto/auto parts firms, reported that FTAs have influenced their business plans;
- Around of 14.9% of firms saw ROO as an obstacle to using FTA preferences, and larger firms were more likely to do so. About 26.2% of firms said that multiple ROO would add to business costs (typically less than 1% of sales);
- Most firms said that the adoption of harmonized ROO would reduce transactions costs under FTAs;
- The sample firms, particularly domestic firms, still desired more institutional support services for enterprise adjustment to FTAs. Services demanded include provision of information on implications of FTAs for business, upgrading of

technical standards and quality, training on FTAs, financial support for upgrading technology and skills, and adoption of Electronic Custom (e-custom) to speed up and simplify procedures for ROO certification; and

- A majority of firms have consulted on FTAs with government and business associations.

The findings point to several recommendations by which businesses can benefit more from FTAs. These can be grouped under four headings:

Policies to build awareness of impacts from FTAs

Although the enterprise survey indicated high awareness among sample firms, other studies (e.g., TDRI 2006) have suggested that awareness varies among Thai firms (especially SMEs). Accordingly, they may not fully capture benefits from FTAs and are less likely to change their business plan to cope with potential losses. Furthermore, many firms are unsure whether are eligible to use the preferences. To increase awareness of FTAs, the government should do the following:

- Provide timely information on FTA provisions and progress of FTA negotiations;
- Encourage business associations and interest groups, including SMEs, to become more involved in FTA negotiations and provide opportunities to do so;
- Arrange regular conferences to educate the firms, particularly SMEs, on potential impacts of FTAs and ways in which firms can utilize preferences; and
- Assess the affects of concluded FTAs (including surveys of firms) to help mitigate the losses of the losers and help intensify the gains of the gainers.

Policies to encourage utilization of FTA preferences

Some Thai importers and exporters might perceive customs procedures and procedures for using FTA preferences as complex. Hence many firms do not deal with the customs procedure by themselves but hire custom brokers to do it for them. From the firms' perspective, obtaining a Certificate of Origin will increase the complexity of the whole procedure. This is because, in addition to knowing the process, the firms need to know the harmonized system codes of their products, their cost structure, and relevant ROO. To encourage utilization of FTA preferences, the government can do the following:

- Make custom procedures more clear and transparent. Every firm should be treated equally. In addition, the custom procedures should be speeded up in line with international best practices;
- Arrange workshops or conferences to introduce importers and exporters as well as business association, to a new e-customs system that streamlines import and export procedures as well as reduces documentation costs;
- Create a campaign to build understanding that using preferences is not as complex as the firms think;
- The government should negotiate for the best tariff preference in FTAs to significantly reduce tariffs. Specifically, the government should go for the lowest tariff rate, compared to the MFN rate, in targeted products;
- Put efforts to accelerate tariff reduction in textiles/garments under AFTA in order to take advantage of FTAs between ASEAN and major importing countries and regions such as the EU, Japan, and the US; and
- In the Thailand-India FTA, the government should negotiate to include more tariff lines to create market access for a wider range of products.

Policies to increase competitiveness of local firms

Despite notable tariff preferences in some FTAs, many firms are still unable to increase their exports to FTA partners. This is largely due to firms' technological gaps relative to international standards. Production costs are sometimes high relative to those of competitors, so that tariff preference is not enough to increase exports. The government can increase enterprises' competitiveness, particularly that of Thai SMEs, through the following measures:

- Restructure tariffs that are unnecessarily high and distorted. At present, tariffs on many inputs are high (for example, some auto parts and inputs for garments), resulting in high prices for finished products, which cannot compete internationally;
- Since competitiveness is dynamic and changeable, encourage further international technology transfer, particularly through capital goods imports, technology licensing, and FDI, to businesses;
- Continue to improve and upgrade existing metrology, standards, quality, and other technology support services, particularly for SMEs, so that Thai firms reach world standards in these areas;
- Promote both public and private R&D (via tax incentives, access to new technologies, and closer linkages between firms and R&D institutions) to move Thai products up the supply chain and add value to the products. As lower-wage countries (e.g. Viet Nam, Cambodia, and the PRC) become increasingly prominent in labor-intensive manufactured exports, Thailand is losing its competitive advantages in many products such as garments; and
- Support industrial clustering in the three sectors—through infrastructure improvements, new business development services, and simplification of business procedures—to strengthen linkages among supply chains and technological upgrading of firms.

