Regional Trade Agreements in East Asia

Innwon Park

Norsk Utenrikspolitisk Institutt
Norwegian Institute of International Affairs

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Visiting address: C.J. Hambros plass 2d
Address: P.O. Box 8159 Dep.
NO-0033 Oslo, Norway
Internet: www.nupi.no
E-mail: info@nupi.no
Fax: [+ 47] 22 99 40 50
Tel: [+ 47] 22 99 40 00

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Abstract

Both intra- and inter-regional trade agreements are proliferating in East Asia. Deepening regional interdependence through trade and investment, and the necessity for stability and revitalization of the regional economy since the East Asian financial crisis in the late 1990s led the East Asian countries to adopt discriminatory RTAs. Accordingly, East Asian commercial policy stance has shifted from unilateral to bilateral to mega-lateral liberalization. This report attempts to assess the East Asian countries' efforts to liberalize the regional market by cooperating with each other. We investigate (i) why RTAs have been proliferating in East Asia, (ii) what the main characteristics of East Asian RTAs are, (iii) whether the East Asian countries are natural trading partners for each other to enhance welfare gains from RTAs, and (iv) whither East Asian RTAs. From our analysis, we recommend following policy options. First, East Asian RTAs should follow an expansionary RTA path (for example, AFTA and five ASEAN+1 FTAs ⇢ RCEP and/or TPP ⇢ FTAAP). Second, as we consider the high dependence on external economies through global trade and investment, East Asia needs to cooperate with major external trading partners by forming cross-regional RTAs with the EU and US. Third, in order to enable East Asian economies to take the more desirable expansionary RTA path, harmonizing or simplifying ROO, the cumulation of value contents among the RTA members in East Asia, and enhancing trade facilitation should be a prerequisite considering the complicated web of RTAs, regional production networks, and the consolidation of the FTAAP.

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* This report is a revised version of the author's previously published studies (Park 2006, 2009, 2011, and 2013). This report narrowly defines East Asia as the ten Association of Southeast Asian Nations (ASEAN) countries in Southeast Asia, as well as China, Japan, and Korea in Northeast Asia, a group of countries commonly referred to as "ASEAN+3." However, the study also covers "ASEAN+6", a unit that includes Australia, New Zealand, and India in addition to the ASEAN+3 countries. ASEAN was established on August 8, 1967, with the signing of the Bangkok Declaration in Bangkok, Thailand, by the founding nations Indonesia, Malaysia, the Philippines, Singapore, and Thailand. The association is meant to enhance political and economic cooperation among member nations. Brunei Darussalam joined on January 8, 1984; Vietnam on July 28, 1995; Lao PDR and Myanmar on July 23, 1997; and Cambodia on April 30, 1999. Today, therefore, ASEAN consists of a total of ten member states.

** Professor, Division of International Studies, Korea University, 5-1 Anam-Dong, Sungbuk-Gu, Seoul 136-701, Korea; Telephone: 82-2-3290-2406; Fax: 82-2-929-0402; Email: iwpark@korea.ac.kr.

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I. Introduction

Since the first wave of regionalism initiated by European countries in the late 1950s, East Asian countries' stance on regional trade agreements (RTAs) has shifted from time to time responding to environmental changes both in the regional and the global market. Until the second wave of regionalism, triggered by the successful expansion of the European Union (EU) and the establishment of the North American Free Trade Agreement (NAFTA) in the early 1990s, most of the East Asian countries favored a non-discriminatory multilateral approach to actively pursue their outward-looking industrialization policies within the General Agreement on Tariffs and Trade (GATT) framework.[1] Accordingly, there was a dearth of RTAs in East Asia, especially in Northeast Asia. Only three RTAs had been implemented, most of them among countries in Southeast Asia: the Asia-Pacific Trade Agreement (APTA) in 1976, the Laos-Thailand Preferential Trade Agreement (Laos-Thailand PTA) in 1991, and the Association of Southeast Asian Nations (ASEAN) Free Trade Area (AFTA) in 1993.

However, deepening regional interdependence through trade and investment, and the necessity for stability and revitalization of the regional economy since the East Asian financial crisis in the late 1990s led the East Asian countries to adopt discriminatory RTAs. Since then, East Asian countries have been active in free trade initiatives with countries in and outside the region. A considerable number of bilateral and plurilateral RTAs have been formed since, including the China-Thailand FTA, the Japan-Indonesia EPA (Economic Partnership Agreement), the Korea-Singapore FTA, and the five ASEAN+1 RTAs–the ASEAN-China FTA, the ASEAN-Japan CEPA (Comprehensive Economic Partnership Agreement), the ASEAN-Korea FTA, the ASEAN-Australia and New Zealand FTA, and the ASEAN-India FTA. Furthermore, RTAs among the three Northeast Asian countries have been under consideration and negotiation, in particular the Korea-China FTA, the Korea-Japan FTA, the China-Japan

1 For the two waves of regionalism since World War II, see Bhagwati (1993).

FTA, and the Korea-China-Japan FTA. A total of 13 intra-regional RTAs have been implemented in East Asia between 2001 and October 2013.

Moreover, considering the harmful 'spaghetti bowl effect' of overlapping RTAs and deepening production networks in this region, mega-lateral RTAs have been proposed and negotiated among the affected countries. The considerations include the EAFTA (East Asian Free Trade Area) preferred by China encompassing the ASEAN+3 countries (10 ASEAN countries, China, Japan, and Korea), the CEPEA (Comprehensive Economic Partnership for East Asia) preferred by Japan that includes the ASEAN+6 countries (10 ASEAN countries, China, Japan, Korea, Australia, New Zealand, and India), the ASEAN-driven RCEP (Regional Comprehensive Economic Partnership) including the ASEAN+6 countries, the US-led TPP (Trans-Pacific Partnership) including Brunei Darussalam, Singapore, Malaysia, Vietnam, Australia, New Zealand, Chile, Peru, the USA, Canada, Mexico, and Japan, and a FTAAP (Free Trade Area of the Asia Pacific) including 21 Asia Pacific Economic Cooperation (APEC) member countries.

In response to the observation of policy stances shifting from unilateral to bilateral to mega-lateral liberalization in East Asia, this report attempts to assess the East Asian countries' efforts to liberalize the regional market by cooperating with each other. This report is organized as follows. Section II analyzes why RTAs have been proliferating in East Asia since the late 1990s and provides a brief discussion of the main characteristics of East Asian RTAs. In addition, Section II investigates whether the East Asian countries are natural trading partners for each other that enhance welfare gains from RTAs. Section III prospects the evolutionary paths of the East Asian RTAs and evaluates whether the implemented and proposed East Asian RTAs are desirable policy options for the countries involved. To assess this, empirical studies about the likely impact of the East Asian RTAs on members, nonmembers, and the world economy are reviewed. Section IV briefly discusses policy implications derived from this report as a concluding remark.

II. Proliferating Regional Trade Agreements in East Asia

1. Why Are RTAs Proliferating in East Asia?

Unlike Europe or North America, for which political will and a regional hegemon drove integration such as the EU and the NAFTA, the East Asian integration was initiated by actors seeking economic gains from deepening regional economic interdependence. The regional economic interdependence has been propelled by trade and investment liberalization under the East Asian production networks not by the formation of RTAs. This market-driven regional integration resulted in a relatively slow progress of East Asian RTAs. Recently, however, East Asia has been very active in arranging institution-driven RTAs.[2] Thus, both intra- and inter-regional trade agreements are proliferating in East Asia[3] as surveyed in Table 1 for the region as a whole and in Appendix Table 1 for the individual countries. As of October 2013, 71 RTAs have been implemented, 7 RTAs have been signed but are not yet in effect, and a number of RTAs are under negotiation or have been proposed among the ASEAN+6 countries.

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2 For the issue of market-driven and institution-driven regionalization in East Asia, see Urata (2008).

3 For proliferating RTAs in East Asia, see JETRO (2003), Lu (2003), Kawai (2004), Feridhanusetyawan (2005), and Lee and Park (2005). For recent surveys on East Asian economic integration, see ADB (2008), Chia (2010), Hill and Menon (2010), Kawai and Wignaraja (2010, 2013), Zhang and Shen (2011), and Baldwin and Kawai (2013).

Table 1. RTAs including Countries in ASEAN+6 by Status

Signed and in effect (year)	Signed but not yet in effect (year)	Under negotiation		Proposed (year)
		Negotiations launched (year)	Framework agreement signed (year)	
Bilateral and Intra-Regional (20) ANZCERTA (1983) Laos-Thailand PTA (1991) Papua New Guinea-Australia Trade and Commercial Region (1991) India-Sri Lanka FTA (2001) Indo-Nepal Treaty of Trade (2002) Japan-Singapore EPA (2002) China-Thailand FTA (2003) China-Hong Kong CEPA (2003) India-Afghanistan PTA (2003) China-Macao CEPA (2004) India-Bhutan Trade Agreement (2006) Korea-Singapore FTA (2006) Japan-Malaysia EPA (2006) Japan-Thailand EPA (2007) Japan-Indonesia EPA (2008) Japan-Brunei FTA (2008) Japan-Philippines EPA (2008) China-Singapore FTA (2009) Japan-Viet Nam FTA (2009) China-Chinese Taipei ECFA (2011)		China-Korea FTA (2012) Korea-Indonesia CEPA (2012) Korea-Viet Nam FTA (2012) Japan-Mongolia EPA (2012)	India-Thailand FTA (2004)	Korea-Thailand FTA (2003) Korea-Japan FTA (2008) Korea-Mongolia FTA (2008) China-Mongolia FTA (2010) Malaysia-Korea FTA (2011) Philippines- Chinese Taipei ECA (2012)
Bilateral and Inter-Regional (36) New Zealand-Singapore CEP (2001) Singapore-Australia FTA (2003) US-Singapore FTA (2004) Korea-Chile FTA (2004)	Pakistan-Indonesia FTA (2012) Korea-Colombia FTA (2013)	Singapore-Mexico FTA (2000) Canada-Singapore FTA (2001) India-Egypt PTA (2002) US-Thailand FTA (2004) Korea-Canada FTA (2005)	Thailand-Bahrain FTA (2002) China-Australia FTA (2005)	New Zealand-Mexico FTA (2002) US-Brunei FTA (2002) China-India RTA (2003) Singapore-Sri Lanka CEPA

