**ASEAN Economic Integration through
Trade and Foreign Direct Investment:
Long-Term Challenges**

Masahiro Kawai and
Kanda Naknoi

Asian Development Bank Institute

Masahiro Kawai is Professor, Graduate School of Public Policy, University of Tokyo.

Kanda Naknoi is Assistant Professor, Department of Economics, University of Connecticut.

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Please contact the authors for information about this paper.

E-mail: mkawai@pp.u-tokyo.ac.jp, kanda.naknoi@uconn.edu

Asian Development Bank Institute
Kasumigaseki Building 8F
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500
Fax: +81-3-3593-5571
URL: www.adbi.org
E-mail: info@adbi.org

Abstract

This paper explores the long-term challenges for trade and foreign direct investment (FDI) of the Association of Southeast Asian Nations (ASEAN). The region has emerged as an important production base for multinational corporations by joining East Asia's supply chains. While proceeding to establish the ASEAN Economic Community (AEC) by the end of 2015, ASEAN has also forged five major free trade agreements (FTAs) with its dialogue partners (People's Republic of China, India, Japan, Republic of Korea, and Australia–New Zealand) and is currently negotiating the Regional Comprehensive Economic Partnership (RCEP). In addition, four ASEAN member states are working on the Trans-Pacific Partnership (TPP) negotiations. Econometric evidence suggests that (i) trade flows and inward FDI mutually reinforce each other, i.e., an increase in trade flows stimulates inward FDI and vice versa; (ii) a larger market attracts more inward FDI; (iii) FTAs tend to help stimulate inward FDI; and (iv) strong institutions, good physical infrastructure, and low costs of doing business are critical in boosting inward FDI. The paper concludes that in the long run ASEAN should aim to further integrate itself with the rest of Asia and the world (through a Free Trade Area of the Asia-Pacific and an Asia–Europe FTA), while substantially deepening its internal integration (by moving from the AEC to a customs and economic union) and thereby maintaining ASEAN centrality.

Contents

1. INTRODUCTION

One of the main engines of rapid economic growth and development in the Association of Southeast Asian Nations (ASEAN) has been the expansion of trade and foreign direct investment (FDI) inflows. ASEAN has long pursued outward-oriented trade and FDI policies since the 1980s. It has liberalized FDI inflows in manufacturing sectors and imports of capital goods and parts and components, invested in industrial and social infrastructure (ports, roads, railways, electricity, information and communication technology [ICT], and water), and improved the business climate. As a result, advanced ASEAN member states (particularly Singapore, Malaysia, and Thailand, followed by the Philippines) have successfully been integrated with East Asia's production networks and supply chains and thereby expanded intra-regional, intra-industry trade considerably. Less advanced members of ASEAN—i.e., the so-called CLMV countries (Cambodia, Lao People's Democratic Republic [Lao PDR], Myanmar, and Viet Nam)—are now liberalizing their trade and FDI regimes and making efforts to join the region's supply chains.

At the same time, ASEAN has also made steady progress on its internal economic integration as well as external integration with its partners in the rest of Asia and the world. Having launched the ASEAN Free Trade Area (AFTA) in 1993, ASEAN has liberalized trade in goods and services and FDI flows and is forging an ASEAN Economic Community (AEC) by the end of 2015. ASEAN member states are also negotiating the Regional Comprehensive Economic Partnership (RCEP) after establishing five ASEAN+1 free trade agreements (FTAs) with its six dialogue partners (Australia, People's Republic of China [PRC], India, Japan, Republic of Korea, and New Zealand). In addition, four ASEAN members (Brunei Darussalam, Malaysia, Singapore, and Viet Nam) are currently negotiating the Trans-Pacific Partnership (TPP) with eight other economies in the Asia-Pacific region.

This paper explores ASEAN's long-term challenges for its trade and FDI in terms of its direction once the AEC is successfully launched. The AEC aims, among others, to establish ASEAN as a single market and production base and integrate it into the global economy. A natural evolution would be to further integrate ASEAN with the rest of Asia and the world, while continuously deepening the AEC and, thus, maintaining ASEAN centrality.

The paper is organized as follows: Section 2 reviews the current state of ASEAN's trade and FDI activity and the advanced ASEAN members' participation in East Asia's supply chains, and suggests that less advanced ASEAN member states have great potential to join such supply chains. Section 3 discusses ASEAN's progress on its internal economic integration toward the AEC as well as its external integration with its partners in East Asia and the rest of the world. It argues that ASEAN should complete the RCEP negotiations and eventually join the TPP, while aiming to move to the next stage of ASEAN integration such as a customs and economic union. Section 4 presents econometric analysis of trade and FDI and finds that trade and FDI are mutually reinforcing and that FTAs stimulate trade and FDI. The empirical findings imply that ASEAN can maintain its dynamic economic growth and development through further internal and external integration driven by trade and FDI expansion. Section 5 concludes the paper.

2. ASEAN'S TRADE AND FOREIGN DIRECT INVESTMENT

ASEAN has seen a rapid expansion of trade and FDI inflows since the 1980s and has been integrated with East Asia's supply chains based on intra-industry vertical division of labor reflecting comparative advantage. Many advanced ASEAN member states (Singapore, Malaysia, Philippines, and Thailand) are active participants in supply chains, while Indonesia and less advanced members of ASEAN are beginning to join.

2.1 ASEAN's Trade

ASEAN is a diverse region in terms of factor endowments, human capital development, technological capabilities, and productivity. Its diversity is reflected in different export patterns across member states. It includes large exporters of fuels and minerals (Brunei Darussalam, Indonesia, Malaysia, and Myanmar), agricultural products (Indonesia, Myanmar, and Viet Nam), manufactured products (Cambodia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam), and commercial services (Philippines and Singapore). ASEAN is less diverse in terms of import patterns as all ASEAN member states import sizable amounts of manufactured products.

Figure 1 shows changes in shares of ASEAN's trade partners in its total trade over time. For ASEAN member states, other members are their major trading partners, accounting for 25% on the export side and 23% on the import side. The Asian newly industrialized economies (NIEs), including Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China, are the second most important trading partners. The importance of the PRC has been rising steadily since the early 2000s, replacing the importance of the United States (US), the European Union (EU), and Japan. The PRC now accounts for 12% on the export side and 18% on the import side.

Figure 1: ASEAN's Major Trading Partners, 1990–2013
(% of total exports or imports)

A. Exports   **B. Imports**
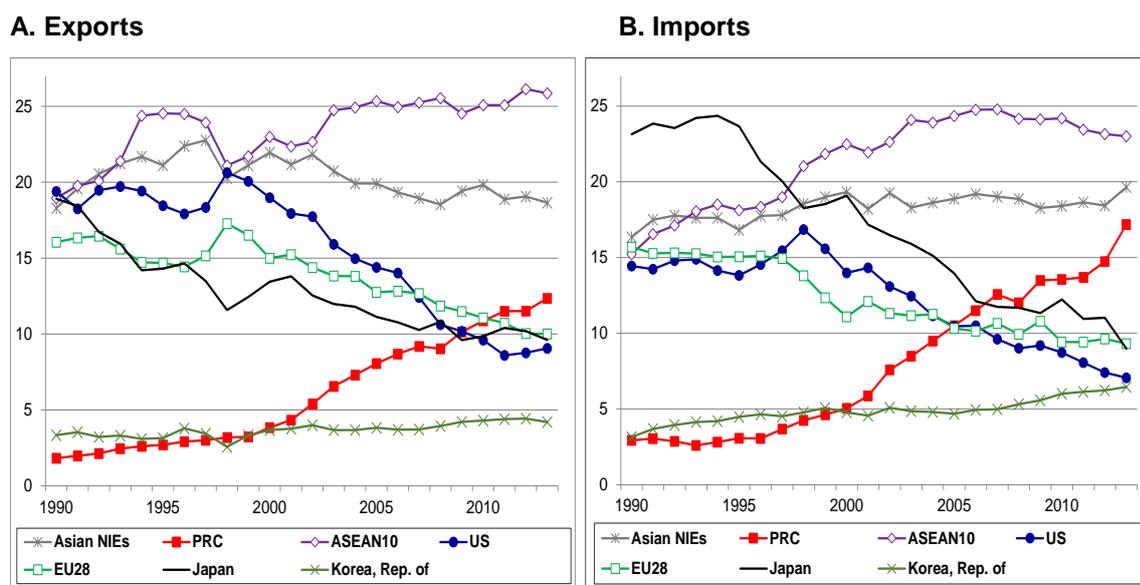
ASEAN = Association of Southeast Asian Nations, EU = European Union, NIE = newly industrialized economy, PRC = People's Republic of China, US = United States.

Note: In these figures, Asian NIEs refer to Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Source: International Monetary Fund, Direction of Trade Statistics.

Table 1 identifies major trading partners for each ASEAN member state (and other economies in East Asia, the US, and the EU) in 2013.[1] For ASEAN's exports (Table 1A), the PRC, the US, Japan, and the EU are major markets, followed by Hong Kong, China and Singapore. For ASEAN's imports (Table 1B), the PRC is by far the most dominant source country, followed by the EU, Japan, and the US. Singapore and Malaysia are also important source countries for other ASEAN member importers.

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[1] This follows a similar tabulation by Deardorff (2014).

Table 1: Major Export and Import Partners

A. Major importers from the viewpoint of exporting economies

Exporters \ Importers	Hong Kong, China	Taipei, China	PRC	Korea, Rep. of	India	Cambodia	Indonesia	Lao PDR	Myanmar	Philippines	Thailand	Brunei Darussalam	Malaysia	Singapore	Viet Nam	Japan	Australia	New Zealand	United States	EU28
Hong Kong, China	–		●		○											○			◎	○
Taipei, China	◎	–	●											○					◎	○
PRC	●		–	○												○			◎	◎
Korea, Rep. of	○		○	–												○			◎	◎
India			◎	○	–									○					◎	●
Cambodia	◎					–								○					◎	●
Indonesia			◎				–							○		●			○	◎
Lao PDR			●		○			–			◎			○						◎
Myanmar	◎		○		◎				–		●			○						
Philippines	○		◎							–						●			◎	○
Thailand	○		●								–			○					◎	◎
Brunei Darussalam				◎	◎							–			○	●	○			
Malaysia			◎										–	●		◎			○	○
Singapore	◎		◎					○				●		–						
Viet Nam			○	○											–	◎			◎	●
Japan		○	◎	○												–			●	◎
Australia			●	◎	○											◎	–		○	○
New Zealand												○				○	◎	–	◎	◎
United States			○											○					–	◎
EU28			◎																◎	●

B. Major exporters from the viewpoint of importing economies

Exporters \ Importers	Hong Kong, China	Taipei, China	PRC	Korea, Rep. of	India	Cambodia	Indonesia	Lao PDR	Myanmar	Philippines	Thailand	Brunei Darussalam	Malaysia	Singapore	Viet Nam	Japan	Australia	New Zealand	United States	EU28
Hong Kong, China	–					○														
Taipei, China		–	○							○				○	○					
PRC	●	◎	○	●	●	●	●	◎	●	●	◎	○	●	◎	●	●	●	●	●	◎
Korea, Rep. of		○	○	–				○	○					◎	○					
India					–															
Cambodia						–														
Indonesia							–													
Lao PDR								–												
Myanmar									–											
Philippines										–										
Thailand						◎		●	◎		–									
Brunei Darussalam												–								
Malaysia											○	●	–	◎						
Singapore	○						◎	◎				◎	◎	–		○				
Viet Nam						○		○							–					
Japan	◎	●	○	◎		◎		○	○	●		○		◎		–	○		○	○
Australia			○	○										○			–	◎		
New Zealand																		–		
United States	○	○		○	◎	◎				◎	○		◎	○	○	◎	◎	○	–	◎
EU28	◎	○	●	◎	◎		○	◎		◎	◎	○	◎	●	○	◎	◎	◎	◎	●

EU = European Union, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: ● = most important importer/exporter, ◎ = second and third most important importers/exporters, ○ = fourth and fifth most important importers/exporters.

