East Asian Integration

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Foreword

This study entitled 'East Asian Integration' is one of the flagship reports of the Economic Research Institute of ASEAN and East Asia (ERIA). The East Asia Summit held on 10 October 2013, through Article 34 of the Chairman's Statement, mandates that ERIA provide analytic support in sharpening the Regional Comprehensive Economic Partnership (RCEP) process to ensure a successful and mutually beneficial end for all parties, and enhance overall East Asian Integration. RCEP is a critical element in regional integration in East Asia and Pacific.

RCEP takes initiatives on regional economic integration in East Asia to a higher level. First, in contrast to the ASEAN+1 FTAs where individual ASEAN member states (AMSs) had essentially bilateral commitments with the ASEAN+1 dialogue partners, AMSs would likely need to have common commitments with the partners (perhaps with a few exceptions) under RCEP. Second, the commitments of the dialogue partners need to be common commitments congruent with those of the AMSs. Third, the commitments under RCEP are considered substantially higher than those under the ASEAN+1 FTAs. RCEP is expected to be not merely a consolidation of the ASEAN+1 FTAs. RCEP, or any form of East Asia integration, would need to be a better quality agreement than the existing ones for it to be credible and worthy of the resources and ensure a more meaningful integration.

This report would not have been realised without the strategic guidance from our government counterparts, particularly the ASEAN Senior Officials, and the ASEAN Secretariat team, whom we gratefully acknowledge. We also thank the opportunity given to ERIA to be engaged and share the findings at the RCEP Trade Negotiation Committee Lead Meeting in June 2013, ASEAN Senior Economic Officials Meeting in April 2014, East Asia Policy Dialogue with H.E. Pascal Lamy in April 2015, and a number of capacity building symposia on the RCEP in Cambodia, Lao PDR, Myanmar, and Viet Nam.

This report is carefully crafted by distinguished scholars in international trade and investment: Lili Yan Ing, Shujiro Urata, Ken Itakura, Misa Okabe, Inkyo Cheong, Erlinda Medalla, Olivier Cadot, Hikari Ishido, Shandre Thangavelu, Junianto James Losari, and Nanda Nurridzki.

It consists of three main topics: trade in goods, trade in services, and investment.

Chapter 1 provides insights on the impacts of different scenarios describing different levels of liberalisation in trade in goods, trade in services, and investment on East Asia's trade, income, and overall welfare. Chapter 2 explains the impacts of the existing FTAs on East Asia's trade. Chapter 3 provides insights on how to improve the use of FTAs, lessons learned from Korea. Chapter 4 details the rules of origin (ROO) of the existing ASEAN Free Trade Area (AFTA) and ASEAN+1 FTAs: ASEAN–China, ASEAN–India, ASEAN–Japan, ASEAN–Korea, and ASEAN–Australia and New Zealand FTAs. Chapter 5 provides evidence on the cost of compliance of ROO of ASEAN's FTAs. Chapter 6 conducts mapping exercises on commitment of liberalisation in the services sector of existing FTAs in the region. Chapter 7 outlines the impacts of trade expansion on labour productivity in the services sector, and the linkage between services and manufacturing sectors. Chapter 8 reviews investment protection of investment agreements, the ASEAN Comprehensive Investment Agreement, and the ASEAN–Australia New Zealand, the ASEAN–China, and the ASEAN-Korea Investment Agreements. Chapter 9 provides reviews of clauses of liberalisation of the existing investment agreements in the region.

For policymakers, business associations, and academia, the report will be an important base on key areas of regional and multilateral integration, as we all hope that regional integration could be a building block of multilateral integration.

We hope that the findings of this study can provide insights on overall East Asian integration and be useful as benchmark exercises to accelerate to the growth of trade in goods, trade in services, and investment in region.

Professor Hidetoshi Nishimura

President of ERIA

Jakarta, August 2015

Foreword

The Regional Comprehensive Economic Partnership (RCEP) presents a historic opportunity for East Asia to deepen cooperative commitment to the reforms that are needed to secure its future as a dynamic centre of higher than average global growth and regional prosperity in an open international economy. This ambition is important to all regional economies. RCEP policy leaders can move boldly—and expeditiously—to form an agreement that entrenches and substantially deepens the openness of their economies that has historically underpinned economic growth in the region. This is a time for leadership at all levels and strategies that are focused on the potential of economic cooperation to lift growth, not from defensive negotiating positions seeking to maintain the status quo that will serve only to undermine the welfare of future generations.

The conception of RCEP is a process rooted in the ASEAN Economic Community (AEC), and ASEAN's regional and global ambition can drive RCEP towards an ambitious set of commitments in trade and investments. RCEP success is an essential element in building ASEAN centrality.

The Guiding Principles for the RCEP provide the foundation upon which to construct an agreement: consistency with rules of the General Agreement on Tariff and Trade and the World Trade Organization; significant improvement on the ASEAN+1 agreements (which will continue to apply); facilitation of trade and investment; flexibility for developing and least-developed countries; open accession clause to enable participation by other economic partners; technical assistance and capacity building through economic cooperation; and parallel negotiations in goods, services, investment, and other areas.

This book represents a first important step in the analysis of a number of the issues that confront the shaping of cooperative policies that will be needed to underpin future East Asia economic integration.

The book begins with an estimation of the effects of RCEP, although these estimations focus on the narrower trade liberalisation dimension of the proposed agreement rather than its important economic cooperation dimensions. It compares the experience of liberalisation under free trade agreements elsewhere in the region with the

challenge facing RCEP countries, and draws attention to the problem of restrictive arrangements for rules of origin (ROOs) for realising the benefits of regional engagement in value-adding production networks.

In this context, building the capacity for open engagement in commodity trade is only part of the story. In value chain the link between services trade and openness to foreign investment is crucial, as the argument in the book suggests.

To deepen East Asia integration and promote regional growth, RCEP will have to set an ambitious benchmark for liberalisation and market access. There is no point in concluding an unambitious agreement that does not address existing barriers to regional trade and adds real value to the existing ASEAN+1 agreements, simply for the sake of concluding an agreement. That would damage the region economically and undermine its political credibility. A comprehensive target for goods liberalisation—with a particular focus on areas where barriers to trade remain relatively high—must underpin the agreement. All RCEP economies can, for example, agree to eliminate tariffs on tariff lines covering 95 percent of current trade. While RCEP can make allowances for different levels of economic development among the participating countries, this can take the form of longer implementation times for developing and least-developed countries over a period of no more than 10 years for all countries other than the three least-developed countries which should have a longer period of up to 15 years: it would not mean less ambitious final targets for goods liberalisation.

This is one dimension of the East Asian integration strategy that makes the RCEP endeavour different from so-called mega-regional trade deals. Immediate commitments consistent with the ambitions of the Guiding Principles that underpin the ASEAN conception of RCEP can credibly offer significant improvement. Market access commitments can be anchored by common tariff concessions, with tariff elimination covering at least 95 percent of all tariff lines. While non-ASEAN countries could depart from 95 percent tariff line coverage in their initial offers to non-ASEAN partners, the goal must be for a common tariff commitment schedule with minimum deviations at the end of negotiations.

The gains to growth that can be leveraged from ambitious goods liberalisation are substantial, but the ability to realise these gains through effective participation in regional

value chain production depends importantly on appropriate ROOs. ROOs are an unavoidable part of preferential trade agreements; but strict and cumbersome ROOs will limit and divert trade, raise costs for firms, and impede the establishment and smooth functioning of regional value chains. If RCEP does not adopt steps to rectify the often overly complicated ROOs present in the ASEAN+1 agreements, it will dissipate the gains from any additional market access that derives from the commitment to liberalisation. For this reason, RCEP will need to commit to common ROOs that are simple, provide for full cumulation, and involve documentation requirements that are harmonised, as well as easy and inexpensive to comply with.

Regional supply chains also rely heavily on the free flow of capital. RCEP will therefore need to embrace wide-ranging liberalisation of foreign investment regimes. A negative list approach and coverage of the pre-establishment national treatment is the best way to accomplish this. While countries may have legitimate national interest reasons to limit investment into certain sectors, the overarching principle must be the free flow of foreign investment to stoke economic growth and facilitate technological transfer and the limitation of restrictions to specified sectors.

An equally ambitious approach is required on services liberalization. RCEP will have to provide a clear pathway to a negative-list approach in services liberalization. Services liberalization in RCEP therefore will have to be especially far-reaching in areas that are critical to the formation and deepening of global value chains.

East Asia integration cannot, in other words, be advanced successfully by an old-fashioned 20th century preferential trade agreement: rather, in its basic structure, RCEP will have to lead globally as a mechanism for enduring economic cooperation between member countries and non-members who are later prepared to sign on or partner. The RCEP membership represents global diversity and can set new global benchmarks. An overarching cooperation framework that encompasses all ASEAN+1 agreements and actively draws in other stakeholders, including business and researchers, will help integrate the region within itself and with the global economy at large.

RCEP can become the Asian economic cooperation forum to mobilise support for growth-promoting structural reform at the national level. Consistent with its Guiding Principles, RCEP needs to incorporate wide-ranging technical assistance for

least-developed and developing countries and economic cooperation among members. The cooperation agenda must be permanent and open to expansion, building on the experience in ASEAN+1 agreements. RCEP can agree to create abiding and sustainable mechanisms for cooperation between national policy institutions (for example, fiscal authorities, competition regulators, infrastructure authorities, investment authorities, and customs authorities). These links will facilitate an ongoing agenda of reforms aimed at regional regulatory cooperation that will form part of RCEP's work agenda. They will also help policymakers learn from experience around the region as they frame policies suitable to the circumstances of their own country. A strong agenda of domestic structural reform to promote competition, allocative efficiency, and growth can form an integral part of the RCEP agenda if the gains from cooperation are to be fully leveraged. Reform commitments made at an international level will help mobilise domestic engagement for policy change.

The principles for a basic agreement among RCEP members that includes commitments on goods, services, and investments and an agreed path for the implementation of RCEP and framework for economic cooperation are increasingly clear. Concluding an RCEP basic agreement at the end of 2015 that entrenches ambitious commitments is both feasible and would give RCEP momentum and credibility as a tangible step towards the high standard agreement that the region needs for the next stage of its growth.

The research which is at the core of this book and projects going forward that contribute to the effective implementation of the RCEP agenda will be crucial to the success and benefits of East Asian integration over the years ahead.

Professor Peter Drysdale
The Australian National University
Canberra, 9 August 2015

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List of Abbreviations

AANZFTA	ASEAN, Australia and New Zealand FTA
ACFTA	ASEAN–China Free Trade Area
ACIA	ASEAN Comprehensive Investment Agreement
AFAS	ASEAN Framework Agreement on Services
AFTA	ASEAN Free Trade Area
AIA	ASEAN Investment Agreement
AIFTA	ASEAN–India Free Trade Agreement
AJCEP	ASEAN–Japan Comprehensive Economic Partnership
AKFTA	ASEAN–Korea Free Trade Agreement
AMS	ASEAN Member States
APTA	Asia Pacific Trade Agreement
ASEAN	Association of Southeast Asian Nations
ATIGA	ASEAN Trade in Goods Agreement
BIT	bilateral investment treaty
CETA	Canada–European Union Free Trade Agreement
CGE	computable general equilibrium
CIL	customary international law
COO	Certificate(s) of Origin
CTC	change in tariff classification
CTH	change in tariff heading
EAP	East Asia and the Pacific
EFTA	European Free Trade Association
EU	European Union
FDI	foreign direct investment
FET	Fair and Equitable Treatment
FTA	free trade agreement
FTAPPAA	FTA Promotion and Policy Adjustment Authority
GATS	General Agreement on Trade in Services
GDP	gross domestic product
GGDC	Groningen Growth Developing Centre
GSTP	Global System of Trade Preferences among Developing Countries
GVC	global value chain
ICT	information and communications technology
IGA	Investment Guarantee Agreement
IIA	international investment agreement
ITA	Information Technology Agreement
MFN	Most-Favoured Nation
MOSF	Ministry of Strategy and Finance

NAFTA	North American Free Trade Agreement
NT	National treatment
NTBs	non-tariff barriers
NTM	non-tariff measure
NTMs	non-tariff measures
PSRs	Product Specific Rules
PTA	preferential trade agreement
RCEP	Regional Comprehensive Economic Partnership
ROO	rule(s) of origin
RTA	regional trade agreement
RVC	Regional Value Content
SMEs	small and medium enterprises
SPR	specified process rule
US	United States
WO	wholly obtained
WTO	World Trade Organization

Chapter 1

Assessing the Economic Effects of the Regional Comprehensive Economic Partnership on ASEAN Member States

Ken Itakura
Nagoya City University

By applying a recursively dynamic computable general equilibrium (CGE) model of global trade, supplemented with the recent database, we conducted a set of policy simulations of the Regional Comprehensive Economic Partnership (RCEP), focusing on Association of Southeast Asian Nations (ASEAN) member states (AMSs). Simulation results revealed that all of the member countries gain in terms of real gross domestic product (GDP) from participating in the RCEP by liberalising their trade and fostering investment. Once the investment commitment by the member countries leads to lowering country-specific risk, the gain in real GDP is bolstered further. Investment in all member countries rises as the RCEP is implemented and as more capital from abroad is attracted. Trade volumes expand as the participating countries commit to deeper tariff reductions. Economic welfare also improves for most RCEP member countries.

1. Introduction

This paper aims to evaluate the potential economic impact of the Regional Comprehensive Economic Partnership (RCEP) Agreement on Association of Southeast Asian Nations *(*ASEAN) member states (AMSs). The RCEP is a regional trade agreement that involves 16 participating countries – the AMSs, Australia, China, India, Japan, Korea, and New Zealand. Since ASEAN has already established bilateral free trade agreements (FTAs) with the six partner counties, establishing the RCEP is an attempt to merge the existing FTAs into an integrated market across the region. This integration may go beyond the conventional trade liberalisation of tariff reduction and/or elimination; it would liberalise trade in services, facilitate trade, and promote investment in the region.

To evaluate the economic effects of the RCEP, we conduct a set of simulations by using a computable general equilibrium (CGE) model of global trade. In the simulations, we explore potential economic gains from liberalisation of goods and services trade, logistic improvements, and investment commitments under the RCEP. To make the simulation setting realistic, we collect and utilise recent data inputs from various national and international organisations to set up the baseline scenario in which the hypothetical simulations of the RCEP are examined.

Our simulation results indicate that for the AMSs, in general, implementation of the RCEP leads to higher real gross domestic product (GDP), and more trade volume and investment. The six partner countries also gain economically from the RCEP.

In the next section, we describe the database and the CGE model, as well as the simulation design for this study. Section 3 reports the simulation results, followed by a summary discussion.

2. Methodology

Our objective is to obtain quantitative measures that can capture the potential economic effects of the RCEP. For this purpose, we conduct a set of hypothetical simulations with a recursively dynamic CGE model of global trade. Since the RCEP will have economy-wide effects on the economic activities in the participating economies of the

AMSs, Australia, China, India, Japan, Korea, and New Zealand, it is reasonable to use the global CGE model for evaluating the repercussions arising from the multi-sector and the multi-region interactions induced by the RCEP implementation. In this section, we describe the database, the CGE model, and the simulation design.

2.1. Data Bases

To reflect the current and prospective states of the global economy in our simulation analysis, we rely on the GTAP Data Base version 8.1 (Narayanan, Aguiar, and McDougall, 2012) and economic forecasts from international organisations. The GTAP Data Base records the entire global economy with detailed information about 57 industrial sectors for 134 regions. With this database, we are able to observe the economic structure of production, international trade and protection, and consumption, benchmarked at the year 2007. The GTAP Data Base is supplemented with international factor income flows due to domestic and foreign assets holdings. To reduce computational burden, we aggregated the GTAP Data Base to 27 countries/regions and 25 sectors, and the mappings from the original disaggregated data are reported in Tables 1.1 and 1.2. The GTAP Data Base covers eight AMSs – Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Viet Nam. Because of the limited data, Brunei Darussalam and Myanmar are lumped into the 'Rest of Southeast Asia' (RoSEAsia) along with Timor–Leste.

Table 1.1: List of Countries/Regions

No.	Country/Region	No.	Country/Region
1	Cambodia	14	Australia
2	Indonesia	15	New Zealand
3	Lao PDR	16	Hong Kong
4	Malaysia	17	Taiwan
5	Philippines	18	USA
6	Singapore	19	Canada
7	Thailand	20	Mexico
8	Viet Nam	21	Brazil
9	RoSEAsia	22	Chile
10	Japan	23	Argentina
11	China	24	UK
12	Korea	25	Germany
13	India	26	UAE
		27	RestofWorld

Source: GTAP Data Base version 8.1.

Table 1.2: Sectoral Aggregation

No	Name	GTAP 57 sectors
1	Primary	Paddy rice; Wheat; Cereal grains nec; Vegetables, fruit, nuts; Oil seeds; Sugar cane, sugar beet; Plant-based fibers; Crops nec; Cattle, sheep, goats, horses; Animal products nec; Raw milk; Wool, silkworm cocoons; Forestry; Fishing; Minerals nec; Meat: cattle, sheep, goats, horse; Meat products nec; Vegetable oils and fats; Dairy products; Processed rice; Sugar; Food products nec.
2	Energy	Coal; Oil; Gas
3	BvrgTbcc	Beverages and tobacco products
4	Textile	Textiles
5	Apparel	Wearing apparel
6	Leather	Leather products
7	Wood	Wood products
8	Paper	Paper products, publishing
9	PetCoProduct	Petroleum, coal products
10	Chemical	Chemical, rubber, plastic products
11	Minerals	Mineral products nec.
12	FerrousMetal	Ferrous metals
13	OtherMetal	Metals nec.
14	MetalProduct	Metal products
15	Motorvehicle	Motor vehicles and parts
16	TrnsprtEquip	Transport equipment nec.
17	ElecEquip	Electronic equipment
18	Machinery	Machinery and equipment nec.
19	OthMnfct	Manufactures nec.
20	Utilities	Electricity; Gas manufacture, distribution; Water
21	Construction	Construction
22	Trade	Trade
23	TransComm	Transport nec; Sea transport; Air transport; Communication
24	FinsBusi	Financial services nec; Insurance; Business services nec.
25	OthSrvc	Recreation and other services; PubAdmin/Defence/Health/Educat; Dwellings

Source: GTAP Data Base version 8.1.

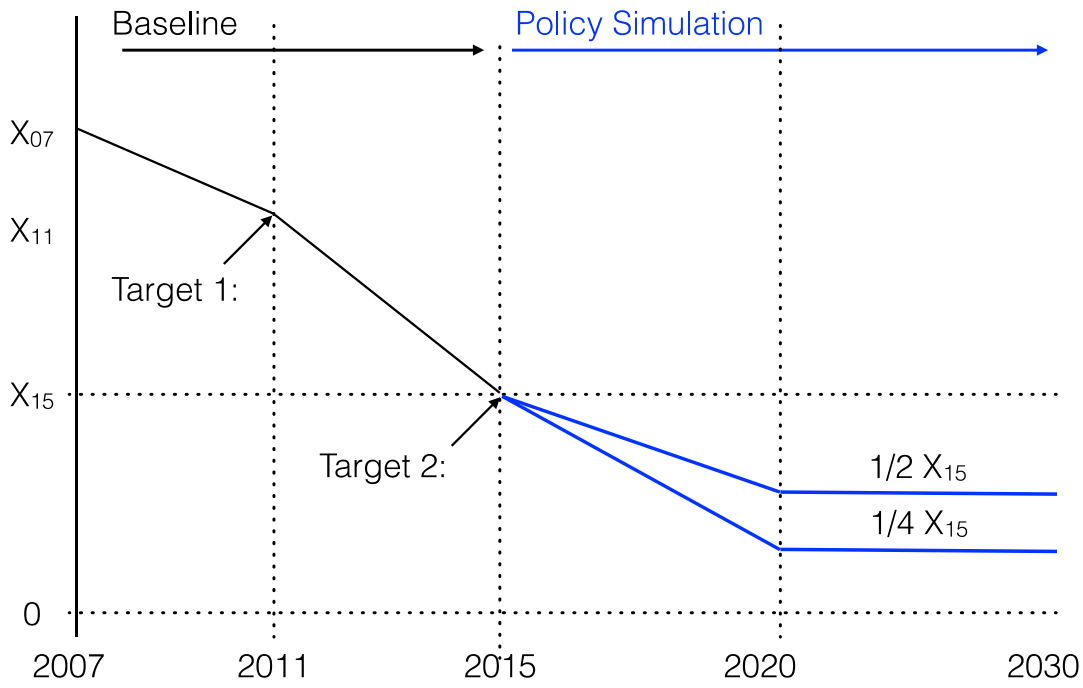
Our first task is to construct a baseline scenario, which is a hypothetical future state of the global economy and forms a basis of comparison against the RCEP policy simulations. We rely on the projections of total population, working-age population (age 15–64), and real GDP. Projections of total and working-age population growth rates are computed from those of the United Nations (UN) (2013) and mapped for our 27 regional aggregation. Projections of real GDP growth rates are from the International Monetary Fund (2014).

As the AMSs have been progressing toward the establishment of the ASEAN

Economic Community by 2015, our hypothetical simulation analysis is designed to focus on the period 2015–2030. However, the trade liberalisation of the ASEAN Economic Community and each ASEAN+1 FTA that was implemented prior to the RCEP seems to be in progress, lowering trade barriers towards the target level each FTA has committed to. In this study, we take into account this progressing nature by introducing two sets of targets of bilateral tariffs into the baseline scenario.

Figure 1.1 illustrates these two targets. The first target is specified by the year 2011. The pre-release of the GTAP Data Base version 9 provides us with the estimates of bilateral tariffs for 2011. For all 25 sectoral trade flows of the 27 regions, we make sure that the baseline simulation passes through the bilateral tariffs of the 2011 target (Target 1 in Figure 1.1). The second target is specified as the year 2015 (Target 2). The ASEAN Economic Community and the ASEAN+1 FTAs, listed in Table 1.3, are subject to this second bilateral tariff targets, assuming a gradual reduction from the first target. Among the AMSs participating in the FTAs listed in Table 1.3, there are different completion years for the ASEAN+1 FTAs. According to Fukunaga and Isono (2013), delayed target years are set for the CLMV (Cambodia, Lao PDR, Myanmar, and Viet Nam) countries compared with other AMSs. From the aggregated GTAP Data Base, combined with the two targets, we can compute average applied tariff rate for AMSs for 2007, 2011, and 2015. Table 1.4 reports the results. For example, Cambodia's average applied tariff rate was 9.4 percent in 2007, 10 percent in 2011, and 4.4 percent in 2015. In general, average applied tariff rates in the AMSs are falling over the baseline as computed with the two targets.

Figure 1.1: Assumptions of Tariff Reduction Schedule, 2007–2030



Source: Author.

Table 1.3: FTAs in the Baseline

	ASEAN6	CLMV	Partner
ASEAN–FTA	2015	2015	..
ASEAN–Australia–New Zealand	2020	2020	2020
ASEAN–China	2010	2018	2010
ASEAN–India	2017	2022	2017
ASEAN–Japan	2018	2023	2018
ASEAN–Korea	2012	2018	2010

Note: ASEAN6 (Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand), CLMV (Cambodia, Lao PDR, Myanmar, and Viet Nam).
Source: Author's assumptions based on Fukunaga and Isono (2013).

Table 1.4: Average Applied Tariff Rate for ASEAN, 2007, 2011, 2015 (%)

	2007	2011	2015
Cambodia	9.4	10.0	4.4
Indonesia	2.8	2.5	1.6
Lao PDR	7.2	7.4	3.0
Malaysia	3.1	3.3	2.4
Philippines	3.0	2.0	1.4
Singapore	0.0	0.0	0.0
Thailand	4.4	4.5	2.8
Viet Nam	8.2	5.7	3.8
RoSEAsia	3.2	3.4	2.0

Source: Computed from GTAP Data Base version 8.1, and the baseline result.

Sectoral average applied tariff rates for merchandise trade and estimates of tariff equivalents of service trade barriers by Wang, Mohan, and Rosen (2009) are reported in Table 1.5. Since construction is used as a benchmark sector in their estimates, we dropped it from Table 1.5. Applying the sector-specific gravity model, Wang, Mohan, and Rosen (2009) estimated the tariff equivalents of service trade barriers. Their estimating equation is as follows:

$$M_{i,j} = \mathrm{a}_i + \mathrm{a}_j + \mathrm{a}_1 \ln GDP_j + \mathrm{a}_2 \ln PCI_j + \varepsilon_{j.}$$

Imports of sector i in country j is regressed upon sector dummy a_i, country dummy a_j, GDP, and per capita income PCI, by using the GTAP Data Base version 7. Then, country average of trade-cost equivalent (T_j) is computed with the import substitution elasticity parameter (σ) extracted from the GTAP Data Base.

$$\mathrm{a_j} = -\sigma \ln T_j^{\bullet}$$
$$T_j^{\bullet} = \exp(-\mathrm{a_j}/\sigma).$$

Minor and Hummels (2011) did elaborating estimating work on average costs of time delays in trade, which are considered as another trade barrier. The World Bank's *Doing Business 2009 Survey* (2010) provides information on logistics time of importing merchandise goods expressed in number of days for our 2007 benchmark year. Table 1.6 shows, for example, that there would be varying time- savings of at least 7 percent on importing logistics.

Table 1.5: Sectoral Average Applied Tariff Rate for ASEAN, 2015 (%)

	Cambodia	Indonesia	Lao PDR	Malaysia	Philippines	Singapore	Thailand	Viet Nam	RoSEAsia
Primary	4.1	3.1	3.4	3.7	4.2	0.0	7.0	4.4	1.8
Energy	0.0	0.0	0.7	1.7	0.0	0.0	0.0	0.5	1.9
BvrgTbcc	6.4	7.6	5.7	38.5	5.2	1.4	14.1	24.4	12.0
Textile	4.2	1.6	0.8	5.7	1.5	0.0	4.7	6.3	6.9
Apparel	15.3	6.9	2.2	9.2	1.9	0.0	12.7	11.1	4.2
Leather	4.8	2.7	1.8	3.2	4.0	0.0	10.7	6.5	2.6
Wood	9.0	1.3	3.4	2.3	2.5	0.0	5.7	3.7	3.6
Paper	3.3	1.6	1.5	4.2	2.9	0.0	2.5	5.2	1.0
PetCoProduct	3.9	1.0	1.2	0.2	0.0	0.0	1.8	4.2	0.7
Chemical	2.6	2.4	1.6	2.9	1.7	0.0	4.3	2.1	1.3
Minerals	3.7	3.8	0.8	7.7	1.7	0.0	5.0	7.5	1.1
FerrousMetal	2.1	2.1	0.6	11.3	0.9	0.0	2.3	1.1	0.7
OtherMetal	3.0	1.0	2.9	2.3	0.5	0.0	0.5	0.7	1.1
MetalProduct	5.2	2.1	1.4	6.5	2.0	0.0	6.2	5.2	1.2
Motorvehicle	11.8	5.1	8.6	8.2	4.6	0.0	12.3	12.2	6.8
TrnsprtEquip	5.8	1.1	8.5	1.2	3.3	0.0	3.5	7.7	1.7
ElecEquip	8.6	0.2	2.2	0.1	0.6	0.0	1.1	1.0	4.0
Machinery	6.8	2.0	1.8	1.9	0.8	0.0	3.8	2.2	2.7
OthMnfct	4.9	2.7	5.5	4.0	1.1	0.0	5.6	11.5	3.5
Utilities	80.7	178.8	52.9	63.6	138.0	0.0	97.3	152.2	..
Trade	89.1	185.0	58.9	67.5	143.4	0.0	110.0	157.9	..
TransComm	78.4	167.4	46.6	54.0	126.6	0.0	96.0	138.4	..
FinsBusi	77.4	159.9	46.1	53.1	123.2	0.0	93.0	136.7	..
OthSrvc	87.0	181.0	58.8	63.6	140.2	0.0	107.4	154.6	..

Source: Baseline result and Wang *et al*. (2009).

Table 1.6: Time-Saving from Logistic Improvements on Imports

(in number of days)

	Days
Cambodia	2.0
Indonesia	1.9
Lao PDR	2.6
Malaysia	0.7
Philippines	1.1
Singapore	0.3
Thailand	0.9
Viet Nam	1.6
RoSEAsia	1.5

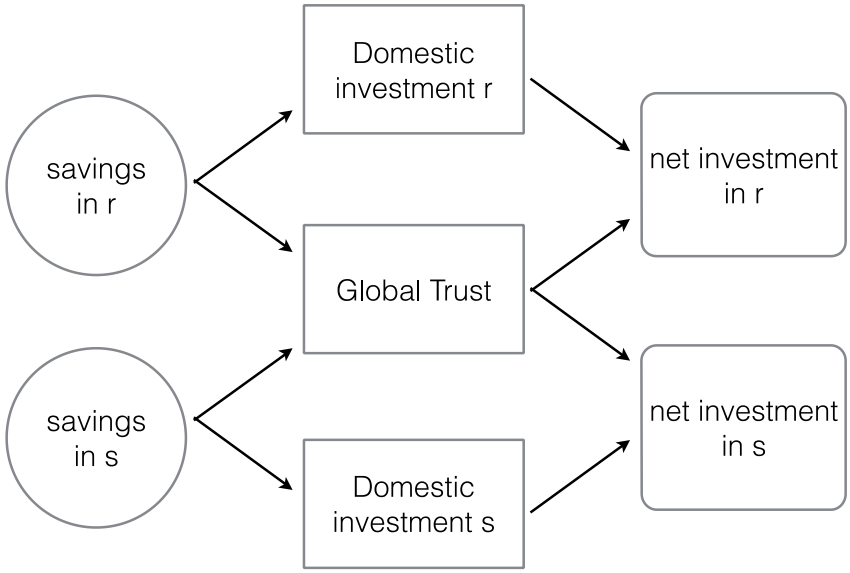
Source: Calculation based on (World Bank, 2010).

2.2. Overview of Dynamic GTAP Model

For all simulations in this paper, we used the Dynamic GTAP model developed by Ianchovichina and McDougall (2001) and updated by Walmsley *et al*. (2012). Ianchovichina and McDougall (2001) extended the comparative static standard GTAP model (Hertel, 1997; McDougall, 2003) by introducing international capital mobility and capital accumulation. In the standard GTAP model, capital is assumed to be mobile between sectors in a country, but not across borders.

The Dynamic GTAP model preserves all the main features of the standard GTAP model – constant return to scale production technology, perfectly competitive markets, and product differentiation by origin, known as the Armington assumption (Armington, 1969). The Dynamic GTAP model uses as its core inputs the GTAP Data Base (Narayanan *et al*., 2012) augmented with foreign income data from the *Balance of Payments Statistics* of the International Monetary Fund to infer international capital ownership and foreign wealth.

Figure 1.2: Savings and Investment in the Model



Source: Author based on Walmsley *et al*. (2012).

In the Dynamic GTAP model, each region is endowed with fixed physical capital stock. The physical capital is accumulated over time with new investments. This dynamics is driven by the net investment, which is sourced from regional households' savings. Figure 1.2 shows the international linkage of the sources of net investment. Net investment in region r is a composite of domestic investment and foreign investment from 'global trust' that is assumed to be the sole financial intermediary for all foreign investments. Regional households own indirect claims to the physical capital in the form of equity, which are of two types – equity in domestic firms and equity in foreign firms. The regional household directly owns the domestic equity but only indirectly the foreign equity by holding shares in a portfolio of foreign equities provided by the 'global trust'. The values of the household's equity holdings in domestic firms and in the global trust change over time, and the household allocates savings for investment. Collecting such investment funds from regions, the global trust reinvests the funds in firms around the world and offers a portfolio of equities to households. The sum of the household's equity holdings in the global trust is equal to the global trust's equity holdings in firms around the world.

Incentives for investments or equity holdings are governed by rates of return, which would be equalised across regions if capital is perfectly mobile. However, this equalisation of rates of return seems impractical, at least in the short run. Further, there are empirical

observations of so-called 'home bias' in savings and investment, equity holdings by households, and capital flows. Home bias refers to empirical observations that domestic markets are preferred to foreign markets. These empirical observations suggest that capital is not perfectly mobile, leading to varying rates of return across regions. The Dynamic GTAP model allows inter-regional differences in rates of return in the short run, which will be eventually equalised in the long run. Differences in rates of return are attributed to the errors in investors' expectations about the future rate of returns. However, the errors in expectation are gradually adjusted to the actual rate of return. Eventually the errors are eliminated and the unique rate of return across regions can be attained. Therefore, we assume perfect capital mobility applies only in the long run.

Participating in FTAs could lead to more investment from abroad. Trade liberalisation often makes prices of goods from a participating country cheaper due to removal of tariffs, creating increased demand for the goods. Responding to the increased demand, production of the goods may expand in the exporting country. To increase the production, more intermediate goods, labour, capital, and other primary factors are demanded. This increased demand for production inputs raises the corresponding prices, wage rates, and rental rates. Higher rental rates can be translated into higher rates of return, attracting more investment from both home and foreign countries. These are part of the expected repercussions induced by the liberalisation.

2.3. Scenarios for Simulation

Three policy scenarios were designed for our simulation experiments of the RCEP implementation. The baseline scenario is constructed to reflect the hypothetical future state of world economy without the RCEP implementation, for the period 2007–2030. During this period, average applied tariff rates are gradually reduced for the two targets, as discussed above (see Figure 1.1).

Three policy scenarios for the RCEP are applied over the period 2016–2030. Each policy scenario is designed to examine the effect of varying degrees of tariff reductions (50 percent and 75 percent) as well as the effect of investment commitment that is assumed to lower country-specific risk by 0.05 percentage points. Trade liberalisation includes gradual elimination of tariffs, logistic improvements, and reduction in tariff equivalents of

services trade barriers. Average applied tariffs in the RCEP region after 2015 are gradually reduced or eliminated by 2020 (see Figure 1.1 for two different tariff reduction schedules under Policy Simulation). We assume a 7 percent improvement in logistics and a 7 percent reduction in services trade barriers, following the empirical study by Hayakawa and Kimura (2014).

Countries participating in the RCEP would commit to promoting investment, and this commitment can improve the rate of return on capital by reducing country-specific negative factors. This effect of investment commitment is implemented in the policy scenarios by lowering country-specific risk by 5 basis points. A summary of the three policy scenarios is listed below:

Policy Scenario for RCEP implementation:
(S1) Tariff reduction (50 percent) + logistics improvements on merchandise trade and reduction of barriers to service trade by 7 percent
(S2) S1 with tariff reduction (75 percent)
(S3) S2 + lowering country-specific risk by 5 basis point

3. Simulation Results

All simulation results reported in the following tables are in terms of percent difference from the baseline scenario, accumulated over the simulation period from 2016 to 2030. In other words, the deviation from the baseline results from the RCEP policy scenario. There are two major components driving such simulation results – different degrees of tariff reduction and investment commitment.

Simulation results of the RCEP on real GDP are reported in Table 1.7. All participating countries in the RCEP gain in real GDP compared with the baseline scenario. Cambodia stands out, as its increases in real GDP are larger than for other AMSs. The country has higher tariffs on imports used for forming physical capital, and liberalisation lowers the price of capital goods. Because of the fall in the price of capital goods, the large increase in investment in Cambodia contributes to the higher gain in real GDP. On the other hand, non-participating countries are clearly negatively affected. By increasing the degree of reduction in tariffs from 50 percent in S1 to 75 percent in S2, the gains in real GDP become larger. By

committing to investment promotion as shown in S3, thereby reducing country-specific risk, all participating countries show the largest gain in real GDP. Taking Cambodia as an example, Figures 3 and 4 show the time path of simulation results for the baseline scenario and S3. In Figure 1.3, it can be clearly seen that because of RCEP Cambodian real GDP growth rates are higher than those in the baseline scenario. These differences in annual growth rates are accumulated over time, as shown in Figure 1.4 as deviation from the baseline, and by 2030 Cambodia's real GDP is 8.9 percent higher than the baseline.

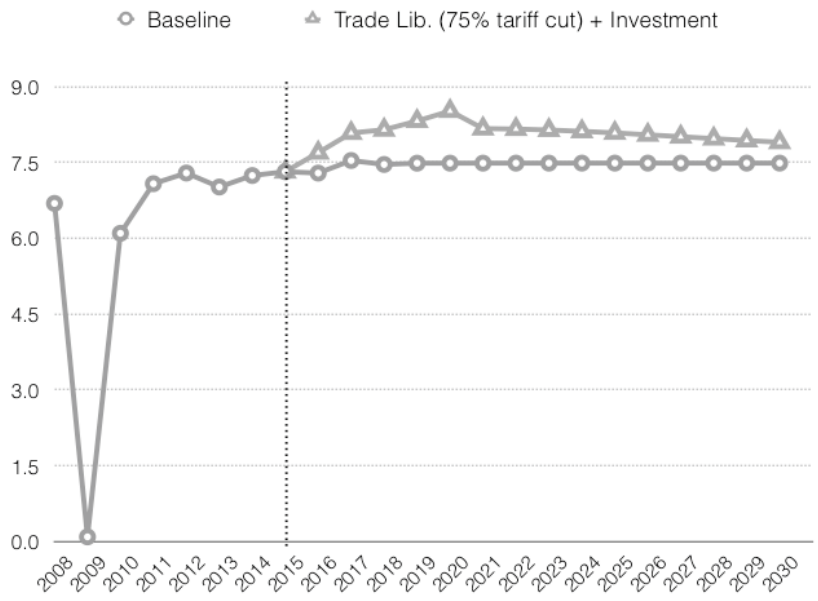
Table 1.7: Results on GDP, 2030

(cumulative deviation from the baseline, %)

	S1	S2	S3
Cambodia	6.1	8.0	8.9
Indonesia	1.0	1.0	2.3
Lao PDR	1.3	1.3	2.2
Malaysia	1.3	1.6	2.9
Philippines	1.2	1.1	4.2
Singapore	1.4	1.6	4.5
Thailand	2.4	3.1	5.3
Viet Nam	1.8	2.2	2.9
RoSEAsia	0.8	0.7	1.8
Japan	0.5	0.7	2.2
China	0.7	0.9	1.8
Korea	2.8	3.9	5.0
India	0.8	1.2	2.1
Australia	0.4	0.5	1.9
New Zealand	0.8	0.9	4.1
Hong Kong	-0.5	-0.6	-1.3
Taiwan	-0.9	-1.3	-2.1
USA	-0.1	-0.1	-0.3
Canada	0.0	-0.1	-0.3
Mexico	-0.4	-0.6	-1.8
Brazil	-0.1	-0.1	-0.6
Chile	-0.6	-0.8	-1.8
Argentina	-0.1	-0.2	-0.4
UK	-0.1	-0.1	-0.6
Germany	-0.1	-0.2	-0.6
UAE	-1.0	-1.3	-2.5
RestofWorld	-0.2	-0.3	-0.9

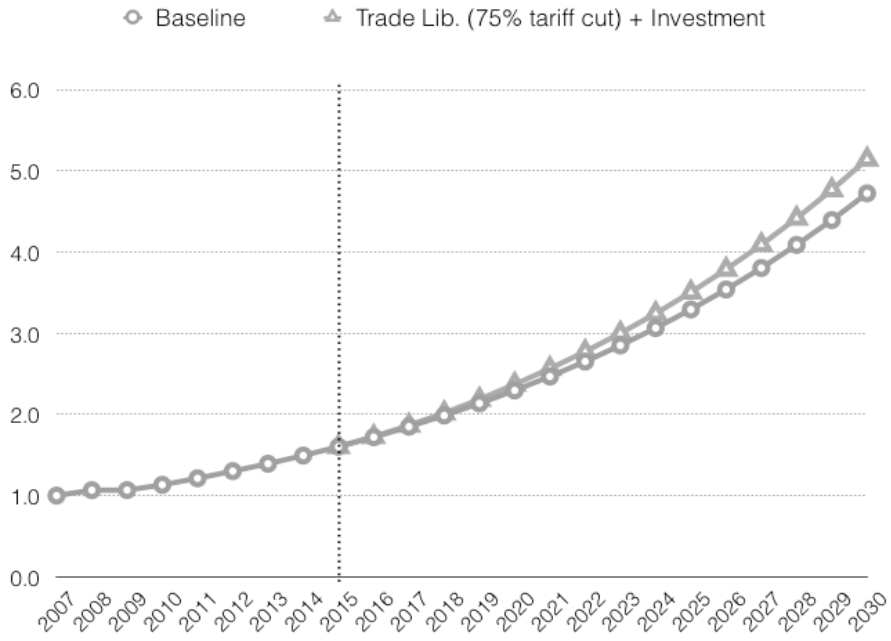
RoSEAsia = Rest of Southeast Asia, UAE = United Arab Emirates, UK = United Kingdom, USA = United States of America.
Source: Author's simulation results.

Figure 1.3: Cambodia's Real GDP Growth Rate, 2007–2030 (year-on-year, %)



Source: Author's simulation results.

Figure 1.4: Cambodia's Real GDP, 2007–2030 (2007=1.0)



Source: Author's simulation results.

The simulation results on export volume are reported in Table 1.8 and those on import volume in Table 1.9. The potential impact of the RCEP has a similar effect on trade volumes – the deeper the cuts in bilateral tariffs, the higher the trade volumes for RCEP members. In a few cases, the results of export volume under S3 fall below the baseline, indicated by negative results. The reason is that higher export prices induced by competing demands for factor inputs eventually lead to higher production costs than in the baseline scenario. This is the case for Lao PDR, Australia, and New Zealand.

The results on investment are reported in Table 1.10. Freer trade in goods and services and efficient logistics lead to higher investment in all RCEP member countries. As expected, improvements in the rate of return caused by reducing the country-specific risk resulted in higher investment, as reported in S3. Table 1.11 reports the impacts on foreign ownership of capital stock. The results on increased foreign ownership of capital stock indicate that capital will flow into the regions. Thus, the results in Table 1.11 show that once the RCEP is implemented, all RCEP participating countries would attract more investment from abroad.

The overall impact of the RCEP can be summarised in terms of economic welfare, as reported in Table 12. The RCEP could bring economic benefits to all participating countries for most of the policy scenarios. Further, economic welfare gains become more substantial once the RCEP includes investment commitment. However, the Philippines and India experienced negative welfare results. Such exceptional results are mainly attributed to changes in the regional households' holdings of foreign wealth. Because of the larger investment at home, the regional households accumulated more wealth at home, shifting away from foreign wealth. Income accrued from foreign wealth becomes smaller than the baseline over the simulation period, and the reduction in welfare slightly lower than the baseline for these countries.

Table 1.8: Results on Export Volume, 2030

(cumulative deviation from the baseline, %)

	S1	S2	S3
Cambodia	3.8	6.4	7.3
Indonesia	1.7	2.0	2.8
Lao PDR	0.6	1.1	-0.9
Malaysia	2.1	2.9	4.7
Philippines	1.4	1.8	3.1
Singapore	1.4	1.7	3.2
Thailand	3.6	5.3	7.8
Viet Nam	1.2	2.7	2.9
RoSEAsia	0.6	0.8	0.6
Japan	1.7	2.4	3.6
China	2.4	3.4	4.6
Korea	3.8	5.9	7.7
India	1.7	2.9	3.8
Australia	1.0	1.5	-0.3
New Zealand	1.2	1.7	-0.1
Hong Kong	-0.7	-0.8	-1.1
Taiwan	-1.1	-1.4	-1.6
USA	-0.3	-0.4	-0.3
Canada	-0.4	-0.6	-1.1
Mexico	-0.2	-0.3	-0.8
Brazil	-0.8	-1.1	-0.9
Chile	0.3	0.6	0.9
Argentina	-0.6	-0.9	-2.1
UK	-0.3	-0.5	-0.9
Germany	-0.3	-0.4	-0.7
UAE	-0.8	-1.2	-1.5
RestofWorld	-0.4	-0.6	-1.3

RoSEAsia = Rest of Southeast Asia, UAE = United Arab Emirates, UK = United Kingdom, USA = United States of America.

Source: Author's simulation results.

Table 1.9: Result on Import Volume, 2030

(cumulative deviation from the baseline, %)

	S1	S2	S3
Cambodia	4.2	6.8	7.6
Indonesia	1.7	2.2	4.0
Lao PDR	1.8	2.6	6.2
Malaysia	2.8	3.8	6.5
Philippines	1.6	1.6	5.7
Singapore	2.1	2.5	5.4
Thailand	4.4	6.1	8.9
Viet Nam	1.5	2.7	4.1
RoSEAsia	1.1	1.6	3.7
Japan	2.9	4.3	6.2
China	3.3	4.6	5.8
Korea	6.1	9.3	10.5
India	2.3	3.9	4.7
Australia	2.3	3.3	7.2
New Zealand	2.3	3.1	9.2
Hong Kong	-1.0	-1.2	-1.6
Taiwan	-2.1	-2.9	-3.8
USA	-0.5	-0.7	-1.3
Canada	0.0	0.1	0.1
Mexico	-0.8	-1.1	-3.2
Brazil	0.2	0.2	-0.5
Chile	-1.1	-1.5	-2.7
Argentina	0.1	0.0	0.3
UK	-0.2	-0.3	-0.8
Germany	-0.4	-0.5	-1.3
UAE	-1.2	-1.5	-2.4
RestofWorld	-0.3	-0.4	-1.1

RoSEAsia = Rest of Southeast Asia, UAE = United Arab Emirates, UK = United Kingdom,
USA = United States of America.
Source: Author's simulation results.

Table 1.10: Result on Investment

(cumulative deviation from the baseline, %)

	S1	S2	S3
Cambodia	14.8	20.2	23.4
Indonesia	1.1	1.2	3.7
Lao PDR	2.3	2.8	7.1
Malaysia	3.8	4.9	10.2
Philippines	2.1	2.0	10.2
Singapore	3.2	3.8	12.2
Thailand	6.0	7.7	13.7
Viet Nam	3.2	4.0	7.7
RoSEAsia	1.3	1.4	4.5
Japan	2.0	2.8	9.6
China	0.6	0.7	2.6
Korea	15.0	22.4	24.7
India	1.9	2.8	5.8
Australia	1.6	2.1	9.9
New Zealand	2.2	2.7	14.9
Hong Kong	-1.0	-1.1	-2.0
Taiwan	-4.2	-5.7	-9.5
USA	-0.2	-0.3	-1.2
Canada	0.2	0.3	0.0
Mexico	-0.9	-1.3	-4.2
Brazil	0.2	0.2	-0.9
Chile	-1.7	-2.5	-4.8
Argentina	0.4	0.6	1.3
UK	-0.2	-0.2	-1.5
Germany	-0.2	-0.3	-1.6
UAE	-1.7	-2.2	-4.4
RestofWorld	-0.3	-0.5	-2.1

RoSEAsia = Rest of Southeast Asia, UAE = United Arab Emirates, UK = United Kingdom,
USA = United States of America.
Source: Author's simulation results.

Table 1.11: Results on Foreign Ownership of Capital, 2030

(cumulative deviation from the baseline, %)

	S1	S2	S3
Cambodia	10.4	14.4	17.6
Indonesia	3.9	3.9	13.9
Lao PDR	2.8	3.4	10.9
Malaysia	5.1	6.8	16.2
Philippines	1.5	1.2	8.0
Singapore	5.3	6.2	19.8
Thailand	13.7	18.8	37.7
Viet Nam	4.5	6.0	10.7
RoSEAsia	1.3	1.2	8.7
Japan	4.2	6.1	18.0
China	2.0	2.6	9.9
Korea	17.9	27.4	37.4
India	7.5	12.4	34.3
Australia	1.5	1.9	10.3
New Zealand	2.0	2.4	13.1
Hong Kong	-1.4	-1.6	-3.1
Taiwan	-4.0	-5.5	-8.8
USA	-0.5	-0.7	-2.2
Canada	-0.1	-0.1	-1.0
Mexico	-1.0	-1.4	-4.6
Brazil	-0.2	-0.3	-2.7
Chile	-1.8	-2.5	-4.7
Argentina	-0.2	-0.6	-1.7
UK	-0.3	-0.4	-1.8
Germany	-0.5	-0.7	-2.6
UAE	-1.6	-2.0	-3.7
RestofWorld	-0.5	-0.6	-2.6

RoSEAsia = Rest of Southeast Asia, UAE = United Arab Emirates, UK = United Kingdom,
USA = United States of America.
Source: Author's simulation results.

Table 1.12: Results on Welfare, 2030

(cumulative deviation from the baseline, %)

	S1	S2	S3
Cambodia	4.1	3.2	2.5
Indonesia	0.8	0.9	1.4
Lao PDR	1.3	1.3	2.9
Malaysia	0.7	0.6	0.8
Philippines	0.3	-0.3	1.4
Singapore	1.2	1.3	1.2
Thailand	0.8	0.4	0.2
Viet Nam	1.6	1.7	2.6
RoSEAsia	1.0	1.1	2.2
Japan	0.5	0.6	0.7
China	0.3	0.3	0.2
Korea	2.2	2.8	2.3
India	0.1	0.0	-0.4
Australia	0.6	0.8	1.9
New Zealand	0.5	0.5	2.3
Hong Kong	-0.4	-0.5	-0.7
Taiwan	-1.3	-1.8	-2.7
USA	-0.1	-0.1	-0.3
Canada	0.1	0.1	0.3
Mexico	-0.3	-0.4	-1.0
Brazil	0.0	0.0	-0.2
Chile	-0.8	-1.2	-2.0
Argentina	0.0	0.0	0.1
UK	0.0	-0.1	-0.2
Germany	-0.1	-0.2	-0.4
UAE	-0.1	-0.1	0.1
RestofWorld	0.0	0.0	0.0

RoSEAsia = Rest of Southeast Asia, UAE = United Arab Emirates, UK = United Kingdom, USA = United States of America.

Source: Author's simulation results.

4. Summary

By applying the Dynamic GTAP model with the recent database, we conducted a set of policy simulations of the RCEP, focusing on the AMSs. Simulation results reveal that all participating countries in the RCEP gained in terms of real GDP by liberalising their trade and promoting investment. Once investment commitment led to a reduction in country-specific risk, the increase in real GDP was bolstered further. Investment in all member countries rose as the RCEP was implemented; more foreign capital was likewise attracted to the RCEP region by higher rates of return. Trade volume expanded as the participating countries implemented deeper tariff reductions. Economic welfare also improved for most RCEP member countries.

This study has some limitations that can be addressed with additional information and updated data. We assumed full utilisation of the RCEP, but in reality many producers and consumers did not use the preferential treatments made available by existing FTAs. Utilisation rates can be incorporated into the simulation setting to reflect the under-utilisation of FTAs. Movement of labour across the participating countries is not considered because of the current model's limitation. Although it is not easy, the model can be extended to capture international labour movement, based on pioneering work found in the literature, for example Walmsley, Winters and Ahmed (2007).

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SECTION I

Trade in Goods: Beyond Tariff Elimination

Chapter 2

Impact of Free Trade Agreements on Trade in East Asia

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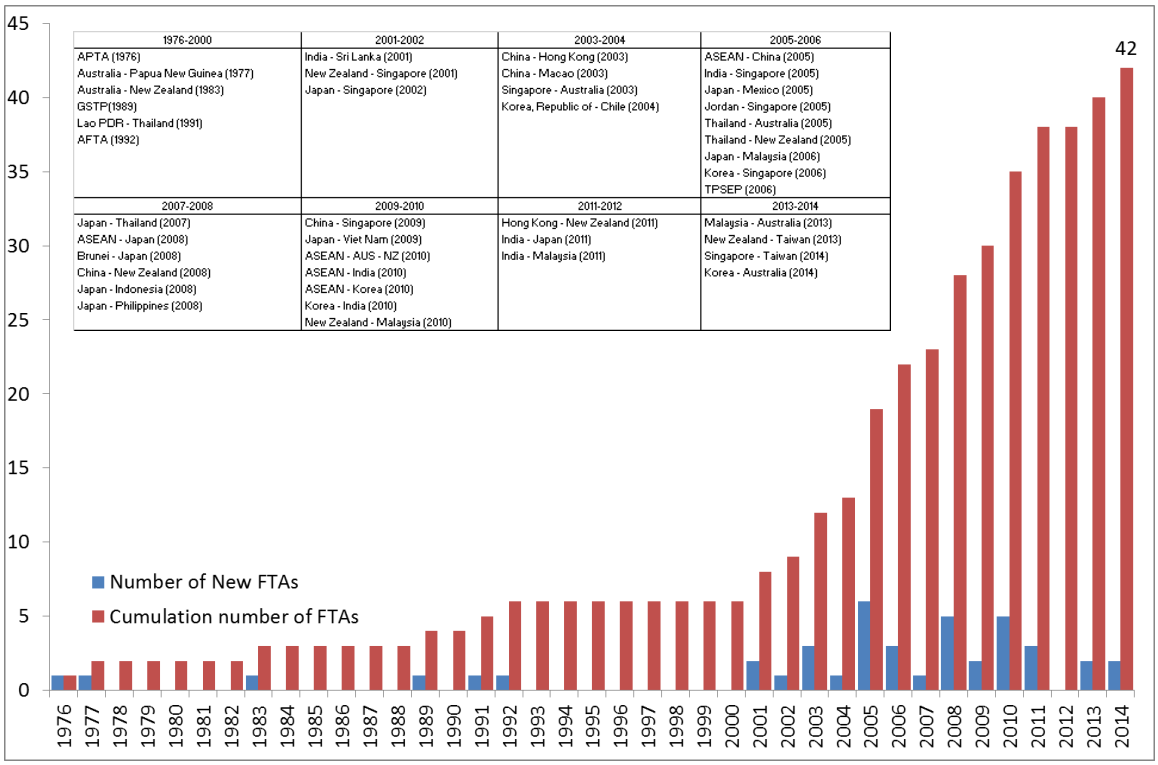
With the number of free trade agreements (FTAs) in East Asia having increased rapidly since the beginning of this century, a large number of studies have attempted to assess the impact of FTAs in the region. In the first half of this paper we review empirical studies of ex-post evaluation of FTAs in East Asia. Although few studies found robust trade creation effects of AFTA in the 1990s, recent studies indicated that tariff elimination under AFTA promoted regional trade amongst Association of Southeast Asian Nations (ASEAN) countries. Likewise, with regard to bilateral FTAs in East Asia, some ex-post evaluation studies show that these FTAs have had some positive impact on trade, not only as a result of tariff elimination under the FTAs but also due to other liberalisation measures. In the second half of this paper we conduct an empirical analysis on the impact of ASEAN FTAs. We found that trade creation effects of imports under the ASEAN–China FTA (ACFTA) and the ASEAN–Korea FTA (AKFTA) appear in industrial supplies, capital goods, and consumption goods between members. The impact of the ASEAN–Japan FTA (AJCEP) remains unclear in many cases. These results suggest that these regional FTAs facilitate trade when production and sales networks amongst members have already been developed. However, the newer FTAs, the members of which are the same as precedent FTAs, have had little impact on trade amongst members. To be effective, a region-wide FTA, such as the Regional Comprehensive Economic Partnership, needs to have a higher level of liberalisation and lower utilisation costs than the existing ASEAN+1 FTAs in the East Asia.

1. Introduction

According to the regional trade agreement (RTA) database of the World Trade Organization (WTO), the number of RTAs notified to the WTO has increased rapidly since the early 1990s, with 612 RTAs notified as of April 2015. One reason for the surge in RTAs is that global trade liberalisation under the WTO system has not proceeded smoothly with the increasing number of member countries. Many countries have pursued trade liberalisation by forming bilateral or plurilateral trade agreements to gain various economic benefits.[1] As regards free trade agreements (FTAs) in East Asia, bilateral and regional FTAs have increased rapidly since 2000 in line with the global trend of RTA formation. Table 1 shows the number of RTAs in East Asia. Until the 1990s, few countries had joined regional or inter-regional agreements of trade preference schemes such as the Asia Pacific Trade Agreement (APTA) and the Global System of Trade Preferences among Developing Countries (GSTP). Although East Asia established the first regional FTA in the region – the Association of Southeast Asian Nations (ASEAN) Free Trade Area (AFTA) in 1992 – it had lagged other regions in the world in terms of the formation of regional FTAs. For this reason, until the early 2000s, East Asia was referred to as an 'FTA vacuum'. But since the second half of the 2000s, bilateral FTAs in the region have rapidly increased, and five region-wide FTAs were established – the ASEAN–China FTA (ACFTA), the ASEAN–Japan EPA (AJCEP), the ASEAN, Australia and New Zealand FTA (AANZFTA), the ASEAN–Korea FTA (AKFTA), and the ASEAN–India FTA (AIFTA). By the end of 2014, East Asian countries had formed more than 40 FTAs and a wider regional FTA, the Regional Comprehensive Economic Partnership (RCEP), has been under negotiation.

[1] Such benefits result from a trade creation and market expansion effect through elimination of trade barriers and various dynamic effects such as capital accumulation and productivity improvement brought about by liberalisation of foreign direct investment (FDI) and technology transfer amongst member countries. Viner (1950) was the first study to discuss the static effects of regional trade integration in terms of trade creation and diversion. The dynamic theory of regional economic integration by Balassa (1961) is the first attempt to introduce the dynamic effects of economic integration such as scale economy, technology change, and impact on competition. Up to the present, a number of theoretical studies have indicated that the dynamic effects of economic integration benefit member countries more than static effects.

Figure 2.1: Number of RTAs amongst East Asian Countries

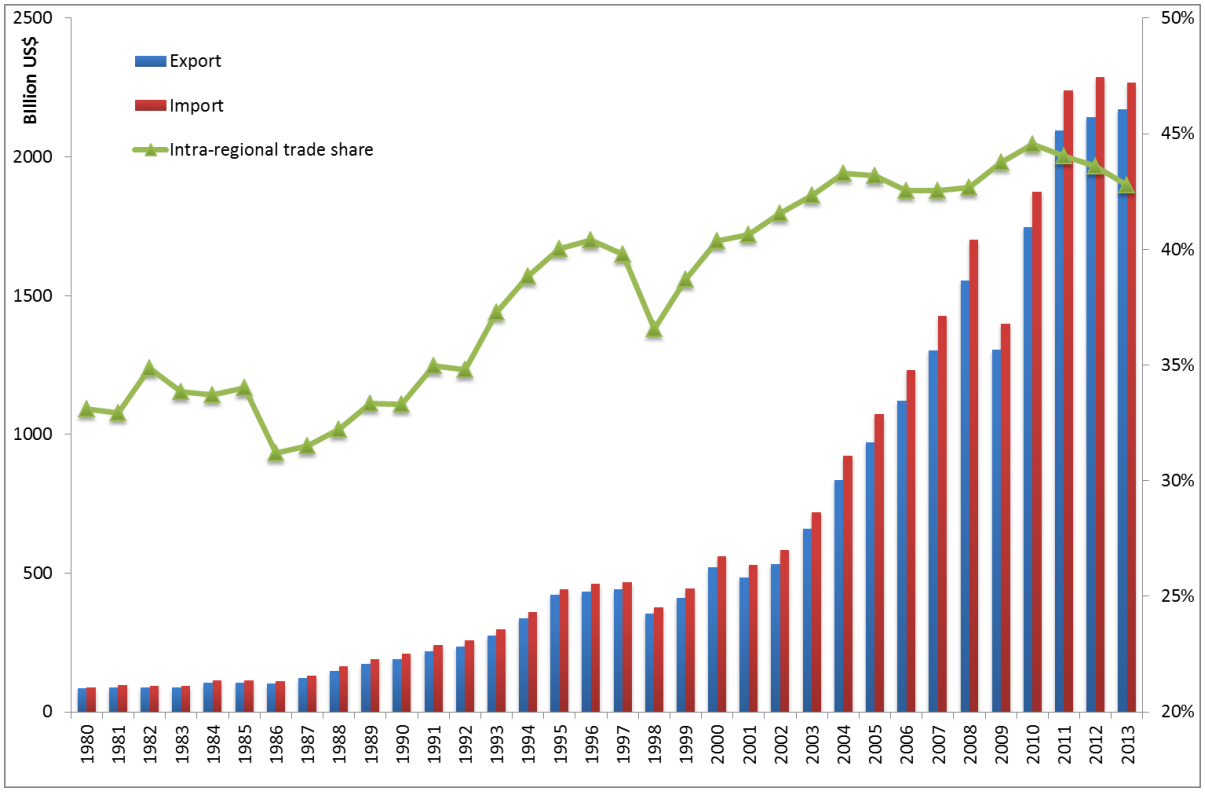


Note: Calculated based on WTO RTA database. Figures represent the number of FTAs established by ASEAN members, Australia, China, India, Japan, Korea, and New Zealand.

Intra-regional trade in East Asia has been increasing since the 2000s with the increase of FTAs in the region. Figure 2.2 shows the share and value of intra-regional trade of the ASEAN countries, Australia, China, India, Japan, Korea, and New Zealand. Intra-regional trade volumes have been rapidly increasing since the Asian currency crises of 1997, and the share of intra-regional trade has consistently exceeded 40% since the early 2000s. This rapidly increasing trend of regional trade reflects rapidly growing regional production in manufacturing sectors supported by extra-regional foreign direct investment (FDI). The upsurge of regional FTAs in the region seems to be an important factor to attract FDI and of productivity improvement. Detailed studies on the impact of FTAs on trade are indispensable for all of the countries in the region where new FTAs have been established or are being negotiated.

In the first half of this paper we review studies on the impact of FTAs on trade in goods in East Asia.

Figure 2.2: Regional Trade in ASEAN+6 Countries



Notes: 1) ASEAN+6 countries comprise the 10 ASEAN members, Australia, China, India, Japan, Korea, and New Zealand. 2) Regional trade share is the share of regional trade value amongst the ASEAN+6 countries in the total trade value of the world.
Source: The United Nations COMTRADE statistics.

Two types of analysis are used to assess the impact of FTAs on trade in goods – ex-ante and ex-post analysis. Ex-ante analysis is useful for estimating the impact of an FTA before it is enforced. A typical ex-ante analysis is a simulation analysis using a computable general equilibrium (CGE) model, which enables us to investigate the impact of an FTA on various aspects of the economy such as trade value, production, and economic welfare by sector or country. We can estimate both the direct and indirect impact of different FTA types on various aspects of the economy by using CGE model analysis.

Most ex-post analysis is in the form of empirical studies applying a gravity model to trade data. The gravity model, originally developed by Tinbergen (1962) and Poyhonen (1963), has been used extensively for over 50 years to explain trade patterns. The theoretical background of the gravity model has been developed since the late 1970s in line with the development of trade theory, from traditional trade theory to the 'New–new' trade theory. Estimation methodologies have also been improved since the 1990s, and there have been various studies of methods to cope with endogeneity and zero-trade flow

problems.

We reviewed mainly ex-post studies on the impact of regional FTAs in East Asia in section 2. Section 2.1 gives an overview of empirical analyses on the general impact of tariff reductions as part of FTAs on trade in goods. Sections 2.1.1 to 2.1.3 focus on studies related to AFTA, and regional and bilateral FTAs in East Asia. Section 2.2 discusses studies of other trade liberalisation measures related to FTAs and channels of impact of FTAs. Section 2.3 provides an overview of the findings of studies on the utilisation of FTAs in East Asia.

We conduct an empirical analysis on the impact of five ASEAN+1 FTAs on trade in goods by using the gravity model in Sections 3 to 5. Ex-post evaluation of these recent regional FTAs is important to predict the future impact of the RCEP currently being negotiated and to design policies to facilitate economic development in the region under the region-wide FTA. Despite the importance of ex-post investigation of these ASEAN+1 FTAs, there have so far been only a few studies on their impact. Based on recent developments in empirical methodology, we apply gravity equations with FTA dummies to trade flows in each sector and county. Section 3 describes the process of the formation of each FTA. Section 4 explains estimation the methodology and data used. Section 5 discusses the estimated results and Section 6 summarises the results and policy implications for a region-wide FTA, the RCEP.

2. Literature Review on FTA's Impact on Trade in Goods in East Asia

2.1. Impact of FTAs on Trade in Goods in East Asia: Ex-post Evaluation

2.1.1. ASEAN Free Trade Area

AFTA was signed in 1992. The key objective of AFTA is trade liberalisation under the Common Effective Preferential Tariff (CEPT) scheme to eliminate tariffs on intra-ASEAN trade, which have been in effect since January 1993. AFTA was scheduled to reduce tariff rates on products in the Inclusion List to a level between zero and 5 percent by 2008 at first, then the target date was moved to 2002. Moreover, the ASEAN–CEPT agreement was revised significantly by the ASEAN Trade in Goods Agreement in 2008. The tariff rates of the products in the Inclusion List were scheduled to be entirely abolished by 2010 for the six ASEAN countries and by 2015 for the remaining four countries. By 2010, the share of tariff lines with the zero percent tariff rate was about 99 percent for the six countries, and the

share of tariff lines with zero to 5 percent tariff rate was more than 95 percent for the remaining four countries. Over the last 20 years, tariff elimination under the AFTA has almost been completed.

At the start of AFTA, according to Frankel (1997), many studies presumed that trade creation by AFTA would be small. For example, DeRosa (1995) used a CGE model to find that Most-Favoured Nation (MFN) tariff liberalisation of ASEAN members would increase trade more than trade liberalisation by AFTA. Frankel and Wei (1995) examined the impact of ASEAN's regional trading bloc by using a gravity model with ASEAN dummies. Although the coefficient of ASEAN dummy was significant and had positive values, they found that this ASEAN bloc effect disappeared completely when the East Asian bloc effect dummy was added to the estimated equation simultaneously with the ASEAN dummy. They concluded that ASEAN trade relations with outside industrialised countries are more important than intra-ASEAN trade relations. Endoh (1999) introduced two types of RTA dummies, which capture trade creation and diversion effect to a gravity model. Based on the estimated results, he found that ASEAN had no effect in boosting trade amongst its member countries during sample periods from 1960 to 1994. He presumed that this result reflects the fact that the share of intra-ASEAN trade in total trade of each ASEAN country is still low.

As described in the previous section, the methodology to estimate the gravity model has been developed since the 2000s. Furthermore, data coverage has been expanded. Soloaga and Winters (2001) used a Tobit model for estimation with consideration of zero trade flows. They quantified the impact of major preferential trade agreements on trade. The coefficient of the intra-bloc trade of ASEAN was negative but insignificant. Likewise in previous studies, ASEAN countries' trade with outside regions were significantly facilitated. Given that country-pair effects are unobservable, Carrère (2006) applied the instrumental variable method proposed by Hausman and Taylor (1981). Comparing the estimation results by panel and cross-sectional data, she found that most RTAs resulted in an increase in intra-regional trade whilst reducing imports from the rest of the world. As for ASEAN, a trade creation effect was seen over the sample periods.

With increasing interest in the growing intra-regional trade of ASEAN members since the 1990s, the number of studies focusing on the impact of AFTA has been rising. Elliot and Ikemoto (2004) applied a modified gravity model to examine trade creation and diversion effects by AFTA. Comparing the estimated coefficient of AFTA dummies before

and after the AFTA process started, they found that both trade creation and trade diversion effects are significantly positive. Their findings indicate that AFTA increased not only intra-regional trade amongst its members, but also trade with non-members. Kien (2009) employed the Hausman–Taylor estimation for panel data from 1988 to 2002 to estimate several RTAs. By using AFTA dummy, which takes the value of one after 1993, he investigated the effect of AFTA as an institutional framework rather than as a regional trading bloc. Similar to Elliot and Ikemoto (2004), the result indicates that AFTA gives rise to a trade creation effect; at the same time, the effect of AFTA on trade between members and non-members was positive. Controlling unobserved heterogeneity by a using country-pair specific time trend, Bun et al. (2009) applied two types of AFTA dummies – an AFTA dummy that takes the value of one between members after the year 1992, and an AFTA dummy multiplied by a time trend which captures the effect of gradual tariff reduction under AFTA. They found that AFTA positively affected trade during the sample periods, and suggested that careful control for unobserved explanatory variables of the trend in trade is necessary for testing the impact of AFTA.

Although many studies had concluded that ASEAN regional trade blocs had little impact at the beginning of AFTA, several recent studies have found that as AFTA progressed, it made a significant and positive impact on trade. This transition of research findings is also caused by improved data availability and estimation methodology. These studies lead us to the temporary finding that the institutional framework of AFTA has facilitated intra-regional trade to a varying degree. In addition, trade liberalisation under RTAs is usually implemented through several measures along with tariff elimination. To understand the impact of FTAs more fully, it is necessary to investigate the effect of these measures directly.

Several studies have attempted to estimate the impact of the tariff elimination process under the CEPT scheme of AFTA by using tariff data. Manchin and Pelkmans–Balaoing (2007) applied a gravity model with time-varying country fixed effects as multilateral trade resistance (MTR) terms for aggregated and disaggregated trade data to estimate the effects of preferential AFTA tariffs on trade flows of AFTA members. Although their data set is limited to four ASEAN members in 2001–2003, they carefully investigated the impact of different preferential margins on trade. The result shows that the tariff reduction effect of AFTA basically has no or little impact on intra-ASEAN trade. However, they found that positive tariff reduction effects of AFTA are significant in a limited range of

products where the preferential margin is higher than 25 percent. Interestingly, their result implies that the cost of using AFTA is higher than the benefit from obtaining the preferential treatment when the difference between the MFN tariff rate and the preferential AFTA tariff rate is small. Similar to Manchin and Pelkmans–Balaoing (2007), Okabe and Urata (2014) utilised preferential margin, defined as the difference between the MFN rates and preferential tariff rate under the CEPT scheme as an explanatory variable of the gravity model. They investigated the effects of tariff reduction under the CEPT scheme in each ASEAN member in 1980–2010. They found positive and significant trade creation effects from tariff reduction for a wide range of products; the elasticity of tariff reduction on imports tends to be much larger than that on exports.

Although there are very few studies on the impact of tariff reduction under AFTA, it could be argued that tariff reduction under AFTA has a positive impact on regional trade in products where the difference between the MFN tariff rate and AFTA tariff rate is big, and on regional trade between countries trading in relatively large volumes. However, the impact on trade flow is basically not so strong. Also, the effect of tariff reduction under AFTA on newer members is limited. Based on these results, tariff reduction under AFTA is not necessarily the most important measure to promote region-wide trade. To promote region-wide trade in ASEAN and to make AFTA contribute to raising the economic welfare of all member countries, other measures such as trade facilitation, reduction of non-tariff measures (NTMs), and coordination of rules of origin (ROO) as well as improvement of AFTA utilisation should be examined carefully. We will review studies on other measures in the following sections.

Table 2.1: Results of Studies on the Impact of ASEAN or AFTA

Authors (year)	Methodology		Data	Trade Creation, Estimated Coefficient (elasticity)
Endoh (1999)	ASEAN dummy	Cross-section analysis, by pooled data	80 countries, 1960–1994	0.589–0.778 (80%–117%)
Carrère (2006)	ASEAN dummy	GL and Hausman–Taylor estimation, panel data	130 countries, 1962–1996	0.64–2.02 (90%–653%)
Elliot and Ikemoto (2004)	AFTA dummy	Cross-section analysis by pooled data	34 countries, 1983–1999	0.35–2.03 (42%–661%)
Kien (2009)	AFTA dummy	Hausman–Taylor estimation with two-way components	39 countries, 1988–2002	0.626 (87%)
Bun, Klaasen, and Tan (2009)	AFTA dummy *time trend	Panel data approach with country-pair specific time trends	217 countries, 1948–1997	0%–9% annually in average
Manchin and Pelkmans–Balaoing (2007)	AFTA Tariff rate	Panel data with time-varying country fixed effects	217 countries, 2001–2003	0.19–0.96% change when preferential margins are from 25% to 60%
Okabe and Urata (2013)	AFTA tariff rate	Hausman Taylor estimation	52 sectors, 193 countries 1980–2010	0.36% for export, 0.38% for import

Note: Elasticity of AFTA dummy with trade is calculated by (EXP (estimated value) -1)*100.