Signed and in effect (year)	Signed but not yet in effect (year)	Under negotiation		Proposed (year)
		Negotiations launched (year)	Framework agreement signed (year)	
Thailand-Australia FTA (2005) Thailand-New Zealand CEPA (2005) India-Singapore CECA (2005) Singapore-Jordan FTA (2005) US-Australia FTA (2005) Japan-Mexico EPA (2005) Singapore-Panama FTA (2006) China-Chile FTA (2006) China-Pakistan FTA (2007) Japan-Chile EPA (2007) India-Chile PTA (2007) New Zealand–China FTA (2008) Malaysia-Pakistan CEPA (2008) Australia-Chile FTA (2009) Singapore-Peru FTA (2009) Japan-Switzerland EPA (2009) India-Korea CEPA (2010) China-Peru FTA (2010) Malaysia-New Zealand FTA (2010) Malaysia-India CECA (2011) Japan-India CEPA (2011) New Zealand-Hong Kong CEPA (2011) Korea-Peru FTA (2011) China-Costa Rica FTA (2011) Thailand-Peru FTA (2011) Japan-Peru FTA (2012) Chile-Viet Nam FTA (2012) Korea-US FTA (2012) Malaysia-Chile FTA (2012) Malaysia-Australia FTA (2013) Korea-Turkey FTA (2013)	China-Switzerland FTA (2013) China-Iceland FTA (2013) New Zealand-Taipei ECA (2013)	India-Mauritius CECPA (2005) Pakistan-Singapore FTA (2005) India-Israel PTA (2006) Korea-Mexico SECA (2006) US-Malaysia FTA (2006) Singapore-Egypt CECA (2006) Singapore-Ukraine FTA (2007) Japan-Australia EPA (2007) New Zealand-Korea CEP (2008) Australia-Korea FTA (2008) China-Norway FTA (2008) Malaysia-Turkey FTA (2010) India-Canada EPA (2010) New Zealand-India FTA (2010) India-Australia FTA (2011) India-Indonesia CECA (2011) Thailand-Chile FTA (2011) Japan-Canada EPA (2012) Japan-Colombia EPA (2012) Indonesia-Australia CEPA (2012)		(2003) India-Colombia PTA (2004) India-Uruguay PTA (2004) India-Venezuela PTA (2004) Pakistan-Philippines FTA (2004) Pakistan-Thailand FTA (2004) Australia-Mexico FTA (2006) India-Russia CECA (2006) Pakistan-Brunei Darussalam FTA (2007) Korea-Russia Bilateral EPA (2007) Korea-Israel FTA (2009) India-Turkey FTA (2009) Australia-Colombia FTA (2009) Japan-New Zealand FTA (2010) Malaysia-Syria FTA (2011) China-Colombia FTA (2012) Indonesia-Chile FTA (2013) Japan-Turkey EPA (2013)

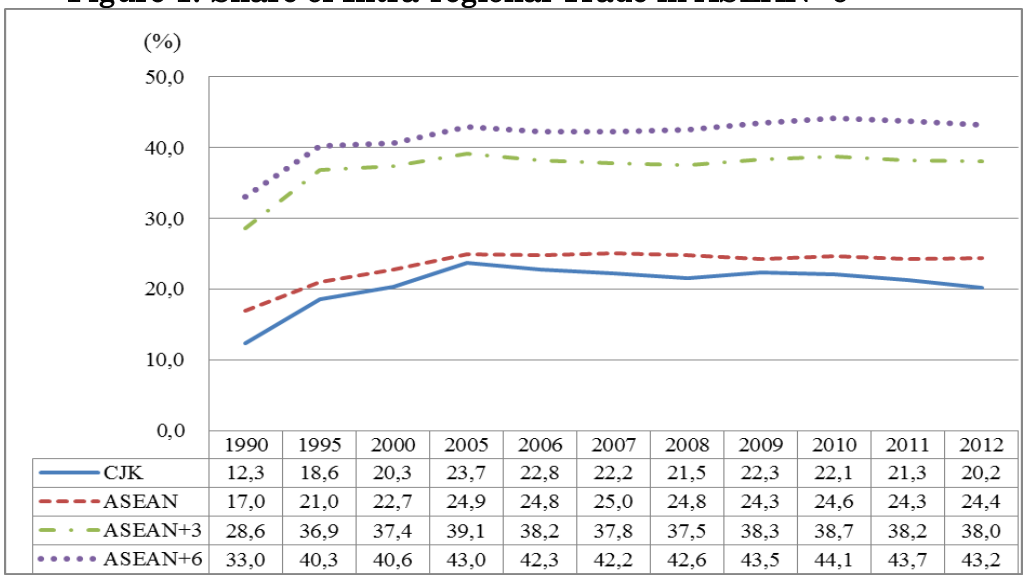
Signed and in effect (year)	Signed but not yet in effect (year)	Under negotiation		Proposed (year)
		Negotiations launched (year)	Framework agreement signed (year)	
Singapore-Costa Rica FTA (2013)				
Plurilateral and Intra-Regional (6) SPARTECA (1981) AFTA (1993) ASEAN–China CECA (2005) SAFTA (2006) ASEAN-Korea CECA (2007) ASEAN-Japan CEP (2008)		China-Japan-Korea FTA (2013)		EAFTA: ASEAN+3 (2004)
Plurilateral and Inter-Regional (9) APTA (1976) Singapore-EFTA FTA (2003) Korea-EFTA FTA (2006) P4 (2006) India-MERCOSUR PTA (2009) ASEAN-India CECA (2010) AANZFTA (2010) Korea-EU FTA (2011) Singapore-GCC FTA (2013)	PTA-8 (2006)	China-SACU FTA (2004) China-GCC FTA (2005) Thailand-EFTA FTA (2005) Japan-GCC FTA (2006) ASEAN-EU FTA (2007) India-EU FTA (2007) New Zealand-GCC FTA (2007) Australia-GCC FTA (2007) India-EFTA FTA (2008) Korea-GCC FTA (2009) PACER Plus (2009) Singapore-EU FTA (2010) Malaysia-EU FTA (2010) Indonesia-EFTA FTA (2011) Customs Union of New Zealand-Customs Union of Russia-Belarus-Kazakhstan FTA (2011) Viet Nam-EFTA FTA (2012) Viet Nam-EU FTA (2012) Malaysia-EFTA FTA (2012) Viet Nam-Customs Union of Russia, Belarus, and Kazakh-	TPS-OIC (2004) BIMSTEC FTA (2004) India-SACU PTA (2004) India-GCC FTA (2006) TPP (2010)	Shanghai Cooperation Organization FTA (2003) Korea-MERCOSUR PTA (2004) Korea-SACU FTA (2005) CEPEA: ASEAN+6 (2005) Thailand-MERCOSUR FTA (2006) ASEAN-Pakistan FTA (2009) Korea-Central America FTA (2010) Malaysia-GCC FTA (2011)

Signed and in effect (year)	Signed but not yet in effect (year)	Under negotiation		Proposed (year)
		Negotiations launched (year)	Framework agreement signed (year)	
		stan FTA (2013) Japan-EU EPA (2013) RCEP (2013)		

Notes:
- Preferential Trading Agreement (PTA), Free Trade Agreement (FTA), Closer Economic Partnership (CEP), Economic Partnership Agreement (EPA), Closer Economic Partnership Arrangement (CEPA), Regional Trading Arrangement (RTA), Comprehensive Economic Partnership Agreement (CEPA), Comprehensive Economic Cooperation Agreement (CECA), Comprehensive Economic Cooperation and Partnership Agreement (CECPA), Strategic Economic Complementation Agreement (SECA), Economic Cooperation Framework Agreement (ECFA), Comprehensive Economic Partnership (CEP), Economic Cooperation Agreement (ECA)
- Asia-Pacific Trade Agreement (APTA): Bangladesh, China, India, Korea, Lao PDR, Sri Lanka; South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA): Australia, Niue, Fiji, Kiribati, Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, Cook Islands, Marshall Islands, Federated States of Micronesia; Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA); Southern African Customs Union (SACU): Namibia, South Africa, Swaziland, Botswana, Lesotho; ASEAN Free Trade Area (AFTA): Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam; Shanghai Cooperation Organization: China, Russian Federation, Kazakhstan, Kyrgyz Republic, Tajikistan, Uzbekistan; European Free Trade Association (EFTA): Liechtenstein, Iceland, Norway, Switzerland; Trade Preferential System of the Organization of the Islamic Conference (TPS-OIC): Bangladesh, Cameroon, Egypt, Guinea, Jordan, Lebanon, Libya, Maldives, Pakistan, Senegal, Syria, Tunisia, Turkey, UAE, Iran, Uganda, Malaysia; Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC): Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, Thailand; East Asia FTA (EAFA): ASEAN+3 (ASEAN 10, China, Japan, Korea); South Asian Free Trade Area (SAFTA): Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka; The Cooperation Council for the Arab States of the Gulf (GCC): Bahrain, Oman, Qatar, Kuwait, Saudi Arabia, United Arab Emirates; Southern Common Market (MERCOSUR): Argentina, Brazil, Paraguay, Uruguay; Comprehensive Economic Partnership for East Asia (CEPEA): ASEAN+6 (ASEAN 10, China, Japan, Korea, Australia, New Zealand, India); Trans-Pacific Strategic Economic Partnership Agreement (P4): Brunei Darussalam, Chile, New Zealand, Singapore; Preferential Tariff Arrangement-Group of Eight Developing Countries (PTA-8): Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, Turkey; Pacific Agreement on Closer Economic Relations (PACER): Australia, Cook Islands, Federated States of Micronesia, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu; Korea-Central America FTA: Korea, Panama, Costa Rica, Guatemala, Honduras, Dominican Republic, El Salvador; ASEAN-Australia and New Zealand FTA (AANZFTA); Regional Comprehensive Economic Partnership (RCEP): ASEAN 10, China, Japan, Korea, Australia, New Zealand, India; Trans-Pacific Partnership (TPP): Brunei, Singapore, Malaysia, Vietnam, Australia, New Zealand, Chile, Peru, USA, Canada, Mexico, and Japan.
Source: Asian Development Bank (ADB), Asia Regional Integration Center FTA database, http://aric.adb.org/fta

What causes this proliferation of RTAs in the region? First, the expected positive gains from regional trade and investment liberalization facilitate the formation of RTAs in East Asia. As illustrated in Figure 1, the deepened but currently stagnating interdependence among the East Asian economies through intra-regional trade[4] could be a reason for the policy change. East Asian countries require the creation of intra-regional demands and supplies to vitalize their economies. The Appendix Tables 4, 5, and 6 report more precise information about East Asian RTAs' share of intra-regional exports, import, and trade, respectively. In particular, the increasing volume of trade in the manufacturing sector[5] makes the regional market much more competitive, results in better restructuring of regional industrial structures, attracts more foreign direct investment from outsiders, and finally creates bigger dynamic gains from the regional integration. In addition, the increasing trend of vertical intra-industry trade in the manufacturing of parts and components (a closely connected supply chain and higher productivity growth expected from an international division of labor) enhances economic efficiency and brings bigger gains from free trade (see Figures 2 and 3).

Figure 1. Share of Intra-regional Trade in ASEAN+6



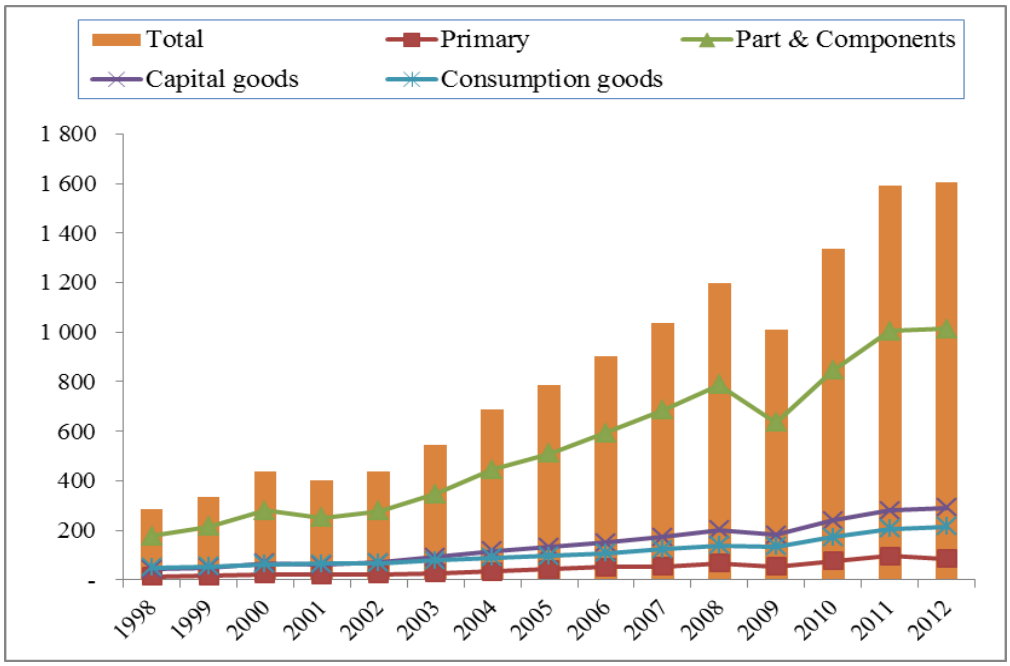
	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
CJK	12,3	18,6	20,3	23,7	22,8	22,2	21,5	22,3	22,1	21,3	20,2
ASEAN	17,0	21,0	22,7	24,9	24,8	25,0	24,8	24,3	24,6	24,3	24,4
ASEAN+3	28,6	36,9	37,4	39,1	38,2	37,8	37,5	38,3	38,7	38,2	38,0
ASEAN+6	33,0	40,3	40,6	43,0	42,3	42,2	42,6	43,5	44,1	43,7	43,2

Note: CJK-China, Japan, and Korea
Source: IMF, Direction of Trade Statistics CD-ROM, June 2013.

