

Sub-Saharan Africa. Within each of the seven groups, the variation by economy was striking. The gap in rank change between the best and the worst performer was 32 for Developing Asia (China, the best performer, moved up by 31 places, while the Philippines, the worst performer, moved down by one place), 14 for G7 (United Kingdom, up by one place; Japan, down by 13 places), 23 for Non-G7 (Ireland, up by 16 places; Iceland, down by seven places), 26 for Latin America (Chile, up by 14 places; Venezuela, down by 12 places), 36 for Eastern Europe (Poland, up by nine places; Ukraine, down by 27 places), 24 for Sub-Saharan Africa (Mauritius, up by 10 places; South Africa, down by 14 places) and 29 places for North Africa and Middle East (Lebanon, up by 19 places; Algeria, down by 10 places). The variation between the two sub-periods by group as well as by economy was also notable. In particular, most economies in Eastern Europe suffered sharp declines in the first sub-period but resurged in the second. At the same time, almost all economies in the North Africa and Middle East group performed poorly in the second sub-period, although they did reasonably well in the first.

Third, a closer look at the catching-up performance of the 16 Developing Asia economies reveals that most economies in the group performed very well before the Asian financial crisis erupted in 1997. The adverse impact of this crisis, however, varied significantly among the economies in this group. China, India, Vietnam and Cambodia performed well in both sub-periods. At the same time, Malaysia, Thailand, and Indonesia appeared to lose considerable momentum beginning in 1997. The four Asian Tigers showed robust catching-up performance, although they suffered significantly from the consequence of the crisis. Among the SAC-4 economies, Sri Lanka and Bangladesh have shown encouraging catching-up performance in recent years, while Pakistan and Nepal have apparently stagnated in their catching-up since 1996.

3. The rise of Asia

3.1 INTRODUCTION

Profound transformational changes have been occurring in the Developing Asia countries over the past six decades. The pace of these changes have notably accelerated in the past two decades with the outstanding economic performance of the two giants, China and India, which together account for over one third of the world's population. These changes have ushered in a new era of Asia's ascent, which is expected to have powerful and unprecedented impacts on the world economy and on every nation's economic prospects.

There has been a wealth of studies discussing the rise of Asia in the global economic landscape and projecting its potential impact in the future. Kawai and Petri (2010) observed that the growth of emerging and developing economies tended to be higher than that of advanced economies in the 1970s. However, the gap narrowed over time and essentially disappeared between 1985 and 1995. Since the second half of the 1990s, the growth of emerging and developing economies has been rising, while that of advanced economies has been declining. This phenomenon was termed by Kawai and Petri (2010) as 'trend decoupling.'

In a more recent study, Jorgenson and Vu (2011) predicted that the rise of Asia would be firmly established sometime by the year 2020. Asia's economic performance is thought to have created a new model for economic growth that is built on globalization and the rapid accumulation of human and non-human capital over decades, notwithstanding the skillful roles of public and private authorities. It has been forecasted that with the current levels of productivity and economic performance, by 2020, China will overtake the US in terms of gross domestic product (GDP), measured in terms of purchasing power parity. At the same time, Developing Asia is expected to overtake the group of the seven largest industrialized economies (G7), while India is expected to overtake Japan.

ADB (2011) predicted that the next four decades (2010–2050) would witness the march of Asia to prosperity. In its optimistic scenario, by 2050, the average per capita income of Asia would be \$45,800 in purchasing power parity (PPP) terms, compared with \$37,300 for the world as a

whole. In addition, seven economies, including Japan and six Developing Asia economies—China, India, Indonesia, South Korea, Thailand, and Malaysia—will be the engines of this transformation. Together, they are expected to account for 91 per cent of total GDP growth in Asia and 53 per cent of global GDP growth between 2010 and 2050.

This chapter seeks to provide an in-depth understanding of the rise of Developing Asia over the period 1990–2010. The chapter examines the share of the region in the world economy and its contribution to the world's economic growth over this period. This examination is focused on the key items of the national account, which include GDP, private consumption, government consumption, fixed investment, exports and imports. In addition, the chapter presents a deeper examination of the rise of Developing Asia in the measures shaping the dynamics of the world economy, which include inward foreign direct investment (FDI) and international trade related to manufactures, commercial services, and information and communication technology (ICT) products.

The table for examining the performance of Developing Asia with respect to a given indicator is constructed in a format intended to make it easy for readers to follow. The world is divided into three groups: Developing Asia,¹ Industrialized Economies,² and the group of remaining economies, which is referred to as the Rest of the World (ROW).³ The table covers the 1990–2010 period, which is split into two sub-periods, 1990–2000 and 2000–2010, and includes two panels. The upper panel reports the summary statistics at the group level, while the lower panel presents the statistics for the individual Developing Asia economies. As in the other chapters of this book, to facilitate comparisons, the results for the 16 individual Developing Asia economies are presented in four subgroups: China–India, which includes China and India; Tigers-4, which includes Hong Kong, Singapore, South Korea, and Taiwan; ASEAN-6, which includes Cambodia, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam; and SAC-4, which includes Bangladesh, Nepal, Pakistan, and Sri Lanka.

To make cross-country comparisons meaningful, the values of GDP, private consumption, government consumption, and fixed investment for individual economies are expressed in terms of purchasing power parity (PPP) using their corresponding PPP conversion factors. The main data are from the World Bank's World Development Indicators (WDI) database. The PPP conversion factors for private consumption, govern-

¹ The Developing Asia group consists of the 16 economies introduced in Chapter 1.

² The Industrialized Economies group consists of 24 economies introduced in Section 2.1 (Chapter 2), which include seven G7 economies and 17 non-G7 industrialized economies.

³ The number of economies in the ROW group may vary by table depending on their data availability for the measure of interest.

BOX 3.1 A NOTE ON COMPUTATION: THE AGGREGATE GROWTH RATE OF A GROUP AND THE CONTRIBUTION OF INDIVIDUAL ECONOMIES TO THE GROUP'S AGGREGATE GROWTH

1—The growth rate g_{Group} of a group of n economies over period $[0, T]$ on a given variable X is computed as the weighted average growth rates of the n economies:

$$g_{Group} = \sum_{k=1}^n \bar{w}_k g_k$$

where g_k is growth rate of economy k ($k = 1, 2, \dots, n$) over period $[0, T]$, $\bar{w}_k$ is the average share of economy k in the group on variable X over the period, $\bar{w}_k = (w_k^0 + w_k^T) / 2$.

2—The contribution of economy k to the group's aggregate growth over period $[0, T]$ is computed as

$$C_k = \bar{w}_k g_k / g_{Group} * 100\%$$

It is worth noting that $\sum_{k=1}^n C_k = 100\%$

ment consumption, and fixed investment are from the World Bank's International Comparison Program (ICP) 2005 Report. The data for Taiwan, which are not available in the WDI database, are extrapolated from information in the Asian Development Bank database and the ICP 2005 Report.