Source: Constructed by the authors based on World Trade Organization. 2014. *Trade Profiles 2014*. Geneva.

ASEAN has been increasingly integrated in East Asia's supply chains. Table 2 shows the trade composition of products at different production stages for eight ASEAN member states. On the export side (Table 2A), the Philippines, Malaysia, and Singapore have large shares of exports of parts and components; Thailand, the Philippines, and Viet Nam have large shares of exports of capital goods; and Cambodia, Viet Nam, and Thailand have large shares of exports of final consumption goods. On the import side (Table 2B), Singapore, the Philippines, and Malaysia (and to some extent Thailand) have large shares of imports of parts and components, and Brunei Darussalam has a large share of imports of final consumption goods.

Table 2: Trade Composition of Production Stages for ASEAN Member States, 2012
(%)

A. Export composition

Exporting economy	Primary goods	Intermediate goods		Final goods	
		Processed goods	Parts and components	Capital goods	Consumption goods
Brunei Darussalam	50.2	48.6	0.3	0.2	0.8
Cambodia	5.7	5.7	0.4	0.3	87.9
Indonesia	34.0	37.9	6.2	4.8	17.1
Malaysia	8.2	38.7	31.7	12.8	8.8
Philippines	7.4	13.1	46.0	21.4	12.2
Singapore	1.2	50.6	27.1	14.5	6.5
Thailand	7.0	26.4	19.1	22.1	25.4
Viet Nam	15.3	12.4	11.4	20.5	40.4
ASEAN8	**12.4**	**34.2**	**21.9**	**14.6**	**17.0**

B. Import composition

Importing economy	Primary goods	Intermediate goods		Final goods	
		Processed goods	Parts and components	Capital goods	Consumption goods
Brunei Darussalam	1.6	41.9	10.7	12.4	33.4
Cambodia	2.2	64.1	3.4	14.7	15.6
Indonesia	11.1	49.6	13.8	18.1	7.4
Malaysia	11.0	35.0	28.1	16.3	9.7
Philippines	16.5	33.2	28.7	9.5	12.2
Singapore	13.6	36.1	29.4	12.0	8.9
Thailand	19.4	34.9	19.7	18.0	7.9
Viet Nam	6.8	52.4	16.5	15.5	8.8
ASEAN8	**13.4**	**39.4**	**23.2**	**15.1**	**8.9**

ASEAN = Association of Southeast Asian Nations.

Source: Research Institute of Economy, Trade and Industry, RIETI-RID database (www.rieti-tid.com).

Thus, many advanced ASEAN member states (Malaysia, Philippines, Singapore, and Thailand) are engaged in supply chain activities in manufactured products; importing processed goods and parts and components; and exporting parts and components, capital goods, and final consumption goods. For example, Thailand imports processed industrial goods and parts and components, and assembles them into final goods to be exported. Cambodia, a large exporter of apparel and textile products, is also engaged in supply chain activities in the textile industry by importing large amounts of processed goods and exporting final products.

Brunei Darussalam and Indonesia do not seem to be active in supply chain production. Brunei Darussalam exports primary products (oil and gas) and processed goods, while importing other processed goods and final consumption goods. Indonesia also exports primary goods and processed goods, while importing other processed goods. Room exists

for Brunei Darussalam, Indonesia, and less advanced ASEAN member states to develop more supply chain activities in wider manufacturing sectors.

2.2 ASEAN's Foreign Direct Investment Inflows

FDI has played a critical role in the formation of supply chains and production networks in East Asia. ASEAN member states have pursued policies to allow FDI inflows from developed countries, particularly in the manufacturing sector, as part of their industrialization strategies.

Figure 2 shows the rising trend of FDI inflows into ASEAN, with Singapore being the largest FDI recipients, followed by Indonesia, Thailand, and Malaysia, with Viet Nam catching up in recent years (Figure 2A). The EU, ASEAN, and Japan are active providers of FDI to ASEAN, followed by the Asian NIEs (excluding Singapore) and the US. It is important to note that a few ASEAN member states, such as Singapore and Indonesia, have become large investors in ASEAN.

Figure 2: Foreign Direct Investment Inflows into ASEAN, 2000–2012
($ billion)

A. By host economy
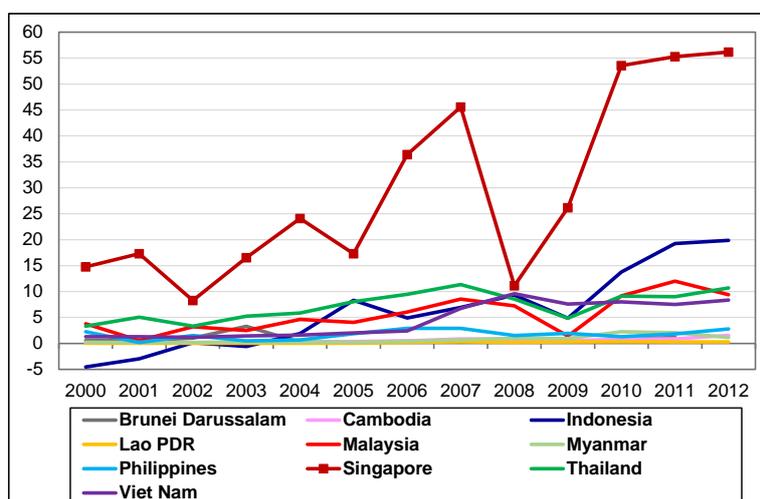
B. By source economy
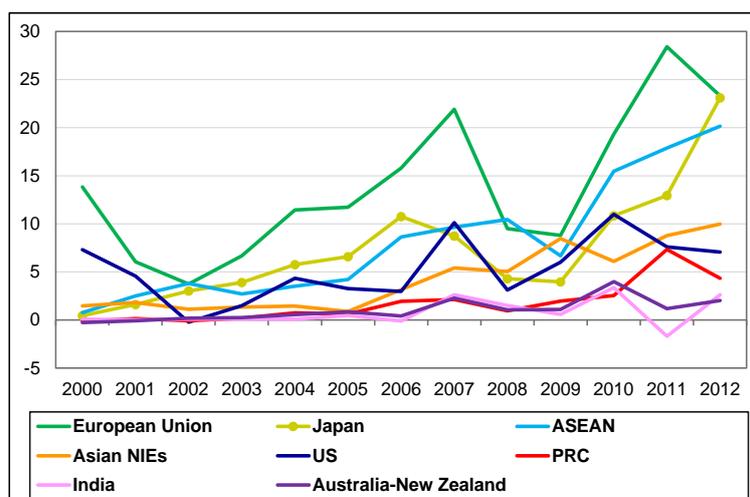
ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, NIE = newly industrialized economy, PRC = People's Republic of China, US = United States.

Note: Asian NIEs refer to Hong Kong, China; Republic of Korea; and Taipei,China.

Source: ASEAN Secretariat. Various years. *ASEAN Statistical Yearbook.* Jakarta.

Figure 3 shows that measured by the stock of inward FDI, Singapore, Thailand, Indonesia, and Malaysia are the largest recipients of FDI in ASEAN. The EU, ASEAN (particularly Singapore), Japan, the US, and the Asian NIEs (excluding Singapore) are large investors in ASEAN, while the PRC has begun to invest in some ASEAN countries in recent years.

Figure 3: Inward Foreign Direct Investment Stock in ASEAN, end of 2012
($ billion)
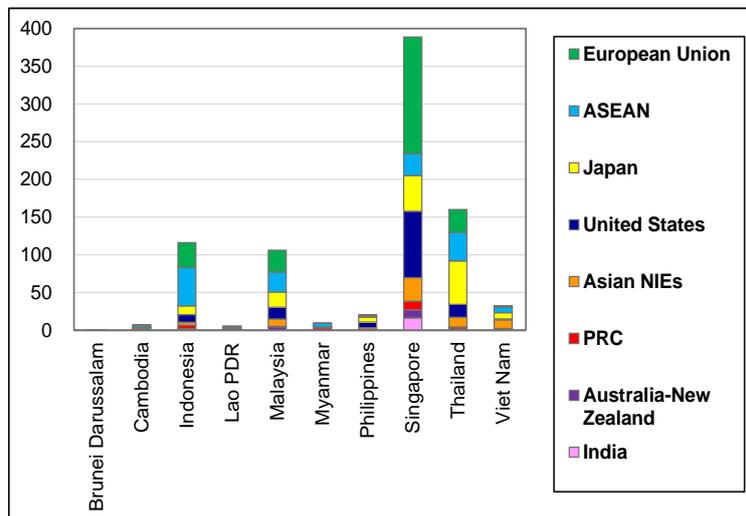
ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, NIE = newly industrialized economy, PRC = People's Republic of China.

Note: Asian NIEs refer to Hong Kong, China; Republic of Korea; and Taipei,China. Figures are based on host economy data.

Source: United Nations Conference on Trade and Development. 2014. *World Investment Report*. Geneva.

Table 3 identifies major FDI partners for each ASEAN member state (and other economies in East Asia, the US, and the EU) in 2012. For ASEAN's outward FDI (Table 3A), host economies are diversified, including Singapore, Thailand, the EU, the PRC, the US, and Hong Kong, China. For ASEAN's inward FDI (Table 3B), Singapore, the EU, Japan, and the US are the major source economies, followed by the PRC; Malaysia; Hong Kong, China; and Thailand. The PRC has emerged as the largest FDI provider in Cambodia, the Lao PDR, and Myanmar.