Dealing with the Asian "noodle bowl" effect

The firm survey indicates that the Asian "noodle bowl" effect is emerging as an obstacle for some firms and that it is likely to intensify after 2010 as FTAs involving Thailand proliferate in the region. This is a regional and international issue involving Thailand, other East Asian countries, and the WTO. Nonetheless, the government could contribute in this direction by doing the following:

- Advocate the benefits of harmonized ROO within ASEAN so that ROO become less influential to the choices of suppliers among members of ASEAN;
- In the negotiation of future Thai FTAs, consider negotiating an ROO that is as competitive as possible, at least for all traded products; and
- Support accelerated reduction of MFN tariffs within the WTO until ROO become meaningless under completely free trade (zero MFN tariffs). In addition, advocate global harmonization of ROO.

APPENDIX 1: THAILAND'S TRADE POLICIES

Thailand has undergone important changes in trade policies since the 1960s, starting from a highly protected policy regime and then gradually changing to a more open economy. This continuous progress can be conveniently divided into three important periods: (i) import substitution and policy reforms, (ii) multilateralism and regionalism, and (iii) bilateralism.

Import substitution and policy reforms. The first period (1961–1981) involved a change in the direction of domestic economic development. Under the First and Second National Economic and Social Development Plans (1961–1971), Thailand's trade policies were aimed at promoting domestic production to substitute for imports. During this period, high trade barriers such as tariffs and quota prevailed. With the Third National Economic and Social Development Plan (started in 1972), Thailand's trade policies started shifting from import substitution to export promotion, but overall tariff rates remained high. Moreover, the government used tariffs as a tool to develop some export sectors by introducing an escalating tariff structure, which ascended from raw materials to finished products. The distorted tariff structure benefited producers of the finished products at the expense of the producers of intermediate products or raw materials.

Multilateralism and regionalism. During the second period (1982–2001), Thailand engaged in multilateralism and regionalism. Thailand became a member of the General Agreement on Tariffs and Trade (GATT) in 1982 and a member of the ASEAN Free Trade Area (AFTA) in 1993. In addition, Thailand became a member of regional agreements such as the ASEAN-Europe Meeting (ASEM) and the Asia-Pacific Economic Cooperation (APEC). GATT, in particular, has promoted tariff reduction in Thailand. Furthermore, the Thai government also focused on expanding exports. Tax incentives and unilateral reduction of tariffs on intermediate inputs were introduced to attract foreign direct investment (FDI) inflow and to stimulate growth in exporting industries. A first significant round of tariff reduction began in 1988, which lowered tariffs that were mostly imposed on electronic products, including inputs of these products. The average most-favored nation (MFN) tariff rates of both industrial and agricultural products have fallen significantly since 1993 (see Table 1). In addition, Thailand became a member of the Information Technology Agreement (ITA) in 1996. As an ITA member, Thailand pledged to reduce tariffs imposed on electronic products to other ITA members to zero within a designated period (tariffs on three-fourths of tariff lines were reduced to zero in 2000, and tariffs of the rest were reduced to zero in 2003). This accelerated tariff reduction in electronics.

Bilateralism. Since 2001, Thailand has been negotiating bilateral trade agreements with countries ranging from large trading partners (e.g., the US and Japan) to smaller trading partners (e.g., Peru and New Zealand). The MFN tariff rates of both industrial and agricultural products were further reduced between 2001 and 2010. However, Thailand's tariff reduction schedules for less competitive sectors tend to be delayed in free trade agreements (FTAs) with more competitive FTA partners, and vice versa. While FTAs were the focus during this period, some emphasis was also given to regional and multilateral trade agreements.