4 Recent bilateral trade linkages including balances of trade between ASEAN+6 countries are reported in Appendix Tables 2 and 3.

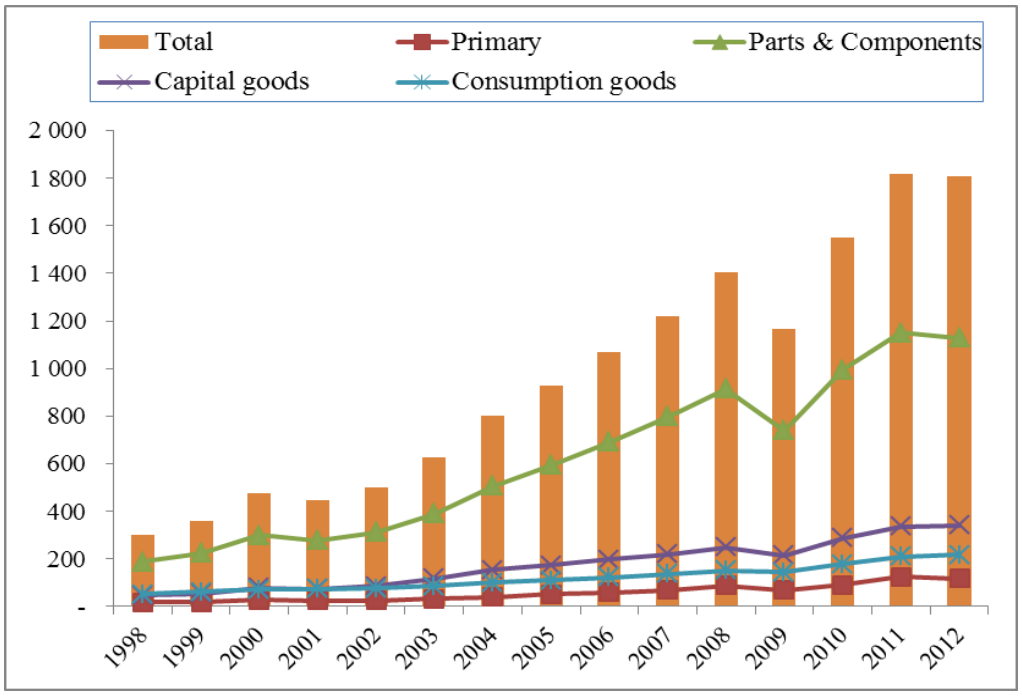
5 Except for Australia, Indonesia, and New Zealand, the share of manufactured goods in exports exceeded 60% in 2011 for the ASEAN+6 countries and similar patterns are found for imports. See Table 1 in Baldwin and Kawai (2013).

Figure 2. Intra-regional Exports by Commodity in East Asia (Billion US $)



Source: UN, UN COMTRADE Database http://comtrade.un.org/

Figure 3. Intra-regional Imports by Commodity in East Asia (Billion US $)



Source: UN, UN COMTRADE Database http://comtrade.un.org/

Second, recognizing the necessity for regional economic cooperation for stability and revitalization of the regional economic dynamism since the East Asian financial crisis in 1997, the three Northeast Asian countries–China, Japan, and Korea–have shifted their policy stance from favoring a global approach to favoring a regional approach. In particular, China's entry into the World Trade Organization (WTO) and aggressive approach to form bilateral RTAs can be highlighted. Japan's desire to retake its regional market share, which has significantly reduced because it was left out from the worldwide movement toward regionalism, to regain its leadership role in the region competing against China, and to provide a market-friendly regional business environment for its Mutinational Corporations (MNCs) is another key factor in explaining the environmental change in the region. Korea's movement toward a more globalized economic system, with the intention of revitalizing its outward-oriented economic growth strategy through trade and investment liberalization, and its ambition to be an East Asian business hub by fully utilizing its geopolitical advantage as a middle man, are a further key factor.

Third, ASEAN's active intention to become a hub of regionalism in East Asia cannot be ignored (see Figure 4). The strong incentives for a country to be a hub of an RTA web make both individual Southeast Asian countries, especially Singapore and Thailand, and ASEAN as a whole aggressively seek to initiate multiple negotiations for RTAs.

Figure 4. ASEAN Hub RTA Map in ASEAN+6

	Japan	Korea	China	ASEAN	India	Australia	New Zealand
Japan		△	x	◎	◎	○	△
Korea	△		○	◎	◎	○	○
China	x	○		◎	△	○	◎
ASEAN	◎	◎	◎	◎	◎	◎	◎
India	◎	◎	△	◎		○	○
Australia	○	○	○	◎	○		◎
New Zealand	△	○	◎	◎	○	◎	

Note: ◎ Implemented, ○ Under Negotiation, △ Proposed, x No action taken
Source: Table 1.

Fourth, the slow progress of multilateral negotiations, such as the stalled Doha Development Agenda (DDA) within the WTO, and the sluggish progress toward the Bogor Goals within the trade and investment liberalization section of the APEC accelerated this shift to regionalism. In addition, the USA's 'pivot to Asia' policy can be another important cause of the proliferating RTAs in this region.

2. Main Characteristics of East Asian RTAs

As classified in Table 1, there are some distinguishing characteristics that can be derived from RTAs including East Asian countries. First, the trend of reducing or eliminating trade barriers between members is relatively new in East Asia. Most of the East Asian countries, especially countries in Northeast Asia, have been well-known to prefer non-discriminatory multilateral liberalization efforts rather than a discriminatory regional liberalization policy. However, after realizing the importance of regional economic cooperation because of the East Asian financial crisis in 1997, East Asian countries have changed their policy stance from favoring a global approach to favoring a regional approach. As listed in Table 1, among the 77 RTAs implemented or signed including ASEAN+6 countries, 71 (94.7%) RTAs have been implemented or signed after the crisis.

Second, most of the RTAs in East Asia have taken the form of bilateral agreements in accordance with the world-wide

trend to seek a cheaper and easier negotiation cost even though the gains from freer trade are limited. Among the 71 RTAs implemented including ASEAN+6 countries, 56 (78.9%) RTAs are bilateral agreements and 15 (21.1%) RTAs are plurilateral agreements.

Third, there has been no distinction between intra- and inter-regional partnerships. Recent innovations in information and communication technology significantly have saved transaction costs and made geographical distance relatively less important. Among the 71 RTAs implemented including ASEAN+6 countries, 45 (63.3%) RTAs are inter-regional RTAs.

Fourth, as surveyed in Appendix Table 2 and illustrated in Figure 4, most of the East Asian RTAs have been taking the form of overlapping hub-and-spoke RTAs which may cause a spaghetti bowl phenomenon.[6] In particular, ASEAN, Singapore, and Thailand have been very aggressive in pursuing being a hub.

Fifth, there has been a very slow progress of RTAs. The proposed China-Japan-Korea trilateral RTA, RCEP, and TPP are still under negotiation.

3. Are the East Asian Neighbors Natural Trading Partners?

The concept of "natural trading partners" argues that certain characteristics between RTA members can maximize the welfare gains from RTAs.[7] Forming an RTA with the right partner will also serve as a building block toward global free trade by maximizing the trade creation effect while minimizing the trade diversion effect. The argument finds that with larger pre-RTA trade volumes and lower transportation costs between members, RTAs are more likely to be welfare-improving. What then are the conditions of an appropriate

6 See Bhagwati, Greenaway, and Panagariya (1998) and Panagariya (1999) for the spaghetti bowl phenomenon caused by overlapping RTAs.

7 For the natural trading partnership argument, see Wonnacott and Lutz (1989), Summers (1991), Krugman (1993), and Frankel et al (1995). The concept of welfare gains, which can be broken down into a positive trade creation effect and a negative trade diversion effect arising from the formation of a customs union (CU) was introduced by Viner (1950). A positive trade creation effect arises from the replacement of less efficient domestic producers with more efficient exporters from RTA member countries. A negative trade diversion effect occurs when more efficient exporters from nonmember countries are replaced with less efficient exporters from member countries.

trading partner? We outlined the following conditions that need to be fulfilled.[8]

- Market size of the RTA: the larger the better (gains from economies of scale)
- Pre-RTA intra-regional tariff: the higher the better (maximizing trade creation effect)
- Pre-RTA extra-regional tariff: the lower the better (minimizing trade diversion effect)
- Pre-RTA intra-regional trade volume: the higher the better (gains from economies of scale)
- Competitive pre-RTA industrial structure: the tougher the better (efficiency gains)
- Complementary post-RTA industrial structure: the stronger the better (gains from economies of scale)
- Pre-RTA level of economic development gap: the narrower the better (gains from economies of scale and efficiency gains)
- Geographical proximity: the closer the better (efficiency gains)

Overall, East Asian member countries may not satisfy all of the conditions for positive welfare effects, but could still satisfy most of them. Table 2 lists the key economic indicators to be used for evaluating the aforementioned conditions of market size and level of economic development required for measuring the welfare effects of both implemented and proposed East Asian RTAs. For example, the consolidated market size of the ASEAN+3 (ASEAN+6) countries, 30.3% (48.3%) of the world's population and 24.5% (29.4%) of the world's GDP, is large enough to create a positive trade creation effect. If the East Asian RTA is implemented among the ASEAN+3 (ASEAN+6) countries, the RTA would cover a combined population of 2.1 (3.4) billion and a combined GDP of US $17.57 trillion (US$ 21.10 trillion). In contrast, because of the diversity in the level of economic development among the 13 or 16 East Asian member countries respectively, the expected welfare effect will not be positive. However, a relatively large number of ASEAN+3 members amassed in a comparatively small area in Asia may lead to lower transaction costs, increasing welfare gains. This advantage of lower transaction cost will be weakened for any cross-regional ASEAN+6 RTA.

8 For a textbook explanation, see Salvatore (2013). See Estrada et al (2012) for more detailed information about the conditions.

