

# Chapter 2

## ASEAN Foreign Trade, Investment, and Integration in Comparative Perspective

Economic Research Institute for ASEAN and East Asia

**Lurong Chen**, Economist

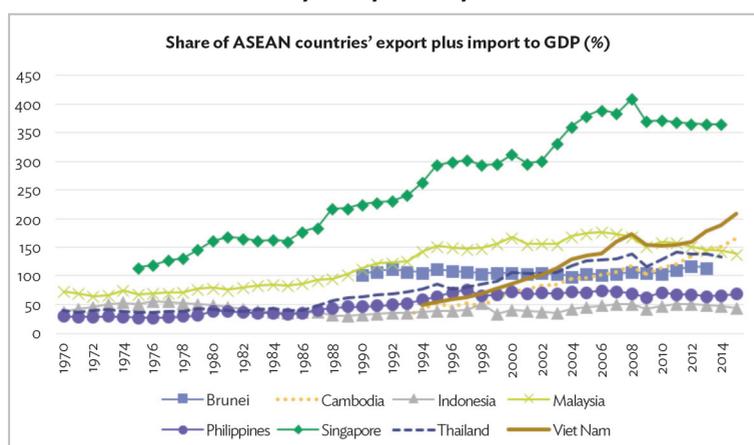
**Ponciano S. Intal, Jr.**, Senior Economist

### ASEAN Economic Openness and Globalisation

Most ASEAN Member States (AMSs) have been heavily trade-oriented, especially since the mid-1980s (Figure 2.1). Being small countries, Brunei Darussalam and Singapore could be expected to be trade dependent; the former having its energy exports as its lifeblood, and Singapore, leveraging its vantage point in the international shipping route along the Malacca Strait and its geographic nearness to two major global producers of tropical products into a leading regional and global player in transshipment, processing, and services. Malaysia since the 1970s, Thailand since the early 1990s, and Viet Nam and Cambodia since the turn of the 2000s have had export share-to-gross domestic product (GDP) ratios of at least 30% and rising secularly to reach more than 70% in Malaysia and Thailand and more than 100% in Viet Nam by 2015.<sup>1</sup> Imports have correspondingly expanded strongly, especially since the latter 1980s. Indonesia and the Philippines are the two major ASEAN countries that have been much less trade oriented than the rest of ASEAN. Nonetheless, their shares of exports and imports to GDP have also risen secularly, although more modestly than in other AMSs. As implied in Chapter 1, the strong trade orientation of most AMSs has translated into the rising global share of ASEAN in both exports and imports during the past few decades.

<sup>1</sup> Malaysia's export share to GDP reached more than 90% in the late 2000s and then declined to the low 70% by 2015.

**Figure 2.1. Share of ASEAN's Exports plus Imports to Gross Domestic Product**



Source: World Bank Dataset: Exports of goods and services (% of GDP), and Imports of goods and services (% of GDP), <http://databank.worldbank.org>

**Table 2.1. Foreign Direct Investment as a Share of Gross Fixed Capital Formation (%)**

Region	1970	1980	1990	2000	2010	2014
ASEAN	7.17	5.16	11.26	15.19	20.90	18.02
ASEAN+3	0.75	0.60	1.47	4.33	5.03	3.94
EU25	2.37	2.34	5.38	35.00	11.31	8.02
LAIA	3.15	3.19	3.76	19.25	15.80	13.12
Mercosur	2.37	3.05	3.03	24.56	15.92	11.87
NAFTA	1.32	3.10	4.01	14.90	7.67	4.93
SAARC	-	0.40	0.57	3.32	4.77	5.38
SADC	4.85	1.10	0.15	9.48	7.40	13.82

ASEAN = Association of Southeast Asian Nations; ASEAN+3 = ASEAN plus China, Japan, and the Republic of Korea; EU25 = European Union 25; LAIA = Latin American Integration Association; Mercosur = Southern Common Market; NAFTA = North American Free Trade Agreement; SAARC = South Asian Association for Regional Cooperation; SADC = Southern African Development Community.

Source: UNCTAD Stat Dataset: Foreign direct investment as percentage of gross fixed capital formation, <http://unctadstat.unctad.org>

ASEAN has been successful in attracting foreign direct investment (FDI); indeed, it has competed with China as the largest FDI investment destination in the developing world in recent years. Thus, for example, ASEAN accounted for 6% of total FDI inflows in 2015 even though it only accounted for 3.3% of global GDP. Table 2.1 shows the ratio of FDI inflows to gross capital formation for ASEAN and other regional economic groupings from the 1970s. As the table indicates, FDI has played a more important role in the region's capital formation since the 1980s compared to Mercosur (Southern Common Market), North American Free Trade Agreement (NAFTA), South Asian Association for Regional Cooperation (SAARC), and, for much of the period, the European Union (EU). In terms of the ratio of FDI to GDP since the 1970s, most of the AMSs have had ratios that are higher than the average for all developing economies. Singapore stands out for having a large FDI presence vis-à-vis national output since the 1970s, while Cambodia is noteworthy for having the second-highest among the AMSs (second to Singapore) during the past decade.

The liberalisation process of facilitating deeper trade and investment linkages between ASEAN and the world has transpired in the region, especially since the mid-1980s. Thus, for example, there have been large declines in most-favoured-nation (MFN) tariff rates of all manufactured goods, ores, and metals from the late 1980s to the mid-2010s in countries such as Indonesia, the Philippines, and Thailand and to a less extent (the historically less trade restrictive) Malaysia. This is in addition to the historically virtually low-to-zero MFN tariff rate economies of Brunei Darussalam and Singapore. This is indicative of the adoption of trade liberalisation policies in ASEAN in recent decades (see Table 2.2). The MFN tariffs for Cambodia, the Lao PDR, Myanmar, Viet Nam (or CLMV countries) have also declined during the past 2 decades, albeit more moderately. Considering that intra-ASEAN tariff rates declined to virtually zero for 2010 in the ASEAN-6 countries and to nearly zero in most imports for the CLMV countries going into the 2018 deadline, the weighted averages of the MFN and the intra-ASEAN tariff rates have indeed declined dramatically during the past 2–3 decades.