2.1.1. ASEAN+1 FTAs

More recently, several studies attempted to examine the impact of ASEAN+1 FTAs by using some trade indices or by estimation using trade data. Sheng et al. (2014) estimated a gravity model using intra-industry trade flow data in parts and components during 1980–2008, and the predicted trade creation effect on intra-industry trade under ACFTA based on actual 2008 data. They found that ACFTA will have a substantially larger impact on trade flows between members, particularly based on close international production linkages, whilst the positive impact will be spread unevenly amongst ASEAN countries. Likewise, Yang and Mattinez–Zarzoso (2014) examined the impact of ACFTA by applying a gravity model by using aggregated and disaggregated data. They found that ACFTA has a trade creation effect in total trade and trade in manufacturing and chemical products. By using trade indices, such as trade intensities and trade potential index, several studies attempted to estimate adequacy and predicted impact by sector. Chandran (2012) assessed the impact of the India–ASEAN FTA (AIFTA), focusing on India's fishery sector by using trade indices and a comparative advantage index. Based on sector analysis, he concluded that India could

improve trade by tariff elimination under AIFTA with some ASEAN countries, particularly less-developed members.

So far there have only been few ex-post evaluations of ASEAN+1 FTAs, as not much time has elapsed since the start of these FTAs. Considering the results of previous ex-ante studies, investigating the impact of various measures along with tariff elimination under ASEAN+1 FTAs should provide interesting findings. And, as demonstrated by Sheng et al. (2012) and Chandran (2012), examining the impact of ASEAN+1 FTAs on the growth gap amongst member countries and on trade flows by the industrial sector in the long term is another interesting research topic.

2.1.2. Bilateral FTAs in East Asia

Likewise, regarding ASEAN+1 FTAs, there have been few ex-post studies on bilateral FTAs in East Asia due to the limited availability of data. Ando (2007) examined the impact of the Japan–Singapore Economic Partnership Agreement (EPA) and the Japan–Mexico EPA by applying a gravity model to trade data at the commodity level. Comparing actual values to fitted values before and after the EPA's implementation, she found that the Japan–Singapore EPA has had little impact on trade, whereas the Japan–Mexico EPA has had a positive impact on trade, particularly on exports. She reasoned that the actual reduction of tariffs by the Japan–Singapore EPA is quite limited. Also, considering additional analysis of various situations beyond trade liberalisation, she indicates that conditions beyond tariff elimination, such as business environment and EPA utilisation, are important factors to be taken into account when designing an effective EPA for trade liberalisation. Athukorala and Kohpaiboon (2011) examined the impact of the Thailand–Australia FTA (TAFTA), paying attention to the implications of ROO and the utilisation of tariff preferences. By linking a data set of utilisation of tariff preferences by traders to bilateral trade volumes between Australia and Thailand, they found that trade expanded faster after TAFTA came into effect, but the impact was heavily concentrated on a few product lines in Australian imports from Thailand. They pointed out that the reason for the limited impact can be attributed to the rate of FTA utilisation. Hence, their results suggest that enhancing FTA utilisation is also necessary to strengthen the positive impact of FTAs. To sum up so far, similar to the result of studies on AFTA and other FTAs in East Asia, ex-post studies on bilateral FTAs also show

that bilateral FTAs positively impact trade. To some extent, however, the positive impact is brought about by tariff elimination under FTAs and by other necessary conditions for trade liberalisation such as greater utilisation of preferential tariffs.

2.2. Measures other than Tariff Elimination and Channels of FTA Effects

With the elimination of tariffs under FTAs progressing, the importance of reducing Non-tariff barriers (NTBs), harmonising ROO under several cumulative FTAs in East Asia, and implementing other measures, such as trade facilitation and improvement of transport infrastructure, has been increasingly recognised. For example, ASEAN prescribes that NTBs be eliminated gradually within five years after the concessions applicable to the products. Also, ASEAN+1 FTAs – for example, AANZFTA and AKFTA – include detailed guidelines on the elimination of Non-tariff measures (NTMs).

A major cost of FTA utilisation at the firm level arises due to certificates of origin[2]. Therefore, efficient administration of ROO is an important factor in facilitating trade creation under FTAs by increasing utilisation of FTAs[3]. Medalla and Balboa (2009) examined the various design and implementation practices in ROO regimes, focusing on RTAs where ASEAN is involved. Likewise, Medalla (2011) compiled a database on the ROO of AFTA, ASEAN+1 FTAs, and bilateral FTAs forged by Japan with ASEAN members. Hayakawa and Laksanapanyakul (2013b) constructed a list of ROO in Thailand of ACFTA, AKFTA, and AJCEP to calculate a new measure of FTA liberalisation. Based on their list, most preference products follow a regional value contents (RVC) in the case of ACFTA and AKFTA, whereas AJCEP sets many product-specific rules and a relatively large number of products follows 'change heading or RVC' (CH/RVC) or 'change in chapter' (CC). Judging from these recent studies, there is a significant divergence in types of ROO of cumulative regional FTAs in the region. Also, the restrictiveness of ROO varies significantly depending on products and each ASEAN+1 FTA.

[2] Medalla and Balboa (2009) pointed out that the cost of ROO immediately impacts FTA utilisation.

[3] Cadot, de Melo, and Portugal–Perez (2006) found that a 10-percentage point reduction of the local value content requirement increases the utilisation rate by between 2.5 and 8.2 percentage points by using data on trade between the European Union and the Generalized System of Preferences and the Africa, Caribbean, and Pacific partners. Also, Carrère and de Melo (2004) identified the difference of compliance cost of ROO by using Mexican exports to the United States under the North American Free Trade Agreement (NAFTA), and found that the highest compliance cost is caused by technical requirements, followed by regional value content, and by a change in tariff classification.

To enhance trade creation effects under FTAs by reducing FTA utilisation costs, ROO should be simpler and less restrictive[4]. In addition, convergence of all ROO under FTAs in East Asia where six multilateral regional FTAs and many bilateral FTAs coexist is necessary to increase utilisation of both existing FTAs and the region-wide FTA being formed. Hayakawa and Lakusanapanyakul (2013a) examined the impact of ROO on FTA utilisation by using Thai export data under ACFTA and AKFTA. They found that the harmonisation to 'change in tariff classification (CTC) or RVC' amongst FTAs has a significantly positive effect on utilisation of multiple FTAs. Furthermore, using data on Thai exports to Japan under JTEPA and AJCEP, Hayakawa (2012) compared the impact of ROO under a bilateral FTA with a multilateral FTA. He found that a multilateral FTA – diagonal cumulation – brings about 4 percent trade creation effects. Cadot and Ing (2014) examined the effect of ASEAN's ROO on regional trade by applying a disaggregated gravity model. They found a fairly high ad-valorem equivalent of ROO in ASEAN in some sectors in which some rules appear more restrictive than others.

The relationship between ROO and trade flows is more complicated than that between elimination of tariff measures and trade flows. The latest studies referred to above have gradually unveiled the impact of ROO on trade. Their investigation clearly shows that harmonising and conforming to unrestrictive ROO amongst FTAs is necessary to facilitate trade of goods in the region.

Whereas the importance of removal of NTBs is recognised and most FTAs in East Asia include provisions on NTBs, there is no standard measure of NTBs amongst these FTAs. Several methodologies to measure NTBs are available, and each methodology has merits and demerits. Also, NTBs vary widely in scope, ranging from direct trade measures to indirect measures. As Deardorff and Stern (1997) observed, 'NTBs are defined by what they are not, that is NTBs consist of all barriers to trade that are not tariff.' Hence, construction of quantitative data on NTBs under FTAs for empirical analysis is not an easy task.

Carrère and Melo (2011) reviewed studies on the impact of NTMs on trade flows mainly between European Union (EU) members or Organisation for Economic Co-operation and Development (OECD) countries. She found that (1) NTBs have a negative effect on the

[4] Hayakawa, Laksanapanyakul, and Urata (2015) estimated the costs for utilisation of FTA by using custom data on Thai imports. They found that the median costs are around two thousand US dollars in the case of exporting from China, and around one thousand US dollars in the case of exporting from Korea.

volume of bilateral trade, (2) core NTBs are more restrictive than existing tariffs, and (3) these core NTMs limit market access more for low-income countries. In contrast, Hayakawa, Ito, and Kimura (2015) decomposed trade creation effect of RTAs into those due to tariff reduction, on the one hand, and those due to removal of NTBs, on the other, by applying a gravity model to disaggregated tariff-line level trade data. They found significantly positive trade creation effects due to tariff reduction, whereas NTB removal has a weak effect.

Although ASEAN provides the NTM database of each member country at HS 9-digit level, the data is qualitative, not quantitative, and the classification of commodities is not completely standardised amongst member countries. Therefore, it is not easy to utilise the database to conduct an empirical analysis[5]. Due to the limitation of NTM data, only few studies have been conducted on the impact of NTBs on trade under FTAs in East Asia. Taking into account the previous studies on NTBs in the world, the impact of NTBs on regional trade in East Asia also needs to be examined. A comparable and quantitative database of NTMs of each member country of FTAs in the East Asia region is necessary for a detailed analysis on the impact of NTMs.

2.3. Utilisation of FTAs

As discussed above, utilisation of FTAs is an important factor in realising trade liberalisation under FTAs. As Athukorala and Kohpaiboon (2011) demonstrated, improving the utilisation of FTAs by exporters could significantly increase the positive impact of FTAs on trade between members. Several studies estimated the utilisation rate of FTAs in East Asia. Hayakawa et al. (2013) analysed the reasons for the low utilisation rates in East Asia by using survey data on Japanese affiliates in ASEAN. They identified two major reasons for the low utilisation rate in ASEAN. One is high fixed costs such administrative cost, and the other is low general tariff rates in electric parts and components, which are major traded goods in ASEAN. Kohpaiboon (2010) demonstrated that FTA utilisation rates in Thailand for its exports to four ASEAN members in 2008 ranged from 16.7 percent to 27.4 percent. Also, according to Sukekawa (2009), who calculated the utilisation rate of AFTA by Thailand using statistics of export values through AFTA issued by the government, the utilisation rate in Thailand was 26.8 percent in 2008. According to Wignaraja et al. (2010), whilst the

[5] Ando and Obashi (2010) constructed a comparative and quantitative NTM database based on the ASEAN NTM database. Cadot, Munadi, and Ing (2013) compared NTMs in ASEAN with other regions.

utilisation rate in Thailand is low (25 percent of respondents), it seems set to rise gradually. Besides, Hayakawa et al. (2013) pointed out that firms may use an FTA even if the preferential tariff rate is not lower than the MFN tariff rate in the case of ASEAN+1 FTAs, due to its diagonal cumulation rule.

Looking at FTAs other than the AFTA, Cheong et al. (2010) compared the utilisation rate of each Korean FTA. Their major findings are that the utilisation rate of the Korea–Chile FTA was very high, above 90 percent for the four years following implementation of the FTA, whereas that of the Korea–Singapore FTA, the Korea–EFTA, and AKFTA was relatively low, ranging from 29.8 percent to 43.3 percent. They concluded that the major reason for the high utilisation rate of the Korea–Chile FTA is the active utilisation by staple products groups whilst the relatively low rate of the Korea–Singapore FTA is attributed to the fact that products imported to Korea from Singapore are not likely to meet the ROO since Singapore is a transit-trading country. Takahashi and Urata (2010), based on a survey of Japanese firms, found that lack of knowledge about the FTAs and difficulties in obtaining certificates of origin are the two most serious obstacles to increasing the use of FTAs. Likewise, Wignaraja et al. (2010) found that more than one quarter of firms felt that dealing with multiple ROO significantly raises business costs.

The above studies on utilisation of FTAs reveal that FTA utilisation tends to be low at the early stages of an FTA, but that in many cases of FTAs in East Asia it gradually rises. The use of FTAs, however, entails high costs for firms, in particular for smaller companies. Further research is needed on what factors are important in decreasing the costs of FTA use, so that FTAs will have a positive impact on all sectors and companies. Moreover, the measuring method of the FTA utilisation rate is still at the development stage. Hamanaka (2013) pointed out the confusion on the use of FTAs due to a lack of consensus on the meaning of the utilisation rate and a lack of knowledge on biases due to various problems, such as indicator selection, time lag of FTA implementation, and specification of trade flows. He warned that the use of FTAs measured by certificate of origin data has a time-growing upward bias, hence the utilisation rate based on such data shows an increasing trend even though the utilisation rate has not necessarily improved. Also, he pointed out that firm surveys suffer from several methodological problems that cause an upward bias. It is fundamentally important to assess the situation of FTA use accurately for research on the effects of FTAs on trade. Consensus on the measurement of FTA utilisation rates based on

constructing appropriate data and accumulation of research is necessary to be able to reach sound conclusions and assess policy implications.

More detailed studies on both ROO and utilisation rates of each FTA is necessary to investigate the opportunity cost of utilising particular FTAs. Such studies are also useful for clarifying the impact of ROO design on trade under FTAs. Investigating the impact of various measures other than tariff reduction under an FTA is not easy, but necessary for a deeper understanding of the impact of FTAs in the East Asia region.

3. Empirical Investigation on the Impact of Five ASEAN+1 FTAs

ASEAN's six dialogue partners – Australia, China, India, Japan, Korea, and New Zealand – have formed bilateral FTAs with ASEAN members since the middle of the 2000s. For example, Japan has formed seven bilateral FTAs with other ASEAN members, starting with Singapore in 2002. Singapore has actively arranged bilateral FTAs with all these dialogue partners. Thailand and Malaysia also have arranged bilateral FTAs with Australia, New Zealand, and India since the late 2000s. As the active FTA proponent in the region, ASEAN, where regional economic integration amongst member countries started in the 1990s, has taken on the role of a hub of regional FTA networks in East Asia. After the ACFTA came into force in 2005, four more ASEAN+1 FTAs – AKFTA, AJCEP, AANZFTA, and AIFTA – were formed in the region[6].

Production and sales networks accompanied by industrial agglomeration revolving around ASEAN have been developed in East Asia since the 1990s. Regional FTAs in the region are more important than bilateral FTAs, as regional FTAs enable multinational enterprises (MNEs) to effectively use the expanding regional production and sales networks as a means of increasing their productivity by reducing transport and transaction costs across countries. Furthermore, a wider regional FTA, the Regional Comprehensive Economic Partnership (RCEP), covering AFTA and five ASEAN+1 FTAs, is in the process of negotiation. RCEP is expected to play the role of the regional FTA to coordinate five segmented regional ASEAN+1 FTAs.

[6] These FTAs are plurilateral. The date on which the FTA came into effect differs by bilateral agreement. See Appendix Table 2 for the effectivity date by country for each FTA.

Below we conduct an ex-post evaluation of ASEAN+1 FTAs by using the gravity model. We examine whether each ASEAN+1 FTA has a trade creation or trade diversion effect on each sector to be able to establish the necessary conditions for the RCEP to be an effective region-wide FTA.

3.1. Estimation Methodology and Data

We used the gravity model to estimate the impact of five ASEAN+1 FTAs on trade in goods by sector. To examine the impact of each FTA on individual member countries, we used both import and export data of each ASEAN member, Australia, China, India, Japan, Korea, and New Zealand from 176 countries in the world at BEC (broad economic categories) 1-digit level. Sample periods are from 2000 to 2013. We applied the most-often-formulated gravity model as the following:

$$X_{ijt} = A_0 Y_{it}^{\beta_1} Y_{jt}^{\beta_2} y_{it}^{\beta_3} y_{jt}^{\beta_4} D_{ij}^{\beta_5} \exp(\phi FTA_{ijt}) \quad (1)$$

where A_0 is constant; Y and y are real gross domestic product (GDP) and GDP per capita, respectively; D_{ij} is the geographical distance between the largest city of country i and j; and FTA_{ijt} is a proxy variable representing the effect of implementation of each FTA. We used three types of FTA dummy variable. To capture the trade creation effect, two types dummies are used. One is a binary dummy denoting one when a trade partner is a member of the FTA after the year in which it came into effect, and the other is a progressively increasing dummy variable, which increases its variable value by 20% annually to capture the effect of a gradual reduction of tariffs under the FTA. Another one is a dummy variable denoting one when a trade partner is not a member after the year in which the FTA came into effect to capture the trade diversion effect. The dates of coming into effect of each ASEAN+1 FTA differ by country-pair, as shown in Appendix Table 2A[7]. As for the FTA proxy variables for all bilateral and plurilateral FTAs other than ASEAN+1 FTAs, they are also included in the estimation equation. We use the following basic estimation equation:

[7] Information on the date on which each ASEAN+1 FTA came into effect of each country is obtained from several reports by FTA-related ministries in member countries.

$$E(x_{ijt} \mid A_0, Y_{jt}, y_{jt}, D_{ij}, T_t) = \exp(A_0 + \beta_1 \ln(Y_{it}) + \beta_2 \ln(Y_{jt}) + \beta_3 \ln(y_{it}) + \beta_4 \ln(y_{jt}) + \beta_5 \ln(D_{ij}) + \Sigma\ \phi_1 FTA_{ijt} + \Sigma\ \varphi_N BFTA_{N,ijt} + \sum_{t=2000}^{2012} \mu_t T_t) \quad (2)$$

where FTA_{ijt} and $BFTA_{ijt}$ are FTA proxy variables of ASEAN+1 FTA and other FTAs, respectively. T_t is a year dummy. To use all bilateral trade data including zero trade flows, the PPML estimator is applied to the equation above. The list of countries used for estimations is shown in Appendix Table 1.

Regarding the data for our estimations, we use the trade values of ASEAN members and six ASEAN dialogue partner countries. Import and export values in US dollars at the bottom BEC 1-digit level are from Comtrade statistics of the United Nations. As for real GDP, real GDP per capita figures are from the World Development Indicators of the World Bank. Geographical distance is from the GeoDist database provided by CEPII[8]. Information on the dates when tariff elimination starts under bilateral and plurilateral FTAs are from the WTO's RTA database.

4. Results

4.1. Results by Sector

First, we estimate equation (2) by using pooled data of seven ASEAN members and six dialogue partners. Table 2.2.1 and 2.2.2 shows results for exports and imports of each sector. Coefficient of AFTA on both exports and imports under AFTA are significantly positive in all sectors. As previous studies indicated, the results reflect that AFTA has been effective in promoting regional trade since 2000. Looking at other ASEAN+1 FTAs, exports of fuels and transport equipment are facilitated under all ASEAN+1 FTAs except AJCEP, and imports of food and consumption goods are increased under all ASEAN+1 FTAs, except AJCEP and AIFTA. As for export in fuels, geographical distance is the more important factor as shown by a negative and bigger coefficient of the distance variable. The regional export share of fuels is high than that of other sectors – 79% in 2013. Also, regional trade in

[8] CEPII (Research and Expertise on the World Economy) provides the GepDist database, which includes several geographical variables for 225 countries. For details, see Mayer and Zignago (2011).

consumption goods is facilitated by imports from higher-income countries in the region, as shown by a positive and bigger coefficient of GDP per capita. The regional import share of consumption goods is 60% in 2013 and higher than that of other sectors. Regional trade-oriented goods due to high transport costs such as fuels and already established regional supply chains such as consumption goods are more likely to be positively affected by regional FTAs.

With regard to each ASEAN+1 FTA, trade creation effects are found in almost all sectors under ACFTA, except for imports of fuels. One possible reason for trade creation effects under ACFTA is that ACFTA was launched earlier than other ASEAN+1 FTAs. The coefficient of the trade diversion effect has no significant negative sign under ACFTA. Increased trade under ACFTA also boosts trade with other regions. It suggests that increased traded products under ACFTA are complementary goods to traded products with other regions, such as machinery and its parts.

Given gradual tariff reduction, it takes time for an FTA to generate a trade creation effect. Coefficients of a gradual trade creation effect are positive and significant in almost all cases where the binary FTA dummy is positive and significant. Both imports and exports of food and transport equipment increase over time under AIFTA. Given the higher average tariff rates in these sectors, it naturally takes time before a trade creation effect occurs.

Estimated coefficients of AJCEP are not significantly positive in all sectors, except exports of transport equipment and imports of consumption goods. A possible reason behind of these insignificant coefficients is seven concurrent bilateral FTAs between ASEAN countries and Japan, which had already been formed before or at the same time as ACJEP. The utilisation rate of AJCEP is likely to be lower than that for precedent bilateral FTAs at the beginning of AJCEP since tariff elimination in some sectors is implemented with a phased approach. The results suggest that the impacts of newer FTAs between the same members as precedent FTAs are limited.

4.2. Results by Further Classified Data into Final Goods and Parts

Next, we apply equation (2) to sectoral data of final goods and its parts. Tables 3.1–3.2 show estimation results for capital goods (BEC41) and their parts (BEC42) and passenger motor cars (BEC51) and their parts (BEC53). Regarding capital goods, both final goods and

parts are facilitated under ACFTA and AKFTA. China and Korea have developed production and sales networks with ASEAN members. The result in capital goods and their parts shows regional FTAs facilitate intra-industry trade under developed production and sales networks in this region.

Regarding trade in BEC51 and BEC53, exports and imports under AIFTA and exports under AKFTA are facilitated. Not only trade in parts for production in ASEAN members, but also trade in finished cars is boosted by these FTAs. On the contrary, the trade creation effect of ACFTA is limited to BEC53. This suggests that factors that promote trade, such as a large consumer market and a productive production base are important for maximising trade creation effects of regional FTAs. Judging from the results, regional FTAs tend to boost trade with growth potential rather than generate new trade between member countries.

4.3. Results by Country

Lastly, we estimate equation (2) by country and sector. Tables 4.1–4.4 show estimation results for each country and sector.

With regard to imports of ASEAN members, ACFTA increases imports in capital goods, industrial supplies, and consumption goods of almost all ASEAN members. Likewise, AKFTA has trade creation effect on imports in capital goods of all ASEAN members except Lao PDR. This implies that a regional FTA between countries where intra-regional production and sales networks have been formed actively stimulates intra-regional trade through reduction of the costs of cross-border production sharing[9]. In contrast, despite developed production and sales networks, trade between ASEAN members and Japan is not significantly boosted under JACEP. As discussed above, the trade creation effects under JACEP are less visible since Japan and seven ASEAN members had already formed bilateral FTAs before or around the same time JACEP came into effect. A newer regional FTA should go further in terms of tariff elimination schedule when concurrent FTAs are already in place between the same members.

Looking at trade creation effects under ACFTA, estimated coefficients for imports of industrial supplies and capital goods, and exports of industrial supplies of Cambodia, Lao

[9] Intra-regional production networks between China or Korea and ASEAN countries have been developing since the 2000s. For example, trade in industrial intermediate goods between China or Korea and ASEAN countries has increased rapidly. Viet Nam's import of industrial supplies from China has grown 20-fold over the past 10 years whilst total import increased 17-fold.

PDR, Myanmar, and Viet Nam are relatively high compared with other ASEAN members. Likewise, estimated coefficients of AKFTA for imports of industrial supplies of Viet Nam and Myanmar, and exports of industrial supplies of Lao PDR are relatively high. Moreover, Cambodia's export elasticity in industrial supplies and import elasticity in capital goods under AIFTA are also relatively high. Similar to ACFTA and AKFTA, this implies that a regional FTA takes the role of boosting the trade of emerging countries through their companies' search for new market opportunities in the region.

The first regional FTA in East Asia, AFTA, has had a significant impact on the region. AFTA has trade creation effects on imports of food, transport equipment, and capital goods in almost all ASEAN members. The precedent ASEAN members, Indonesia, Malaysia, Philippines, and Thailand, increase their imports and exports of capital goods and transport equipment under AFTA. Moreover, exports of consumption goods of Cambodia, Myanmar, and Viet Nam, and exports of food and industrial supplies of Lao PDR are facilitated under AFTA. Trade liberalisation under AFTA promotes regional trade based on regional production and sales networks amongst the precedent ASEAN members. At the same time, the emerging countries of ASEAN have also boosted their trade with other members under AFTA.

With regard to AANZFTA, trade creation effects are found in many countries in imports of food. Australia has started bilateral FTAs with Singapore and Thailand before AANZFTA came into effect. Therefore, trade in the manufacturing sectors amongst bilateral FTA members is possibly boosted by these precedent FTAs. Intra-regional trade in agricultural products amongst non-members of the precedent bilateral FTAs appears to have significantly increased due to AANZFTA.

To sum up the major findings of our estimations, trade creation effects are found in a wide range of sectors in most member countries due to regional FTAs under which production and sales networks had already been formed, such as ACFTA and AKFTA. A regional FTA that increases trade between members in which production and sales networks have been developed can boost the productivity of firms by reducing service link costs. Besides, we found that some ASEAN+1 FTAs, such as ACFTA, AKFTA, and AIFTA, facilitate trade in the region, by emerging countries in particular. The region-wide FTA is expected to boost trade especially of emerging countries and to narrow the development gap. ASEAN+1 FTAs have greater possibility to facilitate trade of emerging countries in

developing and deepening production and sales networks in the region than existing bilateral FTAs. Also, as in AANZFTA, even though bilateral FTAs have already been formed amongst the same members, a newer regional FTA could potentially facilitate regional trade. To develop and expand production and sales networks in the East Asia region, region-wide FTAs are necessary to further facilitate regional trade amongst members.

Table 2.2.1: Estimation Results on Exports by Sector, Pooled Data

	BEC 01		BEC 02		BEC 03	
	Food and Beverages		Industrial supplies		Fuels and lubricants	
ln (GDP) i	0.217 (14.4)	0.279 (20.3)	0.675 (42.2)	0.728 (44.9)	0.176 (7.0)	0.251 (10.9)
ln (GDP) j	0.742 (64.8)	0.730 (55.3)	0.820 (53.9)	0.812 (51.9)	0.688 (30.1)	0.675 (30.1)
ln (GDP per capita) i	0.031 (2.0)	-0.083 (5.4)	0.049 (3.5)	-0.053 (3.6)	0.304 (9.1)	0.175 (5.8)
ln (GDP per capita) j	-0.031 (2.2)	-0.018 (1.2)	-0.173 (10.0)	-0.163 (8.9)	0.120 (4.6)	0.131 (4.8)
ln (Distance) ij	-0.758 (26.4)	-0.665 (17.9)	-0.892 (33.4)	-0.869 (32.2)	-1.130 (32.0)	-1.083 (29.5)
ASEAN-China FTA (0/1 dummy)	1.197 (11.5)		0.813 (10.2)		0.984 (7.3)	
ASEAN-China FTA Diversion Effect	0.684 (14.3)		0.351 (6.3)		-0.036 (0.4)	
ASEAN-China FTA (gradual tariff reduction)		0.776 (6.2)		0.653 (7.4)		0.946 (5.4)
ASEAN-Korea FTA (0/1 dummy)	-0.803 (7.3)		0.755 (7.5)		1.515 (9.1)	
ASEAN-Korea FTA Diversion Effect	-0.819 (14.4)		-0.323 (4.5)		-0.355 (3.4)	
ASEAN-Korea FTA (gradual tariff reduction)		-0.129 (1.1)		1.108 (10.5)		1.956 (9.2)
ASEAN-Japan FTA (0/1 dummy)	-0.710 (6.0)		-0.302 (2.5)		-0.334 (1.4)	
ASEAN-Japan FTA Diversion Effect	-0.868 (14.9)		-0.504 (6.8)		-1.110 (10.0)	
ASEAN-Japan FTA (gradual tariff reduction)		-0.173 (1.3)		-0.196 (1.5)		0.432 (1.6)
ASEAN-Australia-New Zealand FTA (0/1 dummy)	1.332 (8.6)		0.399 (3.8)		0.939 (3.2)	
ASEAN-Australia-New Zealand FTA Diversion Effect	0.698 (11.1)		0.317 (2.1)		0.111 (0.7)	
ASEAN-Australia-New Zealand FTA (gradual tariff reduction)		1.171 (4.7)		0.404 (2.1)		1.330 (3.4)
ASEAN-India FTA (0/1 dummy)	0.801 (3.4)		0.094 (0.7)		1.378 (4.0)	
ASEAN-India FTA Diversion Effect	0.382 (5.8)		-0.044 (0.5)		0.866 (6.4)	
ASEAN-India FTA (gradual tariff reduction)		1.040 (2.2)		0.132 (0.8)		1.245 (1.8)
ASEAN Free Trade Area (AFTA)	0.572 (7.9)	0.761 (9.1)	0.887 (13.0)	0.945 (14.1)	1.280 (9.5)	1.220 (10.1)
Number of other FTAs dummies	50	50	50	50	50	50
Year dummies	yes	yes	yes	yes	yes	yes
Number of observations	31,850	31,850	31,850	31,850	31,850	31,850
% of zero trade flows	21.8%	21.8%	14.8%	14.8%	59.0%	59.0%
R-squared:	0.65348757	0.54136359	0.72645372	0.73345934	0.4947177	0.44100712

Note: Figures in parentheses are z-values. Cells coloured orange are significantly positive coefficients of trade creation effect. Cells coloured blue are significant and negative coefficients of trade diversion effect, that is, an FTA decreases exports to non-member countries after the FTA has come into force.

Table 2.2.1: (continued): Estimation Results on Exports by Sector, Pooled Data

	BEC 04 Capital goods and parts & accessories		BEC 05 Transport equipment, and parts & accessories		BEC 06 Consumption goods	
ln (GDP) i	0.694 (25.7)	0.730 (23.6)	1.274 (39.7)	1.056 (43.9)	0.859 (35.1)	1.020 (32.0)
ln (GDP) j	0.837 (36.5)	0.837 (31.9)	0.705 (26.3)	0.705 (25.5)	0.876 (46.1)	0.876 (32.7)
ln (GDP per capita) i	0.306 (12.7)	0.092 (3.7)	0.235 (13.2)	0.277 (18.6)	-0.362 (17.1)	-0.533 (26.4)
ln (GDP per capita) j	0.071 (3.5)	0.086 (4.2)	0.043 (2.8)	0.047 (3.1)	0.132 (7.3)	0.165 (7.7)
ln (Distance) ij	-0.813 (20.1)	-0.830 (19.8)	-0.095 (2.4)	-0.174 (4.2)	-0.348 (8.4)	-0.349 (8.2)
ASEAN-China FTA (0/1 dummy)	1.914 (19.0)		0.651 (5.5)		1.602 (11.5)	
ASEAN-China FTA Diversion Effect	1.262 (15.8)		0.061 (1.2)		1.559 (24.9)	
ASEAN-China FTA (gradual tariff reduction)		1.079 (9.5)		0.609 (5.3)		0.595 (3.7)
ASEAN-Korea FTA (0/1 dummy)	0.670 (4.4)		1.053 (8.4)		-0.475 (2.6)	
ASEAN-Korea FTA Diversion Effect	0.076 (0.8)		1.284 (16.4)		-0.504 (6.1)	
ASEAN-Korea FTA (gradual tariff reduction)		0.603 (3.5)		0.525 (3.4)		0.252 (1.2)
ASEAN-Japan FTA (0/1 dummy)	0.071 (0.4)		0.259 (3.3)		0.118 (1.2)	
ASEAN-Japan FTA Diversion Effect	0.017 (0.2)		0.139 (1.7)		0.071 (1.0)	
ASEAN-Japan FTA (gradual tariff reduction)		-0.313 (2.2)		0.193 (1.4)		-0.038 (0.2)
ASEAN-Australia-New Zealand FTA (0/1 dummy)	-0.330 (3.1)		-0.042 (0.2)		0.197 (1.2)	
ASEAN-Australia-New Zealand FTA Diversion Effect	-0.462 (6.4)		-0.557 (7.5)		-0.023 (0.3)	
ASEAN-Australia-New Zealand FTA (gradual tariff reduction)		-0.260 (1.0)		0.702 (1.2)		0.398 (1.6)
ASEAN-India FTA (0/1 dummy)	-0.271 (2.0)		0.543 (2.7)		-0.713 (4.7)	
ASEAN-India FTA Diversion Effect	-0.305 (3.5)		-0.059 (0.8)		-0.028 (0.3)	
ASEAN-India FTA (gradual tariff reduction)		-0.850 (3.3)		0.776 (2.5)		-1.721 (4.7)
ASEAN Free Trade Area (AFTA)	1.409 (10.1)	1.726 (11.5)	2.700 (18.9)	2.675 (17.2)	1.462 (11.9)	1.887 (12.0)
Number of other FTAs dummies	50	50	50	50	50	50
Year dummies	yes	yes	yes	yes	yes	yes
Number of observations	31,850	31,850	31,850	31,850	31,850	31,850
% of zero trade flows	16.7%	16.7%	24.2%	24.2%	12.9%	12.9%
R-squared:	0.77050684	0.74644332	0.72812132	0.71122004	0.86586125	0.75541468

Note: Figures in parentheses are z-values. Cells coloured orange are significantly positive coefficients of trade creation effect. Cells coloured blue are significant and negative coefficients of trade diversion effect, that is, an FTA decreases exports to non-member countries.

Table 2.2.2: Estimation Results on Import by Sector, Pooled Data

	BEC 01		BEC 02		BEC 03	
	Food and Beverages		Industrial supplies		Fuels and lubricants	
ln (GDP) i	0.956 (44.5)	0.934 (34.0)	0.741 (56.5)	0.778 (54.1)	0.728 (21.5)	0.723 (23.2)
ln (GDP) j	0.900 (49.7)	0.896 (46.1)	0.810 (87.4)	0.808 (82.6)	0.365 (24.0)	0.363 (23.2)
ln (GDP per capita) i	0.157 (8.0)	0.060 (2.3)	-0.100 (8.4)	-0.179 (14.2)	0.199 (6.1)	0.116 (3.8)
ln (GDP per capita) j	-0.213 (6.6)	-0.205 (6.4)	-0.022 (1.4)	-0.015 (0.9)	0.146 (4.8)	0.147 (4.8)
ln (Distance) ij	0.032 (0.5)	0.013 (0.2)	-0.801 (33.8)	-0.805 (35.6)	-0.709 (16.0)	-0.737 (17.0)
ASEAN-China FTA (0/1 dummy)	1.879 (16.2)		0.913 (13.6)		0.156 (1.0)	
ASEAN-China FTA Diversion Effect	0.650 (7.5)		0.305 (5.8)		0.144 (1.3)	
ASEAN-China FTA (gradual tariff reduction)		1.566 (12.5)		0.762 (10.0)		0.049 (0.3)
ASEAN-Korea FTA (0/1 dummy)	1.290 (10.2)		0.946 (11.0)		0.935 (5.9)	
ASEAN-Korea FTA Diversion Effect	0.316 (4.3)		-0.071 (1.4)		0.194 (1.5)	
ASEAN-Korea FTA (gradual tariff reduction)		1.214 (8.1)		1.150 (11.4)		0.976 (4.9)
ASEAN-Japan FTA (0/1 dummy)	0.017 (0.1)		-0.214 (3.2)		0.020 (0.1)	
ASEAN-Japan FTA Diversion Effect	0.139 (2.0)		-0.251 (4.9)		-0.161 (1.3)	
ASEAN-Japan FTA (gradual tariff reduction)		-0.202 (0.8)		-0.171 (1.5)		0.156 (0.5)
ASEAN-Australia-New Zealand FTA (0/1 dummy)	1.887 (8.1)		0.239 (2.0)		0.019 (0.1)	
ASEAN-Australia-New Zealand FTA Diversion Effect	-0.271 (3.6)		-0.107 (1.9)		-0.623 (5.3)	
ASEAN-Australia-New Zealand FTA (gradual tariff reduction)		2.503 (6.4)		0.386 (1.7)		0.206 (0.6)
ASEAN-India FTA (0/1 dummy)	0.855 (3.6)		0.230 (1.7)		0.259 (0.9)	
ASEAN-India FTA Diversion Effect	-0.180 (2.1)		0.084 (1.0)		0.488 (3.4)	
ASEAN-India FTA (gradual tariff reduction)		1.402 (4.0)		0.270 (1.4)		-0.070 (0.1)
ASEAN Free Trade Area (AFTA)	2.982 (25.4)	3.163 (25.9)	0.896 (16.4)	0.949 (16.5)	1.092 (8.1)	1.069 (7.9)
Number of other FTAs dummies	50	50	50	50	49	49
Year dummies	yes	yes	yes	yes	yes	yes
Number of observations	31,850	31,850	31,850	31,850	31,847	31,847
% of zero trade flows	36.8%	36.8%	19.7%	19.7%	65.5%	65.5%
R-squared:	0.61473714	0.58207739	0.73015039	0.72540482	0.0994959	0.44100712

Table 2.2.2: (continued): Estimation Results on Imports by Sector, Pooled Data

	BEC 04		BEC 05		BEC 06	
	Capital goods and parts & accessories		Transport equipment, and parts & accessories		Consumption goods	
ln (GDP) i	0.517 (24.3)	0.652 (30.0)	0.506 (21.8)	0.618 (21.2)	0.592 (19.8)	0.675 (24.4)
ln (GDP) j	0.962 (65.2)	0.942 (58.6)	1.134 (75.9)	1.118 (69.8)	1.077 (49.6)	1.070 (44.3)
ln (GDP per capita) i	0.163 (8.4)	-0.015 (0.8)	0.245 (9.9)	0.052 (2.0)	0.475 (23.9)	0.433 (23.5)
ln (GDP per capita) j	0.147 (6.8)	0.154 (7.2)	0.222 (12.6)	0.238 (11.3)	-0.269 (8.4)	-0.284 (8.1)
ln (Distance) ij	-1.168 (41.0)	-1.152 (32.2)	-0.599 (19.3)	-0.564 (14.0)	-0.913 (24.3)	-0.812 (19.9)
ASEAN-China FTA (0/1 dummy)	2.368 (18.1)		0.945 (8.6)		0.802 (8.0)	
ASEAN-China FTA Diversion Effect	0.762 (12.7)		0.812 (9.7)		0.146 (1.9)	
ASEAN-China FTA (gradual tariff reduction)		1.853 (11.6)		0.203 (2.1)		0.684 (6.3)
ASEAN-Korea FTA (0/1 dummy)	0.598 (4.8)		0.040 (0.3)		0.327 (1.9)	
ASEAN-Korea FTA Diversion Effect	-0.703 (9.7)		-0.718 (9.9)		-0.911 (10.6)	
ASEAN-Korea FTA (gradual tariff reduction)		1.144 (7.5)		0.426 (2.7)		0.856 (4.2)
ASEAN-Japan FTA (0/1 dummy)	-0.110 (1.1)		-0.218 (1.7)		0.238 (2.1)	
ASEAN-Japan FTA Diversion Effect	-0.304 (3.9)		-0.584 (7.6)		-0.033 (0.4)	
ASEAN-Japan FTA (gradual tariff reduction)		-0.094 (0.8)		-0.169 (1.0)		0.289 (1.5)
ASEAN-Australia-New Zealand FTA (0/1 dummy)	0.184 (0.9)		0.115 (0.3)		0.760 (3.7)	
ASEAN-Australia-New Zealand FTA Diversion Effect	-0.003 (0.0)		0.272 (2.8)		0.364 (2.9)	
ASEAN-Australia-New Zealand FTA (gradual tariff reduction)		0.185 (0.5)		-0.704 (0.9)		1.067 (3.0)
ASEAN-India FTA (0/1 dummy)	-0.033 (0.2)		0.705 (3.1)		0.055 (0.3)	
ASEAN-India FTA Diversion Effect	0.022 (0.2)		-0.110 (1.1)		0.200 (1.7)	
ASEAN-India FTA (gradual tariff reduction)		-0.301 (1.0)		0.746 (2.0)		-0.189 (0.5)
ASEAN Free Trade Area (AFTA)	1.279 (13.6)	1.407 (13.2)	2.280 (17.9)	2.335 (17.5)	1.404 (12.2)	1.548 (13.5)
Number of other FTAs dummies	50	50	50	50	50	50
Year dummies	yes	yes	yes	yes	yes	yes
Number of observations	31,850	31,850	31,850	31,850	31,850	31,850
% of zero trade flows	27.6%	27.6%	49.5%	49.5%	30.3%	30.3%
R-squared:	0.7905549	0.71971919	0.69095041	0.5886423	0.83083115	0.76688945

Note: Figures in parentheses are z-values. Cells coloured orange are significantly positive coefficient of trade creation effect. Cells coloured blue are significant and negative coefficients of trade diversion effect, that is, an FTA decreases imports from non-member countries.

Table 2.3.1: Estimation Result for BEC 41 & 42

	Export				Import			
	BEC 41		BEC 42		BEC 41		BEC 42	
	Capital goods (except transport equipment)		Parts and accessories of capital goods		Capital goods (except transport equipment)		Parts and accessories of capital goods	
ln (GDP) i	0.898 (32.1)	0.948 (30.8)	0.497 (17.3)	0.506 (15.5)	0.599 (29.4)	0.713 (37.0)	0.466 (18.8)	0.599 (22.3)
ln (GDP) j	0.904 (42.5)	0.906 (33.6)	0.747 (31.5)	0.743 (30.0)	1.047 (70.1)	1.027 (71.9)	0.893 (52.5)	0.872 (42.9)
ln (GDP per capita) i	0.145 (6.2)	-0.076 (3.2)	0.454 (16.2)	0.291 (11.5)	0.100 (4.9)	-0.034 (1.8)	0.207 (9.8)	0.000 (0.0)
ln (GDP per capita) j	0.006 (0.4)	0.023 (1.3)	0.143 (5.7)	0.151 (6.1)	0.056 (2.3)	0.062 (2.6)	0.220 (9.7)	0.227 (9.9)
ln (Distance) ij	-0.564 (14.0)	-0.587 (14.1)	-1.088 (26.4)	-1.093 (25.5)	-1.086 (40.8)	-1.053 (35.2)	-1.236 (37.1)	-1.235 (28.2)
ASEAN-China FTA (0/1 dummy)	1.774 (17.8)		2.020 (17.7)		1.803 (16.2)		2.852 (17.6)	
ASEAN-China FTA Diversion Effect	1.239 (17.8)		1.115 (12.1)		0.428 (6.8)		1.074 (16.9)	
ASEAN-China FTA (gradual)		0.984 (9.3)		1.304 (9.7)		1.505 (12.5)		2.144 (10.1)
ASEAN-Korea FTA (0/1 dummy)	0.771 (5.6)		0.679 (4.0)		0.361 (3.5)		0.785 (5.2)	
ASEAN-Korea FTA Diversion Effect	0.288 (3.0)		-0.028 (0.3)		-0.692 (9.6)		-0.663 (8.1)	
ASEAN-Korea FTA (gradual)		0.643 (4.0)		0.677 (3.6)		0.887 (7.7)		1.335 (7.1)
ASEAN-Japan FTA (0/1 dummy)	0.122 (0.6)		0.087 (0.4)		-0.238 (2.2)		0.008 (0.1)	
ASEAN-Japan FTA Diversion Effect	-0.057 (0.9)		0.134 (1.7)		-0.403 (4.4)		-0.200 (2.8)	
ASEAN-Japan FTA (gradual)		-0.282 (2.0)		-0.245 (1.5)		-0.061 (0.5)		-0.077 (0.6)
ASEAN-Australia-New Zealand FTA (0/1 dummy)	0.078 (0.6)		-0.698 (6.0)		0.514 (2.2)		-0.240 (1.2)	
ASEAN-Australia-New Zealand FTA Diversion Effect	-0.327 (4.5)		-0.582 (7.4)		0.273 (2.6)		-0.238 (2.7)	
ASEAN-Australia-New Zealand FTA (gradual)		0.267 (1.0)		-0.757 (2.6)		0.526 (1.2)		-0.309 (0.9)
ASEAN-India FTA (0/1 dummy)	-0.298 (1.7)		-0.228 (1.8)		-0.020 (0.1)		-0.148 (0.7)	
ASEAN-India FTA Diversion Effect	-0.551 (6.7)		-0.074 (0.8)		0.031 (0.3)		0.021 (0.2)	
ASEAN-India FTA (gradual)		-0.730 (2.5)		-0.870 (3.8)		-0.144 (0.4)		-0.630 (2.5)
ASEAN Free Trade Area (AFTA)	1.622 (13.6)	1.951 (13.3)	0.948 (5.5)	1.250 (7.6)	1.171 (14.0)	1.229 (13.9)	1.243 (11.0)	1.416 (11.0)
Number of other FTAs dummies	50	50	50	50	50	50	50	50
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	31,850	31,850	31,850	31,850	31,850	31,850	31,850	31,850
% of zero trade flows	20.6%	20.6%	23.0%	23.0%	36.9%	36.9%	35.4%	35.4%
R-squared:	0.80571775	0.75042227	0.74784124	0.7259034	0.79905335	0.77685474	0.73589233	0.61690567

Note: Figures in parentheses are z-values. Cells coloured orange are significantly positive coefficients of trade creation effect. Cells coloured blue are significant and negative coefficients of trade diversion effect.

Table 2.3.2: Estimation Result for BEC 51 & 53

	Export				Import			
	BEC 51		BEC 53		BEC 51		BEC 53	
	Transport equipment, passenger motor cars		Parts and accessories of transport equipment		Transport equipment, passenger motor cars		Parts and accessories of transport equipment	
ln (GDP) i	1.348 (23.3)	1.116 (32.0)	1.145 (49.9)	1.004 (49.6)	0.523 (10.1)	0.714 (11.6)	0.556 (22.2)	0.654 (23.4)
ln (GDP) j	0.932 (36.5)	0.935 (35.3)	0.963 (65.2)	0.969 (60.2)	1.006 (30.9)	0.989 (28.3)	1.156 (73.4)	1.144 (80.0)
ln (GDP per capita) i	0.506 (15.7)	0.735 (24.0)	0.200 (12.5)	0.150 (10.6)	0.573 (10.4)	0.168 (2.8)	0.190 (7.9)	0.000 (0.0)
ln (GDP per capita) j	0.090 (3.3)	0.105 (3.9)	-0.150 (10.3)	-0.138 (9.4)	0.503 (13.3)	0.485 (11.4)	0.170 (9.5)	0.200 (9.8)
ln (Distance) ij	0.261 (5.5)	0.112 (2.4)	-0.324 (11.9)	-0.369 (12.3)	-0.451 (7.7)	-0.381 (5.3)	-0.850 (25.9)	-0.826 (20.8)
ASEAN-China FTA (0/1 dummy)	-1.766 (8.7)		0.754 (6.6)		-0.785 (3.1)		0.878 (8.9)	
ASEAN-China FTA Diversion Effect	-1.385 (13.1)		0.520 (10.2)		1.379 (9.2)		0.825 (10.4)	
ASEAN-China FTA (gradual)		-1.325 (5.5)		0.472 (3.8)		-2.381 (8.0)		0.290 (2.9)
ASEAN-Korea FTA (0/1 dummy)	1.693 (8.4)		0.885 (6.7)		-0.149 (0.7)		-0.050 (0.3)	
ASEAN-Korea FTA Diversion Effect	1.602 (12.7)		0.846 (12.2)		-1.395 (8.2)		-0.593 (8.9)	
ASEAN-Korea FTA (gradual)		1.150 (5.0)		0.461 (2.8)		0.126 (0.5)		0.575 (3.3)
ASEAN-Japan FTA (0/1 dummy)	0.318 (1.4)		0.221 (1.4)		-0.332 (1.3)		-0.037 (0.3)	
ASEAN-Japan FTA Diversion Effect	0.305 (2.6)		0.223 (4.1)		-1.222 (5.3)		-0.282 (4.7)	
ASEAN-Japan FTA (gradual)		0.056 (0.2)		0.015 (0.1)		-1.129 (3.5)		0.243 (1.7)
ASEAN-Australia-New Zealand FTA (0/1 dummy)	-0.122 (0.2)		-0.154 (1.5)		0.134 (0.3)		-0.026 (0.1)	
ASEAN-Australia-New Zealand FTA Diversion Effect	-0.940 (5.9)		-0.454 (6.6)		0.342 (1.5)		0.097 (1.3)	
ASEAN-Australia-New Zealand FTA (gradual)		0.582 (0.6)		0.261 (0.8)		-1.108 (1.1)		-0.379 (0.8)
ASEAN-India FTA (0/1 dummy)	1.500 (3.3)		0.435 (2.0)		0.802 (2.5)		1.009 (3.5)	
ASEAN-India FTA Diversion Effect	0.818 (5.4)		-0.061 (0.9)		-0.545 (2.6)		0.181 (2.1)	
ASEAN-India FTA (gradual)		1.553 (2.6)		0.618 (1.7)		-0.118 (0.2)		1.346 (2.9)
ASEAN Free Trade Area (AFTA)	4.326 (21.1)	3.678 (16.6)	2.687 (26.0)	2.896 (25.5)	2.944 (11.3)	2.601 (9.5)	1.905 (14.1)	2.165 (16.7)
Number of other FTAs dummies	49	49	50	50	37	37	50	50
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	31,847	31,847	31,850	31,850	31,770	31,770	31,850	31,850
% of zero trade flows	57.6%	57.6%	27.6%	27.6%	81.0%	81.0%	53.3%	53.3%
R-squared:	0.84825484	0.84745222	0.86587021	0.84678747	0.36570108	0.18226791	0.78942384	0.74196991

Note: Figures in parentheses are z-values. Cells coloured orange are significantly positive coefficient of trade creation effect. Cells coloured blue are significant and negative coefficients of trade diversion effect.

Table 2.4.1: Estimation Result on Exports by Country and Sector, ASEAN Members

BEC01: Food and Beverages	Cambodia	Indonesia	Malaysia	Philippines	Singapore	Thailand	Viet Nam	Brunei	Lao PDR	Myanmar
ln (GDP)	0.6686 (8.3)	0.9479 (34.8)	0.6636 (20.1)	1.1155 (34.7)	0.5549 (21.0)	0.8083 (29.9)	0.8617 (41.6)	0.9480 (10.2)	0.8769 (14.9)	1.1185 (16.0)
ln (GDP per capita)	0.2264 (3.3)	-0.3359 (12.3)	-0.2091 (8.0)	0.2970 (9.0)	-0.0019 (0.1)	-0.0721 (2.4)	-0.0906 (3.0)	-0.7000 (4.9)	0.0909 (1.4)	-0.5536 (7.6)
ln (Distance)	-0.6750 (5.2)	-1.2626 (16.8)	-1.1796 (17.6)	-1.0808 (20.8)	-1.0732 (13.5)	-0.5895 (6.5)	-0.5498 (7.5)	0.5474 (1.9)	-1.1720 (7.4)	-1.5224 (16.1)
ASEAN-China FTA	-0.0457 (0.1)	-0.7192 (5.6)	0.5393 (3.7)	-1.5374 (9.2)	1.0179 (7.2)	-0.3409 (2.3)	-0.1354 (0.8)	-0.3945 (0.4)	-0.0176 (0.1)	-1.0514 (3.8)
ASEAN-Korea FTA	-2.9449 (5.2)	-0.9526 (11.6)	-0.2334 (2.4)	-0.2511 (1.9)	0.3502 (3.5)	-0.3337 (2.8)	0.3656 (4.4)	0.2372 (0.4)	-2.8186 (6.3)	0.0918 (0.3)
ASEAN-Japan FTA	-2.9294 (5.5)		0.0496 (0.6)	0.0136 (0.1)	-0.1691 (2.2)	0.1336 (1.4)	0.0482 (0.3)	2.7148 (2.4)	0.1426 (0.4)	0.4382 (2.3)
ASEAN-Australia-New Zealand FTA	-1.7349 (5.0)	-0.8702 (10.7)	0.6448 (6.1)	-0.2312 (1.0)	0.4307 (3.1)	0.0744 (1.0)	0.2621 (3.6)		0.2169 (0.9)	1.0211 (5.2)
ASEAN-India FTA	-2.8745 (4.8)	-0.5812 (3.2)	-1.0586 (6.4)	-3.4444 (23.7)	0.8307 (4.1)	-2.5055 (6.2)	-1.5639 (13.3)	-4.2592 (3.6)		0.6144 (2.6)
ASEAN Free Trade Area (AFTA)	0.6793 (1.6)	-0.2671 (1.7)	-0.6614 (4.0)	1.4407 (12.6)	0.6380 (2.7)	0.8352 (5.7)	0.7281 (3.6)	1.3529 (2.0)	0.6001 (2.5)	-0.2871 (1.7)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,446	2,273	2,450
% of zero trade flows	82.2%	10.9%	9.2%	31.7%	24.6%	4.8%	22.7%	89.0%	88.3%	65.0%
R-squared:	0.30262425	0.84151169	0.84615264	0.90831245	0.88861804	0.83170869	0.84357475	0.1268614	0.6201776	0.82970093

BEC02: Industrial supplies	Cambodia	Indonesia	Malaysia	Philippines	Singapore	Thailand	Viet Nam	Brunei	Lao PDR	Myanmar
ln (GDP)	1.3914 (7.9)	0.9851 (56.1)	0.8658 (68.8)	1.0487 (37.4)	0.9029 (29.0)	0.8558 (41.5)	0.9495 (29.4)	0.8961 (6.1)	1.6835 (11.2)	1.2026 (18.3)
ln (GDP per capita)	2.8508 (11.7)	-0.1092 (5.6)	-0.0813 (4.9)	0.1990 (5.6)	0.0296 (0.8)	0.1211 (4.0)	-0.0022 (0.1)	0.1138 (0.5)	-0.0501 (0.8)	-0.3897 (5.6)
ln (Distance)	-6.3895 (10.6)	-1.6309 (32.3)	-1.2735 (28.3)	-1.3015 (23.2)	-1.1397 (14.4)	-1.7380 (19.5)	-1.6771 (20.7)	-0.9989 (1.4)	-3.4413 (15.4)	-1.9785 (17.7)
ASEAN-China FTA	3.3892 (5.4)	-0.4894 (5.2)	0.2165 (3.2)	-0.5090 (3.7)	0.2982 (2.1)	0.1703 (1.8)	-0.1072 (0.7)	0.5202 (0.3)	1.3838 (5.3)	0.9908 (3.7)
ASEAN-Korea FTA	-0.6666 (1.4)	0.3796 (5.4)	0.4196 (7.0)	0.3857 (3.0)	0.1991 (1.4)	-0.5251 (5.1)	0.3070 (3.0)	1.4750 (1.6)	1.3769 (2.7)	-0.4091 (2.5)
ASEAN-Japan FTA	-2.8871 (3.8)		-0.0503 (0.7)	0.2644 (2.0)	-0.0773 (0.9)	-0.0909 (1.1)	0.2854 (2.2)	3.9135 (8.1)	-0.7060 (2.2)	-1.0858 (5.8)
ASEAN-Australia-New Zealand FTA	0.5072 (0.6)	0.3035 (3.1)	1.0317 (9.1)	-0.0034 (0.0)	-0.1435 (1.3)	-0.1967 (0.8)	-0.2143 (2.0)	-1.8591 (2.9)	4.3489 (5.6)	-1.2978 (3.6)
ASEAN-India FTA	6.9892 (6.1)	0.2548 (2.5)	0.1671 (2.0)	-0.8837 (3.6)	0.0634 (0.6)	-0.2801 (3.2)	-0.6405 (5.3)	-0.1774 (0.1)	1.5243 (4.8)	0.8002 (3.0)
ASEAN Free Trade Area (AFTA)	-3.2878 (14.8)	-0.2707 (3.1)	-0.1197 (1.0)	1.2656 (11.3)	0.5353 (2.4)	-0.1335 (0.9)	-0.6274 (3.8)	1.8566 (1.1)	1.4314 (4.5)	-0.0618 (0.3)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,275	2,450
% of zero trade flows	73.3%	2.9%	7.5%	26.5%	21.1%	2.7%	22.0%	74.7%	79.6%	63.5%
R-squared:	0.95039843	0.93936019	0.92031715	0.94719358	0.8622208	0.90669738	0.92598662	0.41997463	0.96367756	0.89039123

BEC03: Fuels and lubricants	Cambodia	Indonesia	Malaysia	Philippines	Singapore	Thailand	Viet Nam	Brunei	Lao PDR	Myanmar
ln (GDP)	-	1.4090 (28.0)	1.1289 (20.8)	0.8434 (12.4)	0.6706 (15.9)	0.9520 (12.88)	0.9364 (13.4)	1.2829 (12.1)	-	-
ln (GDP per capita)	-	0.0726 (1.4)	-0.2002 (5.3)	0.7047 (8.7)	-0.1454 (2.2)	0.3919 (7.86)	0.3453 (4.6)	-0.0317 (0.5)	-	-
ln (Distance)	-	-3.3337 (20.9)	-2.2195 (23.9)	-1.8088 (12.8)	-1.9461 (13.3)	-2.1406 (13.54)	-1.7889 (13.5)	-2.5548 (15.8)	-	-
ASEAN-China FTA	-	-0.8620 (5.3)	-1.5053 (6.8)	1.1472 (3.5)	-0.4597 (1.9)	0.9770 (3.15)	0.8397 (2.8)	-1.7497 (5.7)	-	-
ASEAN-Korea FTA	-	1.5708 (14.3)	1.7099 (12.9)	1.9585 (6.5)	1.2457 (3.8)	0.5513 (2.89)	0.8820 (2.6)	1.5252 (6.8)	-	-
ASEAN-Japan FTA	-		0.6412 (4.3)	0.6151 (1.4)	-0.8310 (2.8)	-0.9269 (4.73)	0.4907 (1.1)	0.5938 (1.7)	-	-
ASEAN-Australia-New Zealand FTA	-	0.3681 (3.3)	3.0061 (23.2)	-0.5353 (1.6)	-0.0623 (0.4)	-1.0556 (2.78)	3.0012 (12.1)	2.6305 (9.4)	-	-
ASEAN-India FTA	-	0.4502 (2.3)	-0.1425 (0.9)	0.8097 (2.3)	-0.4185 (1.2)	-1.6559 (2.24)	-0.8803 (1.9)	0.9334 (3.6)	-	-
ASEAN Free Trade Area (AFTA)	-	-2.3332 (6.3)	-1.3979 (5.8)	2.8451 (11.1)	-1.5464 (3.3)	1.8450 (8.25)	0.4304 (1.5)	-0.5720 (2.0)	-	-
Number of other FTAs dummies	0	1	5	1	12	4		1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	1,905	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,269	2,450
% of zero trade flows	99.2%	60.2%	62.3%	79.3%	47.3%	55.5%	71.3%	92.7%	96.9%	96.7%
R-squared:	0.9784002	0.93712486	0.92563858	0.71715409	0.7490195	0.81671699	0.53385167	0.90474841		0.99930309

Table 2.4.1 (Continued): Estimation Results on Exports by Country and Sector, ASEAN Members

BEC04: Capital goods and parts & accessories	Cambodia	Indonesia	Malaysia	Philippines	Singapore	Thailand	Viet Nam	Brunei	Lao PDR	Myanmar
ln (GDP)	0.6771 (3.0)	0.9349 (38.5)	1.0511 (25.9)	0.8950 (19.1)	0.8389 (20.8)	0.9562 (34.0)	0.8871 (19.6)	0.6271 (10.0)	0.6366 (14.4)	0.7750 (11.5)
ln (GDP per capita)	0.0697 (0.5)	0.3958 (12.1)	0.3235 (11.0)	0.7166 (15.1)	0.2571 (6.8)	0.4293 (13.4)	0.2674 (5.6)	0.7722 (6.5)	0.1787 (2.4)	0.7447 (6.1)
ln (Distance)	-1.2065 (3.6)	-1.5703 (16.9)	-1.2754 (8.5)	-1.3810 (11.7)	-1.7428 (8.9)	-1.6342 (12.9)	-1.2589 (21.5)	-1.0309 -(2.5)	-1.3921 (8.0)	-1.6804 (6.5)
ASEAN-China FTA	0.2121 (0.3)	-0.2197 (1.3)	0.5185 (2.3)	0.9042 (3.6)	0.3812 (2.1)	0.2355 (1.3)	-0.5823 (3.5)	-1.7450 (2.0)	-0.9414 (2.9)	2.7147 (7.8)
ASEAN-Korea FTA	0.3775 (0.7)	-0.3010 (2.7)	-0.4911 (2.7)	-0.2856 (1.6)	0.2780 (1.8)	-0.8538 (6.2)	-1.0771 (10.8)	-1.6068 (2.1)	-3.7992 (9.5)	-1.8777 (3.9)
ASEAN-Japan FTA	-0.9487 (1.3)		0.2041 (1.5)	0.0784 (0.5)	0.2322 (2.0)	-0.0621 (0.6)	0.1755 (1.1)	-0.4174 (0.5)	-3.9860 (7.7)	0.4914 (1.9)
ASEAN-Australia-New Zealand FTA	-0.2614 (0.4)	0.2979 (2.0)	-0.0781 (0.5)	-1.7262 (10.3)	0.1266 (0.9)	0.1313 (1.4)	-0.1386 (1.1)	0.0014 (0.0)	1.9817 (3.7)	-2.9068 (4.3)
ASEAN-India FTA	-1.2410 (1.0)	0.3233 (1.8)	-0.0995 (0.4)	0.7564 (3.7)	-0.1366 (0.9)	-0.2299 (1.5)	0.1432 (0.8)	0.6711 (1.3)	0.8580 (3.6)	3.5854 (5.4)
ASEAN Free Trade Area (AFTA)	1.5740 (2.7)	0.9293 (3.8)	0.2213 (0.4)	1.7540 (9.4)	-1.1766 (1.9)	0.4347 (1.9)	-0.2304 (1.2)	2.5928 (4.6)	0.1560 (0.6)	1.9472 (3.5)
Number of other FTAs dummies	0	1	5	1	12	4		1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,275	2,450
% of zero trade flows	80.4%	12.5%	9.6%	23.7%	20.2%	4.7%	38.8%	72.6%	79.8%	73.8%
R-squared:	0.30690291	0.90244406	0.77189676	0.653723	0.71119098	0.81167006	0.74446363	0.79105311	0.9868524	0.55626383
BEC05:Transport equipment, and parts & accessories	**Cambodia**	**Indonesia**	**Malaysia**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**	**Brunei**	**Lao PDR**	**Myanmar**
ln (GDP)	0.8902 (9.1)	0.8471 (37.4)	0.8901 (50.1)	0.9149 (12.3)	0.8519 (21.8)	0.6801 (51.1)	0.7363 (15.1)	0.7390 (6.5)	-	0.7674 (9.1)
ln (GDP per capita)	0.4154 (3.6)	-0.0485 (1.8)	0.1439 (6.9)	0.1402 (3.3)	0.0490 (1.1)	-0.0643 (3.2)	-0.0253 (0.6)	0.1365 (0.7)	-	0.0751 (0.3)
ln (Distance)	-1.1121 (5.8)	-0.7609 (8.0)	-1.0004 (16.7)	-0.8174 (7.8)	-1.0411 (8.8)	-0.1644 (2.7)	-0.4320 (3.0)	-1.8439 (3.6)	-	-0.8220 (4.3)
ASEAN-China FTA	-3.8268 (6.9)	-1.9018 (8.3)	-0.5006 (4.1)	-1.5603 (6.1)	-0.0128 (0.1)	-1.2098 (9.5)	-0.5253 (1.8)	-5.3888 (4.4)	-	-4.6025 (3.9)
ASEAN-Korea FTA	-3.4728 (6.8)	-1.5175 (4.8)	-1.4417 (8.2)	-2.8536 (6.9)	0.7195 (4.6)	-1.0072 (6.0)	1.5490 (4.9)	-0.0160 (0.0)	-	0.5826 (1.3)
ASEAN-Japan FTA	-3.5315 (8.5)		-0.1464 (1.3)	0.4623 (1.2)	0.0082 (0.1)	0.0162 (0.2)	1.8348 (8.1)	-5.7775 (8.8)	-	-2.7544 (3.5)
ASEAN-Australia-New Zealand FTA	-1.4570 (4.1)	0.4003 (1.7)	0.7197 (9.9)	0.8688 (1.6)	-0.0931 (0.9)	0.0507 (0.6)	-0.6460 (4.6)	0.2371 (0.5)	-	-0.7925 (0.9)
ASEAN-India FTA	-3.9377 (5.5)	-1.3130 (7.2)	-0.7278 (5.4)	0.1277 (0.6)	-0.4874 (2.4)	0.1610 (1.5)	0.3736 (1.8)	-4.6780 (4.6)	-	2.0056 (1.9)
ASEAN Free Trade Area (AFTA)	0.5176 (1.1)	1.9064 (7.8)	0.8844 (5.1)	2.0301 (7.9)	0.4191 (1.3)	2.2837 (18.2)	1.4637 (4.8)	-1.0524 (1.0)	-	1.4350 (2.3)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,446	2,271	2,450
% of zero trade flows	78.2%	17.6%	24.7%	48.1%	24.7%	7.3%	40.0%	83.9%	91.1%	88.2%
R-squared:	0.223599	0.79182297	0.87384604	0.48939719	0.76519778	0.89701373	0.80722261	0.05394567	0.77364371	0.06512226
BEC06: Consumption goods	**Cambodia**	**Indonesia**	**Malaysia**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**	**Brunei**	**Lao PDR**	**Myanmar**
ln (GDP)	1.0304 (27.9)	0.9644 (41.3)	0.8839 (29.2)	1.2811 (30.2)	0.7380 (25.0)	0.9971 (45.5)	1.0517 (36.4)	1.2380 (20.1)	0.7558 (16.8)	0.9318 (18.3)
ln (GDP per capita)	0.9600 (15.4)	0.2905 (10.1)	0.3716 (14.8)	0.4110 (9.5)	0.2428 (7.0)	0.2607 (10.0)	0.3737 (7.1)	2.6618 (18.0)	0.9472 (15.4)	0.7175 (13.6)
ln (Distance)	1.4408 (7.6)	-0.0031 (0.0)	-0.7699 (9.7)	0.0761 (0.9)	-1.0874 (8.7)	-0.6265 (6.6)	-0.0210 (0.3)	1.4312 (4.4)	-0.1799 (1.1)	-0.2923 (1.4)
ASEAN-China FTA	2.0771 (4.9)	-1.0252 (7.6)	-1.0709 (6.9)	-0.6877 (3.4)	0.7597 (5.4)	-1.5995 (12.2)	-0.5735 (3.0)	2.9821 (3.7)	-0.0662 (0.2)	1.5008 (2.9)
ASEAN-Korea FTA	0.8763 (2.9)	0.1350 (1.1)	-1.0151 (8.0)	0.7504 (3.6)	0.2615 (1.5)	-1.1341 (8.8)	0.6441 (3.5)	-1.0021 (1.6)	-2.3602 (6.7)	2.9798 (10.0)
ASEAN-Japan FTA	0.3322 (1.4)		0.4350 (3.5)	0.8782 (2.8)	0.1576 (1.3)	0.3362 (4.1)	-0.2943 (2.7)	-1.3549 (1.7)	-0.2992 (1.0)	2.1476 (8.7)
ASEAN-Australia-New Zealand FTA	-0.2371 (1.3)	0.3134 (3.4)	0.8492 (6.3)	0.8059 (4.4)	0.0847 (0.8)	0.4165 (4.7)	-0.3166 (3.7)	0.7225 (1.2)	-2.0877 (4.6)	-1.1659 (5.7)
ASEAN-India FTA	0.8385 (2.1)	-0.4693 (2.5)	0.5424 (2.6)	0.4145 (1.0)	-0.2993 (1.7)	-0.0248 (0.2)	-0.6338 (2.7)	4.8583 (4.4)	-3.0253 (6.2)	-0.4962 (0.9)
ASEAN Free Trade Area (AFTA)	3.7744 (9.1)	-0.3760 -(3.9)	0.8713 (2.8)	3.0293 (16.0)	0.3290 (0.9)	1.3448 (7.0)	0.9375 (5.3)	10.056 (12.6)	-0.0696 (0.2)	1.3503 (3.6)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,275	2,450
% of zero trade flows	45.6%	2.5%	5.2%	20.4%	21.1%	2.3%	17.9%	66.2%	61.3%	54.5%
R-squared:	0.93528627	0.95054187	0.79293149	0.94551043	0.78150707	0.89704051	0.96313287	0.93579014	0.34220445	0.79470857

Note: Figures in parenthesis are z-values. Cells coloured orange are significantly positive coefficients of trade creation effect. Data for Brunei, Lao PDR, and Myanmar is constructed by their trade partners on the assumption that exports of Brunei to county j equals imports of country j from Brunei. Estimation results are omitted when more than 90% of all samples arezero. trade.

