Chapter 1 The Economic Transformation of the ASEAN Region in Comparative Perspective

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ASEAN: an Economic Success Story in the Developing World

Over the course of ASEAN's 50 years of existence, the ASEAN region has been transformed from a relatively poor region in the 1960s into a robustly growing region of middle-income to high-income countries. The ASEAN Member States (AMSs) have transitioned from being largely exporters of primary products into regional and global exporters of commodities, manufactures, and services. The region has experienced an almost consistently rising share of global output, exports, and imports, and secular but inconsistent global foreign direct investment (FDI) inflows, beating out other prominent regional groupings in the developing world (see Figure 1.1). The pace and consistency of the rise of ASEAN's shares in global output and international merchandise trade, as well as the secular rise of ASEAN's share of global FDI inflows, are indicative of ASEAN as an economic success story vis-à-vis other regional associations in the developing world.

ASEAN's share of global gross domestic product (GDP) rose markedly from 0.8% in 1970 to 1.5% in 1990 and 2.6% by 2015. This contrasts sharply to the near stagnancy in the global shares of Mercosur (Southern Common Market) and the Latin American Integration Association¹, two major regional integration areas in South America, which both saw significant rises in their global shares from 1970 to 1980 but fell afterwards

¹ Mercosur comprises Argentina, Brazil, Paraguay, Uruguay, and Venezuela (suspended in December 2016). The Latin American Integration Association is composed of Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Paraguay, Panama, Peru, Uruguay, and Venezuela. Although established in 1980, it superseded the defunct earlier Latin American Free Trade Association established in 1960.

in 1990 before inching up very slowly until 2015 at lower-than-the-1980 shares.² Similarly, despite being far less populous, ASEAN's global GDP share rose to almost the same as the much more populous South Asian Association for Regional Cooperation (SAARC) region by 1980 and kept apace with SAARC during the next 2 decades until 2000.³ It was only in 2000–2015 that high growth in SAARC, especially for India and Bangladesh, led to a higher global GDP share of the much more populous SAARC than ASEAN by 2015 (see Figure 1.1).





FDI = foreign direct investment; GDP = gross domestic product. UNCTAD Stat Dataset, <u>http://unctadstat.unctad.org</u>

² The Latin American Integration Association's global GDP share rose from 5.1% in 1970 to 6.4% in 1980. Mercosur's global GDP share rose from 2.7% in 1970 to 3.4% in 1980.

³ SAARC is composed of Afghanistan, Bangladesh, Bhutan, India, Nepal, the Maldives, Pakistan, and Sri Lanka.



ASEAN = Association of Southeast Asian Nations, LAIA = Latin American Integration Association, Mercosur = Southern Common Market, SAARC = South Asian Association for Regional Cooperation, SADC = Southern African Development Community.



Figure 1.1 also shows that ASEAN has been the stellar performer in foreign trade among the major regional economic associations in the developing world. In both exports and imports, ASEAN's global share rose consistently and substantially from 1970 to 2015, overtaking the Latin American Integration Association's share by 1990 then pulling ahead afterwards into 2015. SAARC, Mercosur, and the Southern African Development Community (SADC) have had global shares that have been significantly lower than ASEAN. In terms of FDI inflow, ASEAN's global share rose secularly and significantly, highlighted by a nearly 10% share in 2014, reflecting a surge of FDI inflow into ASEAN after the sharp fall in its global share during the crisis years in the late 1990s. Similar to the case of global shares in foreign merchandise trade, and except for the crisis years 1998–2002, ASEAN largely significantly outperformed SAARC, Mercosur, and SADC in global shares of FDI inflows during most of 1970–2015.

The comparatively strong performance of ASEAN in foreign merchandise trade and FDI inflows is echoed in the economic growth performance of the region (see Table 1.1). Table 1.1 shows that the five founding members of ASEAN, together with the future sixth member, Brunei Darussalam, had high growth rates in the 1970s that were much higher than the 5.6% for middle-income countries and 3.2% for industrialised market economies based on the World Bank's 1982 World Development Report (Estanislao and Aquino, 1983). The other decade of high growth rates in most of ASEAN-6 (the founding five countries plus Brunei) was during the 1986–1996 period before the East Asian crisis of 1997. During the 2000s and early 2010s, it was the new members of ASEAN – i.e. Cambodia, the Lao PDR, Myanmar, and Viet Nam, or the CLMV countries–that consistently topped the growth charts in ASEAN and were among the highest in the developing world.