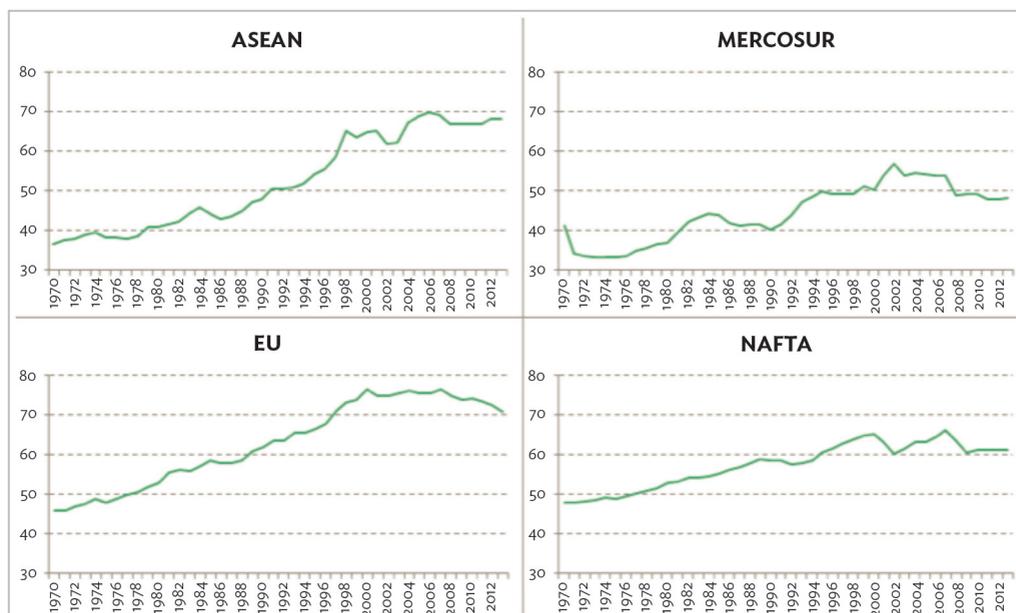
**Table 2.1. Foreign Direct Investment as a Share of Gross Fixed Capital Formation (%)**

Reporter	1989	1996	2001	2014
Brunei Darussalam		3.71	3.64	2.09
Cambodia			16.90	11.32
Indonesia	26.15	12.85	7.36	7.49 <sup>a</sup>
Lao PDR			8.03	9.11
Malaysia	17.08 <sup>b</sup>	11.37	13.74	7.69
Myanmar		5.02	5.03	4.81 <sup>c</sup>
Philippines	27.33	13.52	6.75	6.69 <sup>d</sup>
Singapore	0.56	0	0	0
Thailand	41.67	21.03 <sup>e</sup>	16.38	10.26
Viet Nam			15.15	9.34

<sup>a</sup> Indonesia, 2013; <sup>b</sup> Malaysia, 1988; <sup>c</sup> Myanmar, 2015; <sup>d</sup> Philippines, 2013; <sup>e</sup> Thailand, 1995.

Source: <http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=122>

**Figure 2.2. KOF Index of Economic Globalization (weighted by GDP), 1990–2013**



ASEAN = Association of Southeast Asian Nations, EU = European Union, NAFTA = North American Free Trade Agreement.

Source: Author's calculations based on 2016 KOF Index of Globalization.

A measure of the extent of ASEAN's economic openness and economic integration is the Konjunkturforschungsstelle Index of Globalization (KOF Index), calculated based on a country's performance in international trade and investment, foreign payments, and measures on trade barriers, including tariff, non-tariff barriers, tax, and capital restrictions.<sup>2</sup> The annual report published by ETH Zurich is based on country-level data; we use the GDP-weighted average of member states' scores as a proxy for the region's overall level of economic globalisation for ASEAN, Mercosur, the EU, and NAFTA.

Figure 2.2 presents the pattern of economic globalisation in ASEAN, the EU, NAFTA, and Mercosur since 1970 using the KOF Index of Economic Globalization. ASEAN's economic globalisation increased gradually from 1970 to 1986, accelerated in 1986–1998 to about 65, and then fluctuated before reaching 68 in 2013. Figure 2.2 shows that ASEAN's level of globalisation accelerated during the 1990s but stagnated from the late 2000s along with the EU, NAFTA, and Mercosur.

The acceleration of globalisation globally in the 1990s coincided with the establishment of major regional integration areas (the EU, NAFTA, and ASEAN) together with the conclusion and implementation of the Uruguay Round under the General Agreement on Tariffs and Trade/World Trade Organization. The pullback from globalisation since the late 2000s was an after-effect of the Great Recession from the 2008–2009 global financial crisis as well as what seems to be the maturation of the global value chain, which meant lower global trade growth relative to global GDP growth (Pangestu and Armstrong, 2016). This indicates that ASEAN's performance has been shaped by global trends also, which is what can be expected in a relatively open economy. Nonetheless, Figure 2.2 shows that ASEAN has been much more globalised than Mercosur and even NAFTA, and almost as globalised as the EU.

The significant differences in the extent of globalisation among the AMSs are worth noting. As expected, Singapore has been the most globalised among the AMSs, followed by Malaysia. Thailand and Brunei come next at almost the same level of globalisation, followed by nearly identical scores for Indonesia and the Philippines. Cambodia and Viet Nam follow next with almost the same scores while Myanmar and the Lao PDR bring up the rear. The degree of globalisation accelerated during the 1990s for the five ASEAN founding members, while that of Cambodia and Viet Nam occurred during the past 1–2 decades (see Table 2.3).

<sup>2</sup> The KOF Index of Globalization is a composite index of economic globalisation, political globalisation, and social globalisation first introduced by Dreher (2006). It conceptualises globalisation as a process of producing/improving mutual interdependence among countries via the integration of their national economies, cultures, technologies, and governance. Higher values of the index denote greater globalisation and vice versa.