Table 2.4.2: Estimation Result on Exports by Country and Sector, 6 Dialogue Countries

BEC01: Food and Beverages	Australia	China	India	Japan	Korea	New Zealand
ln (GDP)	0.7209 (44.6)	0.8814 (36.4)	0.6749 (20.6)	0.6772 (9.4)	0.7080 (23.8)	0.6942 (53.0)
ln (GDP per capita)	0.2021 (7.6)	-0.0491 (1.3)	-0.0888 (2.1)	0.4152 (5.8)	0.3229 (10.8)	0.0728 (2.6)
ln (Distance)	-2.5933 (33.6)	-0.8984 (27.8)	-1.4652 (10.7)	-1.3528 (15.1)	-1.1889 (25.0)	-1.4194 (17.8)
ASEAN-China FTA		1.1596 (10.7)				
ASEAN-Korea FTA					1.6145 (11.5)	
ASEAN-Japan FTA				0.3317 (1.3)		
ASEAN-Australia-New Zealand FTA	0.4896 (4.7)					0.7331 (4.8)
ASEAN-India FTA			0.8689 (2.9)			
Number of other FTAs dummies	2450	2450	2450	2450	2450	2450
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5	8	9	11	7	7
% of zero trade flows	15.5%	4.3%	6.9%	36.3%	18.4%	16.0%
R-squared:	0.87531202	0.91977504	0.40045198	0.39748359	0.94619296	0.85473666
BEC02: Industrial supplies	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	1.2301 (34.6)	0.8078 (41.9)	0.8495 (31.2)	0.8433 (31.9)	0.7451 (22.0)	0.9509 (64.3)
ln (GDP per capita)	-0.3035 (6.7)	-0.2286 (12.4)	-0.0446 (1.0)	0.0393 (1.7)	-0.2696 (7.0)	0.0194 (0.8)
ln (Distance)	-2.8647 (17.0)	-0.5665 (14.1)	-1.4916 (9.2)	-1.4093 (43.9)	-0.8454 (16.4)	-3.0134 (45.9)
ASEAN-China FTA		0.6258 (7.8)				
ASEAN-Korea FTA					1.0213 (10.6)	
ASEAN-Japan FTA				0.1311 (1.4)		
ASEAN-Australia-New Zealand FTA	-0.7147 (3.6)					0.4582 (3.5)
ASEAN-India FTA			0.0077 (0.1)			
Number of other FTAs dummies	2450	2450	2450	2450	2450	2450
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5	8	9	11	7	7
% of zero trade flows	7.1%	1.6%	1.9%	2.4%	2.2%	21.7%
R-squared:	0.90245183	0.86958446	0.5856089	0.9390762	0.93179825	0.95765469
BEC3: Fuels and lubricants	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	1.0531 (30.4)	0.5771 (11.2)	0.5179 (11.5)	0.7213 (13.8)	0.7690 (14.0)	
ln (GDP per capita)	0.1330 (1.8)	0.0003 (0.0)	0.1221 (1.8)	0.1728 (2.5)	0.0145 (0.3)	
ln (Distance)	-3.2318 (21.9)	-1.0286 (17.1)	-1.6121 (7.4)	-1.3131 (15.0)	-0.9374 (12.2)	
ASEAN-China FTA		1.3122 (7.2)				
ASEAN-Korea FTA					1.9728 (9.7)	
ASEAN-Japan FTA				1.0484 (3.8)		
ASEAN-Australia-New Zealand FTA	-0.6898 (3.5)					
ASEAN-India FTA			-0.0164 (0.1)			
Number of other FTAs dummies	2450	2450	2450	2450	2450	2450
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5	8	9	11	7	7
% of zero trade flows	55.1%	13.2%	40.8%	46.1%	42.5%	80.7%
R-squared:	0.85126539	0.75375171	0.56058901	0.71362389	0.8283565	0.97663155
BEC04: Capital goods and parts & accessories	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	0.6169 (26.0)	0.9053 (34.4)	0.7307 (23.9)	0.9263 (29.4)	0.7947 (15.0)	0.8036 (22.3)
ln (GDP per capita)	0.0927 (3.3)	0.0220 (0.7)	-0.0552 (1.2)	0.0885 (2.5)	-0.1473 (2.4)	0.1858 (4.2)
ln (Distance)	-2.2422 (13.5)	-0.3115 (6.6)	-0.8965 (5.7)	-1.0571 (21.3)	-0.6640 (8.6)	-1.7380 (7.2)
ASEAN-China FTA		1.1058 (10.0)				
ASEAN-Korea FTA					0.4569 (2.8)	
ASEAN-Japan FTA				0.0882 (0.9)		
ASEAN-Australia-New Zealand FTA	-0.0032 (0.0)					-0.3008 (2.1)
ASEAN-India FTA			0.3067 (1.5)			
Number of other FTAs dummies	2450	2450	2450	2450	2450	2450
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5	8	9	11	7	7
% of zero trade flows	4.6%	1.9%	3.1%	1.2%	2.5%	13.9%
R-squared:	0.81307936	0.9402849	0.60981323	0.86388213	0.78464028	0.87061186
BEC05: Transport equipment, and parts & accessories	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	0.5592 (15.7)	0.6686 (20.3)	0.6498 (21.0)	0.8502 (24.1)	0.4952 (10.2)	0.5943 (8.4)
ln (GDP per capita)	0.3452 (9.9)	-0.0546 (1.8)	-0.1246 (2.6)	0.0274 (1.1)	0.0694 (1.7)	0.5368 (9.9)
ln (Distance)	-1.7308 (9.0)	-0.0874 (1.8)	-0.6048 (3.4)	0.0378 (0.7)	-0.0646 (0.7)	-2.6257 (12.8)
ASEAN-China FTA		0.5864 (4.4)				
ASEAN-Korea FTA					-0.3140 (2.0)	
ASEAN-Japan FTA				0.2202 (2.0)		
ASEAN-Australia-New Zealand FTA	-0.0409 (0.2)					0.0937 (0.5)
ASEAN-India FTA			0.1236 (0.8)			
Number of other FTAs dummies	2450	2450	2450	2450	2450	2450
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5	8	9	11	7	7
% of zero trade flows	18.9%	2.4%	6.9%	0.9%	2.6%	42.7%
R-squared:	0.50594492	0.8402348	0.52332807	0.84255407	0.64699782	0.71266533
BEC06: Consumption goods	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	0.6189 (22.3)	0.8991 (37.0)	0.8522 (18.6)	0.9568 (25.9)	0.8386 (23.4)	0.6196 (19.3)
ln (GDP per capita)	0.2869 (6.4)	0.0474 (1.6)	0.4110 (5.9)	0.4272 (10.0)	0.0774 (2.7)	0.6877 (20.8)
ln (Distance)	-2.0706 (13.2)	-0.1954 (5.2)	-1.4627 (4.0)	-1.0289 (17.2)	-0.3562 (8.1)	-2.4357 (15.3)
ASEAN-China FTA		0.4745 (3.5)				
ASEAN-Korea FTA					0.9580 (5.5)	
ASEAN-Japan FTA				0.0061 (0.1)		
ASEAN-Australia-New Zealand FTA	0.0300 (0.2)					-0.1135 (1.0)
ASEAN-India FTA			-0.6731 (3.1)			
Number of other FTAs dummies	2450	2450	2450	2450	2450	2450
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5	8	9	11	7	7
% of zero trade flows	12.0%	1.6%	1.9%	4.9%	3.8%	28.9%
R-squared:	0.78654411	0.93211874	0.49992827	0.84388134	0.83930342	0.97993747

Note: Figures in parenthesis are z-values. Cells coloured orange are significantly positive coefficients of trade creation effect.

Table 2.4.3: Estimation Result on Imports by Country and Sector, ASEAN Members

BEC01: Food and Beverages	**Cambodia**	**Indonesia**	**Malaysia**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**	**Brunei**	**Lao PDR**	**Myanmar**
ln (GDP)	0.978 (23.32)	0.972 (26.56)	0.881 (32.21)	0.901 (18.76)	0.965 (25.23)	0.735 (20.53)	0.774 (21.31)	0.6486 (16.04)	0.8430 (15.41)	1.1891 (17.96)
ln (GDP per capita)	0.347 (8.07)	-0.116 (2.03)	-0.274 (7.69)	-0.108 (1.96)	0.120 (3.12)	-0.104 (2.78)	-0.092 (2.30)	0.4851 (10.19)	0.7438 (7.00)	0.2168 (3.87)
ln (Distance)	-1.320 (16.46)	-0.690 (2.79)	-0.414 (5.96)	-0.274 (2.04)	-0.970 (17.20)	0.529 (4.96)	-0.298 (2.67)	-0.6157 (2.40)	-1.8384 (12.02)	-1.2775 (14.45)
ASEAN-China FTA	0.474 (2.62)	-0.215 (0.82)	0.152 (1.28)	-0.115 (0.37)	-0.128 (0.77)	1.573 (9.85)	0.240 (1.13)	1.9439 (4.67)	0.7465 (2.32)	1.4863 (5.93)
ASEAN-Korea FTA	-0.685 (3.14)	-1.568 (5.32)	-1.738 (11.77)	-0.996 (4.00)	0.132 (0.87)	1.073 (10.37)	-0.276 (1.86)	-2.0079 (4.41)	-2.3445 (5.78)	-1.2697 (4.41)
ASEAN-Japan FTA	-2.577 (7.03)		0.417 (2.61)	0.074 (0.28)	0.245 (2.50)	-0.222 (1.95)	-0.852 (4.27)	0.7851 (2.43)	-0.7251 (1.26)	-4.1323 (5.86)
ASEAN-Australia-New Zealand FTA	2.113 (15.85)	2.668 (10.20)	2.291 (25.15)	2.612 (8.78)	-0.062 (0.58)	0.028 (0.28)	2.511 (20.15)	2.8224 (11.02)	0.7423 (2.29)	3.6654 (15.52)
ASEAN-India FTA	0.966 (2.57)	-0.211 (0.71)	0.498 (3.56)	0.238 (1.05)	-0.021 (0.20)	0.926 (5.26)	0.220 (1.06)	3.3173 (8.49)	3.1126 (5.81)	1.8077 (4.56)
ASEAN Free Trade Area (AFTA)	2.133 (10.89)	1.343 (2.38)	1.700 (9.98)	2.464 (13.04)	1.048 (6.20)	2.925 (18.98)	1.898 (8.69)	4.4963 (7.65)	2.8642 (9.11)	4.4722 (13.47)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	75.6%	43.4%	36.2%	54.1%	33.0%	27.3%	50.3%	77.3%	83.5%	79.1%
R-squared:	0.82884537	0.59264545	0.8061224	0.49368441	0.79842532	0.82545592	0.73004075	0.66100177	0.98535043	0.92185047
BEC02: Industrial supplies	**Cambodia**	**Indonesia**	**Malaysia**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**	**Brunei**	**Lao PDR**	**Myanmar**
ln (GDP)	0.847 (8.37)	0.925 (64.08)	0.952 (42.53)	0.855 (49.69)	1.037 (52.79)	0.871 (27.26)	0.839 (38.37)	0.8467 (12.79)	1.0536 (13.95)	1.1331 (12.78)
ln (GDP per capita)	0.548 (6.77)	-0.028 (1.51)	-0.017 (0.91)	0.086 (3.87)	0.145 (6.69)	0.187 (5.12)	0.042 (1.44)	0.8808 (13.17)	-0.0785 (1.41)	0.0148 (0.11)
ln (Distance)	-2.598 (18.11)	-1.374 (20.46)	-1.037 (18.57)	-1.104 (22.65)	-1.294 (27.85)	-1.100 (15.58)	-1.269 (19.45)	-0.6236 (3.35)	-2.1297 (15.14)	-1.7196 (21.42)
ASEAN-China FTA	1.563 (3.63)	0.228 (3.72)	0.261 (2.84)	0.017 (0.19)	0.362 (3.84)	0.503 (4.35)	0.914 (8.12)	2.7961 (5.06)	0.7332 (3.69)	2.3350 (5.64)
ASEAN-Korea FTA	0.357 (1.45)	0.964 (14.52)	0.873 (11.76)	0.681 (10.61)	0.083 (1.10)	0.705 (8.30)	1.632 (16.96)	0.2777 (0.45)	-0.4849 (2.17)	2.6521 (10.61)
ASEAN-Japan FTA	-2.633 (6.60)		-0.110 (1.58)	-0.081 (0.91)	-0.100 (1.50)	-0.008 (0.09)	0.170 (1.43)	-0.1397 (0.33)	-1.1422 (6.79)	-0.3404 (1.96)
ASEAN-Australia-New Zealand FTA	-1.938 (4.87)	0.445 (5.29)	1.305 (10.91)	0.984 (14.92)	-0.470 (4.18)	-0.060 (0.47)	0.685 (7.11)	-1.9541 (3.20)	1.1849 (5.12)	0.4984 (1.66)
ASEAN-India FTA	0.257 (0.54)	-0.219 (2.50)	-0.301 (2.67)	-0.157 (1.40)	-0.768 (4.92)	-0.115 (1.09)	0.333 (2.98)	1.4416 (2.38)	-1.3824 (7.14)	0.7585 (1.59)
ASEAN Free Trade Area (AFTA)	-2.223 (7.55)	0.181 (1.17)	0.587 (3.83)	1.385 (15.96)	-0.022 (0.13)	0.534 (5.23)	0.130 (1.00)	3.6945 (7.80)	0.6922 (3.76)	1.8326 (6.22)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,464
% of zero trade flows	57.6%	12.2%	19.6%	34.6%	26.2%	7.2%	26.8%	69.6%	73.2%	69.3%
R-squared:	0.85071143	0.94659315	0.90915064	0.93278527	0.93994697	0.89644984	0.95770853	0.42658535	0.98223377	0.95312326
BEC03: Fuels and lubricants	**Cambodia**	**Indonesia**	**Malaysia**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**	**Brunei**	**Lao PDR**	**Myanmar**
ln (GDP)	1.337 (8.11)	0.503 (13.91)	0.527 (14.68)	0.464 (14.20)	0.495 (10.98)	0.37379 (10.58)	0.798 (9.80)	0.5556 (4.14)		1.0484 (13.48)
ln (GDP per capita)	0.809 (4.41)	0.154 (3.60)	0.111 (3.07)	0.298 (5.01)	0.332 (5.14)	0.35586 (5.50)	1.005 (15.73)	0.6577 (5.44)		1.3529 (13.48)
ln (Distance)	-3.267 (7.30)	-2.209 (19.81)	-1.570 (20.14)	-0.777 (8.98)	-1.209 (10.40)	-1.4013 (11.41)	-1.828 (10.16)	-1.2971 (1.84)		-2.2229 (10.96)
ASEAN-China FTA	1.430 (3.19)	-0.846 (2.22)	-1.585 (5.10)	-0.317 (0.86)	-0.111 (0.29)	-2.7414 (6.80)	3.707 (9.99)	0.4246 (0.31)		4.7901 (10.33)
ASEAN-Korea FTA	-0.303 (0.66)	1.112 (4.86)	-0.156 (0.33)	0.924 (3.15)	0.902 (3.02)	-2.3299 (7.81)	2.657 (11.58)	0.0017 (0.00)		0.8648 (1.24)
ASEAN-Japan FTA	-1.325 (3.27)		1.007 (2.37)	-0.775 (1.20)	1.869 (3.81)	0.15047 (0.37)	-0.006 (0.02)	0.5865 (0.80)		-3.2039 (4.92)
ASEAN-Australia-New Zealand FTA	-1.834 (1.89)	-1.507 (6.07)	0.859 (4.53)	-2.310 (5.10)	-0.650 (2.70)	0.09969 (0.28)	1.109 (4.08)	-3.8315 (4.32)		-2.3323 (4.00)
ASEAN-India FTA	0.824 (0.72)	-0.989 (2.40)	-1.050 (4.12)	-2.979 (4.31)	0.182 (0.82)	-2.5238 (5.79)	1.724 (3.21)	-2.3158 (1.70)		2.8285 (5.23)
ASEAN Free Trade Area (AFTA)	4.152 (9.08)	-0.712 (2.74)	-0.456 (1.74)	1.312 (4.98)	-0.622 (1.56)	-0.7217 (2.22)	2.562 (7.57)	4.2796 (2.71)		5.0131 (7.22)
Number of other FTAs dummies	0	1	5	1	12	4		1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,464
% of zero trade flows	90.1%	70.0%	68.5%	78.2%	58.2%	60.7%	75.1%	90.4%	94.2%	89.8%
R-squared:	0.9556987	0.83943783	0.86969547	0.15468506	0.42922428	0.06026706	0.91904296	0.62817815	0.99948203	0.90181371

Table 2.4.3 (Continued): Estimation Result on Imports by Country & Sector, ASEAN Members

BEC04: Capital goods and parts & accessories	Cambodia	Indonesia	Malaysia	Philippines	Singapore	Thailand	Viet Nam	Brunei	Lao PDR	Myanmar
ln (GDP)	0.958 (21.30)	1.079 (37.29)	1.171 (29.78)	1.189 (28.57)	0.982 (19.91)	1.342 (46.22)	1.075 (31.32)	1.0217 (24.31)	1.0566 (10.74)	1.0290 (20.45)
ln (GDP per capita)	0.625 (11.38)	0.279 (6.80)	0.216 (5.08)	0.760 (20.77)	0.329 (3.69)	0.350 (11.38)	0.547 (11.38)	1.2674 (20.38)	0.1283 (1.09)	0.6082 (3.31)
ln (Distance)	-2.013 (20.85)	-1.593 (15.31)	-1.131 (8.79)	-1.262 (14.17)	-1.044 (7.08)	-1.924 (26.10)	-1.688 (17.54)	-0.2645 (1.39)	-1.5319 (9.82)	-1.6514 (16.49)
ASEAN-China FTA	2.127 (10.47)	1.258 (9.13)	0.978 (4.53)	0.668 (3.71)	1.753 (4.59)	0.717 (6.60)	1.944 (10.53)	4.4335 (10.78)	2.0093 (4.21)	3.4592 (6.46)
ASEAN-Korea FTA	0.256 (1.76)	0.662 (6.49)	1.014 (7.43)	0.633 (4.04)	0.273 (2.82)	0.570 (7.19)	1.873 (9.17)	1.1574 (2.28)	-0.4944 (2.27)	1.5100 (7.45)
ASEAN-Japan FTA	-0.219 (1.28)		0.169 (1.76)	0.124 (1.20)	0.104 (1.44)	0.225 (3.42)	0.439 (2.48)	-0.6970 (1.66)	-0.3774 (1.20)	0.0809 (0.42)
ASEAN-Australia-New Zealand FTA	-0.718 (2.16)	-0.809 (4.56)	-1.104 (8.31)	-1.299 (6.60)	0.450 (3.64)	0.107 (1.14)	-1.159 (4.68)	0.4234 (1.67)	1.6233 (8.83)	-1.7207 (8.63)
ASEAN-India FTA	1.092 (3.35)	0.008 (0.05)	-1.180 (4.75)	0.738 (3.56)	-0.254 (1.71)	-1.014 (7.66)	0.092 (0.38)	7.8869 (11.17)	-0.9652 (1.62)	1.8945 (2.66)
ASEAN Free Trade Area (AFTA)	-0.010 (0.05)	0.510 (2.00)	0.871 (2.21)	2.810 (15.64)	1.568 (3.04)	1.318 (11.51)	0.470 (2.09)	6.0399 (15.17)	0.2301 (0.68)	2.2586 (5.26)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	67.9%	10.1%	27.4%	38.4%	26.3%	15.2%	44.8%	72.4%	76.2%	73.7%
R-squared:	0.88364588	0.9655577	0.92370551	0.86186802	0.93097417	0.97842248	0.96165508	0.84561952	0.88815037	0.93976944
BEC05:Transport equipment, and parts & accessories	**Cambodia**	**Indonesia**	**Malaysia**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**	**Brunei**	**Lao PDR**	**Myanmar**
ln (GDP)	1.955 (16.60)	1.354 (21.06)	1.266 (22.23)	1.325 (23.87)	1.532 (48.52)	1.390 (18.93)	1.116 (20.06)	1.2883 (17.88)	1.2831 (15.56)	1.2558 (13.45)
ln (GDP per capita)	0.388 (4.45)	-0.019 (0.32)	0.041 (0.84)	0.074 (1.56)	0.623 (14.53)	0.157 (2.69)	0.025 (0.51)	0.7756 (12.28)	-0.0435 (0.49)	0.1816 (1.19)
ln (Distance)	-2.422 (16.33)	-0.780 (3.05)	-0.753 (4.15)	-1.519 (13.43)	-0.974 (9.53)	-1.475 (6.47)	-1.384 (11.78)	-1.7741 (8.43)	-1.8025 (9.77)	-2.0885 (18.20)
ASEAN-China FTA	-0.519 (1.28)	-0.288 (0.87)	-0.379 (1.37)	-1.895 (8.88)	0.472 (2.51)	-0.947 (3.46)	-0.239 (1.00)	0.7086 (2.43)	0.3887 (1.40)	2.2499 (4.93)
ASEAN-Korea FTA	2.075 (9.16)	0.190 (0.78)	0.594 (2.32)	0.053 (0.33)	0.870 (3.93)	-0.035 (0.17)	1.395 (8.02)	2.1285 (4.30)	2.2589 (9.05)	0.8065 (3.21)
ASEAN-Japan FTA	-0.124 (0.54)		0.057 (0.26)	-0.037 (0.12)	-0.582 (4.42)	-0.120 (0.72)	-0.135 (0.77)	-0.7463 (2.32)	0.1530 (0.54)	1.8768 (6.06)
ASEAN-Australia-New Zealand FTA	-1.518 (4.65)	-0.732 (2.61)	-1.384 (4.57)	-1.809 (6.39)	-0.386 (3.82)	-0.536 (2.39)	-3.372 (11.71)	-2.6774 (11.42)	-1.6634 (4.24)	-2.0706 (3.74)
ASEAN-India FTA	-0.797 (1.70)	0.167 (0.51)	-1.864 (5.90)	0.461 (1.89)	0.229 (0.83)	-0.476 (1.99)	-1.325 (5.46)	2.1011 (5.86)	-0.9952 (1.80)	-0.1339 (0.25)
ASEAN Free Trade Area (AFTA)	1.446 (3.06)	3.002 (5.22)	1.747 (3.41)	2.618 (12.74)	1.418 (4.12)	1.256 (3.90)	0.279 (1.28)	2.3513 (6.94)	-0.0780 (0.29)	1.1986 (3.55)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	80.8%	48.1%	54.7%	61.6%	43.8%	41.4%	65.4%	80.6%	83.3%	81.9%
R-squared:	0.74618528	0.74126625	0.63366567	0.66562333	0.95120533	0.90708701	0.70172803	0.64089689	0.95911289	0.8829668
BEC06: Consumption goods	**Cambodia**	**Indonesia**	**Malaysia**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**	**Brunei**	**Lao PDR**	**Myanmar**
ln (GDP)	0.876 (13.11)	1.081 (28.78)	1.033 (35.40)	0.875 (28.43)	1.107 (26.11)	1.120 (35.48)	1.010 (34.23)	0.8554 (15.66)	0.9661 (9.78)	1.0729 (12.53)
ln (GDP per capita)	0.101 (0.79)	-0.050 (1.08)	0.024 (0.67)	0.243 (8.84)	0.195 (4.54)	0.438 (11.69)	0.245 (6.05)	0.9887 (14.86)	0.1873 (1.69)	0.0876 (0.68)
ln (Distance)	-1.197 (4.46)	-1.408 (9.26)	-1.221 (11.33)	-1.312 (16.54)	-1.722 (18.37)	-1.647 (23.33)	-1.709 (21.51)	-0.1725 (0.73)	-1.9929 (14.85)	-1.8548 (24.47)
ASEAN-China FTA	0.521 (2.50)	1.045 (5.06)	0.622 (3.59)	0.368 (2.38)	0.611 (3.21)	0.960 (6.11)	0.398 (2.70)	5.8854 (15.15)	2.7047 (6.11)	1.9287 (4.42)
ASEAN-Korea FTA	0.309 (1.10)	0.538 (4.06)	-0.313 (2.59)	-0.960 (8.83)	-0.148 (1.48)	-0.578 (7.64)	0.820 (8.51)	-0.7027 (2.35)	0.4509 (1.65)	1.4044 (10.39)
ASEAN-Japan FTA	-1.468 (2.23)		-0.507 (3.19)	-0.005 (0.05)	-0.052 (0.69)	0.127 (1.32)	-0.205 (1.43)	0.1100 (0.21)	-1.4246 (6.06)	-1.6239 (9.74)
ASEAN-Australia-New Zealand FTA	-1.329 (5.54)	-0.450 (3.08)	0.252 (1.90)	0.278 (2.94)	0.092 (0.92)	-0.213 (1.50)	-0.364 (3.90)	-0.3502 (1.23)	1.6096 (7.82)	-0.8907 (2.81)
ASEAN-India FTA	0.488 (1.82)	-1.154 (5.17)	-1.110 (5.36)	0.792 (7.95)	-0.051 (0.50)	-0.140 (0.82)	0.644 (4.39)	2.2675 (6.30)	0.3029 (0.61)	1.3489 (2.73)
ASEAN Free Trade Area (AFTA)	1.030 (1.46)	1.263 (3.35)	0.319 (0.99)	1.803 (15.76)	-0.681 (2.36)	1.348 (11.21)	-0.006 (0.03)	5.3310 (11.28)	1.4111 (4.37)	1.5908 (5.61)
Number of other FTAs dummies	0	1	5	1	12	4	1	1	1	0
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	65.6%	35.0%	40.1%	42.3%	28.7%	16.0%	49.3%	71.3%	75.8%	73.3%
R-squared:	0.46235331	0.93749042	0.87914009	0.8409638	0.87933307	0.95155658	0.89515825	0.85932816	0.92207952	0.94402684

Note: Figures in parenthesis are 1-values. Cells coloured orange are significantly positive coefficients of trade creation effect. Data for Brunei, Lao PDR, and Myanmar is constructed by their trade partners on the assumption that imports of Brunei from county j equals exports of country j to Brunei. Estimation results are omitted when more than 90% of all samples are zero trade.

Table 2.4.4: Estimation Result on Imports by Country and Sector, 6 Dialogue Countries

BEC01: Food and Beverages	Australia	China	India	Japan	Korea	New Zealand
ln (GDP)	0.691 (30.12)	0.982 (25.61)	0.710 (24.75)	0.899 (44.89)	0.949 (28.04)	0.681 (26.27)
ln (GDP per capita)	0.056 (1.42)	-0.259 (3.75)	-0.531 (9.80)	-0.118 (3.59)	-0.218 (3.76)	0.070 (2.32)
ln (Distance)	-0.743 (4.46)	2.415 (8.04)	0.615 (4.16)	-0.400 (9.89)	-0.141 (2.49)	-1.343 (7.63)
ASEAN-China FTA		4.144 (10.93)				
ASEAN-Korea FTA					1.307 (8.35)	
ASEAN-Japan FTA				0.223 (1.53)		
ASEAN-Australia-New Zealand FTA	0.682 (4.83)					0.795 (5.11)
ASEAN-India FTA			1.731 (5.85)			
Number of other FTAs dummies	5	8	8	11	7	7
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	25.0%	25.8%	36.9%	13.6%	22.9%	34.5%
R-squared:	0.82845877	0.776735	0.44539861	0.79884217	0.73652936	0.97039159
BEC02: Industrial supplies	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	0.799 (21.89)	0.813 (34.65)	0.732 (18.43)	0.893 (55.76)	0.910 (53.32)	0.821 (41.00)
ln (GDP per capita)	0.031 (0.75)	-0.114 (2.72)	0.177 (2.54)	-0.142 (4.67)	-0.019 (0.76)	0.039 (0.97)
ln (Distance)	-2.108 (10.71)	-0.707 (17.76)	-1.379 (8.49)	-0.532 (12.77)	-0.672 (23.98)	-1.026 (7.11)
ASEAN-China FTA		0.426 (4.72)				
ASEAN-Korea FTA					0.859 (9.10)	
ASEAN-Japan FTA				-0.020 (0.20)		
ASEAN-Australia-New Zealand FTA	-0.056 (0.35)					0.374 (1.89)
ASEAN-India FTA			0.381 (1.82)			
Number of other FTAs dummies	5	8	8	11	7	7
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	15.6%	7.4%	7.4%	10.5%	8.7%	22.9%
R-squared:	0.70187705	0.7203842	0.408931	0.84253917	0.93480716	0.95136062
BEC3: Fuels and lubricants	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	0.493 (17.00)	0.484 (14.96)	0.603 (12.43)	0.326 (8.76)	0.353 (9.49)	0.301 (6.52)
ln (GDP per capita)	0.050 (0.70)	-0.240 (4.76)	-0.154 (2.06)	0.397 (5.15)	0.375 (4.69)	0.622 (5.12)
ln (Distance)	-2.770 (19.22)	-0.384 (5.04)	-2.002 (7.88)	-0.577 (8.10)	-0.167 (1.84)	-1.681 (12.52)
ASEAN-China FTA		-0.203 (1.08)				
ASEAN-Korea FTA					1.135 (5.15)	
ASEAN-Japan FTA				0.204 (0.82)		
ASEAN-Australia-New Zealand FTA	0.812 (3.20)					0.570 (1.89)
ASEAN-India FTA			-0.794 (2.16)			
Number of other FTAs dummies	5	8	8	11	7	7
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	65.0%	49.4%	54.2%	59.9%	51.3%	70.1%
R-squared:	0.66125968	0.09532459	0.26986448	0.10346014	0.08633746	0.52672556
BEC04: Capital goods and parts & accessories	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	1.122 (24.23)	0.843 (34.42)	1.339 (37.25)	1.199 (34.63)	1.063 (28.45)	0.938 (23.08)
ln (GDP per capita)	-0.059 (0.98)	0.447 (9.05)	-0.210 (5.04)	-0.152 (5.35)	0.049 (1.72)	0.178 (1.97)
ln (Distance)	-1.362 (8.09)	-1.240 (28.85)	-1.826 (16.31)	-1.232 (33.13)	-0.869 (25.84)	-1.054 (7.87)
ASEAN-China FTA		2.433 (14.47)				
ASEAN-Korea FTA					1.513 (7.28)	
ASEAN-Japan FTA				-0.069 (0.88)		
ASEAN-Australia-New Zealand FTA	0.138 (0.56)					0.253 (1.06)
ASEAN-India FTA			0.087 (0.44)			
Number of other FTAs dummies	5	8	8	11	7	7
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	16.5%	15.6%	21.9%	21.0%	11.4%	26.2%
R-squared:	0.77959557	0.86982635	0.87630687	0.95525228	0.93441774	0.88864373
BEC05: Transport equipment, and parts & accessories	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	1.155 (40.55)	1.040 (28.47)	1.141 (26.38)	1.239 (59.05)	1.073 (26.52)	0.969 (31.90)
ln (GDP per capita)	0.519 (24.32)	0.497 (8.15)	0.040 (0.76)	0.104 (2.89)	0.168 (7.24)	0.750 (18.81)
ln (Distance)	-1.905 (18.94)	-0.649 (11.39)	-0.981 (6.50)	-0.459 (10.14)	-0.516 (19.16)	-2.334 (14.69)
ASEAN-China FTA		-0.318 (2.10)				
ASEAN-Korea FTA					-0.006 (0.03)	
ASEAN-Japan FTA				0.282 (1.82)		
ASEAN-Australia-New Zealand FTA	0.020 (0.22)					0.362 (2.68)
ASEAN-India FTA			1.028 (3.13)			
Number of other FTAs dummies	5	8	8	11	7	7
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	38.6%	41.7%	43.3%	47.6%	36.4%	42.7%
R-squared:	0.95595158	0.68925999	0.73396825	0.8705487	0.86588838	0.86647853
BEC06: Consumption goods	**Australia**	**China**	**India**	**Japan**	**Korea**	**New Zealand**
ln (GDP)	1.165 (24.15)	0.754 (27.68)	1.176 (20.54)	1.213 (38.03)	1.105 (41.78)	1.077 (18.21)
ln (GDP per capita)	-0.318 (4.59)	0.664 (11.38)	-0.053 (0.58)	-0.405 (8.82)	-0.269 (7.03)	-0.406 (4.76)
ln (Distance)	-1.052 (5.05)	-0.614 (15.33)	-2.101 (5.83)	-1.096 (16.05)	-0.756 (18.61)	-0.757 (3.38)
ASEAN-China FTA		1.951 (16.82)				
ASEAN-Korea FTA					1.633 (8.09)	
ASEAN-Japan FTA				0.719 (2.92)		
ASEAN-Australia-New Zealand FTA	0.214 (0.94)					0.637 (3.63)
ASEAN-India FTA			0.310 (1.25)			
Number of other FTAs dummies	5	8	8	11	7	7
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	2,450	2,450	2,450	2,450	2,450	2,450
% of zero trade flows	14.2%	21.6%	28.6%	17.4%	15.3%	20.0%
R-squared:	0.73215405	0.78740942	0.66374595	0.96041945	0.9098462	0.87216488

Note: Figures in parenthesis are z-values. Cells coloured orange are significantly positive coefficients of trade creation effect.

5. Conclusion

By estimating the impact of ASEAN+1 FTAs using sectoral trade data in 2002–2013, we found several characteristics of these regional FTAs. The results indicate that five ASEAN+1 FTAs have a positive impact on regional trade in many sectors even during their early phase. This trade creation effect seems to be based on existing production and sales networks in East Asia. Our results on ACFTA and AKFTA suggest a regional FTA stimulates intra-regional trade by developing production and sales networks in the region. Moreover, ACFTA, AKFTA, and AIFTA have the potential to boost trade in industrial supplies and capital goods of emerging ASEAN members. A region-wide FTA in this region can take the role of expanding the existing production and sales networks to newer developing members.

Trade creation effects under AJCEP cannot be observed in ASEAN members in many sectors, even though wide and deep production and sales networks between Japan and ASEAN countries have already been formed. A possible reason is that existing bilateral FTAs between Japan and seven ASEAN countries are utilised more than AJCEP. This implies that a newer region-wide FTA formed between the same members of precedent FTAs should be more liberalised and/or have lower utilisation costs than the precedent FTAs.

RCEP, which is going to be formed by coordinating five ASEAN+1 FTAs and AFTA, needs to be constructed with a view to enhancing the strengths and eliminating the weaknesses of these existing regional FTAs. The necessary conditions for RCEP to be a substantially effective region-wide FTA are: higher-level liberalisation, lower cost of utilisation compared with the precedent bilateral and plurilateral FTAs in the region, the early implementation of tariff reduction/elimination in sectors already liberalised under the existing ASEAN+1 FTAs, and more comprehensive liberalisation to increase productivity and narrow the development gap in the region.

As our estimation results indicate, all ASEAN+1 FTAs have trade diversion effects in several sectors. RCEP is expected to be conducive to extending the existing production and sales networks between ASEAN and its dialogue partners to region-

wide networks. Therefore, RCEP need to be implemented simultaneously in all member countries to avoid trade diversion effects.

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Appendix Table 2.A.1: Sample Countries

Albania	Dominican Republic	Liberia	Senegal
Algeria	Ecuador	Libya	Serbia
Angola	Egypt, Arab Rep. of	Lithuania	Seychelles
Antigua and Barbuda	El Salvador	Luxembourg	Sierra Leone
Argentina	Equatorial Guinea	Macao SAR, China	Singapore
Armenia	Eritrea	Macedonia, FYR	Slovak Republic
Australia	Estonia	Madagascar	Slovenia
Austria	Ethiopia	Malawi	Solomon Islands
Azerbaijan	Fiji	Malaysia	South Africa
Bahamas, The	Finland	Mali	Spain
Bahrain	France	Malta	Sri Lanka
Bangladesh	Gabon	Marshall Islands	St. Kitts and Nevis
Belarus	Gambia, The	Mauritania	St. Lucia
Belgium	Georgia	Mauritius	St. Vincent and the Grenadines
Belize	Germany	Mexico	Sudan
Benin	Ghana	Moldova	Suriname
Bhutan	Greece	Mongolia	Swaziland
Bolivia	Grenada	Montenegro	Sweden
Bosnia and Herzegovina	Guatemala	Morocco	Switzerland
Botswana	Guinea	Mozambique	Tajikistan
Brazil	Guinea-Bissau	Myanmar	Tanzania
Brunei Darussalam	Guyana	Namibia	Thailand
Bulgaria	Haiti	Nepal	Togo
Burkina Faso	Honduras	Netherlands	Tonga
Burundi	Hong Kong	New Zealand	Trinidad and Tobago
Cabo Verde	Hungary	Nicaragua	Tunisia
Cambodia	Iceland	Niger	Turkey
Cameroon	India	Nigeria	Turkmenistan
Canada	Indonesia	Norway	Tuvalu
Central African Republic	Iran, Islamic Rep.	Pakistan	Uganda
Chad	Iraq	Palau	Ukraine
Chile	Ireland	Panama	United Arab Emirates
China	Israel	Papua New Guinea	United Kingdom
Colombia	Italy	Paraguay	United States
Comoros	Japan	Peru	Uruguay
Congo, Dem. Rep.	Jordan	Philippines	Uzbekistan
Congo, Rep.	Kazakhstan	Poland	Vanuatu
Costa Rica	Kenya	Portugal	Venezuela
Cote d'Ivoire	Kiribati	Qatar	Viet Nam
Croatia	Korea, Rep. of	Romania	Yemen
Cyprus	Kyrgyz Republic	Russian Federation	Zambia
Czech Republic	Lao PDR	Rwanda	Zimbabwe
Denmark	Latvia	Samoa	
Djibouti	Lebanon	Sao Tome and Principe	
Dominica	Lesotho	Saudi Arabia	

Appendix Table 2.A.2: Date in effect of Each Member of ASEAN+1 FTA

ACFTA			AKFTA		AJCEP		AANZKFTA		AIFTA	
	Normal Track	Early Harvest		Normal Track		Normal Track		Normal Track		Normal Track
China	Jul-05	Jan-04	Korea	Jun-07	Japan	Dec-08	Australia	Jan-10	India	Jan-10
Brunei Darussalam	Jul-05	Jan-04	Brunei Darussalam	Jun-07	Brunei Darussalam	Jan-09	New Zealand	Jan-10	Brunei Darussalam	Jan-10
Cambodia	Jul-05	Jan-06	Cambodia	Jun-07	Cambodia	Jan-10	Brunei Darussalam	Jan-10	Cambodia	Jul-11
Indonesia	Jul-05	Jan-04	Indonesia	Jun-07	Indonesia	Still pending	Cambodia	Jan-11	Indonesia	Jan-10
Lao PDR	Jul-05	Jan-06	Lao PDR	Jun-07	Lao PDR	Dec-08	Indonesia	Jan-12	Lao PDR	Jan-10
Malaysia	Jul-05	Jan-04	Malaysia	Jun-07	Malaysia	Feb-09	Lao PDR	Jan-11	Malaysia	Jan-10
Myanmar	Jul-05	Jan-06	Myanmar	Jun-07	Myanmar	Dec-08	Malaysia	Jan-10	Myanmar	Jan-10
Philippines	Jul-05	Jan-06	Philippines	Jun-07	Philippines	Jul-10	Myanmar	Jan-10	Philippines	May-11
Singapore	Jul-05	Jan-04	Singapore	Jun-07	Singapore	Dec-08	Philippines	Jan-10	Singapore	Jan-10
Thailand	Jul-05	Oct-03	Thailand	Jan-10	Thailand	Jun-09	Singapore	Jan-10	Thailand	Jan-10
Viet Nam	Jul-05	Jan-04	Viet Nam	Jun-07	Viet Nam	Dec-08	Thailand	Mar-10	Viet Nam	Jan-10
							Viet Nam	Jan-10		

Source: Information on FTA/EPA provided by Japan External Trade Organization.

Chapter 3

To Improve the Use of FTA: Lessons learned from Korea

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Although Korea has been successful in concluding free trade agreements (FTAs), it has faced difficulties in increasing FTA utilisation by small and medium enterprises. Since there has been substantial progress in building institutional infrastructure as part of the Korean government's active policy of FTA utilisation assistance, FTA utilisation ratios are as high as those of advanced countries. Several policy implications can be drawn from Korea's experience in assisting businesses with FTA utilisation. (i) One of the most urgent and important tasks in assisting FTA utilisation is to identify the barriers that prevent companies from utilising FTAs. Critical barriers may differ from country to country. (ii) Coordination amongst national agencies is critical in increasing the efficiency of the infrastructure assisting FTA utilisation. (iii) Governments should promote FTAs with large economies, which are expected to bring big economic gains. (iv) Authorities of trade and industry should understand the importance of the quality of FTAs. (v) FTA member countries should take advantage of various levels of committees institutionalised in FTAs.

1. Background

Korea has established a very wide free trade agreement (FTA) network by implementing 15 FTAs with 50 countries, and the utilisation ratios of these FTAs are fairly high, ranging from 40 percent to 80 percent as of December 2013, although the rates differ depending on the method of measurement, and some FTAs record poor performance in terms of FTA utilisation. Korean companies' utilisation ratios of FTAs were quite low five years ago, and some suspicions regarding the benefits of FTAs were raised, despite their active promotion by the government.

Today's good performance has been achieved thanks to the strategic approach and diverse support mechanisms initiated by the government of Korea since 2010. This goes back to the period of 2007–2009. When the Association of Southeast Asian Nations (ASEAN)–Korea FTA was implemented in June 2007, Korean companies had high concerns over the FTA with ASEAN, which is geographically close and Korea's fifth to sixth largest trading partner. However, it was reported that only few companies were utilising the FTA in exporting their products to ASEAN countries. Despite the official announcement by the government of Korea on the implementation of the ASEAN–Korea FTA, only five ASEAN member countries officially effectuated the ASEAN–Korea FTA, and some countries were not ready to implement the agreement.[1] Moreover, the tariff rates were only partially liberalised, and the tariff schedules of the FTA were fairly complex. It was difficult for Korean businessmen to comprehend the tariff schedules given in the FTA without a high level of knowledge of FTAs.

Surveys revealed that utilisation rates for Korea and Japan were 21 percent and 29 percent, respectively. The surveys by KOTRA (2008), KITA (2009), and Cheong (2008, 2009) had similar findings. Most of the FTAs that Korea implemented this time were concluded with small and medium-sized developing countries. Moreover, in these FTAs, the preferential margin of tariffs is not big; as such, only one out of five enterprises was found to be utilising FTAs in Korea. On the other hand, half of the enterprises that had been surveyed responded that they intended to utilise FTAs in the future. These Korean enterprises are thought to have responded with the implementation of the Korea–US FTA

[1] Those five ASEAN countries were Indonesia, Malaysia, Myanmar, Singapore, and Viet Nam.

in mind, and most of the enterprises were expecting its early implementation.

Korea was embroiled in a controversy over the negotiation of the Korea–US FTA when the ASEAN–Korea FTA became effective. Anti-FTA groups advocated the cancellation of the FTA with the US, and the government of Korea was criticised for its handling of various aspects of the deal. The poor utilisation rates of the FTA with ASEAN were used as one of the arguments against the Korea–US FTA. That is, even though the government promoted the economic gains of FTAs to the general public, low utilisation rates meant a contrary outcome; a similar argument could apply regarding the Korea–US FTA. The controversy over the Korea–US FTA continued in 2008 and 2009 – more sensitive issues were raised over various areas such as the investor–state dispute settlement mechanism (ISD) and mistranslations of the agreement into Korean.

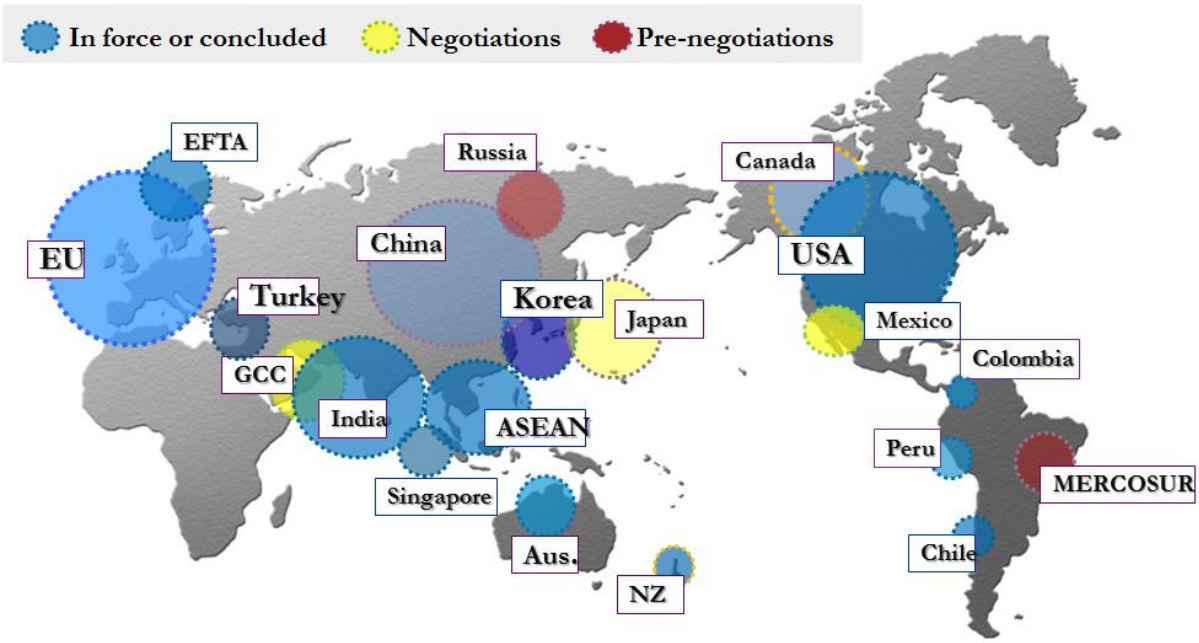
For the FTA with the US to be implemented, it had to be ratified by the National Assembly (congress), and the government planned to ratify the FTA in 2009. However, with the exception of the FTA with Chile, Korea's low utilisation of its FTAs did not improve, and along with other issues could be regarded as a critical pretext for rejecting the agreement. Therefore, improving the utilisation rates of existing FTAs became one of the most urgent tasks for the trade authority in 2009–2010. A more serious issue was the fact that most small and medium enterprises (SMEs) did not utilise FTAs, and were losing interest in the government's FTA policy, as it seemed FTAs are beneficial to large companies, whereas most of SMEs suffer as a result of trade liberalisation under FTAs.

The Korean enterprises, on the whole, consist of a small number of big corporations (one percent of the total number of companies in Korea) and a large number of SMEs. Most of the 30 largest Korean corporations are classified as multinational corporations, whose exports account for roughly 70 percent of Korea's total exports. These corporations are not only favourably inclined towards the government's FTA policies, but are also actively utilising the existing FTAs for their respective businesses. It is not difficult for them to utilise the existing FTAs as they have considerable manpower that can be dedicated to the task. However, most SMEs did not fully recognise the roles of FTAs in expanding their international businesses, and have not secured the dedicated manpower for international trade in utilising FTAs (Cheong and Cho 2009b).

2. Korea's FTA Performance

Korea's participation in the global trend of regionalism started with the implementation of its FTA with Chile in April 2004. Ten years later, Korea had established one of the widest FTA networks in the world. Korea's FTA partners are the US, the European Union (EU), China, Canada, Australia, India, ASEAN, Turkey, Colombia, Peru, and Chile. Korea has established free trade infrastructure with 50 countries through the conclusion of 12 FTAs, covering about 60 percent of world economy.

Figure 3.1: Korea's FTA Network



Source: Prepared by the author based on Cheong (2013).

Korea signed an FTA with China in February 2015, expecting the implementation of the FTA in 2016. It also started negotiations on a China–Japan–Korea (CJK) FTA and the Regional Comprehensive Economic Partnership (RCEP) agreement in the first half of 2013. FTAs with Japan, Mexico, and the Gulf Cooperation Council (GCC) are progressing slowly, compared with currently effective (concluded) FTAs. Korea is in discussions about FTAs with the Russian Federation, the Trans–Pacific Partnership (TPP), and the South American Common Market (MERCOSUR).

Table 3.1: Korea's FTA Performance

	Country and Region (Key time)
FTAs implemented (concluded)	Chile (implemented in April 2004) Singapore (March 2006) EFTA (September 2006) ASEAN (June 2007) India (January 2007) EU (July 2009) US (March 2007) Turkey (May 2013) Colombia (to be implemented in 2015 after ratification) Australia (December 2014) Canada (January 2015) China (to be implemented in 2016)
FTA partners under official negotiation	Japan, China–Japan–Korea Regional Comprehensive Economic Partnership (RCEP) Mexico, Gulf Cooperation Council (GCC), New Zealand
FTAs under consideration	Trans-Pacific Partnership (TPP), Russian Federation, South American Common Market (MERCOSUR)

Source: Compiled from various sources.

It can be said that Korea has been one of most successful countries in concluding FTAs with major trading partners in the world during the last decade. In addition to the high number of FTAs Korea implemented and concluded, Korea's FTA policy has been developed step by step in terms of quality, and its recent FTAs with developed economies are very broad in terms of market access and comprehensive in coverage. That is, Korea has concluded 'deep and comprehensive' FTAs. Especially, the Korea–US (KORUS) FTA is likely to be the world's most exemplary, the most advanced FTA in existence today.

In spite of establishing a wide FTA network, the government of Korea has been criticised because of low FTA utilisation ratios. Although the country has provided several FTA support programmes for companies since 2007, most companies had difficulties in utilising FTAs. In 2009–2010, Korea introduced a comprehensive package for supporting companies in terms of FTA business information, various programmes for staffs of trade companies, graduate courses for FTA experts, FTA business models for beginners, and a 'toll-free' phone number for free consulting on how to use FTAs. Korea has also been trying to improve the efficiency of the package from a company perspective. FTAs have become a basic part of the infrastructure for most trading companies.

3. Barriers against FTA Utilisation

The Korean trade authority reviewed the status of FTA utilisation and made a commitment to prepare a government-level policy package for FTA utilisation by private companies in 2010. At this time, the pros and cons of the US–Korea FTA were being fiercely debated in Korea, and the government at the time needed to increase the level of support for the FTA in the business sector. The low utilisation ratio of existing FTAs was an appealing logic against the ratification of the US–Korea FTA, as it suggested that the economic gains from the implementation of the FTA would be smaller than the government's estimates.

Low utilisation of FTAs was reproved in governmental survey for manufacturing companies and trading ones. Before the policy package for FTA utilisation was created, extensive research on the FTA utilisation ratios for each FTA, and major factors discouraging the utilisation of FTAs were identified. It became apparent that most companies were in the misunderstanding that the implementation of FTAs would automatically bring them economic gains, without the need for any action on their part. Private companies argued that the government had promoted a similar message to gain the support of the Korean people.

Korea was able to conclude negotiations for bilateral FTAs with Singapore, the European Free Trade Association (EFTA), ASEAN, India, the US, and the EU in the five-year period from 2004 to 2008 due to the high trade performance of its first FTA with Chile, which had been implemented in April 2004. However, similar performances failed to materialise for subsequent FTAs. Several surveys at that time showed that most companies did not take advantage of the FTAs being implemented. The finding that most of the companies surveyed were not properly utilising the FTA preferential tariffs was also substantiated by the results of the KOTRA (2008) survey, which showed that only 19 percent of all respondent firms were utilising FTA preferential tariffs. A survey by Cheong (2008) provided a similar result – only 21 percent of firms utilised FTAs in their business in applying preferential tariffs.

Cheong (2009) reported that the majority of Korean businessmen were unaware of the implementation of FTAs, and their perception was not very favourable regarding FTAs, despite the government of Korea promoting the message that FTAs would provide

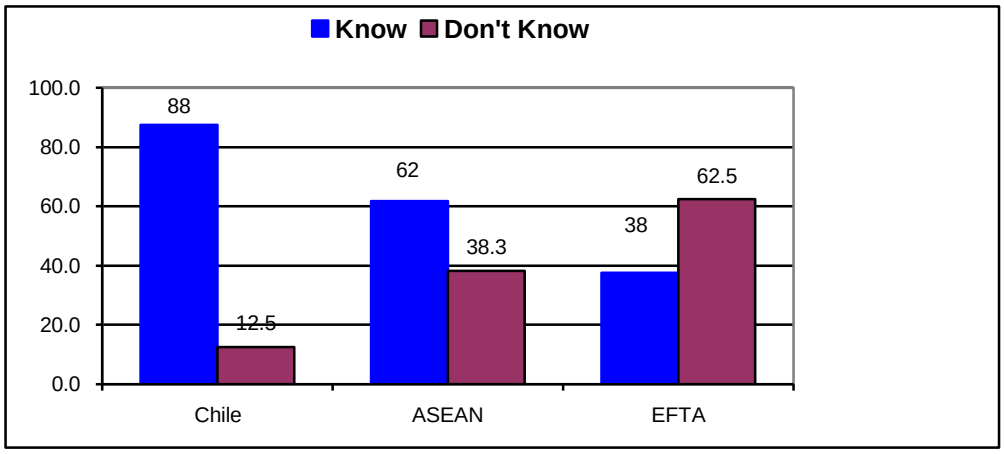
lucrative business opportunities for Korean companies. Over the past several years, Korea's foreign-trade authorities have extensively publicised the promotion of FTAs amongst the Korean people, with the aim of increasing political support for its FTA policy and enhancing the policy environment for more active promotion of FTAs.

Survey results of 2008–2010

The survey was carried out in relation to three FTAs – with Chile, ASEAN, and the European Free Trade Association (EFTA) – which were implemented in 2009.[2] The enterprises that responded to the survey included 221 SMEs that manufacture automotive parts, electrical goods and parts, machinery, petrochemicals, textiles, steel and metal products, and sundries. These companies were selected from across the country to minimise bias resulting from data selection.

The survey result showed wide differences in the perception that the Korean enterprises recognise the implementation of FTAs. The enterprises' degree of recognition of the countries in which FTAs have become effective was highest for the FTA with Chile – 88 percent of responding companies knew of the implementation of the FTA with Chile, followed by the FTA with ASEAN (62 percent), and that with EFTA (38 percent), according to the survey by Cheong and Cho (2009a).

Figure 3.2: Perception of Implemented FTAs (%)

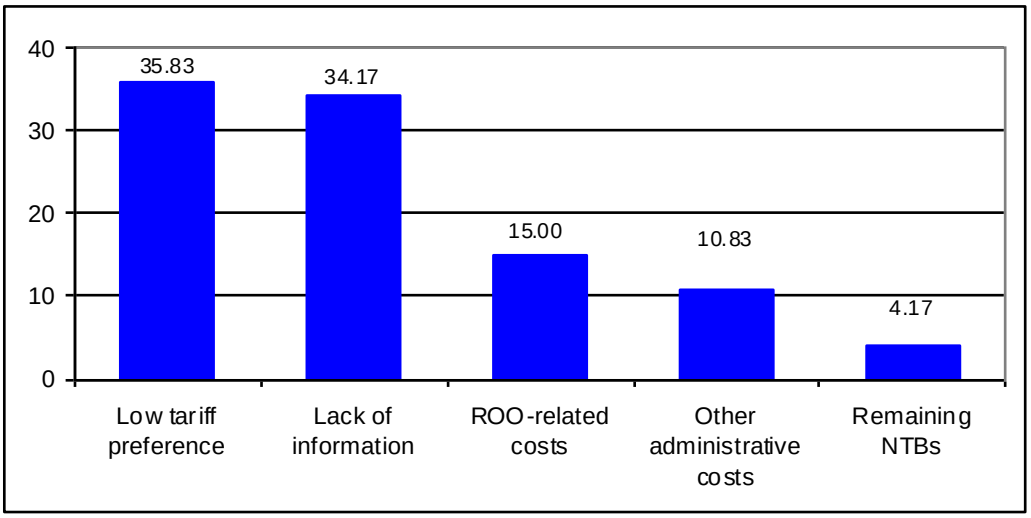


Source: Cheong and Cho (2009), 'Barriers in Korean Businesses' FTA Utilization'.

[2] The Korea–Singapore FTA was under implementation at the time of the survey, but this was not included in the survey since its most-favoured nation (MFN) tariff rate is low or near zero.

Several impediments were identified by the survey. Contrary to initial expectations, small tariff preference, that is, low incentive for utilising FTAs, was the most frequently cited reason for not utilising FTAs, followed by lack of information, difficulties related to rules of origin (ROO), and other administrative costs.

Figure 3.3: Impediments to FTA Use (%)



Source: Cheong and Cho (2009), 'Barriers to Korean businesses' FTA utilization'.

Table 3.2: Barriers to Korean Businesses' FTA Utilisation

		1st	2nd	3rd	4th
Imports		Lack of FTA information	Problems with ROO	Low tariff margins	Other
Exports	Survey 1	Lack of FTA information	Problems with ROO	Importers' intention for using FTAs	Other institutional barriers
	Survey 2	Low tariff margins	Lack of FTA information	Importers' business mind	Customs clearance

Source: Cheong and Cho (2010), 'Barriers in Korean businesses' FTA utilisation'.

Whilst the barriers to Korean businesses' FTA utilisation that had been identified were slightly different for imports and exports, the most significant barriers were a lack of

FTA business information, difficulties in satisfying ROO, low tariff preferential margins, and a lack of importers' business mind in utilising FTAs in partner countries. These barriers could not be alleviated within a short period of time, as it requires a lot of resources and efforts to institutionalise an infrastructure for providing FTA business information. Some tasks such as raising low tariff margins and improving importers' FTA business mind could not be achieved without co-operating with the governments of FTA partner countries.

Low tariff preference was closely related to the FTA with ASEAN, which was implemented in June 2007. During the negotiation period of the ASEAN–Korea FTA, its effects were expected to be great since ASEAN is not only geographically close to Korea but is also Korea's fifth or sixth-largest trading partner in 2006. But the ASEAN–Korea FTA has not yet produced substantial trade effects. According to the FTA's market access provisions, both parties were supposed to abolish tariffs on 90 percent of their mutual imports (based on tariff lines) by 2010, and should lower tariffs on 7 percent of imports of sensitive items from 0 to 5 percent by 2016. For the remaining three percent of imports, which are ultra-sensitive items, various protective measures such as import permits, long-term tariff reduction, and the setting up of a tariff quota were put in place. The problem is that Korea's main export items are included in the remaining three percent ultra-sensitive items category. Consequently, ASEAN's tariffs on such items, exports of which Korea had expected to increase sharply at the time of the FTA negotiations, were not lowered.[3]

In particular, the difference between the Korea–ASEAN preferential tariff and the MFN tariff is close to 1 percent, and the FTA preferential level felt by the enterprises is low. Moreover, the expenses that must be incurred to meet the ROO are also burdens on the companies that utilise FTAs. As Korean companies did not see enough economic incentives to utilise the then-effective FTAs, they were certainly not willing to bear the burdens associated with the ROO. This implied that companies were losing opportunities to prepare themselves for organising FTA utilisation. Depending on the survey, a majority

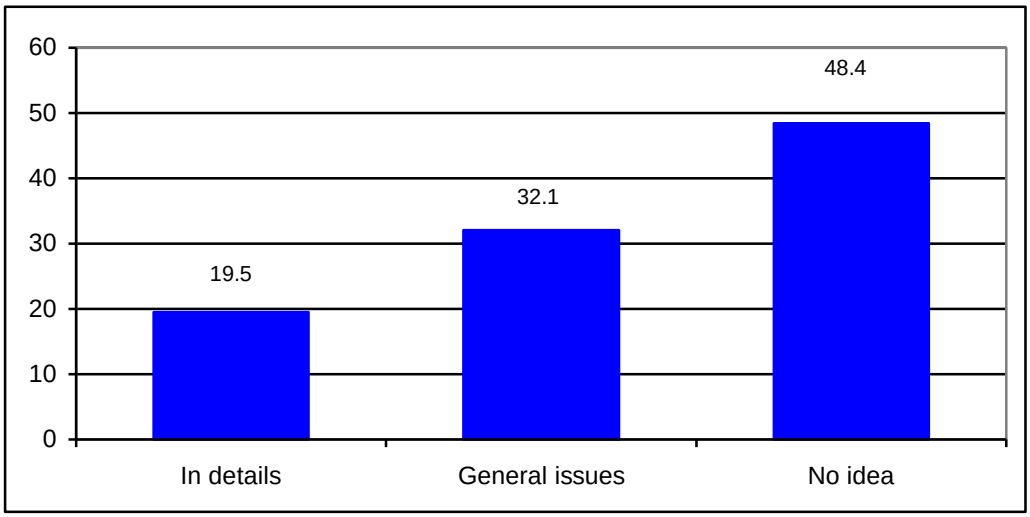
[3] A number of ASEAN member countries – Singapore, Indonesia, Malaysia, Myanmar, and Viet Nam – effectuated their FTAs with Korea only in June 2007. Korea's regional FTA with the Philippines came into effect only in January 2008, and its FTAs with Brunei Darussalam, Lao People's Democratic Republic, and Cambodia came into effect only in July, October, and November 2008, respectively. Thailand only acceded to the ASEAN–Korea FTA in February 2009.

of respondents identified the biggest barrier to utilising FTAs as 'Korean FTA has no substantial tariff preference or no actual benefits from FTA utilisation' and 'lack of information about the business factors of the existing FTAs or about how to utilise them'. Since the trade authorities and related agencies had tried to provide the information on FTAs via websites and various publications, this result was another surprise for the Korean trade authority. This was interpreted to imply that Korean companies wanted manuals for utilising FTAs and descriptive summaries that were suitable for entrepreneurs, rather than simply providing the texts of FTAs, which were available on the websites. The texts of FTAs are written in legal format, rather than in a descriptive style. This also highlighted the need for training courses for education about utilising FTAs and interpreting the texts of FTAs.

Of the many parts of FTAs, ROO were cited as the most burdensome element in terms of utilising FTAs. Although non-preferential ROO have been applied to Korean products regardless of FTAs, preferential ROO was a new concept for Korean companies in the early days of FTA implementation. Korean companies were not willing to change production processes to satisfy the product-specific preferential ROO of FTAs under implementation. According to the survey by Cheong and Cho (2009), only 19.5 percent of respondents replied that they understood the concept of the ROO in detail, and 32.1 percent understood the general issues surrounding ROO. About half of respondents did not know that satisfaction of the ROO is a requirement for applying for the preferential tariff margins provided for in the FTAs. Korea Customs Services (2009) reported that 89 percent of domestic companies did not know the ROO for their products, and in local areas the share of SMEs/companies that did not know was even higher.

Figure 3.4: Awareness of Rules of Origin

(unit: %)



Source: Cheong and Cho (2009).

4. Governmental Package for Enhancing FTA Utilisation

4.1. The FTA Promotion and Policy Adjustment Authority (FTAPPAA)

In June 2007, the government of Korea established the FTA Committee for Domestic Measures (FTA Committee hereafter). When the Korea–US FTA was supposed to be signed by both parties, the FTA Committee was organised as a governing institution for the Support Committee for the Negotiation of the Korea–US FTA, which was formed in early 2006, when Korea was about to start negotiations on the FTA. One purpose of establishing the FTA Committee was to support the utilisation of FTAs, particularly for SMEs. At the same time, trade-related governmental agencies began to provide several programmes to support FTA utilisation by SMEs.

Although the committee established several programmes to support FTA utilisation, such as providing FTA information and education for the private sector, the role of the committee shifted to publicising the Korea–US FTA to attract public support for it. One mistake made by the committee was that it exaggerated the benefits of FTA implementation. That is, rather than making it clear companies should understand how to utilise the FTA once it had been implemented, and how to satisfy the ROO for their products as specified in the FTA, the committee gave the impression that companies'

exports to partner countries would naturally increase following the implementation of FTAs. Although the government was able to gather support for the Korea–US FTA, companies did not realise the importance of strengthening their capacity and make structural adjustments to be able to benefit from FTAs.

The supporting programmes for businesses included education courses for companies and consulting workshops to explain the FTAs and provide information on FTAs, build FTA portals, and organise FTA expos in foreign countries. Although these programmes seemed to be helpful to the business sector, their contents were very poor, and many were implemented as part of efforts to improve the sentiment towards FTAs of the general public in Korea. As a result, the strengthening of companies' capacity to utilise FTAs was very limited, and a 'FTA fatigue' phenomenon emerged, referring to a perception that FTAs were useless. Some companies complained that they suffered an extra burden as a consequence of the implementation of FTAs, without receiving any economic gain, and businesses that had previously been supporters of FTA policy changed their position regarding FTAs.

4.2. Evaluation of the mechanism for supporting FTA utilisation (2010)

When it adopted a comprehensive package supporting FTA utilisation in 2010, the government of Korea set the goal of achieving a 60 percent FTA utilisation ratio over the next three years. As a first step toward achieving that goal, the government decided to review the effectiveness of existing FTA support programmes in detail, recognising that establishing a national infrastructure for utilising FTAs would be key to a successful FTA policy. Without such infrastructure, the economic gains from FTAs would be small – even though Korea implemented many FTAs with major trading partners – and the political environment for promoting FTAs would worsen in the short term. A series of trilateral meetings of trade experts, industrial representatives, and policy makers was held in first half of 2010 to check the ongoing support programmes at that time and evaluate their effectiveness. Numerous criticisms were made, including the following:

- Support programmes were designed from the perspective of governmental authorities, and failed to consider the needs of business sectors.

- The positive points of FTAs were emphasised, but the basic conditions for utilising FTAs, such as satisfaction of ROO, were ignored.
- Major portions of information on FTAs were for public advertisement for FTA promotion, to attract political support for FTA policy. That is, general information on FTAs, not useful for the business sector, was provided.
- Several governmental agencies implemented almost the same programmes with similar contents and lacking a coordinated approach, without sectoral specific contents, leading to low efficiency and waste of administrative capacity.
- The necessity of setting up a 'control tower' and providing a comprehensive package to improve the efficiency of FTA programmes was recognised. All public programmes for FTA utilisation should be completely substantiated, coordinated, and systemically managed by the FTA Committee to improve their efficiency in terms of budget spending, contents, and the satisfaction of business sectors.

4.3. Major structure of Comprehensive Package for Supporting FTA Utilisation

Based on various surveys about the problems of and institutional barriers to Korean companies' FTA utilisation, the government of Korea, led by the Ministry of Strategy and Finance (MOSF), prepared a comprehensive business support mechanism titled 'Plan for Enhancing FTA Utilization'. Governmental concerns about increasing the FTA utilisation ratio and supporting business sectors were first addressed by introducing the FTA Promotion and Policy Adjustment Authority (FTAPPAA) in June 2007. Korea assigned the FTAPPAA to the MOSF for more efficient allocation of resources across all ministries in Korea. In early 2010, Korea adjusted the main role of the FTAPPAA from dealing with domestic issues to supporting the business sector in utilising FTAs. The FTAPPAA and the MOSF, a leading ministry regarding trade and industrial policies, arranged a national package of FTA information on policy, preferential tariffs, and ROO, FTA experts, FTA consulting, local FTA assistance centres, and an FTA call centre, as summarised in Table 3.3.

Table 3.3: Major Components of Korea's FTA Support

	Business Demand Survey	FTA Business Information	FTA Expert, Consulting	Direct Assistance for Business	FTA System Maintenance
Major Contents	Regular and special meetings and surveys for industrial agencies, representative companies	- FTA homepages for tariffs, ROO - Seminars, workshops - Guide books, pocket books, brochures	- Cyber-learning system on FTAs - FTA class in universities and graduate schools - Courses for FTA consultants and experts	- FTA business consulting - FTA call centre - Local FTA assistance centres	- Integrated Business ROO centre - Integrated FTA info centre
Government Agency	FTAPPAA and national related agencies New: National FTA Utilisation Center	FTAPPAA and related agencies	FTAPPAA and related agencies, universities, business forum, academic associations	Related national agencies, customs brokers, F TAPPAA	Korea Customs Services, centre for ROO, Chamber of Commerce, KITA, etc.

Source: Author's summary.

Officials and staff of the FTAPPAA were reinforced in terms of numbers and FTA expertise in dealing with FTA business support issues early 2010. Also, the FTAPPAA was given the authority to promote all FTA assistance tools and related resources in the comprehensive package, and the National FTA Utilization Center (FTAUC) was newly organised in the FTAPPAA and regional (local) FTA assistance centres. That is, the FTAPPAA plans major policies, sets goals, and designs roadmaps on a yearly basis and the National FTAUC implements related details for achieving policy goals set by the FTAPPAA.

Table 3.4: Major Roles of National FTAUC

Major Role	Details for Business Assistance
Cooperation, coordination	✓ Coordination of roles on FTA assistance by ministries, agencies, and organisations (across, between)
Survey, Management	✓ FTA utilisation ratios, barriers to utilising FTAs ✓ Managing FTA business assistance programmes, etc.
FTA info	✓ Internet portals, books, brochures, booklets, etc.
Consulting	✓ Consulting on tariffs, ROO, overseas marketing by experts
Education, training	✓ Cyber-learning system on FTA info ✓ FTA class in universities and graduate schools ✓ Courses for FTA consultants and experts
Seminar, workshop	✓ Various events for educating business sector (national, local, FTA partner countries)

Source: Author's summary.

4.4. Examples of Comprehensive Package for Supporting FTA Utilisation

One of the programmes initiated by the FTAUC was to provide FTA consulting to approximately 10,000 companies over four years starting in 2010. At this time, consulting was considered to be the most efficient means of enhancing FTA utilisation. Financial support was given to trade agencies such as the Small & Medium Business Corporation (SBC), Korea International Trade Association (KITA), and Korea Trade-Investment Promotion Agency (KOTRA) to cover their FTA business consulting costs. The companies that received FTA consulting were targeted to be those that trade with FTA partners. As of 2009, there were about 80,000 trading SMEs, and 37,000 companies were trading with Korea's FTA partner countries. The FTAUC has reached most of the FTA consulting targets so far.

Table 3.5: Targets for Providing FTA Business Consulting

	'10	'11	'12	'13	Total
No. of SMEs	600	2,000	3,000	5,000	10,600

Source: Internal report prepared by Ministry of Strategy and Finance (MOSF).

FTAPPAA opened the FTA Business Portal, which provides important information for FTA business utilisation in 2011. FTA information was organised in such a way that it can be updated on a daily basis, and the portal has been upgraded several times to make the format more user-friendly. The site was designed to provide a single-window portal, consolidating the various FTA information provided by trade ministries and agencies. Recently, areas such as FTA business models and success cases of FTA utilisation were added into the FTA portal, and more systematic analysis mechanisms for searching tariffs and product-specific ROO were installed into the portal.

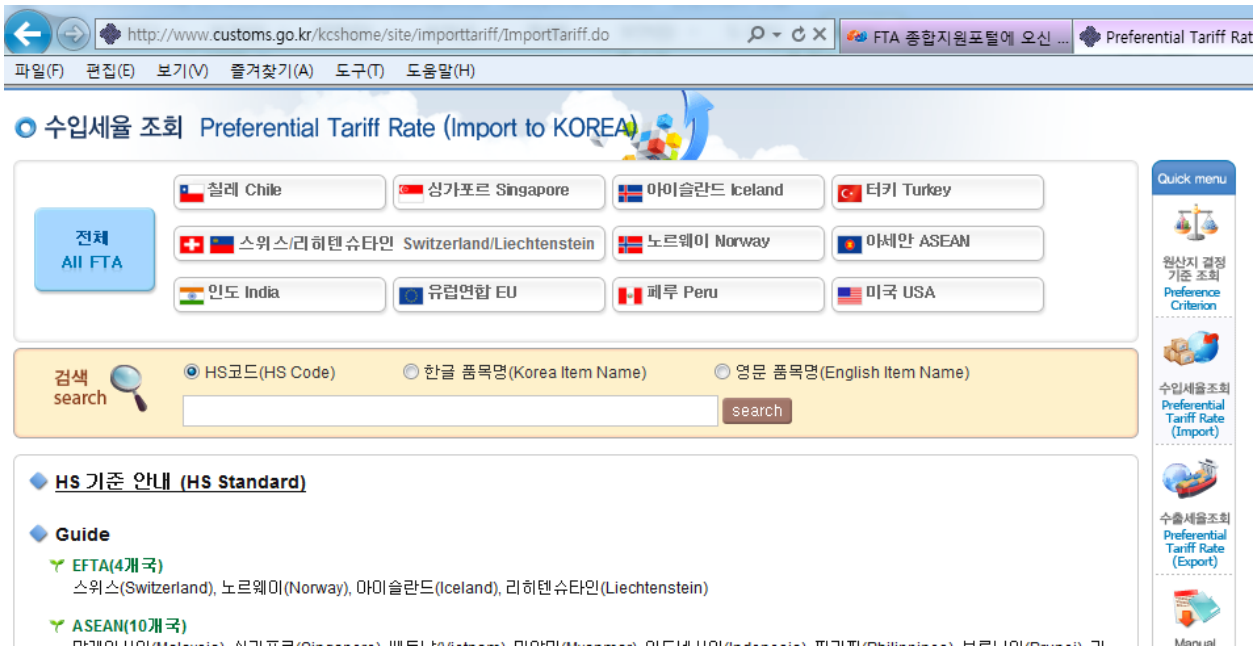
Figure 3.5: FTA Business Portal by the FTAPPAA

Source: www.ftahub.go.kr

Since preferential tariff rates and product-specific ROO are basic elements in utilising FTAs, Korea Customs Service installed integrated portals on preferential tariff

rates and FTA ROO. The FTAPPAA linked these portals in its portal for Korean SMEs. FTA tariffs and related ROO can be viewed by HS digit and by FTA partner. This system allows Korean companies to check relevant information without referring to the Appendix or Annex of FTA agreements. FTAPPAA also offered a series of seminars and workshops for businesses regarding this system.

Figure 3.6: Integrated Portal for Preferential Tariff Rates under Korean FTAs



Source: http://www.customs.go.kr/

Figure 3.7: Integrated Portal for FTA Rules of Origin

Source: http://www.customs.go.kr/

The FTA call centre was established in June 2014, and provides consulting services to callers seven days a week. This centre was not easy to establish and it took two years to arrange professional FTA consultants. It received more than 1,000 calls per month in the five months after it opened. Immediate consulting is provided based on the questions raised by callers, and then follow-up on-site consulting is provided for the companies in question.

Figure 3.8: FTA Call Centre

	Ask whatever on FTA utilisation  FTA call centre Number 1380 anywhere in Korea

Source: www.ftahub.go.kr

Various issues related to satisfying ROO have been identified as barriers to FTA utilisation in most of the surveys since establishment of the FTAPPAA. That is, satisfying ROO requires that many elements of a company are reviewed, such as cost structure, production procedure and specification, sourcing structure, and account books. This process may necessarily involve accessing classified business information including technology and unit cost of products, which made most companies unwilling to receive consulting for FTA utilisation. Although professional consulting companies mention their obligation to handle their clients' information confidentially, it was difficult for Korean SMEs to trust the consulting companies and consultants. Therefore, the FTAPPAA had self-test software developed to enable companies to determine whether they could satisfy ROO without providing internal information on production and costs. As companies practiced testing ROO, they gradually came to trust the consulting companies and consultants.