It is worth noting that ASEAN's first 30 years were bookended by economic crises, and those crises significantly shaped the course of ASEAN. Specifically, ASEAN was established in 1967 on the heels of a serious economic crisis in Indonesia, ASEAN's largest member. Indonesia's annual inflation rate was about 2,285% (Yah, 1976). Such hyperinflation (an indication of serious economic crisis) led to the change in government from President Soekarno to President Suharto. This new government emphasised ending *konfrontasi* and being at peace with its neighbours, which kick-started with Thailand the establishment of ASEAN in August 1967. The new government succeeded very soon in stabilising the economy: with inflation dropping to an average of 6.2% in 1969–1972, the rupiah becoming stable, and the economy quickly growing at 8.2% during the same period (Yah, 1976).

Economy	1971-1980	1981-1985	1986-1995	1996-2000	2001-2010	2011-2015
Brunei Darussalam	9.50	-3.25	0.76	1.22	0.77	0.18ª
Cambodia	-6.91	2.82	7.47	6.46	7.50	6.60
Indonesia	7.91	5.59	7.56	1.09	5.12	5.41
Lao PDR	3.74	7.87	5.15	6.56	7.11	7.81
Malaysia	7.88	5.16	8.20	4.99	4.61	5.37
Myanmar	4.19	4.77	1.96	8.35	12.04	7.45
Philippines	5.91	-1.14	3.45	3.58	4.76	5.84
Singapore	-	6.97	8.69	5.82	6.04	4.57 ^b
Thailand	6.68	5.37	8.88	0.74	4.54	2.41
Viet Nam	3.94	7.01	6.19	6.96	6.80	6.18

 Table 1.1. Average Economic Growth of ASEAN Member States

 (%)

^a Brunei, World Bank data, 2011–2013.

^b Singapore, World Bank data, 2011–2014.

Source: Author's calculations based on data from http://databank.worldbank.org.

The data in shaded cells are derived from <u>http://unctadstat.unctad.org</u>. World Bank, Dataset: World Development Indicators, Gross Domestic Product; UNCTAD Stat, Dataset: National Accounts, Gross Domestic Product.

Similarly, in the 30th year of ASEAN's existence, the ASEAN region was ground zero of the East Asian crisis that started in Thailand in July 1997 and would engulf all five founding members of ASEAN; the Republic of Korea (henceforth, Korea); and, to a lesser extent, Hong Kong. The marked slowdown in economic growth and the sharp drop in FDI inflow during the latter 1990s are reflective of this economic crisis (Figure1.1 and Table 1.1). Remarkably, amidst the deepening economic crisis, ASEAN leaders unveiled

the ASEAN Vision 2020 during the Special Summit in Kuala Lumpur in December 1997 that pushed forward regional integration and community building much deeper towards 2020. In addition, during the same Special Summit, the ASEAN leaders held their joint meetings with the three leaders from China, Japan, and Korea in what would become the ASEAN+3 grouping. The crisis gave rise to deeper East Asian economic cooperation, as highlighted by the eventual ASEAN+1 free trade agreements (FTAs) and the Chiang Mai Initiative.

Table 1.1 also shows a significant slowdown in the average growth rates of ASEAN countries in the early 1980s. This proved to be a catalyst for domestic reforms that, together with major developments in East Asia during the latter 1980s, effectively reshaped the trajectory of ASEAN economies into the 1990s and beyond. Behind this was the marked deterioration of the global economic environment, characterised by sharp falls in commodity, energy, and mineral prices and the emergence of a serious debt crisis in the developing world that affected Latin America especially as well as the Philippines. The adverse global environment for primary products and the deepening pressures on trade and fiscal balances have led to significant policy reforms towards greater liberalisation, especially in Indonesia.