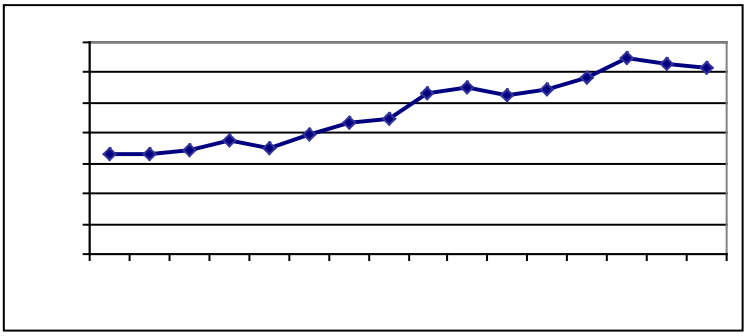
APPENDIX 2: THAILAND'S TRADE OPENNESS

Trade Performance and Structure

Thailand's international trade has been continuously growing and increasingly driving the economy. Trade grew from 65.6% of gross domestic product (GDP) in 1992 to 125.5% of GDP in 2007 (Figure A1). From 1992 to 2007, trade value grew at an impressively high annual average rate of 9.7%, reflecting Thailand's increasing openness to the world, as well as the increasing interdependence of the Thai economy with other economies.

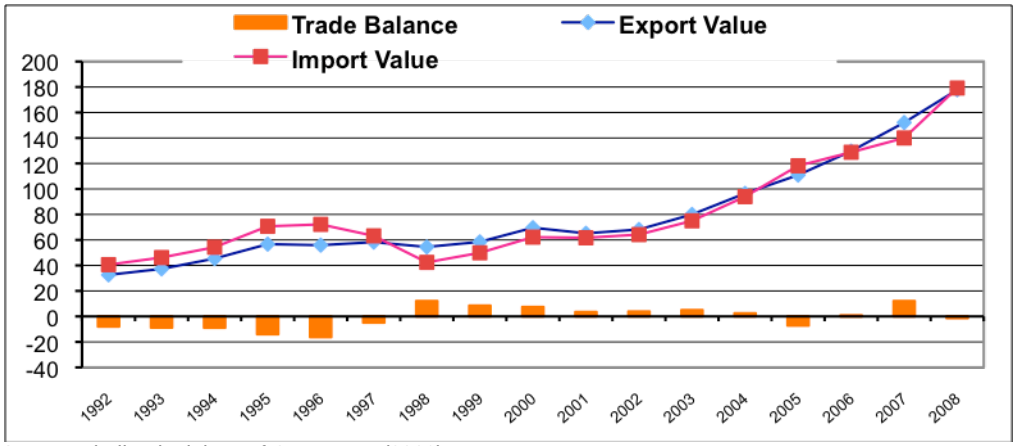
Before the crisis in 1997, Thailand's import and export values were increasing. Import values exceeded export values from 1992 until the 1997 crisis. Figure A2 shows the import, export, and trade balance of Thailand between 1992 and 2007. The main reason for the deficit trade balance was Thai industries' dependence on foreign inputs, such as raw materials, machinery, and petroleum products. The increases in exports, particularly in key export sectors, led to higher import values. In addition, Thailand's consumption during the economic boom was excessive, which also increased the trade deficit.

Figure A1: Share of Thailand's Trade to GDP (%)



Sources: Trade data from Thailand Ministry of Commerce (2009); GDP data from Thailand National Economic and Social Development Board (2009).

Figure A2: Thailand's Import, Export, and Trade Balance, 1992–2008 ($ billion)



Source: Thailand Ministry of Commerce (2009).

The economy slowed down after the Asian financial crisis in 1997. From 5.9% in 1996, the GDP contracted by 1.4% in 1997 and 10.5% 1998. The consequence of the crisis on imports and exports was inevitable. In 1995, both import and export values struggled due to foreign currency policies, which led to the financial crisis in 1997. However, the weak baht after the crisis lowered imports, and afterwards, the trade balance became positive (Figure A2).

Between 2000 and 2008, the annual average export growth was 12.4% and import growth was 14.1%.

MFN Tariff Structure

Despite Thailand's success in reducing tariff rates, the WTO (2003) remarked that about a quarter of all tariff lines were unbound rates, while bound rates were often higher than the applied MFN rates (the average unbound rate in 2003 was 28.4%, higher than the average applied rate of 14.7%). This gave room for the Thai government to increase the applied rates. In addition, Thailand has been using NTMs to protect infant industries. The most commonly used NTM is import licensing, which is complex and nontransparent. The import licensing could limit or even prohibit imports. Practically, their effects are similar to those of quotas (Table A2).