5. Recent FTA Utilisation

In spite of the delayed recovery of the global economy and the slump in global trade volumes, Korea's trade with most of its FTA partners has continuously expanded. FTA utilisation ratios are recorded to be higher than 60 percent in Korea's bilateral trade with many of its FTA partners, which was the goal that had been set by the government of Korea in 2010. Korea recorded FTA utilisation ratios above 70 percent for the Korea–US FTA and the EU–Korea FTA, whereas the utilisation ratios for the FTAs with ASEAN and India remained low despite national efforts to improve FTA utilisation ratios.[4]

Although the importance of government support for businesses in utilising FTAs should be recognised, the quality of FTAs in terms of improving market access is a key determinant for the extent of FTA utilisation. That is, one of the major reasons for the slow increase in FTA utilisation in FTAs with ASEAN and India is that Korean businesses do not consider tariff margins to be high enough to pay the cost of allocating personal and physical resources. But utilisation ratios for these FTAs have slowly increased due to various forms of governmental support for businesses. As of 2013, the FTA utilisation ratio for the bilateral FTA with ASEAN was 38 percent and that with India 43 percent.

[4] FTA utilisation ratio is measured by dividing exports/imports using FTA tariff preference margins with total exports/imports into/from FTA partner country. Denominators can be discretely chosen total exports/imports depending on the consideration of tariff preference margins.

Table 3.6: Trend of FTA Utilisation Ratios

(unit: percent)

FTA partner	As of End-2012		As of November 2013	
	Exports	Imports	Exports	Imports
Chile	75.2	97.9	78.4	98.3
EFTA	79.8	61.9	80.5	42.0
ASEAN	37.7	73.8	38.5	80.1
India	36.2	52.7	43.0	62.3
EU	81.4	66.8	80.9	67.6
Peru	78.0	92.0	92.0	98.4
US	68.9	61.0	76.4	67.3
Simple average	65.31	72.30	69.96	73.71

Source: Korea Customs Service (2013) 'FTA Utilisation Ratios for Korea' Trade'.

Based on the FTA utilisation performance summarised in Table 3.5, Korea's FTA support policy can be considered a success in terms of achieving policy goals and improving FTA utilisation ratios. When the government of Korea was considering a national FTA support policy in 2010, the average FTA utilisation ratio was about 20 percent, and as low as 4–5 percent in exports for some FTAs. The original goal was to achieve a 40 percent FTA utilisation ratio in 2012, a 60 percent FTA utilisation ratio in 2013, and to increase those to about 80 percent, which is as high as the FTA utilisation ratio in advanced economies such as the EU and the US.

Several observations from Korea's FTA support experience to raise FTA utilisation merit highlighting. One is that the FTA utilisation ratios in Korea's exports increased substantially during the last three years of the FTA support policy, although they were lower than for imports. Utilising FTAs for importing goods from FTA partners is relatively easy, compared with exporting, since exporting requires marketing by FTA partners. Another observation is the gradual improvement of Korean SMEs' FTA utilisation ratios, although those ratios remained lower than the ratios achieved by large companies. The initial motivation behind Korea's FTA support policy was poor FTA utilisation by SMEs. For the EU–Korea FTA, large companies' FTA utilisation ratio was 84.3 percent and that for SMEs 76.4 percent in 2013 (in terms of value). And 69.2 percent of Korean SMEs' exports used FTA tariff preference provided by the Korea–US FTA.

FTAs are widely utilised in most industrial sectors, and there has been progress in sectoral FTA utilisation in 2013. A utilisation ratio above 80 percent has been recorded in several sectors, such as mining, machinery, and the plastic/rubber industry. And a substantial increase in Korea–US FTA utilisation was achieved in mining, home items, electrical goods, and steel products from 2012 to 2013.

Table 3.7: FTA Utilisation Ratio by Industry (Korea–US FTA)

(unit: %)

	As of the end of 2012	As of November 2013	Yearly change (%)
Korea–US FTA			
Mining	66.4	80.2	13.8
Machinery	74.4	81.1	6.7
Agriculture	45.4	52.1	6.8
Household goods	52.5	66.9	14.4
Textiles	69.6	71.5	2.0
Electrical goods	49.4	61.1	11.7
Steel, products	68.0	78.4	10.4
Plastic, rubber	82.9	83.2	0.3
Chemicals	66.0	70.7	4.6
Other goods	66.0	68.4	2.4
EU–Korea FTA			
Mining	69.3	53.4	△15.9
Machinery	88.2	89.6	1.5
Agriculture	47.4	52.1	4.7
Household goods	67.8	84.9	17.1
Textiles	82.7	86.5	3.8
Electrical goods	71.3	77.0	5.7
Steel products	67.4	72.3	4.9
Plastic, rubber	88.4	90.6	2.2
Chemicals	78.7	74.3	△4.3
Other goods	56.9	77.9	21.0

Source: Korea Customs Services (2013).

Finally, the FTA utilisation ratio of small exporting companies (in terms of export value) remained low, although the overall utilisation ratio increased substantially. However, as the scale of exports increases, the FTA utilisation ratio rises. This seems reasonable, in that large companies have a better internal infrastructure for utilising FTAs with higher incentives. Table 3.8 shows that only 4,340 small companies applied preferential tariffs out of 28,762 companies that had exports worth less than 0.1 million

dollars a year. The FTA utilisation ratio for these companies was about 15 percent. This is a significant contrast with the 64 percent utilisation ratio for companies with exports of over one million dollars. This implies that the government of Korea needs to strengthen FTA utilisation for small companies.

Table 3.8: SMEs with FTA Utilisation and Non-utilisation by Scale of Exports

(unit: number of SMEs)

		Scale of Exports (million $)					
		(A) <0.1	0.1M< (B) <0.5	0.5< (C) < 1	(D) > 1	(B+C+D) >0.1	Total
Number of Companies	No FTA utilisation	24,422	6,702	1,799	2,637	11,138	35,560
	FTA utilisation (F)	4,340	3,812	1,700	4,656	10,168	14,508
	Total (T)	28,762	10,514	3,499	7,293	21,306	50,068
	Ratio (F/T, percent)	15.09	36.26	48.59	63.84	47.72	28.98

Source: Calculated based on data from KCS.

6. Conclusion and Implications

Although countries promote FTAs to achieve various policy goals, achieving economic gains is one of the most important. FTAs are concluded by governments, but private companies utilise FTAs to realise economic gains. When companies make decisions related to FTA utilisation, they will compare the economic incentives with the various costs related to satisfying ROO and collecting information on FTA tariffs and ROO. It is important the perception of CEOs of SMEs on FTA utilisation is changed. Unlike large companies, SMEs do not have enough staff to handle FTA business, and lack the professional expertise in trade practice and business activities. Unless CEOs have a strong intention to utilise FTAs, staff of SMEs are unlikely to allocate their time to explore the possibility of new businesses based on FTA contents.

Due to substantial progress in building institutional infrastructure as a result of the Korean government's active policy on FTA utilisation assistance, FTA utilisation ratios are now as high as those of advanced countries. For more companies to use the FTAs,

companies need to comprehend the contents of the FTAs and be inclined to use them. FTA utilisation is possible when exporters (manufacturers) issue the certificate of ROO and importers submit it to the customs authority of the importing country. Otherwise, importers face a serious problem regarding the origin verification by the customs authority. This implies that exporters and importers must share the intention and information related to FTA utilisation.

Several policy implications can be drawn from Korea's experience in assisting businesses with FTA utilisation. First of all, one of the most urgent and important tasks in assisting FTA utilisation is to identify the barriers that prevent companies from utilising FTAs. Critical barriers may differ from country to country. Based on the significance of the barriers and the possibility for improvement through governmental actions, the government should make a road map for building infrastructure and assisting businesses in utilising FTAs.

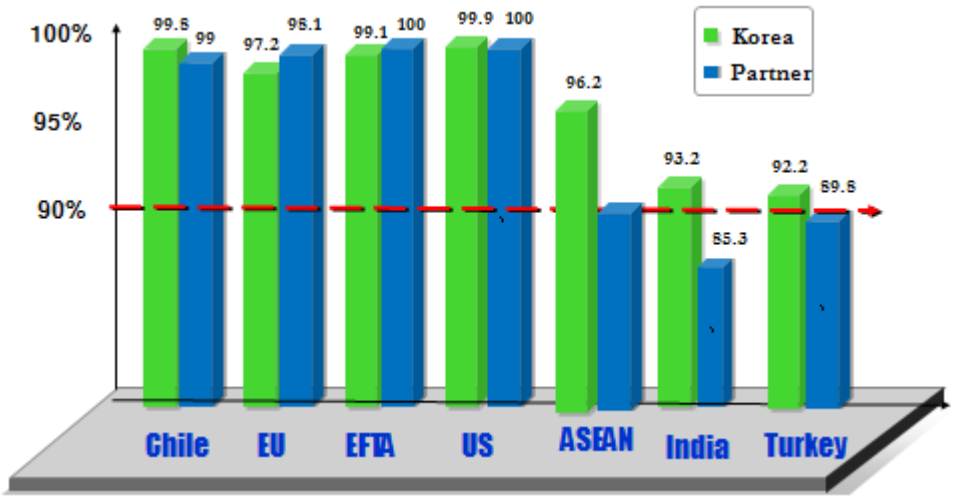
Second, coordination amongst national agencies is critical in increasing the efficiency of the infrastructure assisting FTA utilisation. In the absence of such coordination, several agencies tend to provide similar services with poor contents to business sectors. Korea had this experience in 2008–2009, and companies evaluated this to be 'not useful' in designing business plans for utilising FTAs.

Third, governments should promote FTAs with large economies, which can be expected to bring high overall economic gains. This will give businesses large incentives to look for opportunities to utilise FTAs. In this regard, special considerations must be given to small exporting companies that lack the staff and expertise for international trading and marketing. Assistance in marketing, branding, and logistics will be useful for small companies in utilising FTAs. In the case of Korea, there is room for improving the FTA utilisation ratio for small companies, and the government must make this a priority for domestic FTA policy.

Fourth, authorities of trade and industry should understand the importance of the quality of FTAs. When tariffs are eliminated in a short period of time and the agreement is comprehensive in its coverage, companies will have an incentive to utilise the FTA in their business activities. As seen in Figure 3.9, Korea achieved 97–100 percent ratios for tariff elimination in its many FTAs, but the Korea–Turkey FTA has 92.2 percent of tariff elimination for Korea and 89.5 percent for Turkey. This becomes a serious problem for

businessmen, since the EU–Korea FTA offers more favourable treatment than the Korea–Turkey FTA. Both countries need to upgrade existing market access in the FTA in addition to finishing their negotiations on services and investment to provide greater incentives for FTA utilisation by businesses and to have a more comprehensive FTA.

Figure 3.9: Tariff Elimination Ratios in Korea's Major FTAs



Source: Authors' calculation based on the tariff schedules of Korea's FTAs.

Fifth, FTA member countries should take advantage of various levels of committees institutionalised in FTAs. Most FTAs install trade ministers' meetings, FTA committees, and several subcommittees for customs clearance, ROO, Sanitary and Phytosanitary Measures (SPS), and Technical Barriers to Trade (TBT). Even though FTAs are implemented, many non-tariff barriers (NTBs) continue to distort bilateral trade. Depending on the position of member countries, these NTBs could be eased and/or eliminated. Complicated ROO are amongst the most serious hurdles in utilising FTAs, hence member countries should discuss the simplification of ROO.

Last, FTA member countries need to co-operate on implementing FTAs properly and providing information related to FTA utilisation. FTAs establish several committees to facilitate the implementation of FTAs. Since FTA implementation means the adoption of common trade and economic systems defined in the agreement, problems due to institutional differences between member countries arise, which in many cases become

barriers to FTA utilisation. Also, member countries should discuss the tasks set in the agreements such as the acceleration of tariff elimination. Harmonisation of FTAs should be pursued. As the number of FTAs increases, the differences across FTAs become an issue for trade policy makers. From the viewpoint of business sectors, the contents should be harmonised across FTAs, and should be upgraded for easy utilisation of FTAs.

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Chapter 4

Towards an Enabling Set of Rules of Origin for the Regional Comprehensive Economic Partnership

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With overlapping, multiple free trade agreements (FTAs), such as the case of the Association of Southeast Asian Nations (ASEAN) and the various ASEAN+1 FTAs, complications could arise that run counter to the economic integration objectives of the East Asian Region. Forging the Regional Comprehensive Economic Partnership (RCEP) amongst ASEAN and its FTA partners is a next logical step. How facilitative the rules of origin (ROO) provisions are could prove crucial in maximising the potential benefits. This chapter revisits the nature of ROO in ASEAN and the various ASEAN+1 FTAs to examine the surrounding constraints and issues as well as to provide recommendations on a beneficial set of ROO for the RCEP, and serve as input for policy makers and negotiators.

1. Introduction

The global arena in recent decades has witnessed a rise in regional and bilateral free trade agreements (FTAs). Asia came in late but has now become very active in FTA engagement, with the Association of Southeast Asian Nations (ASEAN) at the hub of most of the FTA activity. (Kawai and Wignaraja, 2010) This Asian trend arose from a combination of factors, including, amongst others: (1) the growing FTA alliances in other parts of the globe, (2) the 1997 Asian financial crisis, and (3) the protracted World Trade Organization (WTO) impasse. The first brought about the need for ASEAN FTAs in the region as a defensive mechanism. The second highlighted the need for regional cooperation. The WTO impasse created a need for an alternative mechanism more abreast with the pace of globalisation and the dynamism of the East Asian region. Perhaps the more proactive and compelling motivation, which is related to the last point, is the growing importance of production networks in the region (Urata, 2004). It was only a matter of time before market-driven regionalisation took the more formal route of forging regional agreements. Currently, there are six major FTAs involving ASEAN and the other East Asian countries: ASEAN, the ASEAN–Korea FTA (AKFTA), the ASEAN–China FTA (ACFTA), the ASEAN–Japan Comprehensive Economic Partnership (AJCEP), the ASEAN–Australia–New Zealand FTA (AANZFTA), and the ASEAN–India Free Trade Agreement (AIFTA).

The formation of these agreements could be viewed as a feasible step towards deepening East Asian integration, especially with ASEAN as a hub. However, having separate ASEAN+1 FTAs could create problems of its own, such as the oft-cited complication of a noodle bowl effect. This side effect could ultimately run counter to the underlying objectives of these FTAs, which include creating a more integrated market and production base, leveraging on each other's strength, and lowering the cost of doing business. Indeed, the more FTAs a country or region is engaged in, the more complex the web it creates that could add to the cost of doing business. This concern has particular bearing on the overlapping rules of origin (ROO) utilised by respective FTAs. Forging the Regional Comprehensive Economic Partnership (RCEP) amongst ASEAN and its FTA partners is a next logical step. And the ROO regime the RCEP adopts could prove crucial in maximising the potential benefits and attaining the objectives of East Asian regional integration.

In this chapter we aim to provide inputs for policy makers and negotiators, and recommendations on the beneficial set of ROO for the RCEP. Towards this end, we start in the next section with the underlying principles and objectives of the RCEP to provide the context of the discussion and formulation of the recommendations. In Section 3 some background on the basic ROO used in FTAs and the nature of ROO in ASEAN and the various ASEAN+1 FTAs is discussed. This section uses the findings and datasets from previous ERIA studies by the author on ROO in the East Asian region. In Section 4 we provide the analysis of the constraints and issues in formulating the best practice ROO for the RCEP, leading to our recommendations.

The study also benefitted from interviews and/or surveys of key people from both industry and government to validate the findings and recommendations. These provided further insights, suggestions, and better understanding of the difficulties and problems currently faced in dealing with ROO.

2. Underlying Principles and Objectives

In negotiating the RCEP, the central objective of the parties, as stated in the RCEP negotiation framework, is 'to achieve a modern, comprehensive, high-quality and mutually beneficial economic partnership agreement amongst the ASEAN Member States (AMS) and ASEAN's FTA Partners'. Along these lines, the guiding principles include the following:

- The RCEP will have broader and deeper engagement with significant improvements over the existing ASEAN+1 FTAS, while recognising the individual and diverse circumstances of the participating countries.
- The RCEP will include provisions to facilitate trade and investment and to enhance transparency in trade and investment relations between the participating countries as well as to facilitate the participating countries' engagement in global and regional supply chains.

ROO are integral to any FTA. Any FTA would have a (negotiated) set of ROO to ensure that trade preferences from the agreement are enjoyed primarily by the contracting parties. Only goods that comply with the agreed-upon ROO can enjoy duty-free preference

provided by the FTA. While there should be rules to distinguish members from non-members, these ROO could act as trade barriers themselves. The more restrictive the ROO are, the greater the trade barrier, conceivably to the extent of eroding the preferential benefits from the FTAs. The problem becomes more complex when there are overlapping, multiple FTAs, such as in the case of the ASEAN and the various ASEAN+1 FTAs. Setting the ROO should thus not be just about trade deflection.[1] Perhaps even more so, it should be trade facilitating as well. In addition, considering global developments and the current regional context, there is less need for restrictive ROO. Sustained global trade liberalisation made possible under the General Agreement on Tariffs and Trade (GATT)/WTO has already substantially brought down most-favoured nation (MFN) tariffs. Moreover, the RCEP is a big group of countries with intraregional trade comprising more than half of its total trade. As such, ROO in the RCEP should be more concerned about trade facilitation, in line with its objectives.

3. ROO in the ASEAN and the ASEAN+1 FTAs

The issue of determining origin was not given much attention under the GATT/WTO in the early stages, leaving individual country with the right to determine their own rules for the purpose of applying non-preferential MFN tariffs. This right to determine the applicable ROO is even more strongly argued for in the Generalised System of Preference (GSP) by donor countries as the preferences are unilaterally granted. The same practice applies to ROO in preferential trade agreements.

With the rise in international production sharing and technological innovation in transportation and telecommunications, origin determination has become increasingly difficult. Very few products today can claim to be solely produced in one country. This has made ROO a key concern in FTA negotiations.

1. Trade deflection occurs when a non-FTA member is able to enjoy the preferential tariffs that supposedly only FTA members are eligible for. Without restricting ROO, this could happen through trans-shipment of products from a non-FTA member to high-tariff FTA member through a low-tariff FTA member. Even if the tariff for a product is relatively high for all the FTA members, trade deflection could still occur if the product enjoys duty-free importation (or duty-drawback) under some manufacturing incentives programme.

3.1. The Basic ROO used in FTAs

Discussions were held in GATT/WTO about harmonising the non-preferential ROO, but no multilateral discipline was agreed upon, mainly because of the clause 'equally for all purposes' in the proposed Agreement on Rules of Origin (ARO).[2] Nonetheless, the Kyoto Convention (originally adopted in 1973 and revised in 2000) provided general concepts for determining origin, used also as guidelines for ROO in most trading arrangements. First, goods can be categorised as either wholly obtained (produced) or non-wholly obtained (produced). This yields the first basic ROO – the 'wholly obtained' (WO) criteria. WO would apply to goods that are produced or 'obtained' domestically and is thus a clear basis for conferring origin.

For non-wholly obtained goods, determination takes into account whether a minimal operation was carried out or if the process involved *substantial transformation*. Minimal operation refers to simple processing that is negligible enough for the goods to still merit originating status. Packaging, for example, would not change the status of origin of the product. Rules of origin for non-wholly obtained goods are based on *substantial transformation* criteria.

Three basic approaches are used to determine whether *substantial transformation* has occurred to merit originating status. The first is the *value-added criterion (VA)*, which requires a (minimum) percentage of value added created at the last place of the production process. The second is the *tariff-heading criterion*, also referred to as change in tariff classification (CTC), which requires that processing in the exporting country results in a product classified under a different heading in the customs tariff classification of the Harmonized System of Tariff Nomenclatures than its intermediate inputs. The third is the *specified process rule (SPR)* or *technical test*, which determines, on a case-by-case basis, specific production activities or specific processing operations that may confer originating status. This could be a 'positive test', which would confer originating status if certain production or sourcing processes are complied with, or a 'negative test' which specifies that certain production or sourcing processes would not confer originating status

2. Balestrieri, 2014.

(UNCTAD, 2002). A prime example of the SPR is the so-called *yarn forward* (sometimes from fiber to fabric) or *a two-step rule* for textile and garment products.

3.2. Wholly obtained (WO)

The WO as ROO is obviously very restrictive if applied to mean 100 percent VA (regional or local) in products at higher levels of processing (stages of production). However, following the Kyoto Convention, with listing of wholly obtained products (usually in Chapters 1 to 15 of the HS code) and in waste and scraps, some FTAs identify in their Product Specific Rules (PSRs) the HS lines that are WO, which almost makes conferring origin of these goods automatic when classified under these HS codes. For some FTAs, specifically the AJCEP, the concept behind WO is operationalised as CTC.[3] Hence, WO and CTC for Chapters 1 to 15 could be equivalent in practice (with regards to ease/cost of compliance).

Table 4.1 shows the main ROO for Chapters 1 to 15. There is convergence for the ASEAN Trade in Goods Agreement (ATIGA), the ASEAN–Korea Free Trade Agreement (AKFTA), and the ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA), using generally WO while AJCEP uses Change in Chapter (two-digit classification). In contrast, the ACFTA still applies the general rule of RVC(40). From the point of view of manufacturers, for these chapters, these rules would most likely result in the same eligibility for compliance. As such, what type of ROO the RCEP should adopt should not be the issue as long as it takes into account what is most efficient and easiest to administer.

3. In most cases, for ROO a change in chapter (CC) is required (sometimes with limitation as to where change is coming from) and in other cases, simply a change in tariff heading (CTH).

Table 4.1: Main ROO for Chapters 1 to 15 in ATIGA and ASEAN+1 FTAs

Chapter	Heading	Product Description	ATIGA	AKFTA	ACFTA	AJCEP	AANZFTA
1		live animals	WO	WO	RVC(40)	CC	WO
2		meat of animals	RVC(40) or CC	WO	RVC(40)	CC excfrch1*	CC
3		fish, live, chilled frozen	WO	WO	RVC(40)	CC	WO
4		milk, cream, butter, cheese	RVC(40) or CTSH	WO	RVC(40)	CC	RVC(40) or CTSH
	407	eggs in shell	WO	WO	RVC(40)	CC	WO
	410	honey	WO	WO	RVC(40)	CC	WO
5	501	human hair, unworked	WO	WO	RVC(40)	CC	WO
6		other live plants and flowers – live, cut, foliage, parts	RVC(40) or CTSH	WO	RVC(40)	CC	RVC(40) or CTSH
7		Vegetables – fresh, chilled	WO	WO	RVC(40)	CC	WO
8	801	coconuts – desiccated	RVC(40) or CC	WO	RVC(40)	CC	RVC (40) or CC
	802	other nuts, in shell	WO	WO	RVC(40)	CC	WO
	803	Bananas, including plantains, fresh or dried	RVC(40) or CC	WO from any AKFTA Party	RVC(40)	CC	RVC(40) or CC
	804–810	other fruits and nuts, fresh	WO	WO	RVC(40)	CC	WO
9		coffee, tea	RVC(40) or CC	WO	RVC(40)	CC	RVC(40) or CC
			RVC(40) or CTSH	RVC(45)	RVC(40)	CC	RVC(40) or CTSH
		spices	RVC(40) or CC	WO	RVC(40)	CC	RVC(40) or CC
10		wheat, rice, other cereals	WO	WO	RVC(40)	CC	WO
11		flour, groat, pellets, etc.	RVC(40) or CC	WO	RVC(40)	CC	RVC(40) or CC

			RVC(40) or CC	WO from any AKFTA Party	RVC(40)	CC	RVC(40) or CC
		starches	RVC(40) or CC	CC or RVC(40)	RVC(40)	CC	RVC(40) or CC
12		soya beans, ground nuts, oil seeds, etc.	WO	WO	RVC(40)	CC	WO
		flour and meals of seeds	RVC(40) or CTH	WO	RVC(40)	CC	RVC(40) or CTH
		seeds for sowing	RVC(40) or CC	WO	RVC(40)	CC	RVC(40) or CC
		plants & parts primarily for perfumery, pharmacy, insecticide	WO	WO	RVC(40)	CC	WO
13		vegetable gums, resins	WO	WO	RVC(40)	CC	WO
		saps and extracts	RVC(40) or CC	WO	RVC(40)	CC	RVC(40) or CC
14		bamboos, rattan, etc. for plaiting	WO	WO	RVC(40)	CC	WO
		for stuffing	RVC(40) or CC	WO	RVC(40)	CC	RVC(40) or CC
15		fats and oils from plants and animals	RVC(40) or CC or SPR by refining	CTH or RVC(40)	RVC(40)	CC	RVC(40) or CC or SPR by refining

Note: * excluding change from Chapter 1.
Source: Author's tabulation.

3.3. Regional Value Content (RVC)

A major advantage of the RVC is that, in essence, it is a direct measure of *substantial transformation.* Nonetheless, the problems with the use of RVC are well known. Most often cited is that it is subject to exchange rate and price fluctuation, which leads to uncertainties and adds to compliance and administration costs. Another major difficulty is that firms are hesitant to disclose price and cost data and other required information. Even for large

firms, this could entail substantial costs, especially for those with multiple products. There could, for example, be a need for separate accounting and extra personnel to take care of proving origin. There are even greater difficulties for small and medium enterprises (SMEs). Most SMEs, especially in least developed countries (LDCs), lack sophistication and know-how in accounting and finance as well as a formal organisation with a readily available flow chart. Required documentation for export and origin determination may not be easily produced.

Other rules, however, might not make some products eligible for the FTA preference. In addition, there is an advantage of RVC for goods using numerous inputs or components.

The RVC is most commonly used as ROO in ATIGA and the ASEAN+1 FTAs for electronic and automotive products. As an illustration, table 4.2 presents the ROO for Chapter 87 (automotive products) in ATIGA and the ASEAN+1 FTAs.

Table 4.2: ROO for Automotive Products (Chapter 87) in ATIGA and the ASEAN+1 FTAs

ATIGA	**HS lines**
RVC(40) or CTH	9
RVC(40)	66
RVC(40) or CTH or Specific Rule	1
AKFTA	**HS lines**
CTH or RVC(40)	51
RVC(45)	25
ACFTA	**HS lines**
RVC(40)	76
AJCEP	**HS lines**
RVC(40)	47
RVC(40) or CTH	29
AANZFTA	**HS lines**
RVC(40) or CTH	22
RVC(40)	50
RVC(40) + CTSH	3
RVC(40) or CC	1
HS 87 group total HS lines	**76**

Source: Medalla (2011).

3.4. Change in Tariff Classification (CTC)

With difficulties faced in the use of RVC, many FTAs also make use of CTC as a rule for determining origin. Again, the advantages are well known. These include the simplicity in application and verification as well as the clarity and predictability of the method. The main disadvantage is that it relies on the use of the Harmonized System, which is not designed to reflect degree of substantial transformation. Many products with enough originating materials may not qualify because the level of classification between inputs and outputs remains the same. It could also be a disadvantage to firms using numerous inputs. In addition, the HS code used could sometimes be interpreted differently across countries. This interpretation can sometimes be people dependent, that is, it would depend on the customs official receiving the goods. Any such problems could of course be resolved in due course, but they would already have entailed losses for the importer/exporter.

3.5. Specific Process Rule

Bearing in mind the objectives of the RCEP, it should ideally be used only as a supplemental test of origin because of its rigidity and the difficulty of defining a process test for the enormous array of products. Moreover, with technological change occurring more and more rapidly, such rules should be continuously updated to accommodate changes in production methods and promote deeper regional integration, with freer flow of products and factors of production. The negotiation process to come up with SPRs could also be more susceptible to industry lobby groups dictating outcomes in their favour, because drafters and administrators would have to rely upon the industry for technical information (La Nasa, 1995). SPR should be used sparingly for these reasons, but most FTAs have commonly used SPRs for certain products, notably textiles and garments.

On the whole, that there are advantages and disadvantages to the various criteria points to the need to provide exporters with some options.

4. Profile of ROO in the ASEAN and the ASEAN+1 FTAs

ATIGA and ASEAN+1 FTAs use a General Rule (GR) for ROO. ATIGA, AANZFTA, AKFTA, and AJCEP share the same GR of coequal rule of RVC or change in tariff heading (CTH). Product-specific rules are refinements of the GR resulting from the ROO negotiations. An interview with a government official describes the process for some FTAs as a series of steps. The initial step entails going through the entire list of products from which first of all the GR is determined and agreed on and a second step involves negotiating PSRs, which are a result of more in-depth negotiations.

In the case of ASEAN, at its early stage, the AFTA ROO adopted RVC(40) as the general rule. However, studies found low utilisation of AFTA and identified difficulties in the RVC criterion as one of the reasons for it. Hence, subsequent reforms were sought and implemented, amongst them the introduction of CTC as a coequal rule. In ATIGA, which was implemented in 2009, the general rule adopted is the coequal rule of RVC(40) or CTH, substantially relaxing its ROO regime.

Nonetheless, PSR negotiations could lead to either more restrictive ROO (protection) or more liberal ROO (exporter-led). Usually, if this leads to the adoption of additional specific requirements (e. g., about a specific process or where inputs/materials come from), they become more restrictive.

Medalla (2011) provides a mapping of the ROO of ATIGA, ASEAN–China FTA (ACFTA), AKFTA, AJCEP, and AANZFTA. On the whole, the study finds numerous types of ROO used across ASEAN and ASEAN+1 FTAs, even after grouping together similar types in one category. As such, there could be more variation within each grouping. (See Table 4.3.)

The variation arises within and amongst FTAs because of the differences in the application of the basic ROO discussed above. In general, the variation is due to the following:

- The basic ROO could be used in some combination. This could be of two types: either in a more liberal manner as options (the so-called coequal rules) or in a more restrictive manner as ‘plus’ rules where two or more rules need to be complied with.
- For SPR, there would different specific processes required for different products across different FTAs. This usually happens in the case of textiles and garments.

- For RVC, there could be a variation in the cut-off level used. For example, RVC(40) – regional value content of no less than 40 percent or RVC(35) –regional value content of no less than 35 percent.
- For CTC, there would be variation in the level of classification where change is required. For example, a change in chapter (CC), a change in tariff heading (CTH), or a change in tariff subheading (CTSH) across products and across different FTAs.
- On top of these, there could be additional specific requirements specified for different products for different FTAs. For example, CTSH 'except change coming from some classification or provided the materials are sourced' accordingly, etc.

Table 4.3: Frequency by Type of ROO Used in ASEAN+1 FTAs

ROO Type	ATIGA	AKFTA	ACFTA	AJCEP	AANZFTA
Single Rule					
WO	185	458	8	3	294
CC		61	1	735	248
CTH		4		137	107
CTSH				8	
RVC(<40)		36			
RVC(40)	147	22	4659	219	68
RVC(>40)		6			
CC with exception*				258	3
CTH with exception*				20	10
Various**		3			43
Liberal Coequal Rule					
RVC(40) or CTH	2782	4076	122	3057	2204
RVC(40) or CTH or SPR					24
RCV(40) or CTSH	706	61		33	1072
RVC(40) or CTH or RVC(35) + CTSH	125				195
RVC(40) or CTH or Textile Rule	340				6
RVC(40) or CC or Textile Rule	453				
Subtotal	4406	4137	122	3090	3501
% share in total	84.3%	79.2%	2.3%	59.2%	67.0%
Less Liberal Coequal Rule					
RVC(40) or CC	437	487	7	126	583
Various**	49	10	427	628	367
Total # of 6-digit HS(2002) Lines	5224	5224	5224	5224	5224

Source: Medalla (2011).

As expected, ACFTA uses RVC most extensively as it uses RVC(40) as the general rule. There have been some concessions for some products (mainly in textile and garments) where reforms were introduced in these PSRs that make use of other options. In contrast, AJCEP relies more on CTC. This follows the principle that CTC is simpler and likely to be easier to apply and comply with. However, AJCEP uses a lot of exceptions either in terms of specifying where change can (or cannot) come from and where certain sources of inputs should come from.

As mentioned above, ATIGA has been undertaking ROO reforms, which came up with PSRs that are generally intended to encourage better utilisation of the FTA. As a result, ATIGA has more HS lines with coequal rule using 'RVC(40) or CTSH,' which are more liberal than the general rule [RVC(40) or CTH]. AANZFTA, which was concluded later, provided for even more HS lines with the more liberal coequal rule of 'RVC(40) or CTSH.'

5. Analysis and Recommendations

Medalla (2011) found significant convergence amongst four of the five East Asian FTAs covered in the study (ATIGA, AKFTA, ACFTA, AJCEP, and AANZFTA).[4] This is indicated by the share of (6-digit) HS lines with the same, or nearly the same, ROO. In particular, 28 percent of HS lines have the same ROO for four out of the five FTAs. Moreover, for almost the same number of HS lines, there is near convergence with three FTAs having the same ROO and one or two FTAs having more liberal options (usually using CTSH instead of CTH). In total, there is near convergence in more than half (55 percent) of the HS lines for four out of the five FTAs. This arises mainly from their use of the common general rule – RVC(40) or CTH. (See Table 4.4.)

[4.] The discussion excludes the ASEAN–India FTA, which at the time of writing still only used the general rule of CTSH+RVC35.

Table4.4: ROO Convergence Incidence (excludes ASEAN–India FTA)

Level of convergence	# of 6-digit HS lines	% of Total
For all 5 FTAs	**181**	3.5%
Near Convergence (with more liberal options in some cases)	137	
Same ROO for 5 FTAs	44	
For 4 FTAs	**2,871**	55.0%
Near Convergence (with more liberal options in some cases)	1,407	
Same ROO for 4 FTAs	1,464	28.0%
For 3 FTAs	**630**	12.1%
Near Convergence (with more liberal options in some cases)	312	
Same ROO for 3 FTAs	318	
For 2 FTAs	**1,027**	19.7%
Near Convergence (with more liberal options in some cases)	728	
Same ROO for 2 FTAs	299	
Different ROO across FTAs	**515**	9.9%
Total # of HS Lines (6-digit)	5,224	100.0%

Source: Medalla (2011).

1. Implications for the RCEP

Multiple FTAs (e.g. bilateral FTAs, ASEAN, ASEAN+1) and corresponding multiple ROO create many problems. For one, it could create confusion for exporters about which FTA and ROO to use. Even for large companies with the competence to cope with ROO, this could increase costs if they have to deal with multiple countries in ASEAN (both as exporter and importer). These companies would need to have more complicated accounting methods, more detailed information, and a more comprehensive database[5] and would usually need to deploy a designated team or employ a third party to manage the additional requirements. On the part of the authority that issues the Certificate of Origin (COO), it could make the process of issuance of the COO more complex, requiring greater competence to examine, verify, and issue COO. Hence, multiple, non-uniform ROO across

[5] The firm would need proper attribution of which inputs go to what outputs and markets, which is difficult given multiple products and joint production processes.

multiple FTAs could result in increased costs. Indeed, according to the survey of firms carried out for this study,[6] firms considered the harmonisation of ROO to be very useful.

For the RCEP, however, it is not only harmonisation that matters. In particular, harmonisation upwards of the various ASEAN+1 FTAs is critical.

The case of Japan could be instructive for the RCEP. Japan has bilateral FTAs with most ASEAN countries. At the same time, it has a regional FTA with ASEAN–AJCEP. Thus, an ASEAN country exporting to Japan has two options for using trade preference – AJCEP or the Japan Bilateral EPA (JBEPA). The exporter, if given the right information, would choose whichever would yield larger benefits. This would depend on two factors:

- the difference in the margin of preference (MOP) between AJCEP and JBEPA;
- the ease/cost of complying with the respective applicable ROO.

Currently, there is very little utilisation of AJCEP in ASEAN countries that have a bilateral FTA (JBEPA) with Japan. The main reason is the faster reduction in tariffs for the bilateral FTA and thus a larger MOP, but this is also possibly due to a more liberal ROO in the JBEPA (Medalla, 2011). Eventually, for both AJCEP and JBEPA, there would be zero difference in the MOP when tariff reduction schedules are both completed (assuming that they have the same tariff coverage for tariff reduction). Thus, when that time comes, only the ROO with the same MOP would matter. The FTA with the best (i.e. more liberal and easier to comply with) ROO would prevail. If the ROO for the bilateral FTA (JBEPA) are more liberal on the whole, AJCEP will become, in effect, only nominal. Of course, it could be mixed. Some products could have a more liberal ROO in JBEPA than AJCEP and vice versa for other products. The result, in any case, is that AJCEP added another layer of ROO, and no harmonisation is effected. Thus, for AJCEP to be more than nominal, it should harmonise the ROO of its bilateral FTAs at the most liberal ROO. This does not mean a uniform ROO across products since different products have different characteristics and sensitivities.

In parallel, there are the various ASEAN+1 FTAs and the proposed RCEP amongst the same countries. Hence, there could be similar implications for the RCEP and ASEAN+1

[6] A report on the survey/interviews is found in the Annex of this chapter. Our findings are consistent with the results of a survey of firms carried out by JETRO on FTA utilisation of Japanese firms.

FTAs. If the RCEP harmonised the ROO of the various ASEAN+1FTAs at less liberal ROO, the result could be either:

- the RCEP adds another layer of ROO (and FTAs); or
- the RCEP is only nominal, at least from the perspective of ASEAN, which already has an FTA with all the negotiating parties of the RCEP.

For the dialogue partners, there could still be additional advantages from the RCEP even with less liberal ROO, because there are no existing bilateral FTAs amongst them (except for Japan–India). Even then, the benefits for these countries are fewer as cumulation is limited with restrictive ROO.

Hence, the bottom line is that ideally, the RCEP should adopt the most liberal ROO per product amongst ATIGA and the various ASEAN+1 FTAs.

There are, of course, the usual difficulties in harmonisation upwards (seeking the most liberal ROO amongst the ASEAN Trade in Goods Agreement [ATIGA] and ASEAN+1 FTAs). The protectionist pressures for some products could be strong. Some products could be more difficult than others in terms of finding a common, liberal ROO. The choice of which is the optimal ROO will also be more difficult if there is a wide divergence in the ROO of the different ASEAN+1 FTAs. There are also technical and administrative concerns to consider.

Nonetheless, harmonisation upwards should not be a problem for ASEAN. Indeed, it is in its interest that the RCEP should harmonise to the most liberal ROO, as discussed above. The difficulties might lie with ASEAN's dialogue partners – in particular China, Korea, and Japan – which have no FTA amongst them and tend to lean more towards less liberal ROOs than ASEAN. Will the dialogue partners be willing to accord liberal ROO to ASEAN (as this could imply a more liberal ROO than provided under the respective ASEAN+1 FTA) and to each other? Australia and New Zealand had been generally leaning towards liberal ROO in partnership with ASEAN countries. The results of email interviews conducted with New Zealand policy makers are consistent with this observation (i.e. that New Zealand would seek the most liberal ROO regime for the RCEP). Australia would most likely be similarly

inclined. How amenable will the other ASEAN dialogue partners be to relaxing the ROO for contentious products?

Some product groups are more difficult than others (e.g. textile and garments) in terms of harmonising to the most liberal ROO in the RCEP. Some dialogue partners might find it more difficult than others, especially India and China.

Table 4.5a: ROO for Chapters 25 to 39

Chapter	Product description	ATIGA	AKFTA	ACFTA	AJCEP	AANZFTA	# of HS lines w/ these ROO	Total # of HS lines in category
25	iron pyrites, graphites, quartz, calcium phosphates, etc.	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTH	**68**	**70**
26	iron, other meta, ores, and concentrates	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTH (GR)	24	**36**
	– slag, dross, scaling, and other wastes from metal manufacturing	WO	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	Origin shall be conferred to a good of this subheading that is derived from prod'n or consumption in a Party	12	
27	coal, lignite, petroleum oils, gas, etc.	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTH	41	**43**
	– waste oil	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	Origin shall be conferred to a good of this subheading derived from prod'n or consumption in a Party	2	
28	Inorganic compounds	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTSH	171	181

29	Organic compounds	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTSH	293	300
30	glands, blood, medicaments, other pharmaceuticals	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTSH	29	29
31	fertilizers	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTSH	25	25
32	tanning, dyes, coloring substances, essential oils	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTSH	40	46
33–34	Cosmetics and other beauty products	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTH	34	53
		RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTSH	19	
35–38	Casein, albumins, gelatins, peptides, rosin and resin acids, insecticides, fungicides, pickling preparations, etc.	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	GR /CC exc CH4/ CTH	RVC(40) or CTSH	44	129
		RVC(40) or CTH	RVC(40) or CTH	RVC(40)	CTH	RVC(40) or CTH	76	
	Heading 3825 – wastes, sludge	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	Origin shall be conferred to a good of this subheading derived from prod'n or consumption in a Party	9	
39	Polymers, silicones, etc., in primary forms	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	RVC(40) or CTH	58	62
	Wastes, parings, and scraps	RVC(40) or CTH	RVC(40) or CTH	RVC(40)	RVC(40) or CTH	Origin shall be conferred to a good of this subheading derived from prod'n or consumption in a Party	4	

Table 4.5b: Summary for ROO in Chapters 25 to 39

	# of HS lines w/ these ROO	Total # of HS lines in category
# of HS lines in selected chapters	949	974
% share in total HS lines – all products (5,224 lines)	18.2%	18.6%
# of HS lines with convergence for 4 ASEAN+1 FTAs at RVC40 or CTH (GR)	629	
% share in total HS lines of product group	64.6%	
# of HS lines with near convergence for 4 ASEAN+1 FTAs, with AANZFTA more liberal at RVC40 or CTSH	922	
% share in total HS lines of product group	97.1%	

Source: Author's tabulation.

In Chapters 25 to 39, for example, ATIGA, AJCEP, AKFTA, and AANZFTA already have the same ROO for 64.6 percent of tariff lines. (See Table 4.5a and Table 4.5b.) It is different only for AANZFTA as it adopts a more liberal coequal rule of RVC(40) or CTSH. Hence, there is already some convergence for more than 97 percent of the HS lines in these chapters. It would be ideal if all adopt the AANZFTA ROO. This would be a point for negotiation. ASEAN should join Australia and New Zealand in pushing for the AANZFTA ROO in these HS lines. Note also that these chapters already comprise more than 18 percent of the total number of HS lines.

The same could be said for Chapters 1 to 15. (Refer back to Table 4.1.) The ROO used are mainly WO. AJCEP and ACFTA differ. In the case of AJCEP, the ROO used is CC (or CTH in a few cases), but as previously noted, WO and CC are not different in substance for these chapters. ACFTA uses RVC(40), which is theoretically more liberal than WO or CC. In practice, however, for these chapters which cover mainly primary products, the RVC(40) may be similar to WO or CC in terms of ease of compliance. Hence, the possibilities are to choose either WO or CC or adopt a coequal rule between the two.

The textile and garments sector is amongst the most contentious. It employs many different ROO across FTAs, using two-step rules in many cases.

Table 4.6: Examples of Different ROO used in Chapters 50 to 63: Textile and Garments

GR or Textile Rule
GR
RVC(40) or Textile Rule
CC+SPR
CC
CTH except from specified subheadings + SPR
GR or Textile Rule requiring 2 processes
CTH except from specific subheadings + SPR or other SPR
CTH or Textile Rule requiring 2 subsequent processes
CC or RVC(40)
RVC(40) or Textile Rule or CC
RVC(40) or Textile Rule or CC with SPR
CC with specific limitations, or RVC(40)
RVC(40) or Textile Rule
Manufacture from yarns, provided that the necessary process stipulated in the appendix is undertaken

Source: Medalla (2011).

This is also indicated by the lack of convergence in ROO for textile and garments in ASEAN and ASEAN+1 FTAs. (See table 4.7.)

Table 4.7: Incidence of ROO Convergence in ASEAN and ASEAN+1 FTAs for Chapters 50 to 53: Textile and Garments

	Chapters 50–63: Textile and Garments	**# of 6-digit HS lines**	**% share**
Convergence for 3 ASEAN+1 FTAs		98	11.6%
	Near Convergence at RVC(40) or CTH for ATIGA, AKFTA, and AANZFTA, with additional coequal Textile Rule option for ATIGA	95	
	Convergent at WO for ATIGA, AKFTA, and AJCEP	3	
Convergence for 2 ASEAN+1 FTAs		728	85.8%
	Near Convergence at RVC or CC for ATIGA & AKFTA, with additional coequal Textile Rule option for ATIGA	183	
	Convergent at RVC or Textile Rule For ATIGA & ACFTA (in some with additional option for ATIGA)	290	
	Convergent at RVC(40) or CC for AKFTA & AANZFTA (GR for ATIGA)	15	
	Near Convergence at RVC or CTH for ATIGA and AKFTA, with additional co-equal Textile Rule option for ATIGA	240	
Different ROO across FTAs		22	2.6%
	Total # of HS lines	848	

Source: Medalla (2011).

However, there are some positive developments that could help. For example, the trend in new FTAs indicates that ROO regimes are becoming more liberal as exemplified by ATIGA and AANZFTA. There is also some convergence in origin certification procedures (OCPs) across the RCEP countries. The COO forms used are identical, and the procedures for verification requirements for COO issuance are similar (Medalla, 2011). In addition, as noted in the discussion, there is significant convergence amongst ATIGA, AANZFTA, AKFTA, and AJCEP. Most notably, a majority of the ASEAN and ASEAN+1 FTAs already use the same GR. ACFTA and AIFTA are the exceptions. Moreover, in the working groups of ASEAN, there are ongoing efforts to simplify and harmonise OCPs. Finally, firms have been gaining more experience in ROO and FTAs.

To summarise the main points from the discussion:

- Harmonisation matters. Multiple, non-uniform ROO across multiple FTAs could result in increased costs. Indeed, in the survey of firms done for this study, firms consider the harmonisation of ROO to be very useful.
- For the RCEP, however, it is not only harmonisation that matters. In particular, harmonisation upwards of the ROO of the various ASEAN FTAs is critical.
- There are difficulties in harmonisation upwards. Amongst the factors to consider are the technical and administrative concerns (question of implementability), the protectionist pressures against liberal rules, and the fact that some products are more difficult than others.
- However, there are positive developments that help:
    - The trend in ROO becoming more liberal as exemplified by ATIGA and AANZFTA (Medalla, 2011)
    - Firms gaining more experience in ROO and FTAs
    - Convergence in origin certification procedures across the RCEP countries (Medalla, 2011)
    - Use of same GR in all of the ASEAN FTAs, except ACFTA and AIFTA
    - Significant convergence amongst ATIGA, AANZFTA, AKFTA, and AJCEP
    - Ongoing efforts to simplify and harmonise the origin certification procedures

Finally, we go back to the central objective of the RCEP, which is 'to achieve a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement amongst the ASEAN Member States (AMS) and ASEAN's FTA partners'. Accordingly, ROO in the RCEP should be more concerned about trade facilitation than trade deflection.

2. Recommendations[7]

A key recommendation for the RCEP is to use as its GR the coequal ROO of RVC(40) or CTH. It is already the GR for ATIGA, AJCEP, AKFTA, and AANZFTA. Starting with a GR is similar to adopting a negative list approach. Whereas for the past FTAs there was probably a need to go over all the product lines intensively before adopting the coequal rule of RVC(40) or CTH, which is considered fairly liberal, the same bottoms-up approach is not as necessary for the RCEP, as these countries would already have learned lessons from these previous FTAs. Choosing the GR already commonly used by the majority of the ASEAN FTAs provides a practical approach towards a liberal set of ROO. India and China will have to make the biggest adjustment, but this is where harmonisation upwards would have the biggest impact. Adopting this GR is supported by industry, especially exporters who are the users of the FTAs. (See annex 1 of the study.)

Going down to the PSRs, the general guideline for negotiation is along the same lines: lean towards more liberal rules. There are two general approaches that could be used to this end. Medalla (2011) found the ROO of ATIGA and AANZFTA to be the least restrictive. One possibility is to use either ATIGA ROO or AANZFTA ROO as a template. Another is to pick and choose the best (least restrictive) ROO amongst the ASEAN FTAs by HS line. This is what would be ideal to bring about harmonisation upwards. If a particular choice for the best ROO is not clear (or difficult to agree on), another option would be to make the PSRs for the particular HS line of the respective ASEAN+1 FTA coequal. Hence, if the PSR for a particular HS code is WO for three of the ASEAN FTAs, CC for one, and RVC(40) for another, the proposed ROO for the RCEP could be WO or CC or RVC(40) for this HS line.

[7] This part greatly benefits from interviews and a survey undertaken by the author.

Either option could be difficult to adopt. Some products could be very contentious. To address this concern, a first step could be to trim down the list of contentious products where more in-depth assessment could be undertaken. Usually, the use of specific requirements in the ROO would be the source of contention. As much as possible, the RCEP–ROO should avoid the use of additional specific requirements.

The advantage of a large grouping of countries, such as the RCEP, is that cumulation becomes inherent as a basis for conferring origin. Originating products could now come from anywhere in the member parties. Cumulation could be impeded, however, if certain ROO provisions specifically add limitations (e.g. source of certain raw materials). To avoid this, the cumulation principle should be made explicit in the RCEP. Indeed, interviews with firms and policy makers have consistently brought out the importance of cumulation.

The FTAs provide for a minimum value of imports that would not require a CO. This is US$200 for the ASEAN+1 FTAs. Raising the minimum value could be a very important provision with a potentially substantial impact, especially for SMEs.

Similarly, a waiver of CO (ROO) for products with MFN tariffs below 5 percent is another measure to consider. Medalla (2011) pointed out that for the majority of countries in East Asia, more than 70 percent of tariff lines for nonagricultural products are already below 5 percent. This could have a huge potential impact on intraregional trade in general. SMEs, in particular, would benefit from the reduction in the costs to utilise the FTA for exporting and importing.

The difficulty in complying with the applicable ROO (and the degree of restrictiveness) depends not only on the type of ROO used but also on the OCP being followed. In this regard, a significant degree of harmonisation has been implemented amongst the ASEAN and ASEAN+1 FTAs with reform efforts to streamline procedures. First, they use almost identical CO forms [8] with the same cells and format for required information. All require COO on a per-shipment basis. The requirements on pre-export verification are also similar (Medalla and Rosellon, 2011). However, implementation across countries differs in a key element – the Certification Issuing Authority.

For ASEAN, China, and India, the CO-issuing authority is a designated government agency. On the other hand, Japan, Korea, Australia, and New Zealand have given the

[8] ATIGA uses form D; ACFTA, form E; AKFTA, form AK; AJCEP, form AJ; and AANZFTA, form AANZ.

authority for issuing the CO to their designated private chambers of commerce and industry. For Japan and Korea, the government (the Ministry of Economics, Trade, and Industry or METI for Japan and Customs for Korea) can also issue COO. With its huge trade volume, Japan especially sees the need to use the large network of the Japan Chamber of Commerce and Industry (JCCI).[9] This makes for greater visibility and availability of the service to industries. The same rationale holds for Korea. It would be very useful, therefore, to include this provision in the RCEP.

In the firm survey carried out for the Philippines, the majority of firms covered preferred the COO to be issued by a government agency. There is reliance on the official channel to provide credibility and trust. The COO are thus more readily accepted. Firms also receive assistance from government in meeting or fulfilling the documentation requirements of the CO. As part of its reforms, the Bureau of Customs (BOC) official interviewed mentioned that the bureau is looking at transferring the authority to another agency (e.g. the Philippine Tariff Commission) to lessen its workload. The Tariff Commission has the expertise in HS tariff classification and industry operations. The BOC official indicated that it has not considered transferring the CO-issuing authority to the industry chamber. On the other hand, the Philippine Chamber of Commerce and Industry (PCCI) does not appear to be keen either to take over the function as this requires new capacity and some familiarity with the functions and responsibility. Nonetheless, this third party certification should be an option in the RCEP as is the current practice.

A major recommendation that has been put forward to further improve the ROO process, and consequently FTA utilisation, is self-certification.

Using the self-certification method has advantages and disadvantages. The first advantage is a reduction in the cost of complying with third party certification (CO issuer) in terms of man-hours needed. A second advantage is the time factor. The elimination of third party certification saves time in the application process for CO issuance itself. In addition, there is potential time-saving from possible interruption if there are questions on the CO in the destination country. With third party certification, the response time would be subject to the third party issuer's office hours, which in turn could lead to substantial delays. One of the respondents in our interviews, for example, explained that this

[9] Twenty-two chamber chapters all over Japan have the capacity and authority to issue COO.

happened to their early shipments when the CO was questioned in the receiving country. It proved costly because there was no office in the country of CO issuance when the shipment arrived. From that time onwards, they rescheduled the shipping date to avoid the same problem. If self-certification is allowed, there would be greater flexibility since questions on the CO can be responded to immediately.

However, there could also be disadvantages in the use of self-certification. There is the issue of trust and credibility. In this regard, measures must be put in place to ensure the veracity of the CO. Complying with these requirements could entail additional costs for the exporter.

There are generally two stages in the OCP: pre-export verification and CO issuance. The first stage usually has two steps (the pre-export verification process). In sum, there are three steps in the OCP:

1. Firm registration (requirements specified by country, subject to verification)
2. Origin verification (by product)
3. CO issuance

In the ATIGA and the various ASEAN +1 FTAs, the system adopted is third party certification (by the CO authority, either the authorised government agency itself or the authorised chamber/industry association). The CO-issuing authority is involved in all of the three steps.

At the high end of the spectrum, self-certification would be fully allowed or accepted as in the case of the North America Free Trade Area (NAFTA). In NAFTA, there is no authority to check the authenticity of the declaration. It is purely based on the exporters' declaration. As a result, NAFTA employs rigid ex-post checks and verification. This could be one source of difficulty for both the exporter and the receiving country of export destination. As such, some FTAs adopt a 'hybrid' self-certification process. In this regard, the common practice is to involve a 'third party' (i.e. the assigned CO authority) to be involved in the first step. This is the case, for example, in Japan's self-certification in its FTA with Switzerland. Exporters should first register, subject to verification and approval by a 'third party.' In the case of the Singapore–Australia FTA and the pilot self-certification for ATIGA, a third party is involved in both steps 1 and 2. Once steps 1 and 2 are complied

with, the exporter could issue its own CO (step 3). This approach has the advantage of being more credible to receiving countries, as it involves some third party verification prior to exportation. At the same time, it provides less cumbersome procedures (lower cost) for exporters since COO from a third party are no longer needed for every shipment.

Officials in Japan and New Zealand also expressed that they have no problem receiving self-certified COO because they have a working risk assessment system.

In addition, there is always the post-audit verification system. This is one possible area where problems could arise for exporters. Even one instance of post-audit verification could be very costly, especially if done indiscriminately. As such, the Japan Automotive Manufacturers Association (JAMA) proposes that there should be no direct verification (with the trader/manufacturer). That is, the verification request should be dealt with between governments.

Self-certification and third party certification have advantages and disadvantages. Some problems could be addressed by adopting some form of hybrid self-certification. Giving firms a choice between this and a third party certification scheme could be adopted in the RCEP. Indeed, there are ongoing discussions on and there is pilot testing of the use of self-certification in ASEAN. And dialogue partner countries are already using the system.

One question that has been raised is: should traders be allowed to register for self-certification? A legitimate point is that the knowledge of origin status lies with the manufacturer, not the trader. As such, it could be vulnerable to possible abuse. On the other hand, this could be very advantageous for SMEs. A possible compromise is to allow traders to be included to a limited extent. For example, there should be a clear, verifiable relationship between the trader and the manufacturer. In addition, the process could start with traders with proven track record. Hence, ways to include traders on a very selective basis should be explored.

Finally, the RCEP–ROO should use the facilitative provisions already found in ATIGA and the ASEAN+1 FTAs. Based on responses by the firms (and policy makers) surveyed/interviewed, these provisions are considered to be very useful (See annex 1.) They are the following provisions in particular:

- More liberal use of *de minimis* provision, as it pertains to CTC.

A *de minimis* provision is valuable not only in simplifying administration, but more importantly, in reducing the cost of compliance in the use of the CTC rule for exporters.

- Third party invoice and back-to-back CO

Enabling provisions for intermediary trade, especially given the importance of global production networks and supply chains, could be crucial. For example, within a supply chain, a batch of goods could pass through a number of countries. A simple case is when a batch of good enters first one member country in the chain and then some portion is later re-exported to another member country. In this case, a back-to-back CO (a fresh CO is issued on the basis of the original CO from a member country) would greatly facilitate the process. Another case could be where the production could involve several FTA member countries and the goods exported to another FTA member country. The goods produced and exported qualify as originating using the relevant FTA–ROO criterion, but the invoice for an input comes from a third party. In this case, allowing the use of a third party invoice is important.

- Use of Advanced Ruling

On the ground, there could always be cases where there would be different interpretations of certain rules, often related to the particular person in charge present and interpreting the rules. For example, in our interviews/survey, a common source of difference in opinion is the applicable HS code for a product. There was also an anecdotal case of different interpretations of 'third party'. A provision for advanced ruling that would allow the entry of the goods without further unnecessary delay (final decision upon later review) would be a useful trade-facilitating provision.

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Chapter 5

How Restrictive are ASEAN's Rules of Origin?

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We use a product-level gravity approach to estimate the effect of the Association of Southeast Asian Nations (ASEAN)'s product-specific rules of origin (ROO) on regional trade, using original data on rules applicable at the six-digit level of the harmonized system. Overall, we find that the average tariff ad-valorem equivalent (AVE) of ASEAN's ROO is 3.40 percent across all instruments and sectors. The trade-weighted average is 2.09 percent. This moderate estimate is in line with the existing literature. However, we also find fairly high AVEs for some sectors including leather, textile and apparel, footwear, and automobiles. We also find that some rules are more restrictive than others; in this regard, the Textile Rule stands out as a relatively more trade-inhibiting rule than others.

1. Introduction

Two major trends characterise the world trading system today. On the one hand, it is increasingly structured by preferential trade agreements (PTAs), of which there are close to 300 today, and a new one almost every month (Calvo–Pardo *et al.*, 2009). On the other hand, international trade has increasingly involved 'trade in tasks' within global value chains (GVCs). Rules of origin (ROO) stand in the middle of these two major trends and have the potential to make them incompatible, because they constrain the sourcing choices of multinational firms along regional patterns dictated by existing PTAs, whereas GVC optimisation may call for different choices. One of the challenges of 'multilateralising regionalism' – an expression coined by Baldwin (2006) – is to prevent ROO from working at cross-purposes with the rise of GVCs.

The issues are salient in East Asia and the Pacific (EAP), where regionalism is a relatively recent phenomenon (see Kimura, 2010) but is spreading rapidly. Since the creation of the ASEAN Free Trade Area (AFTA) in 1992, the drive for regional trade liberalisation has accelerated, in particular after the Asian currency crisis of the late 1990s. Although the tariff-elimination schedule was more progressive in the Association of Southeast Asian Nations (ASEAN) than for instance in the North American Free Trade Agreement (NAFTA), it proceeded largely on time, and tariff elimination between the six founding members[1] had been largely completed by 2010, i.e. only two years after the scheduled date, and covered over 90 percent of intra-bloc trade (Calvo–Pardo *et al.*, 2010). ASEAN+1 arrangements with its main trading partners were concluded and in effect in 2010. By January 2010, ASEAN had five ASEAN+1 FTAs with its main trading partners – the Australia and New Zealand (AANZFTA), the China (ACFTA), the Japan (AJCEP), the Korea (AKFTA), and the India (AIFTA). ASEAN+3 and ASEAN+6 initiatives have gained momentum with their upgrading to so-called track-1 level (government-to-government).[2] Given that Most-favoured nation (MFN) tariffs are still substantial in at least some of the member countries, tariff preference margins can make a difference.

[1] Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. ASEAN later expanded to Viet Nam, Lao PDR, Myanmar, and Cambodia.

[2] Simultaneously, the Trans-Pacific Partnership (TPP), launched in 2006 by Brunei, Chile, New Zealand, and Singapore as Pacific-4 has gained considerable momentum and visibility with President Obama's 2011 announcement that the US would join (in September 2008, the US had announced it would join the negotiations in early 2009).

Compared with other regional blocs, particularly in the West, East Asian and trans-pacific regionalism have several distinguishing features. NAFTA and the European Union (EU) association/partnership agreements were arguably of a hegemonic nature; for instance, the EU Association agreements with some of its Mediterranean partners mandate the harmonisation of non-tariff measures (NTMs) on EU standards; similarly, rules of origin in both NAFTA and the EU's Pan-Euro-Mediterranean preferential rules of origin system (PANEURO) have been largely dictated by the Northern partner (the United States [US] and EU, respectively). They were also characterised by strong hub-and-spoke trade structures. By contrast, East Asian/Pacific regionalism brings together a multipolar region with several economic and political heavyweights, including Japan, China, and the US, and a number of mid-size but politically sophisticated partners like Korea, Australia, and New Zealand. Second, and perhaps most importantly, a large chunk of the region's trade is in manufactured products (e.g. electronics) characterised by economies of scale and the prevalence of large firms organised in cross-border value chains. Together, these features imply that the political economy of ROO is likely to be quite different from that in NAFTA or EU partnerships.

Many studies (for recent surveys, see Medalla and Balboa, 2009; Kelleher, 2013; Cadot *et al*., 2006a and 2006b, and references therein) have looked into the drivers and effects of ROO in PTAs. In principle, their objective is to prevent trade deflection in the absence of external-tariff harmonisation. However, the literature has also highlighted their power to depress preference uptake by forcing inefficient sourcing and by imposing fixed compliance costs – paperwork and bureaucratic hassle – explaining sometimes low utilisation rates in spite of high tariff-preference margins, as for textiles in NAFTA. Essentially, the political-economy mechanism behind restrictive ROO in North–South agreements is double. First, costly ROO are a way of 'denying preferences' granted to Southern producers and hence of relieving the competitive pressures generated within the bloc by tariff phase-outs. Second, when the Northern country has a comparative advantage in upstream, capital-intensive sectors – like weaving in the textile & apparel sector, or the making of engines in the automobile sector – ROO create a captive market for those intermediates in the Southern partner where, under bilateral cumulation, assemblers have no choice but to source those intermediates from the Northern (hegemonic) country.

Given the different patterns of economic and political fundamentals in the EAP region, these political-economy drivers are likely to be weaker, although not necessarily absent. First, as noted by Kimura (2010), neither Japan nor China, the region's heavyweights, have acted as engines of regional integration, as the US and EU did in their respective spheres of influence. Japan, in particular, has not sought to create a Japan-centered hub-and-spoke regional trade bloc. In part, this is because part of the motivation for US and EU trade preferences with Southern partners – Mexico for the US; Central Europe and the Mediterranean countries for the EU – was to create 'mini-worlds' where the gains from specialisation could be reaped while at the same time maintaining some degree of trade protection vis-à-vis efficient Asian countries, in particular in the textile & apparel sector where high MFN tariffs made preferential liberalisation highly relevant.[3] This motivation was much weaker, although not necessarily absent in at least some sectors, for Japan.

Second, although there is no systematic data on firm-level control over GVCs,[4] many of the GVCs in the electronics sector are dominated by large firms, which internalise all complementarities along it. Those firms have no interest in forcing inefficient sourcing at any stage of processing. Even in the absence of vertical integration, subcontracting relationships are rarely arms-length, and economies of scale are so strong that many components are produced in a handful of companies serving the entire world market. In such conditions, throwing in ROO to hurt the competitiveness of some of the downstream assemblers to favour others makes little sense.

Thus, there is a prima facie reason to believe that ROO in the Asia–Pacific region are less susceptible to distortion by special-interest capture than their equivalents in NAFTA and PANEURO. However, they could still be trade-restricting because they are unnecessarily complex or cumbersome to satisfy. Essentially this is an empirical question that should be settled by statistical analysis. This is what we set out to do in this chapter, using the variation in trade flows across country pairs and products as the identification mechanism to detect any trade-inhibiting effect of ROO. Our exploration is guided by the gravity equation, workhorse of much empirical work in international trade. We run a disaggregated gravity equation at the product (HS6) level, controlling for the gravity's usual

[3] The idea that trade-diverting PTAs are more appealing politically than trade-creating ones was developed theoretically in Grossman and Helpman (1995). Empirical evidence, however, is mixed.
[4] See Dedrick *et al.*, 2008 for an in-depth study of two electronics value chains.

determinants as well as tariffs and a vector of dummies marking the presence of each type of product-specific RoO.

Section 2 reviews the existing literature on the analysis of ROO (2.1), trade effects of ROO (2.2), ASEAN's tariff and ROO (2.3), and trade patterns in the Asia–Pacific region (2.4). Section 3 describes a theoretical framework, an estimation strategy, data, and data sources. Section 4 presents empirical findings. Section 5 concludes.

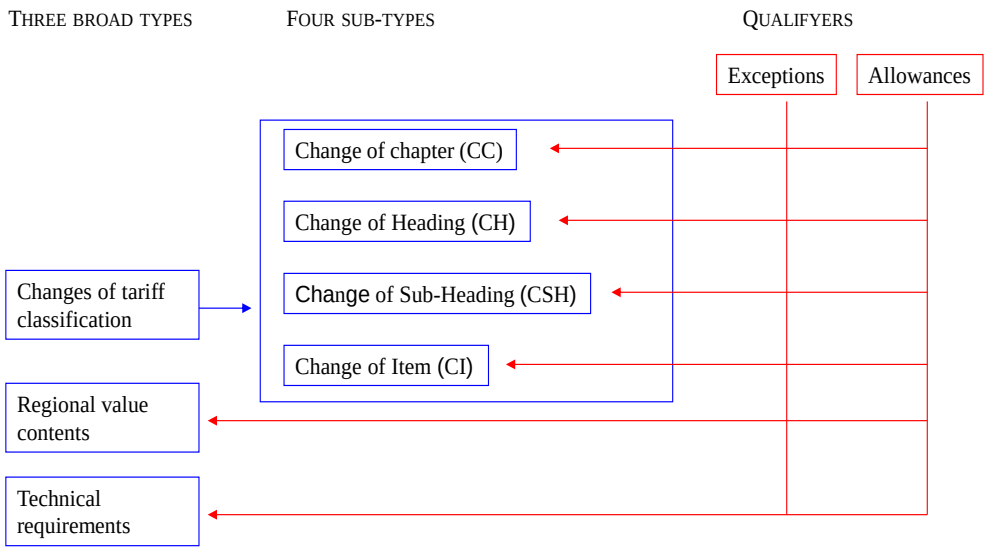
2. Stylised Facts

2.1. Rules of Origin: How Do They Work?

While the legal form of ROO varies, they are essentially local content requirements imposed on exporters of final goods who want to claim the benefit of preferential tariffs within a trade bloc. In principle, their objective is twofold. First, it is to prevent arbitraging of external tariff differences in FTAs. Second, it is to prevent superficial assembly operations with little or no value added that would, de facto, extend the benefit of preferential access to non-eligible intermediate producers upstream of those assembly operations.

There are two broad types of ROO: product-specific rules and regime-wide rules. Product-specific rules specify the minimum degree of local transformation needed to qualify for preferential treatment. They typically take a limited number of legal forms, each of which has advantages and disadvantages for exporters: changes in tariff classification, regional value contents, or technical requirements (Figure 5.1).

Figure 5.1: Types of Product-specific ROO



Changes in tariff classification (CTC) impose a restriction that when a final good is produced using intermediates imported from outside the bloc, it ought not to belong to the same category as those intermediates. The tariff classification is typically the harmonised system (HS), and the change can be specified at either the chapter level (HS2, with 99 categories), the heading level (HS4, with over 1,000 categories), or sub-heading (HS6, with over 5,000 categories). In principle, the lower the level (HS2 being the highest and HS6 the lowest), the less stringent is the rule, as a jump from one subheading to another may entail relatively minor transformation compared with a jump from one chapter to another. However, the reality is more complex, as the HS system has narrower categories for, say, textile & apparel than for machinery and equipment.

Regional value contents (RVCs) can take various forms, including a maximum share of imported intermediates in total intermediates or a minimum share of local value added in the product's price. The definition of local value added (inclusion or not of overheads, distribution, etc.) varies across agreements and is typically a subject of bargaining, as is the price definition (ex-works price, i.e. factory-door, wholesale price, etc.). Some rules have even used weight as the criterion, although this led to so many distortions that weight-based criteria have largely been eliminated. One extreme case of value content is the wholly-obtained category which allows no foreign content at all. Most agricultural products, vegetable or animal, are subject to the wholly-obtained requirement. Finally,

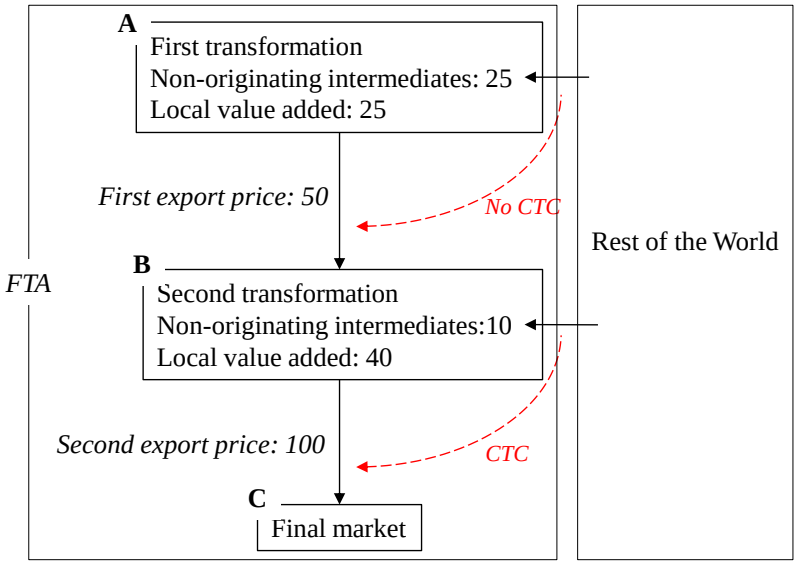
technical requirements can take as many forms as imagination allows, being sometimes tailor-made to benefit narrow interests (see Hirsch, 2002; or Chase, 2007).[5]

Each product-specific ROO can be qualified by either an exception or an allowance. Exceptions make the rule more stringent. For instance, applied to a change of tariff subheading, an exception will specify that, if a final product belonging to subheading *x* is assembled from imported intermediates, those must come from any subheading other than *x*, except *z*. By contrast, allowances relax the stringency of ROO.

Regime-wide rules – essentially cumulation rules, the others being of secondary importance – specify the treatment of intermediates imported from other countries in the same bloc or countries with special status in terms of cumulation. There are three broad types of cumulation: bilateral, diagonal, and full. Under bilateral cumulation (a clause that applies only to bilateral FTAs), if an exporter from A exports to B, only intermediates from A or B count as local. Figure 5.2 presents the value chain. Under diagonal cumulation, in an FTA between A, B and C, when exporting to B, A can count intermediates from C as local. Full cumulation is the most complicated, in particular in the case of a multi-stage production process. Consider an FTA between three countries – A, B, and C – and the following production process. A firm in A imports $25 of intermediate products from the rest of the world (ROW) and does a first transformation involving $25 of local value added. The firm then exports the resulting product, still an intermediate one, to B for a price of $50. In B, another firm again transforms it, adding $10 more of intermediates imported from the ROW and $40 of value added. Finally, the product is re-exported to C at a price of $100. Assume that between the intermediates imported from the ROW to A and the transformed intermediate exported from A to B, there is no change of tariff classification (CTC), whereas between the intermediates imported into B and the final good exported from B to C, there is a CTC.

[5] For instance, one of NAFTA's rules for certain textile products used to specify that intermediates had to be woven 'with a loom width of less than 76cm, woven in the United Kingdom in accordance with the rules and regulations of the Harris Tweed Association, Ltd, and so certified by the Association'.

Figure 5.2: A Representative Value Chain with Cumulation



To understand the interplay of product-specific and regime-wide ROO, now consider two product-specific ROO, a CTC and a 60 percent local content, and two regime-wide rules, diagonal and full cumulation. Together, these generate four cases.

Suppose first that the product-specific ROO is a CTC. Under diagonal cumulation, when exported from B to C, the final product would *not* be eligible, because the first stage fails to satisfy the CTC requirement. Under full cumulation, by contrast, the entire value of intermediates imported from A to B would be counted as local; therefore only the CTC at the second stage would count, and as it is satisfied, the final product exported to C would satisfy the ROO.