Figure 2.2 and Table 2.3 suggest that ASEAN is a product of both globalisation and regional integration, a reflection of the open regionalism that ASEAN followed in its regional integration efforts under the ASEAN Free Trade Agreement (AFTA) and towards the ASEAN Economic Community (AEC). Indeed, Peter Drysdale in his essay in Volume 5 of the ASEAN@50 publication (Drysdale, 2017) emphasises that ASEAN is an experiment in open regionalism that has succeeded. At the same time, the highly varied scoring in globalisation in Table 2.3 suggests that there remain significant challenges to – as well as opportunities from – deeper economic integration of Member States within ASEAN, within East Asia, and with the rest of the world. Such challenges and opportunities from deeper economic linkages regionally and globally, especially with respect to foreign trade and investment, are discussed further in the next sections.

**Table 2.3. Economic Globalisation Scores for ASEAN Member States**

	1970	1980	1990	2000	2013
(Highest score)	72.81 (Belgium)	80.21 (Canada)	84.19 (Belgium)	92.72 (Belgium)	91.71 (Belgium)
Brunei Darussalam	n.a.	n.a.	51.20 (33)	60.17 (54)	67.38 (51)
Cambodia	23.89 (114)	22.67 (146)	22.55 (155)	38.16 (137)	50.32 (114)
Indonesia	22.81 (121)	29.09 (114)	34.46 (105)	53.08 (76)	57.75 (84)
Lao PDR	16.65 (134)	17.34 (159)	17.84 (171)	24.11 (188)	30.38 (188)
Malaysia	40.22 (40)	46.50 (41)	56.24 (24)	72.63 (27)	79.14 (25)
Myanmar	19.89 (127)	20.02 (151)	21.18 (160)	27.25 (177)	34.42 (178)
Philippines	27.61 (94)	33.62 (96)	39.69 (71)	55.26 (68)	57.86 (83)
Singapore	57.45 (12)	72.87 (6)	79.40 (4)	85.33 (11)	86.93 (6)
Thailand	25.97 (103)	29.98 (111)	36.56 (94)	57.89 (60)	70.45 (42)
Viet Nam	18.78 (130)	19.87 (153)	24.75 (149)	37.10 (143)	49.91 (116)
(Lowest score)	14.19 (Lao PDR)	14.00 (Lao PDR)	13.97 (Lao PDR)	19.44 (Lao PDR)	23.44 (Timor-Leste)
Number of countries	137	160	168	186	187

Source: 2016 KOF Index of Globalization.

## Deepening Intra-ASEAN and Intra-East Asian Trade

Intra-ASEAN trade deepened during the 1990s and 2000s. Intra-ASEAN trade now comprises a quarter of total trade of ASEAN countries compared to about a fifth in the early 1990s and about 18.6% in the 1980s (see Table 2.4). The share of intra-ASEAN merchandise trade is much higher than trade within Mercosur or SAARC among the developing economy regional integration associations although still significantly lower than NAFTA and the EU. It must be emphasised, however, that the comparatively lower intra-regional trade share in ASEAN than in NAFTA and the EU does not indicate the failure of ASEAN's regional integration efforts.

Instead, it means that the robust growth of intra-ASEAN merchandise trade has been accompanied by equally robust growth with trade with non-ASEAN trade partners, most importantly with China, Japan, the Republic of Korea (henceforth, Korea), and increasingly India. This reflects the pursuit of 'open regionalism' in ASEAN, which essentially means trade discriminatory policies in favour of intra-ASEAN have been minimised, thereby effectively allowing the full play of comparative advantage in ASEAN. It also reflects the growth of regional production networks since the late 1980s in East Asia, with China as the hub. Indeed, a large share of intra-ASEAN trade is in parts and components that are exported also as intermediate products to the rest of East Asia and the world. Hence, the robustness of trade within ASEAN involves also robustness of trade with non-ASEAN countries, especially China.

**Table 2.4. Intra-Regional Trade Shares (Merchandise Trade), 1980–2014**  
(%)

	1980s	1990s	2000s	2010–2014
ASEAN	18.6	22.5	24.4	25.3
RCEP	30.0	34.9	38.9	41.2
EU	61.6	66.5	67.1	62.2
Mercosur	6.9	17.1	13.4	14.1
NAFTA	39.5	47.9	53.3	49.2
SAARC	3.9	4.5	5.8	6.1

ASEAN = Association of Southeast Asian Nations, EU = European Union, Mercosur = Southern Common Market, NAFTA = North American Free Trade Agreement, RCEP = Regional Comprehensive Economic Partnership, SAARC = South Asian Association for Regional Cooperation.

Source: Authors' calculations based on data from the United Nations COMTRADE database.

The pursuit of open regionalism in ASEAN and the growth of regional production networks in East Asia has led to interesting shifts in international trade consistent with the changes in comparative advantage in the increasingly integrating region. Specifically, the 1990s and 2000s saw shifts in comparative advantage in East Asia arising from fast-rising wages coupled by currency appreciations in Japan, Korea, and Taiwan that led to a flood of direct investment from the three economies, Hong Kong, and other parts of the world into export-oriented labour-intensive manufactures to the ASEAN region and China. The surge of such FDI into ASEAN integrated the region into the growing regional production networks in East Asia. At the same time, the surge of investments and concomitant rises in wages led to the changes in the revealed comparative advantage of several AMSs during the past 3 decades. Thus, countries that became export competitive in skilled, labour-intensive manufactures such as electronics and electrical equipment – Malaysia, the Philippines, and Thailand – became less competitive in low-skilled, labour-intensive industries, such as garments. This thereby allowed the low-wage AMSs like Cambodia and Viet Nam to become significant exporters of such products as garments. It is precisely these dynamic shifts in comparative advantage – facilitated by trade and investment – among countries in the region with substantially varying levels of development and wages that characterise the industrialisation and integration process in ASEAN and East Asia in the past 3 decades.