Table 2. Market Size of Countries and RTAs in ASEAN+6, 2012

	Population (Million Person)	GDP (Current Billion US $)	GDP, PPP (Current Billion International $)	GDP per capita (Current US $)	GDP per capita, PPP (Current International $)
Brunei Darussalam	0.4	17.0	22.0	41,127	53,348
Cambodia	14.9	14.1	37.1	946	2,494
Indonesia	246.9	878.0	1,223.5	3,557	4,956
Lao PDR	6.6	9.3	19.4	1,399	2,926
Malaysia	29.2	303.5	501.2	10,381	17,143
Myanmar	52.8	-	-	-	-
Philippines	96.7	250.3	426.7	2,588	4,413
Singapore	5.3	274.7	328.3	51,709	61,803
Thailand	66.8	365.6	655.5	5,474	9,815
Vietnam	88.8	141.7	322.7	1,596	3,635
ASEAN	608.4	2,254.1	3,536.5	3,705	5,813
China	1,350.7	8,227.1	12,471.0	6,091	9,233
Japan	127.6	5,959.7	4,490.7	46,720	35,204
Korea	50.0	1,129.6	1,536.2	22,590	30,722
Australia	22.7	1,520.6	1,011.6	67,036	44,598
New Zealand	4.4	167.3	142.8	37,749	32,219
India	1,236.7	1,841.7	4,793.4	1,489	3,876
ASEAN-China	1,959.1 (27.8%)	10,481.2 (14.6%)	16,007.5 (18.6%)	5,350	8,171
ASEAN-Japan	736.0 (10.4%)	8,213.8 (11.5%)	8,027.2 (9.3%)	11,161	10,907
ASEAN-Korea	658.4 (9.3%)	3,383.7 (4.7%)	5,072.7 (5.9%)	5,139	7,704
ASEAN-ANZ	635.5 (9.0%)	3,942.0 (5.5%)	4,691.0 (5.5%)	6,203	7,381
ASEAN-India	1,845.1 (26.2%)	4,095.8 (5.7%)	8,329.9 (9.7%)	2,220	4,515
China-Korea	1,400.7 (19.9%)	9,356.7 (13.1%)	14,007.2 (16.3%)	6,680	10,000
China-Japan	1,478.3 (21.0%)	14,186.8 (19.8%)	16,961.7 (19.7%)	9,597	11,474
Korea-Japan	177.6 (2.5%)	7,089.3 (9.9%)	6,026.9 (7.0%)	39,925	33,942
CJK	1,528.3 (21.7%)	15,316.4 (21.4%)	18,497.9 (21.5%)	10,022	12,104
ASEAN+3	2,136.7 (30.3%)	17,570.5 (24.5%)	22,034.4 (25.7%)	8,223	10,313
ASEAN+6	3,400.5 (48.3%)	21,100.2 (29.4%)	27,982.2 (32.6%)	6,205	8,229
World	7,046.4 (100.0%)	71,666.4 (100.0%))	85,889.0 (100.0%))	10,171	12,189

Notes: "-" refers to data not available.
ANZ: Australia and New Zealand; CJK: China, Japan, and Korea
Source: The World Bank, World Development Indicators (WDI) Database (cited 15 July 2013). Available from: http://databank.worldbank.org/data/home.aspx

The relatively high deviation of tariffs among the East Asian member economies, which for agricultural products ranges from 0.1% in Brunei to 48.6% in Korea and for non-agricultural products from 0.0% in Singapore to 10.3% in

Cambodia, is a controversial factor (see Table 3). However, as shown in Appendix Tables 4, 5, and 6, because of the strong interdependence among the ASEAN+3 member economies in terms of intra-regional export, import, and trade shares, which from 2010 to 2012 were 35.9%, 40.8%, and 38.3%, respectively, an RTA will generate strong positive welfare effects. An ASEAN+6 RTA would generate even higher welfare effects.

Table 3. Simple Average MFN Applied Tariff Rates in ASEAN+6 (%)

	Year	Total	Agricultural Products	Non-agricultural Products
Brunei Darussalam	2011	2.5	0.1	2.9
Cambodia	2011	10.9	15.2	10.3
Indonesia	2011	7.0	8.1	6.9
Laos*	2008	9.7	-	-
Malaysia	2010	6.5	10.8	5.8
Myanmar*	2008	5.6	-	-
Philippines	2011	6.1	8.7	5.7
Singapore	2011	0.0	0.2	0.0
Thailand	2011	9.8	22.0	8.0
Vietnam	2010	9.8	17.0	8.7
China	2011	9.6	15.6	8.7
Japan	2011	5.3	23.3	2.6
Korea	2011	12.1	48.6	6.6
Australia	2011	2.8	1.4	3.1
New Zealand	2011	2.0	1.4	2.1
India	2010	12.6	31.4	9.8

Note: "-" refers to data that is not available.
Sources: WTO, World Tariff Profiles 2012, www.wto.org/statistics
*- WTO, http://stat.wto.org/CountryProfiles

Considering the large number of members in a 16 countries RTA, we know that the pre-RTA industrial structure of the members is very competitive and may expect significant efficiency gains from an East Asian RTA. Table 4 shows the revealed comparative advantage (RCA) of the 16 East Asian countries covering 16 sectors in 2012. The RCA indices of

those 16 nations suggest that there is a substantial scope for the countries to substitute products with products from other nations when they establish a single market. Positive efficiency gains may be generated from tougher competition.

In addition, Table 5 estimates the complementarity indices of the 16 East Asian countries. Table 5 shows the degree to which one country's exports complement another country's import structure. It is possible for countries with competitive pre-RTA economic structures to gain from trade creation if their post-RTA economic structures are complementary. The complementarity indices between the East Asian countries show relatively high values except for Cambodia, Myanmar, and New Zealand. This indicates that, prior to integration, the East Asian neighbors are producing similar goods. When trade among members expands under an RTA, goods will be produced by more efficient firms and the number of similar goods will fall. Thus, together with a high RCA, the overlapping industrial structure measured by the complementarity index in East Asia may contribute to positive welfare gains from RTAs.

In sum, we find that the East Asian neighbors are generally natural trading partners for each other and expect significant welfare gains from forming East Asian RTAs such as the ASEAN+3 or ASEAN+6 RTA.

Table 4. Revealed Comparative Advantage (RCA) Index in ASEAN+6, 2012

HS Code	BRN	KHM	IDN	LAO	MYS	MMR*	PHL	SGP	THA	VNM**	CHN	JPN	KOR	AUS	NZL	IND
01-05 Animal & Animal Products	0.01	0.02	0.89	-	0.33	2.46	0.59	0.10	0.85	2.89	0.41	0.09	0.20	2.52	22.42	1.30
06-15 Vegetable Products	0.00	0.66	4.21	-	2.99	5.06	1.45	0.09	1.28	3.45	0.27	0.03	0.05	1.73	1.63	2.44
16-24 Foodstuffs	0.01	0.23	0.90	-	0.85	0.08	1.18	0.58	2.78	1.01	0.45	0.12	0.25	0.62	3.09	0.87
25-27 Mineral Products	6.88	0.00	2.59	-	1.49	2.51	0.34	1.33	0.50	0.70	0.12	0.13	0.76	4.01	0.36	1.47
28-38 Chemicals & Allied Industries	0.21	0.00	0.48	-	0.46	0.00	0.34	1.13	0.59	0.22	0.51	0.81	0.73	0.56	0.53	1.20
39-40 Plastics / Rubbers	0.01	0.53	1.53	-	1.58	0.59	0.85	0.87	2.88	1.31	0.85	1.22	1.55	0.11	0.26	0.60
41-43 Raw Hides, Skins, Leather, & Furs	0.00	0.20	0.41	-	0.08	0.15	0.48	0.28	0.70	2.34	2.61	0.07	0.41	0.74	2.26	1.81
44-49 Wood & Wood Products	0.01	12.68	2.06	-	1.09	3.18	2.09	0.47	0.70	0.82	0.68	0.27	0.29	0.40	4.05	0.23
50-63 Textiles	0.01	13.62	1.62	-	0.36	1.10	0.84	0.13	0.79	4.15	2.96	0.30	0.69	0.56	0.68	2.78
64-67 Footwear / Headgear	0.00	5.52	2.81	-	0.10	0.97	0.22	0.11	0.51	9.56	3.99	0.03	0.17	0.04	0.18	1.10
68-71 Stone / Glass	0.01	0.12	0.45	-	0.53	6.53	0.32	0.43	1.46	0.91	0.94	0.66	0.34	1.55	0.44	3.53
72-83 Metals	0.06	0.05	0.68	-	0.62	0.10	0.56	0.36	0.70	0.53	1.00	1.29	1.25	0.74	0.64	1.04
84-85 Machinery / Electrical	0.04	0.03	0.35	-	1.46	0.00	2.10	1.66	1.13	0.73	1.66	1.36	1.27	0.14	0.24	0.30
86-89 Transportation	0.02	0.37	0.31	-	0.14	0.00	0.59	0.36	1.15	0.20	0.52	2.33	1.97	0.19	0.13	0.62
90-97 Miscellaneous	0.05	0.07	0.34	-	0.83	0.03	0.89	0.79	0.52	1.00	1.65	1.28	1.27	0.22	0.35	0.23
98-99 Commodities not specified	0.04	0.02	0.00	-	0.16	0.08	0.00	2.40	0.00	0.18	0.02	1.30	0.00	1.12	1.07	0.26

Notes:
BRN(Brunei Darussalam), KHM(Cambodia), IDN(Indonesia), LAO(Lao PDR), MYS(Malaysia), MMR(Myanmar), PHL(Philippines), SGP(Singapore), THA(Thailand),VNM(Viet Nam), CHN(China), JPN(Japan), KOR(Korea), AUS(Australia), NZL(New Zealand), IND(India)
(1) $RCA_{is} = [\Sigma_d x_{isd}/\Sigma_d X_{sd}]/[\Sigma_{wd} x_{iwd}/\Sigma_{wd} X_{wd}]$, where "s" is the country of interest, "d" and "w" are the set of all countries in the world, "i" is the sector of interest, "x" is the commodity export flow, and "X" is the total export flow. The numerator is the share of good "i" in the exports of country "s," while the denominator is the share of good "i" in the exports of the world. The RCA takes a value between 0 and $+\infty$. A country is said to have a revealed comparative advantage if the value exceeds unity (cited from UNESCAP, 2009).
(2) "-" refers to data that is not available.
(3) * year of 2010
(4) ** year of 2011
Source: Author's calculation by using data from UN, UN COMTRADE Database, http://comtrade.un.org/

Table 5. Complementarity Index in ASEAN+6, 2012 (%)

Source(Export) Destination(Import)	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM	CHN	JPN	KOR	AUS	NZL	IND
Brunei Darussalam		16.2	54.0	-	61.5	-	59.4	58.0	72.0	-	59.6	63.8	72.3	46.2	48.2	59.3
Cambodia	19.3		40.2	-	25.0	26.3**	8.8	22.8	11.1	65.4*	5.9	6.1	14.8	60.0	9.3	24.7
Indonesia	60.1	17.7		-	74.5	38.4**	63.2	70.3	72.1	62.1*	59.4	63.0	72.2	53.0	40.6	69.6
Lao PDR	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	57.2	14.5	57.1	-		25.8**	76.1	79.4	76.5	63.1*	73.6	74.0	79.6	46.3	39.8	61.1
Myanmar	-	18.7**	75.1**	-	64.7**		46.8**	56.9**	63.9**	59.6**	56.2**	55.6**	63.1**	54.5**	39.2**	72.5**
Philippines	58.7	15.3	64.0	-	83.1	35.8**		77.7	74.3	58.5*	64.3	65.3	72.8	53.1	41.4	63.3
Singapore	50.7	12.1	65.6	-	82.1	37.3**	66.4		63.2	53.0*	66.1	63.1	67.6	59.5	34.1	54.2
Thailand	56.8	14.4	58.4	-	77.7	35.1**	65.3	75.6		57.6*	67.4	69.3	77.5	52.2	36.4	67.0
Vietnam	-	23.7*	62.1*	-	72.1*	29.4**	63.3*	65.4*	73.6*		68.7*	61.7*	70.1*	43.3*	43.9*	65.5*
China	53.1	15.8	64.3	-	82.2	35.3**	67.9	78.8	70.0	59.2*		69.2	76.3	56.4	40.3	60.3
Japan	56.9	18.5	78.1	-	68.4	54.1**	55.8	64.5	58.7	65.5*	52.5		57.2	69.5	43.0	64.0
Korea	51.6	14.3	73.1	-	68.4	45.8**	53.6	65.5	58.1	56.2*	55.1	55.0		68.0	36.5	60.9
Australia	63.0	16.5	57.7		72.6	32.5**	64.7	74.6	76.1	62.4*	65.7	72.4	79.4		40.4	64.1
New Zealand	65.8	20.0	63.7		72.0	35.3**	64.0	70.4	76.2	65.1*	59.3	63.8	73.5	47.2		65.6
India	48.8	12.5	69.9		58.1	63.7**	40.4	56.5	51.0	49.2*	40.9	43.2	47.7	72.9	35.8	