Suppose now that the product-specific ROO is a 60 percent local value content. Under diagonal cumulation, the eligible local content would be $40 (the last transformation) out of a sales price of $100, which does not pass the mark. Under full cumulation, by contrast, the eligible local content would be $40 + $25, or $65, which would pass the mark. The final product would then be eligible.

Thus, mechanically, full cumulation is less stringent than diagonal cumulation. However, in practice, proving compliance with full cumulation rules implies complete traceability of the production process and sourcing of intermediates. This is a heavy burden for many companies both in terms of paperwork and—more importantly—in terms of disclosure of sensitive price and supplier information. So some firms prefer not to use full cumulation, despite its advantages on paper.

ROO also raise potentially difficult issues in terms of legal liability. If certificates of origin are issued by officials in the exporting country, there has to be mutual recognition of those certificates of origin, which is not always the case when customs administrations distrust each other. Alternatively, the ultimate importing country (C in our example) may take importer local-content declarations at face value, as they do with product valuation. But if later on a fraud is uncovered, the importer will be held liable and will be expected to turn against his own suppliers, at his own expense. As this would involve auctioning foreign jurisdictions in the export country with uncertain prospects for redress, the importer will typically not pass on the preferential tariff reduction to his suppliers, either keeping it as 'legal insurance' or forsaking altogether the benefit of preferential treatment. In both cases, the objective of the preferential tariff reduction will be missed.

2.2. The Trade Effects of RoO: What Do We Know?

Assessing the impact of ROO means establishing a causal relationship between a measure of ROO and a measure of trade performance. All three – measuring ROO, measuring trade performance, and establishing causation – involve difficult issues.

The modern analysis of ROO goes back to the measurement work of Estevadeordal (2000) who coded NAFTA's product-specific rules and aggregated them into a restrictiveness index. Index values were assigned on the basis of logic; for instance, changes of tariff classification were classified as increasingly stringent as one goes up the hierarchy of HS categories (that is, a change of heading had a higher index value than a change of sub-heading, and so on). Technical requirements were ranked highest in terms of restrictiveness, because – as already argued – they are often deliberately cumbersome to satisfy. Similar indices have been constructed since then by Australia's Productivity Commission (2004), Anson *et al.*, (2005), and Harris (2007), involving variants on Estevadeordal's index. For instance, Estevadeordal treated the wholly-obtained requirement as the most stringent, but it is typically applied to agricultural products, for which it is not binding; so Anson *et al.*, by contrast, coded it as the least stringent. This difference of treatment illustrates the notion that the stringency of a given ROO depends on which sector it applies to, an issue we will return to it in Section 4..

As for the dependent variable, ideally one would like to have data on shipments by regime (MFN vs. preferential). However, preference-utilisation data is sometime treated

by governments as confidential and sensitive, although without much rationale. The performance measure is therefore often taken as relative trade flows – trade flows in a pair of countries affected by the ROO rather than in a pair not affected, under the assumption that stiff ROO will not just make the utilisation of preferences redundant, but will also stifle trade itself, by denying preferences. That is, ceteris paribus, a stringent ROO acts like a reduction in the tariff-preference margin and thus reduces trade flows.

Given data constraints on the dependent variable, identification is often roundabout. One would want to equate ROO with a 'treatment' and compare treated trade flows with untreated ones, using standard approaches like difference-in-differences. Part of the literature has taken that route. Other approaches, in particular when utilisation-rate data are available, have instead relied on a revealed preference argument. That is, suppose that firm compliance costs are distributed around some central value corresponding to the average firm. And suppose that the tariff preference margin for a certain product and country pair is 5 percent. If the rate of preference utilisation is 100 percent, it must be so that all firms have ROO compliance costs below 5 percent; then 5 percent can be taken as an upper bound on the ad-valorem equivalent (AVE) of the average compliance cost. If the utilisation rate is 0 percent, it must be so that all firms have compliance costs above 5 percent, so 5 percent gives a lower bound of the compliance cost's AVE. Finally, if the utilisation rate is somewhere between zero and one hundred, it must be so that some firms have more than 5 percent compliance costs while others have less. One can then take 5 percent as the best approximation for the average compliance cost.

Using this revealed-preference approach, Herin (1986) estimated the compliance costs of EU ROO for Central European countries at 5 percent; Cadot *et al*., (2005) found 2 percent for NAFTA. Manchin and Pelkmans–Balaoing (2007) noted that the AFTA utilisation rate was on average only 5 percent and attributed this low uptake to ROO and other documentation requirements. They also found threshold effects in tariff-preference margins (only at high levels did they affect trade), again suggestive of compliance costs offsetting the benefit of tariff reductions. Brenton and Manchin (2000) and others noted similarly low utilisation rates for EU preferences, but the issue was muddled in the case of the EU by the large number of overlapping schemes, which depressed uptake for every one taken in isolation while EU preferences, as a whole, had high combined uptake (see Candau and Jean, 2005).

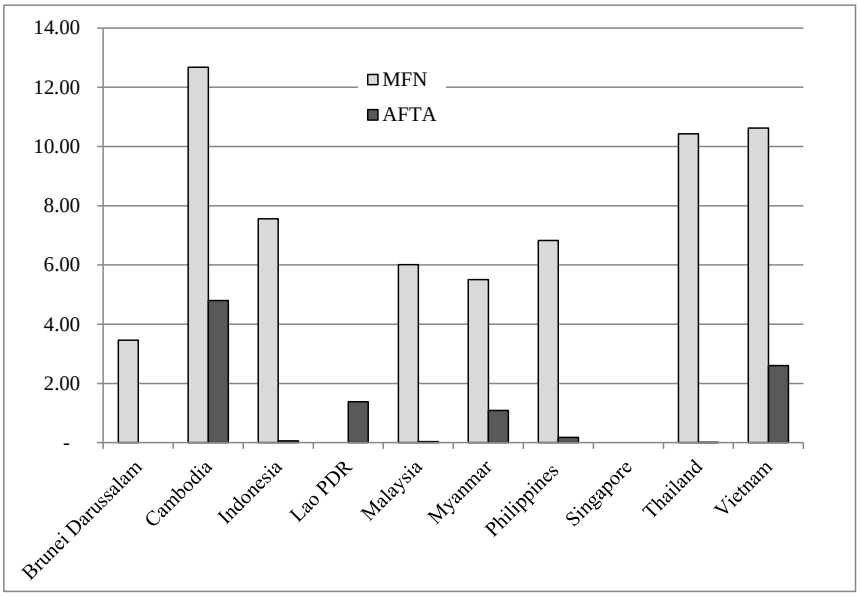
Using econometric approaches instead, Francois *et al*. (2006) estimated compliance costs at 4 percent and Cadot *et al*. (2006a) at 6.5 percent. Beyond averages, Cadot *et al.* (2006a), Estevadeordal (2000) and Estevadeordal *et al*. (2008) found that ROO restrictiveness was typically higher in sectors also characterised by tariff peaks. Portugal–Perez (2009) decomposed NAFTA's ROO into a component reflecting traditional trade-deflection concerns (proxied by the tariff differential between the US and Mexico) and political-economy interference, and found that the latter raised the compliance costs of ROO on average by 4.5 percentage points. Most recently, Kelleher (2013) modified Harris' restrictiveness index to take cumulation rules into account. She proxied the facilitation effect of cumulation rules by the economic size of the cumulation zone (the share of the zone's combined gross domestic products [GDPs] in world GDP), and found a significant and sizable trade-inhibiting effect associated with higher values of her modified restrictiveness index, in particular in the textile & apparel sector.

2.3. ASEAN's Tariffs and ROO

2.3.1. MFN and Preferential Tariffs

ROO can be binding only when tariff-preference margins are substantial, which in turn requires the presence of sufficiently large MFN tariffs. ASEAN has made rapid progress in the phasing out of preferential tariffs, except for Cambodia, and, to a lesser extent, Viet Nam (see Figure 5.3), so tariff-preference margins are essentially MFN rates. These rates are not negligible, implying that tariff-preference margins are substantial and confer benefits on exporters justifying the choice of the preferential regime even in the presence of compliance costs.

Figure 5.3: ASEAN Members MFN and Preferential Average Tariffs, 2010



Source: ASEAN Secretariat.

Decomposing MFN tariffs by sector, Table 5.1 shows, on the basis of the limited availability of tariffs from the multilateral Trade Analysis Information System (TRAINS) database, that ASEAN member states have substantial MFN tariffs, in particular on sensitive sectors like food & beverages (section 4), textiles & apparel (Section 11), footwear (section 12), and vehicles (section 17). These are all sensitive sectors in terms of employment, but also sectors where cross-border GVCs are most prevalent, and hence where ROO can substantially constrain firms. Going down one level of disaggregation, the picture at the level of HS chapters (not shown for brevity) is largely the same. Except for Singapore and Brunei Darussalam, which have very low MFN tariffs, the number of zero-rated chapters is relatively low. Out of 98 chapters, Brunei has 68, Indonesia just one, the Philippines none, Singapore 96, and Viet Nam six.

Table 5.1: ASEAN's Average MFN Tariffs by HS Section

Section	Summary description	Brunei	Indonesia	Philippines	Singapore	Viet Nam
1	Live animals; animal products	-	5.05	10.78	-	13.46
2	Vegetable products	-	5.08	9.41	-	15.94
3	Animal or vegetable fats	-	4.28	5.91	-	10.61
4	Food and beverages	0.08	6.76	11.57	-	28.78
5	Mineral products	-	3.79	2.53	-	4.47
6	Products of the chemical or allied industries	0.46	5.02	3.07	-	2.94
7	Plastics and articles thereof; rubber and articles thereof	1.71	8.30	7.26	-	9.09
8	Leather and leather products	1.22	5.25	6.53	-	11.33
9	Wood and articles of wood	12.09	3.49	7.72	-	7.98
10	Pulp and paper	-	4.00	5.14	-	12.20
11	Textiles and apparel	0.50	10.47	10.44	-	12.00
12	Footwear	5.31	14.61	10.86	-	28.51
13	Cement, glass and stone	0.49	7.88	7.32	-	18.81
14	Precious metals and stones	2.26	6.13	4.91	-	8.79
15	Base metals and articles of base metal	0.05	6.87	5.19	-	7.07
16	Machinery and electrical equipment	9.60	5.45	2.74	-	5.15
17	Vehicles	3.32	9.16	8.92	-	17.57
18	Precision instruments, optics, watchmaking	8.22	5.77	2.85	-	6.20
19	Arms and ammunition; parts and accessories thereof	-	6.05	13.47	-	4.86
20	Miscellaneous manufactured articles	2.47	9.80	7.44	-	19.24
21	Works of art, collectors'pieces and antiques	-	6.19	7.86	-	4.29

Note: Data available on WITS from the TRAINS multilateral tariff databases includes only Brunei Darussalam, Indonesia, the Philippines, Singapore, and Viet Nam.
Source: Author calculations using TRAINS.

2.3.2. Rules of origin

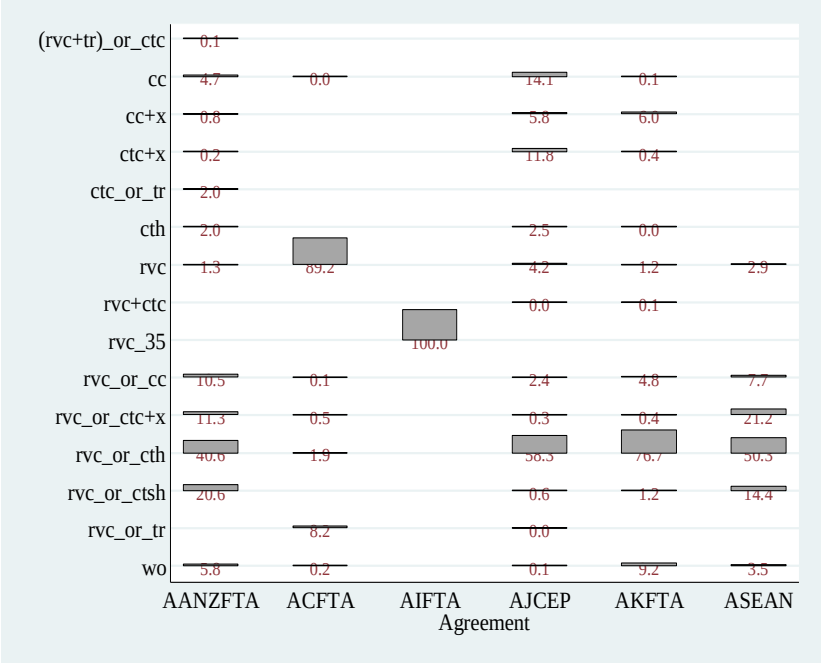
ASEAN's rules of origin have a relatively simple structure compared with, say, NAFTA or PANEURO, as they are largely based on a 40 percent regional value content. Moreover, in many cases, the importer can choose which rule to use amongst two. However, behind the relatively simple logical structure, there is substantial variation at the product level.

The most prevalent combination of instruments at the product level is a choice between a regional value content at 40 percent and a change of tariff heading (HS4). This concerns 11,764 product lines in all of ASEAN's trade (internal and bilateral with preferential partners), or 37.74 percent of the product lines. Another 6 percent of the lines give the importer the choice between the same regional value content and a change of tariff sub-heading (HS6).

At the level of individual agreements, the use of instruments varies substantially. Figure 5.4 reports frequency ratios in percentage for each rule and agreement. Frequency ratios measure the incidence of rules by product without trade-weighting; that is, a frequency ratio of 0.1 for (rvc + tr) or ctc in AANZFTA means that for 0.1 percent of all HS6 products, the importer claiming the preferential regime in the ASEAN–ANZ agreement can choose between a change of tariff classification or the combination of a regional value content and the textile rule. Those products are obviously in section 11 (textile and apparel).

The ASEAN and ASEAN+1 FTAs provide three main points: (i) a structure that is dominated by regional value contents and changes of tariff classification, often giving the importer the choice of rule; (ii) a relatively large palette of instruments on paper, but (iii) a limited range of instruments actually used if one takes trade values into account.

Figure 5.4: ROO Frequency Ratios, by Agreement and Type of Rule

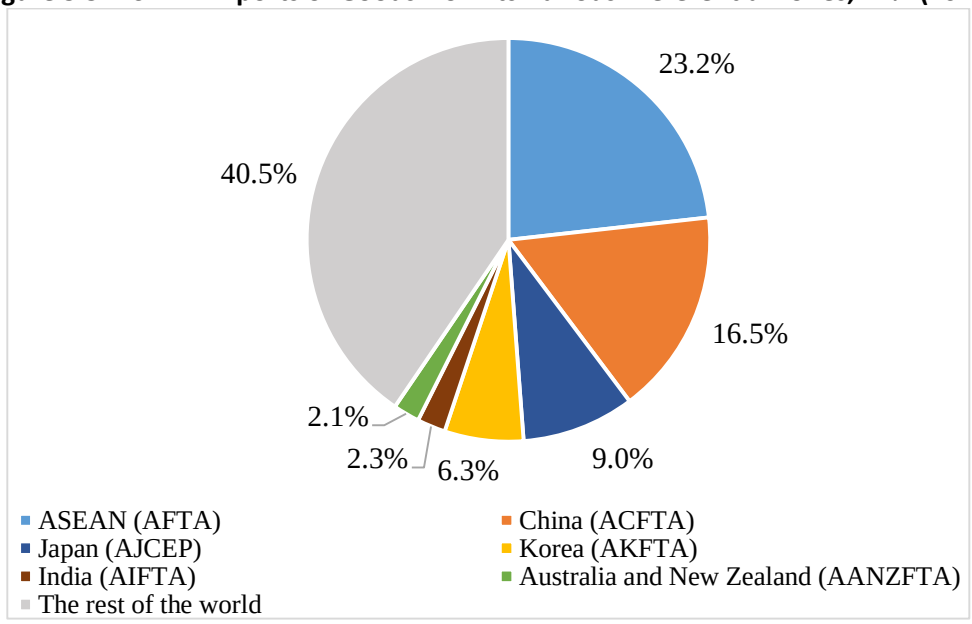


Note: rvc: regional value content (all thresholds combined except 35 percent); rvc_35: regional value content at the 35 percent threshold; cc: change of chapter; ctc: change of tariff classification (any aggregation level); cth: change of tariff heading; ctsh: change of tariff subheading; x: exception; tr: textile rule; wo: wholly obtained. AANZFTA: ASEAN–Australia/New Zealand FTA; ACFTA: ASEAN–China FTA; AIFTA: ASEAN–India FTA; AJCEP: ASEAN–Japan Economic Partnership; AKFTA: ASEAN–Korea FTA.
Source: Walz (2014).

2.4. Trade Patterns in the Asia–Pacific Region

To see the importance of ASEAN's preferential trade as a share of the region's overall imports, Figure 5.5 shows the share of ASEAN imports from the world by trade agreements. The various preferential zones represent a substantial chunk of ASEAN's imports, underscoring the potential impact of preferential rules. As already discussed, one of the key issues raised by the presence of ROO in PTAs is that they mandate a minimum degree of local transformation to grant tariff preferences, while in many sectors the degree of local transformation of intermediate products is determined by multinational companies on the basis of technology and country fundamentals. This is a particularly serious issue for electronics value chains in the East Asia and Pacific (EAP) region where local content can sometimes represent a very thin slice of the overall value generated along the chain.

Figure 5.5: ASEAN Imports of Goods from its Various Preferential Zones, in % (2013)



Source: Authors' calculation using COMTRADE Data.

For instance, in producing an iPod, a widely used sample in describing value added, Dedrick *et al.*, (2008) explains that industrial countries – Japan and the US – capture the lion's share of value added along the chain. While the product retailed in 2008 for $299, the value added retained in China, the assembly country, was only $3.86, or less than 2 percent. Moreover, the value of imported intermediates, at over $140 (essentially capital-intensive intermediates including the hard drive and display, all produced in Japan), was already 35 times the value added in assembly and testing, which represented only 2.7

percent of the ex-factory price of the product (this without counting the wholesale and retail distribution margins). In such a situation, any local content rule could only be violated.

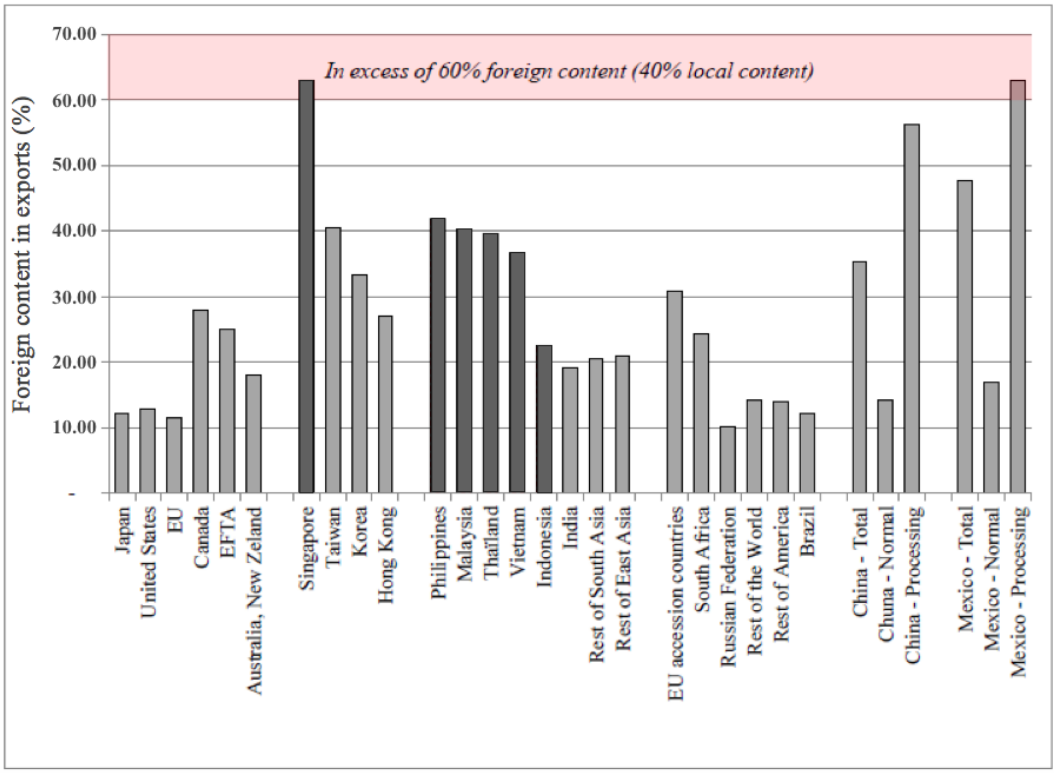
However, in this case, the trade-inhibiting potential of ROO is not as severe as one might expect. First, global electronics companies lobbied the governments of large industrial countries in the 1990s to lower tariffs to practically zero on most electronics products and in particular on components, precisely to make ROO irrelevant, knowing that they would be incompatible with the organisation of production. This lobbying effort led to the signing of the World Trade Organization's Information Technology Agreement (ITA) by 29 countries at the Singapore Ministerial in 1996 and subsequent phasing out on the majority of electronics products.[6] In the case of ASEAN countries, MFN tariffs are zero-rated on computers and most electronics products, but some positive rates linger on. The distribution of MFN tariff rates for chapters 84–86, which comprise all machinery and electronics products, both industrial and consumer, for the three ASEAN members with data for which MFN tariffs are substantially away from zero – Indonesia, the Philippines, and Viet Nam. Second, a significant chunk of China's electronics exports go to the US and EU, where ASEAN ROO do not apply. Even those shipped to Japan are affected only by the ASEAN–Japan rules rather than AFTA's.

Beyond the special case of the electronics sector, what is the evidence on the importance of domestic vs. foreign content in exports? Figure 5.6, constructed using Koopman *et al*.'s data, provides evidence on how constraining ASEAN's RVC could be by plotting the average foreign content of exports for countries in Koopman *et al*.'s sample. With a 40 percent RVC, the foreign content of exports should be no more than 60 percent. Koopman *et al*. did not calculate the regional value added in gross exports, but only the domestic vs. foreign value added (all origins including both regional and non-regional). So only foreign content widely in excess of 60 percent would put a country's exports at risk of violating the 40 percent RVC. Figure shows that for most of ASEAN's member states for

[6] Six out of 10 ASEAN countries – Indonesia, Malaysia, the Philippines, Singapore, Thailand and Viet Nam – were members of the ITA-1; and almost all ASEAN's main trading partners, such as Australia, India, Japan, Korea, and New Zealand, are also members of ITA. China is in the process of accession. The ITA commits all members to completely eliminating duties on IT products covered by the Agreement. In 2013, the ITA-1 had 70 members, which had trade of about 97 percent of world trade in information technology products. The ITA-2 is now in the progress of negotiation.

which data are available, the foreign content of exports is less than 60 percent, suggesting that prima facie ASEAN's ROO could not be overly constraining.

Figure 5.6: Foreign Content of Exports, by Exporting Country



Source: Adapted from Koopman *et al*. (2011).

Prima facie evidence thus suggests that ROO only moderately constrain ASEAN's trade. But the prima facie evidence can hide substantial effects once the sectoral composition of trade is taken into account. Moreover, the bureaucratic hassle of proving compliance may be perceived by companies to be a burden. Only econometric analysis, controlling for various possible confounding influences, can provide some answers.

3. Theoretical Framework

3.1. Set Up

Our theoretical framework is based on the Anderson–Van Wincoop (2004) framework at the product level, from but relaxing key symmetry assumptions on production costs and trade costs. Suppose that country *i* exports n_i varieties to country *j*

and let x_{ijk} be the quantity of variety *k* exported from *i* to *j* (in tons), p_{ijk} its CIF price, E_j the total expenditure in country *j*, and s_{ijk} its share in country *j*'s expenditure. We have

$$p_{ijk}x_{ijk} = s_{ijk}E_j \quad (1)$$

With CES preferences, P_j being composite price index in *j* and σ elasticity of substitution amongst varieties, it can be shown that

$$s_{ijk} = \left(\frac{p_{ijk}}{P_j}\right)^{1-\sigma} \quad (2)$$

Let p_{ik} be the producer price of variety *k* in country *i*; we will assume that it is affected by an idiosyncratic shock φ_{ik} representing comparative advantage; i.e.

$$p_{ik} = \frac{p_i}{\varphi_{ik}} \quad (3)$$

Let τ_{ijk} be the bilateral trade cost between *i* and *j* for variety *k*, including all of its components (tariffs, ROO, and other barriers). The consumer price of variety *k* in country *j* is then

$$p_{ijk} = \tau_{ijk}p_{ik} \quad (4)$$

Let V_{ij} be the total value of exports from *i* to *j*. Bilateral trade between *i* and *j* is:

$$\begin{aligned} V_{ij} &= \sum\nolimits_k p_{ijk}x_{ijk} = \sum\nolimits_k s_{ijk}E_j = \sum\nolimits_k \left(\frac{p_{ijk}}{P_j}\right)^{1-\sigma} E_j \\ &= \sum\nolimits_k \left(\frac{\tau_{ijk}p_{ik}}{P_j}\right)^{1-\sigma} E_j \end{aligned} \quad (5)$$

Country *i*'s GDP is the sum of its sales to all destinations, including itself:

$$Y_i = \sum_{j=1}^{m} V_{ij} = \sum_{j=1}^{m}\sum\nolimits_k \left(\frac{\tau_{ijk}p_{ik}}{P_j}\right)^{1-\sigma} E_j = \sum\nolimits_k \left[p_{ik}{}^{1-\sigma} \sum_{j=1}^{m} \left(\frac{\tau_{ijk}}{P_j}\right)^{1-\sigma} E_j \right] \quad (6)$$

Let us define a product-specific remoteness term Ω_{ik} (the product-specificity comes here only from the fact that trade costs τ_{ijk} vary across products):

$$\Omega_{ik} = \sum_{j=1}^{m} \tau_{ijk}^{1-\sigma} \left(\frac{E_j}{P_j^{1-\sigma}} \right) \quad (7)$$

and write

$$Y_i = \sum_k p_{ik}^{1-\sigma} \Omega_{ik} = p_i \sum_k \left(\frac{1}{\varphi_{ik}} \right)^{1-\sigma} \Omega_{ik} \ . \quad (8)$$

Let

$$\tilde{\Omega}_i = \sum_k \left(\frac{1}{\varphi_{ik}} \right)^{1-\sigma} \Omega_{ik} \quad (9)$$

be a remoteness term adjusted for comparative advantage. Inverting (8) gives

$$p_i = \frac{Y_i}{\tilde{\Omega}_i} \ . \quad (10)$$

Writing (5) in terms of p_i gives

$$V_{ij} = p_i \sum_k \left(\frac{\tau_{ijk}}{\varphi_{ik} P_j} \right)^{1-\sigma} E_j = \frac{Y_i}{\tilde{\Omega}_i} \sum_k \tau_{ijk}^{1-\sigma} \frac{E_j}{P_j^{1-\sigma}} = \sum_k \tau_{ijk}^{1-\sigma} \frac{Y_i E_j}{\tilde{\Omega}_i P_j^{1-\sigma}} \quad (11)$$

Noting finally that income equals expenditure, $E_j = Y_j$ and letting $\overline{\tau}_{ij} = \sum_k \tau_{ijk}^{1-\sigma}$ be the average trade cost from *i* to *j* across all varieties gives a modified gravity equation holding at the aggregate level in the absence of symmetry:

$$V_{ij} = \overline{\tau}_{ij} \frac{Y_i Y_j}{\tilde{\Omega}_i P_j^{1-\sigma}} \quad (12)$$

We are here interested in estimating this equation at the product level. Let v_{ijk} be the value of the flow of variety *k* from country *i* to country *j*. Using (2)

$$\begin{aligned} v_{ijk} = s_{ijk} V_{ij} &= \left(\frac{p_{ijk}}{P_j} \right)^{1-\sigma} V_{ij} \\ &= \left(\frac{p_i \tau_{ijk}}{\varphi_{ik} P_j} \right)^{1-\sigma} \overline{\tau}_{ij} \frac{Y_i Y_j}{\tilde{\Omega}_i P_j^{1-\sigma}} \end{aligned} \quad (13)$$

3.2. Estimation Strategy, Data, and Data Sources

Our estimation strategy is based on the ubiquitous gravity equation, but we estimate it at a disaggregated (product) level, which requires some adjustment in the

formulation of the estimation equation. That is, we allow for variation in those costs across products and estimate the gravity at the product–country pair level. Rewriting equation (13) after log-linearisation:

$$\ln v_{ijk} = \beta_1 \ln \tau_{ijk} + \beta_2 \ln \tau_{ij} + \delta_{ik} + \delta_j + u_{ij} \quad (14)$$

The difference between our estimation with an ordinary gravity equation is twofold: first is the presence of an exporter-product term φ_{ik} correcting for comparative advantage, and second, the presence of a dyad-product term τ_{ijk} correcting for product-specific trade costs, which are what we are interested here (product-specific tariffs and ROO). Letting δ_j and δ_{ik} be respectively importer and exporter-product fixed effects, where

$$\tau_{ijk} = e^{\gamma_1 t_{ijk} + \gamma_2 r_{ijk}} \quad (15)$$

t_{ijk} and r_{ijk} being respectively the tariff and ROO applying to good *k* between countries *i* and *j*, and τ_{ij} being the usual array of gravity controls (distance, common border, common language, and so on).

In the presence of RTAs, market access is affected by both MFN and preferential tariffs. Let

$$I_{ij}^{RTA} = \begin{cases} 1 & \text{if } i \text{ and } j \text{ are members of the same RTA} \\ 0 & \text{otherwise} \end{cases} \quad (16)$$

is a dummy variable marking preferential trade (for any RTA), where ℓ indexes the various forms of ROO (CTC, local content, etc.), let

$$r_{ijk\ell} = \begin{cases} 1 & \text{if RoO } \ell \text{ applies to product } k \text{ in the agreement between } i \text{ and } j \\ 0 & \text{otherwise} \end{cases} \quad (17)$$

Let t_{ijk}^{MFN} be the MFN tariff rate on product *k* applicable to trade between *i* and *j*, and, finally, let $\mathbf{x}_{ij}$ be a vector of country-pair attributes such as distance, common border, common language, and common colonizer. The trade-cost expression is then

$$\tau_{ijk} = \exp\left[\beta_1 t_{ijk}^{\text{MFN}} + \beta_2 \left(I_{ij}^{RTA} \times t_{ijk}^{\text{MFN}}\right) + \beta_3 I_{ij}^{RTA} + \sum_{\ell} \beta_{4\ell} \left(I_{ij}^{RTA} \times r_{ijk\ell}\right) + \mathbf{x}_{ij}\boldsymbol{\gamma}\right] \quad (18)$$

Expression (18) represents an 'ideal' formulation that we need to adapt to data constraints. First, we have ROO data only for ASEAN countries and not for other preferential agreements elsewhere in the world. Therefore, we can hope to disentangle the effect of tariffs from those of ROO only for ASEAN country pairs, not for others.

Accordingly, we mark all country pairs eligible for preferential rules with a single dummy variable defined as in (16). Because the value of preferences depends on MFN tariffs (for instance, when MFN tariffs are zero, preferences are nonexistent), we include MFN tariffs in the estimation, both linearly and interacted with the RTA dummy. Given that for most RTAs, preferential tariffs are set to zero, the coefficient on the interaction term gives the effect of tariff preference margins in RTAs (and should therefore be positive).

For RTAs other than ASEAN, the RTA dummy and interaction term together capture the average effect of trade-preference packages including both tariff-preference margins and ROO. For ASEAN pairs, however, we also include the applicable ROO in the form of a vector of dummies, one for each type of ROO, as in (17). Thus, for ASEAN country pairs, the RTA dummy and its interaction with the MFN tariff capture only the effect of tariff-preference margins, while the ROO dummies capture specifically the effect of ROO.

Country-product fixed effects at HS6 imply the estimation of one million coefficients. Estimating a system with about 30 million observations and over one million coefficients is beyond the computational capabilities of most computers and would tie up too much costly time on a super-computer. Therefore, we simplify the estimation in several ways. First, we replace country-product fixed effects by a vector of fixed effects by exporter, importer, and product, totaling about five thousand instead of one million. This gives the following alternative formulation:

$$\ln v_{ijk} = \beta_1 t_{ijk}^{MFN} + \beta_2 \left(I_{ij}^{RTA} \times t_{ijk}^{MFN} \right) + \beta_3 I_{ij}^{RTA} + \sum\nolimits_{\ell} \beta_{4\ell} I_{ij}^{\text{ASEAN}} r_{ijk\ell} + \mathbf{x}_{ij}\boldsymbol{\gamma} + \delta_i + \delta_j + \delta_{s(k)} + u_{ijk} \quad (19)$$

where δ_i, δ_j and $\delta_{s(k)}$ are respectively exporter, importer, and sector (HS4) fixed effects, *s*(*k*) being the HS4 sector to which HS6 product *k* belongs. Using HS4 instead of HS6 fixed effects reduces the number of fixed effects from five thousand to one thousand, substantially reducing the estimation's computational demands.

We also carry out the estimation by section, making sure that each section includes goods with different types of ROO. We then convert estimates into ad-valorem equivalents (AVEs) of ROO using a standard formula for semi-logarithmic equations, namely

$$AVE_{\ell} = e^{\beta_{4\ell}} - 1 \qquad (20)$$

The main data source is ROO data in the form of precise requirements at the HS6 level of product classification that were provided to us by the ASEAN Secretariat. Trade data in thousand US dollars are from the CEPII's BACI database, which is based on COMTRADE but reconciles direct export and mirrored import data. Gravity variables are from CEPII's free-access online database.

The data cover 1,241 HS-4 digit product lines or 5,180 HS-6 digit level product lines for 185 exporting countries and 108 importing countries in 2012, which were the latest available data when the analysis was conducted. HS Chapters 25, 26, and 27 are excluded. This leaves all agricultural products, but excludes mining products as well as crude oil and gas products (forestry products and oil and its derivatives are still included). This results in the number of observations of 4,411,362 for all products and 3,959,384 for manufactured products, excluding the commodities products mentioned above.

4. Empirical Results

Baseline results are presented in Table 5.2 (note: in all regressions, commodities and oil products are excluded). Columns 1 and 2 present estimates for the whole sample of non-commodity trade; in column 1, ROO variables are omitted, whereas in column 2, they are included. Column 3 presents results for manufactured products only. For readability, the table is split into two parts – the first with standard gravity control variables plus tariffs and RTA markers, and the second with ROO coefficients only. These two parts refer to the same regressions.

Parameter estimates on standard gravity controls are as expected. Note that the trading countries' GDPs are not included because they are absorbed by exporter and importer fixed effects. This formulation is superior to one with GDPs, as fixed effects control adequately for 'multilateral resistance terms'.

Table 5.2: Gravity Regression Results, Non-commodity Trade: Control Variables

Estimator	OLS (within)	OLS (within)	OLS (within)
Sample	All a/	All a/	Manufacturing
Dependent Variable: ln(trade value)	(1)	(2)	(3)
Gravity controls			
ln(distance)	-0.442	-0.448	-0.477
	(268.00)***	(260.15)***	(264.38)***
Comm. border	0.420	0.415	0.407
	(97.47)***	(95.84)***	(89.42)***
Comm. language	0.189	0.191	0.227
	(55.28)***	(55.77)***	(63.38)***
Comm. colonizer	0.234	0.235	0.234
	(38.24)***	(38.18)***	(36.33)***
Trade policy variables			
MFN tariff	-0.005	-0.005	-0.009
	(22.52)***	(22.40)***	(38.31)***
RTA pair	0.223	0.223	0.231
	(54.28)***	(54.13)***	(54.22)***
MFN tariff x RTA	0.001	0.001	0.001
	(3.59)***	(2.96)***	(2.56)***

Table 5.2: (continued): Gravity Regression Results, Non-commodity Trade: ROO

Estimator	OLS (within)	OLS (within)	OLS (within)
Sample	All a/	All a/	Manufacturing
Dependent variable: ln(trade value)	(1)	(2)	(3)
Rules of origin			
CC		-0.205	-0.204
		(5.35)***	(3.97)***
CTH		-0.101	-0.067
		(1.26)	(0.75)
RVC		-0.062	-0.063
		(4.02)***	(3.89)***
RVC at 35% (ASEAN-India)		-0.443	-0.519
		(19.69)***	(22.17)***
Wholly obtained		-0.459	-0.136
		(10.42)***	(1.16)
CTC & exception		-0.177	-0.193
		(6.40)***	(6.80)***
CTC & RVC		0.542	0.841
		(1.71)*	(1.69)*
CTC or TR		-0.533	-0.528
		(8.33)***	(8.19)***
CTC or (TR & RVC)		-0.314	-0.340
		(1.64)	(1.78)*
RVC or CC		-0.149	-0.036
		(6.08)***	(1.16)
RVC or CTH		0.059	0.047
		(5.76)***	(4.48)***
RVC or CTSH		-0.170	-0.222
		(8.71)***	(11.06)***
RVC or TR		-0.459	-0.563
		(11.19)***	(13.76)***
RVC or (CTC & exception)		-0.286	-0.347
		(15.94)***	(19.07)***
Constant	6,525	6,600	6,518
	(138.18)***	(138.45)***	(128.62)***
Observations	4411362	4411362	3959384
R-squared	0.26	0.26	0.28

Note: Parameter estimates on standard gravity controls are as expected. Note that the trading countries' GDPs are not included because they are absorbed by exporter and importer fixed effects. This formulation is superior to one with GDPs as fixed effects control adequately for 'multilateral resistance terms'.

The elasticity of trade to distance is -0.442, implying that a doubling in bilateral distance reduces trade by 25 percent.[7] A common land border raises trade by 50 percent ($e^{0.420}-1$). Note by comparison between columns 1 and 2 that parameter estimates are not affected by the introduction of ROO dummies, which confirms that the specification and baseline results are robust.

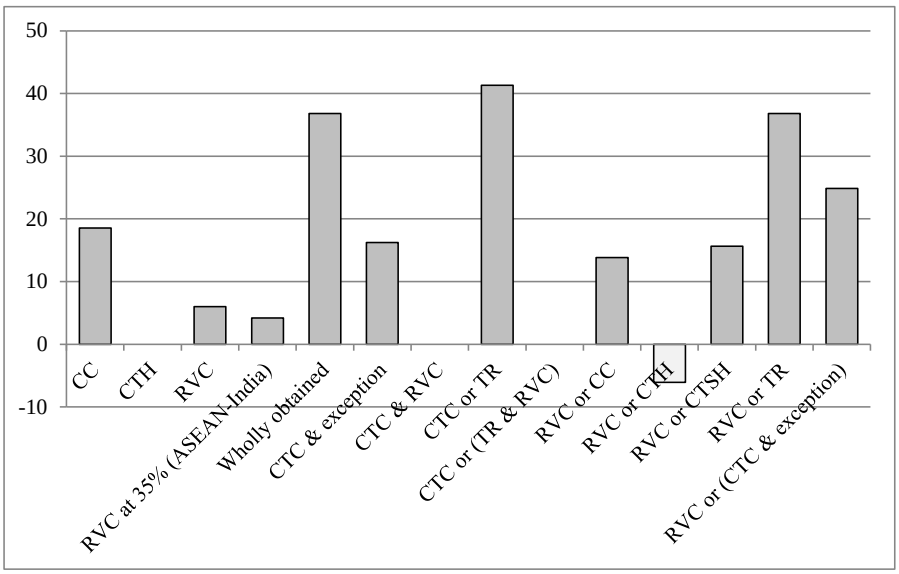
The second part of Parameter estimates on standard gravity controls are as expected. Note that the trading countries' GDPs are not included because they are absorbed by exporter and importer fixed effects. This formulation is superior to one with GDPs, as fixed effects control adequately for 'multilateral resistance terms'.

Table 5.2. shows parameter estimates for the effect of ROO, with different types consolidated into 14 main rules. Twelve out of 14 are highly significant (at the 1 percent level), and all except two are negative. Of the two positive ones, only one, on RVC or CTH, is strongly significant.

Parameter estimates are displayed graphically in Figure 5.7. It illustrates that the most trade-inhibiting instruments are wholly obtained (-36.8 percent) and the Textile Rule, even when offered as a choice between either a change of tariff classification (CTC or TR) or a regional value content (RVC or TR). This is somewhat of a puzzle, since RVCs do not appear very restrictive when used alone (-6.0 percent) while change of chapter (CC), the most restrictive of CTCs, has an AVE of 18.5 percent, already high but much lower than when offered as a choice with the textile rule.

[7] Note that distance is a continuous variable, not a binary one; so the formula does not apply. Instead, the coefficient can be read directly as an elasticity, as both value and distance are in logs.

Figure 5.7: Ad-valorem Equivalents of ROO, All Sample



Source: Authors' calculations using BACI.

The apparent puzzle of the Textile Rule's very strong effect suggests that the restrictiveness of ROO should be assessed by section to better filter out heterogeneity of effects across sectors. Our estimation method with product fixed effects filters out the effect of product heterogeneity on trade values, but not on 'treatment effects' (the effect of ROO on trade). Section-by-section estimates allow for different effects across sectors.

Across the board, ROO appear heavily restrictive. However estimation on the whole sample may capture confounding influences that artificially inflate their estimated effect on trade flows. We now turn to estimation section by section.

3.3. Results by Section

We now report the results of 21 regressions run on sub-samples restricted to products within one section. Averages across all instruments are shown in Table 5.3, together with weights used to calculate the trade-weighted average. Following Leamer (1974), to avoid the endogeneity of trade flows from biasing the weights used in calculated weighted averages, we use world trade weights rather than ASEAN trade weights.

Table 5.3: Average AVEs for All ROO Instruments, by Section

Section	Summary description	Average AVE (%)	Trade weights a/
1	Live animals; animal products	-	
2	Vegetable products	1.91	2.61
3	Animal or vegetable fats	6.67	0.58
4	Food and beverages	1.73	3.05
5	Mineral products	1.52	19.59
6	Products of the chemical or allied industries	3.50	9.70
7	Plastics and articles thereof; rubber and articles thereof	1.87	4.63
8	Leather and leather products	9.05	0.60
9	Wood and articles of wood	-3.20	0.77
10	Pulp and paper	4.98	1.75
11	Textiles and apparel	8.29	4.06
12	Footwear	12.67	0.77
13	Cement, glass and stone	2.42	0.93
14	Precious metals and stones	3.81	2.97
15	Base metals and articles of base metal	-0.46	7.77
16	Machinery and electrical equipment	-0.36	25.89
17	Vehicles	6.89	8.99
18	Precision instruments, optics, watchmaking	3.34	3.33
19	Arms and ammunition; parts and accessories thereof	-	-
20	Miscellaneous manufactured articles	-3.37	1.99
21	Works of art, collectors'pieces and antiques	-	
Average (%)			
Simple		***3.40***	
Trade-weighted			***2.09***

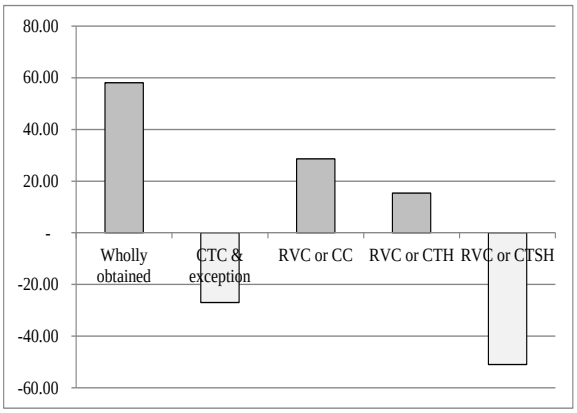
Note: Trade weights calculated using world trade, following Leamer (1974), averaged over 2010–2011. Only sections where ROO AVEs are significant used in their calculations; Section 1 is omitted because it is entirely covered by the 'wholly obtained' rule.

Source: Authors calculations using BACI.

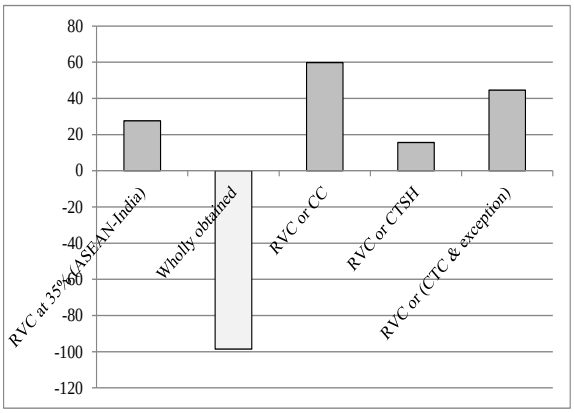
Figure 5.8 further decomposes the AVEs of ROO by section and by instrument, keeping only statistically significant estimates. For brevity, we display only a few sections selected for their importance in ASEAN trade. Results for other sections are available from the authors upon request.

Figure 5.8: Ad-valorem Equivalents of ROO (%), Selected Sectors

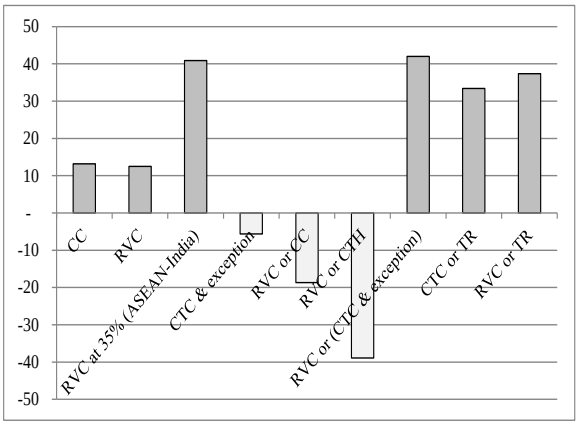
Section 4 (food, beverage, and tobacco)



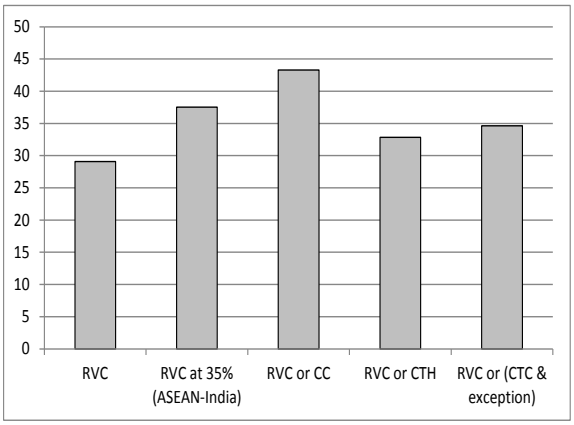
Section 6 (chemicals)



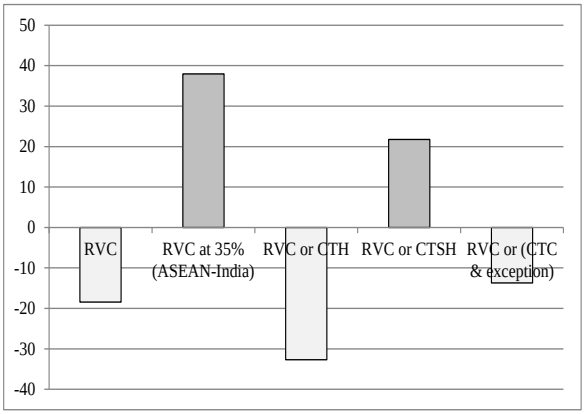
Section 11 (textile and apparel)



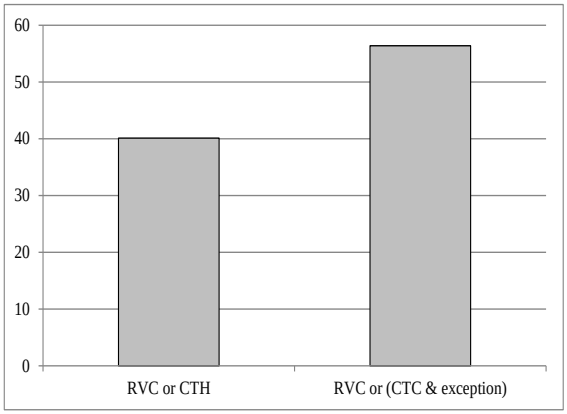
Section 12 (footwear)



Section 16 (machinery and electronics)



Section 17 (transportation equipment)



Source: Authors' calculations.

Although results are, unsurprisingly, less stable at the sector level than at the aggregate level, a few observations can be made based on the analysis. First, the wholly obtained criterion appears to have a restrictive effect on preferential trade in the food, beverage, and tobacco sector, which is to be expected since it essentially prevents foreign sourcing of any sort. Section 6 (chemicals) is one of the few where the RVC seems to have a strong trade-inhibiting effect. In Section 11 (textile and apparel), unsurprisingly, the Textile Rule appears restrictive, while in Section 12 (footwear) all rules appear restrictive. This parallels results obtained for NAFTA and PANEURO. In Section 16 (machinery and equipment, including electronics), the results are very unstable, which is to be expected given the presence of the World Trade Organization's IT agreement already discussed. Finally, in the all-important section 17 (transportation equipment) strong trade-inhibiting effects are observed for regional value contents, even when offered as a choice between these and other rules (change of tariff heading or change of tariff classification other than heading, but with an exception). These rules may stifle automobile trade in the region.

5. Conclusion

This chapter reviews the evidence on the effects of ASEAN's ROO on preferential trade. While the first-best approach to measure the effect of ROO would be to use the trade value that uses preferred tariff rates as the dependent variable, in the absence of utilisation-rate data, we based our identification strategy on the variation in trade flows across country pairs, controlling for product and country heterogeneity with product, exporter, and importer fixed effects in a disaggregated (HS6) cross-section gravity framework.

Prima facie, ASEAN's ROO have a relatively simple and transparent structure, with a large chunk of trade flows subject to a 40 percent regional value content or a change of tariff classification. In many cases, the importers can choose which rule they claim, which makes the system less penalising. That is, ASEAN's ROO 'deny preferences' by an amount roughly comparable to one fourth of the tariff-preference margins. Although moderate, this may contribute to low take-up rates that have been observed on the basis of fragmentary evidence.

However, the econometric analysis of trade flows uncovers evidence of moderately restrictive effects, with an average tariff equivalent, across all measures and products, of 3.40 percent. This is in line with estimates in the literature. This means that ROO inhibit ASEAN's trade by an amount roughly equivalent to one quarter of its MFN tariffs. Put differently, ROO seem to 'nullify' one quarter of the effect of tariff-preference margins. The trade-weighted average is substantially lower, at 2.09 percent. However, the effect is heterogeneous. Whereas it is small in sectors like electronics or capital equipment, where anyway MFN tariffs are low so trade is only weakly affected by preferences, it peaks in sectors that matter for the development of ASEAN's poorest member states, like fats (6.7 percent), leather products (9 percent), textile and apparel (8.3 percent), footwear (12.7 percent), or automobiles (6.9 percent). Thus, the streamlining of ASEAN's ROO should be viewed as part of its own development agenda.

Overall, ASEAN's relatively restrictive ROO may not have a huge impact on trade flows as a large proportion of international trade in the Asia-Pacific area is in the electronics and capital equipment sectors, where MFN tariffs are low and the attractiveness of preferences is (with or without ROO) limited anyway. Thus, low take-up rates may simply reflect the fact that most trade is in product lines that do not stand to benefit very much from tariff reductions.

However, there may be gains to reap from the simplification of ROO in sectors like textile & apparel or footwear, which currently represent a low proportion of Asia-Pacific trade, but may represent substantial opportunities for export-led growth and thus poverty reduction in some of the region's poorest countries. The same applies to prepared foods. Automobiles also stand out as a sector where the relaxation of ROO might be considered, or at least carefully coordinated with plans to build up 'deep' value chains within the region.

The simplification and streamlining of ROO should therefore prioritise light industries like textile and apparel, footwear, and prepared foods (in particular fats) and this should be seen as part of ASEAN's internal development and poverty-reduction strategy. Future research should be carried out to assess the specific gains that ASEAN's poorer member states would reap from less stringent ROO.

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Appendix 1

This appendix details the classification of ROO used in our regression analysis. The large number of instrument combinations used in the various trade agreements involving ASEAN required consolidation for regression analysis. We have consolidated all types into 15 broader types, preserving special categories for instruments combined with additional requirements and for cases of instrument choice. Frequency numbers shown in Table A1 are the numbers of HS6 lines concerned by the instrument on all ASEAN trade. Thus, the numbers add up to substantially more than the notional number of HS6 lines (about 5,000). Consolidation choices were made on the basis of frequency ratios (the consolidation concerned instruments or combinations of instruments with low frequency).

Table 5.A1: ROO Types

Raw	Consolidated	Frequency, all ASEAN imports	Frequency ratio, all ASEAN imports
RVC	rvc	5,149	16.52
RVC + CC	rvc+ctc	2	0.01
RVC + CTH	rvc+ctc	5	0.02
RVC + CTSH	rvc+ctc	3	0.01
RVC + Textile Rule or CC	(rvc+tr)_or_ctc	218	0.7
RVC + Textile Rule or CTH	(rvc+tr)_or_ctc	6	0.02
RVC or CC	rvc_or_cc	1,323	4.24
RVC or CC + Textile Rule	rvc_or_ctc+x	2	0.01
RVC or CC or SPR	rvc_or_ctc+x	89	0.29
RVC or CC or Textile Rule	rvc_or_ctc+x	463	1.49
RVC or CC with exception	rvc_or_ctc+x	86	0.28
RVC or CTH	rvc_or_cth	11,764	37.74
RVC or CTH + CTSH	rvc_or_ctc+x	195	0.63
RVC or CTH or CTSH	rvc_or_ctc+x	136	0.44
RVC or CTH or SPR	rvc_or_ctc+x	24	0.08
RVC or CTH or Textile Rule	rvc_or_ctc+x	347	1.11
RVC or CTH with exception	rvc_or_ctc+x	194	0.62
RVC or CTSH	rvc_or_ctsh	1,877	6.02
RVC or CTSH with additional reqt	rvc_or_ctsh	4	0.01
RVC or CTSH with exception	rvc_or_ctsh	41	0.13
RVC or Textile Rule	rvc_or_tr	428	1.37
RVC with additional reqt	rvc	5	0.02
RVC35+CTSH	rvc_35	5,224	16.76

Table5. A1 (continued): ROO Types

Raw	Consolidated	Frequency, all ASEAN imports	Frequency ratio, all ASEAN imports
CC	cc	987	3.17
CC + Textile Rule	cc+x	40	0.13
CC or Textile Rule	ctc_or_tr	15	0.05
CC with additional reqt	cc+x	348	1.12
CC with exception	cc+x	261	0.84
CTH	cth	230	0.74
CTH or Textile Rule	ctc_or_tr	91	0.29
CTH with additional reqt	ctc+x	615	1.97
CTH with exception	ctc+x	32	0.1
CTSH	cth	8	0.03
WO	wo	963	3.09

SECTION II

Trade in Services: Beyond The List

Chapter 6

Liberalisation of Trade in Services under ASEAN+1 FTAs: A Mapping Exercise

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This paper examines how Association of Southeast Asian Nations (ASEAN)–centred free trade agreements (FTAs) or so-called ASEAN+1 FTAs are correlated amongst themselves and thus have the potential to be merged into one single commitment towards the establishment of a Regional Comprehensive Economic Partnership (RCEP). The 'Coverage Index' defined in this paper highlights similarities and differences amongst the ASEAN+1 FTAs, i.e. the Eighth Package of Commitments under the ASEAN Framework Agreement on Services (AFAS–8), the Second Package of Specific Commitments under the ASEAN–China Free Trade Area (ACFTA–2), the ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA), and the ASEAN–Korea Free Trade Agreement (AKFTA). We found that the degree of liberalisation in terms of the Coverage Index is highest under AFAS–8, which could serve as the focal point for convergence of the ASEAN+1 FTAs, which are positively correlated with AFAS–8. Also, the ASEAN priority integration sectors are making progress (with the exception of transport-related sectors). While the coverage index shows rather low levels of commitment by the member countries, a feasible policy suggestion is to continue prioritising the priority integration sectors including transport-related sectors for a seamless ASEAN Economic Community as well as for a well-connected RCEP.

1. Introduction

This chapter attempts to show how Association of Southeast Asian Nations (ASEAN)-centred free trade agreements (FTAs) (so-called 'ASEAN+1 FTAs'[1]) are correlated amongst themselves – in that many of the member countries cover each of the service subsectors in their commitments – thus demonstrating the potential to merge them into one single commitment. This attempt is expected to clarify what more could be done in the actual policy arena towards the establishment of a Regional Comprehensive Economic Partnership (RCEP).

The structure of this chapter is as follows. In the next section we define 'Coverage Index' and comment on the similarities and differences between the four ASEAN+1 FTAs, i.e. the ASEAN Framework Agreement on Services (AFAS), the ASEAN–China Free Trade Area (ACFTA), the ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA), and the ASEAN–Korea Free Trade Agreement (AKFTA).[2] In Section 3 we conduct an extension analysis with an exclusive focus on the ASEAN countries. We also make a comparison with the General Agreement on Trade in Services (GATS) commitment. Section 4 provides some policy suggestions and conclusions.

2. Overall Comparison of the ASEAN+1 FTAs using the 'Coverage Index' Convergence of the ASEAN+1 FTAs

For the convergence of the ASEAN Framework Agreement on Services (AFAS), ASEAN–China Free Trade Area (ACFTA), ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA) and ASEAN–Korea Free Trade Agreement (AKFTA), an overall comparison of service trade commitments would be needed. In this section, one such comparison is made through introducing the 'Coverage Index' as defined below. While commitments in the form of specific commitment tables submitted by FTA members are different from their actual policy[3], we expect that this kind of analysis will shed some new

[1] In this paper, the ASEAN Framework Agreement on Services (AFAS) and the ASEAN–Australia–New Zealand FTAs are included as part of the ASEAN+1 FTAs.

[2] Under the ASEAN–Japan Comprehensive Economic Partnership Agreement (AJCEP), negotiations on market access are ongoing as of this writing; as for the ASEAN–India Free Trade Area (AIFTA), negotiations on trade in services are reportedly progressing, but relevant information is not yet publicly available.

[3] The actual policy is usually different from and the degree of liberalisation can be higher than the policy indicated under free trade agreements: in the case of, e.g. '11.D. Space Transport' – no restriction in actuality, it seems, because there is no domestic industry covering space transport – in terms of the level of liberalisation,

light on the realisation in the near future of the Regional Comprehensive Economic Partnership (RCEP) amongst the ASEAN members and their dialogue partners.

2.1. Definition of the 'Coverage Index'

The 'Coverage Index' (introduced and discussed in, e.g. Adlung and Roy, 2005) attempts to capture the extent to which the sectors are covered by the participating countries. It is defined as 'the share of commitments by FTA members in a certain sector': when all the participating countries are committed (in each of their specific commitment tables) to a certain service sector, the value of the Coverage Index takes its maximum value of 1.0; when no participating countries are committed, the value is 0.0; when a commitment is made by some (not all) the countries, the Coverage Index takes a value between 0.0 and 1.0, depending on the number of countries with commitments. For instance, when half of the FTA member countries are committed to a particular service sector, the sector's Coverage Index takes the value 0.5. Since there are three broad types of commitments in specific commitment tables, i.e. 'No limitation' (symbolised as 'N'), 'Limited commitment[4]' (symbolised as 'L'), and 'Unbound' (symbolised as 'U'), the Coverage Index can be calculated for each of these three commitments (or non-commitment for the case of 'U').

The Coverage Index and the Hoekman Index [5] (Hoekman, 1995) are complementary, in the sense that the former index measures the coverage by FTA member countries of a particular service sector, while the latter index measures the depth of each member country's commitment in a particular service sector.[6] We expect that with the calculation of this Coverage Index, some convergence scenarios for the four existing ASEAN+1 FTAs – AFAS (package 8, abbreviated in this chapter as AFAS–8), ACFTA (package 2, abbreviated as ACFTA–2), AANZFTA, and AKFTA – are made clear for concrete implementation by the policy makers.

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although the actual policy is always subject to restrictions at some point in the future.

[4] Under this commitment pattern, there are some legal descriptions stipulating the restrictions in terms of market access or national treatment.

[5] The method of Hoekman Index calculation assigns the value of 1.0 for the sectors with 'None' or no limitation, the value of 0.5 for those with 'Limited' or some legal restriction, and the value of 0 for those sectors with 'Unbound' or no promise of market openings. In this sense, the 'depth' of limitation in a particular sector is not captured. See Ishido (2011) for an application of Hoekman Index calculation to the commitment level under ASEAN+1 FTAs.

[6] Ishido and Fukunaga (2012) conducted a detailed analysis of services chapters in the existing ASEAN+1 FTAs in terms of the Hoekman Index.

2.2. Results of the Coverage Index calculations

The results of Coverage Index calculations in terms of the 'N-commitment', 'L-commitment', and 'U-commitment' are listed in the database constructed for this study at the back of this chapter (note that these three types of indices add up to 1.0). Since the most disaggregated information seems to be useful for actual negotiations on convergence, we provide the full lists. It is rather difficult, however, to get an overall sense of the similarities amongst the four ASEAN+1 FTAs.

Table 6.1 lists the Coverage Index calculation results at the 55-sector level. In the calculation, simple averages of the values for the most detailed 154 sub-sectors under the same 55-sector classification code are taken.[7] This table reveals the following observations: (In the spirit of increasing the number of sectors with 'N-commitment' away from 'U-commitment' and through 'L-commitment', the focus is first placed on 'N-commitment' only).

AFAS–8 has an average Coverage Index value of 0.38 (the highest amongst the four ASEAN+1 FTAs), with '01B Computer and Related Services' taking the highest value (0.71). ACFTA–2 has an average Coverage Index value of 0.20, with '09.B. Travel Agencies and Tour Operators services' taking the highest value (0.57). AANZFTA has an average Coverage Index value of 0.25, with the sector '01.B. Computer and Related Services' taking the highest value (0.58). AKFTA has an average Coverage Index value of 0.19, with the sector '09.B. Travel Agencies and Tour Operators services' taking the highest Index value (0.56).

Concerning the ASEAN Economic Community 'priority integration sectors' of e-ASEAN, air transport, healthcare, logistics, and tourism, AFAS–8 has relatively high Coverage Index values: for Air Transport (11.C. Air Transport Services), the N-commitment value is 0.13; for e-ASEAN (in terms of 01.B. Computer and Related Services) it is 0.71; regarding Healthcare, '08.A. Hospital Services' has a value of 0.56 and '08.B. Other Human Health Services' has a value of 0.41; for Tourism, '09.B. Travel Agencies and Tour Operators services' has a value of 0.63, and '09.C. Tourist Guides Services' has a value of 0.30; for Logistics, '04.B. Wholesale Trade Services' has a N-commitment Coverage Index value of 0.48, '11.B. Internal Waterways Transport' has an N-commitment Coverage Index value of

[7] These sub-sectors are all defined under the World Trade Organization (WTO)'s General Agreement on Trade in Services (GATS), although the digits used for definition are different across sectors. For definitions of each of the service sub-sectors, see the WTO document 'MTN.GNS/W/120' (available online).

0.26, '11.E. Rail Transport Services' 0.32, '11.F. Road Transport Services' 0.42, and '11.H. Services Auxiliary to All Modes of Transport' 0.39.[8] The ASEAN priority integration sectors are shadowed in the table. It seems, therefore, that the ASEAN priority integration sectors have been making progress, in relative terms (with the exception of transport-related sectors). That said, since the corresponding values under the other ASEAN+1 FTAs are lower overall, more convergence efforts would be needed towards establishing an RCEP.

[8] This is due to the absence of a detailed official definition of the priority integration sectors. Thus, in this chapter, we take the following sectors as the priority integration sectors: 01.B. Computer and Related Services, 02.C. Telecommunication Services, 04.B. Wholesale Trade Services, 08.A. Hospital Services, 09.B. Travel Agencies and Tour Operators services, 09.C. Tourist Guides Services, 11.A. Maritime Transport Services, 11.B. Internal Waterways Transport, 11.C. Air Transport Services, 11.E. Rail Transport Services, and 11.F. Road Transport Services.

Table 6.1: List of Coverage Index Calculations at the 55-sector Level

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01.A. Professional Services	**0.41**	**0.13**	0.45	0.27	0.07	0.66	**0.34**	**0.25**	0.41	0.27	0.09	0.64
01.B. Computer and Related Services	**0.71**	**0.15**	0.15	**0.44**	**0.07**	0.49	**0.58**	**0.28**	0.14	0.43	0.04	0.53
01.C. Research and Development Services	0.43	0.07	0.50	0.18	0.03	0.80	0.14	0.26	0.60	0.21	0.02	0.78
01.D. Real Estate Services	0.14	0.00	0.86	0.13	0.01	0.86	0.14	0.27	0.59	0.06	0.00	0.94
01.E. Rental/Leasing Services without Operators	0.34	0.09	0.58	0.16	0.02	0.83	0.23	0.26	0.52	0.18	0.02	0.80
01.F. Other Business Services	0.41	0.06	0.54	0.22	0.03	0.75	0.24	0.26	0.51	0.24	0.02	0.74
02.A. Postal Services	0.11	0.11	0.78	0.03	0.06	0.91	0.00	0.25	0.75	0.03	0.06	0.91
02.B. Courier Services	**0.61**	**0.11**	0.28	0.32	0.02	0.66	0.24	0.24	0.52	0.24	0.10	0.66
02.C. Telecommunication Services	**0.61**	**0.20**	0.18	**0.36**	**0.17**	0.47	**0.43**	**0.32**	0.25	**0.41**	**0.12**	0.47
02.D. Audiovisual Services	0.28	0.06	0.66	0.13	0.02	0.85	0.11	0.27	0.62	0.13	0.02	0.85
02.E. Other	0.06	0.01	0.93	0.00	0.00	1.00	0.00	0.25	0.75	0.00	0.00	1.00
03.A. General Construction Work for Building	**0.48**	**0.18**	0.35	0.31	0.08	0.61	**0.48**	**0.30**	0.22	0.36	0.09	0.55
03.B. General Construction work for Civil Engineering	**0.48**	**0.18**	0.35	**0.36**	**0.15**	0.49	**0.44**	**0.32**	0.24	**0.45**	**0.16**	0.39
03.C. Installation and Assembly Work	**0.48**	**0.18**	0.35	0.34	0.10	0.56	**0.42**	**0.30**	0.28	0.38	0.10	0.52
03.D. Building Completion and Finishing Work	**0.46**	**0.18**	0.36	0.27	0.02	0.70	**0.36**	**0.31**	0.32	0.26	0.08	0.66
03.E. Other	**0.46**	**0.18**	0.36	0.26	0.09	0.65	**0.40**	**0.30**	0.30	0.30	0.09	0.61
04.A. Commission Agents' Services	**0.59**	**0.08**	0.34	0.32	0.05	0.64	**0.33**	**0.25**	0.42	0.28	0.00	0.72
04.B. Wholesale Trade Services	**0.48**	**0.06**	0.46	0.22	0.01	0.77	**0.29**	**0.25**	0.46	0.25	0.01	0.74
04.C. Retailing Services	0.38	0.05	0.58	0.19	0.01	0.80	0.22	0.25	0.53	0.19	0.03	0.77

04.D. Franchising	**0.49**	**0.03**	0.49	0.27	0.00	0.73	0.19	0.25	0.56	0.27	0.00	0.73
04.E. Other	0.25	0.00	0.75	0.11	0.02	0.86	0.06	0.25	0.69	0.07	0.00	0.93
05.A. Primary Education Services	0.26	0.10	0.64	0.07	0.03	0.90	0.14	0.26	0.60	0.05	0.00	0.95
05.B. Secondary Education Services	0.34	0.15	0.51	0.09	0.03	0.88	**0.35**	**0.27**	0.38	0.16	0.03	0.81
05.C. Higher Education Services	0.36	0.10	0.54	0.20	0.06	0.74	**0.34**	**0.29**	0.36	0.20	0.05	0.75
05.D. Adult Education	**0.54**	**0.10**	0.36	0.24	0.03	0.73	**0.24**	**0.28**	0.48	0.27	0.02	0.70
05.E. Other Education Services	**0.44**	**0.11**	0.45	0.23	0.06	0.72	**0.36**	**0.29**	0.34	0.14	0.01	0.85
06.A. Sewage Services	**0.50**	**0.14**	0.36	0.25	0.03	0.72	**0.36**	**0.25**	0.39	0.26	0.03	0.70
06.B. Refuse Disposal Services	**0.51**	**0.11**	0.38	0.24	0.02	0.74	**0.35**	**0.24**	0.41	0.25	0.02	0.73
06.C. Sanitation and Similar Services	0.44	0.06	0.50	0.22	0.02	0.76	**0.33**	**0.24**	0.43	0.17	0.02	0.81
06.D. Other	**0.55**	**0.09**	0.36	0.26	0.02	0.72	**0.32**	**0.24**	0.44	0.28	0.02	0.69
07.A. All Insurance and Insurance-related Services	**0.47**	**0.12**	0.41	**0.38**	**0.15**	0.47	**0.34**	**0.37**	0.29	0.32	0.15	0.53
07.B. Banking and Other Financial Services	0.38	0.10	0.52	0.32	0.11	0.57	**0.34**	**0.31**	0.35	0.24	0.09	0.67
07.C. Other	0.05	0.05	0.90	0.02	0.00	0.98	0.03	0.26	0.71	0.03	0.01	0.95
08.A. Hospital Services	**0.56**	**0.16**	0.28	0.17	0.03	0.80	0.20	0.30	0.50	0.33	0.06	0.61
08.B. Other Human Health Services	**0.41**	**0.11**	0.48	0.15	0.03	0.82	0.14	0.26	0.60	0.09	0.00	0.91
08.C. Social Services	0.36	0.05	0.59	0.05	0.00	0.95	0.04	0.25	0.71	0.05	0.00	0.95
08.D. Other	0.25	0.04	0.71	0.11	0.00	0.89	0.00	0.25	0.75	0.00	0.00	1.00
09.A. Hotels and Restaurants	**0.70**	**0.10**	0.20	**0.55**	**0.09**	0.36	**0.54**	**0.27**	0.19	**0.50**	**0.10**	0.40
09.B. Travel Agencies and Tour Operators services	**0.63**	**0.09**	0.29	**0.57**	**0.07**	0.36	**0.61**	**0.28**	0.10	**0.56**	**0.06**	0.39
09.C. Tourist Guides Services	0.30	0.00	0.70	0.19	0.01	0.80	0.25	0.25	0.50	0.20	0.00	0.80
09.D. Other	**0.48**	**0.09**	0.44	0.09	0.02	0.89	0.05	0.24	0.71	0.11	0.02	0.86
10.A. Entertainment Services	**0.54**	**0.05**	0.41	0.28	0.02	0.69	0.18	0.26	0.56	0.24	0.01	0.75
10.B. News Agency Services	0.18	0.00	0.83	0.00	0.00	1.00	0.06	0.25	0.69	0.00	0.00	1.00
10.C. Libraries, archives, museums and other cultural services	0.29	0.04	0.68	0.07	0.00	0.93	0.06	0.25	0.69	0.07	0.00	0.93

10.D. Sporting and Other Recreational Services	0.35	0.04	0.61	0.24	0.03	0.73	0.18	0.26	0.56	0.14	0.03	0.83
10.E. Other	0.16	0.08	0.76	0.05	0.00	0.95	0.00	0.25	0.75	0.00	0.00	1.00
11.A. Maritime Transport Services	**0.55**	**0.16**	0.29	0.23	0.04	0.73	0.21	0.27	0.51	0.24	0.05	0.71
11.B. Internal Waterways Transport	0.26	0.08	0.66	0.04	0.01	0.95	0.01	0.25	0.74	0.01	0.00	0.99
11.C. Air Transport Services	0.13	0.01	0.87	0.16	0.03	0.82	0.09	0.25	0.66	0.18	0.02	0.80
11.D. Space Transport	0.06	0.01	0.93	0.00	0.00	1.00	0.00	0.25	0.75	0.00	0.00	1.00
11.E. Rail Transport Services	0.32	0.12	0.56	0.07	0.00	0.93	0.13	0.25	0.63	0.07	0.00	0.93
11.F. Road Transport Services	0.42	0.07	0.51	0.31	0.02	0.67	0.21	0.24	0.55	0.16	0.01	0.83
11.G. Pipeline Transport	0.14	0.09	0.78	0.05	0.02	0.93	0.17	0.27	0.56	0.07	0.02	0.91
11.H. Services Auxiliary to All Modes of Transport	0.39	0.09	0.52	0.24	0.05	0.71	0.22	0.25	0.53	0.20	0.04	0.75
11.I. Other Transport Services	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.25	0.75	0.05	0.00	0.95
Average	0.38	0.09	0.53	0.20	0.04	0.76	0.23	0.27	0.51	0.19	0.04	0.77

Source: Calculated from the database constructed (version updated on 3 October 2013).