The homegrown reforms occurred at the same time as the 1985 Plaza Accord led to a significant appreciation and the concomitant substantial flow of Japanese FDI into ASEAN for manufacturing – and not only in natural resources–based industries. The yen appreciation, followed by the appreciation of the New Taiwan dollar and the Korean won, became a significant catalyst for the development of ASEAN as an export platform for (labour-intensive) manufactures to the world. Thus, the confluence of the domestic reforms that got a push from the sharp falls in commodity prices and the resulting adverse macroeconomic pressures, including some currency depreciation, in ASEAN and the external currency appreciations of the yen, won, and the New Taiwan dollar that gave rise to large FDI inflows into ASEAN led to the robust expansion of export-oriented manufacturing in the region and the eventual integration of ASEAN into the growing regional production networks.

Over the course of the economic booms and a crisis, the ASEAN region has been drastically transformed during the past 50 years (see Table 1.2). In all five founding AMSs, agriculture has drastically declined in economic importance, although the countries are still leading global or regional exporters of several agricultural products, such as palm, coconut, rubber, and bananas. Manufacturing surged in importance and for countries like Singapore, Malaysia, and the Philippines, services – especially modern services like finance, tourism, business, and logistics – have become the largest sector in the economy. For the newer AMSs, robust growth in agriculture and the surge in exports

of highly labour-intensive manufactures like garments as well as tourism have been key drivers of the high economic growth rates during the past 2 decades. As Table 1.2 shows, their economic structures have changed markedly during the period with much higher shares for industry and services.

Economy	Sector	1970	1985	1995	2014
Brunei Darussalam	Agriculture	-	1.21	1.16	0.73ª
	Industry	-	71.81	54.27	68.24ª
	Services	-	26.98	44.57	31.03ª
Cambodia	Agriculture	-	-	49.62	30.43
	Industry	-	-	14.83	26.99
	Services	-	-	35.55	42.58
Indonesia	Agriculture	44.94	23.21	17.14	13.34
	Industry	18.69	35.85	41.80	41.90
	Services	36.37	40.94	41.06	42.27
Lao PDR	Agriculture	-	-	-	27.67
	Industry	-	-	-	31.43
	Services	-	-	-	40.90
Malaysia	Agriculture	32.58	20.28	12.95	8.87
	Industry	30.32	39.23	41.40	39.96
	Services	37.10	40.48	45.65	51.17
Myanmar	Agriculture	38.00	48.20	59.99	-
	Industry	14.18	13.07	9.87	-
	Services	47.82	38.73	30.14	-
Philippines	Agriculture	29.52	24.58	21.63	11.30
	Industry	31.89	35.07	32.06	31.39
	Services	38.59	40.35	46.31	57.31
Singapore	Agriculture	-	0.96	0.16	0.03
	Industry	-	33.44	33.75	24.94
	Services	-	65.60	66.09	75.02

Table 1.2. Average Economic Growth of ASEAN Member States(%)

Thailand	Agriculture	25.92	15.81	9.08	10.50
	Industry	25.31	31.84	37.53	36.89
	Services	48.78	52.35	53.39	52.73
Viet Nam	Agriculture	-	40.17	27.18	17.70
	Industry	-	27.35	28.76	33.21
	Services	-	32.48	44.06	39.04

^a For Brunei Darussalam, the latest data available are only up to 2013.

Source: World Bank Dataset: Agriculture value added % of GDP (http://data.worldbank.org/indicator/NV.AGR.TOTL.ZS), Industry value added % of GDP (<u>http://data.worldbank.org/indicator/NV.IND.TOTL.ZS</u>), Services etc. value added % of GDP (<u>http://data.worldbank.org/indicator/NV.SRV.TETC.ZS</u>); <u>http://databank.worldbank.org</u>

Key Factors of ASEAN Economic Performance and Transformation

Economic growth and transformation is a complex process. Many factors, both economic and non-economic as well as domestic and external, contribute to this growth and transformation process. The decomposition analysis of economic growth in terms of the contributions of capital, labour, and total factor productivity provides a robust common framework for determining the key sources of growth among the AMSs during the past few decades. Table 1.3 consolidates the annual decomposition estimates of the Asian Productivity Organization (2016) for the AMSs.