Table 3: Major Foreign Direct Investment (FDI) Partners

A. Major FDI hosts from the viewpoints of FDI source economies

FDI Sources \ FDI Hosts	Hong Kong, China	Taipei,China	PRC	Korea, Rep. of	India	Cambodia	Indonesia	Lao PDR	Myanmar	Philippines	Thailand	Brunei Darussalam	Malaysia	Singapore	Viet Nam	Japan	Australia	New Zealand	United States	EU28
Hong Kong, China	–		●														◎		○	◎
Taipei,China	○	–												◎	◎				●	○
PRC	●		–											○			○		◎	◎
Korea, Rep. of	○		●	–											○				◎	◎
India			○		–									●					◎	◎
Cambodia						–					●			◎						
Indonesia			●				–			○				◎			○			◎
Lao PDR								–			◎			●						
Myanmar									–		◎			●						
Philippines	◎		●							–			○	●					◎	○
Thailand	◎		○								–			●					○	◎
Brunei Darussalam												–		●						
Malaysia							◎				○		–	●			○			◎
Singapore	◎		●				○							–			○			◎
Viet Nam						●	○						◎		–				○	◎
Japan		◎									○		○			–	○		●	◎
Australia			○										○				–	◎	●	◎
New Zealand	○												◎				●	–	○	○
United States													◎		○				–	●
EU28			○													○			◎	●

B. Major FDI sources from the viewpoints of FDI host economies
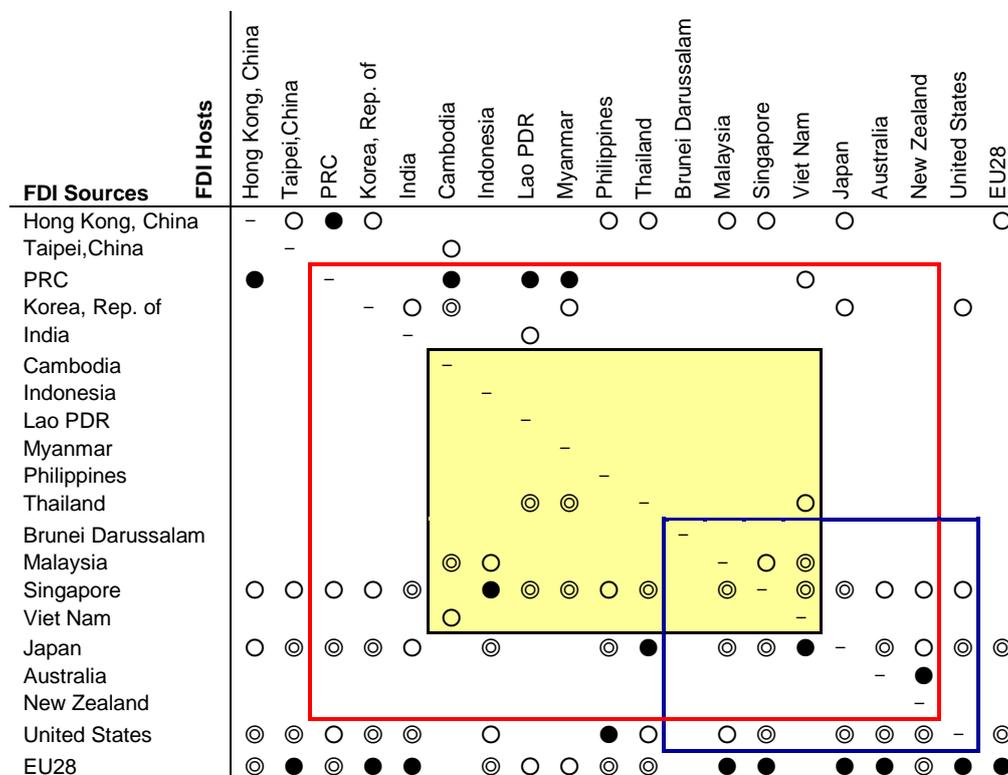
FDI Sources \ FDI Hosts	Hong Kong, China	Taipei,China	PRC	Korea, Rep. of	India	Cambodia	Indonesia	Lao PDR	Myanmar	Philippines	Thailand	Brunei Darussalam	Malaysia	Singapore	Viet Nam	Japan	Australia	New Zealand	United States	EU28
Hong Kong, China	–	○	●	○						○	○		○	○		○				○
Taipei,China		–				○														
PRC	●		–			●		●	●					○						
Korea, Rep. of				–	○	◎		○								○			○	
India					–			○												
Cambodia																				
Indonesia																				
Lao PDR																				
Myanmar																				
Philippines																				
Thailand								◎	◎		–				○					
Brunei Darussalam												–								
Malaysia						◎	○						–	○	◎					
Singapore	○	○	○	○	◎		●	◎	◎	○	○		◎	–	◎	◎	○	○	○	
Viet Nam							○								–					
Japan	○	◎	◎	○	○		◎			◎	●		◎	◎	●	–	◎	○	◎	◎
Australia																	–	●		
New Zealand																		–		
United States	◎	○	○	○	○		○			●	○		○	◎		◎	◎	◎	–	◎
EU28	◎	●	◎	●	●		◎	○	○	◎	◎		●	●		●	●	◎	●	●

EU = European Union, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: ● = most important FDI host/source, ◎ = second and third most important FDI hosts/sources, ○ = fourth and fifth most important FDI hosts/sources.

Source: Constructed by the authors based on United Nations Conference on Trade and Development. 2014. *World Investment Report 2014*. Geneva.

2.3 ASEAN's Trade and Foreign Direct Investment Policy

By integrating itself with East Asia's supply chains and production networks, ASEAN has become an important production base for multinational corporations (MNCs) from Japan, Europe, and the US and for large emerging Asian firms. Outward-oriented industrialization strategies adopted by many advanced ASEAN member states have clearly contributed to this success. The general trend of economic globalization over the last few decades driven by the US, Europe, and Japan has also led to natural (de facto) regional concentration of trade and FDI activities in East Asia.

Domestic reforms to liberalize trade and FDI regimes under the General Agreement on Tariffs and Trade (GATT; later the World Trade Organization) and the Asia-Pacific Economic Cooperation (APEC) forum have played key roles. High-quality low-cost labor, predictable business-friendly environments, and availability of trade and FDI-supporting infrastructure (ports, roads, railways, electricity, ICT, and water) have also provided attractive investment climates for global and Asian MNCs.

Table 4 shows that most ASEAN member states have reduced applied tariff rates, particularly for non-agricultural goods, to single digit levels and have raised the share of most favored nation (MFN) duty free imports.

Table 4: Trade Policy Indicators for ASEAN and Their Trading Partners, 2013
(%)

	MFN duty free imports		MFN tariff rates						Tariff binding coverage
	Non-agricultural goods	Agricultural goods	All goods		Non-agricultural goods		Agricultural goods		
			Bound	Applied	Bound	Applied	Bound	Applied	
Brunei Darussalam	80.0	97.9	25.4	2.5	24.4	2.9	31.9	0.1	95.3
Cambodia	23.5	25.1	19.1	10.9	17.8	10.3	28.2	15.2	100.0
Indonesia	42.7	36.6	37.1	6.9	35.6	6.7	47.0	7.5	96.6
Lao PDR	n.a.	n.a.	18.7	9.7	18.7	8.2	19.2	19.5	100.0
Malaysia	76.7	74.5	22.9	6.0	14.9	5.5	66.4	8.9	84.3
Myanmar	1.1	1.1	84.1	5.6	21.2	5.1	106.2	8.6	17.8
Philippines	49.5	8.4	25.7	6.3	23.4	5.7	35.1	9.9	67.0
Singapore	100.0	98.6	9.9	0.2	6.5	0.0	24.9	1.4	69.6
Thailand	44.8	23.1	27.8	11.4	25.4	8.3	38.9	29.9	75.0
Viet Nam	44.3	39.6	11.5	9.5	10.4	8.3	19.1	16.2	100.0
PRC	49.3	1.1	10.0	9.9	9.1	9.0	15.8	15.6	100.0
Japan	82.9	47.1	4.7	4.9	2.5	2.6	19.0	19.0	100.0
Korea, Rep. of	35.2	11.2	16.6	13.3	10.2	6.8	56.0	52.7	94.6
India	40.5	21.2	48.6	13.5	34.6	10.2	113.5	33.5	74.4
Australia	51.0	49.8	10.0	2.7	11.0	3.0	3.5	1.2	97.0
New Zealand	67.1	48.3	10.2	2.0	6.1	1.4	10.8	2.2	100.0
Hong Kong, China	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	45.9
Taipei,China	74.9	46.2	6.3	6.0	4.7	4.5	16.9	16.0	100.0
US	48.9	41.0	3.5	3.4	3.3	3.1	4.9	5.3	100.0
EU28	60.4	45.5	5.2	5.5	3.9	4.2	13.5	13.2	100.0

EU = European Union, Lao PDR = Lao People's Democratic Republic, MFN = most favored nation, n.a. = not available, PRC = People's Republic of China, US = United States.

Source: World Trade Organization. 2014. *Trade Profiles 2014*. Geneva.

Figure 4 summarizes the degree of restrictiveness of FDI inflow rules for manufacturing in ASEAN member states as measured by Thangavelu (2015). The restrictiveness of FDI is evaluated in six areas: foreign ownership or market access, national treatment, screening and approval procedures, board of directors and management composition, movement of investors, and performance requirements. The higher the scores, the more open the FDI rules. It shows that Cambodia stands out as the most open economy in ASEAN with respect to FDI, followed by Singapore, the Philippines, and Thailand. In contrast, Indonesia is the most restrictive country with respect to FDI, followed by Myanmar, Brunei Darussalam, and the Lao PDR. This suggests that room exists for improvement in these restrictive countries to further open their markets for FDI.

Figure 4: Foreign Direct Investment Restrictiveness Index for Manufacturing in ASEAN, 2014
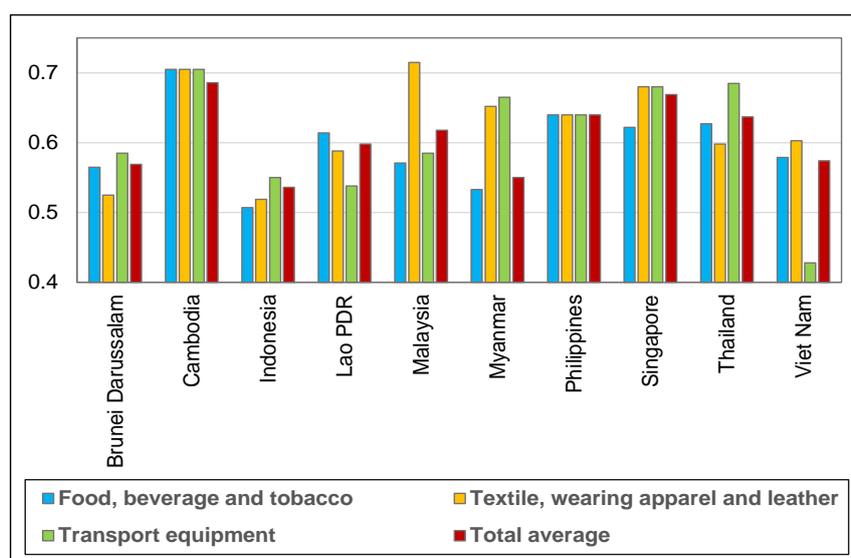
ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Note: The higher the scores, the more open are the foreign direct investment rules.

Source: Thangavelu (2015).

To summarize, ASEAN has become a key production base for global MNCs and Asian manufacturing firms by joining East Asia's supply chains and networks. Global MNCs (from Japan, the US, and Europe) and emerging Asian manufacturing firms (from the Republic of Korea and Taipei,China) provide not only FDI, managerial and production technologies, and distribution networks, but also high-value-added capital goods and parts and components, and a market for final consumption goods.