As the next consideration, what could be the similarity of overall coverage patterns amongst the ASEAN+1 FTAs away from the U-Commitment? To get a better idea, we combine 'N-Commitment' and 'L-Commitment': where the summation of the N-Commitment and L-commitment values is higher than 0.5 (in other words, where the U-commitment value takes a value lower than 0.5), the N-Commitment and L-Commitment figures are highlighted in bold. As shown in the table, AFAS–8 is the most highly committed, while in the case of AANZFTA, the commitment is a bit lower, but similar to AFAS–8. ACFTA–2 and AKFTA are rather similarly committed[9] at a lower level than under AFAS–8 and AANZFTA. Indeed, there is a wedge between the groups of 'AFAS–8 and AANZFTA' and 'ACFTA–2 and AKFTA', which should be addressed in future policy negotiations on convergence.

Table 6.2 lists the Coverage Index calculations at the most aggregated 11-sector level: again, we use simple average for the values under the same 11-sector classification. Figures 1–3 graphically compare the levels of the Coverage Index by each of the commitment patterns (N, L, or U). This level of aggregation shows the following: (In the spirit of increasing the number of sectors with 'N-commitment' away from 'U-commitment' and through 'L-commitment', the focus is placed on 'N-commitment' only.)

As for AFAS–8, it has an average Coverage Index value of 0.39, with '09. Tourism and Travel Related Services' taking the largest Coverage Index value (0.53) for N-commitment, whereas '11. Transport Services' has the smallest Coverage Index value (0.25). An important note is that the sector '11.Transport Services' plays an important part in ASEAN connectivity – enhanced policy efforts for greater liberalisation by those ASEAN members who have not yet committed would be needed especially in this sector.

For ACFTA–2, it has an average Coverage Index value of 0.21, and '09. Tourism and Travel Related Services' has the largest Coverage Index value (0.35), while '08. Health Related and Social Services' and '11. Transport Services' both have the lowest Coverage

[9] This is probably because for some ASEAN members, China and Korea as their dialogue partners are seen to pose a common set of 'concerns' including the possibility of losing domestic market shares, thus a common set of commitment patterns under ACFTA and AKFTA.

Index value (0.12), for N-commitment.

AANZFTA has an average Coverage Index value of 0.24, with '03. Construction and Related Engineering Services' taking the highest value (0.42). The sector '08. Health Related and Social Services' has the lowest Coverage Index value (0.09). AKFTA has an average Coverage Index value of 0.20, with '09. Tourism and Travel Related Services' taking the highest sectoral value (0.34) and '10. Recreational, Cultural and Sporting Services' taking the lowest value (0.09). It should be noted that since this FTA has a separate chapter on Mode 4, which covers almost all the subsectors, the index tends to be overvalued.

An interesting observation is that 'there are smaller variations in terms of liberalisation level across sectors in AFASs[10]'. This observation might suggest that AFAS–8 is rather 'harmonised', which is encouraging in terms of boosting policy coordination towards achieving an RCEP. A sectoral convergence scenario could therefore have AFAS as the central 'convergence point'.

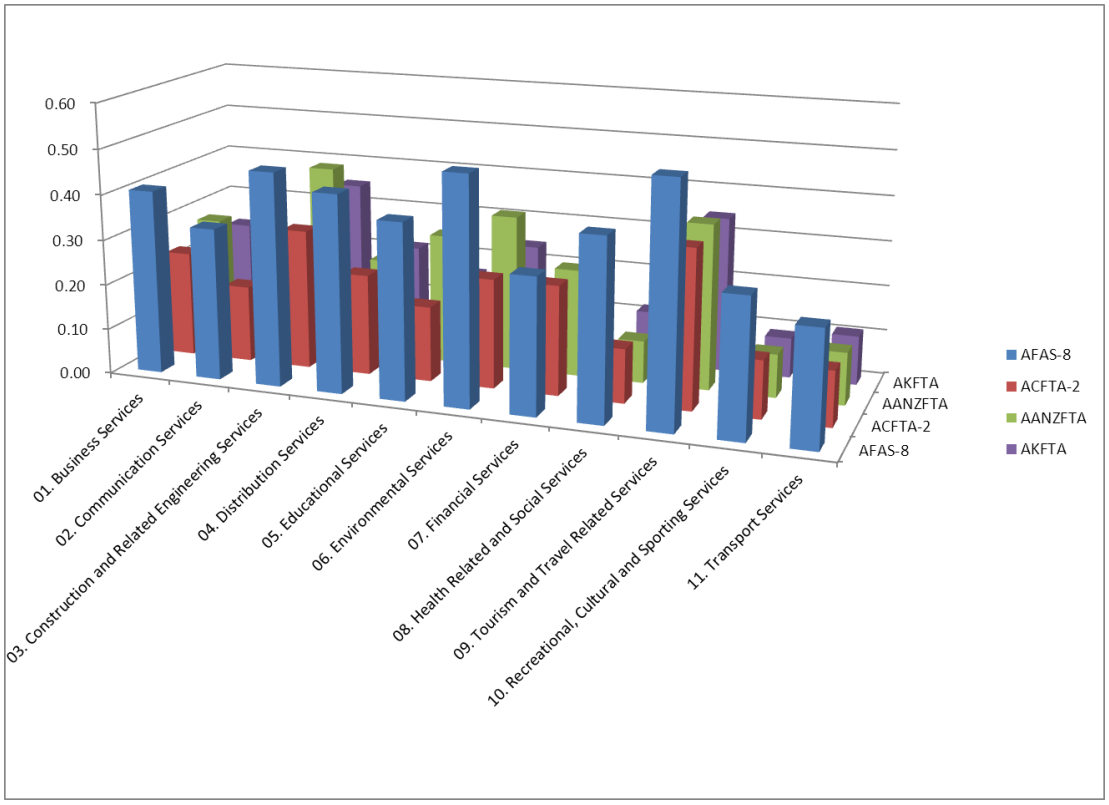
[10] This is a comment from Mr. Yoshifumi Fukunaga (Research Coordinator, ERIA).

Table 6.2: List of the Coverage Index Calculations at the 11-sector Level

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.41	0.08	0.51	0.23	0.04	0.73	0.28	0.26	0.46	0.23	0.03	0.74
02. Communication Services	0.34	0.10	0.56	0.17	0.05	0.78	0.16	0.26	0.58	0.16	0.06	0.78
03. Construction and Related Engineering Services	0.47	0.18	0.36	0.31	0.09	0.60	0.42	0.31	0.27	0.35	0.10	0.55
04. Distribution Services	0.44	0.04	0.52	0.22	0.02	0.76	0.22	0.25	0.53	0.21	0.01	0.78
05. Educational Services	0.39	0.11	0.50	0.17	0.04	0.79	0.29	0.28	0.43	0.16	0.02	0.81
06. Environmental Services	0.50	0.10	0.40	0.24	0.03	0.73	0.34	0.24	0.41	0.24	0.03	0.73
07. Financial Services	0.30	0.09	0.61	0.24	0.09	0.67	0.24	0.31	0.45	0.20	0.08	0.72
08. Health Related and Social Services	0.40	0.09	0.51	0.12	0.02	0.86	0.09	0.27	0.64	0.12	0.01	0.87
09. Tourism and Travel Related Services	0.53	0.07	0.41	0.35	0.05	0.60	0.36	0.26	0.38	0.34	0.05	0.61
10. Recreational, Cultural and Sporting Services	0.30	0.04	0.66	0.13	0.01	0.86	0.10	0.25	0.65	0.09	0.01	0.90
11. Transport Services	0.25	0.07	0.68	0.12	0.02	0.86	0.12	0.25	0.63	0.11	0.02	0.87
Average	0.39	0.09	0.52	0.21	0.04	0.75	0.24	0.27	0.49	0.20	0.04	0.76

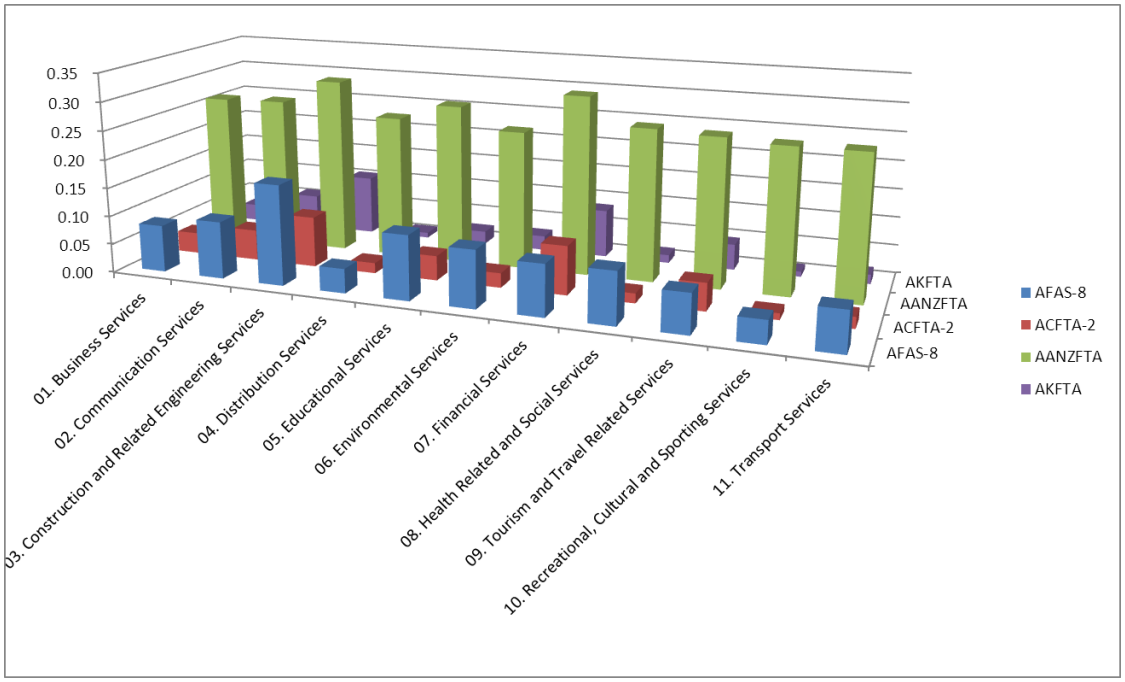
Source: Calculated from the database constructed (version updated on 3 October 2013).

Figure 6.1: Comparison of N-commitment under the ASEAN+1 FTAs (11 sectors)



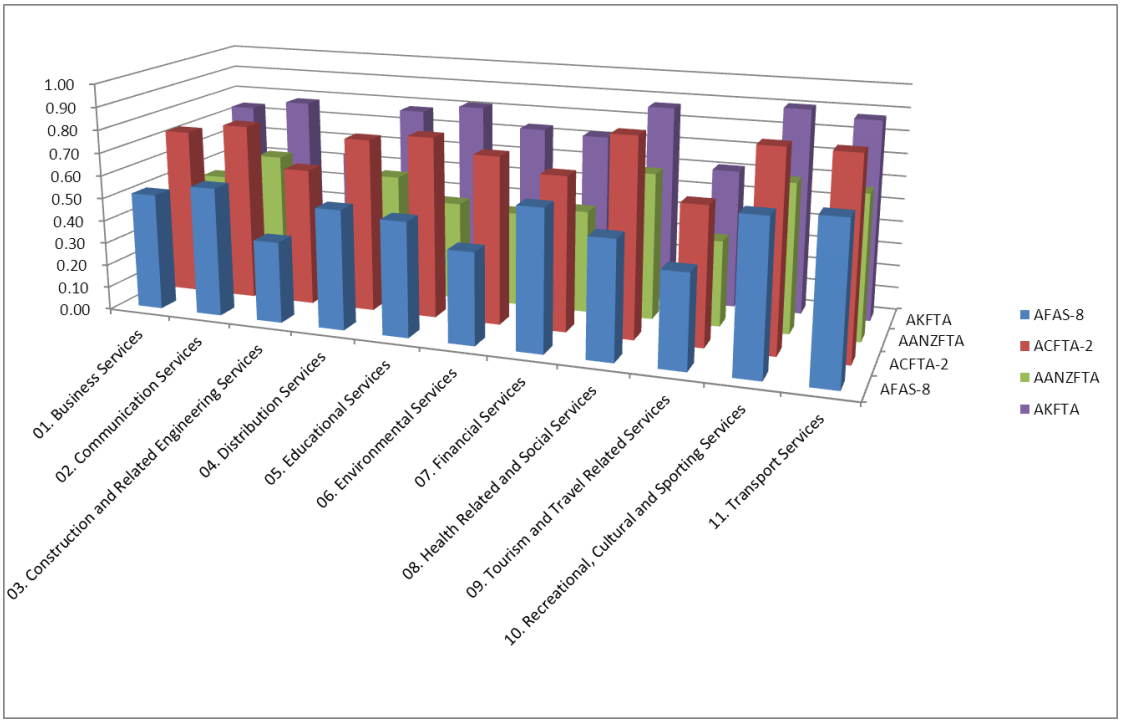
Source: Derived from Table 6.2.

Figure 6.2: Comparison of L-commitment under the ASEAN+1 FTAs (11 sectors)



Source: Made from Table 6.2.

Figure 6.3: Comparison of U-commitment under the ASEAN+1 FTAs (11 sectors)



Source: Derived from Table 6.2.

A summary of the results is shown in Table 6.3. This table calculates correlation coefficients of all pairs of ASEAN+1 FTAs, based on the database constructed for this study (i.e. calculation is made at the most disaggregated 154-sector level).

As shown in the table, AFAS–8 has rather strong correlations with ACFTA–2 and AKFTA, whereas its correlation with AANZFTA is not so strong. The highest level of correlation (0.98) is observed between ACFTA–2 and AKFTA, indicating that both of these FTAs are actually strongly correlated with each other. AANZFTA is somewhat exceptional in the sense that it has a separate chapter on the movement of people (corresponding to Mode 4 of service supply). When mode 4 is excluded from the calculation of coefficients involving AANZFTA, the FTA (AANZFTA) is also rather strongly correlated with the other three FTAs.

Overall, all the correlation coefficients are positive, indicating that industry-level commitment patterns are more or less shared amongst all the ASEAN+1 FTAs.

Table 6.3: Correlation Coefficient of all Pairs of ASEAN+1 FTAs

	AFAS–8	ACFTA–2	AANZFTA(1–4)	AANZFTA(1–3)	AKFTA
AFAS–8	-				
ACFTA–2	0.76	-			
AANZFTA(1–4)	0.32	0.40	-		
AANZFTA(1–3)	0.70	0.95	-	-	
AKFTA	0.76	0.98	0.41	0.96	-

Notes: AANZFTA (1–4) means that all the four modes have been considered in the calculation for this FTA; AANZFTA (1–3) means that modes 1–3 only have been considered; this is because AANZFTA is unique in that it has a separate chapter on mode 4, which might be a source of deflated correlation. The correlation coefficients involving AANZFTA (1–3) use data on modes 1–3 only (excluding data on mode 4).

Source: Calculated from the database constructed (version updated on 3 October 2013).

It would be useful to make an analysis of the Coverage Index by mode. For ease of viewing, the 11-sector disaggregation results only are shown in Tables 6.4–6.8, for Modes 1–4, respectively. In the following, the focus is on N-commitment only. In Mode 1 (Table 4), AFAS–8 has an average Coverage Index value of 0.48, ACFTA–2 has 0.19, AANZFTA 0.24, and AKFTA 0.19. Thus, AFAS–8 has the highest average commitment level amongst the four ASEAN+1 FTAs. In Mode 2 (Table 6.5), AFAS–8 has the highest average Index value, at 0.66, ACFTA–2 has 0.36, AANZFTA 0.40, and AKFTA 0.36. In Mode 3 (Table 6.6), AFAS–8 has the highest Index value, at 0.39, ACFTA–2 has an average value of 0.25, AANZFTA 0.29, and AKFTA 0.24. In Mode 4 (Table 6.7), AFAS–8 has the highest (albeit low in absolute terms) average value of 0.04, ACFTA–2 has 0.03, AANZFTA 0.02, and AKFTA 0.02. Also, AANZFTA has the highest L-commitment value (since it has a separate service chapter in which almost all sectors are committed).

Table 6.4: Coverage Index of the ASEAN+1 FTAs in Mode 1

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.59	0.01	0.40	0.30	0.01	0.69	0.36	0.01	0.62	0.29	0.01	0.69
02. Communication Services	0.46	0.04	0.50	0.20	0.05	0.75	0.19	0.02	0.79	0.20	0.05	0.75
03. Construction and Related Engineering Services	0.25	0.00	0.75	0.10	0.00	0.90	0.28	0.00	0.72	0.15	0.00	0.85
04. Distribution Services	0.56	0.00	0.44	0.21	0.01	0.78	0.24	0.00	0.76	0.22	0.00	0.78
05. Educational Services	0.54	0.00	0.46	0.11	0.00	0.89	0.32	0.00	0.68	0.17	0.00	0.83
06. Environmental Services	0.63	0.00	0.38	0.16	0.00	0.84	0.33	0.00	0.67	0.16	0.00	0.84
07. Financial Services	0.30	0.05	0.65	0.23	0.05	0.72	0.20	0.06	0.73	0.19	0.05	0.76
08. Health Related and Social Services	0.56	0.00	0.44	0.14	0.00	0.86	0.10	0.00	0.90	0.16	0.00	0.84
09. Tourism and Travel Related Services	0.71	0.00	0.29	0.44	0.00	0.56	0.42	0.01	0.57	0.38	0.00	0.63
10. Recreational, Cultural and Sporting Services	0.36	0.00	0.64	0.09	0.00	0.91	0.08	0.00	0.92	0.06	0.00	0.94
11. Transport Services	0.32	0.01	0.67	0.12	0.01	0.88	0.12	0.01	0.88	0.09	0.01	0.90
Average	0.48	0.01	0.51	0.19	0.01	0.80	0.24	0.01	0.75	0.19	0.01	0.80

Source: Calculated from the database constructed (version updated on 3 October 2013).

Table 6.5: Coverage Index of the ASEAN+1 FTAs in Mode 2

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.64	0.00	0.36	0.35	0.00	0.65	0.40	0.01	0.59	0.35	0.00	0.65
02. Communication Services	0.54	0.00	0.46	0.28	0.00	0.72	0.24	0.00	0.76	0.28	0.00	0.72
03. Construction and Related Engineering Services	1.00	0.00	0.00	0.67	0.00	0.33	0.83	0.00	0.17	0.80	0.00	0.20
04. Distribution Services	0.70	0.00	0.30	0.36	0.00	0.64	0.32	0.00	0.68	0.33	0.00	0.67
05. Educational Services	0.71	0.00	0.29	0.36	0.00	0.64	0.54	0.00	0.46	0.35	0.00	0.65
06. Environmental Services	0.80	0.00	0.20	0.41	0.00	0.59	0.52	0.00	0.48	0.39	0.00	0.61
07. Financial Services	0.52	0.04	0.44	0.42	0.04	0.54	0.41	0.04	0.55	0.34	0.04	0.62
08. Health Related and Social Services	0.69	0.00	0.31	0.20	0.00	0.80	0.17	0.00	0.83	0.20	0.00	0.80
09. Tourism and Travel Related Services	0.78	0.00	0.23	0.50	0.00	0.50	0.56	0.00	0.44	0.55	0.00	0.45
10. Recreational, Cultural and Sporting Services	0.52	0.00	0.48	0.24	0.00	0.76	0.17	0.00	0.83	0.16	0.00	0.84
11. Transport Services	0.41	0.00	0.59	0.20	0.00	0.80	0.19	0.00	0.81	0.18	0.00	0.81
Average	0.66	0.00	0.33	0.36	0.00	0.63	0.40	0.00	0.60	0.36	0.00	0.64

Source: Calculated from the database constructed (version updated on 3 October 2013).

Table 6.6: Coverage Index of the ASEAN+1 FTAs in Mode 3

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.38	0.18	0.45	0.26	0.10	0.65	0.32	0.07	0.60	0.27	0.06	0.66
02. Communication Services	0.30	0.19	0.51	0.17	0.10	0.72	0.18	0.06	0.77	0.16	0.11	0.73
03. Construction and Related Engineering Services	0.60	0.30	0.10	0.44	0.24	0.33	0.53	0.26	0.21	0.43	0.28	0.29
04. Distribution Services	0.47	0.14	0.39	0.31	0.05	0.64	0.32	0.00	0.68	0.31	0.03	0.66
05. Educational Services	0.30	0.27	0.43	0.19	0.09	0.72	0.29	0.12	0.59	0.13	0.08	0.79
06. Environmental Services	0.53	0.25	0.23	0.35	0.06	0.59	0.48	0.01	0.51	0.38	0.06	0.57
07. Financial Services	0.33	0.17	0.50	0.28	0.19	0.54	0.29	0.20	0.52	0.25	0.20	0.56
08. Health Related and Social Services	0.34	0.28	0.39	0.14	0.07	0.80	0.10	0.06	0.83	0.10	0.06	0.84
09. Tourism and Travel Related Services	0.49	0.20	0.31	0.36	0.14	0.50	0.42	0.09	0.49	0.36	0.13	0.51
10. Recreational, Cultural and Sporting Services	0.31	0.09	0.60	0.17	0.04	0.79	0.13	0.03	0.85	0.12	0.03	0.85
11. Transport Services	0.23	0.16	0.61	0.13	0.05	0.82	0.14	0.03	0.83	0.12	0.03	0.84
Average	0.39	0.20	0.41	0.25	0.10	0.64	0.29	0.08	0.63	0.24	0.10	0.66

Source: Calculated from the database constructed (version updated on 3 October 2013).

Table 6.7: Coverage Index of the ASEAN+1 FTAs in Mode 4

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.03	0.14	0.84	0.02	0.04	0.94	0.02	0.95	0.03	0.01	0.04	0.95
02. Communication Services	0.04	0.17	0.79	0.02	0.06	0.92	0.02	0.98	0.00	0.00	0.08	0.92
03. Construction and Related Engineering Services	0.03	0.40	0.57	0.03	0.12	0.85	0.03	0.98	0.00	0.03	0.14	0.84
04. Distribution Services	0.01	0.03	0.96	0.01	0.01	0.98	0.00	1.00	0.00	0.00	0.01	0.99
05. Educational Services	0.00	0.18	0.82	0.00	0.08	0.92	0.00	1.00	0.00	0.00	0.01	0.99
06. Environmental Services	0.05	0.15	0.80	0.05	0.05	0.91	0.04	0.96	0.00	0.05	0.05	0.91
07. Financial Services	0.05	0.09	0.86	0.04	0.06	0.90	0.05	0.95	0.00	0.01	0.05	0.94
08. Health Related and Social Services	0.00	0.09	0.91	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
09. Tourism and Travel Related Services	0.13	0.08	0.80	0.09	0.06	0.85	0.06	0.94	0.00	0.09	0.06	0.85
10. Recreational, Cultural and Sporting Services	0.02	0.07	0.91	0.01	0.01	0.98	0.01	0.99	0.00	0.01	0.01	0.98
11. Transport Services	0.05	0.11	0.84	0.03	0.02	0.94	0.02	0.98	0.00	0.04	0.02	0.94
Average	0.04	0.14	0.83	0.03	0.05	0.93	0.02	0.98	0.00	0.02	0.04	0.94

Source: Calculated from the database constructed (version updated on 3 October 2013).

Tables 6.8–6.11 show correlation coefficients of the Coverage Index amongst the ASEAN+1 FTAs under Modes 1–4, respectively. Table 8 shows that in Mode 1, ACFTA–2 and AKFTA have the highest correlation value of 0.97; Table 9 shows that ACFTA–2, AANFTA and AKFTA have a common correlation value of 0.96; Table 10 shows that ACFTA–2 and AKFTA have a correlation value of 0.96; and Table 11 shows that AFAS–8, ACFTA–2, and AKFTA share a common correlation value of 0.96. In Modes 1–3, AFAS–8 has positive correlations with all the other ASEAN+1 FTAs, and in Mode 4, AFAS has strong positive correlation with ACFTA–2 and AKFTA. Since AFAS–8 is to be at the centre of the establishment of the RCEP in the near future, the remaining three ASEAN+1 FTAs (ACFTA–2, AANZFTA, and AKFTA) should ensure that each service sector is covered by as many member countries as possible.

Table 6.8: Correlation Coefficient of the Coverage Index amongst the ASEAN+1 FTAs (Mode 1)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.64	-		
AANZFTA	0.70	0.95	-	
AKFTA	0.65	0.97	0.96	-

Source: Calculated from the database constructed for this study.

Table 6.9: Correlation Coefficient of Coverage-indices amongst the ASEAN+1 FTAs (Mode 2)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.68	-		
AANZFTA	0.71	0.96	-	
AKFTA	0.66	0.96	0.95	-

Source: Calculated from the database constructed for this study.

Table 6.10: Correlation Coefficient of Coverage-indices amongst the ASEAN+1 FTAs (Mode 3)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.67	-		
AANZFTA	0.70	0.94	-	
AKFTA	0.66	0.96	0.95	-

Source: Calculated from The database constructed for this study.

Table 6.11: Correlation Coefficient of Coverage-indices amongst the ASEAN+1 FTAs (Mode 4)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.96	-		
AANZFTA	-0.35	-0.46	-	
AKFTA	0.96	1.00	-0.46	-

Source: Calculated from The database constructed for this study.

3. An Extension Analysis: Focus on the ASEAN Countries Only

In this section we conduct the same analysis as in the previous section, but with an exclusive focus on the ASEAN countries. Thus, Table 6.12 Lists the Coverage Index calculations at the 55-sector level, focusing only on the ASEAN countries, to the exclusion of China under ACFTA, Australia, and New Zealand under AANZFTA, and Korea under AKFTA. Likewise, Table 13 lists the Coverage Index calculations at the 11- sector level, focusing only on the ASEAN countries. As shown in Table 13, AFAS–8 has the highest Coverage Index for N (0.39), followed by AANZFTA (0.23), ACFTA–2 (0.22), and AKFTA (0.20). As for individual sectors, '09. Tourism and Travel Related Services' has the highest N-commitment (0.53), signifying that more than half of the ASEAN members have confirmed full liberalisation. On the other hand, both '10. Recreational, Cultural and Sporting Services' and '11. Transport Services' under AANZFTA and AKFTA have the lowest N-commitment value (0.09). Figures 6.4, 6.5, and 6.6 graphically show the commitments under each of the four FTAs.

The N-Commitment and L-Commitment figures combined are highlighted in bold. As discussed for Table 6.1 (which includes non-ASEAN members' commitments), there is

a similarity between AFAS–8 and AANZFTA; also, the commitment patterns are similar between ACFTA–2 and AKFTA. As in the case of Table 1, the pair of 'AFAS–8 and AANZFTA' is more highly committed than the pair of 'ACFTA–2 and AKFTA'. The average figures imply that, overall, the ASEAN countries are most widely committed under AFAS–8. Also, the ASEAN priority integrated sectors (defined for this chapter as those shaded grey in the table) are rather well covered by the ASEAN members, judging from the overall correspondence of the bold figures and the shaded sectors (with the exception of transport-related sectors towards the bottom of the table).

Table 6.12: List of the Coverage Index Calculations at the 55-sector Level (focus on the ASEAN countries only)

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01.A. Professional Services	**0.41**	**0.13**	0.45	0.26	0.06	0.68	**0.29**	**0.26**	0.45	0.25	0.09	0.66
01.B. Computer and Related Services	**0.71**	**0.15**	0.15	**0.44**	**0.07**	0.49	**0.56**	**0.29**	0.16	0.40	0.05	0.56
01.C. Research and Development Services	0.43	0.07	0.50	0.17	0.03	0.80	0.14	0.26	0.60	0.16	0.02	0.82
01.D. Real Estate Services	0.14	0.00	0.86	0.08	0.00	0.93	0.04	0.25	0.71	0.04	0.00	0.96
01.E. Rental/Leasing Services without Operators	0.34	0.09	0.58	0.17	0.02	0.81	0.15	0.26	0.59	0.14	0.01	0.85
01.F. Other Business Services	0.41	0.06	0.54	0.21	0.02	0.77	0.19	0.26	0.55	0.20	0.02	0.78
02.A. Postal Services	0.11	0.11	0.78	0.04	0.06	0.90	0.00	0.25	0.75	0.04	0.06	0.90
02.B. Courier Services	**0.61**	**0.11**	0.28	0.29	0.01	0.70	**0.29**	**0.24**	0.48	0.24	0.06	0.70
02.C. Telecommunication Services	**0.61**	**0.20**	0.18	**0.35**	**0.16**	0.49	**0.38**	**0.32**	0.30	**0.38**	**0.13**	0.49
02.D. Audiovisual Services	0.28	0.06	0.66	0.13	0.02	0.85	0.10	0.26	0.64	0.11	0.02	0.86
02.E. Other	0.06	0.01	0.93	0.00	0.00	1.00	0.00	0.25	0.75	0.00	0.00	1.00
03.A. General Construction Work for Building	**0.48**	**0.18**	0.35	0.30	0.08	0.63	**0.45**	**0.31**	0.24	0.35	0.10	0.55
03.B. General Construction work for Civil Engineering	**0.48**	**0.18**	0.35	**0.36**	**0.15**	0.49	**0.40**	**0.34**	0.26	**0.46**	**0.16**	0.38
03.C. Installation and Assembly Work	**0.48**	**0.18**	0.35	0.34	0.10	0.56	**0.38**	**0.31**	0.31	0.38	0.10	0.53
03.D. Building Completion and Finishing Work	**0.46**	**0.18**	0.36	0.26	0.01	0.73	**0.31**	**0.33**	0.36	0.29	0.09	0.63
03.E. Other	**0.46**	**0.18**	0.36	0.25	0.09	0.66	**0.35**	**0.31**	0.34	0.29	0.09	0.63

04.A. Commission Agents' Services	**0.59**	**0.08**	0.34	0.31	0.04	0.65	0.25	0.25	0.50	0.25	0.00	0.75
04.B. Wholesale Trade Services	**0.48**	**0.06**	0.46	0.20	0.00	0.80	0.20	0.25	0.55	0.24	0.00	0.76
04.C. Retailing Services	0.38	0.05	0.58	0.18	0.00	0.83	0.13	0.25	0.63	0.16	0.03	0.81
04.D. Franchising	**0.49**	**0.03**	0.49	0.23	0.00	0.78	0.15	0.25	0.60	0.23	0.00	0.78
04.E. Other	0.25	0.00	0.75	0.08	0.00	0.93	0.08	0.25	0.68	0.08	0.00	0.93
05.A. Primary Education Services	0.26	0.10	0.64	0.05	0.01	0.94	0.09	0.26	0.65	0.05	0.00	0.95
05.B. Secondary Education Services	0.34	0.15	0.51	0.08	0.01	0.91	**0.28**	**0.28**	0.45	0.18	0.04	0.79
05.C. Higher Education Services	0.36	0.10	0.54	0.20	0.04	0.76	**0.28**	**0.30**	0.43	0.20	0.04	0.76
05.D. Adult Education	**0.54**	**0.10**	0.36	0.24	0.01	0.75	**0.29**	**0.29**	0.43	0.28	0.01	0.71
05.E. Other Education Services	**0.44**	**0.11**	0.45	0.23	0.04	0.74	**0.30**	**0.30**	0.40	0.15	0.01	0.84
06.A. Sewage Services	**0.50**	**0.14**	0.36	0.23	0.03	0.75	**0.29**	**0.25**	0.46	0.23	0.04	0.74
06.B. Refuse Disposal Services	**0.51**	**0.11**	0.38	0.21	0.01	0.78	**0.28**	**0.24**	0.49	0.21	0.03	0.76
06.C. Sanitation and Similar Services	0.44	0.06	0.50	0.19	0.01	0.80	0.25	0.24	0.51	0.19	0.03	0.79
06.D. Other	**0.55**	**0.09**	0.36	0.24	0.01	0.75	0.24	0.24	0.53	0.24	0.03	0.74
07.A. All Insurance and Insurance-related Services	**0.47**	**0.12**	0.41	**0.38**	**0.14**	0.48	**0.33**	**0.37**	0.30	0.33	0.15	0.53
07.B. Banking and Other Financial Services	0.38	0.10	0.52	0.32	0.10	0.57	**0.32**	**0.32**	0.36	0.25	0.10	0.66
07.C. Other	0.05	0.05	0.90	0.03	0.00	0.98	0.04	0.26	0.70	0.04	0.01	0.95
08.A. Hospital Services	**0.56**	**0.16**	0.28	0.19	0.04	0.78	**0.24**	**0.31**	0.45	0.36	0.06	0.58
08.B. Other Human Health Services	**0.41**	**0.11**	0.48	0.16	0.04	0.80	0.11	0.26	0.63	0.10	0.00	0.90
08.C. Social Services	0.36	0.05	0.59	0.05	0.00	0.95	0.05	0.25	0.70	0.05	0.00	0.95

08.D. Other	0.25	0.04	0.71	0.13	0.00	0.88	0.00	0.25	0.75	0.00	0.00	1.00
09.A. Hotels and Restaurants	**0.70**	**0.10**	0.20	**0.54**	**0.09**	0.38	**0.53**	**0.28**	0.20	**0.50**	**0.11**	0.39
09.B. Travel Agencies and Tour Operators services	**0.63**	**0.09**	0.29	**0.56**	**0.06**	0.38	**0.60**	**0.28**	0.13	**0.54**	**0.06**	0.40
09.C. Tourist Guides Services	0.30	0.00	0.70	0.21	0.01	0.78	0.15	0.25	0.60	0.15	0.00	0.85
09.D. Other	**0.48**	**0.09**	0.44	0.10	0.03	0.88	0.06	0.24	0.70	0.13	0.03	0.85
10.A. Entertainment Services	**0.54**	**0.05**	0.41	0.25	0.01	0.74	0.21	0.26	0.53	0.23	0.01	0.76
10.B. News Agency Services	0.18	0.00	0.83	0.00	0.00	1.00	0.00	0.25	0.75	0.00	0.00	1.00
10.C. Libraries, archives, museums and other cultural services	0.29	0.04	0.68	0.08	0.00	0.93	0.08	0.25	0.68	0.08	0.00	0.93
10.D. Sporting and Other Recreational Services	0.35	0.04	0.61	0.19	0.04	0.78	0.14	0.26	0.60	0.15	0.04	0.81
10.E. Other	0.16	0.08	0.76	0.05	0.00	0.95	0.00	0.25	0.75	0.00	0.00	1.00
11.A. Maritime Transport Services	**0.55**	**0.16**	0.29	0.23	0.04	0.73	0.21	0.27	0.52	0.22	0.05	0.73
11.B. Internal Waterways Transport	0.26	0.08	0.66	0.04	0.01	0.96	0.01	0.25	0.73	0.01	0.00	0.99
11.C. Air Transport Services	0.13	0.01	0.87	0.17	0.03	0.81	0.09	0.26	0.66	0.14	0.02	0.84
11.D. Space Transport	0.06	0.01	0.93	0.00	0.00	1.00	0.00	0.25	0.75	0.00	0.00	1.00
11.E. Rail Transport Services	0.32	0.12	0.56	0.06	0.00	0.94	0.07	0.24	0.69	0.07	0.00	0.93
11.F. Road Transport Services	0.42	0.07	0.51	0.32	0.01	0.67	0.17	0.24	0.59	0.17	0.01	0.82
11.G. Pipeline Transport	0.14	0.09	0.78	0.05	0.03	0.93	0.05	0.28	0.68	0.05	0.03	0.93
11.H. Services Auxiliary to All Modes of Transport	0.39	0.09	0.52	0.17	0.04	0.80	0.17	0.25	0.58	0.13	0.04	0.83
11.I. Other Transport Services	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.25	0.75	0.00	0.00	1.00
Average	0.38	0.09	0.53	0.26	0.06	0.68	0.29	0.26	0.45	0.25	0.09	0.66

Source: Calculated from the database constructed (version updated on 3 October 2013).

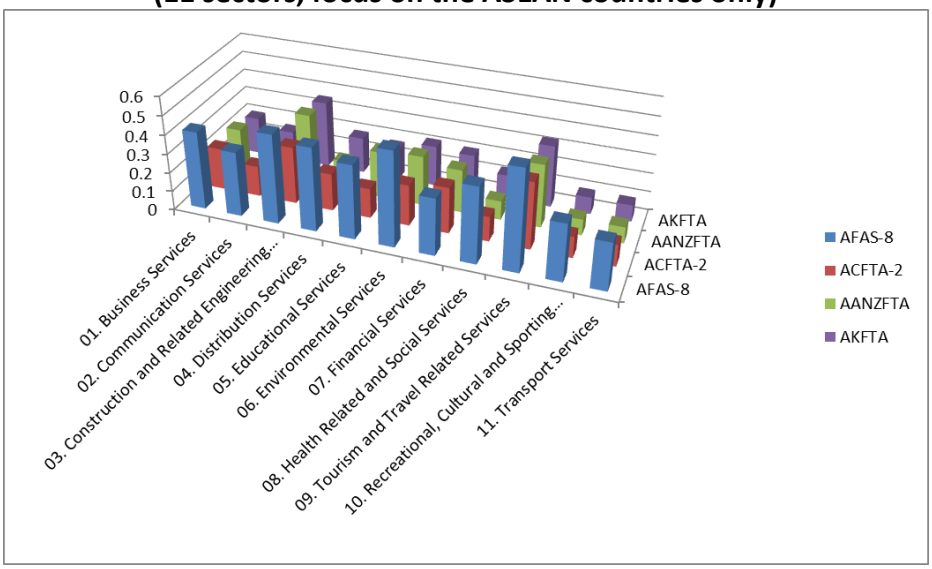
Table 6.13: List of the Coverage Index calculations at the 11 sector level (focus on the ASEAN countries only)

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.41	0.08	0.51	0.22	0.03	0.75	0.23	0.26	0.51	0.20	0.03	0.77
02. Communication Services	0.34	0.10	0.56	0.16	0.05	0.79	0.15	0.26	0.58	0.15	0.06	0.79
03. Construction and Related Engineering Services	0.47	0.18	0.36	0.30	0.09	0.61	0.38	0.32	0.30	0.35	0.11	0.54
04. Distribution Services	0.44	0.04	0.52	0.20	0.01	0.80	0.16	0.25	0.59	0.19	0.01	0.81
05. Educational Services	0.39	0.11	0.50	0.16	0.02	0.82	0.25	0.29	0.47	0.17	0.02	0.81
06. Environmental Services	0.50	0.10	0.40	0.22	0.02	0.77	0.26	0.24	0.50	0.22	0.03	0.76
07. Financial Services	0.30	0.09	0.61	0.24	0.08	0.68	0.23	0.32	0.45	0.20	0.09	0.71
08. Health Related and Social Services	0.40	0.09	0.51	0.13	0.02	0.85	0.10	0.27	0.63	0.13	0.02	0.86
09. Tourism and Travel Related Services	0.53	0.07	0.41	0.35	0.05	0.60	0.33	0.26	0.41	0.33	0.05	0.62
10. Recreational, Cultural and Sporting Services	0.30	0.04	0.66	0.11	0.01	0.88	0.09	0.26	0.66	0.09	0.01	0.90
11. Transport Services	0.25	0.07	0.68	0.12	0.02	0.87	0.09	0.25	0.66	0.09	0.02	0.90
Average	0.39	0.09	0.52	0.22	0.03	0.75	0.23	0.26	0.51	0.20	0.03	0.77

Source: Calculated from the database constructed (version updated on 3 October 2013).

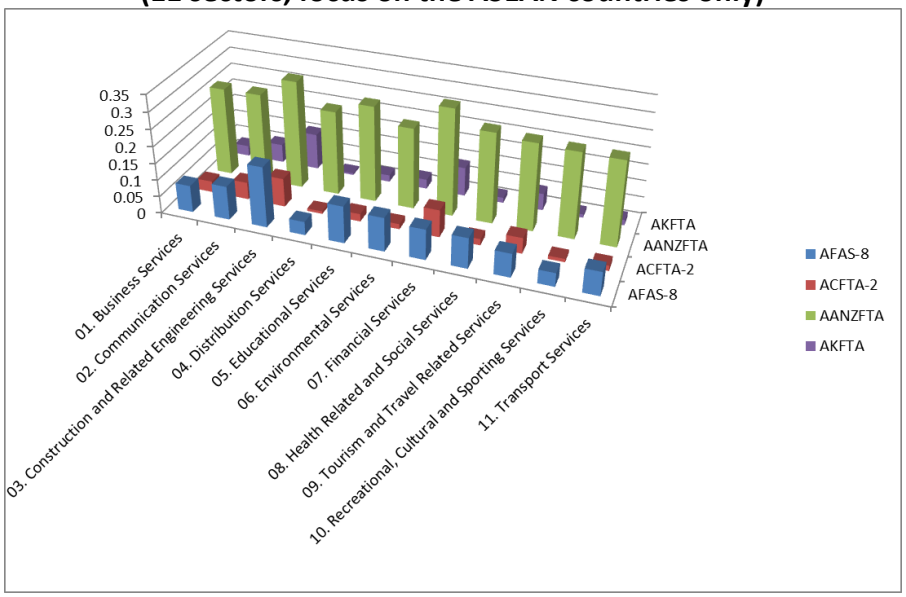
And Table 6.12 lists a more detailed breakdown of sectors: '01.B. Computer and Related Services' under AFAS–8 has the highest N-commitment index value (0.71), whereas '02.A. Postal Services' and '10.B. News Agency Services' both have low N-commitment values under all of the four FTAs.

Figure 6.4: Comparison of N-commitment under the ASEAN+1 FTAs (11 sectors, focus on the ASEAN countries only)



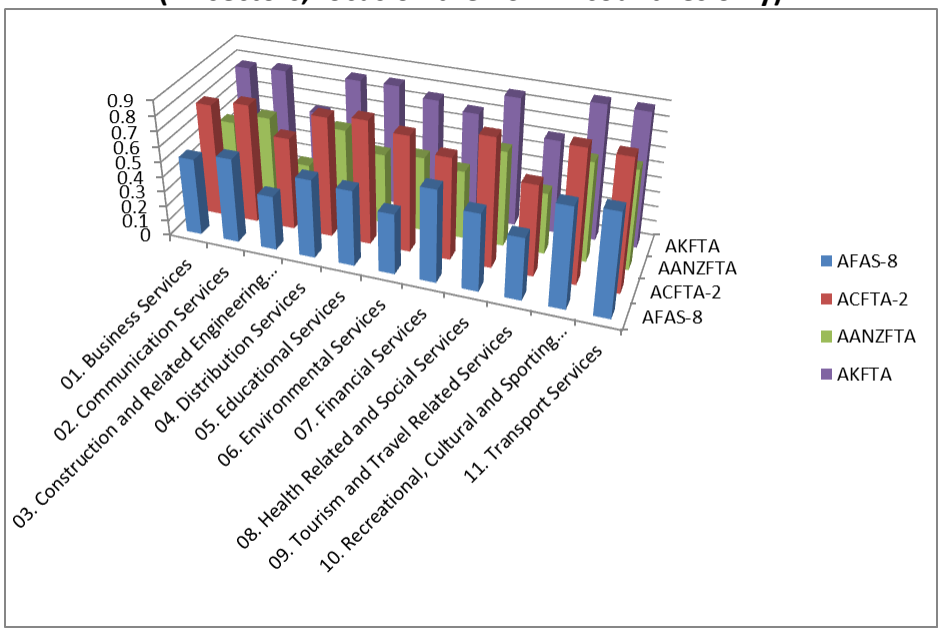
Source: Derived from Table 6.13.

Figure 6.5. Comparison of L-commitment under the ASEAN+1 FTAs (11 sectors, focus on the ASEAN countries only)



Source: Derived from Table 6.13.

Figure 6.6: Comparison of U-commitment under the ASEAN+1 FTAs (11 sectors, focus on the ASEAN countries only)



Source: Derived from Table 13.

Table 6.14 compares the four FTAs in terms of correlation coefficients, and Tables 15–18 show the Coverage Index by mode. As shown in Table 6.14, AANZFTA (1–3), i.e. Modes 1–3 only being considered, are rather closely correlated with both ACFTA–2 and AKFTA, whereas AANZFTA (1–4), i.e. Modes 1–4, all being considered, are not so closely correlated mainly because AANZFTA has a separate chapter on the movement of natural persons.

Table 6.14: Correlation Coefficient Between all the Pairs of the ASEAN+1 FTAs

	AFAS–8	ACFTA–2	AANZFTA(1–4)	AANZFTA(1–3)	AKFTA
AFAS–8	-				
ACFTA–2	0.67	-			
AANZFTA(1–4)	0.31	0.43	-		
AANZFTA(1–3)	0.66	0.95	-	-	
AKFTA	0.73	0.98	0.45	0.97	-

Notes: AANZFTA (1–4) means that all the four modes have been considered in the calculation for this FTA; AANZFTA (1–3) means that modes 1–3 only have been considered; this is because AANZFTA is unique in that it has a separate chapter on mode 4, which might be a source of deflated correlation. The correlation coefficients involving AANZFTA (1–3) use data on modes 1–3 only (excluding data on mode 4).

Source: Calculated from the database constructed (version updated on 3 October 2013).

Table 6.15 (the Coverage Index in Mode 1) shows that in Mode 1, AFAS–8 has the highest N-commitment value (0.48), whereas AFCTA–2 has the lowest N-commitment value (0.16). Table 16 (the Coverage Index in Mode 2) shows that AFAS–8 has the highest N-commitment value of 0.66, whereas ACFTA–2 has the lowest N-commitment value (0.32). Table 17 (the Coverage Index in Mode 3) shows that AFAS–8 has the highest N-commitment value (0.39) (which is lower than the highest values under Mode 1 and Mode 2), whereas ACFTA and AKFTA both have the lowest N-commitment value (0.24). Table 18 (the Coverage Index in Mode 4) shows that AFAS–8 has the highest (albeit by a small margin) N-commitment value (0.04), whereas the other three FTAs have the same N-commitment value (0.03). As it stands, all of the FTAs exhibit the lowest commitment amongst the four Modes, indicating that Mode 4 (movement of natural persons) remains the least open.

Table 6.15: Coverage Index of the ASEAN+1 FTAs in Mode 1

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.59	0.01	0.40	0.23	0.01	0.76	0.31	0.01	0.68	0.27	0.02	0.72
02. Communication Services	0.46	0.04	0.50	0.28	0.05	0.67	0.35	0.04	0.61	0.37	0.05	0.58
03. Construction and Related Engineering Services	0.25	0.00	0.75	0.02	0.00	0.98	0.24	0.00	0.76	0.16	0.00	0.84
04. Distribution Services	0.56	0.00	0.44	0.14	0.00	0.86	0.16	0.00	0.84	0.19	0.00	0.81
05. Educational Services	0.54	0.00	0.46	0.10	0.00	0.90	0.24	0.00	0.76	0.19	0.00	0.81
06. Environmental Services	0.63	0.00	0.38	0.13	0.00	0.88	0.20	0.00	0.80	0.13	0.00	0.88
07. Financial Services	0.30	0.05	0.65	0.26	0.07	0.66	0.29	0.08	0.63	0.26	0.08	0.67
08. Health Related and Social Services	0.56	0.00	0.44	0.10	0.00	0.90	0.13	0.00	0.88	0.18	0.00	0.83
09. Tourism and Travel Related Services	0.71	0.00	0.29	0.31	0.00	0.69	0.39	0.00	0.61	0.36	0.00	0.64
10. Recreational, Cultural and Sporting Services	0.36	0.00	0.64	0.06	0.00	0.94	0.06	0.00	0.94	0.07	0.00	0.93
11. Transport Services	0.32	0.01	0.67	0.08	0.01	0.91	0.10	0.01	0.90	0.11	0.01	0.89
Average	0.48	0.01	0.51	0.16	0.01	0.83	0.22	0.01	0.76	0.21	0.01	0.78

Source: Calculated from the database constructed (version updated on 3 October 2013).

Table 6.16: Coverage Index of the ASEAN+1 FTAs in Mode 2

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.64	0.00	0.36	0.29	0.01	0.70	0.37	0.00	0.62	0.33	0.00	0.66
02. Communication Services	0.54	0.00	0.46	0.35	0.00	0.65	0.44	0.00	0.56	0.45	0.01	0.54
03. Construction and Related Engineering Services	1.00	0.00	0.00	0.46	0.00	0.54	0.80	0.00	0.20	0.80	0.00	0.20
04. Distribution Services	0.70	0.00	0.30	0.28	0.00	0.72	0.24	0.00	0.76	0.29	0.00	0.71
05. Educational Services	0.71	0.00	0.29	0.28	0.00	0.72	0.51	0.00	0.49	0.35	0.00	0.65
06. Environmental Services	0.80	0.00	0.20	0.35	0.00	0.65	0.43	0.00	0.58	0.35	0.00	0.65
07. Financial Services	0.52	0.04	0.44	0.51	0.04	0.45	0.54	0.04	0.42	0.47	0.05	0.48
08. Health Related and Social Services	0.69	0.00	0.31	0.15	0.00	0.85	0.18	0.00	0.83	0.23	0.00	0.78
09. Tourism and Travel Related Services	0.78	0.00	0.23	0.48	0.00	0.53	0.53	0.00	0.48	0.53	0.00	0.48
10. Recreational, Cultural and Sporting Services	0.52	0.00	0.48	0.18	0.00	0.82	0.16	0.00	0.84	0.16	0.00	0.84
11. Transport Services	0.41	0.00	0.59	0.17	0.00	0.83	0.18	0.00	0.82	0.19	0.00	0.81
Average	0.66	0.00	0.33	0.32	0.00	0.68	0.40	0.00	0.60	0.38	0.01	0.62

Source: Calculated from the database constructed (version updated on 3 October 2013).

Table 6.17: Coverage Index of the ASEAN+1 FTAs in Mode 3

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.38	0.18	0.45	0.25	0.06	0.69	0.26	0.09	0.64	0.25	0.07	0.68
02. Communication Services	0.30	0.19	0.51	0.21	0.14	0.65	0.28	0.16	0.55	0.28	0.18	0.55
03. Construction and Related Engineering Services	0.60	0.30	0.10	0.33	0.13	0.54	0.44	0.31	0.25	0.42	0.28	0.30
04. Distribution Services	0.47	0.14	0.39	0.28	0.00	0.72	0.24	0.00	0.76	0.28	0.01	0.71
05. Educational Services	0.30	0.27	0.43	0.19	0.04	0.77	0.23	0.14	0.63	0.14	0.07	0.79
06. Environmental Services	0.53	0.25	0.23	0.34	0.01	0.65	0.38	0.01	0.61	0.34	0.06	0.60
07. Financial Services	0.33	0.17	0.50	0.30	0.22	0.48	0.32	0.25	0.43	0.27	0.22	0.51
08. Health Related and Social Services	0.34	0.28	0.39	0.10	0.05	0.85	0.10	0.08	0.83	0.11	0.06	0.83
09. Tourism and Travel Related Services	0.49	0.20	0.31	0.36	0.10	0.54	0.35	0.11	0.54	0.33	0.14	0.54
10. Recreational, Cultural and Sporting Services	0.31	0.09	0.60	0.14	0.03	0.83	0.11	0.03	0.86	0.12	0.03	0.85
11. Transport Services	0.23	0.16	0.61	0.11	0.03	0.86	0.12	0.04	0.84	0.11	0.04	0.85
Average	0.39	0.20	0.41	0.24	0.07	0.69	0.26	0.11	0.63	0.24	0.11	0.65

Source: Calculated from the database constructed (version updated on 3 October 2013).

Table 6.18: Coverage Index of the ASEAN+1 FTAs in Mode 4

	AFAS–8			ACFTA–2			AANZFTA			AKFTA		
Sector	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**	**N-commitment**	**L-commitment**	**U-commitment**
01. Business Services	0.03	0.14	0.84	0.02	0.03	0.95	0.02	0.94	0.04	0.02	0.06	0.92
02. Communication Services	0.04	0.17	0.79	0.01	0.08	0.91	0.01	0.99	0.00	0.01	0.13	0.86
03. Construction and Related Engineering Services	0.03	0.40	0.57	0.03	0.11	0.86	0.03	0.97	0.00	0.03	0.15	0.82
04. Distribution Services	0.01	0.03	0.96	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.01	0.99
05. Educational Services	0.00	0.18	0.82	0.00	0.03	0.97	0.00	1.00	0.00	0.00	0.01	0.99
06. Environmental Services	0.05	0.15	0.80	0.05	0.05	0.90	0.05	0.95	0.00	0.05	0.05	0.90
07. Financial Services	0.05	0.09	0.86	0.06	0.07	0.88	0.06	0.94	0.00	0.01	0.07	0.91
08. Health Related and Social Services	0.00	0.09	0.91	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
09. Tourism and Travel Related Services	0.13	0.08	0.80	0.10	0.05	0.85	0.08	0.93	0.00	0.10	0.06	0.84
10. Recreational, Cultural and Sporting Services	0.02	0.07	0.91	0.01	0.01	0.98	0.01	0.99	0.00	0.01	0.01	0.98
11. Transport Services	0.05	0.11	0.84	0.03	0.03	0.94	0.03	0.97	0.00	0.06	0.03	0.91
Average	0.04	0.14	0.83	0.03	0.04	0.93	0.03	0.97	0.00	0.03	0.05	0.92

Source: Calculated from the database constructed (version updated on 3 October 2013**).**

Tables 6.19–6.22 list correlation coefficients of the Coverage index amongst the four FTAs by mode. As shown, AFAS–8 is somewhat distinct from the other three FTAs in all the Modes. A special mention should be made of the fact that in Mode 4, AANZFTA is distinct from the other three FTAs (negative correlation coefficients are observed between AANZFTA and any one of the three other FTAs); this is due to the fact that AANZFTA alone has a separate chapter on the movement of natural persons.

Table 6.19: Correlation Coefficient of the Coverage Index amongst the ASEAN+1 FTAs (Mode 1, ASEAN countries only)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.55	-		
AANZFTA	0.66	0.97	-	
AKFTA	0.62	0.98	0.98	-

Source: Calculated from the database constructed for this study.

Table 6.20: Correlation Coefficient of Coverage-indices amongst the ASEAN+1 FTAs (Mode 2, ASEAN countries only)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.52	-		
AANZFTA	0.66	0.94	-	
AKFTA	0.63	0.96	0.97	-

Source: Calculated from the database constructed for this study.

Table 6.21: Correlation Coefficient of Coverage-indices amongst the ASEAN+1 FTAs (Mode 3, ASEAN countries only)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.58	-		
AANZFTA	0.67	0.95	-	
AKFTA	0.63	0.97	0.97	-

Source: Calculated from The database constructed for this study.

Table 6.22: Correlation Coefficient of Coverage-indices amongst the ASEAN+1 FTAs (Mode 4, ASEAN countries only)

ASEAN+1 FTA	AFAS–8	ACFTA–2	AANZFTA	AKFTA
AKFTA	-			
ACFTA–2	0.95	-		
AANZFTA	-0.35	-0.48	-	
AKFTA	0.96	0.99	-0.46	-

Source: Calculated from The database constructed for this study.

Just to provide a rough estimate, the GATS-based Commitment Index was calculated by incorporating the nine ASEAN countries with GATS commitment tables, i.e. Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. Table 23 shows the results at the 11-sector level. As the average value of the Coverage Index for the N-commitment 0.03 indicates, the ASEAN members' commitment under the GATS is significantly lower than their commitments under any of the ASEAN+1 FTAs.

Table 6.23: GATS-based Coverage Index (excluding Lao PDR)

	N-commitment	L-commitment	U-commitment
01. Business Services	0.03	0.18	0.79
02. Communication Services	0.07	0.21	0.71
03. Construction and Related Engineering Services	0.05	0.22	0.73
04. Distribution Services	0.00	0.12	0.88
05. Educational Services	0.00	0.11	0.89
06. Environmental Services	0.01	0.20	0.78
07. Financial Services	0.11	0.24	0.65
08. Health Related and Social Services	0.01	0.06	0.93
09. Tourism and Travel Related Services	0.05	0.28	0.67
10. Recreational, Cultural and Sporting Services	0.01	0.07	0.92
11. Transport Services	0.01	0.08	0.90
Average	0.03	0.16	0.81

Source: Calculated from The database constructed for this study.

4. Policy Suggestions and Conclusions

This chapter addresses the issue of converging the existing ASEAN+1 FTAs. The Coverage Index used in this chapter shows to what extent the FTA members are committed to particular services sectors: in an ideal scenario, the Index should converge to 1.0, and this is an important consideration since the RCEP should aim for the simplest structure of 'N-commitments in all the service sectors by all the partner countries'.

The 'convergence point' of 'all the RCEP members committed to all the sectors' (the above-mentioned scenario of the coverage index being 1.0 for all the service sectors), however, would be infeasible in reality. This study revealed that while AFAS–8 is rather distinct, the other three FTAs – ACFTA, AANZFTA, and AKFTA – are very similarly correlated (except for the fact that the Mode 4 commitment under AANZFTA is unique due to its separate chapter on the movement of natural persons). Therefore, AFAS–8 could evolve into AFAS–9, which serves as a realistic 'convergence point' for all the RCEP members.[11]

We also found that amongst the four ASEAN+1 FTAs studies, AFAS is the most deeply committed agreement. This is promising in the sense that ASEAN is at the centre of policy efforts towards streamlining the ASEAN+1 FTAs. In the services sector, World Trade Organization (WTO)-mediated liberalisation efforts (as reported by, e.g. Gootiiz and Mattoo, 2009) were not making progress at the time of writing.

Overall, enhancement of the coverage-widening efforts in each of the ASEAN+1 FTAs would be needed to realise the RCEP in the near future. More specifically, it is imperative to: (1) harmonise the N-based as well as L-based commitments amongst the ten ASEAN members under the current three ASEAN+1 FTAS, i.e. amongst ACFTA, AANZFTA, and AKFTA; then (2) attempt to enhance the level of liberalisation (an 'ASEAN+1 template commitment on services', so to speak); thereby finally, (3) harmonise the N-based and L-based commitments between the 'ASEAN+1 template commitment

[11] At the time of writing it seemed AFAS-9 may be skipped as a result of the time constraint of achieving the ASEAN Economic Community in 2015. That said, AFAS has been making progress under its unique modality of package-based gradual liberalisation. Separate calculations show that the N-commitment value (on average) has been evolving as follows: 0.22 (AFAS-5), 0.34 (AFAS-7), and 0.39 (AFAS-8); the L-commitment value (on average): 0.07 (AFAS-5), 0.08 (AFAS-7), and 0.09 (AFAS-8); the U-commitment value (on average): 0.72 (AFAS-5), 0.58 (AFAS-7), and 0.52 (AFAS-8). Clearly, the N-commitment value has been on an increasing trend, which is promising.

on services' and AFAS–8, to realise a first version of an RCEP agreement on services. While the coverage index shows rather low levels of commitment by the member countries, a first step and more tractable policy suggestion is to continue prioritising the priority integration sectors, i.e. '01.B. Computer and Related Services', '02.C. Telecommunication Services', '04.B. Wholesale Trade Services', '08.A. Hospital Services', '09.B. Travel Agencies and Tour Operators services', '09.C. Tourist Guides Services', '11.A. Maritime Transport Services', '11.B. Internal Waterways Transport', '11.C. Air Transport Services', '11.E. Rail Transport Services', and '11.F. Road Transport Services, to achieve a seamless ASEAN Economic Community as well as a well-connected RCEP.

Under the ASEAN–Japan Comprehensive Economic Partnership Agreement (AJCEP), negotiations on market access are ongoing at the time of writing. As for the ASEAN–India Free Trade Area (AIFTA), negotiations on trade in services are reportedly progressing, but relevant information is not yet publicly available. That said, including both India and Japan in the sequencing of service trade convergence is indispensable to realise an RCEP. India and Japan are committed to bilateral agreements, e.g. India with Singapore, and Japan with several ASEAN members including Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam. Commitment to these bilateral agreements is stronger than to the ASEAN+1 FTAs considered in this study. We expect, therefore, that both India and Japan will be committed to a future common template for trade in services under the proposed RCEP.[12]

[12] Since the Coverage Index is calculated assuming the existence of multiple partner countries, measuring Japan's and India's degrees of commitment is not feasible. In terms of the Hoekman Index, just for reference, separate calculations show that under the Japan–Indonesia Economic Partnership agreement, Japan's average value is 0.68 and Indonesia's is 0.14. Judging from this and also from the fact that Australia's average Hoekman Index value is 0.52 under AANZFTA (as indicated in Ishido and Fukunaga, 2012), Japan's commitment level is high. This suggests that Japan is likely to be actively committed to a future RCEP agreement. As for India, it has a bilateral FTA with Korea (i.e. the India–Korea FTA); under the bilateral FTA, India's Hoekman Index value is 0.29 and that for Korea is 0.32. This suggests that India's potential level of commitment under a future RCEP would be more or less comparable to that for Korea, which is rather actively committed.

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Chapter 7

Services Productivity and Trade Openness: Case of ASEAN

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Using fixed effect and Generalised Method of Moments (GMM) estimations, this paper analyses the impacts of trade on the labour productivity of the services sector (at the four key sub-services sector levels: (i) wholesale, retail, and hotel; (ii) transport, storage, and communications; (iii) finance, insurance, and real estate; and (iv) community, social, and personal sectors) for five ASEAN countries—Indonesia, Malaysia, the Philippines, Singapore, and Thailand—from 1990 to 2005. The results show that more exposure to exports will improve labour productivity in the services sector in these countries. Based on input–output relationships, services play an important role as inputs in the manufacturing sector, which is notable in Indonesia, Malaysia, Singapore, and Thailand.

1. Introduction

Several studies highlight the importance of more 'openness' in the services sector for industrial development due to its complementary effects on the manufacturing sector through intermediate input linkages and, hence, overall productivity improvements in the economy (Hoekman, 2006; Eswaran and Kotwal, 2002). Burgess and Venables (2004) highlight the importance of services sector liberalisation for growth through the increase in the variety of services 'inputs' that support specialisation, creation and diffusion of knowledge, and exchange of goods and services. For example, the role of financial services in channelling savings to productive investments tends to increase the allocative efficiency in the economy (Goldsmith, 1969; Levine, 1999). In fact, Levine (1999) highlights the important functions of financial activities in reducing transactions cost in terms of risk diversification, allocation to productive investments, monitoring moral hazard activities, mobilising private and public savings through financial innovation, and facilitating the exchange of goods and services. Other services, such as telecommunication services that facilitate trade and enhance the diffusion of technology and knowledge across borders, also have a greater impact on investment and growth in the economy. The more open the telecommunications services sector is, the lower the costs of cross-border trade and contributes to the better exchange and specialisation of production activities.

Other than telecommunications and financial services, we expect to see other key services enabling and facilitating trade with and across borders, such as the innovation in transport services which should reduce the cost of shipping of goods and movement of workers within and between countries. More open business services, such as accounting, engineering, consulting, and legal services, reduces transaction costs and diffuses better management and human resource practices across countries, thus, improving production processes and productivity. Innovation and improvements in retail and wholesale distribution services are a vital link between producers and consumers, thereby affecting the effectiveness of the global supply chain. Health and education services are key inputs into the flow and stock of human capital. Another dimension is that services are frequently direct inputs into economic activities, and thus determinants of the productivity of the 'fundamental' factors of production – labour and capital – that generate knowledge, goods, and other services. Education, research and development, and health services are examples of inputs into the production of human capital. Since most services are intermediate inputs for manufacturing and services production, these are important components of the production process and productivity of the economy. Thus, more openness in such services creates economies of scale and scope for greater specialisation (fragmentation) and improvements in the global and regional production value and supply chains. It is also suggested that outsourcing and fragmentation of production activities in manufacturing and services will provide positive impacts on the growth of productivity in the services sector (Oulton, 2001).

The other stylized fact of the services sector is that the share of services to GDP and employment increases as per capita income increases. Services increase with the growth of middle-income households in the domestic economy (their income elasticities of demand tend to exceed one) and their desire for more specialised services increases as their income grows (Hoekman, 2006). Employment tends to shift towards the services sector from the manufacturing sector as per capita income increases and the economy moves to more developed levels.

One critical issue in economic development is that the productive contribution of the services sector to the overall economy is limited due to their limited potential growth for investment and the technological capacity (Baumol, 1967).

The pace of opening up services for trade and investment was slow in Southeast Asia, but it has quickened in the last two decades. Over the same period, there has been a sharp increase in free trade agreements (FTAs) in Southeast Asia, which have opened the ASEAN[1] economy to trade and investment. The first major FTA for Southeast Asian countries was the ASEAN Free Trade Area (AFTA) enacted in 1992. ASEAN member countries also began to actively establish bilateral and regional FTAs. Indeed, ASEAN has established five ASEAN+1 FTAs with its six main trading partners—China (ACFTA), Japan (AJCEP), Korea (AKFTA), India (AIFTA), and Australia–New Zealand (AANZFTA). One of the main objectives of FTAs is to promote trade in goods and services among FTA members.

One question that arises is how trade and trade policy affect economic performance. In our case, we shall focus on the impacts of trade and trade policy on the productivity of the services sector in ASEAN. A recent study of the Global Value Chain highlights the importance of services links and trade as an important component for the growth of value-chain activities in the region (Asian Development Bank, 2012). In particular, it highlights the important role of producer services such as transport, communication, distribution, and business services in linking and supporting supply-chain activities at every level leading to greater integration and growth of value-added activities in both the region and the global economy. Services play an important role at every stage of production and consumption from design and branding at the manufacturing stage to consumer marketing, selling, and after-sales services such as consumer training and technical assistance and maintenance. However, the services sector seems to be lagging behind the manufacturing sector in terms of opening up to foreign competition in ASEAN (Thangavelu and Lim, 2011).

This paper aims examine the impacts of the share of exports to trade and regional integration which is represented by the ASEAN Free Trade Area (AFTA) on the labour productivity of the services sectors for selected ASEAN countries, Indonesia, Malaysia, the Philippines, Singapore, and Thailand, from 1990 to 2005. We focus our analyses in four key services sectors: (i) wholesale, retail, and hotel; (ii) transport, storage, and communications; (iii) finance, insurance, and real estate; and (iv) community, social, and

[1] The 10 ASEAN countries are Brunei Darussalam, Cambodia, Indonesia, the Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

personal sectors. The results indicate that openness of the services sector creates significant linkages within the domestic economy and supports the manufacturing sector in the regional and global production supply chain. The results of the paper are also relevant for Regional Cooperative Economic Partnership (RCEP) Agreement among ASEAN plus 6 countries (Australia, China, India, Japan, Korea, and New Zealand). The RCEP negotiations provide ample opportunities to liberalise the services sector and increase market access across the ASEAN plus 6 countries. The results of the study also highlight the importance of the complementary effects between manufacturing and services liberalisation, as these will be important considerations for deeper liberalisation in the key services sectors that could smoothen the process of trade in goods and investment in the region.

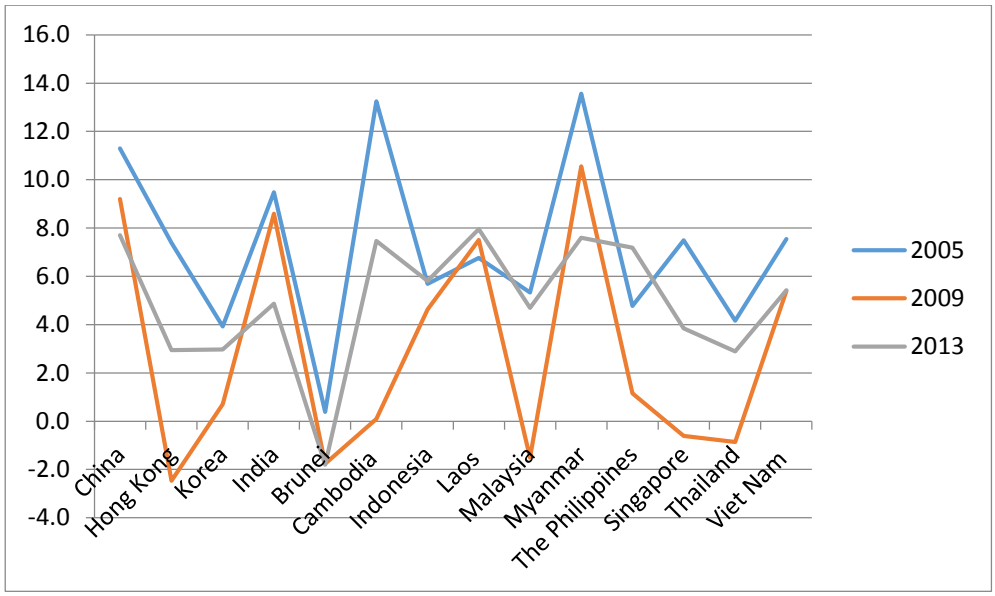
The structure of the paper is as follows. Section 2 discusses the labour productivity of the selected ASEAN countries. Section 3 discusses the linkages between manufacturing and services sector. Section 4 presents an empirical findings on the impact of trade on labour productivity in the services sector. Section 5 concludes.

2. Labour Productivity in ASEAN

2.1. Macroeconomic recent trends of ASEAN countries

Figure 7.1 presents the key macroeconomic trends of the selected Asian countries. It illustrates the real GDP growth across from 2005 to 2013. Generally, we can observe that most Asian countries were affected by the global financial crisis. However, we also see that there was a strong recovery across the countries, apart from the larger economies such as China and India which were not affected by the global shocks but are adjusting to domestic structural changes.

Figure 7.1: Real GDP Growth Rate of Selected Asian Countries, 2005–2013



Source: Authors' calculations based on Asian Development Bank Statistics Database.

Table 7.1 describes the shares of agriculture, industry, and services sectors of the total value-added from 2000 to 2013. The share of the agricultural sector is declining for most Asian countries. We also observe a rising share of industry for Cambodia, Lao PDR, Viet Nam, and Thailand from 2000 to 2013, and a declining share of industry for Malaysia, the Philippines, and Singapore over the same period. This reflects adjustments to the global financial crisis for the mature economies of Malaysia and Singapore. An interesting trend is the emerging services sector across the selected Asian countries. We observe a rising share of services for the larger economies of China and India and for the ASEAN economies of Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Singapore, and Viet Nam. This indicates that there is a general shift in industrial structure towards services activities for most Asian and ASEAN economies.

Table 7.1: Share of Agriculture, Industry, and Services Sectors to GDP for Selected Asian Countries, 2000–2013

	Agriculture		Industry		Services	
	2000	2013	2000	2013	2000	2013
China	15.1	10.0	45.9	43.9	39.0	46.1
Hong Kong	0.1	0.1	12.6	7.0	87.3	93.0
Korea	4.4	2.3	38.1	38.6	57.5	59.1
India	23.4	18.4	26.2	24.7	50.5	57.0
Brunei	1.0	0.7	63.7	68.2	35.3	31.0
Cambodia	37.9	33.8	23.0	25.7	39.1	40.5
Indonesia	15.6	14.4	45.9	45.7	38.5	39.9
Laos	48.5	30.0	19.1	30.0	32.4	40.0
Malaysia	8.3	9.4	46.8	41.0	44.9	49.6
Myanmar	57.2	36.9	9.7	26.5	33.1	36.7
The Philippines	14.0	11.2	34.5	31.1	51.6	57.7
Singapore	0.1	0.0	34.8	25.1	65.1	74.9
Thailand	8.5	10.6	36.8	40.1	54.7	49.3
Viet Nam	24.5	18.4	36.7	38.3	38.7	43.3

Source: Asian Development Bank Statistics Database.