Table A1: Thailand's MFN Tariff Structure
(%)

		1999	2002	2003	U.R. [a]
1	Bound tariff lines, % of all tariff lines [b]	71.6	72.1	72.1	72.1
2	Duty-free tariff lines, % of all tariff lines	3.5	4.0	4.0	2.6
3	Non-ad valorem tariffs, % of all tariff lines	21.5	23.1	23.0	25.5 [c]
4	Tariff quotas, % of all tariff lines	0.9	1.0	1.0	1.0
5	Non-ad valorem tariffs with no ad valorem equivalents, % of all tariff lines	20.8	22.1	22.0	25.5 [c]
6	Simple average bound rate	33.1	29.6	28.4	27.1
	Agricultural products (HS01–24)	38.6	34.3	33.1	31.8
	Industrial products (HS25–97)	32.0	28.4	27.2	25.9
	WTO agricultural products	41.5	37.0	35.7	34.4
	WTO nonagricultural products	31.4	27.8	26.6	25.4
	Textiles and clothing	51.9	38.4	33.6	28.9
7	"Nuisance" bound rates, % of all tariff lines [d]	0.1	0.2	0.2	0.2
8	Simple average applied rate	17.0	15.0	14.7	...
	Agricultural products (HS01–24)	32.7	26.0	25.4	...
	Industrial products (HS25–97)	14.6	13.1	12.9	...
	WTO agricultural products	33.1	26.3	25.7	...
	WTO nonagricultural products	14.7	13.1	13.0	...
	Textiles and clothing	24.7	22.5	21.7	...
9	Domestic tariff "spikes," % of all tariff lines [e]	3.6	1.6	1.6	...
10	International tariff "spikes," % of all tariff lines [f]	45.5	43.6	43.5	...
11	Overall standard deviation of tariff lines	16.3	13.6	13.2	...
12	"Nuisance" applied rates, % of all tariff lines [d]	7.1	16.1	16.2	...

...: not available

Notes:
[a] Final bound calculations are based on the 2003 tariff schedule, including ITA.
[b] Representing fully bound rates. Partially bound rates also exist, representing 1.8% for 2003 and 2002, and 1.6% for 1999.
[c] Based on fully and partially bound lines only.
[d] "Nuisance" rates are those greater than zero, but less than or equal to 2%.
[e] Domestic tariff spikes are defined as those exceeding three times the overall simple applied rate (indicator 8).
[f] International tariff spikes are defined as those exceeding 15%.
Excludes in-quota rates and includes ad valorem equivalents provided by the authorities for specific rates, as available. The ad valorem part of alternate rates is taken into account for the calculations. The 1999 tariff is based on 8-digit HS96 nomenclature; the 2002 and 2003 tariffs are based on 7-digit HS02 nomenclature.

Source: WTO (2003).

In addition to being used as main trade policy instruments, tariffs are also used as investment incentives by the Board of Investment in designated industrial areas. Since August 2000, the criteria for granting investment incentives have been free of local content requirements and export requirements. Moreover, companies in export processing zones are exempted from import duties and value added-taxes for imported machines and materials for export production.

APPENDIX 3: THAILAND'S INVOLVEMENT IN FTAS[13]

Concluded (11)

FTA Signed or Under Implementation

- Laos-Thailand Preferential Trading Arrangement
  - Signed and in effect since June 1991
- Association of Southeast Asian Nations (ASEAN) Free Trade Area
  - Signed and in effect since June 1993
- PRC-Thailand Free Trade Agreement
  - Signed and in effect since October 2003
- Thailand-Australia Free Trade Agreement
  - Signed and in effect since January 2005
- Thailand-New Zealand Closer Economic Partnership Agreement
  - Signed and in effect since July 2005
- ASEAN-PRC Free Trade Agreement
  - Signed and in effect since July 2005
- Japan-Thailand Economic Partnership Agreement
  - Signed and in effect since November 2007
- ASEAN-Korea Free Trade Agreement
  - Signed between ASEAN (except Thailand) and Republic of Korea and in effect since June 2007
  - Thailand acceded to the agreement in February 2009
- ASEAN-Japan Comprehensive Economic Partnership
  - FTA signed in June 2008, in effect since December 2008
- ASEAN-Australia and New Zealand Free Trade Agreement
  - FTA signed February 2009 and expected to take effect in January 2010
- ASEAN-India Free Trade Area
  - Early Harvest Program for 105 products implemented in November 2004 under ASEAN-India Framework Agreement
  - Signed in August 2009