As the table suggests, (physical) capital or investment has been the most important driver in most cases of economic growth in the region, especially during the very high growth ('boom') periods of 1971–1979 and 1986–1995 for the five founding members and the 1990–2010 period for the newer members. The large contribution of capital to economic growth was particularly noteworthy for Singapore and Malaysia in 1971–1985; Viet Nam, in 1996–2014; the Philippines, in 1971–1979; Indonesia, in 1975–1985; and Thailand, in 1991–1995. The growth of capital, or effectively investment, was high in these countries especially during the boom periods, although the growth of capital in the Philippines was more modest. As a useful reference to the ASEAN experience, it is worth noting that the growth rate of capital in China was on average higher and for a longer period than the AMSs (especially during 1986–2014), which partly explains the even more remarkable economic transformation of China during the period. Thus, the results of the growth decomposition analysis of ASEAN countries and China shows the critical importance of the growth of capital in the economic growth (and transformation) process.

Table 1.3. Productivity in ASEAN Countries and China (%)

Cambodia Contribution (capital input ··· <th< th=""><th>Economy</th><th>Productivity Indices (%)</th><th>1971–1975</th><th>1976-1980</th><th>1981-1985</th><th>1986-1990</th><th>1991–1995</th><th>1996–2000</th><th>2001-2005</th><th>2006-2010</th><th>2011-2014</th></th<>	Economy	Productivity Indices (%)	1971–1975	1976-1980	1981-1985	1986-1990	1991–1995	1996–2000	2001-2005	2006-2010	2011-2014
Contribution of labour input ·	Cambodia	Contribution of capital input	I	I	I	I	I	2.98	4.15	5.67	4.93
Total factor productivity 2.06 2.58 0.94 3.01 Contribution of capital imput 383 5.61 5.66 390 4.66 4.02 2.44 3.01 0 Contribution of capital imput 159 1.22 1.55 2.15 2.11 0.68 0.94 0.63 1.79 0 Contribution of capital imput 5.73 5.86 7.15 2.173 0.637 0.637 0.637 0.63 1.79 0 Contribution of bounimput 5.73 5.86 7.13 1.73 1.73 1.73 0.73 Contribution of bounimput 5.73 5.37 0.637 0.73 1.73 0.73 1.73 Contribution of capital imput 7.14 7.37 1.14 2.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 1.24 <td< td=""><td></td><td>Contribution of labour input</td><td>I</td><td>I</td><td>I</td><td>I</td><td>I</td><td>2.00</td><td>2.27</td><td>1.80</td><td>0.46</td></td<>		Contribution of labour input	I	I	I	I	I	2.00	2.27	1.80	0.46
Contribution of capital input 383 5,61 5,66 3,90 4,66 4,02 2,44 3,01 3 Contribution of labour input 159 132 155 213 0.68 0.94 0.63 1/29 1/29 1/29 Contribution of labour input 153 0.88 2.42 1,33 0.713 0.63 1/39 </td <td></td> <td>Total factor productivity</td> <td>I</td> <td>I</td> <td>I</td> <td>I</td> <td>I</td> <td>2.06</td> <td>2.58</td> <td>-0.94</td> <td>1.63</td>		Total factor productivity	I	I	I	I	I	2.06	2.58	-0.94	1.63
Contribution of labour input 1.59 1.53 1.55 1.53 1.55 1.53 2.54 1.53 2.57 2.53 1.53 2.57 2.53 2.54 2.55 2.55 2.55 <th2.55< th=""> 2.55 2.55 <t< td=""><td>Indonesia</td><td>Contribution of capital input</td><td>3.83</td><td>5.61</td><td>5.66</td><td>3.90</td><td>4.66</td><td>4.02</td><td>2.44</td><td>3.01</td><td>3.20</td></t<></th2.55<>	Indonesia	Contribution of capital input	3.83	5.61	5.66	3.90	4.66	4.02	2.44	3.01	3.20
Total factor productivity 2.87 0.88 -2.42 1,50 2.26 4,19 1,81 1,42 1,42 Contribution of capital imput 573 5.86 7.15 3.73 6.07 6.03 3.15 2.77 0.98 I contribution of capital imput 1.24 1.23 1.23 1.23 1.24 1.22 0.98 2.77 0.98 2.74 0.98 2.74 0.72 0.98 2.74 0.72 0.98 2.74 0.72 0.98 2.74 2.74 2.74 2.74 2.74 2.74 <t< td=""><td></td><td>Contribution of labour input</td><td>1.59</td><td>1.32</td><td>1.55</td><td>2.11</td><td>0.68</td><td>0.94</td><td>0.63</td><td>1.79</td><td>0.44</td></t<>		Contribution of labour input	1.59	1.32	1.55	2.11	0.68	0.94	0.63	1.79	0.44