3. ASEAN ECONOMIC INTEGRATION: ASEAN ECONOMIC COMMUNITY, THE REGIONAL COMPREHENSIVE ECONOMIC PARTNERSHIP, AND BEYOND

While pursuing market-driven economic integration, ASEAN has also adopted policy-driven integration strategies beginning with the formation of the AFTA in 1993, setting the basis for the eventual AEC. ASEAN has also forged five major FTAs with its six dialogue partners and is currently negotiating the RCEP. In addition, four ASEAN member states are working on TPP negotiations. This section considers ASEAN's medium- to long-term challenges for its further economic integration.

3.1 ASEAN Economic Community 2015

Following the successful implementation of the AFTA, ASEAN has been intensifying efforts to establish the AEC by 2015.[2] The AEC vision has four pillars: (i) a single market and production base (an integrated market and a supply chain network); (ii) a competitive economic region (competition policy, intellectual property rights, infrastructure development, etc.); (iii) equitable economic development (reduction of disparity within countries and across ASEAN); and (iv) integration into the global economy (economic integration with trade and FDI partners with ASEAN centrality). To become a single market and production base, ASEAN focuses on five core elements: the free flow of goods, services, investment, and labor, and the freer flow of capital.

ASEAN started its internal economic integration process in 1993 when its original six members (Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, and Thailand) launched the initiative to forge the AFTA. The CLMV countries joined in the second half of the 1990s (Viet Nam in 1995, the Lao PDR and Myanmar in 1997, and Cambodia in 1999). See Table 5 for a brief chronology of the ASEAN economic integration.

Table 5: ASEAN Economic Integration Process, 1993–2015

Year	ASEAN Economic Integration
1993	ASEAN Free Trade Area (AFTA) launched AFTA's Common Effective Preferential Tariff (CEPT) scheme implemented
1995	ASEAN Framework Agreement on Services (AFAS) signed and implemented
1996	ASEAN Industrial Cooperation (AICO) scheme adopted
1998	Framework Agreement on ASEAN Investment Area (AIA) signed and implemented
2003	The vision of an ASEAN Community endorsed, including the ASEAN Economic Community (AEC)
2007	ASEAN Charter signed Roadmap for the ASEAN Community approved, including the AEC Blueprint, the Initiative for ASEAN Integration (IAI) Strategic Framework, and IAI Work Plan (2009–2015)
2010	ASEAN Trade in Goods Agreement (ATIGA) signed to replace CEPT Master Plan on ASEAN Connectivity adopted
2012	ASEAN Comprehensive Investment Agreement (ACIA) implemented
2015	ASEAN Community, including the AEC, to be launched

ASEAN = Association of Southeast Asian Nations.
Source: Authors' compilation.

Under the AFTA, the Common Effective Preferential Tariff (CEPT) scheme was introduced to require ASEAN member states to apply a tariff rate of 0%–5% on goods originating within ASEAN. The CMLV countries were given additional time to implement the reduced tariff rates.[3] The ASEAN Industrial Cooperation (AICO) scheme was adopted in 1996 to promote industrialization and to expand trade and FDI. The CEPT was replaced by ATIGA in 2010, whose main objective was to establish an integrated market and production base with a free flow of goods by 2015, the first pillar of the AEC. ATIGA comprises several new elements to ensure the realization of a free flow of goods within ASEAN, including tariff reductions, removal of nontariff barriers, rules of origin, trade facilitation, customs, standards and conformance, and sanitary and phytosanitary measures.

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[2] See ERIA (2012), Chia and Plummer (2013), and Basu Das et al. (2013) for the progress on and challenges for the AEC.

[3] ASEAN members had the option of excluding products from the CEPT in three cases: (i) temporary exclusions, (ii) sensitive agricultural products, and (iii) general exceptions. Temporary exclusions were products being protected temporarily by a delay in tariff reductions but required tariff reductions ultimately to 0%–5%. Sensitive agricultural products were required to reach tariffs of 0%–5% by 2010. General exceptions were required zero tariff rates on virtually all imports by 2010 for the original six ASEAN member states and by 2015 for the CMLV countries.

The ASEAN Framework Agreement on Services (AFAS) has been implemented since 1995 to progressively liberalize trade in services. The AFAS attempts to progressively improve market access and ensure equal national treatment for services suppliers among ASEAN member states in all four modes of services supply: mode 1 (cross-border supply), mode 2 (consumption abroad), mode 3 (commercial presence), and mode 4 (movement of natural persons). It includes liberalization in the 12 broad sectors covering 128 subsectors identified in the World Trade Organization's (WTO) Services Sectoral Classification List (W/120) as a guide. In addition to liberalization measures, ASEAN is also negotiating mutual recognition arrangements for several service professionals.

The ASEAN Comprehensive Investment Agreement (ACIA) was implemented in 2012 by integrating two earlier initiatives—the 1989 ASEAN Investment Guarantee Agreement (AIGA) and the 1998 Framework Agreement on the ASEAN Investment Area (AIA). The AIGA aimed at promoting intra-ASEAN FDI through a legal framework which protects investment on the premise of MFN treatment, but not national treatment. The AIA aimed at attracting FDI into ASEAN through a more competitive and transparent investment climate. The ACIA improves on these by focusing on investment liberalization, protection, promotion, and facilitation. More specifically, it encompasses less restrictive investment regimes, higher protection of investors and their investment through MFN and national treatment, greater transparency in investment rule-making, and investor–state dispute settlement (ISDS) mechanisms.

One of the great successes of the AFTA is that ASEAN member states have substantially reduced their intra-ASEAN tariff rates over time under the CEPT and ATIGA. Figure 5 shows that the advanced ASEAN member states have already achieved the virtually zero tariff rates on imports from other ASEAN countries, and the CLMV countries have also made efforts to reduce their tariffs.

Figure 5: Intra-ASEAN Tariff Rates under the Common Effective Preferential Tariff (CEPT) and the ASEAN Trade in Goods Agreement (ATIGA), 1995–2015

(%)
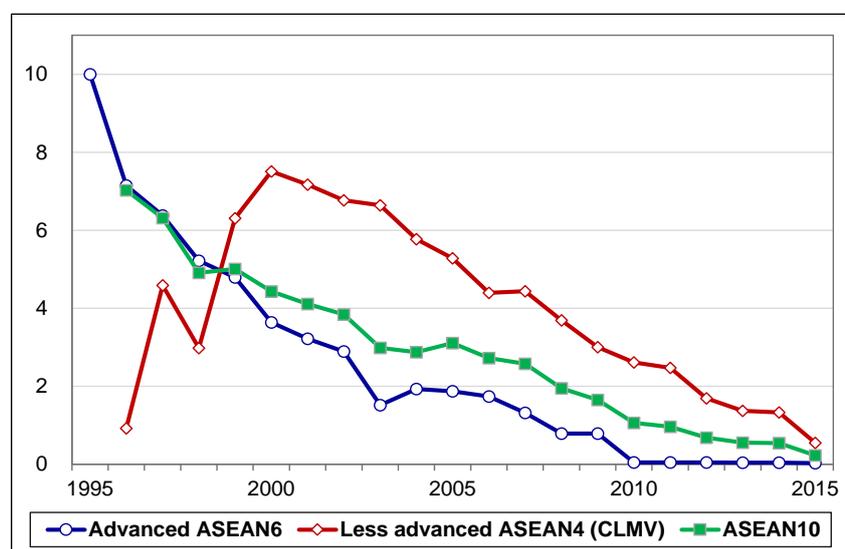
ASEAN = Association of Southeast Asian Nations; CLMV = Cambodia, Myanmar, Lao People's Democratic Republic, and Viet Nam.

Source: ASEAN Secretariat.

3.2 ASEAN+1 Free Trade Agreements, the Regional Comprehensive Economic Partnership, and the Trans-Pacific Partnership

At the turn of the century, the East Asian region shifted its approach to trade and FDI liberalization from global (WTO) and unilateral (APEC) liberalization to a multi-track approach of bilateral, regional, trans-regional, and global liberalization. Having firmly established the AFTA, ASEAN has forged five major FTAs with its six dialogue partners. They are the ASEAN+1 FTAs with the PRC (2005), the Republic of Korea (2007), Japan (2008), Australia and New Zealand (2010), and India (2010). In addition, ASEAN began FTA negotiations with the EU in 2007, though not much progress has been made.

Individual ASEAN member states have also concluded a series of bilateral FTAs. Figure 6 shows that Singapore is the most active FTA player in ASEAN in terms of the number of FTAs in effect and under negotiation, followed by Thailand and Malaysia.

Figure 6: Number of Free Trade Agreements in ASEAN and Its Partners
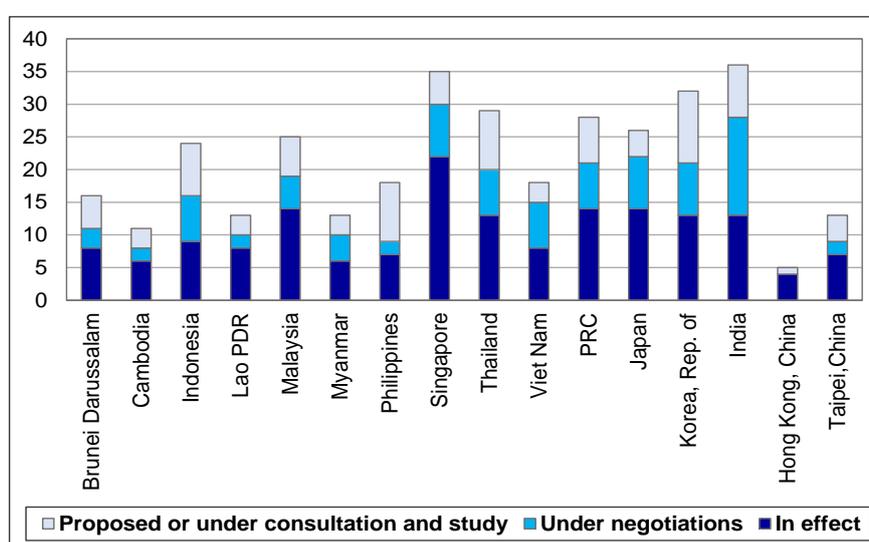
ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: Free trade agreements (FTAs) in effect include those that have been signed but not in effect. FTAs under negotiation include framework agreements signed.

Source: Asian Development Bank, Asia Regional Integration Center (ARIC) FTA database (www.aric.adb.org).

Based on the web of FTAs in the region, ASEAN and other East Asian economies began to consider creating a larger regional FTA. Initially, the PRC proposed an FTA among the ASEAN+3 countries (10 ASEAN member states plus the PRC, Japan, and the Republic of Korea), called the East Asia Free Trade Area (EAFTA). Japan proposed an economic partnership agreement (EPA) covering the ASEAN+6 countries (ASEAN+3 plus Australia, India, and New Zealand) called the Comprehensive Economic Partnership for East Asia (CEPEA). Eventually, ASEAN took the lead in launching RCEP negotiations among the ASEAN+6 countries, to which the PRC also agreed.[4] Essentially, the RCEP is an ASEAN-centered FTA among the 10 ASEAN member states and their 6 dialogue partners.