The role of a group of economies such as Developing Asia in the world economy with respect to a given indicator during a given period can be captured by two measures. One is its share in the world economy and the other is its contribution to the world economy's growth. Similarly, the role of an economy in a group with respect to a given indicator is measured by its share in the group and its contribution to the group's growth. Box 3.1 provides a short technical note on calculation of the contribution of an economy to its group's growth for a given indicator. This method can also be applied to the calculation of the contribution of a group to the world economy's growth.

The remaining sections of this chapter examine the rise of Developing

Asia by investigating the performance of the group and its individual economies in the world economy with respect to key economic indicators, including GDP (Section 3.2), private consumption (Section 3.3), government consumption (Section 3.4), fixed investment (Section 3.5), and exports and imports of goods and services (Section 3.6). To capture a more in-depth picture of the impact of Developing Asia in the globalization trend, Section 3.7 looks at the rise of Asia and its two major economic giants, China and India, with respect to the four indicators that have been the emblems of globalization in the past two decades: exports of ICT hardware, exports of manufactures, exports of commercial services, and FDI stock. Finally, Section 3.8 combines the main results from Sections 3.2 to 3.7 to form a comprehensive picture of the rise of Developing Asia and its two giant economies, China and India, in the world economy during the two-decade period of 1990–2010.

3.2 THE RISE OF DEVELOPING ASIA IN WORLD GDP

This section examines the rise of Asia in the world economy in terms of GDP. The value of GDP is measured in terms of purchasing power parity, using conversion factors obtained from the World Bank Development Indicators database.

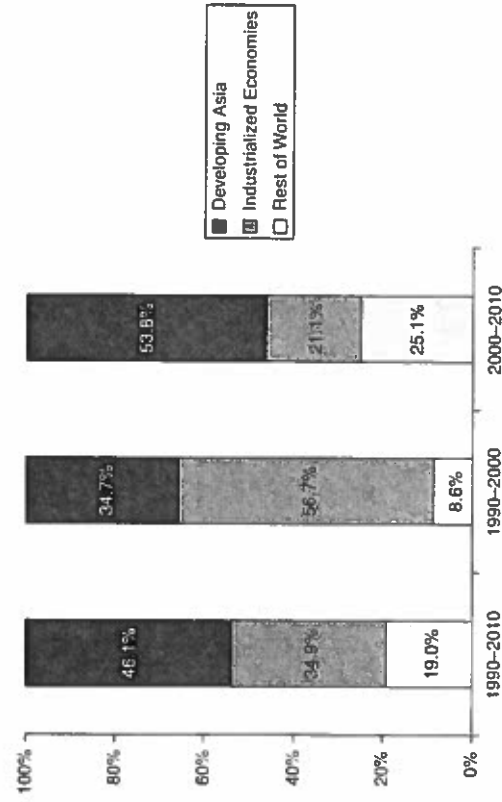
The role of a group such as Developing Asia in the world economy can be captured by two GDP-related measures. One is its share in world GDP and the other is its contribution to the world's GDP growth. These statistics for Developing Asia and other parts of the world for the 1990–2010 period and its two sub-periods, 1990–2000 and 2000–2010, are reported in Table 3.1 (Panel A). Panel B of the table presents similar statistics for individual economies of the Developing Asia group.

3.2.1 Performance of Developing Asia as a Group in Terms of GDP

Developing Asia's GDP grew at 6.8 per cent during 1990–2010, well above the world average of 3.1 per cent (Table 3.1, Panel A). In contrast, the Industrialized Economies grew at 2 per cent, and the ROW grew at 2.5 per cent. Furthermore, Developing Asia's growth accelerated between the two sub-periods, from 5.9 per cent in 1990–2000 to 7.9 per cent in 2000–2010. The Industrialized Economies experienced a declining trend, from 2.6 per cent in the first sub-period to 1.4 per cent in the second. However, the ROW also exhibited a solid acceleration in growth, from 1.1 per cent in 1990–2000 to 4 per cent in 2000–2010.

Table 3.1 The rise of Developing Asia in the world economy, 1990–2010: GDP

(A) Groups in the World									
Group		Growth and Contribution						Share in World	
		1990–2010		1990–2000		2000–2010			
		Growth	Contrib.	Growth	Contrib.	Growth	Contrib.		
World (119 Economies)		3.1	100.0	2.8	100.0	3.5	100.0	100.0	100.0
Developing Asia		6.8	46.1	5.9	34.7	7.9	53.8	19.3	28.2
Industrialized Economies		2.0	34.9	2.6	56.7	1.4	21.1	60.1	48.7
Rest of World (ROW)		2.5	19.0	1.1	8.6	4.0	25.1	20.6	23.1
(B) Developing Asia									
Economy		1990–2010		1990–2000		2000–2010		Share in Group	
		Growth	Contrib. to Rate	Growth	Contrib. to Rate	Growth	Contrib. to Rate		Share in World
		Rate	Contrib. to	Rate	Contrib. to	Rate	Contrib. to		
Developing Asia		6.8	46.1	5.9	34.7	7.9	53.8	100.0	100.0
China		9.0	50.4	7.1	39.3	10.9	59.7	27.6	37.6
China-India		9.0	50.4	7.1	39.3	10.9	59.7	27.6	37.6
India		6.4	20.6	5.4	20.0	19.0	10.1	23.3	20.1
Tigers-4		3.9	1.3	3.9	1.7	1.0	0.5	3.0	2.2
Hong Kong		6.5	1.5	7.3	2.1	1.1	0.6	1.7	1.4
Singapore		5.2	6.6	6.3	11.1	4.4	2.3	10.4	10.2
South Korea		4.9	3.9	6.5	6.5	2.5	1.3	6.5	6.2
Taiwan		5.2	2.7	6.3	3.8	4.4	2.3	10.4	10.2
		1.2	0.4	1.9	0.4	1.2	0.4	0.4	0.4



Source: Author's calculations; data from WDI, ADB, TED.

Figure 3.1 Contribution to the world's GDP growth: Developing Asia versus other parts of the world

The role of Developing Asia as the major driver of the world's GDP growth is apparent. As shown in Figure 3.1, Developing Asia's contribution to the world's GDP growth for 1990–2010 was 46.1 per cent, exceeding that of the Industrialized Economies (34.9 per cent) and that of the ROW (19.0 per cent). Moreover, the contribution of Developing Asia exhibited a notable rising trend, from 34.7 per cent in the first sub-period, 1990–2000, to 53.8 per cent in 2000–2010, while this measure sharply declined from 56.7 to 21.1 per cent for the Industrialized Economies. These findings indicate the increasingly important role of Developing Asia as the main driver of world economic growth. It is also worth noting that the contribution of the ROW increased, growing from 8.6 per cent in 1990–2000 to 25.1 per cent in 2000–2010, which means that other developing economies also enhanced their contribution to the world's GDP growth.