		Total factor productivity	2.87	0.88	-2.42	1.50	2.26	-4.19	1.81	1.42	1.89
	Malaysia	Contribution of capital input	5.73	5.86	7.15	3.73	6.77	6.03	3.15	2.77	3.22
		Contribution of labour input	1.24	1.23	1.27	1.31	1.06	1.39	0.72	0.98	1.03
i Contribution of capital input 3.15 4.57 3.79 1.03 3.37 2.66 2.04 i I Contribution of labour input 2.04 1.42 1.39 0.05 0.65 0.85 0.86 2.04 1.97 3 I Total factor productivity 0.45 -0.06 -6.54 3.45 0.43 0.01 0.97 1.97 3 I Total factor productivity 757 5.52 6.30 3.81 4.20 4.63 2.67 2.46 3.95 I Total factor productivity 2.60 0.37 1.40 2.13 1.10 0.53 2.59 3.59 2.59 3.59 3.59 3.59 3.59 3.59 3.59 3.59 3.55		Total factor productivity	0.75	1.13	-3.36	1.90	1.44	-2.50	1.32	1.22	0.97
Contribution of labour input2.041.421.390.760.950.950.850.850.850.860.850.860.85	Philippines	Contribution of capital input	3.15	4.57	3.79	1.10	2.33	3.37	2.66	2.04	2.13
Total factor productivity 0.45 -0.06 -6.54 3.45 -0.43 0.01 0.97 1.97 1 Contribution of capital input 757 552 6.30 3.81 4.20 4.63 2.67 2.46 1 Contribution of labour input 2.60 2.36 1.40 2.17 2.13 1.11 0.53 2.50 1.56 </td <td></td> <td>Contribution of labour input</td> <td>2.04</td> <td>1.42</td> <td>1.39</td> <td>o.76</td> <td>0.95</td> <td>0.52</td> <td>0.85</td> <td>0.80</td> <td>0.55</td>		Contribution of labour input	2.04	1.42	1.39	o.76	0.95	0.52	0.85	0.80	0.55
Contribution of capital input7575526303814204632672463<Contribution of labour input2.602.361402.172.131.110.532.592.50Total factor productivity-1.090.37-1.102.281.950.971.571.561.56Total factor productivity3.573.263.262.383.275.943.090.911.561.56Contribution of capital input3.673.2673.2673.283.275.943.090.911.661.66Total factor productivity0.810.810.971.001.970.920.911.661.441.66Total factor productivity0.810.810.971.002.734.086.446.036.141.67Contribution of abour input1.611.270.602.734.081.091.641.641.641.64Contribution of abour input1.611.202.351.191.234.086.141.641.641.64Contribution of abour input1.611.202.351.191.092.661.621.621.621.62Contribution of abour input1.611.202.351.191.091.091.641.641.641.64Contribution of abour input1.611.202.351.191.091.091.641.641.641		Total factor productivity	0.45	-0.06	-6.54	3.45	-0.43	0.01	0.97	1.97	3.03
Contribution of labour input 2.60 2.36 1.40 2.17 2.13 1.11 0.53 2.50 2.50 Total factor productivity -1.09 0.37 -1.10 2.28 1.95 0.26 1.57 1.56 1.56 Contribution of capital input 3.67 3.26 2.98 3.27 5.94 3.09 0.091 1.66 1.66 Contribution of labour input 1.03 3.22 1.33 1.95 0.92 0.21 0.06 0.58 -1.62 Contribution of labour input 1.03 3.22 1.33 1.95 0.92 0.21 0.06 0.58 -1.62 Contribution of capital input 0.81 0.97 1.00 0.73 1.09 0.64 0.64 0.66 0.68 Contribution of capital input 1.61 1.20 2.38 0.50 0.79 0.10 0.16 0.67 Contribution of capital input 1.61 1.20 2.38 0.50 0.91 0.10 0.16 0.16 Contribution of capital input 0.64 0.50 0.76 0.10 0.16 0.16 0.16 0.16 Contribution of capital input 0.16 0.91 0.92 0.91 0.91 0.91 0.91 0.92 Contribution of capital input 0.16 0.20 0.20 0.92 0.91 0.91 0.92 0.16 0.16 Contribution of capital input 0.91 0.92 0.92 0.92	Singapore	Contribution of capital input	7:57	5.52	6.30	3.81	4.20	4.63	2.67	2.46	2.90
Total factor productivity -1.09 0.37 -1.10 2.28 1.95 -0.26 1.57 1.56 1.56 Contribution of capital input 3.57 3.26 3.26 3.27 5.94 3.09 0.91 1.66 1.56 Contribution of capital input 1.03 3.22 1.33 1.95 0.92 -0.21 0.091 1.66 7.66 Total factor productivity 0.81 0.97 1.00 4.61 1.23 -2.12 4.31 1.44 7.44 Contribution of capital input 0.61 1.27 0.60 2.35 1.19 1.09 0.61 7.65 7.6 Contribution of capital input 0.61 1.27 0.60 2.35 1.19 1.09 7.00 7.63 7.63 7.64 7.65 7.6 Contribution of capital input 1.61 1.20 2.35 1.99 7.60 7.63 7.65 7.62 7.62 7.62 7.62 7.62 7.62 7.62 7.62		Contribution of labour input	2.60	2.36	1.40	2.17	2.13	11.1	0.53	2.50	1.24