Notes:

(1) s's complementarity with $d=\left(1-\left(\sum_i \left|\frac{\sum_w m_{iwd}}{\sum_w M_{wd}}-\frac{\sum_w x_{isw}}{\sum_w X_{sw}}\right|\right)\div 2\right)\times 100$, where "d" is the importing country of interest, "s" is the exporting country of interest, "w" is the set of all countries in the world, "i" is the set of industries, "x" is the commodity export flow, "X" is the total export flow, "m" is the commodity import flow, and "M" is the total import flow. In words, we take the sum of the absolute value of the difference between the sectoral import shares of one country and the sectoral export shares of the other. Dividing by 2 converts this to a number between 0 and 1, with 0 indicating all shares matched and 1 indicating none matched. Subtracting from 1 reverses the sign, and multiplying by 100 puts the measure in percentage terms. This produces a value between 0 and 100, with 0 indicating no overlap and 100 indicating a perfect match in the import/export pattern (cited from UNESCAP, 2009).

(2) "-" refers to data not available; * year of 2011; ** year of 2010

Source: Author's calculation by using data from UN, UN COMTRADE Database, http://comtrade.un.org/

III. Whither East Asian RTAs?

1. Evolutionary Paths

Each of the East Asian countries will attempt to maximize its own gains from forming regional trade blocs with preferred neighbors. Figure 5 illustrates the current RTA map drawn in East Asia. Currently, the formation of region-wide mega-lateral RTAs such as RCEP, TPP, and FTAAP is a heatedly debated issue in East Asia. Unlike bilateral RTAs, which are concluded at a specific point in time offering limited gains and costs, the formation of region-wide RTAs is an evolutionary process[9] over time, offering marginal gains and costs as it moves forward gradually. In search of more desirable RTAs, East Asian countries may take one of the following three different evolutionary paths.

(i) There will be no significant change in the East Asian RTA map in the near future. The current map of overlapping RTAs consisting of AFTA, five ASEAN+1 RTAs, and the bilateral RTAs listed in Appendix Table 1 will be maintained. However, it may not be a desirable scenario for the region as a whole because the complicated overlapping RTAs decrease the welfare of participating countries by causing the spaghetti bowl phenomenon. In particular, the complicated web of overlapping hub-and-spoke type RTAs in East Asia can result in trade diversion effects and in high costs for verifying Rules of Origin (ROO), especially considering the deepening of production networks in East Asia. The sophisticated supply chains mainly built because of the complex vertical motives of FDI in the region may overwhelm the initial gains from the regional liberalization in trade and investment.

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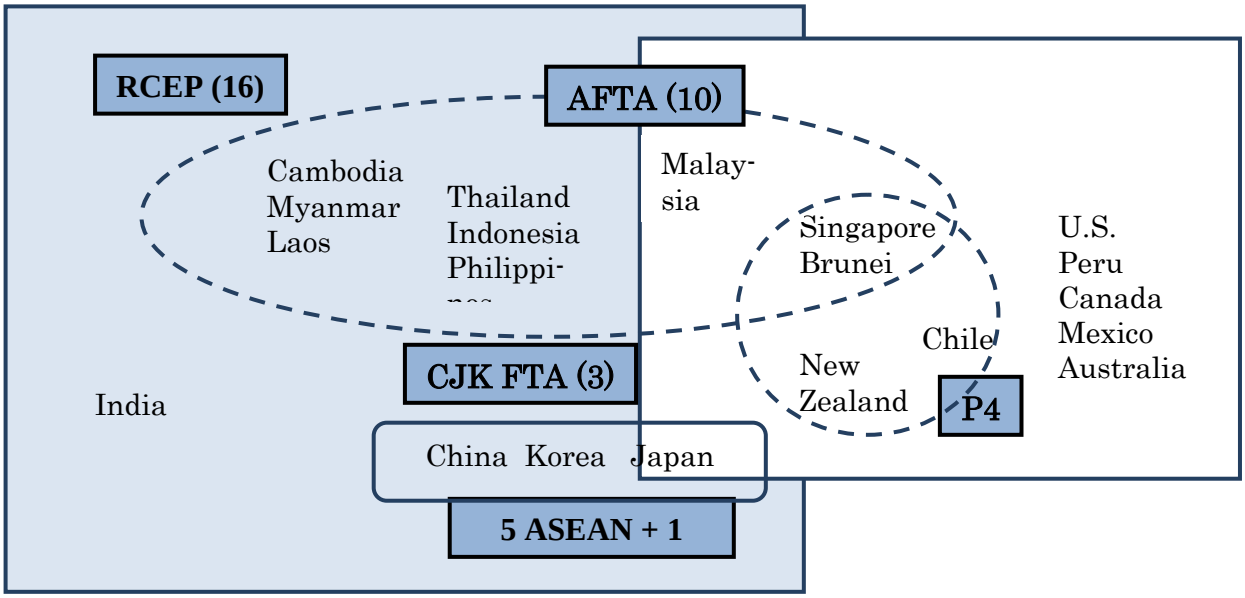
9 Countries excluded from a particular RTA may join existing RTAs, to share benefits arising from free trade and to avoid disadvantages of isolation ("expansionary RTAs"). The membership of existing RTAs will increase through attraction of new members and the gains from free trade will rise. Alternatively, nonmember countries create separate RTAs by negotiating new agreements among themselves, thus competing with existing RTAs ("duplicate RTAs"), causing the proliferation of RTAs. Both the expansionary and the duplicate RTAs may trigger the domino effect of regionalism (for the domino effect of regionalism, see Baldwin, 1993) and could lead the world economy toward global free trade. However, some member countries of existing RTAs are currently attempting to form multiple RTAs in order to be an RTA hub ("overlapping RTAs"). See Lee, Park, and Shin (2008).

(ii) There will be a significant competition between the three Northeast Asian countries and the Southeast Asian countries in the region. In other words, duplicate RTAs such as the China-Japan-Korea RTA will be formed opposite the existing AFTA, seeking the first-mover advantage.[10] The three Northeast Asian countries have already started to negotiate the trilateral FTA in March 2013. However, it is less likely to be accomplished in the near future considering the non-economic historical and territorial conflict among the three countries.

(iii) An expansionary path is considered to be the most desirable for the region. The expansionary membership is recommended to trigger the domino effect of regionalism and to avoid the spaghetti bowl phenomenon caused by overlapping RTAs. For example, the existing AFTA can be expanded to a bigger trade bloc such as an RCEP by consolidating the existing five ASEAN+1 RTAs. The ASEAN-led RCEP held the first meeting in May 2013 and is aiming at concluding the agreement by 2015. The extended membership of the TPP including Korea and China may be considered as an alternative or complement to the RCEP. This mega-lateral RTA may lead the region to a wider FTA like the FTAAP.

Figure 5. Region-wide RTAs in Asia-Pacific



[10] See Fruend (2000).

2. Quantitative Analysis of Effects of the East Asian RTAs

In this section, we survey existing empirical works about the likely impact of the aforementioned East Asian RTAs on the participating countries. While the earlier investigation about natural trading partners in section II has proven that further RTAs will be beneficial to East Asia, a more systematic approach is needed to quantify the likely impact of East Asian trade cooperation on the regional economy.

A growing body of empirical literature has used Computer Generated Equilibrium (CGE) model analysis to estimate the output, welfare, and trade effects of RTAs among East Asian countries.[11] The overall evidence from the literature indicates that most of the East Asian RTAs deliver a greater output and larger welfare gains for participating countries. As evaluated in Table 6, forming the trilateral Northeast Asian RTA separately from the existing AFTA, which constitutes a duplicate RTA strategy, can be regarded as the second best option for the East Asian economies as a whole. Even though the hub-and-spoke type of overlapping RTAs, as it currently is in effect in the five ASEAN+1 RTAs, appeared to be a better policy option for ASEAN, it is not necessarily a desirable strategy for the neighboring countries in Northeast Asia as spokes. We also find that expansionary RTAs such as an ASEAN+3 RTA are the optimum strategy for East Asian members in terms of net trade creation, welfare improvement, and output growth.

[11] For a literature review of CGE model estimations covering 1995 till 2003, see Table 2 in Ando and Urata (2007).

Table 6. Effects of East Asian RTAs: Based on the % deviation from the Base

			ASEAN Hub	AFTA vs China-Japan-Korea FTA	ASEAN+3
Individual Member Economy	ASEAN	Welfare	++	+	++
		GDP	+++	+	++
		Volume of Trade	+++	++	++
		Terms of Trade	+++	+++	++
	China	Welfare	-	-	-
		GDP	-	++	++
		Volume of Trade	++	+++	+++
		Terms of Trade	+++	+++	+++
	Japan	Welfare	*	+	+
		GDP	-	+	+
		Volume of Trade	+	+++	+++
		Terms of Trade	+	+++	+++
	Korea	Welfare	-	+++	+++
		GDP	-	++	++
		Volume of Trade	*	+++	+++
		Terms of Trade	+	+++	+++
Members on Average		Welfare	++	+	++
		GDP	+	++	++
		Volume of Trade	++	+++	+++
Nonmembers on Average		Welfare	*	-	-
		GDP	*	-	-
		Volume of Trade	-	-	-
World Economy		Welfare	+	+	+
		GDP	+	+	+
		Volume of Trade	+	+	+

Notes: + (positive), ++ (significantly positive), +++ (strongly positive), * (insignificant), - (negative) where $0.1\% \leq + < 2\%$; $2\% \leq ++ < 4\%$; $4\% \leq +++$; $-0.1\% < * < 0.1\%$; $-1\% \leq - \leq -0.1\%$.

Source: Table 4 in Park (2009).

Moreover, Tables 7 and 8 survey recent CGE model estimations to compare each of the expansionary RTAs-ASEAN+3, ASEAN+6 (or RCEP), TPP, and FTAAP-with respect to their impacts on members, nonmembers and the world economy. Between the ASEAN+3 and ASEAN+6 (or RCEP), larger gains are expected from the RCEP relative to the ASEAN+3 RTA. The broader membership will enhance gains for the world economy and members. In addition, the consolidation scenario of the FTAAP, which means combining RCEP and TPP, is expected to significantly enhance the gains from the global free trade as shown in Table 8.[12]

12 For a comparison of TPP and RCEP, see Basu Das (2013) and Choi and Lee (2013). For the consolidation scenario, see Petri, Plummer, and Zhai (2011) and Petri and Plummer (2012). In particular, Kawai and Wignaraja (2013) and Baldwin and Kawai (2013) strongly recommend that the two mega-lateral trade blocs should not be exclusive but complementary by harmonizing the scope of the RTAs. In contrast, Choi and Lee (2013) are very pessimistic about the convergence of the two blocs and ask strong effort for main actors such as ASEAN, US, and China, to make the two blocs similar.