Table 7.2 shows the key trends in the share of exports and imports of goods and services to GDP for selected Asian countries from 1990 to 2013. We observe its rising trend across the Asian economies, particularly for the larger economies of China and India. We also observe a rising trend in exports for the newly growing economies such as Cambodia and Viet Nam. The rising share of exports is also matched by a rising share of imports of goods and services for the Asian countries.

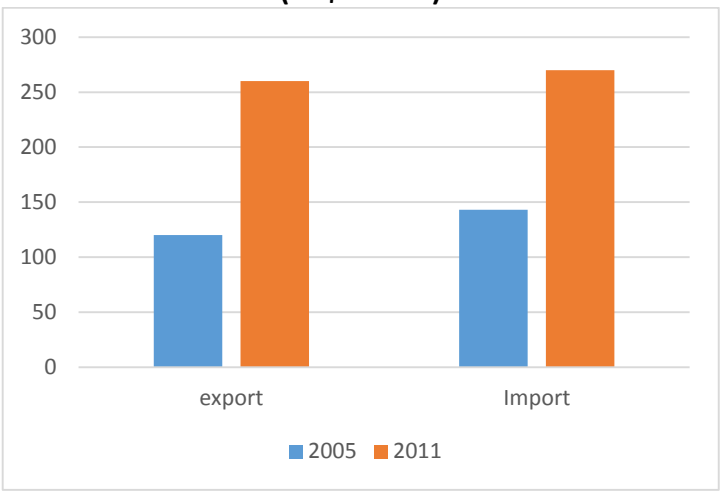
Table 7.2: Share of Exports and Imports of Goods and Services to GDP for Selected Asian Countries: 1990–2013

	Exports of Goods and Services				Imports of Goods and Services			
	1990	2000	2010	2013	1990	2000	2010	2013
China, People's Rep. of	19.0	23.3	29.4	26.2	15.6	20.9	25.6	23.8
Hong Kong	130.6	141.8	219.4	229.6	122.0	137.4	213.5	228.7
India	7.1	13.2	21.9	24.9	8.5	14.1	26.3	28.8
Korea, Rep. of	27.6	35.0	49.4	53.9	28.3	32.9	46.2	48.9
Brunei Darussalam	61.8	67.4	81.4	76.2	37.3	35.8	32.9	32.5
Cambodia	2.4	49.9	54.1	55.0	8.4	61.7	59.5	59.0
Indonesia	25.3	41.0	24.6	23.7	23.7	30.5	22.9	25.7
Malaysia	74.5	119.8	93.3	82.9	72.4	100.6	76.3	74.0
Myanmar	1.9	0.5	0.1	0.2	3.6	0.6	0.1	0.2
Philippines	27.5	51.4	34.8	27.9	33.3	53.4	36.6	32.0
Singapore	177.2	189.2	199.3	190.5	167.1	176.9	172.8	167.5
Thailand	33.1	64.8	66.6	67.0	40.6	56.5	61.0	61.0
Viet Nam	26.4	55.0	72.0	83.9	35.7	57.5	80.2	79.8

Source: Asian Development Bank Statistics Database.

Figure 7.2 illustrates that trade in the services sector in ASEAN has been expanding over the years. Exports of services of ASEAN increased from US$120 billion in 2005 to nearly US$260 billion in 2011. At the same time, imports of services of these countries increased from US$143 billion in 2005 to nearly US$270 billion in 2011. Among the services, transport, travel, and other business services account for major components of overall trade in services. The transport service sector is the key service import with nearly 40 percent of total value of service imports, followed by business services of nearly 24 percent, and travel of 18 percent in 2011.

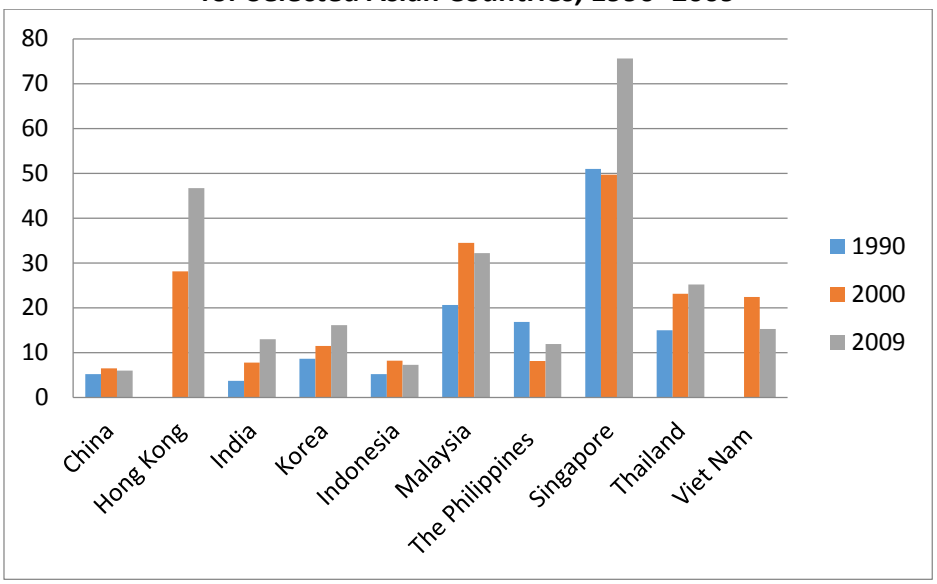
Figure 7.2: Exports and Imports of Services for ASEAN: 2005–2011 (US$ billion)



Source: ASEAN Secretariat.

Figure 7.3 presents the share of exports of services to the total value-added of the services sector for selected Asian countries from 1990 to 2009. Export of services is rising for Asian countries in general, in China, India, Korea, Hong Kong, the Philippines, Singapore, Thailand, and Viet Nam. It is interesting to observe that the smaller economies of Hong Kong and Singapore rely heavily on the exports of services to drive their economic growth. The larger economies of China and India have a share of services exports of less than an average of 10 percent of value-added of the services sector from 1990 to 2009.

Figure 7.3: Share of Services Exports to Value-Added of Services Sector for Selected Asian Countries, 1990–2009



Source: Authors' calculations, reconstruction from Park and Shin, 2012.

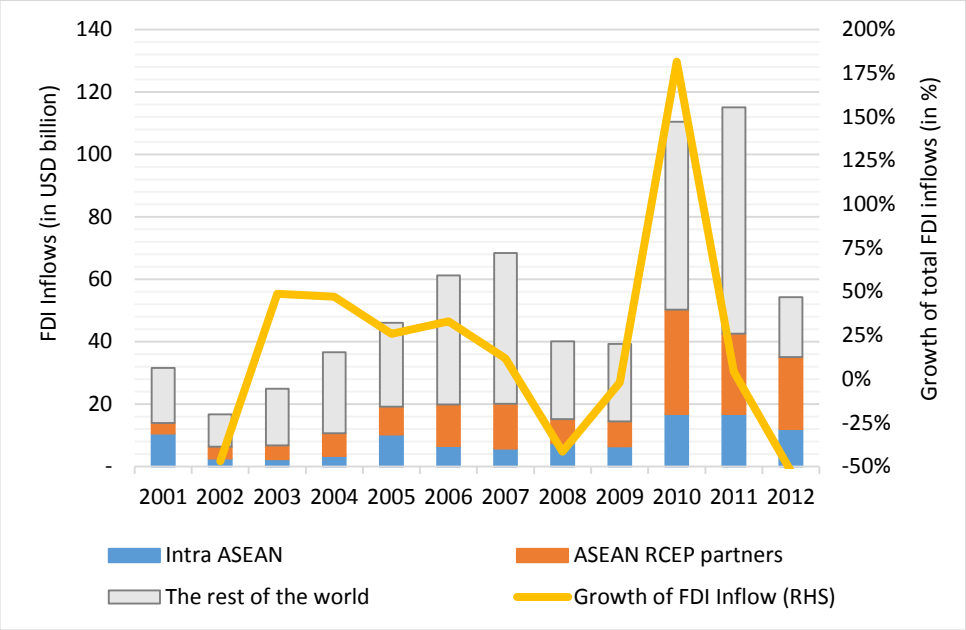
2.2. The FDI Trends in the Service Sectors in ASEAN

Unlike other regional associations such as the European Union (EU), ASEAN could not be more diverse in its economic and institutional framework. In 1992, ASEAN forged a deeper economic understanding in the region through the conclusion of an agreement to set up the ASEAN Free Trade Area (AFTA). This agreement aimed to attract more intra-ASEAN foreign direct investment (FDI) through active liberalisation of restrictions within ASEAN countries. In 1998 the ASEAN Investment Area was formed and is now considered to be the most significant attempt by ASEAN at liberalising FDI restrictions in the region (Plummer, 2009).

To create stronger regional economic integration, ASEAN decided to create a single market with the formation of the ASEAN Economic Community (AEC) in 2015. Through the formation of the AEC, ASEAN is aiming to achieve a single market and production base in a highly competitive economic region with equitable economic development and one which is fully integrated into the global economy. ASEAN aims to build on past agreements, such as the AFTA and ASEAN Investment Area, and work towards achieving a free and open investment regime in the AEC to further attract both intra- and extra-ASEAN FDI (ASEAN 2010a). ASEAN's continued emphasis on liberalising FDI restrictions in the last two decades thus emphasises the importance of FDI to the economic progress of the region.

Figure 7.4 shows the key FDI trends from 1995 to 2009. Between 2002 and 2007, FDI in the region expanded from US$17.3 billion in 2002 to US$73.9 billion in 2007. This increasing trend was then disrupted by the 2008 global financial crisis, but the FDI inflows have rebounded in more recent years to the pre-global financial crisis level (ASEAN 2010b). The rebound was not uniform across and within ASEAN countries, however. The FDI inflows are non-ASEAN countries, while intra-ASEAN FDI inflows contributed at moderate level and relatively did not change much.

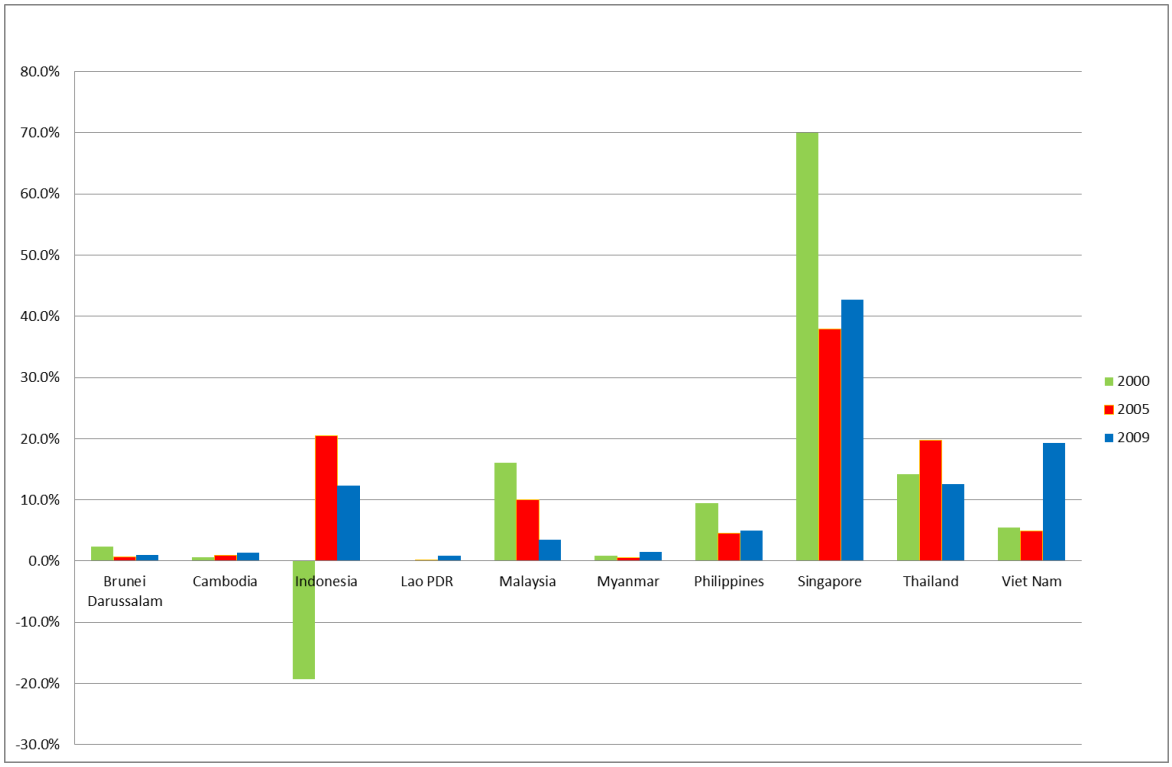
Figure 7.4: FDI Inflows into ASEAN (1995–2009)



Note: The full data are available for Cambodia, Lao PDR, Myanmar, Philippines, and Thailand; for Brunei Darussalam except 2001-2006, 2009, and 2012; for Indonesia except from 2001 to2003; for Malaysia except 2007; for Singapore except 2012; and for Viet Nam except from 2001 to2010.
Source: Authors' calculation

Figure 7.5 shows the trends of FDI inflows into ASEAN by country. Singapore, Thailand, and Viet Nam are the key countries attracting significant FDI inflows into the region. In recent years, we also observed rising FDI inflows into Indonesia particularly after key structural reforms following the Asian financial crisis. With greater economic openness and reforms in the CLMV (Cambodia, Lao PDR, Myanmar, and Viet Nam), we are expecting to see further growth in FDI inflows into the region.

Figure 7.5: Share of FDI Inflows by ASEAN Countries (%), 2000–2009

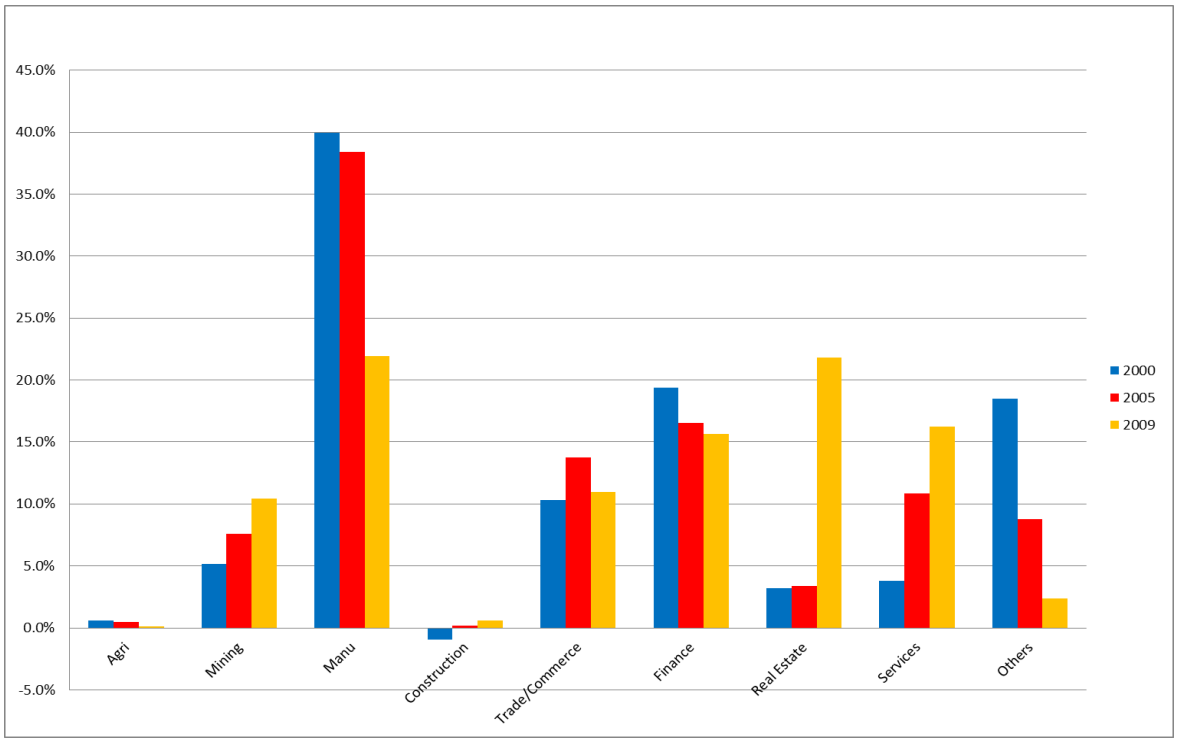


Source: ASEAN Secretariat, 2010b.

Figure 7.6 presents the share of FDI inflows into ASEAN by key sector. It is clear that multinational activities are concentrated in the manufacturing sector in ASEAN. The share of FDI inflows into manufacturing accounts for nearly 40 percent in 2000 and 2005. However, this share has been declining over the years to less than 25 percent in 2009. In contrast, the share of FDI inflows into the services sector is rising especially in the financial, real estate, logistic, and aviation services sectors. It also shows a rising share of FDI in the mining sector mainly due to the rising demand for resources which resulted in increasing prices of a number commodities.

In recent years the share of global FDI inflows into ASEAN has been showing a declining trend. ASEAN's share of global FDI inflows from 1980 to 2009 dropped from a pre-Asian crisis peak of 8.8 percent in 1991 to only 3.3 percent in 2009. ASEAN's share since 2000 is also notably lower than in the 1980s. This alarming trend indicates that a shift in multinational activities in ASEAN, whereby multinationals may be consolidating their key activities in the region.

Figure 7.6: FDI Inflows into ASEAN (%) by Sectors, 2000–2009



Source: ASEAN Secretariat, 2010b.

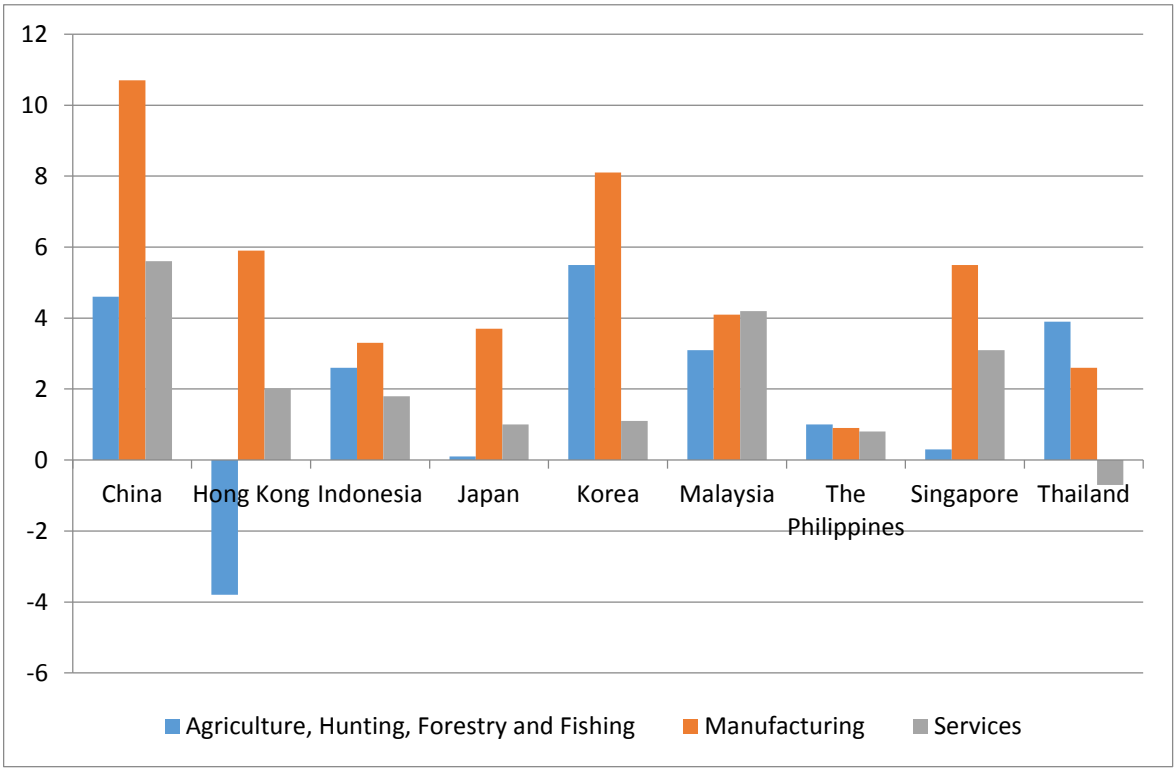
ASEAN recognises these concerns and its members have taken several active steps aimed at keeping the region attractive to FDI activities. Besides taking conclusive steps in forming the AEC, ASEAN has also recently concluded all five of its external free trade agreements (FTAs), including the investment agreement between ASEAN and China in 2010. These agreements could allow ASEAN and its partners to exchange favorable FDI conditions that would contribute to increasing extra-ASEAN FDI inflows. Of these the ASEAN–China FTA (ACFTA) and the ASEAN–Korea FTA (AKFTA) are the only ASEAN+ 1 FTAs with existing investment agreements.

3. Linkages and Productivity of Services in ASEAN

This section explains the linkages across sectors and productivity of the services sectors in selected ASEAN countries (Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam). The labour productivity of selected ASEAN countries is shown in Figure 8. It is measured as real GDP per number of workers.

Figure 7.7 shows that the growth of labour productivity of the services sector is lower than that of the manufacturing sector for the selected Asian countries as expected from the literature. These low levels of service labour productivity growth are likely to impede the overall average productivity growth of the economy. Thailand has experienced a negative growth of labour productivity in the services sector. Among the Asian countries, only Malaysia's productivity growth rate in services was slightly higher than that of its manufacturing sector.

Figure 7.7: Labour Productivity Growth of Selected Asian Countries, 1995–2005

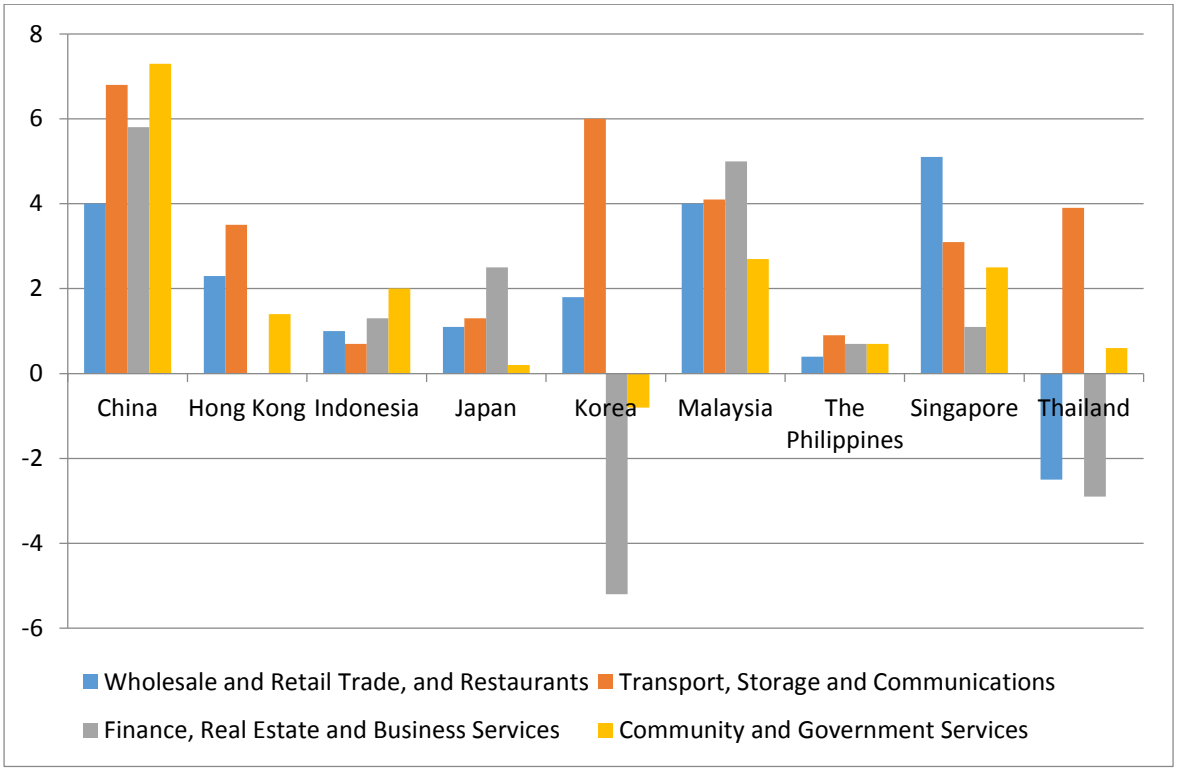


Source: Groningen Growth Developing Centre (GGDC), 2013.

The labour productivity growth of selected services sectors for selected Asian countries is illustrated in Figure 7.8. We observe that sectors that are more open for trade—such as transport, storage, and communications and finance and business services—tend to have a higher labour productivity growth. In particular, we observe that the transport, storage, and communication services sector has a high labour productivity growth across ASEAN countries especially for Malaysia, Singapore, and Thailand. However, the finance, insurance, real estate, and business service sector has relatively low labour productivity growth among ASEAN countries, except for Malaysia.

Figure 7.8: Labour Productivity Growth by Service Sector for Selected Asian

1990–2005



Source: Groningen Growth Developing Centre (GGDC), 2013.

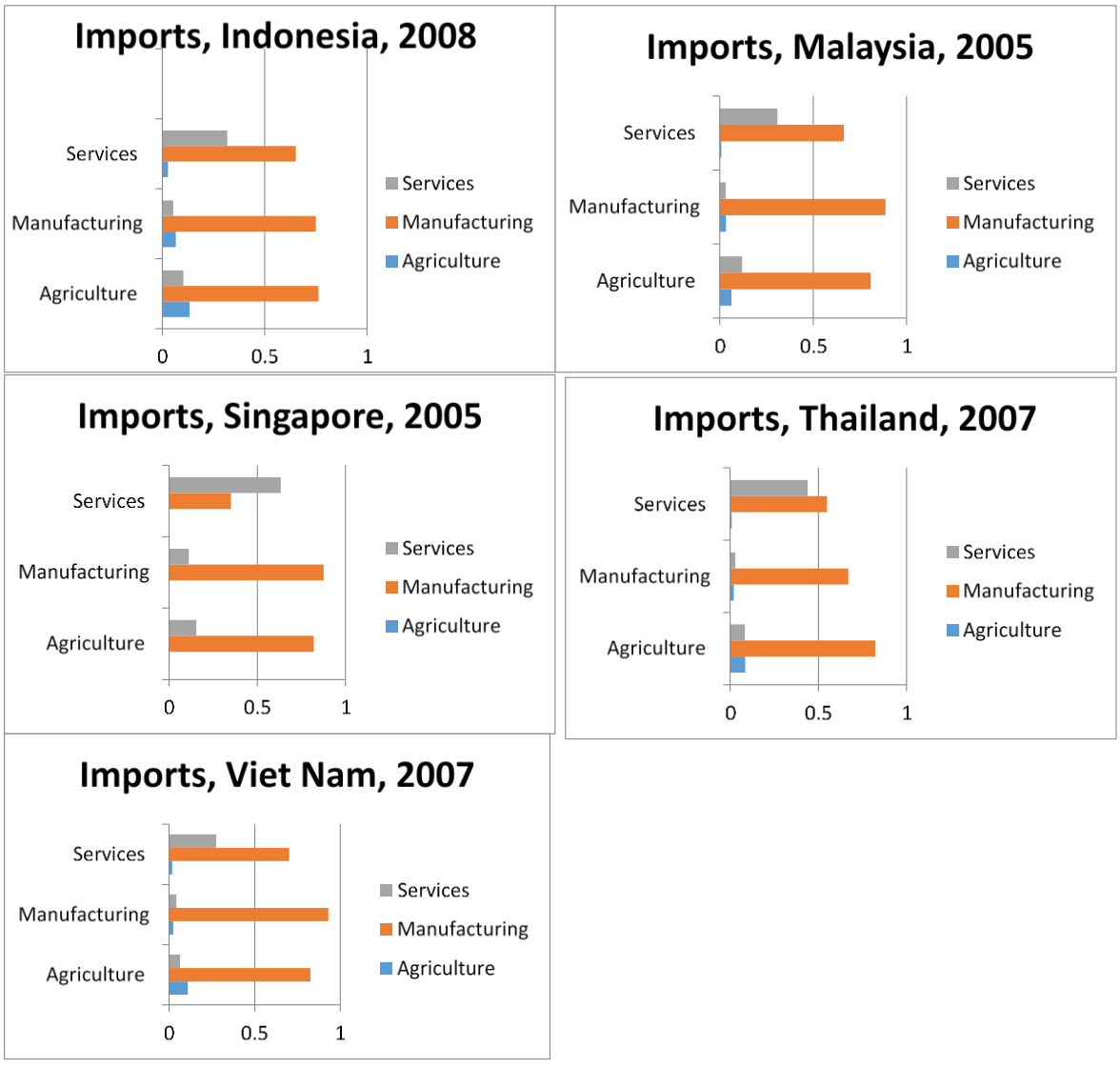
We also explore the linkages of services with trade and within the domestic economy by examining input–output relationships using the I-O tables based on the Asian Development Bank Statistics Database. The share of various imports to total imports by key sectors for selected ASEAN countries is shown in Figure 7.9. Clearly, the manufacturing sector has greater intra-industry imports, as these are mostly from overseas manufacturing sectors. [2]

The figure also shows high levels of manufacturing imports into the services sector, reflecting the importance of the services sector for the growth of the manufacturing sector as a part of regional and global production supply chains. The role of the services sector as an engine of growth in the regional supply chain is clear from this strong relationship. However, we do not see a strong services import into the manufacturing sector, which

[2] Input-Output model could be constructed to study the change in the output resulting from changes in the final demand. Output coefficients represent the scale of output of each sector to total output of the respective industry. Input coefficients represent the scale of raw materials and intermediate inputs used in each sector to the total inputs of the respective industry.

generally indicates the slow rate of opening up of the services sector compared to the manufacturing sector in ASEAN, and hence its low level of support for the manufacturing sector's activities. This clearly indicates a need for greater openness in the services sector and, hence, the potential for growth of regional and global supply-chain activities in ASEAN in the near future.

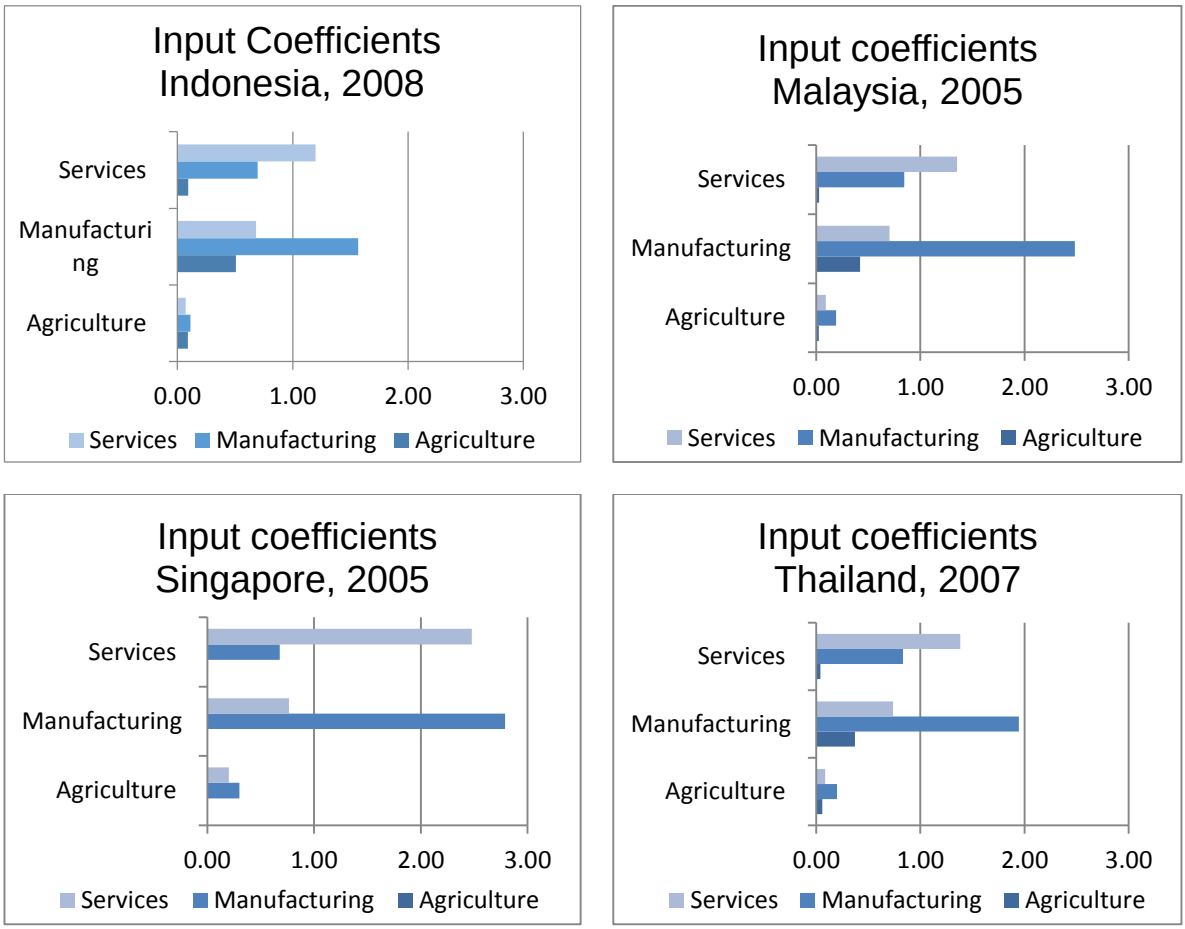
Figure 7.9: Input-and Output Relationships for Imports by Sector for Indonesia, Malaysia, Thailand, and Viet Nam

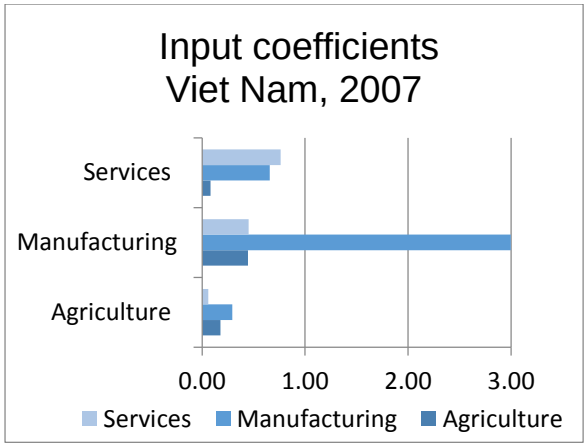


Source: Authors' calculation based on Input-Output Database for Imports.

We also explore the input and output relationship between services and manufacturing sectors as illustrated in Figures 7.10a and 7.10b. This shows strong linkages between the services and manufacturing sectors in the selected ASEAN countries. The services sector provides strong linkages for the manufacturing sector across the selected ASEAN countries. The services inputs are relatively strong for the manufacturing sector for Indonesia, Malaysia, Singapore, and Thailand. However, we do not see a strong services input into Viet Nam's manufacturing sector and this reflects the potential for services sector growth in Viet Nam's domestic economy.

Figure 7.10a: Input and Output Relationships for Indonesia, Malaysia, Singapore, Thailand, and Viet Nam

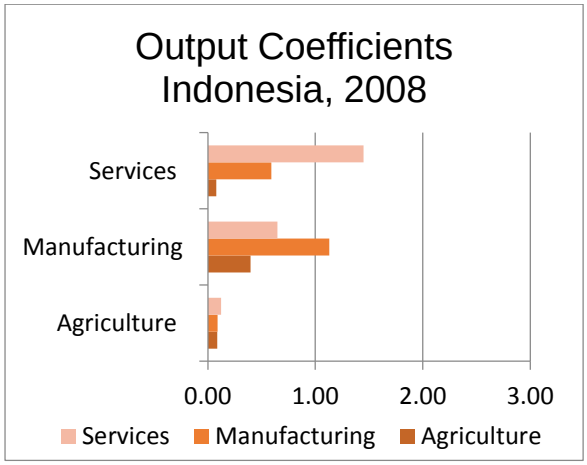


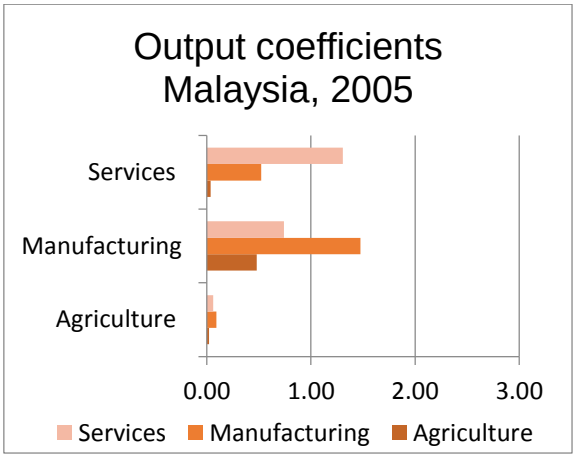


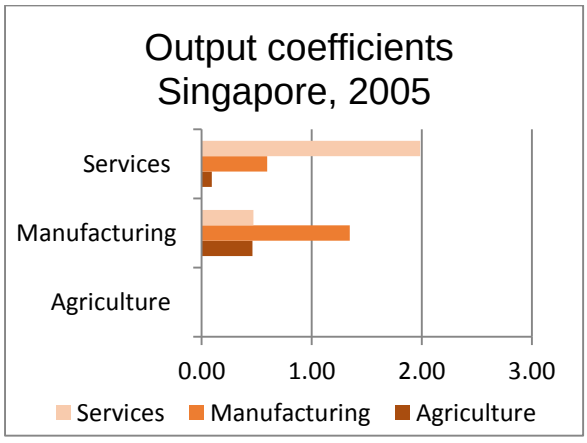
Source: Authors' calculation based on Input-Output Database.

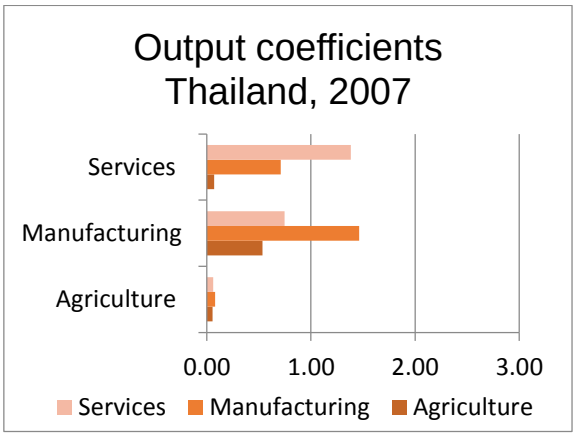
Figure 7.10b: Input and Output Relationships for

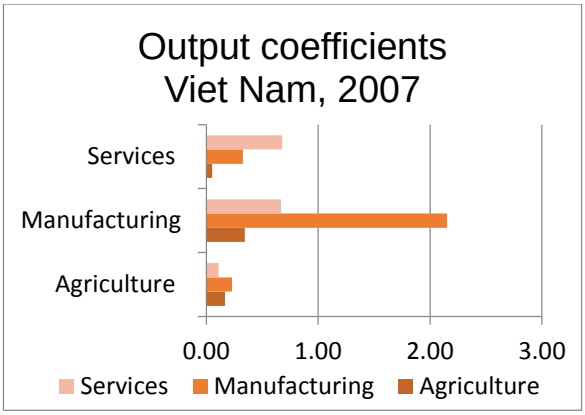
Indonesia, Malaysia, Singapore, Thailand, and Viet Nam











Source: Authors' calculation based on Input-Output Database.

4. Impacts of Trade on Productivity of the Services Sector in ASEAN: Empirical Analysis

This section explores the impact of exports on the productivity of the services sector. The sectoral data for the services sector are from the Groningen Growth Developing Centre (GGDC) 10-sector database, which provides annual data on value-added (at both current and constant prices) and employment data from 1990 to 2005 (Timmer and de Vries, 2009). The GGDC data provide disaggregated data consisting of 10 sectors, as defined by the ISIC Revision 2. Productivity is defined as output per worker. In this case it is value-added per worker for the respective services sectors of (i) wholesale, retail, and hotels and restaurants; (ii) transport, storage, and communications; (iii) finance, insurance, real estate, and business services; and (iv) community, social, and personal services. The data are in real values at the 2000 prices in US dollars.

The data cover five ASEAN countries, namely, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. We have also incorporated country-specific data for human capital (the average years of schooling), the share of exports to total trade (the share of the value of exports of goods and services to the total value of exports and imports of goods and services), a dummy representing the ASEAN Free Trade Area (AFTA) (1992–2005 = 1) and a dummy for the Asian financial crisis (1997–2005 = 1) from the respective country statistical data. We create panel data by pooling across the above countries for each key sector.

We adopt the dynamic fixed effect and Generalised Method of Moments (GMM) estimations to examine the impact of the share of exports of services to total exports on services labour productivity as presented in Tables 7.3, 7.4 and 7.5. Table 7.3 presents that human capital is not statistically significant in affecting labour productivity in services in most of key services sectors. The share of exports to total trade tends to have significant impacts on the transport, storage, and communication sector. The AFTA dummy, beginning in 1992, has a statistically significant impact on labour productivity in the services sectors except for the non-tradable community, social, and personal services sector. As there might be some endogeniety issues with labour productivity having a reverse impact on trade, we re-estimated the model by including the lags of variables of labour productivity, the share of exports to total trade, and human capital (Arellano and Bond, 1991). This issue is corrected in the estimations presented in Table 4.

Table 7.3: Empirical Results of Trade on Services Labour Productivity in Key Services Sector for Indonesia, Malaysia, the Philippines, Singapore, and Thailand (1990–2005)

Fixed Effect Estimation (Dependent variable: Ln_labour Productivity)

	Wholesale, Retail, and Hotel	Transport, Storage, and Communications	Finance, Insurance, and Real Estate	Community, Social and Personal
Human capital	0.464*	0.228	0.383	0.283
	(1.930)	(1.050)	(1.150)	(1.450)
Share of export to total trade	15.175***	21.609***	7.775*	18.904***
	(4.070)	(4.850)	(1.800)	(4.840)
AFTA dummy	8.700*	11.880**	9.870**	5.627
	(1.700)	(1.990)	(1.980)	(1.100)
Lag labour productivity	-	-	-	-
Lag share of export to total trade	-	-	-	-
Lag of human capital	-	-	-	-
Asian financial crisis dummy	Yes	Yes	Yes	Yes
R-Square	0.062	0.093	0.080	0.115
No of observations	80	80	80	80

Note: t-test in parentheses

***significant at 1%, **significant at 5%, *significant at 10%

Table 7.4 presents the results of the dynamic labour productivity analysis. It reveals that there is a significant dynamic effect of the share of exports to total trade on the labour productivity of the services sectors. The dynamic impacts of the lag variables significantly improved the overall fit of the analysis (higher R-square). Human capital (including the lag of human capital) is statistically significant and positive. This indicates that developing human capital in ASEAN is an important factor in improving the productivity of the services sector and the overall aggregate productivity of the respective ASEAN countries; hence, the overall productivity of ASEAN.

The lag of the share of exports to total trade is also statistically significant, which indicates the dynamic effects of trade on labour productivity in the services sector. This indicates that exports should be expected to improve the role of services in providing the varieties of intermediate inputs (increasing the varieties of services) and creating greater linkages with the manufacturing sector. This has important implications for regional and global supply-chain production. We also observe that AFTA has a statistically significant impact on the labour productivity of the respective services sectors. This suggests that increased openness to trade will significantly impact across the services sector and the overall economy due to the linkages created by the services sector across industries.

Table 7.4: Empirical Results of Trade on Services Labour Productivity for Indonesia, Malaysia, Philippines, Singapore, and Thailand (1990–2005)

Fixed Effect Estimation (Dependent variable: Ln_labour productivity)

	Wholesale, Retail, and Hotel	Transport, Storage, and Communications	Finance, Insurance, and Real Estate	Community Services, Social and Personal
Human capital	6.060***	6.164***	4.499***	5.591***
	(14.420)	(14.872)	(15.350)	(11.620)
Share of export to total trade	-10.708	-2.054	-2.388	-6.970
	(-1.101)	(-0.220)	(-0.690)	(-0.720)
AFTA dummy	12.720***	9.634***	3.020**	12.780***
	(6.150)	(6.080)	(2.050)	(5.410)
Lag labour productivity	-1.524***	-1.232***	-1.390***	-1.450***
	(-17.290)	(-17.670)	(-2.978)	(-12.800)
Lag share of export to total trade	7.803**	5.981**	8.354***	7.459**
	(2.300)	(1.970)	(2.850)	(2.270)
Lag of human capital	0.267**	0.208*	2.902***	0.2640
	(1.980)	(1.740)	(19.480)	(0.160)
Asian financial crisis dummy	Yes	Yes	Yes	Yes
R-square	0.155	0.208	0.842	0.264
No of observations	80	80	80	80

Note: t-test in parentheses

***significant at 1%, **significant at 5%, *significant at 10%

To address the endogeniety issues in the estimation, GMM estimations are used. The results are presented in Table 7.5. Based on the GMM estimation results, both the share of exports to total trade and human capital are statistically significant and have positive impacts on the labour productivity of services sector. It shows positive impacts of export activities on (i) transport, storage, and communications and (ii) finance, insurance, and real estate for the ASEAN countries. The ASEAN FTA dummy (AFTA) is positive for all the services sectors particularly on the transport, storage, and communications sector. This clearly indicates that logistic connectivity and infrastructure will be crucial in improving the labour productivity of the services in the region.

Table 7.5: Empirical Results of Trade on Services Labour Productivity for Indonesia, Malaysia, Philippines, Singapore, and Thailand (1990–2005)

Generalised Method of Moments Estimation (Dependent variable: Ln_labour Productivity)

	Wholesale, Retail, and Hotel	Transport, Storage, and Communications	Finance, Insurance, and Real Estate	Community Services, Social and Personal
Human capital	0.375**	2.056***	1.499*	1.596***
	(1.970)	(5.190)	(1.950)	(4.170)
Share of export to total trade	3.867*	13.105***	12.629*	1.890**
	(1.880)	(4.270)	(1.950)	(2.070)
AFTA dummy	4.663***	13.094***	8.220*	6.803**
	(2.500)	(3.880)	(1.960)	(2.200)
Lag labour productivity	-0.670***	-0.599***	-0.633**	-0.732***
	(-12.880)	(-9.810)	(-8.680)	(-11.220)
Lag share of export to total trade	1.747**	0.245*	1.633***	0.459
	(2.170)	(1.960)	(4.560)	(0.270)
Lag of human capital	2.465***	2.083***	2.902***	1.983***
	(18.170)	(11.350)	(11.810)	(5.160)
Asian financial crisis dummy	Yes	Yes	Yes	Yes
R-square	0.701	0.163	0.390	0.411
No of observations	80	80	80	80

Note : t-test in parentheses

***significant at 1%, **significant at 5%, *significant at 10%

5. Policy Recommendations

The results show that rising levels of human capital and growth in export activities will improve labour productivity in the services sector, and that the services sector provides significant inputs for the manufacturing sector in the region. Thus, more openness in the services sector will provide positive impacts on the development of manufacturing and the regional supply chain for ASEAN.

However, levels of openness of the services sector in ASEAN were still relatively low (Thangavelu and Lim, 2011). This highlights that developing economies within ASEAN, such as Cambodia and Viet Nam, tend to have a more open policy towards foreign investments compared to economies with more developed and mature industries such as Malaysia, Indonesia, and Thailand.

ASEAN faces several challenges in improving the productivity of the services sector. In this respect, the RCEP negotiations should consider the impact of services liberalisation on the overall manufacturing and economic activities of ASEAN and the region. The current ASEAN plus one agreements are limited in services liberalisation; RCEP could be important to increase the market access and commercial presence of services activities in the region.

First is to improve the innovation and competition in the services across the region.[3] In this case, the trade facilitation and behind-border-issues are key to increase innovation and competition of the services sector through better national treatment and greater foreign ownership in the key domestic services sector.

Second, there are still infrastructure gaps in ASEAN, particularly in the services sector. Both hard and soft infrastructure are important tools to enable trade and develop the services sector in the region. A number of quick wins, for example, improvement in the management systems in ports could reduce dwell time; and the development of information and communications technology (ICT) and infrastructure will improve links for trade and movement of goods that will enhance services trade. RCEP could focus on improving ASEAN connectivity across ASEAN plus 6 countries.

Third, there is a strong need to accelerate human capital development. Some countries have made tremendous improvements in human capital development; however,

[3] There are relatively high levels of regulatory burden in particular cases of state-owned enterprises in the services sectors (Thangavelu and Lim, 2011; Park and Shin, 2012).

more need to be done. While CLMV countries need to address issues on basic education, more mature economies such as Indonesia, Malaysia, the Philippines, Singapore, and Thailand need to improve the skills and training of their workers to maintain the relevance and contribution of their labour force in the economy. Human capital and labour mobility are crucial for the development and openness of the services sector in the region. In this respect, the movement of natural persons has been always a sensitive and lagging issue in ASEAN plus one negotiations, which could be a critical issue in discussing the RCEP framework. As the results of the study highlight, human capital development and mobility of skilled workers will increase the impact of services productivity and the contribution of services sector to the overall growth of both domestic and regional economies.

Last, there is a huge data gap in the services sector in the region in terms of quality of data and information which can be used to understand the key issues and guide policy discussions on relevant topics such as productivity, innovation, and linkages of the services sector and services trade in the region.

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Appendix 1

Table 7.A.1: Real GDP Growth of Selected Asian Countries, 2005-2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013
China	11.3	12.7	14.2	9.6	9.2	10.4	9.3	7.7	7.7
Hong Kong	7.4	7.0	6.5	2.1	-2.5	6.8	4.8	1.5	2.9
South Korea	3.9	5.2	5.5	2.8	0.7	6.5	3.7	2.3	3.0
India	9.5	9.6	9.3	6.7	8.6	8.9	6.7	4.5	4.9
Brunei Darussalam	0.4	4.4	0.2	-1.9	-1.8	2.6	3.4	0.9	-1.8
Cambodia	13.3	10.8	10.2	6.7	0.1	6.0	7.1	7.3	7.5
Indonesia	5.7	5.5	6.3	6.0	4.6	6.2	6.5	6.2	5.8
Lao PDR	6.8	8.6	7.8	7.8	7.5	8.1	8.0	7.9	8.0
Malaysia	5.3	5.6	6.3	4.8	-1.5	7.4	5.1	5.6	4.7
Myanmar	13.6	13.1	12.0	10.3	10.6	9.6	5.6	7.6	7.6
Philippines	4.8	5.2	6.6	4.2	1.1	7.6	3.7	6.8	7.2
Singapore	7.5	8.9	9.1	1.8	-0.6	15.2	6.1	2.5	3.9
Thailand	4.2	4.9	5.4	1.7	-0.9	7.4	0.6	7.1	2.9
Viet Nam	7.5	7.0	7.1	5.7	5.4	6.4	6.2	5.2	5.4

Source: Asian Development Bank Statistics Database.

Table 7.A.2: Share of Agriculture, Industry, and Services to Total Value-Added for Selected Asian Countries, 2000-2013

	Agriculture			Industry			Services		
	2000	2010	2013	2000	2010	2013	2000	2010	2013
China	15.1	10.1	10.0	45.9	46.7	43.9	39.0	43.2	46.1
Hong Kong	0.1	0.1	0.1	12.6	7.0	0.7	87.3	93.0	93.0
South Korea	4.4	2.5	2.3	38.1	38.3	38.6	57.5	59.3	59.1
India	23.4	18.2	18.4	26.2	27.2	24.7	50.5	54.6	57.0
Brunei Darussalam	1.0	0.8	0.7	63.7	66.8	68.2	35.3	32.5	31.0
Cambodia	37.9	36.0	33.8	23.0	23.3	25.7	39.1	40.7	40.5
Indonesia	15.6	15.3	14.4	45.9	47.0	45.7	38.5	37.7	39.9
Lao PDR	48.5	30.6	31.0	19.1	29.8	30.0	32.4	39.6	39.0
Malaysia	8.3	10.5	9.4	46.8	41.6	41.0	44.9	48.0	49.6
Myanmar	57.2	36.9	36.0	9.7	26.5	26.0	33.1	36.7	38.0
Philippines	14.0	12.3	11.2	34.5	32.6	31.1	51.6	55.1	57.7
Singapore	0.1	0.0	0.0	34.8	27.6	25.1	65.1	72.3	74.9
Thailand	8.5	10.6	10.6	36.8	40.1	40.1	54.7	49.3	49.3
Viet Nam	24.5	18.9	18.4	36.7	38.2	38.3	38.7	42.9	43.3

Source: Asian Development Bank Statistics Database.

SECTION III

Investment: Beyond Protection

Chapter 8

Searching for an Ideal International Investment Protection Regime for ASEAN+ Dialogue Partners: Where Do We Begin?

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The members of the Association of Southeast Asian Nations (ASEAN) and its six dialogue partners – Australia, China, India, Japan, South Korea, and New Zealand – decided in November 2012 to launch the negotiation of a free trade agreement (FTA) amongst them, also known as the regional comprehensive economic partnership (RCEP). The scope of the agreement includes investment, despite the fact that the negotiating states already have various international investment agreements (IIAs) with each other. This article analyses how RCEP can better improve and add more value to the current regime of international investment protection within the region, by suggesting standards that should be considered by negotiators.

1. Introduction

The Association of Southeast Asian Nations *(*ASEAN) Member States along with their six dialogue partners – Australia, China, India, Japan, South Korea, and New Zealand – have concluded numerous international investment agreements (IIAs) at an unprecedented rate during the last three decades. Often, this leads to parallelism – overlaps of various legal frameworks, including bilateral investment treaties (BITs), regional investment agreements, and investment chapters in various free trade agreements (FTAs) – that potentially adds a layer of complexity (UNCTAD, 2013). In fact, this phenomenon had occurred earlier in international trade law with the conclusion of various FTAs, and was referred to by Jagdish Bhagwati as the 'spaghetti bowl' effect (Bhagwati, 1994).

In international trade law, the spaghetti bowl phenomenon had been predicted to potentially create trade diversion and exclusive clubs in the global trading system. However, this is less clear with IIAs. Should the parties involved avoid creation of such a spaghetti bowl, and instead strive to consolidate the various IIAs? Although there have been attempts to conclude a multilateral framework of investment agreements, this has not so far been a success (Koschwar, 2009). In any event, where multiple regimes exist, companies will structure their investments in such a way that they are able to enjoy the benefits from the best regime(s).

ASEAN Member States and their six dialogue partners have more than 80 IIAs themselves, either in the form of BITs, investment chapters of bilateral and plurilateral FTAs, or regional investment agreements (UNCTAD, 2013). The regional comprehensive economic partnership (RCEP), if concluded, could be an opportunity to consolidate the overlapping legal frameworks of investment protection. In this chapter, we review the existing legal frameworks and analyse the provisions based on previous investor – state arbitration cases to come up with recommendations on consolidated standards in RCEP's investment chapter that could improve current standards in the existing IIAs of the negotiating states.

2. Nature, Object, and Purpose of RCEP

It is important to clearly identify the object and purpose of RCEP's investment chapter for the purpose of negotiation as well as interpretation of its contents at a later stage when disputes arise. By understanding the object and purpose, the negotiating states can better customise the agreement to advance their own objects and purposes.

The lack of clarity in most investment protection clauses in existing BITs or bilateral FTAs of RCEP negotiating states leaves a wide margin of discretion for investor-state arbitral tribunals in interpreting the clauses. In this process, arbitral tribunals often look at the object and purpose of the agreement (Sauvant and Ortino, 2013).[1] Unfortunately, the object and purpose of some IIAs are often not clearly stated. Some tribunals have simply relied on the preamble of the BITs to find that the object and purpose of BITs is 'to encourage and protect investment'[2] or 'to promote greater economic cooperation'.[3] Such a liberal interpretation of the object and purpose may put states at a disadvantage, especially if their measures have legitimate reasons despite their effects on some investors.

The Preamble of the ASEAN Comprehensive Investment Agreement (ACIA),[4] one of the most comprehensive IIAs we reviewed, declares its purpose as being to create a favourable investment environment that will enhance a freer flow of capital, goods and services, technology and human resources, and, eventually, overall economic and social development in the region. This is one of the implementations of the ASEAN Economic Community Blueprint that seeks to create a competitive single market and production base (ASEAN, 2008).[5] On this matter, Ewing–Chow's study finds that production networks in several sectors have actually been established within ASEAN. Nevertheless, IIAs amongst ASEAN countries remain useful to prevent backsliding of countries' commitments and ensure that freer flow of

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[1] *Vienna Convention on the Law of Treaties,* 23 May 1969 (entered into force on 27 January 1980) [VCLT], Article 31(1).
[2] *Azurix v. Argentina,* ICSID Case No. ARB/01/12, Award, 14 July 2006, p.307.
[3] *LG&E v. Argentina,* ICSID Case No. ARB/02/1, Decision on Liability, 3 October 2006,p.124.
[4] *ASEAN Comprehensive Investment Agreement* (entered into force 29 March 2012).
[5] Declaration on the ASEAN Economic Community Blueprint (signed 20 November 2007).

capitals, goods, and investments can be achieved to create even stronger production networks (Ewing–Chow *et al*., 2014). In this chapter we do not elaborate further on whether investment rules affect actual investment flows.[6]

In the context of RCEP, the region's aggregate gross domestic product (GDP) of US$17.2 trillion and a population of more than 3.4 billion reveal a huge potential that can be explored further through economic integration.[7] One of the general guiding principles in the negotiation highlights RCEP's broader and deeper engagements with significant improvements over the existing ASEAN+1 FTAs.[8]

For the investment chapter negotiation, the guiding principle provides the following objective:

> *RCEP will aim at creating a liberal, facilitative, and competitive investment environment in the region. Negotiations for investment under RCEP will cover the four pillars of promotion, protection, facilitation and liberalization.*

It is understood that the core objective of RCEP's investment chapter is to create an appealing investment environment to attract foreign investors. However, RCEP negotiating states still need to further specify the object and purpose of the agreement to avoid arbitral tribunals' exercise of wide discretion in interpreting clauses in RCEP's investment chapter based on its objective 'to promote, protect, facilitate and liberalise investments'. RCEP's investment chapter should also mention explicitly the object and purpose of creating a refined IIA that maintains the balance between investment protection and preservation of the member states' policy space to pursue their legitimate policy objectives, including protection of public health and environment.

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[6] There have been separate studies on this topic. It is acknowledged though that establishing a clear link between changes in foreign direct investment (FDI) flows and the existence of investment provisions is difficult.

7 Ministry of Trade and Industry of Singapore, 'Factsheet: What you need to know about RCEP', available at: https://www.mti.gov.sg/MTIInsights/SiteAssets/Pages/FACTSHEET-WHAT-YOU-NEED-TO-KNOW-ABOUT/Factsheet%20on%20RCEP%20(June%202014).pdf

[8] ASEAN, 'Guiding Principles and Objectives for Negotiating the Regional Comprehensive Economic Partnership', available at: http://www.asean.org/images/2012/documents/Guiding%20Principles%20and%20Objectives%20for%20Negotiating%20the%20Regional%20Comprehensive%20Economic%20Partnership.pdf

Table 8.1: FTAs with Investment Chapter/IIAs amongst ASEAN Member States + Dialogue Partners [Reviewed IIAs]

No.	Name	Date of Entry Into Force
ASEAN + Dialogue Partners		
1.	ASEAN Comprehensive Investment Agreement [ACIA]	29 March 2012
2.	ASEAN–Australia–New Zealand Free Trade Agreement [AANZFTA] Investment Chapter	1 January 2010: Australia, Brunei, Malaysia, Myanmar, Philippines, New Zealand, Singapore, and Viet Nam 12 March 2010: Thailand 4 January 2011: Cambodia and Lao PDR 10 January 2012: Indonesia
3.	Agreement on Investment of the Framework Agreement on Comprehensive Economic Cooperation between the ASEAN and the People's Republic of China [ASEAN–China Investment Agreement]	1 August 2010
4.	2009 Agreement on Investment under the Framework Agreement on Comprehensive Economic Cooperation among the Governments of the Member Countries of the ASEAN and the Republic of Korea [ASEAN–Korea Investment Agreement]	1 September 2009
Singapore + Dialogue Partners FTAs		
5.	Singapore–Australia FTA	28 July 2003
6.	Singapore–India Comprehensive Economic Cooperation Agreement	1 August 2005
7.	Agreement between Japan and Singapore for a New-Age Economic Partnership	30 November 2002
8.	Korea–Singapore FTA	2 March 2006

9.	Agreement between New Zealand and Singapore on a Closer Economic Partnership	18 August 2011
Malaysia + Dialogue Partners FTAs		
10.	Malaysia–Australia FTA	1 January 2013
11.	Malaysia–New Zealand FTA	1 August 2010
12.	Malaysia–India Comprehensive Economic Cooperation Agreement	1 July 2011
13.	Malaysia–Japan Economic Partnership Agreement	13 July 2006
Thailand + Dialogue Partners FTAs		
14.	Thailand–Australia FTA	1 January 2005
15.	Thailand–New Zealand Closer Economic Partnership	1 July 2005
16.	Thailand–Japan Economic Partnership Agreement	1 November 2007
Philippines + Dialogue Partners FTA		
17.	Philippines–Japan Economic Partnership Agreement	11 December 2008
Indonesia + Dialogue Partners FTA		
18.	Japan–Indonesia Economic Partnership Agreement	1 July 2008
Other IIA		
19.	Agreement among the Government of Japan, the Government of the Republic of Korea and the Government of the People's Republic of China for the Promotion, Facilitation and Protection of Investment [Trilateral Investment Agreement]	Signed on 13 May 2012, but it has not entered into force

Source: Author's compilation.

3. Searching for Appropriate Standards

3.1. Investment Promotion

BITs are normally titled 'Agreement on the Promotion and Protection of Investments'. However, most BITs do not further elaborate on the promotion obligation, and simply use the generic phrase of requiring the Contracting Parties to encourage and create favourable conditions for foreign investors.

In some plurilateral IIAs, the obligation to promote is made clearer with a list of actions to be undertaken by the parties involved. For example, Article 24 of ACIA incorporates one of the agreement's main objectives – enhancing production networks in the region – into this obligation. The provision reads as follows:

> *Member States shall cooperate in increasing awareness of ASEAN as an integrated investment area in order to increase foreign investment into ASEAN and intra-ASEAN investments through*, among *others:*
>
> *(a) encouraging the growth and development of ASEAN small and medium enterprises and multi-national enterprises;*
> *(b)* ***enhancing industrial complementation and production networks among multi-national enterprises in ASEAN****;*
> *(c) organizing investment missions that focus on developing regional clusters and production networks;*
> *(d) organizing and supporting the organization of various briefings and seminars on investment opportunities and on investment laws, regulations and policies; and*
> *(e) conducting exchanges on other issues of mutual concern relating to investment promotion* (emphasis added).

While having a more detailed investment promotion clause is beneficial for providing clearer guidance for implementation by host states, any investment promotion actions will be even more useful if the host states have a favourable investment climate as we elaborate further below in the discussion about investment protection.

The promotion clause in ACIA is considered as soft law because it only imposes an obligation to cooperate rather than being a strong, binding obligation.

Nevertheless, due to its comprehensiveness, RCEP could use ACIA's clause as a baseline to develop an investment promotion clause that imposes binding obligations and provides capacity building for the less developed members to fulfil the obligations therein.

3.2. Investment Protection

Investment protection provisions should be the main focus of RCEP's investment chapter negotiation as it contributes to the creation of a favourable investment climate. These provisions become ever more important due to foreign investors' perception of the public sectors of some countries in the region as reflected in the 2014 Corruption Perception Index below.

Table 8.2: 2014 Corruption Perception Index (CPI) Ranking of RCEP Countries

Ranking	Country	Global Ranking (175 Countries and Territories)
1	New Zealand	2
2	Singapore	7
3	Australia	11
4	Japan	15
5	Brunei Darussalam	38*
6	South Korea	43
7	Malaysia	50
8	Philippines	85
9	India	85
10	Thailand	85
11	China	100
12	Indonesia	107
13	Viet Nam	119
14	Lao PDR	145
15	Myanmar	156
16	Cambodia	156

Note: * CPI 2013 as Brunei was not ranked in CPI 2014.
Source: Transparency International (https://www.transparency.org/cpi2014/results).

Having investment protection provisions in RCEP magnifies the negotiating states' commitments to upholding the rule of law in the region. A recent survey of 301 senior decision makers at Forbes 2000 companies revealed that an average of

more than 70% of respondents across various sectors – energy and natural resources, technology, media and telecoms, life sciences, consumer and retail, and financial institutions – affirmed that the absence of investment protection treaties in a country deterred them from investing or caused a reduction in their investments.[9]

Yet, investor–state arbitration mechanisms to enforce these investment protection provisions has been under scrutiny due to diverging interpretations of the provisions by arbitral tribunals (Echandi and Sauve, 2013). The lack of clarity in these provisions is actually one of the sources of the problem.

Governments have also realised that the existing IIAs (particularly the earlier generation BITs) often do not explicitly specify the right of states to regulate certain matters for public purposes, such as protection of public health, safety, or the environment. Often, these measures affect foreign investments in ways that constitute violations of protection guarantees in IIAs.

ACIA and the ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA) contain more precisely formulated protection provisions that attempt to strike a balance between investment protection and the right of states to regulate. Their investment protection clauses can be used as a baseline for those that should be improved further in RCEP's investment chapter. In analysing the various investment protection provisions of ASEAN+ dialogue partners' FTAs, we focus on the plurilateral IIAs rather than the bilateral IIAs, as the former are relatively more advanced. Note that we also include the trilateral investment agreement between China, Korea, and Japan as a reference to the recent approach of the East Asian countries to IIAs.[10]

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[9] Hogan Lovells, Bingham Centre for the Rule of Law, and BIICL, *Survey Tool: Foreign Direct Investment and the Rule of Law*, available at: http://www.hoganlovellsruleoflaw.com/survey-tool

[10] *Agreement among the Government of Japan, the Government of the Republic of Korea and the Government of the People's Republic of China for the Promotion, Facilitation and Protection of Investment* (signed 13 May 2012).

Table 8.3: Snapshot Comparison of Investment Protection Provisions in Investment Chapters of ASEAN Member States + Dialogue Partners' FTAs and other Regional Investment Agreement

	ASEAN–Korea	**ASEAN–China**	**AANZFTA**	**ACIA**	**Trilateral China–Korea–Japan**
Covered investment, e.g. approval in writing	Art. 1 (c) and Annex 1	Yes, for Thailand (Art. 3 (3))	Yes, for Thailand and Viet Nam (Art. 2(a))	Art. 4(a) and Annex 1	Art. 2(2)
NT (both pre- and post-establishment)	Art. 1 (k) and Art. 3	(Art. 4) – no pre-establishment	Art. 2(d) on def. of investor and Art. 4	Art. 4(d) and Art. 5	Article 3 – no pre-establishment, and with a list of non-conforming measures.
MFN treatment (both pre- and post-establishment)	Art. 4(1)	Art. 1(1)(e) and Art. 5 – excludes ISDS	No MFN clause, Art. 16(2)(a)	Art. 6(1) – excludes ISDS	Article 4 – excludes ISDS
FET (Limited scope: not to deny justice or admin. proceedings)	Art. 5(2)	Art. 7(2)	Art. 6(2)	Art.11	Art. 5 (1) – scope limited to CIL, no elaboration.
Expropriation	Art. 12 (no annex on expropriation)	Art. 8 – exception for land and compulsory licenses (CL)	Art. 9 – annex on expropriation, and exception for land and CL.	Art. 14 – annex on expropriation, and exception for land and CL.	Art. 4.1 – Protocol on Expropriation, and exception for land acquisition.
Prohibition on performance requirement	Art. 6	-	Art. 5	Art. 7	Art. 7
SMBoD	Art. 7	-	See AANZFTA Chapter 9	Art. 8	Art. 8 – limited to facilitation.
Freedom of transfer and its exception	Art. 10	Art. 10	Art. 8	Art. 13	Art. 13
Balance of payment/ prudential measures	Art. 11	Art. 11	Chapter 15	Art. 16	Art. 19/20
General exceptions	Art. 20	Art. 16	Chapter 15	Art. 17	No, Art. 18 provides security exceptions.
Denial of benefits	Art. 17	Art. 15	Art. 11	Art. 19	Art. 22
ISDS	Art. 18	Art. 14	Art. 18	Section B – Article 29	Art. 15

Note: CIL – customary international law; NT – national treatment; MFN – most-favoured nation; FET – fair and equitable treatment; ISDS – investor–state dispute settlement; SMBoD – senior management and board of directors.
Source: Author's compilation.

3.2.1 Scope and Coverage

Determining the scope and coverage of an IIA is important to regulate the investments and investors entitled to benefits from the agreement. These provisions include the definition of investments and investors, admission clauses, explicit exclusion of certain investments, and in FTAs, the relationship of the investment chapter to other chapters.

(a) Admission Clause – Approval in Writing

Admission clauses govern the entry of investments into host states. In some IIAs, the clause requires investments to be admitted in accordance with the host state's national laws. In fact, this investment-control model is the one most commonly used. It does not grant a right to admission, but allows the host state to control all inward foreign direct investment (FDI). While some argue that this type of admission clause is useful to protect sensitive industries, others argue that it may lead to rent seeking and corruption (Pollan, 2006).

All of the reviewed IIAs contain admission clauses, but some require the investment to be approved by the host state. Article 4(a) of ACIA provides the following:

> *"[C]overed investment" means, with respect to a Member State, an investment in its territory of an investor of any other Member State in existence as of the date of entry into force of this Agreement or established, acquired or expanded thereafter, and has been admitted according to its laws, regulations, and national policies, and where applicable, specifically* ***approved in writing***[1] *by the competent authority of a Member State.* (emphasis added)

Footnote 1 of the provision further provides 'for the purpose of protection, the procedures relating to specific approval in writing shall be as specified in Annex

1 (Approval in Writing)'. It is pertinent to obtain such a specific approval because without it, the investment may not be protected at all.[11]

Although such an approval requirement may be burdensome for investors, ACIA deals with this matter by means of the inclusion of Annex 1 that clarifies the specific procedure for approval. This can improve governance in the host state, thus contributing to a better investment climate.

In the RCEP negotiation, if the negotiating states want to incorporate the approval requirement, they should include specific procedures as provided in Annex I of ACIA. They can improve Annex I further by listing each host state's focal point that will be responsible for the issuance of such approvals as well as procedures involved.

(b) Relationship with Other Chapters or Agreements

ACIA clarifies its relationship with the ASEAN Framework Agreement on Services (AFAS). In relation to liberalisation under AFAS, ACIA clarifies the sectors that will be liberalised further by the Member States. However, this clarification is done under the provision of Scope of Application. Article 3(3) of ACIA states that:

> *For the purpose of liberalization and subject to Article 9 (Reservations), this Agreement shall apply to the following sectors:*
> *(a) manufacturing;*
> *(b) agriculture;*
> *(c) fishery;*
> *(d) forestry;*
> *(e) mining and quarrying;*
> *(f) services incidental to manufacturing, agriculture, fishery, forestry, mining and quarrying; and*
> *(g) any other sectors, as may be agreed upon by all Member States.*

This provision is problematic because ACIA does not define the term 'liberalization'. While in trade law the term is normally understood as the opening up of certain sectors for foreign investors (market access), in investment law the term

[11] *Yaung Chi Oo Trading Pte Ltd. v. Government of the Union of Myanmar*, ASEAN ID Case No. ARB/01/1, Award, 31 March 2003 (ICSID Additional Facility Rules).

can also mean providing better protection for foreign investors. This provision becomes ambiguous and could be interpreted as limiting the scope of ACIA, including its investment protection provisions, only to the listed sectors.