The RCEP covers trade in goods, trade in services, investment, economic and technical cooperation, intellectual property, competition, dispute settlements, and other issues. The negotiations are expected to be completed by the end of 2015. The RCEP is a major

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[4] This choice made sense as an ASEAN+6 FTA (CEPEA or RCEP) would produce lager gains than an ASEAN+3 FTA (EAFTA). See many studies addressing this issue, including Kawai and Wignaraja (2008).

initiative in East Asia that attempts to consolidate overlapping regional FTAs into a single, coherent agreement and thus to reduce the so-called "noodle bowl" phenomenon (Kawai and Wignaraja 2013; Chia 2015).

The creation of the RCEP, however, faces significant challenges and thus may not be achieved as scheduled. First, the extent of trade liberalization varies considerably across members of the five ASEAN+1 FTAs. Table 6 shows that the liberalization rates of the CLMV countries are low, as are those of India and Indonesia (when India is an FTA partner). These slow liberalizers must accelerate their pace of trade and FDI liberalization, even though special and differential treatment is allowed for the less advanced ASEAN member economies. Second, some FTAs are still missing among non-ASEAN members, such as those between the PRC and Japan, Japan and the Republic of Korea, and the PRC and India. To complete RCEP negotiations, these missing FTAs must be put in place. ASEAN is in a good position to urge these countries to accelerate the needed FTA negotiations. Third, given that the ongoing negotiations on the TPP aim for a comprehensive, high-quality FTA, the RCEP members should also try to achieve a more liberal and comprehensive FTA.

Table 6: Liberalization Rates of ASEAN+1 Free Trade Agreements with Dialogue Partners

(%)

	ACFTA	AJCEP	AKFTA	AIFTA	AANZFTA	Average
Brunei Darussalam	98.3	97.7	99.2	85.3	99.2	95.9
Cambodia	89.9	85.7	97.1	88.4	89.1	90.0
Indonesia	92.3	91.2	91.2	48.7	93.7	83.4
Lao PDR	97.6	86.9	90.0	80.1	91.9	89.3
Malaysia	93.4	94.1	95.5	79.8	97.4	92.0
Myanmar	94.5	85.2	92.2	76.6	88.1	87.3
Philippines	93.0	97.4	99.0	80.9	95.1	93.1
Singapore	100.0	100.0	100.0	100.0	100.0	100.0
Thailand	93.5	96.8	95.6	78.1	98.9	92.6
Viet Nam	n.a.	94.4	89.4	79.5	94.8	89.5
ASEAN6	95.1	96.2	96.8	78.8	97.4	92.8
CLMV	94.0	88.1	92.2	81.2	91.0	89.0
ASEAN10	94.7	92.9	94.9	79.7	94.8	91.3
PRC	94.1					94.1
Japan		91.9				91.9
Rep. of Korea			90.5			90.5
India				78.8		78.8
Australia–NZ					100.0	100.0
Average	94.4	92.4	92.7	79.3	97.4	91.2

AANZFTA = ASEAN–Australia–New Zealand FTA; ACFTA = ASEAN–PRC FTA; AIFTA = ASEAN–India FTA; AJCEP = ASEAN–Japan CEP; AKFTA = ASEAN–Republic of Korea FTA; ASEAN = Association of Southeast Asian Nations; CEP = comprehensive economic partnership; CLMV = Cambodia, Lao PDR, Myanmar, and Viet Nam; FTA = free trade agreement; Lao PDR = Lao People's Democratic Republic; n.a. = not available; NZ = New Zealand; PRC = People's Republic of China.

Note: Harmonized System HS2007 version, HS6-digit base. Data for Viet Nam under ACFTA are not available. Data for Myanmar under ACFTA are incomplete as no data are available for HS01-HS08. The average shown in the last row is for ASEAN10 and each FTA partner.

Source: Authors' compilation from Table 1 in Fukunaga and Isono (2013).

3.3 ASEAN's Integration Challenges

While ASEAN is working with its dialogue partners to forge the RCEP, four ASEAN members (Brunei Darussalam, Malaysia, Singapore, and Viet Nam) are also negotiating the TPP. The

TPP is a comprehensive, high-quality 21st century FTA led by the US and negotiated by 12 APEC member economies.[5] It covers 21 areas (with 29 chapters) beyond tariff reductions, such as investment (including the ISDS), services, intellectual property rights, competition policy (including state-owned enterprise reform), government procurement, labor, and the environment.[6]

The TPP is expected to support supply chain activities in the Asia-Pacific region. It has three properties. First, the TPP is in a sense an extension of the North American Free Trade Agreement (NAFTA) formed by the US, Canada, and Mexico, just as the RCEP is in a sense an extension of the AFTA. Second, it is a de facto US–Japan FTA given the large size of the two countries among the negotiating members. In the US–Japan bilateral negotiations, Japan faces challenges in the agriculture sector, while the US faces issues in the auto sector. Third, it is a major FTA that includes both developed and developing countries and as a result poses several challenges in the areas of market access, services liberalization, competition policy, intellectual property rights, government procurement, labor, and environmental standards. Finally, it includes both agricultural exporters and importers and a successful agreement would call for the latter's market opening and domestic reforms, which are always politically difficult.

For ASEAN's developing member countries (Malaysia and Viet Nam), three issues are particularly sensitive: intellectual property rights (for pharmaceuticals and copyright), government procurement, and competition policy (for ensuring a level playing field in the market where state-owned enterprises have a significant presence). Over the long negotiation process, the 12 countries have narrowed their differences in view, but still need to find a compromise. As the US Congress has granted the US President with the Trade Promotion Authority in June 2015, the pace of TPP negotiations is expected to be significantly accelerated.

ASEAN faces the issue of whether the entire ASEAN membership should also join the TPP in addition to forging the RCEP. Simulation studies by Petri and Plummer (2014), summarized in Figure 7, show that the RCEP provides large gains for most ASEAN member states and that the TPP generates large gains for its ASEAN members (particularly Viet Nam and Malaysia) while non-TPP ASEAN members lose out. Thus, there is a case for all ASEAN members to join the TPP to protect their economic interests. In addition, once the RCEP and the TPP are concluded and eventually combined to create an FTAAP, gains to all ASEAN members and other economies in the Asia-Pacific region are significant.

It is often claimed that the RCEP (which includes the PRC but not the US) and the TPP (which includes the US but not the PRC) are adversarial and competitive. It turns out, however, that the two are mutually complementary: Developing economies ready for a certain degree, but not a very high degree, of trade and FDI liberalization may join the RCEP first; and once these RCEP members go through significant structural reforms and become ready to further liberalize, they can join the TPP at a later stage. A likely path toward a future FTAAP would be that the advanced members of the RCEP would also join the TPP, while other less advanced Asian developing economies join the RCEP so that it continues to play a positive role.

ASEAN may also strengthen its economic ties with the European economies by invigorating its FTA negotiations with the EU. In this way, ASEAN can lead East Asia in forging the wider region's integration with the EU, complementing the Republic of Korea–EU FTA (in effect since 2011) and the Japan–EU EPA (which is expected to be concluded in the near future).[7]

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[5] These 12 APEC economies are Australia, Brunei Darussalam, Canada, Chile, Mexico, Malaysia, New Zealand, Japan, Peru, Singapore, the US, and Viet Nam.
[6] See Schott, Kotschwar, and Muir (2013).
[7] Together with the TPP, connecting East Asia with Europe is an important way to multilateralize Asian regionalism (Baldwin and Kawai 2013).

Figure 7: Income Effects of the Regional Comprehensive Economic Partnership (RCEP), the Trans-Pacific Partnership (TPP), and the Free Trade Area of the Asia-Pacific (FTAAP)
(%)
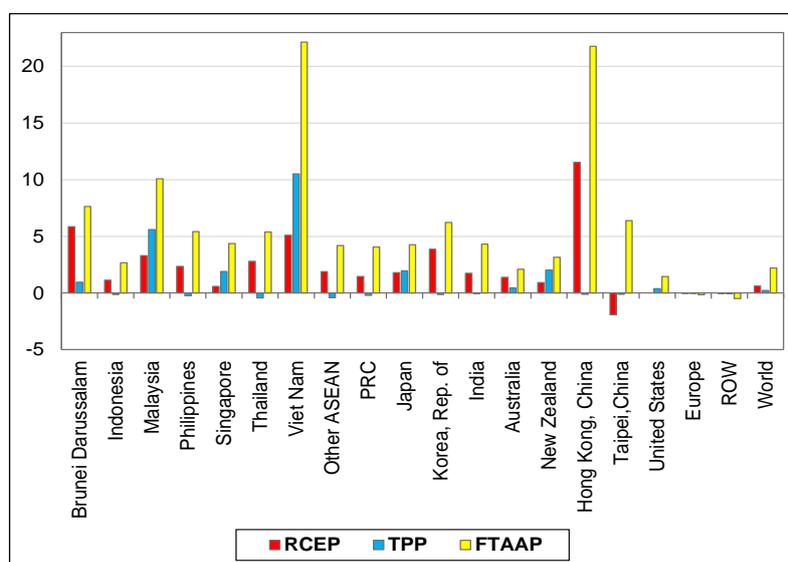
ASEAN = Association of Southeast Asian Nations, PRC = People's Republic of China. ROW = rest of the world.

Note: FTAAP is assumed to include India.

Source: Petri and Plummer (2014).

As ASEAN forges the RCEP with its dialogue partners, joins the TPP and an FTAAP, and strengthens ties with Europe, it needs to maintain its own centrality by completing the AEC, deepening it, and moving it to the next stage of internal integration.[8] To complete the AEC, ASEAN members must reduce non-tariff barriers (NTBs) to trade,[9] liberalize services trade, and pursue further FDI liberalization and facilitation. First, the presence of NTBs—particularly behind-the-border measures—is the most significant impediment to intra-ASEAN trade and thus the creation of a single market and production base (Austria 2013). Second, adequate services trade liberalization has not been achieved in ASEAN under the AFAS, the General Agreement on Trade in Services (GATS), or bilateral agreements (Corbett 2008; Nikomborirak and Jitdumrong 2013). Third, even advanced ASEAN members still impose barriers to impede FDI inflows and have more serious problems in FDI facilitation (Bhaskaran 2013). In moving to the next stage of internal integration, ASEAN may seriously consider the formation of a customs and economic union. ASEAN needs to increasingly act together when it pursues external integration. In this way, ASEAN can enjoy further economic growth and development.

4. ECONOMETRIC ANALYSIS: A GRAVITY MODEL APPROACH TO TRADE AND FOREIGN DIRECT INVESTMENT

The gravity model is powerful in explaining bilateral trade flows between economies. It has also been used to explain bilateral capital flows such as FDI and foreign portfolio investment. In this section, we employ a gravity model to examine the determinants of, and the interaction between, trade and FDI, using data for 2002–2012 from 121 developing,

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[8] See ADBI (2014).

[9] NTBs to trade include measures at the border (import restrictions, quotas, sanitary and phytosanitary measures, and technical barriers to trade) as well as measures behind the border (state assistance, government procurement requirement, and trade finance).

emerging and developed economies while focusing on 80 emerging economies.[10] We test whether trade and FDI affect each other in a positive way, as predicted by the models of vertical integration; whether the usual gravity variables have the expected impacts on trade and FDI; whether FTAs and bilateral investment treaties (BITs) affect trade and FDI; and whether institutional quality, infrastructure adequacy, and the business climate have impacts on FDI. Specifically, we ask the following questions: Do trade and FDI promote each other? Do FTAs between economies stimulate bilateral trade and FDI? What are the major determinants of FDI? What policy implications can be drawn for ASEAN's internal and external economic integration, particularly from the perspective of trade and FDI?