The share of Developing Asia in world GDP rose rapidly, from 13.3 per cent in 1990 to 19.3 per cent in 2000 and 28.2 per cent in 2010 (Table 3.1, Panel A). In contrast, the share of the Industrialized Economies group declined at an accelerating rate, from 62.6 per cent in 1990 to 60.1 per cent in 2000 and 48.7 per cent in 2010. However, the share of the ROW group exhibited a different pattern, falling from 24.1 per cent in 1990

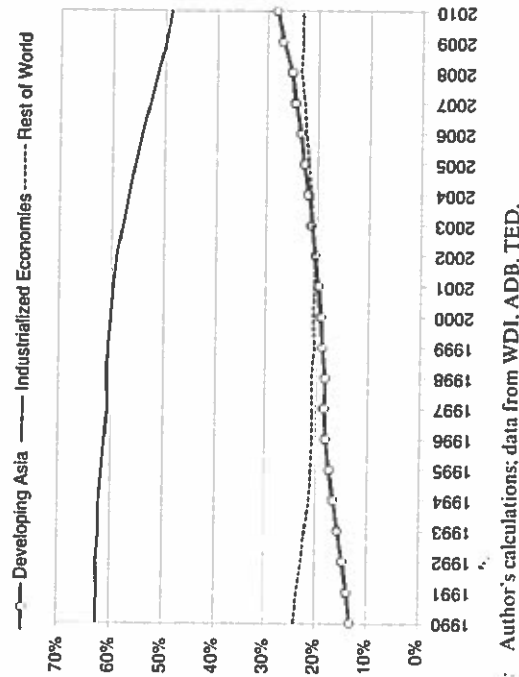
Source: Author's calculations; data from WDI, ADB, TED.

Note: GDP is measured in PPPs for GDP.

Economy	1990-2010			1990-2000			2000-2010			Share in World			
	Growth Rate	Contrib. to Growth	Rate	Growth Rate	Contrib. to Growth	Rate	Growth Rate	Contrib. to Growth	Rate	Share in Group	1990	2000	2010
ASEAN-6	7.4	0.2	0.1	7.0	0.2	0.1	7.7	0.1	0.1	0.1	0.1	0.03	0.04
Cambodia	4.6	4.5	1.8	4.1	5.1	1.7	3.6	1.9	8.2	6.3	5.0	1.1	1.2
Indonesia	5.7	2.0	0.8	6.9	3.1	1.1	4.5	0.7	2.7	2.7	2.0	0.4	0.5
Malaysia	3.8	1.4	0.6	2.9	1.4	0.5	4.7	1.2	3.5	2.3	1.8	0.5	0.5
Philippines	4.3	2.5	1.0	4.4	3.3	1.1	4.2	1.8	5.0	3.9	2.8	0.7	0.8
Thailand	7.2	1.4	0.6	7.3	1.7	0.6	7.0	1.2	1.3	1.4	1.3	0.2	0.3
Vietnam	5.2	1.1	0.5	4.7	1.2	0.4	5.6	0.9	1.7	1.4	1.2	0.2	0.3
SAC-4	4.3	0.2	0.1	4.9	0.2	0.1	3.8	0.1	0.3	0.2	0.2	0.04	0.05
Nepal	4.5	2.1	0.8	4.3	2.5	0.9	4.7	1.6	4.0	3.0	2.2	0.5	0.6
Pakistan	5.1	0.5	0.2	5.1	0.6	0.2	5.1	0.4	0.4	0.6	0.5	0.1	0.1
Sri Lanka	5.1	0.5	0.2	5.1	0.6	0.2	5.1	0.4	0.4	0.6	0.5	0.1	0.1
Bangladesh	5.2	1.1	0.5	4.7	1.2	0.4	5.6	0.9	1.7	1.4	1.2	0.2	0.3
Group World	5.2	1.1	0.5	4.7	1.2	0.4	5.6	0.9	1.7	1.4	1.2	0.2	0.3
Group World	5.2	1.1	0.5	4.7	1.2	0.4	5.6	0.9	1.7	1.4	1.2	0.2	0.3
Group World	5.2	1.1	0.5	4.7	1.2	0.4	5.6	0.9	1.7	1.4	1.2	0.2	0.3

Table 3.1 (continued)

(B) Developing Asia



Source: Author's calculations; data from WDI, ADB, TED.

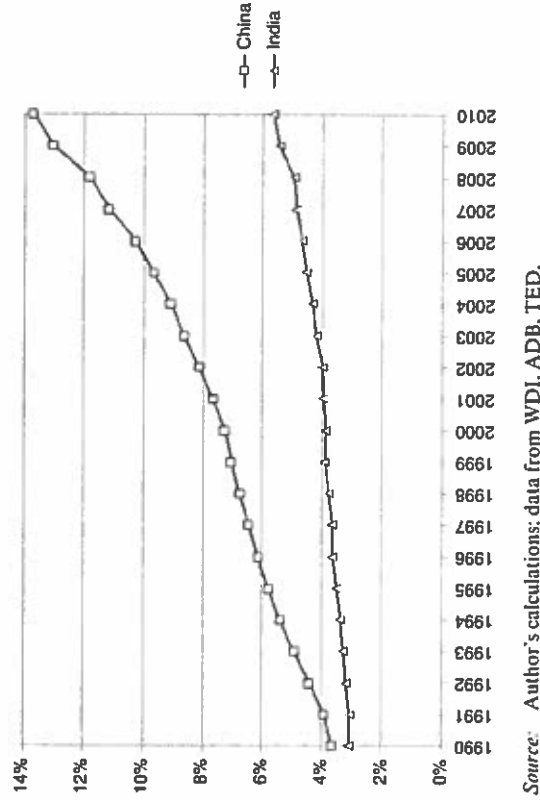
Figure 3.2 Share in world GDP, 1990–2010: Developing Asia versus other parts of the world

to 20.6 per cent in 2000 and then recovering to 23.1 per cent, which was slightly below its 1990 level. This trend in the ROW group was primarily associated with the shrinking of the Eastern European and former Soviet Union economies in the early 1990s and their strong recovery in the 2000s. Figure 3.2 illustrates a clear upward trend in Developing Asia's share of world GDP during 1990–2010. In contrast, the share of the Industrialized Economies declined continuously over this period, particularly after 2000. As a result, the gap between Developing Asia and the Industrialized Economies in terms of their shares of world GDP narrowed significantly over 1990–2010, especially after 2000. On the other hand, the ROW share of world GDP exhibited an increasing trend after 2000, although the pace was much slower than that of Developing Asia. As a result, Developing Asia surpassed the ROW with respect to this indicator in 2002 and has continuously widened this gap since then.