Under Negotiation (6)

Framework Agreement Signed and/or FTA Under Negotiation

- Thailand-India Free Trade Area
  - Early Harvest Program for 82 products implemented in 2004
- Thailand-Bahrain Free Trade Agreement
  - Framework Agreement signed in December 2002; FTA under negotiation
- Thailand-Peru Free Trade Agreement

[13] Source: ADB Asia Regional Integration Center FTA Database (www.aric.adb.org); data as of December 2009.

  - Framework Agreement signed in October 2003; FTA under negotiation since 2004
- Thailand-United States Free Trade Agreement
  - FTA under negotiation since 2003
- Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Free Trade Area[14]
  - FTA under negotiation since 2004
- Thailand-European Free Trade Association (EFTA) Free Trade Agreement[15]
  - FTA under negotiation since 2005

Proposed (6)

FTAs Under Study

- ASEAN+3 Free Trade Agreement/East Asian Free Trade Agreement (EAFTA) (2004)[16]
- Thailand-Pakistan Free Trade Agreement (2004)
- Thailand-Chile Free Trade Agreement (2006)
- Thailand-Mercado Comun Sur (MERCOSUR) Free Trade Agreement (2006)[17]
- ASEAN+6 Free Trade Agreement/ Comprehensive Economic Partnership in East Asia (CEPEA) (2007)[18]
- ASEAN-European Union (EU) Free Trade Agreement[19]
  - FTA under negotiation since 2007 (temporarily suspended)

[14] BIMSTEC includes Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand.

[15] EFTA includes Iceland, Liechtenstein, Norway, and Switzerland.

[16] ASEAN+3 includes ASEAN, Japan, PRC, and Republic of Korea.

[17] MERCOSUR includes Argentina, Brazil, Paraguay, and Uruguay.

[18] ASEAN+6/CEPEA includes ASEAN+3, India, Australia, and New Zealand.

[19] EU includes Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Spain, Sweden, and United Kingdom.

APPENDIX 4: MARKET ACCESS FEATURES IN SELECTED THAILAND FTAS BY SECTOR

	Electronics		Auto/Auto parts		Textiles/Garments	
FTA	Tariff Liberalization	ROO integrated circuits	Tariff Liberalization	ROO motor vehicles	Tariff Liberalization	ROO Men's Suits
Thailand-Australia FTA	• Immediate tariff elimination for Thai's top 12 electronics exports • 46 items will be duty free by 2010	• CTH	• Immediate tariff elimination on motor vehicles for transport of goods • Tariff elimination on auto parts by 2010	• CTH plus 40% RVC	• Tariff elimination on textiles and garments by 2016 • Some sensitive products to be eliminated by 2025	• CTH and goods are cut and sewn in the place of origin or assembled in any of the Parties' territory plus 55% RVC
Thailand-New Zealand FTA	• Immediate tariff elimination on top electronics products (most have 0% MFN rate)	• CTH	• Immediate tariff elimination on auto/auto parts, including vehicles for transport of goods and pick-up trucks	• CTH	• Tariff elimination on textiles and garments by 2015	• CTH and goods are cut and sewn in the place of origin or assembled in any of the Parties' territory plus 50% RVC
Japan-Thailand EPA	• Immediate tariff elimination on several types of electronic equipment where MFN rate is not 0%.	• CTH or 40% VC	• Reduced Thai tariff rates on selected automobiles to 60% by 2011; reduced Thai tariff rates on auto parts for OEM • engines and engine parts under Thailand's sensitive list until 2015	• CTH or 40% RVC	• Immediate tariff elimination on several textiles and garments products • FTA Chapter on Joint Cooperation in the Textile and Garment Sector	• CTH plus nonoriginating material is knitted or crocheted in Japan or ASEAN
ASEAN-PRC FTA	• Tariff elimination on some electronics products • Few items under highly sensitive list	• RVC 40%	• Tariff elimination on some auto and auto parts • Few items under highly sensitive list	• RVC 40%	• Few items under highly sensitive list	• 40% RVC or process criterion rule for textiles and textile products
ASEAN-INDIA FTA *Early Harvest Program*	• Some electronics products covered	• under negotiation	• Some auto and auto parts covered	• under negotiation	• Not covered	• Under negotiation

CTH = Change of Tariff Headings; OEM = original equipment manufacturing; ROO = rules of origin; RVC = Regional Value Content; VC = Value Content.