Table 7. Effects of the ASEAN+3 RTA and the ASEAN+6 RTA

	Kawai and Wignaraja (2007)		Ando (2009)		Ken Itakura (2013)[1]		Chirathivat and Srisang-nam (2013)[2]		Gilbert (2013)[3]	
	ASEAN+3	ASEAN+6	ASEAN+3	ASEAN+6	ASEAN+3	ASEAN+6	ASEAN+3	ASEAN+6	ASEAN+3	ASEAN+6
	Income (% change)	Income (% change)	Welfare (Million $)	Welfare (Million $)	Welfare (% change)	Welfare (% change)	GDP (% change)	GDP (% change)	Welfare (Million $)	Welfare (Million $)
China	1.26	1.33	658	673			1.66	1.77	808.1	2,822.2
Japan	1.54	1.59	6,492	7,118			0.44	0.54	12,679.9	13,951.3
Korea	6.19	6.43	5,964	6,287			3.56	3.72	23,902.1	25,043.8
Taiwan	-2.03	-2.23	-1,511	-1,759			-0.08	0.10		
Indonesia					4.57	5.39	1.74	1.94	-52.8	-436.8
Malaysia					4.23	5.19	5.83	6.21	545.4	1,780.8
Philippines					2.40	2.44	3.94	4.18	-116.6	-261.8
Thailand					9.69	10.03	4.49	4.78	1,145. 7	882.1
Singapore					8.48	9.21	4.22	4.40	673.0	579.2
Viet Nam							7.08	7.33	1,605.4	1,608.2
Cambodia					6.42	6.44			37.2	18.4
Lao PDR					2.53	2.49			-5.7	-7.3
Canada	0.18	0.15	-63	-172						
US	-0.03	-0.06	-4,800	-6,008						
Australia	-0.41	3.91	-722	4,833			-0.09	1.35	-457.2	5,010.4
New Zea-land	-0.27	5.24	-145	269			-0.06	1.87		
India	-0.30	2.42	-505	-872			-0.10	1.30	552.3	7,810.5
EU	0.06	0.02	-3,054	-3,989			-0.01	-0.01		
ROW			-2,494	-3,802			1.18	1.30		
ASEAN	5.23	5.66	7,582	9,176			3.60	3.83	3,831.5	4,162.9
ASEAN+3			20,696	23,253			1.02	1.30		
ASEAN+6			19,324	27,484			0.22	0.28		
World	0.45	0.54	6,669	10,833			1.66	1.77	808.1	2,822.2

Notes: 1) cumulative deviation from 2011 to 2015, including not only tariff elimination but reducing service trade barrier and trade cost of time.

2) trade facilitation and liberalization

3) the effect of capital accumulation

Table 8. Effects of Mega-lateral RTAs in Asia-Pacific

	Petri and Plummer (2012)			Kim, Park, and Park (2013)[4]	
	Asian Track[1]	TPP Track[2]	FTAAP[3]	FTAAP	
	Income (% change)	Income (% change)	Income (% change)	GDP (% change)	Welfare (% change)
China	1.35	–0.27	3.93	0.04	-0.07
Japan	1.93	2.24	4.27	0.14	0.37
Korea	4.12	2.16	6.11	0.86	1.36
Taiwan	-1.90	–0.35	6.31	0.54	1.52
Indonesia	0.83	–0.23	2.45	0.17	-0.16
Brunei	2.77	1.10	5.45		
Malaysia	1.93	6.10	8.90	2.45	2.69
Philippines	1.72	–0.35	4.95	0.26	0.69
Thailand	1.78	–0.67	4.91	1.23	6.18
Singapore	-0.49	1.95	3.28	0.03	1.16
Viet Nam	3.97	13.57	21.46	5.05	8.02
Canada	0.02	0.50	1.32	0.04	-0.07
US	0.01	0.38	1.31	0.01	0.03
Australia	0.02	0.60	1.84	0.09	0.25
New Zea-land	0.13	2.25	2.86	0.16	1.45
India	-0.15	–0.07	-0.56		
Europe	0.02	–0.02	–0.14	-0.04	-0.13
ROW	-0.01	–0.07	–0.44	-0.05	-0.48
ASEAN+3	1.79	0.66	4.62		
APEC	0.86	0.53	3.48	0.13	0.25
World	0.48	0.29	1.86		

Notes:

1) ASEAN+3

2) 12 TPP countries + Korea

3) 21 APEC countries

4) 19 APEC countries excluding Brunei Darussalam and Papua New Guinea.

IV. Policy Implications

1. Strategy for a Desirable Region-Wide RTA

In our analysis, we found that the region should follow an expansionary RTA path (for example, AFTA and five ASEAN+1 FTA → RCEP and/or TPP → FTAAP). This can be achieved by strategically utilizing a competitive RTA path (for example, AFTA vs. China-Japan-Korea FTA and RCEP vs. TPP). Rivalry between the competing RTAs will push the respective other to speed up negotiations and upgrade their scope. As noted earlier, China did not support Japan's preferred solution of an ASEAN+6 RTA (CEPEA) until the TPP had been initiated by the US. Because the TPP may marginalize China's regional dominance, China allowed ASEAN to bring the 16 countries together in the RCEP by giving up the ASEAN+3 RTA (EAFTA) option.

In order to make the desirable expansionary path feasible, a trilateral FTA among China, Japan, and Korea should be formed first, and the China-Korea FTA can be a necessary condition for the trilateral FTA to be realized. At the same time, the three Northeast Asian countries should actively participate in the formation of an RCEP. Compared with the TPP, the RCEP may be more desirable for countries in East Asia because the TPP's high standard of liberalization may bring out the differences between developed East Asian members and developing East Asian members, including potential members like Cambodia, Lao PDR, Myanmar, India, Indonesia, and China.

2. Multilateralizing East Asian RTAs

As we consider the high dependence on external economies through global trade and investment, East Asia needs to cooperate with external partners. Through East Asian production networks more developed countries like Japan, Korea, and Taiwan ship technologically advanced parts and components to less developed countries in the region where they are assembled into final products and then exported to developed countries outside the region, especially to the US and the EU. Considering this global linkage, the extension of RTAs to external economies is a necessary step to take. In this regard, the RCEP should be more flexible to allow the EU's participation. Since the East Asian financial crisis in the late 1990s, economic linkages between the EU and East Asia through trade and foreign direct investment have been strengthened. Accordingly, the ASEAN-EU and the Korea-EU FTA are currently in effect and India, Japan, Malaysia, Singapore, and

Vietnam have started to negotiate FTAs with the EU. At the same time, the US's pivot to Asia policy initiated the TPP and the FTAAP strategy. It may link East Asia to pacific economies. East Asia should enhance the external linkages by utilizing this opportunity to multilateralize its RTAs.

3. Best Practices for East Asian RTAs

As mentioned earlier, a complicated web of hub-and-spoke type of overlapping RTAs in East Asia can result in high costs for verifying ROO and in trade diversion or suppression effects. Park and Park (2011) propose the cumulation of ROO, especially full cumulation, to enhance global free trade by mitigating these negative effects. More specifically, Kim, Park, and Park (2013a) recommend that regime-wide ROO, such as diagonal cumulation, de minimis, and self-certification requirements, can be applied to reduce additional administrative and compliance cost for verifying restrictive ROO.[13] Kim, Park, and Park (2013b) find that the FTAAP has great potential for improving the welfare of participating APEC economies, will boost economic growth in the region, and would be even better if it could be linked with liberalization of trade in services and enhanced trade facilitation.[14] Baldwin and Kawai (2013) also emphasize the necessity to harmonize ROO and enhance trade facilitation for more gains from region-wide East Asian RTAs. Thus, in order to enable East Asian economies to take the more desirable expansionary RTA path, harmonizing or simplifying ROO, the cumulation of value contents among the RTA

[13] Citing from Estevadeordal and Suominen (2003), diagonal cumulation allows producers of one RTA member to use non-originating materials from another RTA member without losing the preferential status of the final product; de minimis allows for a specified maximum percentage of non-originating materials to be used without affecting origin; contrast to certification by an industry umbrella group or certification by the exporting country government, self-certification by exporters enhances the utilization of RTAs.

[14] For detailed information about reducing or eliminating trade barriers in East Asian RTAs, see Chia (2010), Lee and Okabe (2011), and Kawai and Wignaraja (2007 and 2013). More specifically for tariff barriers, ASEAN's effort for complete tariff reduction under the CEPT (Common Effective Preferential Tariff)-AFTA (ASEAN Free Trade Area) scheme has been accomplished. According to Kuno (2011, see Table 1) which evaluates the level of liberalization by calculating preferential tariff for five ASEAN+1 RTAs, the most liberalized ASEAN+1 RTA in the region is the ASEAN+Australia and New Zealand FTA (94.6%) followed by the ASEAN-China FTA (92.0%), the ASEAN+Korea FTA (91.6%), the ASEAN+Japan CEP (89.2%), and the ASEAN+India FTA (76.5%). For more comprehensive analysis, Table 8 in Kawai and Wignaraja (2007) classifies East Asian FTAs by scope. Among the 34 FTAs as of 2006, 8 FTAs (24%) covers goods provisions, 3 FTAs (9%) covers both goods and services, 9 FTAs (26%) covers goods, services, and Singapore issues, and 14 FTAs (41%) covers goods, services, Singapore issues, and cooperation enhancement. According to the Appendix Table 3 in Kawai and Wignaraja (2013) which covers 25 selected FTAs including China, India, Japan, Korea, and Singapore, percent of goods and services provisions covered is 69% on average and percent of WTO-plus provisions (both Singapore issues and cooperation enhancement) covered is 38% on average.

members in East Asia, and enhancing trade facilitation should be a prerequisite considering the complicated web of RTAs, regional production networks, and the consolidation of the FTAAP.

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Appendix Table 1. Implemented RTAs among the Countries in ASEAN+6

	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM	CHN	JPN	KOR	AUS	NZL	IND
BRN (Brunei Darussalam) (8)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
								P4 <2006>			Japan-Brunei <2008>			P4 <2006>	
KHM (Cambodia) (6)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
IDN (Indonesia) (7)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
												Japan-Indonesia <2008>				
LAO (Lao PDR) (8)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
									Laos-Thailand <1991>		APTA <1976>		APTA <1976>			APTA <1976>
MYS (Malaysia) (10)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
												Japan-Malaysia <2006>		Malaysia-Australia <2013>	Malaysia-New Zealand <2010>	Malaysia-India <2011>
MMR (Myanmar) (6)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
PHL (Philippines) (7)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
												Japan-Philippines <2008>				
SGP (Singapore)	AFTA <1993>										ASEAN-China	ASEAN-Japan	ASEAN-Korea	AANZFTA <2010>		ASEAN-India

	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM	CHN	JPN	KOR	AUS	NZL	IND
(13)											<2005>	<2008>	<2007>			<2010>
											China-Singapore <2009>	Japan-Singapore <2002>	Korea-Singapore <2006>	Singapore-Australia <2003>	New Zealand-Singapore < 2001>	India-Singapore <2005>
	P4 <2006>														P4 <2006>	
THA (Thailand) (11)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
				Laos-Thailand <1991>							China-Thailand <2003>	Japan-Thailand <2007>		Thailand-Australia <2005>	Thailand-New Zealand <2005>	
VNM (Viet Nam) (7)	AFTA <1993>										ASEAN-China <2005>	ASEAN-Japan <2008>	ASEAN-Korea <2007>	AANZFTA <2010>		ASEAN-India <2010>
												Japan-Viet Nam <2009>				
CHN (China) (5)				APTA <1976>				China-Singapore <2009>	China-Thailand <2003>				APTA <1976>		New Zealand-China <2008>	APTA <1976>
	ASEAN-China <2005>															
JPN (Japan) (9)	Japan-Brunei <2008>		Japan-Indonesia <2008>		Japan-Malaysia <2006>		Japan-Philippines <2008>	Japan-Singapore <2002>	Japan-Thailand <2007>	Japan-Viet Nam <2009>						Japan-India <2011>
	ASEAN-Japan <2008>															
KOR (Korea) (4)				APTA <1976>				Korea-Singapore <2006>			APTA <1976>					APTA <1976>
	ASEAN-Korea <2007>															India-Korea <2010>
AUS (Australia) (5)					Malaysia-Australia <2013>				Thailand-Australia <2005>						SPRTECA <1981>	
	AANZFTA <2010>														ANZCERTA <1983>	