3.2.2 Performance of Individual Developing Asia Economies in Terms of GDP

China–India

China and India—the two economies with giant populations and outstanding performance in 1990–2010—played important roles in driving



Source: Author's calculations; data from WDI, ADB, TED.

Figure 3.3A Share in world GDP, 1990–2010: China–India

the world's GDP growth during this period. China's GDP grew at 9 per cent during 1990–2010, contributing 25 per cent to the world's GDP growth over this period; India's GDP growth rate and GDP growth contribution were 6.4 per cent and 9 per cent, respectively (Table 3.1, Panel B). Furthermore, for both countries, GDP growth and GDP growth contribution were notably stronger in the second sub-period than in the first. China's growth accelerated by nearly 4 percentage points, from 7.1 per cent in 1990–2000 to 10.9 per cent in 2000–2010, and its contribution to world GDP growth increased from 14.0 per cent in the first sub-period to 32.6 per cent in the second. India's GDP growth accelerated by 2 percentage points, from 5.4 to 7.4 per cent, enlarging its contribution to the world's GDP growth from 6.8 per cent in the first sub-period to 10.1 per cent in the second.

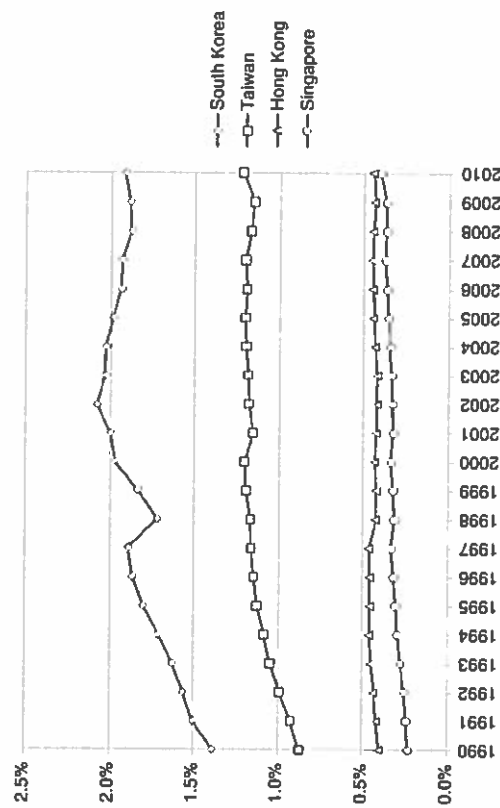
Together with their outstanding growth, the shares of China and India in world GDP expanded rapidly. This share increased by 10 percentage points, from 3.7 per cent in 1990 to 13.7 per cent in 2010, for China and by close to 3 percentage points, from 3.1 to 5.7 per cent over the same period, for India (Table 3.1, Panel B). As shown in Figure 3.3A, the shares of both China and India in world GDP followed solid upward trends. Moreover, this expanding trend accelerated after 2000 for China and after 2002 for India. China's share in world GDP, however, increased

much faster than India's throughout 1990–2010. As a result, the gap between the two countries in terms of this measure widened substantially, from less than 1 percentage point in 1990 to more than 8 percentage points in 2010.

Tigers-4

The four Asian Tiger economies outperformed the world average in terms of GDP growth during 1990–2010. The GDP growth rate over the period was 3.9 per cent for Hong Kong, 6.5 per cent for Singapore, 5.2 per cent for South Korea, and 4.9 per cent for Taiwan, while the world average rate was only 3.1 per cent (Table 3.1, Panel B). However, the degree to which these four economies outperformed the world average was greater in the first sub-period than in the second. The growth rate was nearly unchanged for Hong Kong, at approximately 4 per cent, but decreased notably between the two sub-periods for Singapore (from 7.3 per cent in 1990–2000 to 5.8 per cent in 2000–2010), South Korea (from 6.3 to 4.1 per cent), and Taiwan (from 6 to 3.8 per cent), while the world average rate increased from 2.8 per cent in the first sub-period to 3.5 per cent in the second sub-period. Among the four Asian Tiger economies, South Korea was the largest contributor to the world's GDP growth, followed by Taiwan, while Singapore exceeded Hong Kong with respect to this measure in 1990–2010 as well as in the two sub-periods, 1990–2000 and 2000–2010.

With the exception of Hong Kong, the shares of the Asian Tiger economies in world GDP increased during 1990–2010. This share increased from 1.4 per cent to 1.9 per cent for South Korea, from 0.9 to 1.2 per cent for Taiwan, and from 0.2 per cent to 0.4 per cent for Singapore, while it remained stable at 0.4 per cent for Hong Kong (Table 3.1, Panel B). However, this expansion took place mostly before the eruption of the Asian financial crisis in 1997 (Figure 3.3B). South Korea appeared to be hit hard by the Asian financial crisis but also exhibited a strong recovery after the crisis. South Korea's share in world GDP plunged in 1998, bounced back during 1999–2002, and then declined again during 2002–2010. Taiwan was not directly affected by the Asian financial crisis, but its expansion seemed to lose steam after 2000. Taiwan's share in world GDP increased steadily during 1990–2000 but flattened out during 2000–2010. Hong Kong's share of world GDP decreased during 1997–1998, picked up slightly during 1998–2000, and fluctuated around the same level during 2000–2010. Singapore's share, on the other hand, increased consistently during 1990–2010, although it declined slightly during the Asian financial crisis period of 1997–1998.



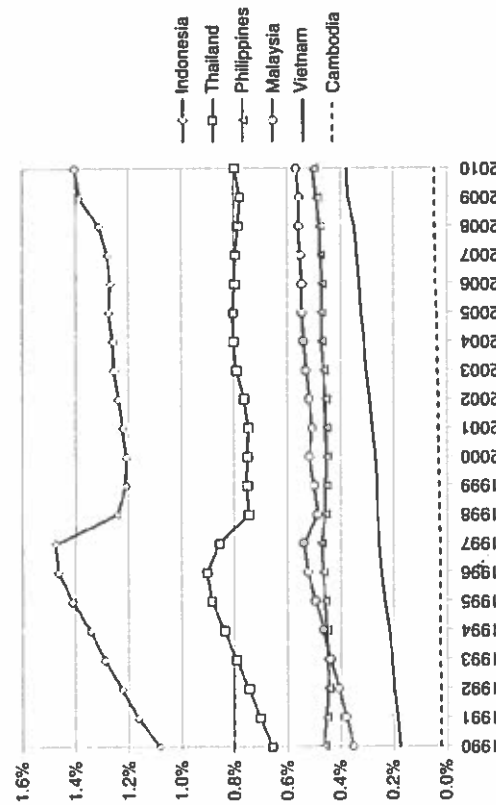
Source: Author's calculations; data from WDI, ADB, TED.