The dictates of comparative advantage, the opportunities from global and regional trade liberalisation, and the dynamics of regional production networks under open regionalism mean that the rise in the aggregate share of intra-ASEAN trade hides interesting country-level developments in the direction of trade (see Table 2.5). Cambodia, the Lao PDR, and Malaysia markedly reduced their reliance on the ASEAN region as an export market while at the same time expanding substantially their import sourcing on ASEAN. On the other hand, five ASEAN countries (Indonesia, Myanmar, the Philippines, Singapore, and Thailand) increased their reliance on the ASEAN region both as an export market and as an import source (most notably, Indonesia and the Philippines). Brunei and Viet Nam marginally reduced their export exposure to ASEAN in tandem with a marginal increase in import sourcing from the region (Brunei) or a marginal decline in imports from ASEAN (Viet Nam).

Thus, for example, Cambodia dramatically shifted its exports away from the ASEAN region towards the EU and the United States (US) while at the same time increasing further its reliance on ASEAN and ASEAN+3 (and away from the EU) as a source of imports. During the period, Cambodia had the sharpest rise in the trade-to-GDP ratio among the AMSs. It effectively leveraged its low labour cost with imported inputs from the ASEAN+3 region to generate exports (mainly of garments) primarily to the West. This smart utilisation of the principle of comparative advantage must have been a big

factor for Cambodia’s growth performance, which was the best in the ASEAN region in the 2000s.

Similarly, the Philippines, hitherto the least engaged in trade among the AMSs in the early 1990s, turned dramatically to the ASEAN and East Asia regions for its export and import expansion in the 1990s and the 2000s. Behind the significant shift in the direction of Philippine trade was the dramatic shift in the composition of the country’s exports towards electronics exports as part of the regional production networks in Southeast and East Asia. The Philippines also indicates the dynamic changes in the direction of imports and exports even within the ASEAN and East Asia regions. Thus, for example, the share of Singapore to Philippine exports dropped by 8.2 percentage points during 2010–2015, whereas the shares of China and Japan to Philippine exports increased by 7 percentage points during the same period.

**Table 2.5. Intra-regional ASEAN Trade Shares of Individual ASEAN Countries’ Foreign Trade (%)**

	1990		1995		2000		2005		2010		2015	
	Exports	Imports										
Brunei Darussalam	20.93	41.9	22.21	50.3	23.16	57.66	25.15	64.52	10.53	55.43	18.41	45.52
Cambodia	74.56	43.27	63.15	75.99	5.578	39.26	4.73	31.06	12.58	34.35	12.65	54.04
Indonesia	9.955	8.435	14.25	14.88	17.52	19.36	18.47	29.53	21.13	28.67	22.32	27.45
Lao PDR	68.41	60.9	54.98	56.08	42.69	77.7	42.43	76.87	43.78	72.15	48.38	72.04
Malaysia	29.45	19.07	27.56	17.4	26.56	24.01	26.07	24.87	25.38	27.1	25.28	27.9
Myanmar	28.21	26.03	30.27	43.63	21.3	45.3	51.14	50.86	46.61	43.56	30	37.33
Philippines	7.265	10.57	13.59	10.58	15.65	15.55	17.34	18.72	22.47	28.05	13.73	23.14
Singapore	22.35	17.12	30.34	22.27	27.37	24.73	31.38	26.04	30.26	24	29.83	21.5
Thailand	11.93	13.08	20.31	12	19.34	16.66	21.98	18.3	22.92	16.6	25.72	18.98
Viet Nam	13.81	18.99	19.79	28.44	18.09	28.45	17.7	25.37	14.82	19.68	11.73	15.97

Source: Asia Regional Integration Center, Integration Indicators Dataset, <https://aric.adb.org/integrationindicators>

In addition to the changes in the country-level direction of trade were significant changes in the commodity composition and direction of trade in ASEAN despite the modest increase in the overall intra-ASEAN trade share to total ASEAN trade. Table 2.6 presents the commodity composition of intra-ASEAN trade in 2003 and 2014. The table shows that the shares of intra-ASEAN trade in raw materials and intermediate goods largely remained the same and marginally increased, respectively, between 2003 and 2014. However, the relative importance of capital goods (including parts and components)

and consumer goods drastically changed. Specifically, the share of consumer goods sharply rose and the share of capital goods (including parts and components) drastically declined.

The major restructuring in the commodity composition of intra-ASEAN trade between the early 2000s and the early 2010s appears to be the by-product of ASEAN economic integration itself and the ongoing geographic realignment of the regional product networks, at least with respect to electronics and electronic equipment parts and components, which is the quintessential example of regional production networks in East Asia. With respect to consumer goods, it is interesting to note the increase in the intra-regional trade shares of commodity groups – such as ‘soaps, lubricants, etc.’; ‘essential oils, perfumes, cosmetics, etc.’; and ‘cereal, flour, etc. preparations and products’. These are likely partly a result of the regional production rationalisation strategies of multinational corporations (e.g. Nestle, Procter and Gamble, and Unilever) wherein a specific product is produced in a particular plant in a country for distribution to the rest of, or selected countries in, the region. Such regional production rationalisation programmes have likely been facilitated by the decline and eventual elimination of intra-ASEAN tariffs and the rise in per capita incomes and the middle class in the region with the attendant increased demand in product variety.

**Table 2.6. ASEAN Trade Composition, 2003 and 2014**  
(%)

	Trade Composition, 2003			Trade Composition, 2014		
	Intra-ASEAN	Exports to the RoW	Imports from the RoW	Intra-ASEAN	Exports to the RoW	Imports from the RoW
Capital goods	53.5	44.2	50.2	33.6	36.5	38.2
Consumer goods	21.3	28.2	15.6	38.8	31.8	22.0
Intermediate goods	16.3	15.2	21.7	19.6	17.6	24.7
Raw materials	6.2	9.0	10.8	6.2	9.9	14.0

ASEAN = Association of Southeast Asian Nations, RoW = rest of the world.

Source: Authors' calculations based on data from the United Nations COMTRADE database.