Contribution of capital input 3.67 3.26 2.98 3.27 5.94 3.09 0.91 1.66 1.66 Contribution of labour input 1.03 3.22 1.33 1.95 0.021 0.060 0.58 - Total factor productivity 0.81 0.97 1.00 4.61 1.23 -2.12 4.31 1.44 - Contribution of capital input 0.44 1.27 0.60 2.73 4.08 6.44 6.03 1.44 - Contribution of capital input 1.61 1.20 2.35 1.19 1.09 1.60 0.56 7.6 Total factor productivity 0.61 1.20 2.32 0.19 1.60 1.62 0.61 1.65 0.6 Total factor productivity 0.61 1.20 2.32 0.50 2.96 1.67 0.65 1.65 1.65 0.6 Total factor productivity 0.50 1.20 2.32 0.50 2.96 1.67 1.67 1.67		Total factor productivity	-1.09	0.37	-1.10	2.28	1.95	-0.26	1.57	1.56	0.21
Contribution of labour input 1.03 3.22 1.33 1.95 0.92 -0.21 0.06 0.58 - Total factor productivity 0.81 0.97 1.00 4.61 1.23 -2.12 4.31 1.44 1.44 Contribution of capital input 0.84 1.27 0.60 2.73 4.08 6.44 6.03 6.14 1.45 Contribution of labour input 1.61 1.20 2.35 1.19 1.09 1.60 0.52 1.62 0.6 Total factor productivity 0.57 1.05 2.36 0.50 2.96 -0.11 1.47 1.52 0 Total factor productivity 0.57 1.09 2.96 -0.11 1.47 1.52 0 0 Contribution of capital input 4.59 3.28 0.50 2.96 -0.11 1.47 1.52 0 0 Contribution of capital input 4.59 3.28 0.50 2.96 -0.11 1.47 1.57 0 <t< td=""><td>Thailand</td><td>Contribution of capital input</td><td>3.67</td><td>3.26</td><td>2.98</td><td>3.27</td><td>5.94</td><td>3.09</td><td>0.91</td><td>1.66</td><td>1.68</td></t<>	Thailand	Contribution of capital input	3.67	3.26	2.98	3.27	5.94	3.09	0.91	1.66	1.68
Total factor productivity 0.81 0.97 1.00 4.61 1.23 2.12 4.31 1.44 1.44 Contribution of capital input 0.44 1.27 0.60 2.73 4.08 6.44 6.03 6.14 7.4 Contribution of capital input 1.61 1.20 2.35 1.19 1.09 1.00 0.52 1.62 6.14 7.57 7 Total factor productivity -0.27 1.06 3.28 0.50 2.96 -0.11 1.47 -1.57 7 Contribution of capital input 4.25 4.09 3.44 4.49 3.65 4.15 1.57 7 Contribution of capital input 1.39 1.49 3.65 4.15 1.57 7		Contribution of labour input	1.03	3.22	1.33	1.95	0.92	-0.21	0.06	0.58	-0.61
Contribution of capital input 0.44 1.27 0.60 2.73 4.08 6.44 6.03 6.14 6.15 7.15		Total factor productivity	0.81	0.97	1.00	4.61	1.23	-2.12	4.31	1.44	1.92
Contribution of labour input 1.61 1.20 2.35 1.19 1.09 0.05 1.62 1.62 1.62 Total factor productivity -0.27 1.06 3.28 0.50 2.96 -0.11 1.47 -1.57 Contribution of capital input 4.25 4.09 3.44 4.49 3.65 4.91 6.12 1.57 Contribution of labour input 1.39 1.49 3.65 4.91 6.12 0.14 1.57 Total factor productivity 0.19 1.91 1.33 0.76 1.26 0.95 0.14 1.41	Viet Nam	Contribution of capital input	0.44	1.27	0.60	2.73	4.08	6.44	6.03	6.14	4.73
Total factor productivity -0.27 1.06 3.28 0.50 2.96 -0.11 1.47 -1.57 -1.57 Contribution of capital input 4.25 4.09 3.44 4.49 3.65 4.91 6.12 6.12 Contribution of labour input 1.39 1.47 1.91 1.33 0.76 1.26 0.95 0.14 Total factor productivity 0.12 0.81 4.77 1.81 7.20 2.87 3.52 4.41		Contribution of labour input	1.61	1.20	2.35	1.19	1.09	1.00	0.52	1.62	0.04
Contribution of capital input 4.25 4.09 3.44 4.49 3.65 4.15 4.91 6.12 6.12 Contribution of labour input 1.39 1.42 1.91 1.33 0.76 1.26 0.95 0.14 Total factor productivity 0.12 0.81 4.77 1.81 7.20 2.87 3.52 4.41		Total factor productivity	-0.27	1.06	3.28	0.50	2.96	-0.11	1.47	-1.57	0.89
put 1.39 1.42 1.91 1.33 0.76 1.26 0.95 0.14 0.12 0.81 4.77 1.81 7.20 2.87 3.52 4.41	China	Contribution of capital input	4.25	4.09	3.44	4.49	3.65	4.15	4.91	6.12	5.17
0.12 0.81 4.77 1.81 7.20 2.87 3.52 4.41		Contribution of labour input	1.39	1.42	1.91	1.33	0.76	1.26	0.95	0.14	0.36
		Total factor productivity	0.12	0.81	4.77	1.81	7.20	2.87	3.52	4.41	2.25