Figure 3.3B Share in world GDP, 1990–2010: Tigers-4

ASEAN-6

The ASEAN-6 economies all outperformed the world average in terms of GDP growth during 1990–2010, as well as in the two sub-periods, 1990–2000 and 2000–2010. The leading performers of the subgroup in terms of GDP growth over 1990–2010 were Cambodia (7.4 per cent), Vietnam (7.2 per cent), and Malaysia (5.7 per cent); the Philippines was the laggard, growing at 3.8 per cent (Table 3.1, Panel B). These economies, however, followed different trends in GDP growth over the two sub-periods. GDP growth accelerated for Cambodia (from 7 per cent in 1990–2000 to 7.7 per cent in 2000–2010), Indonesia (from 4.1 to 5.1 per cent), and the Philippines (from 2.9 to 4.7 per cent), while it slowed down for Malaysia (from 6.9 to 4.5 per cent), Thailand (from 4.4 to 4.2 per cent), and Vietnam (7.3 to 7 per cent). Indonesia and Thailand were the two ASEAN-6 economies that contributed more than 1 per cent to the world's GDP growth over 1990–2010.

The shares of all the ASEAN-6 economies in world GDP increased over 1990–2010 (Figure 3.3C). However, the patterns and magnitudes of their expansion differed vastly among the six economies. The Asian financial crisis appeared to have notable effects on Indonesia, Thailand, and Malaysia. The shares of these three economies rapidly expanded before the crisis but sharply declined during the crisis (1997–1998 for



Source: Author's calculations; data from WDI, ADB, TED.

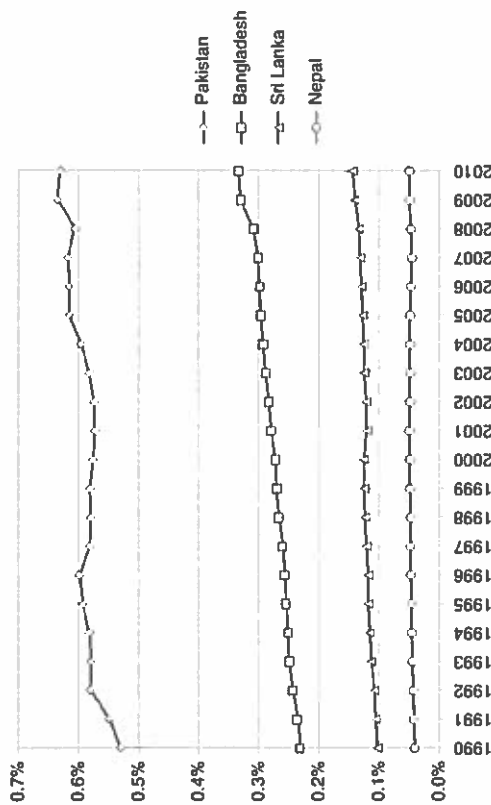
Figure 3.3C Share in world GDP, 1990–2010: ASEAN-6

Thailand, 1998–1999 for Indonesia, and 1998 for Malaysia). These three high-performing Asian economies⁴ then slowly recovered and continued to expand their shares of world GDP during 1999–2010. It is worth noting that although the resurgence of Indonesia during 2000–2010 was sizable, its share of world GDP in 2010 was still significantly lower than in 1997. On the other hand, the Philippines' share of world GDP was rather stable throughout 1990–2010, which indicates that it was less affected by the region's booms and busts during the period. However, its share exhibited some slight increase in the late 2000s. Vietnam and Cambodia were not affected by the Asian financial crisis. Their shares of world GDP rapidly expanded in solid upward trends throughout 1990–2010.

SAC-4

The SAC-4 economies also outperformed the world average in terms of GDP growth over 1990–2010, with Bangladesh and Sri Lanka being the

⁴ The World Bank (1993) identified eight high-performing Asian economies (HPAEs) to draw observations concerning economic development success. The eight HPAEs are Japan, Hong Kong, Singapore, South Korea, Taiwan, Indonesia, Thailand, and Malaysia.



Source: Author's calculations; data from WDI, ADB, TED.

Figure 3.3D Share in world GDP, 1990–2010: SAC-4

leading performers, growing at 5.2 per cent and 5.1 per cent, respectively (Table 3.1, Panel B). Nepal, which grew at 4.3 per cent over 1990–2010, was the only economy in the subgroup that experienced a slowdown in GDP growth between the two sub-periods, from 4.9 per cent in 1990–2000 to 3.8 per cent in 2000–2010. Pakistan and Bangladesh were the two economies of the subgroup with contributions of more than 0.5 per cent to the world's GDP growth over 1990–2010.

The shares of world GDP of all four SAC-4 economies followed an upward trend during 1990–2010 (Figure 3.3D). This trend was notable for Pakistan during 1990–1996 and 2002–2010, while it was consistent for Bangladesh throughout 1990–2010. Sri Lanka's share of world GDP also followed a consistent slightly expanding trend, except for a small decline in 2001.

3.3 PRIVATE CONSUMPTION

The data on private consumption derive from the 'household final consumption expenditure' indicator data from the World Development Indicators (WDI) database. Household final consumption expenditure, as defined by the World Bank, includes all household current expenditures

for purchases of goods and services.⁵ The value of the private consumption of individual economies is converted to purchasing power parity (PPP) terms, using the PPP conversion factors for private consumption provided in the 2005 ICP report.

Statistics on the shares and contributions of Developing Asia to world private consumption during 1990–2010 and its two sub-periods, 1990–2000 and 2000–2010, are reported in Table 3.2. Panel A of the table presents statistics at the group level, while Panel B presents statistics for individual Developing Asia economies.