Source: Authors' compilation from ROO annexes of the agreements (as of October 2008).

APPENDIX 5: SAMPLE PROFILE AND SAMPLING METHODOLOGY

In this study, firms were selected using a simple random sampling methodology. First, a list of firms was obtained from the Ministry of Labor that included firms in electronics (1,080 firms), auto/auto parts (767 firms), and textiles/garments (6,525 firms).

Small and medium enterprises accounted for 34.9% of electronics firms, 52.6% of auto/auto parts firms, and 65.0% of textiles/garments firms. Because the study focused on how FTAs affect firms in the three main export sectors, the sample covers only exporting firms and excludes nonexporting firms. Consequently, about 52% of the total firms in electronics, 54% in auto/auto parts, and 60% in textiles/garments were excluded in the sample. The remaining firms in the sample were randomly selected, and 221 firms responded during the survey. The distribution of the sample by sector, firm size, and ownership type is shown in Table A2.

Interviews with firms were conducted face to face and by telephone, guided by a questionnaire prepared by ADB and TDRI. The questionnaire dealt with the following five issues on free trade agreements (FTAs): relative importance of FTAs, business perceptions of the impact of FTAs, utilization of FTA preferences, impact of rules of origin on business activities, and policy and institutional support to deal with FTAs. These issues served as the main headings of the survey findings as discussed in this paper. Apart from the questionnaire, more in-depth interviews were undertaken with 18 firms that seemed to demonstrate interesting aspects of how firms adapt to FTAs. These interviews provided more insights that offered richer analysis of survey findings.

Table A2: Sample Profile

	All Firms			Textiles/ Garments		Electronics		Auto/ Auto Parts	
	No.	***% Dist. (column)***	***% Dist. (row)***	***No.***	***% Dist. (row***	***No.***	***% Dist. (row***	***No.***	***% Dist. (row***
No. of firms	**221**	100.0	100.0	**64**	29.0	**73**	33.0	**84**	38.0
By firm size[1]									
SME	**107**	48.4	100.0	**32**	29.9	**33**	30.8	**42**	39.2
Large	**85**	38.5	100.0	**24**	28.2	**33**	38.8	**28**	32.9
Giant	**29**	13.1	100.0	**8**	27.6	**7**	24.1	**14**	48.3
By ownership[2]									
Foreign	**99**	44.8	100.0	**7**	7.1	**41**	41.4	**51**	51.5
Domestic	**122**	55.2	100.0	**57**	46.7	**32**	26.2	**33**	27.1

Notes:
[1] SMEs have 100 employees or less; large firms, 101 to 1,000; and giant firms, over 1,000.
[2] A firm with more than 10% foreign equity is classified as a foreign firm (UNCTAD definition).

REFERENCES

ADB. 2009. Asia Regional Integration Center FTA database. http://www.aric.adb.org (accessed 1 December 2009).

Chirathivat, S. 2008. Thailand's Strategy Towards FTAs in the New Context of East Asian Economic Integration. Paper prepared for ADB, ADBI, and ERIA Joint Conference on the Asian Noodle Bowl, Asian Development Bank Institute, Tokyo, 17–18 July.

Chirathivat, S., and S. Mallikamas. 2004. Thailand's FTA Strategy: Current Development and Future Challenges. *ASEAN Economic Bulletin* 21(1): 37–53.

Chirathivat, S., and C. Sabhasri. 2009. Thailand. In *National Strategies on Regional Integration: South and East Asian Case Studies,* edited by J. Francois, P. Rana, and G. Wignaraja. London: Anthem Press.

Francis, S., and M. Kallummal. 2006. US Bilateralism in Southeast Asia: A Sectoral Analysis of Market Access Issues in the Proposed Thai-US Free Trade Agreement. IDEAS Working Paper Series 4. Research Papers in Economics (RePEc).