We use bilateral trade flows for the trade variable, but bilateral FDI stock positions instead of bilateral FDI flows for the FDI variable, following Stein and Daude (2007) and Bénassy-Quéré, Coupet, and Mayer (2007). This choice is made partly because in theory the return on investments depends on the stock of capital and partly because in practice FDI flows are too volatile for statistical testing. To answer our questions, we augment the gravity model by adding per capita gross domestic product (GDP) in each economy, a common language dummy, a border dummy, a tax havens dummy, an FTA dummy, a BIT dummy, an ASEAN partnership dummy, differences in financial risks between economies, quality of institutions, measures of transportation infrastructure, costs of doing business, real exchange rate changes, and exchange rate volatility. Anderson and Wincoop (2004) provide a literature review on the determinants of trade, and Blonigen and Piger (2014) and other authors mentioned above provide empirical evidence on the determinants of FDI.

4.1 Model Specifications

We exploit cross-economy-pair variations within each year, thus we abstract from the notation of time. First, we estimate the following export equation:

$$\ln(EXP_{ij}) = \mu_E + \alpha_E \ln(\text{lagged } FDI_{ij}) + \beta_E X_{ij} + \gamma_E Y_i + \delta_E Z_j + u_{ij}, \qquad (1)$$

where ln denotes natural logarithm, EXP_{ij} denotes the value of exports from emerging economy i to partner j, lagged FDI_{ij} denotes the inward FDI stock position of emerging economy i from partner j at the end of the previous year, and X_{ij} denotes the vector of the following bilateral variables: log of the product of the two economies' GDP, log of distance, the border dummy (1 if the two economies share a border, and 0 otherwise), the common language dummy (1 if the two economies share an official language, and 0 otherwise), the FTA dummy (1 if the two economies have an FTA, and 0 otherwise), exchange rate volatility (standard deviation of monthly depreciation rates within each year), the ASEAN supply chain dummy (1 if the exporter is an ASEAN member state and the importer is either the PRC; Hong Kong, China; Japan; the Republic of Korea; or Taipei,China; and 0 otherwise), and the interaction of exchange rate volatility with the ASEAN supply chain dummy. Y_i is the exporter's (emerging economy i's) GDP per capita, and Z_j is the partner's (economy j's) GDP per capita. The error term is denoted by u_{ij}.

Second, we estimate the following import equation:

$$\ln(IMP_{ij}) = \mu_M + \alpha_M \ln(\text{lagged } FDI_{ij}) + \beta_M X_{ij} + \gamma_M Y_i + \delta_M Z_j + v_{ij}, \qquad (2)$$

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[10] Appendix 1 lists 80 emerging economies used for our gravity model estimations, including 7 ASEAN member states. Although these 80 economies include some developing economies, we call them "emerging economies" for simplicity. Appendix 2 lists an additional 45 economies which are also used in estimations as trade and FDI partner economies. The total number of economies used for this analysis is 121 as 4 emerging economies out of the 80 cannot be used as partners due to the lack of data. Taipei,China is not one of the 80 emerging economies due to the lack of data on infrastructure, but is included in the additional 45 economies.

where IMP_{ij} denotes the value of imports of emerging economy i from partner j, and v_{ij} denotes the error term. The set of explanatory variables in equation (2) is identical to that in equation (1).

Finally, we estimate the following inward FDI equation:

$$\ln(FDI_{ij}) = \mu_F + \alpha_F \ln(TRADE_{ij}) + \beta_F X'_{ij} + \gamma_F Y'_i + \delta_F Z'_j + w_{ij}, \tag{3}$$

where $TRADE_{ij}$ denotes total bilateral trade flows, i.e., the sum of bilateral exports and imports, for emerging economy i and its partner j. The vector X'_{ij} includes the following bilateral variables: log of the product of the two economies' GDP, log of distance, the FTA dummy, the BIT dummy (1 if the two economies have a BIT in effect or signed, and 0 otherwise), exchange rate volatility, the rate of real exchange rate depreciation, difference in financial risks between economies i and j, and the ASEAN partnership dummy (1 if i is an ASEAN member and j is Australia, the PRC, India, Japan, the Republic of Korea, or New Zealand, and 0 otherwise). Y'_i is the vector of the following host economy-specific variables: GDP per capita, the tax haven dummy, institutional quality, a measure of transportation infrastructure, and costs of doing business. Z'_j is the vector of the following source economy-specific variables: GDP per capita and tax haven dummy. The error term is denoted by w_{ij}.

It is noted that in equations (1) and (2), the lagged inward FDI stock—i.e., the stock of inward FDI at the end of the previous year—is included in the right-hand side of the estimation equation to explain the current year's exports or imports. In equation (3), the current year's total trade flow is included in the right-hand side to explain the stock of inward FDI at the end of the current year. Thus, our specification minimizes a potential endogeneity problem between trade and FDI. Although a potential endogeneity problem remains between trade and GDP variables, we have decided to disregard this issue following the usual gravity model estimations in the literature.

4.2 Data

Our dataset is annual for the period 2002–2012 and our analysis focuses on 80 emerging economies including 7 in ASEAN, though there are altogether 121 partner economies including most of the 80 mentioned. Our objective here is to obtain policy implications for ASEAN member states, but in order to exploit cross-economy-pair variations within each year, we broaden our set of sample economies beyond ASEAN members by including other emerging economies over a wide range of per capita income levels. These economies are low- and middle-income economies defined by the World Bank in 2012 and high-income emerging economies identified by the International Monetary Fund (IMF) in its *World Economic Outlook* published in July 2012. We include 45 others, which are developing, emerging, and developed economies, in the sample only as partners (economy j in the estimation equation).[11]

Data for bilateral trade flows, inward FDI stock positions, and GDP (including GDP per capita) are all expressed in current US dollars.[12] Throughout the estimations, we use the nominal variables without converting them into real variables as in McCallum (1995), because deflating them with a common price index has no impact on their correlation.

For the BIT dummy, we use the effective year to construct the dummy, but when information is missing on the effective year, we use the signing year to construct the dummy. For transport infrastructure, we obtain three measures: the number of air departures (per GDP), the length of railroad (per GDP), and the share of paved road in total road. Given the collinearity between each of the three transport infrastructure variables and GDP per capita,

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[11] The developing and emerging economies in the 45-economy group do not have the required data to be included in the 80-emerging economy group.

[12] Appendix 3 summarizes sources for all the data used in estimations.

we normalize each by regressing it on the host's GDP per capita and using the residual obtained from the regression.

For institutional quality, scores for five categories of institutions are used: control of corruption, government effectiveness, political stability, regulatory quality, and rule of law. We sum the scores of all categories to measure the aggregate level of institutional quality but we also explore the role of each of the five categories of institutions in our estimation.

4.3 Empirical Results and Interpretations

Table 7 reports the OLS estimation results for the export, import, and inward FDI equations for each year.

Table 7A on the results for the export equation shows that for all years lagged inward FDI has a significantly positive effect on emerging economies' exports and the FDI coefficient ranges from 0.19 to 0.29. The usual gravity variables (economic size and distance) have the expected effects on emerging economies' exports: a larger emerging economy tends to export more to larger partner economies; and distance has negative effects on exports. An emerging economy tends to export more to partner economies that it shares borders with, to economies with a common language, and to its FTA partner economies.

A higher-income emerging economy tends to export more, while an average-income emerging economy tends to export less to higher-income economies. The first part of this finding is in line with the theory of comparative advantage, as higher-income emerging economies tend to have better technology and higher productivity than lower-income economies. The second part indicates that exports from emerging economies are largely low-quality goods and necessities, which tend to be demanded less by higher-income economies. This finding is consistent with the empirical literature that documents positive relationships between income and quality of imports.

The coefficients of the remaining variables are only marginally or rarely significant. The ASEAN supply chain dummy does not have significant effects on exports of emerging economies. Exchange rate volatility does not have significant impacts on exports except in 2007 when it had a positive coefficient and in 2010 and 2011 when it had negative coefficients. The interaction between exchange rate volatility and the ASEAN supply chain dummy does not have significant effects on exports either.

Table 7B shows the results for the import equation. The lagged inward FDI coefficient is significantly positive and ranges from 0.13 to 0.17. In all years, the FDI coefficient in the import equation is smaller than that in the export equation reported in Table 7A. This suggests that inward FDI tends to have a positive impact on the trade balance of emerging economies.

The remaining variables have similar qualitative effects on imports as those on exports reported in Table 7A, except the effects of per capita GDP of the importing economy and its trading partners. The results show that a higher-income emerging economy tends to import less from 2007 onward, while an average-income emerging economy tends to import less from higher-income economies, and this negative impact is smaller in absolute value than in the case of the export equation. Combined with the results for the export equation, these suggest that a higher-income emerging economy tends to have a trade surplus by exporting more and importing less, while an average-income emerging economy tends to run a trade deficit vis-à-vis higher-income trading partners by reducing exports more than imports.

Table 7C shows the estimation results for the inward FDI equation. For all years, trade flows have a significant and positive effect on inward FDI and the coefficient ranges from 0.40 to 0.54. The gravity variables have the expected impacts: a larger emerging economy tends to receive more inward FDI stocks from larger partner economies; and distance has negative effects on inward FDI stocks. An emerging economy tends to attract more inward FDI stock

from FTA partner economies, but not necessarily from BIT partner economies. An emerging economy tends to receive more FDI if it is or its partner economy is a tax haven. If the emerging economy is a tax haven, it can attract FDI more than 10 times compared to non-tax haven emerging economies. If the partner economy is a tax haven, the host emerging economy can attract FDI by 3 times relative to non-tax haven partner economies. Moreover, the quantitative impacts of tax haven status are even larger than those of the FTA partner and the ASEAN–Japan partnership.

A higher-income emerging economy tended to attract less inward FDI stock in the past (until 2010) but not necessarily in the most recent years, while an average-income emerging economy tends to receive more FDI from higher-income partners. Thus, the difference between the partners' and the host's per capita income is positively associated with an increase in inward FDI.

Among the ASEAN partnership dummies, the ASEAN–Japan partnership dummy is the only pair that has significant and positive effects on inward FDI in the years after 2005. Its coefficient suggests that the ASEAN–Japan partnership increases inward FDI in ASEAN member states by roughly 3–6 times relative to other partner relationships. This effect is larger than the effect of the partner's tax haven status.

The coefficients of the BIT dummy, real exchange rate depreciation, and exchange rate volatility have mixed signs. The BIT coefficient is negative, and significantly so in the early years in contrast to our expectations, while it has become insignificant since 2005. The coefficients of real exchange rate and exchange rate volatility are significant but have mixed signs.

Results on institutional quality, transport infrastructure, and the business climate are consistent with theoretical predictions. An emerging economy with strong institutions, good transport infrastructure, and low costs of doing business tends to attract more inward FDI stocks.