Note: Data are not available for Brunei Darussalam, Myanmar, or the Lao PDR. Source: APO Productivity Database 2016 Ver. 1. The strong emphasis on investment as a driver of economic growth in several AMSs is reflected in Figure 1.2. As the figure indicates, the ratio of gross capital formation (or investment) to GDP in Indonesia reached 30% or more during 1979–1987, then rose even higher to more than 40% in 1988–1997 before settling back down to more than 30% in 2000–2015. Similarly, Thailand's ratio of gross capital formation to GDP was virtually more than 30% in 1970–1989 and then rose further to more than 40% in 1990–1996 before declining to mainly the 20s since then. Singapore's investment-to-GDP ratio was in the high 30s to more than 40% during 1975–1985, then became largely in the low 30s to mid-30s until 2000, followed by rates largely in the 20s. Malaysia's ratio rose secularly from the low 20s in early 1970 to the low 30s in the early 1980s, dropped to the mid-20s during 1985–1990. It then surged into the 30s and over 40% by 1997 before settling back to the 20s since 1998. Viet Nam's ratio secularly rose from the low 20s in the mid-1990s to reach the mid-30s in 2007–2010 and the low 30s by 2015.

Of the major ASEAN economies, the Philippines had an almost consistently low gross capital formation-to-GDP ratio from the 1970s to the early 2010s, mainly in the low 20s, except for when it entered the high 20s in the latter 1970s and the high teens in the mid-1980s (the crisis period) and the latter 2000s (a period of macroeconomic uncertainty). The comparatively low investment-to-GDP ratio partly explains the comparatively lower rate of economic growth of the Philippines for much of the period. Cambodia's gross capital formation-to-GDP ratio was barely 10% in the mid-1990s but rose secularly to the low 20s by the early 2010s.