Herin, J. 1986. Rules of Origin and Differences between Tariff Levels in EFTA and in the EC. European Free Trade Association Occasional Paper 13. Geneva, Switzerland: European Free Trade Association.

James, W. 2006. Rules of Origin in Emerging Asia-Pacific Preferential Trade Agreements: Will PTAs Promote Trade and Development? ARTNeT Working Paper Series 19. Asia-Pacific Research and Training Network on Trade. Bangkok: UNESCAP.

Kawai, M., and G. Wignaraja. 2009a. The Asian "Noodle Bowl": Is It Serious for Business? ADBI Working Paper 136. Tokyo: ADBI.

———. 2009b. Multilateralizing Regional Trade Arrangements in Asia. In *Multilateralizing Regionalism: Challenges for the Global Trading System*, edited by R. Baldwin and P. Low. Cambridge, UK: Cambridge University Press.

Kohpaiboon, A., and J. Jongwanich. 2006. Does FTA Export Creation Exist? Evidence from Thai Manufacturing. Paper prepared for Globalization and Regional Economic Development Conference, Gyeong Ju, Republic of Korea, 15–16 December.

Kuroiwa, I. 2006. Rules of Origin and Local Content in East Asia. Institute of Developing Economies Discussion Paper 78. Tokyo: IDE-JETRO.

Nagai, F. 2002. Thailand's Trade Policy: WTO Plus FTA? IDE APEC Study Center Working Paper Series 01/02–6. Tokyo: IDE-JETRO.

Peamsilpakulchorn, P. 2006. The Domestic Politics of Thailand's Bilateral Free Trade Agreement Policy. *International Public Policy Review* 2(1): 74–120.

Pholphirul, P. 2006. *The Impacts of the Thailand-US Free Trade Agreement on the Automotive Industry: Gains from Trade, Adjustments Needed, and Employment Implications.* Bangkok: TDRI.

Sally, R. 2007. Thai Trade Policy: From Non-discriminatory Liberalization to FTAs. *The World Economy* 30(10): 1596–1620.

Sussangkarn, C. 2003. Thailand and the China-ASEAN FTA. *TDRI Quarterly Review* 18(1): 13–20.

Tantivasadakarn, C. 2006. Thailand International Trade Policy: during 2000–2006. Document Number 5, WTO Watch Project. A research project supported by the

Thailand Research Fund. October. Minneapolis, MN: Institute for Agriculture and Trade Policy.

Thailand Department of Foreign Trade, Ministry of Commerce. 2009. http://www.dft.moc.go.th/ (accessed 22 August 2008).

Thailand Development Research Institute. 2003. *A Study on the Impacts of Thailand-US Free Trade Agreement*. Report for the Thailand-US Business Council, American Chamber of Commerce, and the US-ASEAN Business Council. October. Bangkok: TDRI.

———. 2004. *Bilateral Free Trade Agreements*. Bangkok: TDRI.

———. 2006. *Free Trade Agreements*. Bangkok: TDRI.

———. 2008. *Reaping Benefits from FTAs*. Paper submitted to the Office of Industrial Economics. Bangkok: TDRI.

Thailand Ministry of Commerce. 2009. Trade Summary of Thailand. http://www2.ops3.moc.go.th/menucomen/ (accessed 20 November 2009).

Thailand National Economic and Social Development Board. 2009. NESDB Information Centre. http://www.nesdb.go.th/ (accessed 20 November 2009).

United Nations Conference on Trade and Development (UNCTAD). 2008. Handbook of Statistics Online. http://www.unctad.org/Templates/Page.asp?intItemID=1890&lang=1 (accessed 27 October 2008).

World Trade Organization. 2003. *Thailand Trade Policy Review*. Geneva, Switzerland: WTO.

———. 2006. *Factual Presentation—Free Trade Agreement between Thailand and Australia (Goods)—Report by the Secretariat*. WT/REG185/3. August. Geneva, Switzerland: WTO.

———. 2007a. *Thailand Trade Policy Review*. Geneva, Switzerland: WTO.

———. 2007b. *Factual Presentation. Closer Economic Partnership Agreement between Thailand and New Zealand (Goods)—Report by the Secretariat*. WT/REG207/03. January. Geneva, Switzerland: WTO.