The encouragement of the full play of comparative advantage and product variety by the elimination of intra-ASEAN tariffs is also reflected in the rise of both intermediate and consumer commodity goods. Some commodity groups that also increased intra-regional trade shares within ASEAN are linked to countries in the region with distinct comparative advantage in natural resources-based products. These products tend to be weighed

down by a relatively high share of transport costs to the unit value of the products. As such, the nearer the market the better is the ex-factory price that producers can receive or the more price competitive they can be in the export market. There are other commodity groups where the intra-regional trade shares have increased but which are not known to be characterised in terms of regional production networks or in relation to regional production rationalisation strategies of multinationals. Examples are ‘plastics and articles’, ‘organic chemicals’, ‘articles of leather, etc. travel goods’, and ‘beverages, spirits, and vinegar’. Intra-ASEAN trade in such products likely benefited from the elimination of tariffs and possibly also of trade facilitation costs arising from improved efficiencies in customs in the region.

It is also worth noting that there has been a marked increase in intra-regional trade shares in commodity groups such as ‘vehicles, other than railway and tramway’ (primarily cars and motorcycles), most likely affected in part by the emergence of Thailand (and to a lesser extent, Indonesia) as ASEAN’s major export hub for automotive products for the ASEAN region and the rest of the world. It is also a result of the regional complementation strategies of multinational companies, where the production of parts is scattered in selected member countries in conjunction with the assembly of specific types of cars in particular member countries for distribution to the whole region or a specified subregion. Such firm-level regional complementation strategies reflect the by-product of ASEAN’s earlier brand-to-brand industrial complementation programme. An example is that of Toyota, for which Indonesia is its hub in producing gasoline engines, the Philippines for transmissions, and Thailand for diesel engines, which are used by the various country assembly plants in ASEAN (ASEAN Secretariat, 2012).

## **ASEAN in regional production networks and value chains**

Nonetheless, electronics and electrical equipment parts and components account for the largest share of intra-ASEAN commodity trade, and there is an apparent geographic realignment as part of dynamic changes in the regional production networks in East Asia. For example, Table 2.7 shows the shares of China and ASEAN in the exports and imports of parts and components for electrical and electronic goods in 1995, 2003, and 2015 for the key AMS players in the sector. The table clearly shows the sharp increase in exports to and imports from China during the period for virtually all the ASEAN countries. While most of the increase in trade with China is a redirection away from Japan, the EU, and/or Taiwan, the significant increase in the share of exports to and imports from China is combined with a substantial decline in the share of exports to and imports from ASEAN in Malaysia, Singapore (not in electronic goods), Thailand, Indonesia, and Viet Nam.

In short, ASEAN countries increased their reliance on ASEAN for their imports of electronic goods and substantially shifted their export destination for parts and components of electrical and electronic goods from ASEAN towards China. This shows the emergence of China as the hub of East Asia’s regional production networks in electronic and electrical equipment parts and components. It also shows that ASEAN is very much part of the regional production network.

As indicated above, a significant part of ASEAN trade is the cross-border exchange of parts and components. The importance of regional production sharing is evident when observing the successive waves of industrialisation in East Asia in the post-war era. Production-sharing networks in East Asia were found in various industries, particularly in sectors of machinery and transportation equipment, which are characterised by multilayered vertical production or distribution. Even before the establishment of the AEC, Ng and Yeats (2003) found that regional production sharing in ASEAN and East Asia was ‘a positive factor facilitating regional cooperation and increased interdependence’; and the intensifying trade in parts and components in trade of manufacturing goods could be ‘positive factors in regional trade arrangements’.

**Table 2.7. Shares of China and ASEAN in AMSs’ Exports and Imports of Parts and Components for Electrical and Electronic Goods (%)**

Reporter	Partner	Exports			Imports		
		1995	2003	2015	1995	2003	2015
Indonesia	China	0.04	2.64	4.65	1.87	5.04	31.18
	ASEAN	58.51	53.97	47.15	17.02	58.19	34.25
Malaysia	China	0.32	6.09	17.22	0.78	9.13	21.32
	ASEAN	32.57	28.64	25.04	21.86	23.05	24.91
Philippines	China	0.11	5.71	9.39	0.56	2.29	11.22
	ASEAN	16.22	23.54	21.40	9.41	13.95	20.33
Singapore	China	1.14	6.08	18.99	1.43	9.07	19.72
	ASEAN	31.47	33.09	21.46	29.68	38.49	23.57
Thailand	China	0.40	8.12	13.59	1.43	12.56	31.74
	ASEAN	34.37	26.57	22.05	24.21	27.92	25.17
Viet Nam	China	0.03	6.08	11.94	0.81	5.51	42.51
	ASEAN	67.56	42.14	12.70	23.96	17.94	14.82

AMS = ASEAN Member State, ASEAN = Association of Southeast Asian Nations.

Source: Authors’ calculation based on data from the United Nations COMTRADE database.

**Table 2.8. Parts and Components in the Trade of Manufacturing Goods (%)**

	Share in Intra-regional Trade				Share in Regional Total Trade			
	1980s	1990s	2000s	2010–2014	1980s	1990s	2000s	2010–2014
ASEAN	22.7	28.4	28.9	22.3	19.1	23.2	24.7	19.6
RCEP	14.6	18.6	20.2	16.2	14.0	17.7	18.3	15.3
EU	12.6	13.9	15.1	13.5	12.9	15.0	15.7	14.2
Mercosur	9.1	13.2	15.5	13.5	12.0	14.9	16.1	14.7
NAFTA	24.0	22.6	20.4	18.8	19.5	17.7	15.2	13.3
SAARC	13.1	8.5	5.2	4.2	10.1	7.5	9.9	9.7

ASEAN = Association of Southeast Asian Nations, EU = European Union, Mercosur = Southern Common Market, NAFTA = North American Free Trade Agreement, RCEP = Regional Comprehensive Economic Partnership, SAARC = South Asian Association for Regional Cooperation.

Note: The definition of parts and components is based on Ando, Arndt, and Kimura (2006).

Sources: Authors' calculations based on data from United Nations (2016) COMTRADE database.