	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM	CHN	JPN	KOR	AUS	NZL	IND
															AANZFTA <2010>	
NZL (New Zealand) (8)					Malaysia-New Zealand <2010>			New Zealand-Singapore < 2001>	Thailand-New Zealand <2005>		New Zealand-China <2008>			SPRTECA <1981>		
	P4 <2006>							P4 <2006>						ANZCERTA <1983>		
	AANZFTA <2010>													AANZFTA <2010>		
IND (India) (6)				APTA <1976>	Malaysia-India <2011>			India-Singapore <2005>			APTA <1976>	Japan-India <2011>	APTA <1976>			
	ASEAN-India <2010>												India-Korea <2010>			

Notes:

- Figures in ( ) and < > are number of regional trade agreements and year implemented, respectively.
- Asia-Pacific Trade Agreement (APTA); ASEAN Free Trade Agreement (AFTA); Trans-Pacific Strategic Economic Partnership Agreement (P4); South Pacific Regional Trade and Economic Cooperation Agreement (SPRTECA); Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA); ASEAN-Australia and New Zealand FTA (AANZFTA)

Source: Asian Development Bank (ADB), Asia Regional Integration Center FTA database, http://aric.adb.org/fta

Appendix Table 2. Intra-ASEAN+6 Trade Matrix, Average for 2010-2012 (US Million Dollars)

		BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM	CHN	JPN	KOR	AUS	NZL	IND
Brunei Darussalam (BRN)	Im		0.0	82.3	0.0	619.2	0.4	7.1	1,497.8	166.4	16.7	866.9	175.9	280.5	38.6	3.9	348.3
	Ex		0.5	637.7	0.0	45.1	0.1	19.1	139.7	205.3	120.1	471.7	4,790.0	1,670.7	1124.2	531.2	551.8
	Bal		0.5	555.4	0.0	-574.1	-0.3	11.9	-1,358.1	38.9	103.4	-395.1	4,614.1	1,390.3	1085.6	527.3	203.5
Cambodia (KHM)	Im	0.6		260.6	1.6	241.1	0.1	12.0	747.5	2,587.3	1,964.7	2,237.3	213.3	465.4	26.7	4.2	90.3
	Ex	0.0		7.3	1.0	65.6	0.0	2.1	373.2	179.3	298.0	143.0	245.9	72.9	36.7	3.6	8.3
	Bal	-0.6		-253.3	-0.7	-175.5	-0.1	-9.9	-374.4	-2,407.9	-1,666.7	-2,094.3	32.6	-392.5	10.0	-0.6	-82.0
Indonesia (IDN)	Im	701.5	8.1		1.7	10,432.4	55.6	786.1	24,097.6	9,771.0	2,040.1	25,341.2	19,723.4	10,891.0	4857.9	717.5	3974.1
	Ex	74.8	256.5		12.6	10,546.1	348.4	3,529.1	16,434.1	5,699.5	2,191.4	20,097.7	29,877.2	14,671.1	4910.8	403.0	11915.7
	Bal	-626.7	248.4		10.9	113.7	292.9	2,743.0	-7,663.5	-4,071.5	151.3	-5,243.5	10,153.8	3,780.1	52.9	-314.5	7941.5
Lao PDR (LAO)	Im	0.0	1.1	13.9		15.1	0.0	0.5	32.2	3,102.1	278.0	690.4	101.8	158.3	30.8	1.5	18.4
	Ex	0.0	1.5	1.6		1.0	0.0	0.0	2.6	949.9	373.1	651.2	78.3	10.8	17.9	0.2	69.0
	Bal	0.0	0.4	-12.3		-14.0	0.0	-0.5	-29.6	-2,152.1	95.1	-39.2	-23.5	-147.5	-12.8	-1.3	50.6
Malaysia (MYS)	Im	49.6	76.0	10,241.9	1.1		215.5	2,221.4	22,987.6	11,106.8	3,736.9	25,064.0	20,775.2	8,180.2	4034.8	728.4	3214.0
	Ex	562.9	235.2	7,127.5	13.7		543.0	3,361.4	28,776.5	11,509.8	3,734.2	27,877.4	24,750.6	8,115.6	8436.0	1029.6	8413.7
	Bal	513.2	159.2	-3,114.5	12.6		327.5	1,140.1	5,788.9	403.0	-2.7	2,813.4	3,975.4	-64.6	4401.2	301.1	5199.7
Myanmar (MMR)	Im	0.1	0.0	383.3	0.0	597.3		16.3	1,360.0	2,931.7	79.9	5,126.2	744.2	908.1	86.6	16.5	466.6
	Ex	0.4	0.1	50.5	0.0	195.9		17.9	74.8	3,041.8	83.6	1,193.3	501.4	245.4	14.2	1.1	1127.4
	Bal	0.3	0.1	-332.8	0.0	-401.4		1.6	-1,285.2	110.1	3.7	-3,933.0	-242.8	-662.7	-72.4	-15.4	660.8
Philippines (PHL)	Im	21.0	2.2	2,446.6	0.0	2,522.3	19.7		4,826.6	3,591.6	1,134.7	5,777.1	6,567.7	4,241.3	1082.2	463.4	626.8
	Ex	6.5	11.5	631.6	0.5	1,171.2	14.8		5,489.8	2,044.7	627.3	5,987.6	8,858.4	2,428.9	373.5	42.1	374.9
	Bal	-14.5	9.4	-1,815.0	0.4	-1,351.1	-4.9		663.3	-1,546.9	-507.4	210.5	2,290.7	-1,812.5	-708.6	-421.3	-251.9
Singapore (SGP)	Im	153.7	305.7	18,777.4	2.9	38,636.1	82.3	7,150.1		10,595.5	1,837.6	36,959.1	24,776.0	21,821.4	4034.5	758.3	12114.5
	Ex	1,361.7	1,370.7	39,751.5	29.3	47,454.5	1,236.4	6,761.2		14,141.1	9,333.9	41,110.1	17,889.8	15,486.8	15272.5	1983.0	12786.7
	Bal	1,208.0	1,065.0	20,974.0	26.4	8,818.5	1,154.1	-388.9		3,545.6	7,496.2	4,151.0	-6,886.2	-6,334.5	11238.0	1224.7	672.3
Thailand (THA)	Im	225.8	214.7	7,099.8	1,044.9	12,132.8	3,346.0	2,618.0	7,351.0		2,150.8	30,747.4	43,487.9	8,811.2	6470.1	570.8	2840.8
	Ex	151.3	2,923.3	9,486.9	2,820.1	11,729.1	2,665.2	4,769.4	10,355.7		6,492.2	24,726.4	22,421.2	4,295.7	8999.7	888.7	4988.7
	Bal	-74.5	2,708.6	2,387.2	1,775.2	-403.7	-680.8	2,151.4	3,004.7		4,341.4	-6,020.9	-21,066.7	-4,515.5	2529.6	317.8	2147.9
Viet Nam (VNM)	Im	132.1	384.7	2,219.3	410.5	3,847.6	92.0	719.4	7,304.3	6,431.9		27,419.8	10,406.2	13,492.6	1867.2	380.7	2716.3
	Ex	15.2	2,155.9	2,050.5	252.8	3,221.8	72.7	1,368.6	2,150.6	1,901.7		11,062.8	10,745.2	4,335.7	2828.3	171.2	1432.8
	Bal	-116.9	1,771.2	-168.8	-157.7	-625.8	-19.4	649.2	-5,153.7	-4,530.2		-16,357.0	339.1	-9,157.0	961.1	-209.6	-1283.5
China (CHN)	Im	518.9	165.1	28,038.4	716.3	56,879.7	1,312.6	17,956.5	26,923.8	36,899.0	11,436.3		182,813.7	155,429.0	73073.6	4850.6	21029.5
	Ex	788.1	2,124.0	28,507.0	627.6	29,414.7	4,660.2	14,197.5	35,984.0	25,559.4	28,811.2		139,687.0	79,794.0	32965.2	3459.0	46371.5
	Bal	269.1	1,958.9	468.6	-88.7	-27,465.0	3,347.6	-3,759.0	9,060.2	-11,339.5	17,374.9		-43,126.7	-75,635.0	-40108.4	-1391.6	25342.0
Japan (JPN)	Im	5,269.0	307.4	31,533.8	86.1	28,679.2	551.6	8,743.2	8,527.4	23,056.7	11,620.5	175,255.7		36,320.6	52810.1	2945.6	6492.9
	Ex	159.9	199.3	17,985.6	92.5	18,030.7	676.5	11,380.7	25,248.9	38,468.1	9,502.6	151,882.3		63,264.0	17389.1	1928.4	10235.0
	Bal	-5,109.1	-108.1	-13,548.2	6.4	-10,648.5	125.0	2,637.5	16,721.5	15,411.3	-2,117.9	-23,373.3		26,943.4	-35421.0	-1017.3	3742.1
Korea (KOR)	Im	1,837.8	85.7	15,626.1	11.9	9,930.6	269.9	3,447.8	8,830.3	4,977.8	4,711.3	79,594.7	65,653.7		23255.6	1329.9	6829.5
	Ex	255.0	459.0	12,138.3	143.9	6,704.7	825.5	7,130.5	19,662.5	7,716.3	13,049.6	128,455.3	35,561.6		8018.5	1162.5	12014.2
	Bal	-1,582.9	373.3	-3,487.8	132.0	-3,225.9	555.6	3,682.7	10,832.1	2,738.4	8,338.3	48,860.7	-30,092.1		-15237.1	-167.4	5184.7
Australia (AUS)	Im	1236.6	41.6	6446.9	19.7	9956.5	15.6	508.3	14473.0	10761.9	3319.9	46094.4	20165.4	8855.5		8066.8	2488.1
	Ex	35.1	27.1	4882.6	28.0	4415.0	78.8	1538.2	6145.9	5807.5	1789.4	67752.9	47325.0	21196.7		7653.1	14498.2
	Bal	-1201.5	-14.5	-1564.3	8.2	-5541.5	63.1	1029.9	-8327.1	-4954.5	-1530.4	21658.5	27159.6	12341.2		-413.7	12010.1
New Zealand (NZL)	Im	584.3	4.0	541.9	0.2	1212.6	1.2	105.8	1571.1	1090.2	210.6	5696.3	2350.3	1220.4	5753.8		304.4
	Ex	3.5	4.2	678.6	1.4	659.8	15.0	558.5	638.3	532.0	341.5	4597.2	2565.3	1198.3	7802.6		678.3
	Bal	-580.7	0.2	136.7	1.1	-552.8	13.8	452.7	-932.8	-558.2	130.8	-1099.1	214.9	-22.1	2048.8		373.9
India (IND)	Im	607.0	8.7	12559.8	75.9	8500.8	1240.1	445.1	7757.8	4840.5	1487.9	50205.3	10659.0	12037.9	12760.5	708.4	
	Ex	316.7	86.5	5836.4	16.8	3752.2	424.2	976.1	13308.2	2940.4	3187.1	17163.8	5739.3	4224.5	2143.6	244.5	
	Bal	-290.4	77.8	-6723.4	-59.2	-4748.6	-815.9	531.0	5550.4	-1900.0	1699.2	-33041.5	-4919.7	-7813.4	-10616.9	-463.8	

Note: Im-Import, Ex-Export, Bal-Balance of Payment (Trade Balance) . Source: IMF, Direction of Trade Statistics CD-ROM, June 2013.