Overall, we find strong evidence that trade and inward FDI stimulate each other and, in this sense, are complements in the sample of emerging economies. Usual gravity variables have the expected and significant signs. FTAs have positive effects on trade and inward FDI. However, ASEAN's supply chain relationships with its East Asian partners (PRC; Hong Kong, China; Japan; Republic of Korea; and Taipei,China) do not have a statistically significant positive impact on its exports or imports, although ASEAN's economic partnership with Japan (but not with other dialogue partners) has a significant positive impact on inward FDI in ASEAN.

In addition to the specification in Table 7C, we performed several robustness checks for the FDI equation and found the overall findings above remained unchanged. For example, we first replaced the number of air departures relative to GDP with the length of railroad relative to GDP and the share of paved road in total road. Use of these alternative measures of infrastructure did not change the overall results. Second, we used each category of institutional quality instead of the aggregate measure of institutional quality. Each category of institutional quality, if put separately in the right-hand side of the estimation equation, had significant and positive effects on inward FDI.

Table 7: Ordinary Least Squares (OLS) Estimation Results

A. For the export equation

Variables	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
ln(lagged inward FDI position)	0.29***	0.29***	0.27***	0.20***	0.21***	0.21***	0.21***	0.22***	0.22***	0.19***	0.20***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)
ln(exporter's GDP x importer's GDP)	0.74***	0.77***	0.75***	0.84***	0.84***	0.86***	0.89***	0.87***	0.87***	0.86***	0.87***
	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
ln(exporter's GDP per capita)	0.34***	0.33***	0.32***	0.35***	0.34***	0.28***	0.23***	0.25***	0.15***	0.02	0.21***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)
ln(importer's GDP per capita)	−0.34***	−0.40***	−0.40***	−0.33***	−0.33***	−0.37***	−0.41***	−0.39***	−0.38***	−0.39***	−0.42***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
ln(distance)	−0.84***	−0.89***	−0.83***	−0.90***	−0.86***	−0.86***	−0.87***	−0.84***	−0.86***	−1.02***	−0.94***
	(0.07)	(0.08)	(0.08)	(0.08)	(0.07)	(0.06)	(0.06)	(0.06)	(0.07)	(0.06)	(0.07)
Border dummy	0.70***	0.62**	0.66***	0.85***	0.94***	0.83***	0.75***	0.73***	0.84***	0.80***	0.95***
	(0.23)	(0.26)	(0.25)	(0.26)	(0.24)	(0.22)	(0.22)	(0.22)	(0.23)	(0.21)	(0.23)
Common language dummy	0.38**	0.23	0.45**	0.70***	0.73***	0.73***	0.76***	0.69***	0.27*	0.30**	0.08
	(0.17)	(0.19)	(0.18)	(0.19)	(0.17)	(0.15)	(0.15)	(0.15)	(0.16)	(0.14)	(0.17)
ASEAN supply chain dummy	1.48	1.55	1.41	0.36	0.92	0.76	0.82	0.80	0.85	1.09	0.98
	(2.56)	(2.20)	(0.87)	(2.20)	(1.34)	(1.15)	(0.88)	(0.83)	(1.14)	(1.68)	(0.95)
FTA dummy	0.94***	0.83***	0.24	0.10	0.25*	0.24**	0.33***	0.28**	0.21*	0.42***	0.50***
	(0.21)	(0.22)	(0.16)	(0.16)	(0.14)	(0.12)	(0.12)	(0.12)	(0.12)	(0.11)	(0.11)
Exchange rate volatility	−0.57	0.01	0.63	−1.03	−2.65	0.05*	0.86	−0.86	−6.33*	−4.08***	−5.51
	(0.45)	(0.41)	(1.25)	(2.33)	(2.23)	(0.03)	(1.31)	(2.86)	(3.52)	(1.06)	(3.78)
Exchange rate volatility x ASEAN supply chain dummy	−6.52	−1.83	7.80	74.34	33.46	23.90	6.09	2.45	10.76	1.69	8.86
	(172.73)	(109.39)	(49.34)	(152.15)	(78.84)	(68.09)	(20.89)	(22.55)	(50.69)	(61.93)	(52.12)
Constant	−13.20***	−13.87***	−12.92***	−17.74***	−18.34***	−18.69***	−19.15***	−18.83***	−18.04***	−14.97***	−17.52***
	(1.49)	(1.59)	(1.51)	(1.55)	(1.45)	(1.33)	(1.40)	(1.29)	(1.38)	(1.34)	(1.42)
No. of observations	779	754	834	881	955	1,065	961	998	1,205	1,467	1,262
Adjusted R–squared	0.68	0.67	0.65	0.65	0.68	0.68	0.70	0.71	0.64	0.61	0.61
F test	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ASEAN = Association of Southeast Asian Nations, FDI = foreign direct investment, FTA = free trade agreement, GDP = gross domestic product.

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Authors' computations.

B. For the import equation

Variables	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
ln(lagged inward FDI position)	0.15***	0.17***	0.17***	0.13***	0.17***	0.15***	0.17***	0.14***	0.16***	0.15***	0.16***
	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
ln(importer's GDP x exporter's GDP)	0.79***	0.79***	0.80***	0.86***	0.84***	0.85***	0.90***	0.90***	0.91***	0.88***	0.87***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)
ln(importer's GDP per capita)	0.08*	0.04	0.00	0.00	–0.03	–0.09**	–0.17***	–0.13***	–0.17***	–0.27***	–0.14***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
ln(exporter's GDP per capita)	–0.15***	–0.17***	–0.22***	–0.19***	–0.25***	–0.21***	–0.24***	–0.21***	–0.13***	–0.18***	–0.19***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
ln(distance)	–0.90***	–0.92***	–0.82***	–0.81***	–0.82***	–0.78***	–0.81***	–0.84***	–0.82***	–0.83***	–0.76***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.05)	(0.06)	(0.05)	(0.05)
Border dummy	0.70***	0.60***	0.76***	0.96***	0.82***	0.94***	0.87***	0.78***	0.84***	0.75***	0.88***
	(0.18)	(0.20)	(0.20)	(0.20)	(0.19)	(0.18)	(0.20)	(0.19)	(0.20)	(0.17)	(0.18)
Common language dummy	0.70***	0.55***	0.43***	0.52***	0.49***	0.43***	0.54***	0.53***	0.38***	0.39***	0.50***
	(0.13)	(0.14)	(0.15)	(0.15)	(0.14)	(0.12)	(0.14)	(0.13)	(0.13)	(0.12)	(0.13)
ASEAN supply chain dummy	–1.22	–0.07	0.95	0.47	0.30	0.76	0.05	0.35	0.28	0.26	0.45
	(1.98)	(1.66)	(0.71)	(1.75)	(1.05)	(0.92)	(0.78)	(0.71)	(0.96)	(1.38)	(0.74)
FTA dummy	0.81***	0.49***	0.27**	0.24*	0.28***	0.31***	0.36***	0.32***	0.41***	0.67***	0.64***
	(0.16)	(0.17)	(0.13)	(0.13)	(0.11)	(0.10)	(0.11)	(0.10)	(0.10)	(0.09)	(0.09)
Exchange rate volatility	–0.52	0.02	1.30	–3.08*	–0.83	0.04*	–1.29	2.32	–7.05**	0.42	–6.89**
	(0.35)	(0.31)	(1.01)	(1.84)	(1.75)	(0.02)	(1.16)	(2.46)	(2.96)	(0.87)	(2.93)
Exchange rate volatility x ASEAN supply chain dummy	156.93	52.23	13.17	50.89	39.48	11.43	17.09	10.32	19.57	18.56	8.68
	(133.54)	(82.60)	(39.97)	(120.54)	(61.85)	(54.37)	(18.53)	(19.33)	(42.61)	(50.71)	(40.47)
Constant	–14.23***	–13.86***	–14.03***	–17.38***	–15.89***	–16.70***	–18.18***	–18.47***	–19.67***	–16.84***	–17.90***
	(1.15)	(1.20)	(1.22)	(1.23)	(1.13)	(1.06)	(1.25)	(1.11)	(1.16)	(1.10)	(1.10)
No. of observations	779	754	834	881	955	1,065	961	998	1,205	1,467	1,262
Adjusted R–squared	0.74	0.73	0.70	0.71	0.73	0.73	0.72	0.74	0.70	0.68	0.70
F test	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ASEAN = Association of Southeast Asian Nations, FDI = foreign direct investment, FTA = free trade agreement, GDP = gross domestic product.

Note: Standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1

Source: Authors' computations.

C. For the inward foreign direct investment (FDI) equation

Variables	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
ln(trade flows)	0.51***	0.54***	0.48***	0.40***	0.47***	0.44***	0.45***	0.47***	0.40***	0.44***	0.45***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)
ln(host's GDP × source's GDP)	0.22***	0.13**	0.25***	0.29***	0.24***	0.27***	0.24***	0.23***	0.30***	0.26***	0.27***
	(0.06)	(0.06)	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.05)
ln(host's GDP per capita)	−0.23**	−0.15	−0.18**	−0.34***	−0.50***	−0.28***	−0.40***	−0.24***	−0.20***	0.00	−0.11
	(0.10)	(0.10)	(0.08)	(0.10)	(0.09)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)	(0.08)
ln(source's GDP per capita)	0.46***	0.53***	0.40***	0.45***	0.48***	0.46***	0.49***	0.51***	0.52***	0.52***	0.57***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)
ln(distance)	−0.33***	−0.27***	−0.27***	−0.39***	−0.40***	−0.45***	−0.48***	−0.43***	−0.47***	−0.46***	−0.54***
	(0.09)	(0.09)	(0.08)	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)	(0.08)
FTA dummy	0.35	0.39*	0.64***	0.51***	0.30**	0.44***	0.45***	0.59***	0.49***	0.57***	0.42***
	(0.23)	(0.22)	(0.16)	(0.16)	(0.14)	(0.13)	(0.14)	(0.12)	(0.12)	(0.12)	(0.13)
BIT dummy	−0.21*	−0.30**	−0.26**	−0.09	−0.05	−0.09	−0.11	−0.07	−0.06	−0.14	−0.09
	(0.13)	(0.13)	(0.12)	(0.12)	(0.12)	(0.11)	(0.12)	(0.11)	(0.10)	(0.10)	(0.11)
Exchange rate volatility	−2.57***	0.52	3.09*	5.05**	3.31**	0.04**	0.00	−1.28	−4.70	−3.17***	−3.87
	(0.57)	(0.46)	(1.64)	(2.12)	(1.57)	(0.02)	(1.50)	(3.04)	(3.32)	(1.17)	(3.32)
Host's real currency depreciation	0.65***	−0.14	−0.75*	−0.23	0.01	−0.00	−0.93**	0.66	−1.04*	0.04	−0.19
	(0.18)	(0.42)	(0.44)	(0.66)	(0.10)	(0.00)	(0.44)	(0.55)	(0.56)	(0.04)	(0.70)
Host's tax haven dummy	2.31***	1.94***	2.23***	2.51***	1.87***	1.58***	1.50***	0.97***	0.55***	0.84***	0.88***
	(0.40)	(0.41)	(0.40)	(0.33)	(0.28)	(0.27)	(0.25)	(0.23)	(0.21)	(0.22)	(0.22)
Source's tax haven dummy	0.92***	0.65***	0.78***	0.98***	1.12***	1.29***	1.31***	1.09***	1.16***	1.23***	1.37***
	(0.17)	(0.18)	(0.16)	(0.17)	(0.17)	(0.16)	(0.16)	(0.15)	(0.14)	(0.14)	(0.14)
ASEAN–Japan dummy	1.41	1.40	1.23	1.71	1.88*	1.68*	1.49*	1.07	1.36*	1.52*	1.57*
	(0.98)	(1.01)	(1.01)	(1.04)	(1.05)	(0.88)	(0.78)	(0.76)	(0.80)	(0.80)	(0.83)
Differences in risks (host's – source's)	−0.01	−0.02*	−0.00	−0.04***	−0.03***	−0.03***	−0.04***	−0.02**	−0.02***	−0.01*	−0.02***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Host's institutional quality	−0.04	0.01	−0.00	0.03	0.11***	0.08***	0.13***	0.10***	0.11***	0.08***	0.12***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Air departure/GDP	0.18**	0.07	0.14*	0.13	0.20**	0.19**	0.08	0.04	0.12*	0.15**	0.11
	(0.08)	(0.09)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)	(0.09)	(0.07)	(0.07)	(0.08)
Costs of doing business	--	--	--	--	--	--	--	--	0.00	−0.03***	−0.03***
									(0.01)	(0.01)	(0.01)
Constant	−17.25***	−14.94***	−18.61***	−17.44***	−14.77***	−16.77***	−14.53***	−16.04***	−18.72***	−17.29***	−17.20***
	(1.56)	(1.59)	(1.50)	(1.65)	(1.58)	(1.55)	(1.62)	(1.51)	(1.39)	(1.31)	(1.45)
No. of observations	886	913	1,050	1,056	1,118	1,150	1,074	1,392	1,812	1,827	1,652
Adjusted R–squared	0.55	0.52	0.53	0.51	0.51	0.53	0.54	0.52	0.48	0.48	0.48
F test	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ASEAN = Association of Southeast Asian Nations, BIT = bilateral investment treaty, FTA = free trade agreement, GDP = gross domestic product.