Table 2.8 shows that in the 1980s, about a fifth of the manufacturing goods traded within ASEAN were parts and components. This is very close to that in NAFTA. While the ratio of trade in parts and components to regional trade in NAFTA declined over time, that of ASEAN first increased substantially and reached a peak in the mid-2000s but declined afterwards to the low 20% range, reflecting the redirection of electrical and electronic parts and components trade towards China. Nonetheless, parts and components still comprise a much larger share of manufacturing trade in ASEAN than in other regions, especially Mercosur and SAARC, which have not been part of significant regional production networks in manufactures. Table 2.8 also shows that parts and components account for a much higher share of extra-regional trade in ASEAN than in the other regions, again reflecting ASEAN being strongly embedded in the regional production networks in the wider East Asia region. The participation of individual ASEAN countries in the regional production networks differs tremendously, however. Singapore accounts for a third, while Malaysia and Thailand together account for almost two-fifths of all regional trade in parts and components. The fastest growth in recent years has been for Viet Nam, which more than doubled its share, overtaking the Philippines as the fifth-most important trader in parts and components in ASEAN (see Table 2.9).

Compared with other regions, the regional production networks in East Asia are arguably the most complex and articulated (Ando, 2009). This is in part due to (i) the dominance of machinery that typically requires many parts and components; (ii) the significant

differences in the levels of development and factor prices among the economies in the region, which encourage the profitable fragmentation of production; and (iii) the reduction in trade barriers and transport and trade facilitation costs that allows for the formation of varying layers of networks across production areas. The varying layers of networks stretch from industrial agglomeration clusters within a short distance (for products requiring frequent delivery for just-in-time operations) to farther but networked production areas with relatively more modular inter-firm interfaces (Kimura, 2009). Most of intra-East Asian trade is in parts and components, which, as Obashi (2009a, 2009b) has shown, tend to be more longer-lived, resilient, and less sensitive to trading costs and exchange rate fluctuations than finished goods, thereby allowing for stronger trade relationships, greater learning by doing and technology transfer, and more robust industrial development.

Data from OECD Global Value Chains Indicators (see Table 2.10) further indicates the position of AMSs in the global trading and value chain system. Table 2.10 shows the value of countries' forward and backward participation indices. The forward indicator – the share of a country's exporting goods and services that are used by its trade partners as imported inputs to their production for exports – proxies the contribution of a country's domestic value-added to other countries' exports. The backward indicator measures the foreign value added embodied in a country's gross exports. It is expressed as the ratio between the value of imported inputs and a country's total exports. For both, higher values indicate deeper involvement in global value chains.

**Table 2.9. ASEAN Member States' Shares in Regional Trade in Parts and Components (%)**

	Exports		Imports	
	2001–2005	2010–2014	2001–2005	2010–2014
Brunei Darussalam	0.8	1.0	0.1	0.2
Indonesia	13.4	14.9	4.0	11.5
Cambodia	0.5	0.5	0.0	0.1
Malaysia	22.5	18.4	25.9	22.6
Philippines	7.5	4.4	19.8	8.1
Singapore	33.8	32.7	32.9	32.0
Thailand	17.0	18.2	15.4	19.3
Viet Nam	4.5	9.3	1.8	6.1

Note: The definition of parts and components is based on Ando, Arndt, and Kimura (2006).

Source: Authors' calculations based on data from United Nations (2016) COMTRADE database.

**Table 2.10. The Participation Index of Global Value Chains**

	Participation Index, Forward				Participation Index, Backward			
	1995	2000	2005	2009	1995	2000	2005	2009
Brunei Darussalam	19.3	29.9	38.6	32.2	18.4	10.4	6.7	11.6
Cambodia	17.7	8.7	4.8	6.3	26.0	34.6	37.9	34.1
Indonesia	18.8	23.7	31.4	29.3	14.7	19.3	17.8	14.4
Malaysia	15.2	19.6	27.2	27.7	40.3	43.0	41.5	37.9
Philippines	16.6	17.3	28.7	28.3	30.9	45.9	45.6	38.4
Singapore	13.8	18.6	22.4	20.7	46.7	50.7	52.3	49.9
Thailand	12.0	14.3	17.4	18.3	29.8	34.8	38.5	34.5
Viet Nam	12.6	18.1	17.8	14.7	24.4	29.6	35.0	36.6

Source: OECD Global Value Chains Indicators, Participation index backward and forward, OECD online database. [https://stats.oecd.org/Index.aspx?DataSetCode=GVC\\_INDICATORS](https://stats.oecd.org/Index.aspx?DataSetCode=GVC_INDICATORS). Data retrieved 9 January 2017.

The data are available for eight AMSs. The value of the backward participation index is generally higher than that of the forward participation index, except for Brunei and Indonesia. For Malaysia, the Philippines, Singapore, and Thailand, the higher backward participation rate reflects the nature of their stage in the production networks, which is largely to produce parts and components from imported parts, which are then exported as parts and components to the importing countries; hence, the rising forward participation indices of the four countries. Note the significant decline in the backward participation index of Malaysia and the Philippines, suggesting greater localisation and increased value added of the two countries' exports and/or greater concentration of exports with less imported components.

The participation indices of Cambodia and Viet Nam suggest the dependence of the two countries on imported parts and components (including fabrics for garments) for their major exports of primarily consumer goods (garments for Cambodia and electronic products, especially mobile phones, for Viet Nam). The low backward participation index and higher forward participation index for Brunei and Indonesia show the preponderance of resource- and agriculture-based exports of the two countries, which are then used as inputs for the exports of the importing countries, e.g. energy for Brunei and palm oil for Indonesia.