Despite its relatively low investment-to-GDP ratio compared to countries like Indonesia or Thailand, Cambodia experienced remarkably high rates of growth during 1999–2008 (see Table 1.1). These are because of high employment growth and robust total factor growth rates, likely as benefits of the successful rebuilding of the country from the ravages of internal conflict. Brunei Darussalam has had the lowest ratio (Figure 1.2), resulting in the continued strong dependence of the economy on energy resources and very low overall economic growth, except largely during periods of higher energy prices (e.g. the 1970s and the early 1990s) (see Table 1.1).

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Figure 1.2. Gross Capital Formation as a Share of Gross Domestic Product (%)



GDP - gross domestic product. Note: Gross capital formation as percent share to GDP is derived from constant 2010 US\$ price data. Source: http://databank.worldbank.org

The contribution of labour growth has been largely modest for the ASEAN countries for most of the period. Nonetheless, there were instances where labour growth was robust, noticeably during boom periods, probably reflecting significantly higher labour force participation rates in response to markedly improved employment conditions (e.g. in Thailand in the latter 1970s and Indonesia in the latter 1980s). Singapore is particularly unique because its high economic growth was accompanied by a markedly high growth in labour, reflecting the immigration or labour import response of a country with a very limited domestic labour pool.

For most AMSs, total factor productivity growth also contributed to overall economic growth, albeit relatively modestly for most of the period. Nonetheless, there were several instances of robust productivity growth such as in Thailand during 1986–1990 and 2001–2005; the Philippines during 1986–1990 and 2011–2014; Indonesia during 1971–1975 and 1986–1990; and Malaysia and Singapore during 1986–1990. However, note that most of the sub-periods indicated above were sub-periods after economic crises or growth slowdowns when total factor productivity declined (e.g. during the early 1980s and late 1990s). In short, these sub-periods of significantly higher rates of growth of total factor productivity were for mostly economic recovery periods boosted by markedly improved market conditions.

As a comparison, the growth of total factor productivity in China was significantly higher and consistently positive than that of ASEAN countries that, together with high investment growth, resulted in consistently very high growth rates over at least 3 decades. Thus, China's productivity growth appears much more anchored on structural factors and efficiency gains, which partly explains the continued competitiveness of China in most manufactures in the export market despite substantially rising real wages. Engendering such robust growth of total factor productivity outside of economic recovery periods from a previous crisis remains a considerable challenge for most of ASEAN, which the grouping takes into account in its ASEAN Economic Community Blueprint for 2025.

The growth of total factor productivity, as shown in Table 1.3, although modest but largely consistent, may reflect many other factors that shaped ASEAN's economic performance and transformation. Such other factors include the rising quality of human capital in the region, as reflected in the rise of average schooling, especially of the younger population; the quality of institutions; and even of peace itself. Additionally, the high investment rate discussed earlier embodies in it not only machines but also roads, railroads, ports, airports, and other infrastructure facilities that have contributed to the faster movement of people and goods and likely greater efficiencies in production, which itself is contributory to the growth in total factor productivity.

Perhaps more importantly, the embracing of foreign trade and foreign investment by ASEAN countries contributed to the growth of total factor productivity through better allocation of resources within countries, greater pressure for increased firm efficiency, and the transmission and adaptation of foreign technologies, management practices, and market knowledge and linkages that economic openness engenders. Indeed, there has been great synergy among investment, factor productivity, and economic openness. Thus, AMSs' openness to foreign trade and investment led to the surge in foreign investment, which itself contributed substantially to the significant rise in overall investment rates among ASEAN countries. Similarly, greater trade and higher economic growth have entailed increased demand for better and more accessible infrastructure, which has raised overall investment rates. Meanwhile, the transfer of technologies, management practices, and market knowledge has raised human capital in the host countries of FDI.

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Economic openness and the resultant pressure for greater competitiveness increase the demand for better institutions and governance. These contribute to greater investment attractiveness and likely higher foreign investment inflows. It is precisely this virtuous cycle from economic openness that ASEAN countries have increasingly tapped for their economic development. And it is precisely in enhancing further this virtuous cycle that is at the heart of ASEAN's – and East Asia's – drive for greater openness and economic integration embodied in the ASEAN Economic Community blueprint and the (future) Regional Comprehensive Economic Partnership (RCEP) that is being negotiated and expected to be signed in 2017.

The next chapter discusses in greater detail foreign trade, investment, and integration in ASEAN, and chapter 3 discusses the implementation of the ASEAN Economic Community blueprint.