3.3.1 Performance of Developing Asia as a Group In Terms of Private Consumption

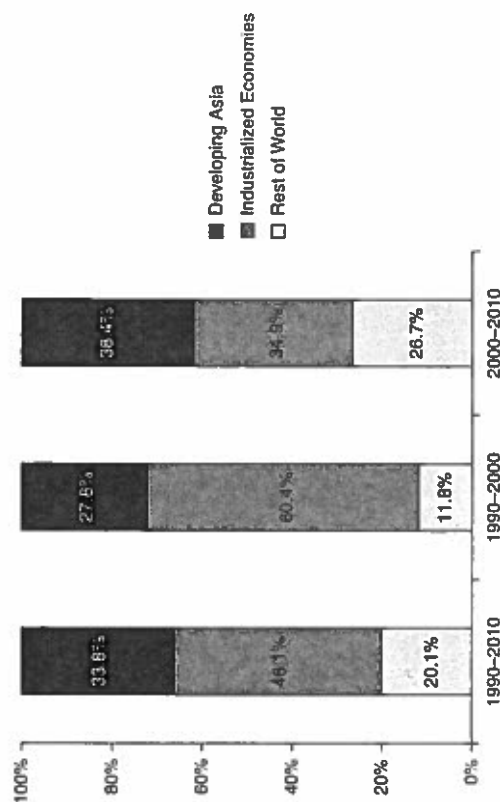
Developing Asia's private consumption grew 5.7 per cent per year, on average, during 1990–2010, far above the world average growth rate of 3.0 per cent. In contrast, the private consumption of the Industrialized Economies group grew at 2.2 per cent, well below the world average (Table 3.2, Panel A). Developing Asia maintained its robust growth of 5.7 per cent between the two sub-periods, 1990–2000 and 2000–2010, while the growth of the Industrialized Economies declined from 2.7 per cent in the first sub-period to 1.6 per cent in the second. On the other hand, the ROW group exhibited a solid increase in growth, from 2.3 per cent in 1990–2000 to 4.6 per cent in 2000–2010, averaging 3.4 per cent for the entire period of 1990–2010.

Although Developing Asia contributed only 33.8 per cent to the world's private consumption growth over 1990–2010, notably below the contribution of 46.1 per cent claimed by Industrialized Economies, the contribution of Developing Asia increased by more than 10 percentage points between the two sub-periods, from 27.8 per cent in 1990–2000 to 38.4 per cent in 2000–2010. The contribution of Industrialized Economies declined sharply, from 60.4 per cent in the first sub-period to 34.9 per cent in the second (Figure 3.4). As a result, in the second sub-period, 2000–2010, Developing Asia surpassed Industrialized Economies to become the largest driver of the world's growth in private consumption.

⁵ The complete definition is 'Household final consumption expenditure (formerly private consumption) is the market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses. Here, household consumption expenditure includes the expenditures of nonprofit institutions serving households, even when reported separately by the country.' Source: WDI (2012).

Table 3.2 The rise of Developing Asia in the world economy, 1990–2010: private consumption

(A) Groups in the World									
Group		Growth and Contribution							
		1990-2010		1990-2000		2000-2010		Share in World	
		Growth	Contrib.	Growth	Contrib.	Growth	Contrib.	1990	2000
World (79 Economies)									
		3.0	100.0	3.1	100.0	3.0	100.0	100.0	100.0
Developing Asia*		5.7	33.8	5.7	27.8	5.7	38.4	100.0	100.0
Industrialized Economies**		2.2	46.1	2.7	60.4	1.6	34.9	69.8	67.3
Rest of World (ROW)		3.4	20.1	2.3	11.8	4.6	26.7	17.0	15.6
(B) Developing Asia									
Economy		1990-2010		1990-2000		2000-2010		Share in Group	
		Growth	Contrib. to	Growth	Contrib. to	Growth	Contrib. to	Share in World	
	Rate	Growth	Rate	Growth	Rate	Growth	Rate	1990	2000
Group World		Group World		Group World		Group World		1990	2000
Developing Asia*	5.7	100.0	33.8	5.7	100.0	5.7	38.4	100.0	100.0
China-India	7.7	41.1	14.5	7.9	38.5	7.4	43.8	17.0	24.5
China	5.6	27.0	9.0	4.6	21.0	6.7	30.2	11.6	27.7
Tigers-4	3.7	1.5	0.5	4.1	1.9	3.2	1.2	0.5	2.8
Hong Kong	5.2	0.9	0.3	6.2	1.2	4.3	0.8	0.3	1.0
Singapore	4.1	6.9	2.2	5.2	9.7	3.1	5.0	1.9	10.9
South Korea	4.4	4.0	1.3	6.7	7.1	2.2	2.1	0.8	5.8
Taiwan	0.4	0.2	0.1	0.4	0.2	0.2	0.1	0.1	0.8



Source: Author's calculations; data from WDI, ADB, ICP.

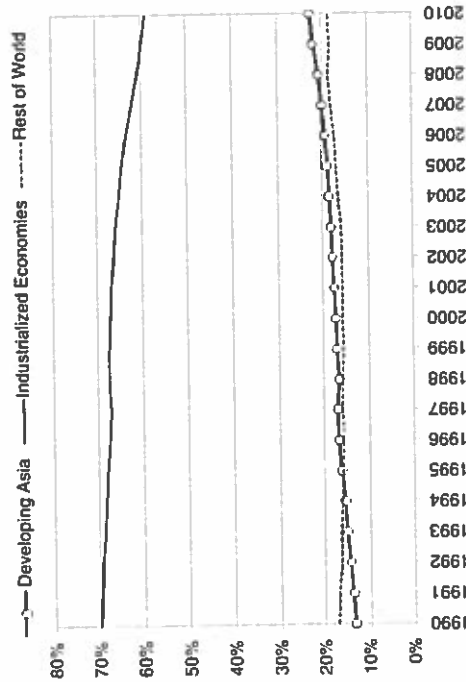
Figure 3.4 Contribution to the world's private consumption growth:
Developing Asia versus other parts of the world

Thanks to its rapid growth, Developing Asia expanded its share of world private consumption by close to 10 percentage points over 1990–2010, from 13.2 per cent in 1990 to 22.6 per cent in 2010. In contrast, the share of Industrialized Economies contracted by more than 10 percentage points, from 69.8 to 59 per cent over the same period (Table 3.2, Panel A). As depicted in Figure 3.5, Developing Asia's share of world private consumption exhibited a consistent expanding trend, while the Industrialized Economies' share decreased steadily. As a result, the gap between Developing Asia and Industrialized Economies with respect to this measure narrowed steadily over 1990–2010. Furthermore, Developing Asia surpassed the ROW in terms of its share of world private consumption in 1995, although the ROW also consistently expanded its share of world private consumption over 1990–2010. However, it is worth noting that in 2010, Industrialized Economies still claimed a dominant share of world private consumption, which was approximately 60 per cent, while this share was still approximately 20 per cent for Developing Asia and for the ROW.