## Insights

The changing international trade landscape in the region brings the following key insights:

- Openness to global trade, and not only regional trade, allows for the full play of comparative advantage. This is best exemplified by the experience of Cambodia, where Generalized System of Preferences privileges in the EU and the US enabled significant market access, leveraging their low labour cost with imported inputs from the region as well as from the major export markets themselves, which has allowed them remarkable growth in exports since the early 2000s.
- Similarly, the near-zero tariff regime in electronics globally allowed for the full flowering of global and regional production networks in the sector. Varying levels of factor prices and factor capabilities concomitant to the varying levels of development of East Asian countries amidst improved and cheaper transportation and communication linkages in East Asia enabled the efficient fragmentation of production processes across various countries in the region. The rise of regional production networks has had major impacts on the volume and direction of intra-regional trade in East Asia. It is not surprising that electronics and electrical equipment and parts have been the key driver of the surge in total exports and intra-regional trade.
- Nonetheless, regional trade liberalisation and integration initiatives have also shaped the changing trade landscape in ASEAN. The substantial reduction in tariffs in the region has encouraged the rise of regional production rationalisation initiatives among multinationals in the region, the growth (in production and trade) of transport cost-sensitive commodities in the region, and the expansion of markets into the region of differentiated products. In effect, the more liberalised trading environment contributed to the deepening of economic interchange in the region in a wide range of industries and products beyond regional production networks per se.

## Expanding Investment Linkages

Investment – and especially foreign investment – has been a central driver of economic transformation and integration in ASEAN and East Asia. The spread of regional production networks has been driven by multinational corporations and their SME (small and medium-sized enterprises) suppliers investing in various countries in the region. They invest to minimise costs, maximise access to resources and talent, and be near markets. Nonetheless, they remain seamlessly linked together with the internal

(within firm or group) coordination of the various processes and stages of production. The geographically dispersed but internally coordinated production networks tend to bundle FDI with technology transfer, management, skills training, quality control, and access to markets, etc. At the same time, the host countries are pressured to invest in better infrastructure, logistics, telecommunications, trade-related finance, and other related services to attract more investment from foreign (and domestic) firms involved in more production networks where timeliness in the sourcing, production, and exports within the production networks is a particularly important consideration. Of course, many investments that are not directly linked to production networks are undertaken, for example, to service the domestic market or to tap particular assets or skills. These benefit from, as well as respond positively to, improved infrastructure, services, and trade facilitation, etc. that deep engagement in production networks demands. There is thus a significant virtuous cycle of the trade–investment–services–facilitation nexus. In many ways, the virtuous cycle is one key locomotor of industrial development and transformation of the host countries, including in ASEAN during the past few decades.

Part of the dynamism of ASEAN is due to its success in attracting foreign investment. The level of annual FDI inflows into ASEAN expanded by more than six times between 2000 and 2014, when the region attracted its highest level of US\$136.2 billion, higher than what was received that year by China, hitherto the leader in FDI in the developing world. In 2015, ASEAN dropped immediately after outranking China as FDI inflows to ASEAN fell to US\$120.8 billion, whereas China's FDI inflows rose to US\$126.3 billion. In the early to mid-2000s, FDI inflows into China were usually more than twice those into ASEAN. That ASEAN now competes with China for the top spot as an FDI destination in the developing world is remarkable indeed because one of the impetus for the acceleration of the target date for the AEC from 2020 to 2015 was for ASEAN to not lag far behind China as an FDI destination. It must be emphasised, though, that ASEAN was in fact the leading FDI destination in the developing world in 1990 (in the middle of ASEAN's economic boom period) when China was yet to emerge as the major FDI and economic force in the late 1990s and before the sharp drop in FDI inflows to ASEAN in the aftermath of the East Asian economic crisis of 1997–1998. It is also worth highlighting this element of FDI attraction and competition as part of the animus for the deepening of economic linkages and integration in ASEAN.

Figure 3.2.3 presents the composition of FDI inflows to ASEAN by source in 2004 and 2015; note that it was in 2004 that total FDI inflows into ASEAN overtook their pre-crisis level of 1997. The EU-28 has been the largest foreign investor in ASEAN for most of the 2000s and early 2010s, followed by Japan. The US has also been a consistent significant foreign investor in the region; indeed, US direct investment in ASEAN is greater than the combined total of US investment in China, Japan, and Korea (ASEAN

Secretariat, 2016a). China has grown in importance as a source of FDI into ASEAN in recent years. It is worth noting that the foreign investors tend to focus on certain preferred sectors. Thus, for example, Japanese FDI in ASEAN tends to concentrate in manufacturing, which partly explains the strong Japanese presence in regional production networks. On the other hand, US and EU FDI in ASEAN in recent years has concentrated in services, and much of it is poured into Singapore given the latter's regional (and even global) strong presence in services, including being the regional hub for Southeast Asia.

However, the most interesting development has been the marked rise in the importance of intra-ASEAN FDI during the 2000s. The share of intra-ASEAN FDI in ASEAN's total FDI inflows rose from 8.9% in 2004 to 18.4% in 2015, becoming the top source of FDI in that year followed by the usual leader, the EU-28. This is an important development because it reflects the growing regionalisation of ASEAN-based firms (indeed, many have internationalised beyond ASEAN) as well as the implied growing business relationships among ASEAN firms. The ASEAN Investment Reports<sup>3</sup> indicate the growing numbers of ASEAN firms expanding to the rest of ASEAN and the large magnitude of FDI outflows from ASEAN, which reflect the internationalisation efforts of ASEAN firms as they invest or purchase assets in the rest of the world.<sup>4</sup>

Figure 2.4 shows the distribution of FDI by host country for 2004 and 2015. The figure shows the dominance of Singapore as the FDI recipient, but the share has declined from more than three-fifths in 2004 to one half in 2015. The distribution of FDI inflows has become far less concentrated: whereas the comparative richer and large AMSs, Malaysia, Singapore, and Thailand, cornered close to 90% of all FDI inflows in 2004, the trio accounted for only two-thirds in 2015. Instead, the next two largest FDI recipients after Singapore in 2015 were Indonesia and Viet Nam.<sup>5</sup> It is also worth noting that the other AMSs sharply increased their share from just 3.3% in 2004 to 9.5% in 2015. The apparent growing dispersion of FDI inflows into ASEAN is salutary as it likely reflects the following: (i) the positive investment response to almost simultaneous domestic reforms in most AMSs during the period, consistent with the growing integration efforts towards the AEC in 2015; (ii) the growing competitiveness of countries with low-labour cost as