Note: The ASEAN–partner dummies with countries other than Japan are statistically insignificant and not reported. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Authors' computations.

4.4 Policy Implications

The econometric findings above provide some useful policy implications for ASEAN's internal and external integration through trade and FDI.

First, large emerging economies tend to trade more with, and attract more FDI from, large partners. This suggests that the creation of a single market and production base by transforming ASEAN into a large, integrated economy would be essential in further expanding trade and inward FDI. Thus, ASEAN needs to establish a truly integrated AEC, deepen it, and continue to make efforts to strengthen its internal integration.

Second, trade flows and inward FDI mutually reinforce each other; that is, an increase in export and import flows stimulates inward FDI and an increase in inward FDI stocks simulates trade. This suggests that ASEAN's participation in East Asia's supply chains has been a positive factor behind the mutually reinforcing expansion of trade and FDI. Thus, ASEAN member states need to continue to liberalize their respective domestic economies through reduction of tariffs vis-à-vis external partners, behind-the-border NTBs to trade, and business-stifling regulations on services trade and FDI inflows.

Third, emerging economies tend to trade more with, and attract more FDI from, FTA partner economies. This suggests that ASEAN's strategy to support external integration through FTAs with its dialogue partners and other economies in the rest of the world should continue to be upgraded. Forging more FTAs with relatively large economies in the rest of Asia and the world would be key to further boosting ASEAN's trade and inward FDI. The conclusion of RCEP negotiations, the participation in the TPP, and the reinvigoration of ASEAN–EU FTA negotiations would be critical in expanding ASEAN's trade and FDI.

Fourth, emerging economies that are tax havens tend to attract FDI, and more so when the source partner economies are also tax havens. This finding suggests that regional cooperation that avoids a race to the bottom through excessive tax-cutting competition is useful in maintaining inward FDI within ASEAN while securing some tax revenues.

Finally, emerging economies with stronger institutions, better physical infrastructure, and lower costs of doing business tend to attract more FDI. This poses significant challenges for many ASEAN member states which lack human, financial, and governance capacities. Thus, ASEAN members need to redouble their efforts to improve the quality of institutions; invest more in transport, energy, ICT, and water facilities; and address domestic regulations and practices that hinder private business activities.

5. CONCLUSION

ASEAN has long pursued market-driven economic integration among its members and with other East Asian economies through trade and FDI. The advanced members of ASEAN have successfully joined regional supply chains embedded into global supply chains, and the less advanced members are now catching up.

ASEAN has made steady progress on its internal economic integration through the launch of the AFTA, the adoption of the AFAS, the AIA (later ACIA) and the Master Plan on ASEAN Connectivity, and finally the creation of the AEC. The launch of the AEC at the end of 2015 aims to establish ASEAN as a single market and production base. To complete the AEC, ASEAN needs to reduce substantially NTBs to trade (particularly behind-the-border measures), continue to liberalize services trade, and pursue further FDI liberalization and facilitation.

ASEAN has also been working with its trade and investment partners to strengthen external economic integration through FTAs and EPAs, particularly by forming five ASEAN+1 FTAs

with six dialogue partners (PRC, India, Japan, Republic of Korea, and Australia–New Zealand). These five FTAs are the core building blocks for East Asia's efforts to forge a large region-wide FTA in the form of the RCEP. Although the negotiation is in its early stage, the RCEP can generate large benefits to all 16 negotiating members and beyond. Four ASEAN members (Brunei Darussalam, Malaysia, Singapore, and Viet Nam) are also negotiating the TPP. That the formation of the TPP can leave non-TPP ASEAN members (as well as the PRC and India) worse off is another reason for accelerating negotiations on the RCEP to offset the negative impact of the TPP.

In the medium to long term, it would be in the best interest of all ASEAN member states to eventually join the TPP. This would, however, require significant domestic economic reforms in those ASEAN member states that are not currently negotiating the TPP, particularly in Cambodia, Indonesia, the Lao PDR, and Myanmar. Some sequencing may be suggested. First, the 16 negotiating members of the RCEP should arrive at an agreement as soon as possible, following which some non-TPP RCEP members (Indonesia, the Philippines, and Thailand) that are ready to go through much more significant trade and FDI liberalization and accept the 21st century trade and investment rules can join the TPP. This would facilitate the formation of an FTAAP in the long run. All ASEAN member states, including Cambodia, the Lao PDR, and Myanmar which are expected to join APEC in the near future, should aim to be members of the FTAAP as well. At the same time, East Asia including ASEAN should also strengthen economic ties with the EU which is also an important trade and FDI partner for them. In this way, ASEAN and other East Asian economies can link with the Americas and Europe and enjoy further economic growth and development.

Empirical evidence clearly supports this long-term direction for ASEAN. The mutually reinforcing effects of trade and inward FDI can be further exploited through the formation of more and larger FTAs and the associated liberalization of trade and FDI. By improving institutional quality, physical infrastructure, and the business climate, ASEAN can continue to attract FDI and integrate itself with Asian and global supply chains.

For this long-term scenario to be viable, ASEAN needs to continue to make efforts to strengthen its own internal integration to maintain its centrality. Further deepening of the AEC and ASEAN policy coordination will be essential, including its transformation into an eventual customs and economic union.

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APPENDIXES

Appendix 1: List of 80 Emerging Economies Used in the Gravity Estimations

Albania; Algeria; Argentina; Armenia; Azerbaijan; Bangladesh; Belarus; Bolivia; Botswana; Brazil; *Brunei Darussalam*; Bulgaria; Cameroon; Chile; People's Republic of China (PRC); Colombia; Congo, Rep.; Costa Rica; Cote d'Ivoire; Dominican Republic; Egypt, Arab Rep.; El Salvador; Estonia; Ethiopia; Gabon; Gambia, The; Ghana; Guatemala; Hong Kong, China; Hungary; India; *Indonesia*; Iran, Islamic Rep.; Jamaica; Jordan; Kazakhstan; Kenya; Korea, Rep.; Latvia; Lebanon; Libya; Lithuania; Madagascar; Malawi; *Malaysia*; Mali; Mexico; Moldova; Mongolia; Morocco; Mozambique; Namibia; Niger; Nigeria; Pakistan; Panama; Papua New Guinea; Paraguay; Peru; *Philippines*; Poland; Russian Federation; Senegal; Sierra Leone; *Singapore*; South Africa; Sri Lanka; Sudan; Suriname; Tanzania; *Thailand*; Togo; Tunisia; Turkey; Uganda; Ukraine; Venezuela, Bolivarian Rep.; *Viet Nam*; Zambia; Zimbabwe.

Note: Association of Southeast Asian Nations (ASEAN) member states are shown in italics.

Source: Authors' compilation using information obtained from the World Bank and the International Monetary Fund.

Appendix 2: List of 121 Partner Economies Used in the Gravity Estimations: 76 economies in Appendix 1 plus the following 45 economies:

Angola; Australia; Austria; Bahrain; Belgium; Burkina Faso; Canada; Croatia; Cyprus; Czech Republic; Denmark; Finland; France; Germany; Greece; Haiti; Iceland; Iraq; Ireland; Israel; Italy; Japan; Kuwait; Liberia; Luxembourg; Malta; Netherlands; New Zealand; Nicaragua; Norway; Oman; Portugal; Qatar; Saudi Arabia; Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Taipei,China; Trinidad and Tobago; United Arab Emirates; United States; Uruguay; Yemen, Rep.

Note: Four economies in Appendix 1 are not included as partner economies: Congo, Rep.; Gambia, The; Papua New Guinea; and Suriname.

Source: Authors' compilation.

Appendix 3: Data Used for Estimation and Data Sources

Data	Data source
Bilateral trade flows	United Nations, United Nations Comtrade database
Bilateral FDI stock positions	United Nations Conference on Trade and Development (UNCTAD), Bilateral FDI Statistics
GDP	World Bank, World Development Indicators
Population	World Bank, World Development Indicators
Distance	French Research Center in International Economics
Border dummy	French Research Center in International Economics
Common language dummy	French Research Center in International Economics
FTA dummy	Constructed from World Trade Organization, Regional Trade Agreement database
BIT dummy	Constructed from UNCTAD, International Investment Agreements (IIA) database
Tax haven dummy	Constructed from International Monetary Fund, *Progress Report of the Assessment Program of Offshore Financial Centers*, 2006
Transport infrastructure	World Bank, World Development Indicators
Institutional quality	World Bank, Worldwide Governance Indicators
Real exchange rate depreciation	Constructed from International Monetary Fund, International Financial Statistics
Exchange rate volatility	Constructed from International Monetary Fund, International Financial Statistics
Financial risk scores	PRS Group, International Country Risk Guide

BIT = bilateral investment treaty, FDI = foreign direct investment, FTA = free trade agreement, GDP = gross domestic product.

Note: When data for Taipei,China are not available, we have collected the data from the authority's Statistical Bureau.

Source: Authors' compilation.