Appendix Table 3. Intra-ASEAN+6 Trade by Group, Average for 2010-2012 (US Million Dollars)

		ASEAN	ASEAN+3	CJK (China, Japan, Korea)	ASEAN+6	World
Brunei Darussalam	Import	2,389.9	3,713.2	1,323.3	4,104.0	5,329.4
	Export	1,167.6	8,100.0	6,932.4	10,307.2	10,467.1
	Balance	-1,222.4	4,386.9	5,609.3	6,203.3	5,137.7
Cambodia	Import	5,815.5	8,731.5	2,916.0	8,852.7	10,822.3
	Export	926.5	1,388.3	461.8	1,436.9	6,609.3
	Balance	-4,889.1	-7,343.3	-2,454.2	-7,415.9	-4,213.0
Indonesia	Import	47,894.1	103,849.7	55,955.6	113,399.2	168,287.3
	Export	39,092.5	103,738.5	64,646.0	120,968.0	183,775.0
	Balance	-8,801.5	-111.1	8,690.4	7,568.8	15,487.7
Lao PDR	Import	3,442.9	4,393.4	950.5	4,444.1	4,805.3
	Export	1,329.7	2,070.0	740.3	2,157.1	2,890.1
	Balance	-2,113.0	-2,323.2	-210.2	-2,286.7	-1,915.2
Malaysia	Import	50,636.8	104,656.2	54,019.4	112,633.4	183,075.3
	Export	55,864.2	116,607.8	60,743.6	134,487.1	218,223.7
	Balance	5,227.3	11,951.5	6,724.2	21,853.5	35,148.3
Myanmar	Import	5,368.6	12,147.1	6,778.5	12,716.8	13,500.8
	Export	3,465.0	5,405.1	1,940.1	6,547.8	7,673.8
	Balance	-1,903.6	-6,742.1	-4,838.5	-6,169.1	-5,827.0
Philippines	Import	14,564.7	31,150.8	16,586.1	33,323.2	58,862.3
	Export	9,997.9	27,272.8	17,274.9	28,063.3	50,610.6
	Balance	-4,566.7	-3,878.0	688.7	-5,259.8	-8,251.7
Singapore	Import	77,541.3	161,097.8	83,556.5	178,005.1	352,312.3
	Export	121,440.3	195,927.0	74,486.7	225,969.2	392,683.0
	Balance	43,898.9	34,829.2	-9,069.7	47,964.2	40,370.7
Thailand	Import	36,183.8	119,230.3	83,046.5	129,112.0	221,136.7
	Export	51,393.2	102,836.5	51,443.3	117,713.6	213,919.3
	Balance	15,209.5	-16,393.6	-31,603.1	-11,398.3	-7,217.3
Vietnam	Import	21,541.8	72,860.4	51,318.6	77,824.6	108,621.6
	Export	13,189.8	39,333.5	26,143.7	43,765.8	92,080.9
	Balance	-8,352.1	-33,527.0	-25,174.9	-34,059.0	-16,540.7
China	Import	180,846.6	519,089.3	338,242.7	618,043.0	1,650,916.7
	Export	170,673.7	390,154.7	219,481.0	472,950.4	1,844,596.7
	Balance	-10,172.9	-128,934.6	- 118,761.7	-145,092.6	193,680.0
Japan	Import	118,374.9	329,951.2	211,576.3	392,199.8	811,574.3
	Export	121,744.8	336,891.1	215,146.3	366,443.6	798,830.0
	Balance	3,369.9	6,940.0	3,570.1	-25,756.2	-12,744.3
Korea	Import	49,729.2	194,977.6	145,248.4	226,392.6	489,804.0
	Export	68,085.3	232,102.2	164,016.9	253,297.4	528,446.3
	Balance	18,355.8	37,124.4	18,768.6	26,904.6	38,642.3
Australia	Import	46,780.0	121,895.3	75,115.3	132,450.2	250,899.7
	Export	24,747.6	161,022.2	136,274.6	183,173.5	246,820.0
	Balance	-22,032.6	39,126.7	61,159.3	50,723.1	-4,079.7
New Zealand	Import	5,321.9	14,588.9	9,267.0	20,647.1	35,269.8
	Export	3,432.8	11,793.6	8,360.8	20,274.5	35,486.4
	Balance	-1,889.2	-2,795.5	-906.3	-372.8	216.6
India	Import	37,523.6	110,425.8	72,902.2	123,894.7	435,055.3
	Export	30,844.6	57,972.2	27,127.6	60,360.3	275,304.0
	Balance	-6,679.1	-52,453.7	-45,774.6	-63,534.4	-159,751.3

Source: IMF, Direction of Trade Statistics CD-ROM, June 2013.

Appendix Table 4. Intra-ASEAN+6 Exports by RTAs, 2010 - 2012

Value (US Billion Dollars)	2010	2011	2012	Average for 2010-2012
China-Japan FTA	269.9	309.1	295.7	291.6
China-Korea FTA	185.6	217.1	222.0	208.2
Korea-Japan FTA	90.4	105.7	100.3	98.8
CJK FTA	546.0	632.0	618.0	598.6
AFTA	262.2	309.0	322.5	297.9
ASEAN-China FTA	251.9	311.6	348.5	304.0
ASEAN-Japan FTA	215.9	251.1	258.7	241.9
ASEAN- Korea FTA	98.2	126.0	134.0	119.4
ASEAN-ANZ FTA	79.9	94.7	97.5	90.7
ASEAN-India FTA	59.8	81.6	76.1	72.5
ASEAN+3 FTA	1,374.1	1,629.7	1,681.7	1,561.8
ASEAN+6 FTA	1,793.1	2,154.4	2,196.3	2,047.9
Share	**2010**	**2011**	**2012**	**Average for 2010-2012**
China-Japan FTA	11.5%	11.3%	10.4%	11.0%
China-Korea FTA	9.0%	8.8%	8.5%	8.8%
Korea-Japan FTA	7.3%	7.6%	7.4%	7.4%
CJK FTA	19.3%	19.2%	18.2%	18.9%
AFTA	25.0%	25.0%	25.7%	25.3%
ASEAN-China FTA	9.6%	9.9%	10.5%	10.1%
ASEAN-Japan FTA	11.9%	12.2%	12.6%	12.2%
ASEAN- Korea FTA	6.5%	7.0%	7.4%	7.0%
ASEAN-ANZ FTA	6.2%	6.1%	6.3%	6.2%
ASEAN-India FTA	4.7%	5.3%	4.9%	5.0%
ASEAN+3 FTA	35.5%	36.0%	36.1%	35.9%
ASEAN+6 FTA	41.3%	41.9%	41.8%	41.7%

Note: CJK: China, Japan, and Korea ; AFTA: ASEAN Free Trade Area; ANZ: Australia and New Zealand

Source: IMF, Direction of Trade Statistics CD-ROM, June 2013.

Appendix Table 5. Intra-ASEAN+6 Imports by RTAs, 2010 - 2012

Value (US Billion Dollars)	2010	2011	2012	Average for 2010-2012
China-Japan FTA	329.7	378.3	366.2	358.1
China-Korea FTA	209.6	248.1	247.4	235.0
Korea-Japan FTA	92.9	108.1	104.9	102.0
CJK FTA	632.2	734.5	718.5	695.1
AFTA	231.1	272.5	292.5	265.4
ASEAN-China FTA	284.2	351.8	387.2	341.1
ASEAN-Japan FTA	217.9	252.2	266.0	245.3
ASEAN- Korea FTA	101.5	124.3	131.1	119.0
ASEAN-ANZ FTA	80.9	95.5	99.9	92.1
ASEAN-India FTA	49.7	69.9	72.2	63.9
ASEAN+3 FTA	1,466.9	1,735.4	1,795.3	1,665.8
ASEAN+6 FTA	1,910.8	2,294.1	2,359.2	2,188.0
Share	**2010**	**2011**	**2012**	**Average for 2010-2012**
China-Japan FTA	15.8%	14.6%	13.5%	14.6%
China-Korea FTA	11.5%	10.9%	10.6%	11.0%
Korea-Japan FTA	8.3%	7.8%	7.5%	7.8%
CJK FTA	25.2%	23.5%	22.3%	23.5%
AFTA	24.2%	23.4%	23.2%	23.6%
ASEAN-China FTA	12.1%	12.1%	12.6%	12.3%
ASEAN-Japan FTA	13.2%	12.5%	12.4%	12.7%
ASEAN- Korea FTA	7.3%	7.4%	7.4%	7.4%
ASEAN-ANZ FTA	6.7%	6.5%	6.3%	6.5%
ASEAN-India FTA	3.8%	4.3%	4.1%	4.1%
ASEAN+3 FTA	42.3%	40.5%	40.0%	40.8%
ASEAN+6 FTA	47.0%	45.5%	44.6%	45.6%

Note: CJK: China, Japan, and Korea ; AFTA: ASEAN Free Trade Area; ANZ: Australia and New Zealand

Source: IMF, Direction of Trade Statistics CD-ROM, June 2013.

Appendix Table 6. Intra-ASEAN+6 Trade by RTAs, 2010 - 2012

Value (US Billion Dollars)	2010	2011	2012	Average for 2010-2012
China-Japan FTA	599.6	687.4	661.9	649.7
China-Korea FTA	395.2	465.2	469.4	443.2
Korea-Japan FTA	183.4	213.8	205.2	200.8
CJK FTA	1,178.2	1,366.5	1,336.5	1,293.7
AFTA	493.2	581.5	615.0	563.2
ASEAN-China FTA	536.1	663.4	735.7	645.1
ASEAN-Japan FTA	433.8	503.3	524.7	487.2
ASEAN- Korea FTA	199.7	250.3	265.1	238.4
ASEAN-ANZ FTA	160.8	190.2	197.4	182.8
ASEAN-India FTA	109.5	151.5	148.3	136.4
ASEAN+3 FTA	2,841.0	3,365.1	3,477.0	3,227.6
ASEAN+6 FTA	3,703.9	4,448.4	4,555.5	4,236.0
Share	**2010**	**2011**	**2012**	**Average for 2010-2012**
China-Japan FTA	13.5%	12.9%	11.9%	12.7%
China-Korea FTA	10.2%	9.8%	9.5%	9.8%
Korea-Japan FTA	7.8%	7.7%	7.4%	7.6%
CJK FTA	22.1%	21.3%	20.2%	21.1%
AFTA	24.6%	24.3%	24.4%	24.4%
ASEAN-China FTA	10.8%	11.0%	11.5%	11.1%
ASEAN-Japan FTA	12.5%	12.3%	12.5%	12.4%
ASEAN- Korea FTA	6.9%	7.2%	7.4%	7.2%
ASEAN-ANZ FTA	6.5%	6.3%	6.3%	6.4%
ASEAN-India FTA	4.2%	4.8%	4.5%	4.5%
ASEAN+3 FTA	38.7%	38.2%	38.0%	38.3%
ASEAN+6 FTA	44.1%	43.7%	43.2%	43.6%

Note: CJK: China, Japan, and Korea ; AFTA: ASEAN Free Trade Area; ANZ: Australia and New Zealand

Source: IMF, Direction of Trade Statistics CD-ROM, June 2013.