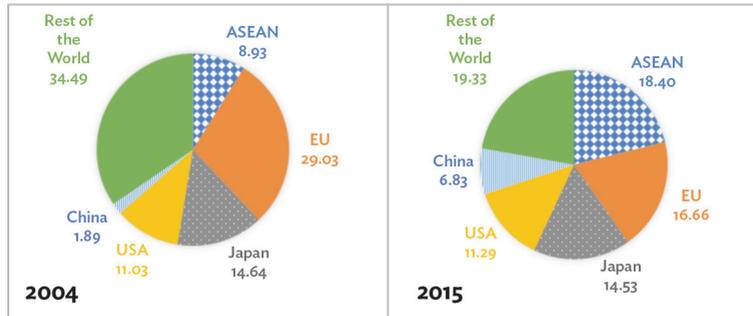
<sup>3</sup> For example, ASEAN Investment Reports 2012, 2015, 2016.

<sup>4</sup> A dominant source of ASEAN FDI outflows is Singapore. There is a likelihood that a portion of FDI inflows into Singapore end up as FDI outflows to be used for mergers and acquisitions deals, etc. reflecting the role of Singapore as a regional hub of multinationals and as a regional financial centre.

<sup>5</sup> The share of Indonesia was low in 2004 as it was still reeling from the aftermath of the 1998 financial and economic crisis which saw net investment outflows from Indonesia in the first years of the 2000s.

export bases for low-skilled, labour-intensive manufactures in the face of rising labour cost in China; (iii) the widening geographic reach of regional production networks; and (iv) the sheer growing investment attractiveness of serving the demands of the growing middle class, especially in the most populous member states of Indonesia, the Philippines, and Viet Nam.

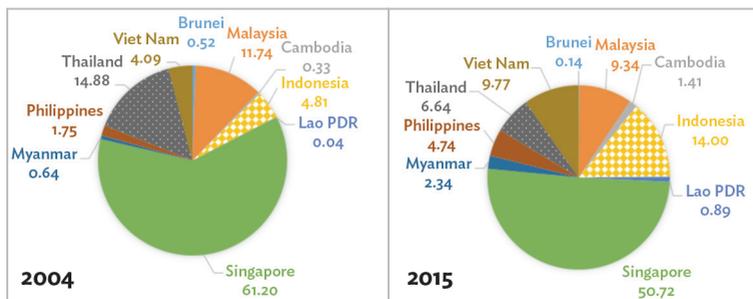
**Figure 2.3. Foreign Direct Investment Flows into ASEAN, by Source Country (%)**



ASEAN = Association of Southeast Asian Nations.

Source: Data 2004: ASEAN Secretariat (2015a); Data 2015: ASEAN Secretariat (2016b).

**Figure 2.4. Foreign Direct Investment Flows into ASEAN, by Host Country (%)**



Source: Data 2004: ASEAN Secretariat (2015a); Data 2015: ASEAN Secretariat (2016b).

There is a great likelihood of even greater shares of FDI inflows into the low-middle-income Member States (i.e. outside of Brunei, Malaysia, Singapore, and Thailand) in the future as labour-intensive manufacturing activities shift from the upper-middle and high-income countries in Asia to the lower middle-income countries of ASEAN. The infrastructure investment needs and opportunities are great and gathering momentum in these countries. And the countries offer robustly growing large consumer markets as they are the fastest-growing AMSs. Nonetheless, the more advanced Member States are themselves improving their competitiveness and investment attractiveness regionally

and globally in selected industries, such as in automotive manufacturing for Thailand and the life sciences for Singapore.

Behind the scene is ASEAN's progress in improving the regional investment environment. To encourage foreign investment to support development, AMSs have taken actions both nationally and internationally. Some typical domestic actions include national investment policy reforms, incentive tax treatment, infrastructure development, and investment facilitation, as well as transparency of investment procedures and institutional support for investors (ASEAN Secretariat, 2015b). In addition, there have been international efforts through the negotiation, signing, and implementation of investment treaties and FTAs, such as the ASEAN Comprehensive Investment Agreement, the Regional Comprehensive Economic Partnership, and so on.

The World Bank Doing Business index shows that ASEAN has significantly improved the regional business environment.<sup>6</sup> In 10 years, ASEAN has narrowed its gap with NAFTA and the EU regarding the ease of doing business. Singapore, Malaysia, and Thailand rank as the top three AMSs for ease of doing business. There has also been significant progress in the CLMV countries. Regional integration, the improvement of the business environment, and the promotion of foreign investment have reinforced one another. Market integration and region-wide regulatory harmonisation can facilitate business activities and encourage foreign investment. The inflow of foreign capital will further improve the efficiency of the market by introducing advanced know-how and best practices of doing business to the region.

Thus, the whole ASEAN region remains a very attractive FDI destination for foreign businesses, being the sixth-largest economy (if ASEAN is viewed as one economy) in the world at present and one of the fastest-growing regions in the world. ASEAN and the United Nations Conference on Trade and Development (UNCTAD) observe that since the implementation of the AEC, investors' perceptions of the region have been on the rise. Testaments from the private sector reflect strong optimism for the future prospects of the region, drawing from the messages and essays in *Investing in ASEAN 2017* (Allurentis Limited and ASEAN, 2017). While foreign companies have continued to strengthen their footprint in the region in manufacturing, finance, infrastructure, and other services, local players are also active in expanding existing business or investing in new projects in the region. Thus, higher FDI flows in ASEAN are foreseeable in the

<sup>6</sup> The World Bank Doing Business index measures a country's overall business regulations from 10 aspects – starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. A higher value of the indicator means a more investment-friendly business environment. The simple average of the AMSs' scores is used to proxy the whole region's general ease of doing business.

future. Perhaps the best expression of the business optimism for ASEAN is the tag made by Deutsche Bank in its advertisement in the publication *Investing in ASEAN 2017*: 'Half a century on: ASEAN is only getting better with age.' (Allurentis Limited and ASEAN, 2017: 26).