Economy	1990-2010			1990-2000			2000-2010			Share in World		
	Group World			Group World			Group World			Group World		
	Rate	Contribution	Growth	Rate	Contribution	Growth	Rate	Contribution	Growth	Rate	Contribution	Growth
ASEAN-6	5.0	6.7	2.2	5.8	8.4	2.3	4.2	5.7	2.2	8.2	8.3	7.1
Indonesia	5.9	2.1	0.7	5.4	1.9	0.5	6.4	2.3	0.9	2.0	1.9	2.1
Malaysia	4.0	2.4	0.8	3.8	2.4	0.7	4.2	2.2	0.9	4.0	3.3	2.8
Philippines	3.8	2.8	0.9	3.1	3.1	0.9	3.7	2.5	1.0	5.1	4.2	3.5
SAC-4	3.5	1.5	0.5	2.5	1.1	0.3	4.6	1.6	0.6	2.9	2.1	1.9
Bangladesh	4.0	3.1	1.0	4.3	3.7	1.0	3.7	2.6	1.0	5.1	4.5	3.7
Pakistan	3.5	1.5	0.5	2.5	1.1	0.3	4.6	1.6	0.6	2.9	2.1	1.9
Thailand	3.8	2.8	0.9	3.1	3.1	0.9	3.7	2.5	1.0	5.1	4.2	3.5
Notes:												
• Developing Asia excludes Cambodia, Nepal, Sri Lanka, and Vietnam;												
• Industrialized Economies excludes Israel; private consumption is measured in PPPs for private consumption.												
Source: Author's calculations; data from WDI, ADB, ICP.												

Table 3.2 (continued)

(B) Developing Asia



Source: Author's calculations; data from WDI, ADB, ICP.

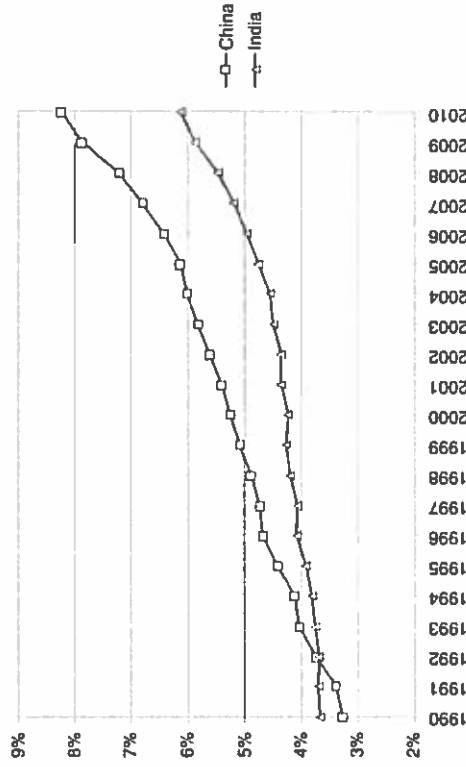
Figure 3.5 Share in world private consumption, 1990–2010: Developing Asia versus other parts of the world

3.3.2 Performance of Individual Developing Asia Economies in Terms of Private Consumption

China–India

Both China and India played important roles in driving the world's private consumption growth. China's private consumption grew at 7.7 per cent during 1990–2010, contributing 14.5 per cent to the world's private consumption growth during this period, while India's private consumption grew at 5.6 per cent and contributed 9 per cent to the world's private consumption growth (Table 3.2, Panel B). Furthermore, both countries increased their contributions to the world's growth between the two sub-periods, from 10.8 per cent in 1990–2000 to 17 per cent in 2000–2010 for China and from 5.8 to 11.6 per cent for India.

Thanks to their rapid growth, China and India's shares of world private consumption expanded notably over 1990–2010. China's share increased by 5 percentage points, from 3.2 per cent in 1990 to 8.2 per cent in 2010, while India's share increased by more than 2 percentage points, from 3.7 to 6.1 per cent, over the same period (Table 3.2, Panel B). In addition, the shares of both China and India increased steadily over 1990–2010 (Figure 3.6A). These upward trends accelerated notably for both China and India beginning in 2004. However, China, with its much faster growth, sur-



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.6A Share in world private consumption, 1990–2010: China–India

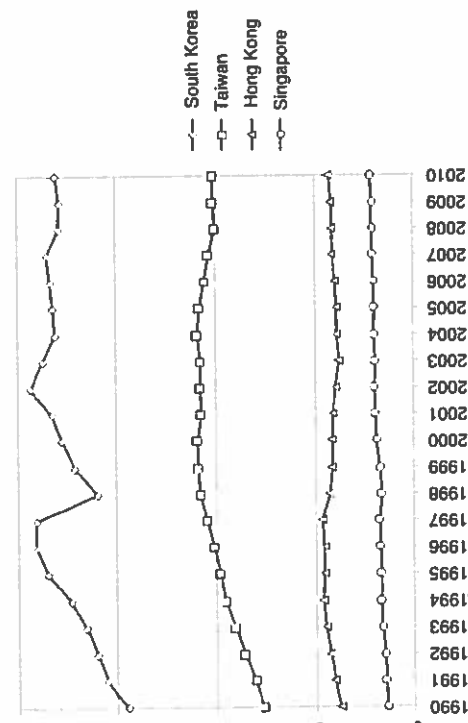
passed India in 1992, and the gap between the two countries with respect to this measure has widened since then. In 2010, this gap exceeded 2 percentage points.

Tigers-4

The Asian Tiger economies outperformed the world average for private consumption growth over 1990–2010. Singapore was the leading performer, growing at 5.2 per cent, followed by Taiwan (4.4 per cent), South Korea (4.1 per cent), and Hong Kong (3.7 per cent), while the world average grew at 3 per cent over the same period (Table 3.2, Panel B).

The strong performance of the four Asian Tiger economies with respect to this measure, however, was driven primarily by their performance in the first sub-period. In fact, the growth rate declined from 4.1 per cent in 1990–2000 to 3.2 per cent in 2000–2010 for Hong Kong, from 6.2 to 4.3 per cent for Singapore, from 5.2 to 3.1 per cent for South Korea, and from 6.7 to 2.2 per cent for Taiwan, while it was stable at approximately 3 per cent for the world average in the two sub-periods.

The four Asian Tiger economies' shares of world private consumption expanded robustly during 1990–1997 but started to decline or stagnate when the Asian financial crisis occurred (Figure 3.6B). As a result, South Korea, Taiwan, and Hong Kong were in lower positions in 2010 than in



Source: Author's calculations; data from WDI, ADB, ICP.

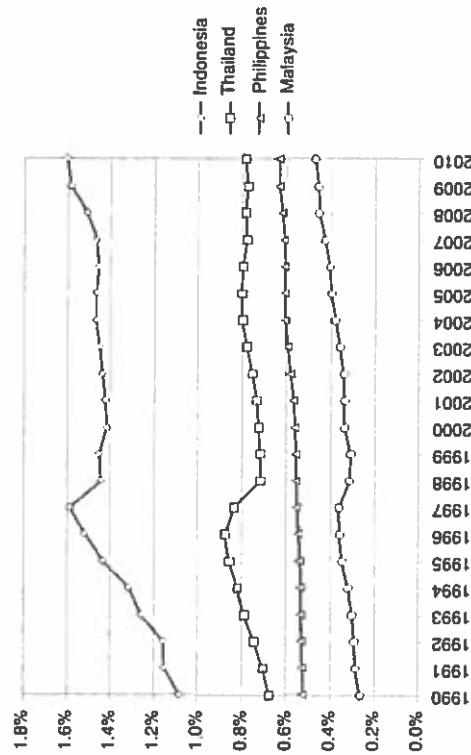
Figure 3.6B Share in world private consumption, 1990–2010: Tigers-4

1997 in terms of their shares of world private consumption. Singapore was the only economy of the Tigers-4 group that maintained a consistent expansion of its share of world private consumption during 1990–2000, although this expansion was insignificant during the second sub-period, 2000–2010.