However, if we read paragraph 3 in the context of the provision, we will find that Article 3(5) of ACIA indicates that the agreement applies more broadly. The provision provides:

> 5. *Notwithstanding sub-paragraph 4 (e), for the purpose of protection of investment with respect to the commercial presence mode of service supply, Articles 11 (Treatment of Investment), 12 (Compensation in Cases of Strife), 13 (Transfers), 14 (Expropriation and Compensation) and 15 (Subrogation) and Section B (Investment Disputes Between an Investor and a Member State), shall apply, mutatis mutandis, to any measure affecting the supply of a service by a service supplier of a Member State through commercial presence in the territory of any other Member State but only to the extent that they relate to an investment and obligation under this Agreement regardless of whether or not such service sector is scheduled in the Member States' schedule of commitments made under AFAS.*

This can only mean that all investment protection provisions of ACIA are applicable to all sectors, except those explicitly excluded under Article 3(4) and subject to Article 3(5).

The guiding principle of RCEP negotiation also includes the liberalisation pillar within the investment chapter. Given the possible misinterpretation of the provision about scope of coverage in ACIA, RCEP negotiators should define the term 'liberalization' more clearly.

3.2.2. Performance Requirements

A performance requirements clause places an obligation on host states not to impose certain requirements on foreign investors during the operations of their investments, such as local content requirements, trade-balancing requirements, or export controls. In *Mobil v. Canada,* the tribunal found that Canada breached the prohibition on domestic performance requirement of the North America Free Trade Agreement (NAFTA) Article 1106, by imposing a research investment target on

operators of petroleum projects.[12] Under the government's guidelines, the operators were obliged to allocate certain amounts of funds for research and development matters – endowing a university chair, furnishing a classroom, providing scholarships, or an in-house research facility – for each of the exploration, development, and production phases of the project. The tribunal further found that this constituted a performance requirement to acquire services locally.[13]

Most of the reviewed IIAs contain performance requirement clauses that refer to the Agreement on Trade-related Investment Measures (TRIMs) of the World Trade Organization (WTO). For example, Article 6 of the ASEAN–Korea Investment Agreement provides as follows:

> *The provisions of the WTO Agreement on Trade-related Investment Measures which are not specifically mentioned in or modified by this Agreement, shall apply,* mutatis mutandis*, to this Agreement unless the context otherwise requires.*

In RCEP, the negotiating states should consider including a clause on prohibition of performance requirements to create a more liberal investment environment for foreign investors that need the freedom to determine their production processes to gain more efficiency. If some of the negotiating states are not ready to make certain commitments in this regard, they may make reservation and produce lists of their non-conforming measures. However, this reservation should be temporary and phased out soon.

Since governments can easily issue regulations containing performance requirements, perhaps RCEP should look into the possibility of imposing an obligation to create a domestic review mechanism to deal with investors' allegations of a host state's performance requirements. Arguably, this could positively contribute to governance, provided the mechanism is fast and impartial so that issues that arise do not need to be brought before investor–state arbitration tribunals.

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[12] *Mobil Investments Canada Inc. and Murphy Oil Corporation v. Canada*, ICSID Case No. ARB(AF)/07/4, Decision on Liability and Principles of Quantum, 22 May 2012, pp.45–46.
[13] *Ibid.*pp.237–38, and 242.

(a) Senior Management and Boards of Directors (SMBoD)

An SMBoD clause normally is meant to facilitate the entry of foreign employees and grant foreign investors the right to hire expatriate personnel. This provision is critical because foreign investors may need to place their senior management team who understand their business operations in the host state. A simpler and more liberal approach to this clause is found in Article 7 of the ASEAN–Korea Investment Agreement, which provides:

1. *A Party shall not require a judicial person of that Party that is covered investment appoint to senior management positions natural persons of any particular nationality.*
2. *A Party may require that a majority of the board of directors, or any committee thereof, of a juridical person of that Party that is a covered investment, be of a particular nationality, or resident in the territory of the Party, provided that the requirement does not materially impair the ability of the investor to exercise control over its investment.*

Host states often want to increase spill over effects from foreign investment, including by requiring employment for domestic or indigenous workers. They also want to retain control over their immigration policies (UNCTAD, 2012). To addres such concerns, the clause could be modified to be less liberal, as can be seen in Article 8 of the Trilateral Investment Agreement:

> *Each Contracting Party shall endeavor, to the extent possible,* ***in accordance with its applicable laws and regulations****, to facilitate the procedures for the entry, sojourn and residence of natural persons of another Contracting Party who wish to enter the territory of the former Contracting Party and to remain therein for the purpose of conducting business activities in connection with investments.*

Admittedly, such a provision provides host states with significant discretion. To maintain the facilitation element, RCEP's investment chapter should contain an obligation on host states, e.g. to install a transparent and streamlined mechanism for work permit applications of SMBoD. It must at least incorporate a timeline as well as an obligation on the part of the host state to provide the reason for refusing a work permit application of SMBoD.

(b) National Treatment (NT)

National treatment (NT) is a contingent standard of treatment because its application requires a comparative analysis between the treatment granted by the host state to its domestic investments or investors and the treatment granted to foreign investors of another contracting party to an IIA (UNCTAD, 2007). To create a level playing field between foreign and domestic investors, the host state must provide no less favourable treatment of foreign investments or investors than of domestic investments or investors.

In analysing whether the NT obligation has been breached, tribunals normally assess whether there is *de jure* or *de facto* discrimination (Bjorklund, 2008). Additionally, some tribunals also consider whether the investors are in 'like circumstances' by analysing whether the difference in treatment has been justified by rational policy objectives of the government (Bjorklund, 2008).[14]

Some IIAs contain NT clauses that grant the right of pre-establishment to foreign investors. This can be in the form of market access commitments, such as allowing foreign equity ownership in certain sectors that were previously closed to foreign investors. These commitments are reflected in each member's schedule and relate to the liberalisation pillar of an IIA. For example, Article 5(1) of ACIA provides:

1. *Each Member State shall accord to investors of any other Member State treatment no less favourable than that it accords, in like circumstances, to its own investors with respect to the* ***admission, establishment,*** *acquisition, expansion, management, conduct, operation and sale or other disposition of investments in its territory.*

Under Article 4(d) of ACIA, the protection is extended to natural or juridical persons who are making their investments – before the investment is fully established in the host state.

Normally, each party to an IIA maintains a reservation list of measures that will not constitute NT violation. Such flexibilities for an NT clause might be needed to

[14] *Pope & Talbot Inc. v. Canada*, NAFTA, Award on the Merits of Phase 2, 10 April 2001,p.103; see also Alvaro Antoni and Michael Ewing-Chow, 'Trade and Investment Convergence and Divergence: Revisiting the North American Sugar War' 2013 1(1) Latin American Journal of International Trade Law 337-341.

preserve the policy space of host states. However, a long list of reservations may reduce the scope of protection, and thus become unfavourable to foreign investors.

RCEP's investment chapter should have an NT clause that contains both post-establishment and pre-establishment commitments. In the negotiation, the states must carefully choose the approach to list their pre-establishment NT commitments. There are two possible approaches – the negative-list and the positive-list. The former approach requires more resources as the negotiating states must conduct a thorough audit of existing domestic policies. In the absence of specific reservations, a negotiating state commits to open those sectors/activities that at the time the IIA is signed may not yet exist in the country. In contrast, the positive-list approach offers selective liberalisation. States create a list of industries in which investors will enjoy the rights of pre-establishment (UNCTAD, 2012). ACIA adopts a hybrid approach. Using the positive-list approach, ASEAN Member States limit their pre-establishment commitments for the purpose of market access liberalisation to only certain sectors.[15] Furthermore, Article 9 provides that certain reservations (negative-list approach) shall apply to these sectors.

(c) Most-favoured Nation (MFN) Treatment

A most-favoured nation (MFN) treatment clause in an IIA is meant to create a level playing field between all foreign investors of different nationalities. It can apply to conditions of entry and operation of foreign investors (UNCTAD, 2010).

In practice, besides claiming violation of MFN treatment, investors/claimants use the MFN clause in the primary IIA – under which a dispute is brought – to incorporate/import more favourable substantive provisions[16] or rules of dispute settlement[17] from a third-party treaty (secondary IIA) into the primary agreement.

Although it is possible to import substantive protection standards from third party agreements by virtue of an MFN clause, there are limitations.

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[15] ACIA, Article 3(3).
[16] *Bayindir Insaat Turizm Ticaret Ve Sanayi AS v. Islamic Republic of Pakistan*, ICSID Case No. ARB/03/29, Award, 27 August 2009, pp.227–35.
[17] *Emilio Augustin Maffezini v. The Kingdom of Spain*, ICSID Case No. ARB/97/7, Decision of the tribunal on the objections of Jurisdiction, 25 January 2000, pp.62–63.

For example, investors may not invoke an MFN clause to eliminate provisions of the basic agreement. The claimant in *CMS v. Argentina* attempted to eliminate the emergency exception clause in the primary agreement, the US–Argentina BIT. However, the tribunal ruled that the absence of such a provision in other agreements simply did not eliminate the provision from the primary agreement (UNCTAD, 2010). Even so, questions might arise with regard to two different agreements with different treaty exceptions where one has less than the other. We refrain from addressing this issue as it is beyond the scope of this chapter.

The importation of more favourable rules of dispute settlement is controversial (Ewing–Chow and Ng, 2010). While some tribunals are willing to incorporate rules of dispute settlement from secondary treaties by virtue of an MFN clause,[18] others have been reluctant.[19] We are more inclined towards the view that some MFN clauses may extend to rules of dispute settlement, as in the case of *Maffezini*, provided the language of the clause is broad enough, e.g. 'in all matters', and there is no explicit statement from the parties to the treaty against it. This will be more consistent with the interpretation under Articles 31 and 32 of the Vienna Convention on the Law of Treaties (VCLT).[20]

Due to the over-expansive application of MFN clauses, some states excluded the clause altogether or reformulated the MFN clause in their newer IIAs. The investment chapters of AANZFTA, ASEAN–India FTA, and some bilateral FTAs between ASEAN Member States and dialogue partners, do not contain any MFN clause. Most of the ASEAN+1 Dialogue Partner Investment Agreements, except the ASEAN–Korea Investment Agreement, explicitly exclude the application of the MFN

[18] *Maffezini*, *supra* note 17, pp.62–63; *Impregilo S.p.A. v. Argentine Republic,* ICSID Case No. ARB/07/17, Award, 21 June 2011, pp.104–08; *RosInvestCo v. Russian Federation,* SCC Case No. Arb. V 079/2005, Award on Jurisdiction, October 2007, pp.124–35.
[19] *Plama Consortium Ltd. v. Republic of Bulgaria,* ICSID Case No. ARB/04/15, Decision on Jurisdiction, 8 February 2005, pp.202, 215*; Salini Costruttori S.p.A and Italstrade S.p.A. v. The Hashemite Kingdom of Jordan,* ICSID Case No. ARB/02/13, Decision on Jurisdiction, 29 November 2004, p.112; *Tza Yap Shum v. Republic of Peru,* ICSID Case No. ARB/07/6, Decision on Jurisdiction and Competence, 19 June 2009, p.220.
[20] VCLT, *supra* note 1.

clause to provisions on ISDS. For example, Article 5(4) of the ASEAN–China Investment Agreement provides: [21]

> *For greater certainty, the obligation in this Article does not encompass a requirement for a Party to extend to investors of another Party dispute resolution procedures other than those set out in this Agreement.*

The most recent development as regards the MFN clause can be seen in Article X.7 (3) of the Draft Text of the Canada–European Union Free Trade Agreement (CETA)[22] that provides:

> *[…]* ***Substantive obligations in other international investment treaties and other trade agreements do not in themselves constitute "treatment",*** *and thus cannot give rise to a breach of this article,* ***absent measures*** *adopted by a Party pursuant to such obligations.*

The main rationale for adding such a clause is to prevent the incorporation of other standards of treatment contained in other IIAs of host states. In fact, most MFN claims in investment arbitration clauses were invoked for such purpose, rather than to claim against different treatments between foreign investors. However, even the clause in the Draft CETA is not very clear and can lead to various interpretations by arbitral tribunals. If RCEP's investment chapter is to include an MFN clause after all, it must consider adopting the Draft CETA's limitation and improve it further. Otherwise, the efforts of negotiating refined standards of protection can become futile because investors can simply incorporate the provisions in older IIAs of the host state into RCEP's investment chapter by virtue of an MFN clause.

(d) Fair and Equitable Treatment (FET)

In IIAs, Fair and Equitable Treatment (FET) clauses often lack a precise meaning and have raised lots of controversies leading to multiple interpretations by arbitral tribunals (UNCTAD, 2007). Some of the reviewed IIAs link the FET clause with customary international law (CIL), and the clause can be phrased as follows:

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[21] See also Malaysia–New Zealand FTA, Article 10.5 (2); AANZFTA, Article 16(2)(a); ACIA, Article 6 footnote 4(a).
[22] Consolidated Text Canada–European Union Free Trade Agreement (Draft), dated 26 September 2014, available at http://trade.ec.europa.eu/doclib/docs/2014/september/tradoc_152806.pdf.

> *This Article prescribes the customary international law minimum standard of treatment of aliens as the minimum standard of treatment to be afforded to investments of investors of the other Party. The concepts of "fair and equitable treatment" and "full protection and security" do not require treatment in addition to or beyond that which is required by the customary international law minimum standard of treatment of aliens.*[23]

In *Merrill & Ring*, Canada argued that a CIL-linked FET clause refers to the standard of protection that was developed by the *Neer* case (Vandevelde, 2010).[24] Violation occurs when the conduct of the host state amounts to an 'outrage', 'bad faith', 'wilful neglect of duty', or conduct 'so far short of international standards that every reasonable and impartial man would readily recognise its insufficiency'.[25] However, several tribunals opined that CIL evolves and therefore FET is not frozen to the standards developed in the *Neer* case.[26] Simply, the standard is broader and protects investors against 'all such acts or behaviour that might infringe a sense of fairness, equity and reasonableness'.[27]

Some of the reviewed IIAs have attempted to limit the standard only to the guarantee against denial of justice. For example, Article 11(2) of ACIA provides:

1. *For greater certainty:*
   a. *fair and equitable treatment requires each Member State not to deny justice in any legal or administrative proceedings in accordance with the principle of due process; …*[28]

Although there has been no case suggesting how tribunals interpret this type of clause, it is expected to limit broad interpretation of the standard to mainly the guarantee for procedural matters and patently arbitrary and unjust decision

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[23] *Agreement between Japan and the Republic of the Philippines for an Economic Partnership* (signed 9 September 2006), Article 91; see also the Trilateral Investment Agreement, *supra* note 10, Article 5(1).
[24] *Merrill & Ring Forestry LP v. Canada,* Award, 31 March 2010, p.121.
[25] *Neer v. Mexico,* 4 R. Int'l Arb. Awards, 15 October 1926, 4, pp.61–62; *Case Concerning Electtronica Sicula S.p.A (United States of America v. Italy)*, Judgment of 20 July 1989 [1989] ICJ Rep 1989, p.15; *Gami Investments, Inc. v. Mexico*, UNCITRAL (NAFTA), Final Award, 15 November 2004, pp.116, 123,125,127.
[26] *Maffezini*, *supra* note 17, p.179; *Pope & Talbot Award*, *supra* note 14, p.18; *Merrill & Ring*, *supra* note 24, p.193.
[27] *Merrill & Ring*, *supra* note 24, p.210, 213.
[28] ACIA, Article 11(2); ASEAN–China Investment Agreement, Article 7(2)(a); AANZFTA, Article 6(2)(a).

(Bjorklund, 2005).[29] In *Flughafen v. Venezuela,* the tribunal ruled that to establish a denial of justice, two elements must be fulfilled: 1) treatment that is clearly and manifestly anti-juridical, and 2) exhaustion of all local remedies to challenge the decision (unless proven that such remedies would be futile).[30] Relevant to this, due process principle also requires a host state: 1) to provide prior notice to the relevant party upon whom the state applies coercive power, and 2) to provide an opportunity for the party to contest the application before an international tribunal including the right of legal representation (Vandevelde, 2010).

RCEP negotiators should consider limiting the scope of the FET clause to add more clarity and certainty for both investors and the host states.

(e) Expropriation

Generally, states may expropriate foreign investments under the notion of lawful expropriation provided it is done on a non-discriminatory basis, for public purposes, in accordance with the due process of law, and against the payment of compensation (UNCTAD, 2007). While in the past there were many cases of direct expropriation – seizure of investments or transfer of legal title over investments – nowadays the cases of indirect expropriation are more prevalent.

Unfortunately, expropriation clauses in older IIAs tend to be vague and fail to explain governmental measures that constitute indirect expropriation. As a result, different tribunals have developed different approaches in determining what constitutes indirect expropriation.

First, the *sole effect* approach proposes that a measure or a set of measures constitutes indirect expropriation when it has a permanent character, or substantially deprives the investor of property rights, or conflicts with the investor's investment-backed expectations (Dolzer and Schreuer, 2008; Dugan, Wallace Jr. *et al*., 2008),[31]

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[29] *Rumeli Telekom AS and Telsim Mobil Telekomikasyon Hizmetleri AS v Republic of Kazakhstan,* ICSID Case No. ARB/05/16, Award, 29 July 2008, p.653.
[30] *Flughafen Zürich AG and Gestión e Ingeniería IDC SA v Bolivarian Republic of Venezuela,* ICSID Case No. ARB/10/19, Award, 18 November 2014, pp.635, 642.
[31] *LG&E Energy Corp v. Argentine Republic*, ICSID Case No. ARB/02/1, Decision on Liability, 3 October 2006, p.190; *Metalclad Corp v. United Mexican States*, ICSID Case No. ARB(AF)/97/1 (2000), Award,

with an emphasis on the existence of substantial interference/ deprivation of investor's right of ownership of its investments.[32] Nonetheless, if the government actions only reduce the profits of the investments, they will not necessarily amount to indirect expropriation.[33]

The second approach to defining indirect expropriation takes into account the nature or character of the governmental acts in pursuing its public policy objectives (Newcombe, 2005; Dugan, Wallace Jr. *et al*., 2008).[34] The tribunal in *Tecmed* found it necessary to consider 'whether such actions or measures [**of the host state**] are proportional to the public interest presumably protected thereby and to the protection legally granted to the investments' [35] (emphasis added). With this approach, the analysis focuses on how the government measure is to be characterised and how much the nature or character should weigh against the depriving effects on investors (Dugan, Wallace Jr. *et al*., 2008).

The last approach, as developed in *Methanex,* provides that a governmental measure will not be expropriatory and no compensation shall be owed to investors when the measure is: 1) non-discriminatory, 2) in accordance with due process, and 3) for public purpose (Weiler, 2005; Schneidarman, 2008).[36] The potential implication of following this approach is that there could no longer be a notion of lawful expropriation, as the criteria for a measure to be non-expropriatory is the same as the criteria for lawful expropriation, except for the obligation to compensate. This will render the clause of lawful expropriation in an IIA meaningless. This approach has received a lot of criticism and subsequent tribunals have been reluctant to follow this route.[37]

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30 August 2000, p.103; *Nykomb Synergetics Technology Holding, AB, Stockholder v. Republic of Latvia, Riga,* SCC, 16 December 2003, p.4.3.1.
[32] *EnCana Corporation v Ecuador*, LCIA, Case No. UN3481, Final Award, 3 February 2006, pp.172–83.
[33] *Ibid.*, pp.173–74; *Perenco Ecuador Ltd. v The Republic of Ecuador and Petroecuador,* ICSID Case No. ARB/08/6, Decision on Remaining Issues of Jurisdiction and Liability, 12 September 2014, p.672.
[34] *Tecnicas Medioambientales Tecmed S.A. v. The United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award, 29 May 2003,¶115.
[35] *Ibid.*, p.122.
[36] *Methanex Corporation v. United States of America*, Final Award on Jurisdiction and Merits, 3 August 2005 Part IV Chapter D, p.7.
[37] *Fireman's Fund Insurance Company v. The United Mexican States,* ICSID Case No. ARB(AF)/02/01, Award, 17 July 2006, p.176; *Glamis Gold, Ltd. v. United States of America*, UNCITRAL, Award, 14 May 2009, p.356.

While all of the reviewed IIAs cover both direct and indirect expropriation, the differences lies in the elaboration of what constitutes indirect expropriation and in the carve-outs. For example, ACIA carves out the expropriation of land and the issuance of compulsory licenses in accordance with the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) from the rule of expropriation.

In addition, Annex 2 of ACIA elaborates the factors to assess whether a governmental measure constitutes indirect expropriation. Paragraph 4 provides that non-discriminatory measures of a member state that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriation.[38]

Although the provision preserves the host state's right to regulate, the requirements to exercise such power should be clearer. Paragraph 4's requirements are not necessarily different from those developed by the tribunal in *Methanex* that conflated those requirements with the requirements of lawful expropriation.

Besides providing further clarification as Annex 2 of ACIA, RCEP's investment chapter could be improved further by including a procedural mechanism that has to be followed by governments who seek to exercise its regulatory power. This could be in the form of a requirement to notify affected investors prior to the implementation of the measure and/or a domestic review mechanism for the investors to challenge the proportionality of the measure. The mechanism prevents abuse of government's policy space, thereby ensuring proper balance with investment protection.

(f) Transfers and Exceptions

All of the reviewed IIAs contain clauses on guarantee of transfers relating to a covered investment. The clause guarantees that such transfers can be made freely without delay into and out of the host state's territory. Normally, the clause also contains a list of exceptions under which the host state may prevent or delay a transfer so long as it is done in an equitable and non-discriminatory manner and in

[38] AANZFTA, Article 9, Annex on Expropriation and Compensation.

good faith. The difference between the clauses mainly lies in the list of exceptions. For example, Article 13(3) of ACIA lists the exceptions to freedom to transfer as follows:

a) bankruptcy, insolvency, or the protection of the rights of creditors;

b) issuing, trading, or dealing in securities, futures, options, or derivatives;

c) criminal or penal offences and the recovery of the proceeds of crime;

d) financial reporting or record keeping of transfers when necessary to assist law enforcement or financial regulatory authorities;

e) ensuring compliance with orders or judgments in judicial or administrative proceedings;

f) taxation;

[…]

Such a list is important because in certain situations host states should be allowed to prevent transfer of funds by investors who seek to evade their obligations under the domestic law of the host states.

(g) Treaty Exceptions

The trend of including treaty exceptions in an IIA has begun just recently. Governments use treaty exception clauses as a policy tool to strike a balance between investment protection and safeguarding other values or objectives considered to be fundamental to the countries concerned, such as public health (Ewing–Chow and Fischer, 2011). The clause provides the host state with significant room to manoeuvre when facing circumstances that may justify derogation from its IIA obligations. If the host state successfully invokes the treaty exception, it is exempted from liability (Dugan, Wallace *et al*., 2008).

There are several types of treaty exception clauses. A simpler one could be found in BITs, such as the essential security exception clause in the cases involving Argentina. [39] This exception has its own complexity as reflected in diverging

[39] *CMS Gas Transmission Co. v. Republic of Argentina*, ICSID Case No. ARB/01/08, Award, 25 April 2005 [CMS Award], pp.349-352; *CMS Gas Transmission Co. v. Argentine Republic,* ICSID Case No. ARB/01/8, Decision on Application for Annulment, 21 August 2007 [CMS Annulment]; *LG&E, supra* note 31; *Sempra Energy International v. Argentina*, ICSID ARB/02/16, Award, 28 September 2007 [*Sempra*

interpretations developed by the tribunals that had generated extensive debates amongst scholars.[40]

On the other hand, the most comprehensive types of exceptions can be found in newer IIAs, such as ACIA, which contains 1) exceptions to transfer of funds, 2) measures to safeguard balance of payments, 3) general exceptions, and 4) security exceptions. Similar types of exceptions can also be found in AANZFTA, the ASEAN–Korea Investment Agreement, and the ASEAN–China Investment Agreement. As these exceptions have never been invoked in investment arbitration cases, we have yet to see how tribunals will interpret them. Notably, the general exception clause is similar to the General Agreement on Tariffs and Trade (GATT) 1994 Article XX exception – word-by-word with minor modifications. It can be expected that some tribunals might refer to the WTO cases for interpretation (Kurtz 2008).

For example, the balance of payments exception in Article 16 of ACIA preserves host states' policy space in the event of financial difficulties to ensure that states can adopt or maintain restrictions on payments or transfers related to investments. This can be critical to prevent abrupt capital outflows from a host state during a financial crisis, which can worsen the situation in the country as had happened during the 1997 Asian Financial crisis. To prevent abuse, host states must comply with certain restrictions and procedures to be allowed to invoke the exception.

RCEP's investment chapter should incorporate these treaty exceptions to balance investment protection and states' legitimate right to regulate. At the same time, these exceptions provide greater clarity and certainty about the scope of host states' policy space.

Award], p.366–68; *Sempra v. Argentine Republic,* Decision on Argentina's Application for Annulment of the award, 10 June 2010 [Sempra Annulment]; *Enron Corporation and Ponderosa Assets, L.P. v. Argentine Republic*, ICSID Case No. ARB/01/3, Award, 22 May 2007 [*Enron Award*], pp.324–26; *Enron v. Argentine Republic,* Decision on the Application for Annulment, 30 July 2010 [Enron Annulment]; *Continental Casualty Co. v. Argentine Republic,* ICSID Case No. ARB/03/9, Award, 5 September 2008, p.183.

(h) Denial of Benefits

The denial of benefits clause is inserted into IIAs to try to prevent treaty shopping and nationality planning by investors – both domestic and foreign (UNCTAD, 2014). For example, Article 19 of ACIA allows host states to deny the benefits of the agreement to non-ASEAN investors or domestic investors who establish a shell company with no substantive business operations in the territory of another ASEAN Member State.

Indeed, corporations often structure their companies in such a way that their investments are protected by a certain IIA. Law firms have been openly advising in favour of this.[41] While some tribunals have allowed this type of corporate structuring,[42] in certain cases where the restructuring is done much later for the purpose of bringing a dispute, tribunals rejected the claims and found them to be abuses of process despite the absence of the denial of benefits clause.[43] We believe that structuring investments is not illegal *per se* in the current economic context where multinational companies (MNCs) operate within their Global Value Chains (GVCs). It is only when restructuring is done at a later stage with the intention of merely accessing the international arbitration mechanism, that it becomes an abuse of process.[44] After all, the most important matter is not the source of the capital, which in itself if very difficult to trace in this era, but rather the contribution of the capital.

In *Pac Rim Cayman LLC v. the Republic of Ecuador,* the tribunal did not find any abuse of process, but it found that the host state may deny benefits to an American mailbox company based on the denial of benefits clause in the Dominican Republic–Central America–United States Free Trade Agreement.[45] If RCEP

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[41] Herbert Smith Freehills, 'Indonesia Update: What are the Possible Consequences of Termination of Indonesia's Bilateral Investment Treaties?' Jakarta, May 2014 <http://www.herbertsmithfreehills.com/-/media/Files/ebulletins/2014/20140512 – Indonesia update what are the possible consequences of termination of Indonesias Bilateral Investment Treaties.htm>.
[42] *Tokios Tokeles v Ukraine,* ICSID Case No. ARB/02/18, Decision on Jurisdiction, 29 April 2004, 29.
[43] *Tidewater Inc., Tidewater Investment SRL, Tidewater Caribe, C.A., Twenty Grand Offshore, L.L.C., Point Marine, L.L.C., Twenty… v. The Bolivarian Republic of Venezuela,* ICSID Case No. ARB/10/5, Decision on Jurisdiction, 8 February 2013, p.146.
[44] *Phoenix Action Ltd v Czech Republic,* ICSID Case No. ARB/06/5, Award, 15 April 2009, 140,142.
[45] *Pac Rim Cayman LLC v the Republic of El Salvador,* ICSID Case No. ARB/09/12, Decision on the Respondent's Jurisdictional Objections, 1 June 2012, pp.4.80–4.82, 4.92.

negotiating states are eager to prevent treaty shopping, at the very least they should clarify the denial of benefits clause, especially as regards the factors to determine the existence of 'substantive business operations'. This phrase has been interpreted by several tribunals, including those using the term 'substantial business activities'.[46] Substantial or substantive is defined as having 'substance and not merely form'. Some investment-related activities and the employment of a small but permanent staff have been considered sufficient to fulfil this requirement.[47] Even a holding company may carry out substantial business activities, except if the activities were simply to hold assets of its subsidiaries.[48]

(i) Dispute Settlement – Investor–State Dispute Settlement (ISDS)

All the reviewed IIAs contain both state–state dispute settlement and ISDS. The latter has been subject to the scrutiny of many countries for several reasons. In fact, some recent FTAs' investment chapters exclude ISDS.[49]

First, some developed countries argue that they do not need any ISDS mechanisms because they have fair and competent courts. While this may be true, in reality investments do not go only to developed countries, but increasingly to developing countries, including those with problematic rule of law, including their judiciary systems. Many states involved in RCEP negotiations are increasingly becoming both capital-importing and capital-exporting countries. For this reason, they have an interest in ensuring that their investors have direct access to a competent and impartial judiciary when investing in the region.

Second, some argue that ISDS exposes governments to expensive litigation. This may be true, but it can be resolved by ensuring that ISDS is used only as a last resort. For this reason, the creation of a dispute prevention mechanism in each respective member of RCEP can alleviate this issue. The mechanism is meant to

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[46] *Limited Liability Company Amto v. Ukraine*, Arbitration Institute of the Stockholm Chamber of Commerce, Case No. 080/2005, Final Award, 26 March 2008, pp.61–62, 69.
[47] *Ibid.*,p.69.
[48] *Pac Rim Cayman v. El Salvador*, ICSID Case No. ARB/09/12, Decision on the Respondent's Jurisdictional Objections, 1 June 2012, pp.4.72, 4.74, and 4.78.
[49] *Agreement between Japan and Australia for an Economic Partnership* (entered into force 15 January 2015).

prevent a conflict from escalating into a dispute and it should be implemented as an investor after-care service (Echandi, 2013). Further, RCEP members must ensure transparency by publishing the procedure of the mechanism. An example is the Republic of Korea's Office of the Foreign Investment Ombudsman.[50]

Third, some argue that ISDS leads to various, often contradicting, interpretations of investment standards by different arbitral tribunals. This can be addressed in RCEP by the inclusion of a binding joint interpretation mechanism, as found in Article 40 (2) and (3) of ACIA. Under this mechanism, the tribunal or a disputing party may request a joint interpretation on any disputed ACIA provision. Thus, member states can ensure that the agreement will be interpreted in accordance with their intentions.

In addition, the negotiating states of RCEP can also improve its ISDS procedure by including a clause on the mechanism to select the members of a tribunal. For example, Article X–10(5) of the Draft CETA requires the appointed arbitrators to have expertise or experience in public international law, in particular international investment law. It is desirable that they have expertise or experience in international trade law, and the resolution of disputes arising under international investment or international trade agreements.

This type of provision helps to ensure that members of a tribunal are qualified to adjudicate in the dispute. The preference to have arbitrators with multi-disciplinary expertise demonstrates the negotiators of the Draft CETA's cognisance of the greater level of convergence between international trade law and international investment law as a result of the rise of GVCs around the world (Antoni and Ewing–Chow, 2013).

Another suggestion to improve the current ISDS mechanism is to create an independent appellate body to review decisions made by *ad hoc* tribunals (Sauvant and Ortino, 2013). There has been a proposal to create an International Investment

[50] The office was established in October 1999. For further information: http://www.i-ombudsman.or.kr/eng/index.jsp

Court as a permanent appeals mechanism to resolve widespread and difficult questions of law, and interpretations that could eventually lend greater legitimacy to the regime (Bishop, 2005; Crawford, 2005). Nonetheless, there are concerns that an appeal mechanism could undermine the finality of an arbitral award, that it could 'repoliticise' the process, and that the added layer would replicate the difficulties in the current system (Sauvant and Ortino, 2013). Nonetheless, we believe that ensuring better governance in the system and a more harmonised interpretation – especially when the clauses in the IIAs are the same or very similar – should prevail over such concerns.

All the above suggestions should be considered by RCEP negotiating states to address the concerns that they have about the current ISDS mechanism. After all, this mechanism is one that has been perceived to be relatively reliable by foreign investors compared with domestic courts in some countries.[51]

3.3. Investment Facilitation

An investment facilitation clause is relatively new in IIAs, but it can be found in ACIA. This type of clause requires member states to cooperate on matters including the following: 1) streamlining procedures for investment applications and approvals; 2) promoting dissemination of investment information, including investment rules, regulations, policies, and procedures; 3) establishing one-stop investment centres; 4) strengthening databases on all forms of investments for policy formulation; 5) consulting with the business community on investment matters; and 6) providing advisory services to the business community of the other member states.

Similar to the investment promotion clause of ACIA, the investment facilitation clause basically constitutes soft law that only imposes the duty to cooperate. For this reason, ensuring compliance may be difficult. RCEP negotiating

[51] Office of the United States Trade Representative, 'The Facts on Investor-State Dispute Settlement: Safeguarding the Public Interest and Protecting Investors' 27 March 2014: http://www.ustr.gov/about-us/press-office/blog/2014/March/Facts-Investor-State%20Dispute-Settlement-Safeguarding-Public-Interest-Protecting-Investors (accessed 21 October 2014).

states should consider complementing such a clause with an obligation to engage in capacity building or perhaps to offer more flexibility for the developing states so they are also able to fulfil their obligations under the agreement.

Another successful investment facilitation initiative is Korea's Office of the Foreign Investment Ombudsman, which provides assistance in resolving difficulties companies face both in business management and in daily life. The office has specialists in various fields, such as labour, taxation, finance, and construction, who will assist foreign investors' in resolving their grievances while investing in the country. If RCEP could push for all negotiating states to create such a kind of office, it would greatly facilitate investments.

3.4. Investment Liberalisation

If RCEP is meant to add more value to the existing IIAs amongst individual ASEAN Member States and the dialogue partners, it must cover deeper and broader areas. Berger *et al*. found strong evidence that liberal admission rules – IIAs with pre-establishment market access commitments (NT and/or MFN treatment) – promote bilateral FDI (Berger *et al*., 2013). They estimated that a host state could increase its FDI inflow by up to about 29 percent in the long run by switching from an investment chapter of Regional Trade Agreement (RTA) without NT provisions to an investment chapter of RTA with NT provisions (Berger *et al*., 2013). (For further discussion about the liberalisation pillar, see Chapter 6.)

4. Monitoring Mechanism

Aside from the standards referred to above, a monitoring mechanism is essential to ensure implementation. The only mechanism that is close to being considered as a monitoring mechanism for the implementation of the various economic agreements of ASEAN, including ACIA, is the ASEAN Scorecard. This Scorecard endeavours to review the so-called implementation by focusing on the ratification and transposition of international agreements into domestic laws (ASEAN Secretariat, 2012). Unfortunately, real implementation goes beyond that. For

example, with regard to market access, implementation should also assess whether investors are really granted permits/ approvals according to the relevant Member State's commitment in its schedule, instead of merely analysing whether the commitment has been translated into domestic laws (Chia and Plummer, 2015).

RCEP negotiating states must consider including a more advanced monitoring mechanism such as the WTO's Trade Policy Review (TPR) mechanism for the investment chapter. This mechanism is used regularly to ensure compliance with WTO agreements. The TPR report is prepared by the WTO Secretariat based on the policy statements of the member under review and on a report of the Secretariat's TPR division. The issued policy statements will contain potentially non-compliant measures of the member state under review. This is a comprehensive mechanism that can promote greater transparency and alert member states about their non-compliant measures, thus promoting better implementation of the agreement.

5. Consolidation Efforts – Relation to Other Agreements

Due to the existence of various IIAs – BITs, FTA with investment chapters, and regional investment agreements – RCEP's investment chapter poses an issue of parallelism, which can potentially add more complexity for the states. Foreign investors, on the other hand, may welcome this as it presents them with opportunities to pick and choose the IIA that grants the best treatment. But it undermines the very purpose of concluding RCEP – to conclude a refined IIA that strikes a balance between investment protection and the states' right to regulate – because investors would most likely opt for the older IIAs, which appear to emphasise only investment protection.

RCEP's investment chapter should consolidate and simplify these complex and multiple regimes. This can be done by including a provision to terminate the existing IIAs negotiating amongst states upon enforcement of RCEP. Improving on Article 47 of ACIA, RCEP negotiating states could consider the following clause:[52]

[52] Article 47 of ACIA with some of the author's own revisions.

Article X
Transitional Arrangements Relating to other International Investment Agreements

1. Subject to paragraphs 2, 3 and 4 of this paragraph, nothing in this Agreement shall derogate from the existing rights and obligations of a Member State under any other international agreements to which it is a party.
2. Upon the entry into force of this Agreement, the International Investment Agreements (IIAs) amongst the Member States (as provided in Annex X) shall be terminated.
3. Notwithstanding the termination of the IIAs mentioned in Annex X, the Reservation List and Non-Conforming Measures of those agreements shall apply to the liberalisation provisions of RCEP Investment Chapter, *mutatis mutandis,* until such time the Reservation List of RCEP Investment Chapter comes into force.
4. With respect to investments falling within the ambit of this Agreement, as well as under one of the IIAs mentioned in Annex X, investors of these investments may choose to apply the provisions, but only in its entirety, of either this Agreement or one of the IIAs mentioned in Annex X, as the case may be, for a period of x years after the date of termination of the IIAs mentioned in Annex X.

Such a clause would give the region one harmonised investment rules regime applicable in all 16 member states, for all investors from these states, which may resolve the issue of parallelism.

6. Conclusion

With 16 negotiating states, including some major emerging economies in Asia, RCEP has broad geographical coverage. Despite the fact that most of these states may already have bilateral or multilateral IIAs amongst them, RCEP's investment chapter could add more value in four ways.

First, it can liberalise further access to these states by providing more aggressive liberalisation commitments. This can be done through the granting of a pre-establishment right in the NT clause as well as fewer reservations in each state's schedule. Second, RCEP can enhance the investment protection provisions by refining and adding clarity to find a balance between investment protection and the right of states to regulate. Third, RCEP can also contribute further to the provisions on investment promotion and facilitation by providing a better list of the various actions to be undertaken by member states to make investing easier. This should be

complemented with capacity building for the less developed members to fulfil those obligations. Finally, especially from the perspective of host states, RCEP is an opportunity to consolidate various IIAs amongst the negotiating states to come up with a refined agreement that can improve the investment climate in the region.

Despite such potential benefits, RCEP also faces various obstacles. The large number of negotiating states can also mean that the level of commitments – liberalisation, promotion, facilitation, and protection – may be lower as the negotiating states have differing interests. This makes it harder to reach an ambitious agreement. In particular, the lower level of commitments might be seen as a reflection of compromises amongst different points of views as regards the rights of pre-establishment under the NT clause. In addition, while some countries – Indonesia, Australia, and India – seem to take position against ISDS, others seem to be more supportive – Singapore, Korea, and China – as could be seen in their recent agreements. Nonetheless, the ongoing Trans-Pacific Partnership (TPP) negotiation may provide more incentives for RCEP negotiating states[53] to match the high level of commitments in the TPP.

For foreign investors in the region, the outcome from RCEP's investment chapter negotiation, particularly the investment protection provisions, may not necessarily be more favourable for them compared with the old regimes. They may want both RCEP and the other IIAs to continue to exist side-by-side. Such an arrangement would provide them with options to choose the most favourable regime to protect their investments.

In conclusion, the investment chapter of RCEP must progress further through the formulation of new standards in international investment law that can strike a balance between investment protection and the right of states to regulate. It must be ambitious enough to add more value to the existing regime. Furthermore, it

[53] It is noteworthy that Brunei Darussalam, Malaysia, Singapore, and Viet Nam, are parties to both negotiations.

should also consolidate the multiple current regimes, or the efforts of negotiating RCEP's investment chapter could prove to be rather futile.

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Chapter 9

Learning from the ASEAN+1 Model and the ACIA

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As the Regional Comprehensive Economic Partnership (RCEP) is a new regional integration initiative intended to achieve a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement amongst the Association of Southeast Asian Nations (ASEAN) Member States (AMSs) and ASEAN's free trade agreement (FTA) partners, it important to review similar existing agreements in ASEAN, including ASEAN+1 and the ASEAN Comprehensive Investment Agreement (ACIA). This chapter aims to provide input for RCEP through analysis of the current ASEAN+1 FTA agreements. We discuss the evolution of the agreements on investment in ASEAN, namely the Investment Guarantee Agreement (IGA), the ASEAN Investment Agreement (AIA), and the ACIA; the progress of the ASEAN+1 FTA Agreements on Investments, as well as some characteristics of the ACIA Reservation Lists. Our analysis is expected to become an input for policy on the baseline for RCEP negotiation in the area of investment.

In principle, there is equivalence in the goals and norms between agreements, both the general FTA agreements and the more specific investment agreements. Based on its development, it can be assumed that the ACIA is the most comprehensive basis agreement, which underlies other FTA agreements. In the commitments that are more specifically sector related, it can be seen that each AMS has its own unique approach to scheduling its sectors in the agreement frame, although there are some similarities in the substance of reservation lists proposed under the ACIA.

Hence, the challenge for the RCEP is to formulate a higher-level agreement, which is able to consolidate a variety of concerns, needs, and national policies of each AMS in a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement.

1. Introduction

The Regional Comprehensive Economic Partnership (RCEP) is a new regional integration initiative intended to achieve a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement amongst the Association of Southeast Asian Nations (ASEAN) Member States and ASEAN's free trade agreement (FTA) partners. The RCEP initiative was announced by ASEAN Leaders at their 19th ASEAN Summit held in November 2011. It is believed that this ASEAN-led process will enable ASEAN to broaden and deepen its economic engagements with its FTA partners. RCEP will enhance access to a huge potential market, bringing benefits to businesses and consumers in the participating countries. The agreement is between 16 countries, which make up 45 percent of the world's population and contribute one third of the world's gross domestic product (GDP). RCEP should lead to greater economic integration, support equitable economic development, and strengthen economic cooperation amongst the countries involved.

In general, RCEP can be seen as regional economic integration in East Asia on a higher level. It is assumed that RCEP will produce a commitment from ASEAN Member States (AMSs) and all partners (although there are several possible exceptions). The commitments to be made under RCEP are supposed to be substantially better than the existing ASEAN+1 commitments. This technical note aims to provide input for RCEP through analysis of the current ASEAN+1 FTA agreements. We expect that our analysis will become an input for policy on the baseline for RCEP negotiation in the area of investment.

This chapter is made up of the following parts: an account of the evolution of the Investment Guarantee Agreement (IGA), the ASEAN Investment Agreement (AIA), and the ASEAN Comprehensive Investment Agreement (ACIA); a discussion on the progress of the ASEAN+1 FTA Agreements on Investments; a comment on the ACIA Reservation Lists, and a brief conclusion.

2. Evolution of IGA, AIA, and ACIA

Accelerating the industrialisation of ASEAN countries has been a most important issue for ASEAN leaders. To achieve this, healthy flows of technology and investment into ASEAN countries were needed, which necessitated the creation of profitable conditions for investment for ASEAN companies and companies from outside ASEAN. This led to the establishment of the Investment Guarantee Agreement (IGA), which was signed in 1987. The objective of the IGA was to promote greater investment flows between pairs of countries by providing a legal framework that clearly set out the investment norms and protection applying when investing in the other country.

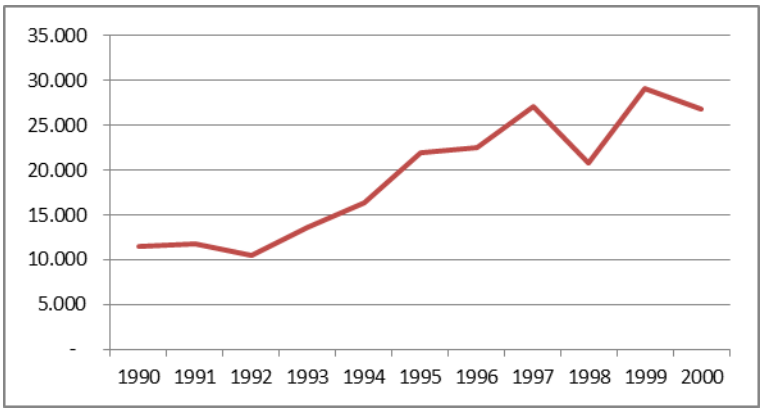
There were several basic principles underlying the IGA:

1. Principle of fair and equitable treatment;
2. Principle of non-discrimination (National Treatment and/or Most-Favoured Nation Treatment);
3. Compensation in the event of expropriation;
4. Free transfer of funds; and
5. Investor-state dispute settlement mechanisms.

Furthermore, the ASEAN countries' objectives shifted from just trying to increase investment flows into each country, to also developing ASEAN into an integrated united economic system, thus reducing restrictions on investment flows amongst ASEAN countries. The expansion of the ASEAN market through economic integration and the wider acceptance of investment inflows amongst ASEAN countries was aimed to increase foreign direct investment (FDI) in each ASEAN country.

Such considerations resulted in the need for a more comprehensive agreement than the existing IGA agreement, resulting in the signing of the ASEAN Investment Agreement – an enhancement of the IGA – on 7 October 1998. Moreover, the economic crisis experienced by ASEAN countries in 1998 triggered the implementation of the AIA.

Figure 9.1: FDI Inflows, in million US$



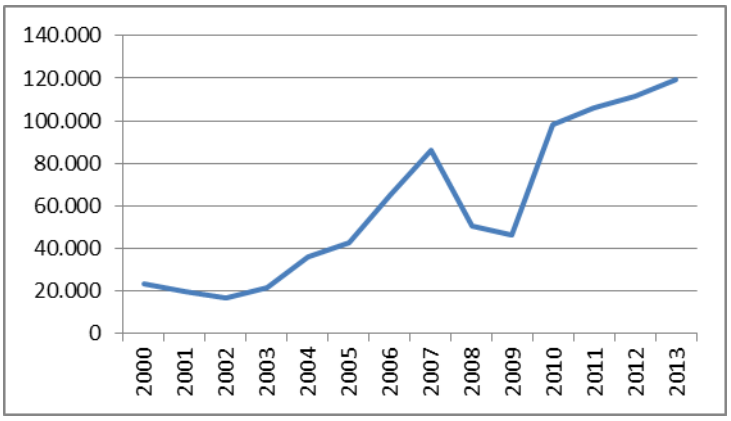
Source: Economist Intelligence Unit.

The trend of FDI inflows in ASEAN countries showed a significant increase between 1992 and 1997, from US$ 11,549 million in 1992 to US$ 27,042 million in 1997. The economic crisis suffered by ASEAN countries in 1998 resulted in a drastic decline of FDI, to US$ 20,817 million, in that year. Several ASEAN countries, such as Malaysia and Thailand, managed to rapidly recover from the crisis, but others, including Indonesia, needed several years to recover.

As stated in the Framework Agreement on ASEAN, the objectives of the AIA were (i) To establish a competitive ASEAN Investment Area, with a more liberal and transparent investment environment amongst Member States, so as to increase FDI inflows into ASEAN; (ii) To jointly promote ASEAN as the most attractive investment area, and to strengthen and increase the competitiveness of ASEAN's economic sectors; (iii) To reduce or eliminate regulations and conditions which impede investment flows and the operation of investment projects in ASEAN; and (iv) To contribute towards a free flow of investment by 2020.

In 2008, a global financial crisis occurred, initiated by the collapse of the financial sector in the United States (US). As newly emerging countries, ASEAN countries ran the risk of investment fund withdrawals by the developed countries, and their companies, that had invested in ASEAN territories.

Figure 9.2: Inward Direct Investment to ASEAN



Source: Economist Intelligence Unit.

With the failure of World Trade Organization (WTO) negotiations, bilateral and multilateral FTAs developed between ASEAN as an economic union and neighbouring countries, such as China, Korea, Japan, India, Australia, and New Zealand. Additionally, all ASEAN countries had concluded bilateral agreements with one another, all of those FTA agreements having more comprehensive provisions than the AIA or the ASEAN IGA. For that reason, ASEAN countries felt the need to review the AIA and tried to redesign a new agreement to suit the current situation and conditions. A review of the AIA and the ASEAN IGA was conducted for the 34th ASEAN Economic Ministers (AEM) meeting and a set of principles and guidelines as a basis for formal negotiations had been developed by AIA/AEM. On 26 February 2009, the ASEAN Comprehensive Investment Agreement (ACIA) was completed and signed by the AEM.

> As stated in the ACIA Agreement, the aims of the ACIA are: '(i) Progressive liberalisation of the investment regimes of Member States; (ii) Provision of enhanced protection to investors of all Member States and their investments; (iii) Improvement in transparency and predictability of investment rules, regulations and procedures conducive to increased investment amongst Member States; (iv) Joint promotion of the region as an integrated investment area; and (v) Cooperation to create favourable conditions for investment by investors of a Member State in the territory of the other Member States' (ASEAN Secretariat, 2009)

The AIA Agreement covers manufacturing, agriculture, fishery, forestry, mining and quarrying, and services incidental to these five sectors. The ACIA has the same scope as the AIA, but, unlike the ACIA, the AIA does not include portfolio investments. In addition, according to the ACIA it is possible to add new sectors to the reservation lists – the headnote of the ACIA Schedule states that each member state reserves the right to make future reservations, including new and emerging sectors or subsectors or existing sectors that are unregulated at the time of submission of the reservation lists.

Both the AIA and ACIA have lists of sectors/subsectors known as the reservation list. In relation to the reservation lists, the AIA applied a two-track approach, using a Temporary Exclusion List in which a sector/subsector was to be reviewed every two years and to be phased out in general by 2010, and a Sensitive List, which would also be reviewed periodically. The ACIA, in contrast, applies a single negative-list approach, in which the progressive reduction or elimination of reservations refers to the Strategic Schedule of ASEAN Economic Community (AEC) over three phases (2008–2010, 2011–2013, and 2014–2015).

The AIA consists of three main programmes – (i) a co-operation and facilitation programme; (ii) a promotion and awareness programme; and (iii) a liberalisation programme. The ACIA consists of more comprehensive provisions covering the 'four pillars of investment' – liberalisation, protection, facilitation, and promotion.

Associated with the protection pillars, the ACIA has broadened its scope to include investors from outside ASEAN. As stated in the ACIA agreement, 'investor' means a natural person of a Member State or a juridical person of a Member State who/that is making, or has made an investment in the territory of any other Member State. Thus, a person can be considered as an ASEAN investor as long as he/she founds a juridical entity in one of the ASEAN countries even if the person comes from a non-ASEAN country. He/she can then also invest in other AMSs.

Another difference between the ACIA and the AIA is the period of limitation. According to the AIA, all industries were scheduled to be open for investment by ASEAN investors by 2010, and for all investors by 2020. The ACIA, however, sets a target date of 2015 for both ASEAN investors and ASEAN-based foreign investors.

3. The Progress of ASEAN+1 FTA Agreements in Investment

One means by which ASEAN countries have sought integration with other global economies has taken the form of the ASEAN+1 agreement. This scheme aims to open opportunities for economic cooperation, investment, and market development both inside and outside ASEAN.

The first ASEAN+1 agreement was between ASEAN and China. The Framework Agreement on Comprehensive Economic Cooperation between ASEAN and China was signed on 4 November 2002. The Framework Agreement on Comprehensive Economic Cooperation amongst the Governments of the Member Countries of ASEAN and the Republic of Korea was signed on 13 December 2005. The ASEAN–Japan Comprehensive Economic Partnership Agreement (AJCEP) was signed in April 2008. The ASEAN–Australia–New Zealand Free Trade Area (AANZFTA) was signed in February 2009. These four agreements were all ratified on 1 January 2010 and amongst the areas they cover are trade in goods, trade in services, and investment. Another ratified agreement is the ASEAN–India FTA, which only covers trade in goods. Negotiations on an ASEAN–European Union (EU) FTA, another version of the ASEAN+1 FTA model, were paused by the Joint Committee in 2009, and the approach is to be changed to a bilateral model.

Both Korea and China have made specific agreements on investment with ASEAN, which were signed on 2 June 2009 and 15 August 2009, respectively. Australia and New Zealand have entered a specific chapter on investment into their FTA, comprising protection, promotion, and facilitation. Exclusively for ASEAN–Japan collaboration, a subcommittee on trade in service and investment was responsible to do the negotiations.

FTAs emerged as the multilateral trade process under the auspices of the WTO stagnated. Gains from FTAs can be divided into traditional and non-traditional benefits (Zhang, 2013). Some traditional benefits are: trade creation and trade diversion by cutting tariff barriers; improving terms of trade by having common standards for production technology, product regulations, distribution and after-sales service; increasing returns to scale by export expansion, more efficient allocation of resources, and stimulating regional and outside investment which will subsequently create more

jobs and facilitate transfers of advanced technology. Some non-traditional benefits are: having assurance through regional cooperation; a more secure international environment; improved bargaining power in external negotiations; and promotion of domestic reforms.

But there are also some concerns with regard to ASEAN+1 FTAs, such as trade diversion effects on FDI. By utilising an ASEAN+1 agreement, multinational companies have less need for direct investment to expand to each ASEAN country (Chirathivat, 2013). This implies that ASEAN countries that rely heavily on FDI will suffer as a result of a trade diversion effect. Moreover, the implementation of a cumulative regional policy on Rules of Origin based on an ASEAN+1 agreement can lead to an increase in exports from the ASEAN partner country. There is also a longer-term concern that an ASEAN+1 FTA might lower ASEAN's potency as the hub of Asia for economic matters.

Another concern relates to the weak bargaining power of ASEAN vis-à-vis each of its dialogue partners, since there is no official resolution that binds all ASEAN members prior to negotiations with a dialogue partner (Chirathivat, 2013). An ASEAN+1 agreement is regarded as a result of negotiations by each ASEAN country with one powerful trade partner, not for ASEAN as a whole.

The two sections below discuss several matters regarding the ASEAN+1 FTAs, especially those which already have an Investment Agreement with ASEAN – the ASEAN–China FTA, the ASEAN–Korea FTA, and the ASEAN–Australia–New Zealand FTA.

3.1. Negotiation Approach

In general, the approaches to conducting negotiations between ASEAN and FTA partners can be divided into: negotiation's approach regarding the area of agreement and the negotiation's approach regarding the coverage of ASEAN member countries.

(i) Based on the area of agreement, the ASEAN–China and ASEAN–Korea FTAs employ the gradual/sequential approach when conducting FTA negotiations with trading partners. As a general rule, the first phase relates to goods, the second phase to services, and the third phase to investment.

By contrast, the ASEAN–Australia–New Zealand FTA used the 'comprehensive and single undertaking upon signing' approach. The agreement has eighteen substantive chapters, with the schedule of specific commitments annexed. It has

one chapter on Investment and another on Economic Cooperation, which provide a framework for trade and investment-related cooperation. To complete this agreement and to ease its implementation, another agreement called the Implementing Agreement for a five-year Economic Cooperation was concluded.

(ii) Under the *country-based* negotiation approach, in general the negotiations between ASEAN and a developing partner are conducted inclusively and comprehensively as a unity. The negotiations do, however, also consider sensitive issues and discrepancies in levels of development amongst ASEAN member countries. This consideration could include the provision of Standard and Differential Treatment to ASEAN and consideration of the flexibility of some ASEAN countries, especially the CLMV countries – Cambodia, Myanmar, Lao PDR, and Viet Nam – in implementing the points of agreement.

Referring to the guidelines, it is likely that RCEP will adopt the single undertaking approach. Besides, country based approach might still also be employed, as it will consider the sensitive issues and discrepancies in the level of development amongst AMSs.

3.2. Objectives and Principles of ASEAN+1 FTAs

In general, all of the ASEAN+1 FTA countries have similar backgrounds, which means that all have several main objectives. These are to:

(i) minimise barriers and deepen as well as widen economic linkages amongst parties;

(ii) lower business costs;

(iii) increase trade and investment;

(iv) increase economic efficiency;

(v) create larger markets with more opportunities and greater economies of scale for business.

Or, more specifically:

(vi) To progressively liberalise and, through progressive eliminations of tariff and non-tariff barriers, to facilitate trade in goods amongst parties;

(vii) To promote investment flows and create a liberal, facilitative, transparent and competitive investment regime;

(viii) To establish a cooperative framework, which further strengthens economic relations amongst the countries."

Some ASEAN+1 FTA objectives are summarised in the table below:

Table 9.1: Summary of Objectives of some ASEAN+1 FTA

ASEAN–KOREA	ASEAN–CHINA	ASEAN–A&NZ	ACIA
Create a liberal, facilitative, transparent, and competitive investment regime with business-friendly environment	To promote investments flows and to create a liberal, facilitative, transparent, and competitive investment regime	To move towards deeper economic integration between the two regions through progressive elimination of all forms of barriers to trade in goods, services, and investment; and through trade and investment facilitation, and economic cooperation measures	Create a liberal, facilitative, transparent, and competitive investment environment in ASEAN
Source			
Article 2.3 (Investment) Framework Agreement on CEP	Article 5 (Investment) Framework Agreement on CEP	Guiding Principles for Negotiation	Article 2 (Guiding Principle) of ACIA

Source: Some ASEAN+1 Framework Agreements.

In addition, there are also some main principles, which have developed into the objectives for ASEAN countries and their partners to conclude the FTA agreements. These objectives are:

(i) The FTA should be consistent with and build on members' commitments in the World Trade Organisation (WTO);
(ii) There should be special differential treatments, because there are discrepancies in the level of development and capacity amongst member countries, both in the ASEAN countries and the potential ASEAN partners;
(iii) The FTA has to boost economic cooperation, which mutually benefits all parties, both the ASEAN countries and the potential ASEAN partners.

Thus, we can assume that an ASEAN FTA complements the multilateral WTO agreement framework, rather than substituting it. Although it is difficult to determine which is the most preferable trade regime, especially from the perspective of business operators, we conclude that the ACIA offers more comprehensive provisions than other FTAs.

The Guiding Principles and Objectives for Negotiating the Regional Comprehensive Economic Partnership state that RCEP will aim at creating a liberal, facilitative, and competitive investment environment in the region. Negotiations on investment under RCEP will cover the four pillars of promotion, protection, facilitation, and liberalisation, so the guiding principles and objectives for negotiating RCEP are in line with the ACIA.

3.3. Liberalisation Pillar

One of the pillars in the ACIA, *liberalisation,* has also been part of the framework of the ASEAN+1 Free Trade Agreement, mainly as a target to conclude more specific negotiations on trade in goods, trade in services, as well as investment. As stated in the Framework of Agreement, implementation of liberalisation should keep into consideration the special and differential treatment and flexibility for the newer AMSs.

Furthermore, the liberalisation principle was also highlighted in the Agreement on Investment in ASEAN–China FTA, ASEAN–Korea FTA, ASEAN–Australia–New Zealand FTA, as well as ACIA, primarily under the objectives of the agreements. The more specific objectives of the agreements related to investment liberalisation are: to promote

investment flows and to create a liberal, facilitative, transparent, and competitive investment regime in ASEAN and its partner countries, through progressively liberalising the investment regimes of ASEAN and its partner countries[1].

More specifically, the liberalisation principle is also included in the articles of the agreements, particularly in the lists of sectors to be liberalised. Compared with the ASEAN+1 Agreement, the ACIA presented a clearer liberalisation provision in terms of forward looking principles, as it has a list of five sectors to be liberalised and a list of reservations that contains country-specific and sector-specific measures that do not conform to the ASEAN countries' obligations under Article 5 (national treatment) and Article 8 (Senior Management and Board of Directors) of the ACIA. . This would imply that all other parts of those five sectors not in the single reservation list are subject to national policy, liberalised, and open to ASEAN Investors. AMSs would then reduce or eliminate the existing restrictions, which this would refer to Strategic Schedule of the AEC Blueprint, including its timeline.

Conversely, there is no specific provision in ASEAN+1 FTA that has a list of sectors prioritised for opening up, but only a schedule of specific commitments regarding trade in services. However, there is room to provide a restriction elimination provision, as stated in Article 6(1) of the ASEAN–China Agreement on Investment: 'The Parties will endeavor to progressively remove the non-conforming measures'[2]. Besides, an article of the ASEAN–Korea Agreement on Investment stipulated that modification of the schedule of reservation will refer to a work programme, namely discussions with the members within five years.

In addition, there are some provisions in the ACIA and the ASEAN+1 FTA on National Treatment and Most-Favoured Nation Treatment, which principally extend the non-discrimination principle to all investors, both local and foreign investors.

We suggest RCEP follows what has been proposed under the ACIA, since it is clearer about what sectors are to be liberalised, what parts of the sectors will be subject to reservations, and the schedule for reducing or eliminating the reservation lists in the future.

[1] As stated in the IA ASEAN–China.
[2] Ibid.

4. Reservation List in ACIA

To implement the transparency principle towards investors under a host country investment regime, each ASEAN Member State has submitted a list of reservations which provides non-conforming measures[3] and regulations maintained in the sectors under the ACIA – manufacturing, agriculture, fishery, forestry, mining and quarrying, as well as services incidental to these five sectors (ACIA Guidebook, 2013).

The Schedule of Reservations is based on a single reservation list, which provides ASEAN Member States with policy space in the liberalisation of investment in the above-mentioned five sectors. This also means that all other parts of the five above-mentioned sectors not included in a single reservation list are, subject to the national policy, liberalised, and open to ASEAN Investors.

Below are some of the main measures and regulations included in the reservation list:

1. **Sectors closed for investment**

   Amongst AMSs presenting closed commitments to foreign investors, Indonesia is one country that often proposes very detailed lists of reservations. This relates to Presidential Regulation No. 36 of 2010 Concerning the Lists of Closed and Open Businesses with Reservation in the Investment Sector.

   Usually, the reasons why certain sectors are closed to foreign investments relate to several concerns, such as:

   a. ***To provide safety and control***

      Cambodia applied closed investment treatment to foreign investors, especially in the fields of poisonous chemicals, agricultural pesticides/insecticides, and other goods that use chemical substances. *Indonesia* also closed the possibility for foreign investors to get involved in the production of weapons, ammunition, explosive devices, and war equipment. However, these subsectors are still open to local investors with a special permit from the Ministry of Defence.

[3]A non-conforming measure is any law, regulation, procedure, requirement, or practice that violates certain articles of the investment agreement. For example, a law prohibiting an investor of another member state from owning a factory would not conform to the article on national treatment.

b. To provide protection for traditional or small-scale economies

Generally, this category includes fisheries, manufacturing, and agriculture for some ASEAN member states. The traditional fisheries subsector is closed to foreign investors in *Indonesia*, *the Philippines,* and *Malaysia* (using the term 'captured fisheries'), as many people with small incomes work in this field. In *Brunei*, particularly, the reservation is also applied to fisheries and services incidental to fishing, which stipulate that National Treatment shall not apply to any measures relating to any fishing activities, including in its Economic Exclusive Zone (EEZ).

In the manufacturing sector, *Indonesia, Lao PDR,* and *Myanmar* are also closed for foreign investments in traditional/micro-economic sectors such as: Salting/drying fish, Hand painted Batik, Handicrafts including specific cultural assets, arts value using natural or artificial raw materials, etc., in *Indonesia*; production, processing, and preserving of meat and meat products (cattle, pigs, sheep, horses), traditional textiles, etc., in Lao PDR; and manufacture of bakery products, etc., in *Myanmar*.

Regarding the agricultural sectors, *Indonesia* has put up barriers to foreign investments, especially in individual crop cultivation in areas smaller than or equal to 25 hectares, and to many other similar investments.

c. To maintain sustainability of natural resources

Several business fields are closed to foreign investors, especially those with issues of sustainability. *Malaysia* had closed foreign equity participation especially in the Forestry sector and Services Incidental to Forestry subsector. More specific is the limitation on foreign investment in the extraction and harvesting of timber. This policy has been implemented in Peninsular Malaysia and Sabah. In *Indonesia* several business fields are closed, such as fishery, manufacturing, mining & quarrying, and services incidental to the mining & quarrying sectors.

2. Sectors open for investment or managed by certain parties

In the ACIA reservation list, there are also reservations for several industries, which can only be handled by certain institutions, such as Petronas in Malaysia, to

explore, exploit, win, and obtain petroleum, either onshore or offshore, especially for Oil and Gas Upstream Industries. In *Myanmar*, several sectors such as the Manufacture of Pharmaceutical drugs, the Manufacture of Refined Petroleum Products and some Forestry sectors are only open to state-owned enterprises under the associated ministry. In addition, newspapers can be run by government bodies only.

3. Restrictions on land ownership

In general, foreign investors cannot own land, but they can acquire certain rights of land use including concessions and leases. Commonly, the only difference in reservations amongst AMSs is the length of the lease periods allowed by each AMS.

Countries that restrict land leases include *Cambodia,* Lao PDR, *and Myanmar*. *Cambodia* allows a land lease period of 15 years or more, or renewable short-term leases. In Lao PDR, the reservation including the period of lease is between 35–50 years and can be extended for another 25 years to a maximum of 75 years, in the fields of agriculture, mining, and energy. *Myanmar's* period of land lease is initially 30 years, extendable by two consecutive terms of 15 years, subject to the approval of the Myanmar Investment Commission.

Other AMSs, such as *Indonesia, Malaysia, and Singapore*, assert that National Treatment[4] may not apply to any measures affecting land, property, or natural resources associated with the land, including acquisition, ownership, and lease of land and property. In some ways, therefore, land use may be seen as *'unbound',* a term used under WTO and ASEAN Framework Agreement on Services (AFAS) commitments, or to put it differently, the countries have not decided on a particular restriction or provision, but it cannot be said that the sector is totally open or that there are no restrictions.

[4] The National Treatment obligation means that investors from other ASEAN Member States and their investments will not be discriminated vis-à-vis the domestic/local investors and their investments unless specified in their reservation lists.

4. Obligation to divest

Provisions regarding the obligation to divest are applied in *Indonesia*. Foreign investors are able to own 100 percent of an enterprise, subject to prior notifications before the license is granted, but after a certain period following commencement of commercial production, the foreign investors are obliged to sell a part of the company to domestic investors. This provision is applied in every business sector.

In the case of the Mineral and Coal Mining subsectors in Indonesia, foreign investors, subject to prior notification before the license is granted, should sell shares to domestic investors, so that after five years from the commencement of commercial production, domestic investors own at least 20 percent of the company's shares.

5. Restriction on the percentage of the foreign investor ownership

This restriction is the most common form of reservation, in WTO, AFAS, and other ASEAN FTAs. Among AMSs there are differences as to how each AMS schedules its reservations for ACIA.

Brunei has not scheduled towards foreign investor ownership in the ACIA business sectors, but requires a 30 percent foreign equity limitation for the following sectors: manufacturing, agriculture, fishery and forestry including services incidental to those sectors.

Indonesia imposes many restrictions on foreign investors in various subsectors or business fields, with foreign equity limitations ranging from 49 percent to 95 percent, including business partnership with SMEs, needs for specific permits in certain areas. The Indonesian reservation list in the ACIA corresponds with Presidential Decree No. 36 of 2010 on the Indonesian Negative Investment list.

For Lao PDR, particularly for joint ventures, the foreign equity limitation is 30 percent, with a minimum registered capital of US$ 100,000. In addition, the investment term of a foreign investment enterprise can be no more than 75 years, depending on the nature, size, and condition of the business activities or projects.

The reservation list submitted by *Malaysia* is quite interesting. All privatised projects are subject to Malaysia's development policies and the Privatisation Master Plan in respect of foreign equity participation. Privatisation projects must be at least 75 percent owned by Malaysian shareholders. In addition, foreign participation may be considered in the following cases:

- When foreign expertise is needed to upgrade efficiency because such expertise is not available locally;
- When their participation is necessary to promote export markets;
- When local capital is insufficient; and
- When the nature of the business requires international linkages and exposure.

All conditions imposed on existing privatised entities will continue to be applicable.

There is also a limitation on foreign equity (up to 30 percent only) regarding certain activities/products, of which batik fabrics and apparel, and Integrated Portland Cement are examples. Other provisions in the reservation list only mention that there is a list of business fields that may be inconsistent with National Treatment, or in other words, may be considered as *unbound*.

Cambodia has quite a short list of reservations regarding maximum foreign investment, which consists only of tourism and travel-related service sectors and the telecommunication service sector, in which each sector's limit is 51 percent.

Myanmar and *Singapore* have not submitted a reservation list for foreign equity limitation. As implied in the reservation list that all other parts of the five said sectors are not in the single reservation list, subjects to national policy, are liberalised and open to ASEAN Investors (ACIA Guidebook, 2013).

For *the Philippines*, in general, the maximum foreign equity limitation is 40 percent for domestic market enterprises with paid-in equity capital of less than the equivalent of US$ 200,000. This foreign equity limitation is also applied to forestry and services incidental to forestry, but is also subject to government approval. There is also a requirement for foreign-owned corporations/entities to

export at least 60 percent of their output to be considered as an export enterprise, subject to certain terms and conditions.

In *Thailand*, generally foreign equity participation in an enterprise has to be below 50 percent. Foreign investors may own more than 50 percent of shares if they meet certain conditions – (i) if they obtain permission from the Minister of Commerce with the approval of the Cabinet, and several other conditions are fulfilled; (ii) if they meet the requirement of the minimum capital used at the commencement of the business operation; (iii) if they obtain a license or certificate from the Department of Business Development, Ministry of Commerce; and (iv) if they comply with other conditions prescribed in the Foreign Business Act and related laws.

In Viet Nam there are several schemes for foreign equity limitation, depending on the sector. As stated in the reservation list, there are several limits on foreign equity – 30 percent, 40 percent, 49 percent, and 51 percent. The types of sectors included in the ACIA reservation list are limited to the services incidental to Mining and Quarrying, Fishery and Agriculture, and Hunting and Forestry. Manufacturing is limited to manufacturing related to infrastructure and transportation, which are the manufacture of railway rolling stock, spare parts, wagons, and coaches, as well as the aircraft manufacturing industries.

5. Conclusion

In principle, there is equivalence in the goals and norms between agreements, both the general FTA agreements and the more specific investment agreements. Based on its development, the ACIA is the most comprehensive basis agreement, which underlies other FTA agreements. The ACIA and its reservation lists can be used as a basis for formulating the RCEP agreement since its provisions are comprehensive.

As RCEP may adopt a single undertaking approach, the agreement on investment should be concluded at the same time as the agreement on trade in goods and services. This would ensure the most comprehensive and optimum outcome.

RCEP should provide greater clarity in the liberalisation pillar, including the modalities and time frame of liberalisation, and also consider differentiated timeframes for countries and products at an early stage of the negotiations.

In the commitments, which are more specifically sector related, each AMS has its own unique approach to scheduling its sectors in the agreement.. As a result, it is difficult to standardise the limits on foreign equity ownership. In addition, if we compare the CLMV countries with others, there is no uniformity in the reservations they propose in the reservation list under the ACIA.

The relatively similar provisions are those that close certain sectors/subsectors to foreign equity ownership and specifically for traditional trade and micro and medium scale business trades. Both the CLMV and non-CLMV countries have the same concerns regarding the protection of their traditional business fields, which is apparent from their reservation lists.

There are also similarities regarding land ownership restrictions – typically foreign investors cannot own land or properties and only have the right of land use. There are differences in the time limits of land use, on which each AMSs has a different policy.

Other discrepancies can be seen in the reservation lists in the ACIA. For example, several countries impose an obligation on foreign investors to divest, while several AMSs require only SOEs who have opportunity to provide the services.

Thus, the challenge for RCEP is to formulate a higher level agreement that consolidates the variety of concerns, needs, and national policies of AMSs in a modern, comprehensive, high-quality and mutually beneficial economic partnership agreement.

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