ASEAN-6

Data on private consumption are available for only four ASEAN-6 economies: Indonesia, Malaysia, the Philippines, and Thailand. All four economies outperformed the world average in private consumption growth during 1990–2010, as well as in the two sub-periods, 1990–2000 and 2000–2010. Malaysia was the leading performer, growing at 5.9 per cent, followed by Indonesia (5 per cent), the Philippines (4 per cent), and Thailand (3.8 per cent). Among these four economies, private consumption growth accelerated between the two sub-periods for Malaysia (from 5.4 per cent in 1990–2000 to 6.4 per cent in 2000–2010) and the Philippines (from 3.8 to 4.2 per cent). In contrast, the growth decelerated for Indonesia (from 5.8 to 4.2 per cent) and Thailand (from 3.8 to 3.7 per cent). Among the four economies, only Indonesia contributed more than 1 per cent to the world's private consumption growth over 1990–2010.

The shares of these economies in world private consumption expanded rapidly before the Asian financial crisis but plunged during the crisis fallout (Figure 3.6C). This implies that these economies, with the exception of the



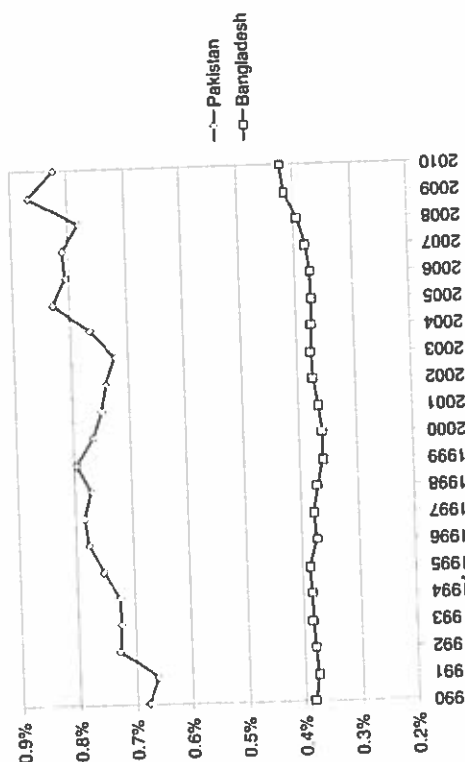
Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.6C Share in world private consumption, 1990–2010: ASEAN-6

Philippines, were hit hard by the Asian financial crisis. However, the economies of Indonesia, Thailand, and Malaysia exhibited clear recoveries after the crisis, with their shares of world private consumption back in expansion modes. In particular, the expansion trend was strong and consistent during 2000–2010 for Indonesia and Malaysia, while it was weaker and less consistent for Thailand. It is worth noting that relative to their peaks during 1990–2010 (1996 for Thailand and 1997 for Indonesia), Indonesia and Thailand were not in stronger positions in 2010 in terms of their shares of world private consumption. On the other hand, the Philippines' share of world private consumption exhibited a consistent but modest upward trend during 1990–2010. Although the expansion of the Philippines with respect to this measure was unimpressive, it tended to accelerate after 2000.

SAC-4

Data on private consumption is available for only two SAC-4 economies: Pakistan and Bangladesh. These two economies both grew faster in terms of private consumption than the world average during 1990–2010, but with different trends. Bangladesh accelerated its growth from 2.5 per cent in the first sub-period, which was below the world average growth rate of 3.1 per cent for this sub-period, to 4.6 per cent in the second sub-period, while the growth of Pakistan's private consumption slowed from 4.3 to 3.7 per cent from the first to the second sub-period (Table 3.2, Panel B).



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.6D Share in world private consumption, 1990-2010: SAC-4

Pakistan, however, contributed 1 per cent to the world's private consumption growth over 1990-2010.

Pakistan's share of world private consumption fluctuated but followed a clear upward trend during 1990-2010 (Figure 3.6D). At the same time, Bangladesh's share shifted from a decreasing trend during 1990-2000 to an increasing trend during 2000-2010, more notably so from 2006 onward.

3.4 GOVERNMENT CONSUMPTION

The data on government consumption derive from the 'general government final expenditure' indicator data in the World Development Indicators (WDI) database. General government final expenditure, as defined by the World Bank, includes all government current expenditures for purchases of goods and services.⁶ Government consumption is converted to purchasing power parity (PPP) terms using the PPP conversion factors for government consumption provided in the 2005 ICP report.

⁶ The complete definition is 'General government final consumption expenditure (formerly general government consumption) includes all government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation.' Source: WDI (2012).

Statistics on the shares and contributions of Developing Asia to world government consumption during 1990-2010 and its two sub-periods, 1990-2000 and 2000-2010, are presented in Table 3.3. Panel A of the table is for the group level, while Panel B is for individual Developing Asia economies.

3.4.1 Performance of Developing Asia as a Group in Terms of Government Consumption

Developing Asia's government consumption grew, on average, at a rate of 7 per cent during 1990-2010, more than double the world's growth rate of 3.2 per cent. In contrast, Industrialized Economies grew at only 1.8 per cent, far below the world average, while the ROW grew at only 2 per cent (Table 3.3, Panel A). It is worth noting that the world average growth of government consumption increased significantly between the two sub-periods, from 2.4 per cent in 1990-2000 to 3.8 per cent in 2000-2010. This acceleration was driven not only by Developing Asia but also by other groups. This growth accelerated from 6.9 to 7.1 per cent for Developing Asia, from 1.5 to 2.1 per cent for Industrialized Economies, and from 0.8 to 3.2 per cent for the ROW over the two sub-periods.

Developing Asia played a major role in driving growth in world government consumption over 1990-2010. The contribution of the group to the world's growth with respect to this measure was 55.8 per cent during 1990-2010 and the contribution of the group was rather stable between the two sub-periods, at 56.8 per cent for 1990-2000 and 54.4 per cent for 2000-2010 (Figure 3.7). On the other hand, the contribution of Industrialized Economies was 30.7 per cent for 1990-2010, declining from 36.3 per cent for the first sub-period to 28.2 per cent for the second, while the contribution of the ROW was 13.5 per cent for 1990-2010, increasing from 6.9 to 17.4 per cent between the two sub-periods (Figure 3.7).

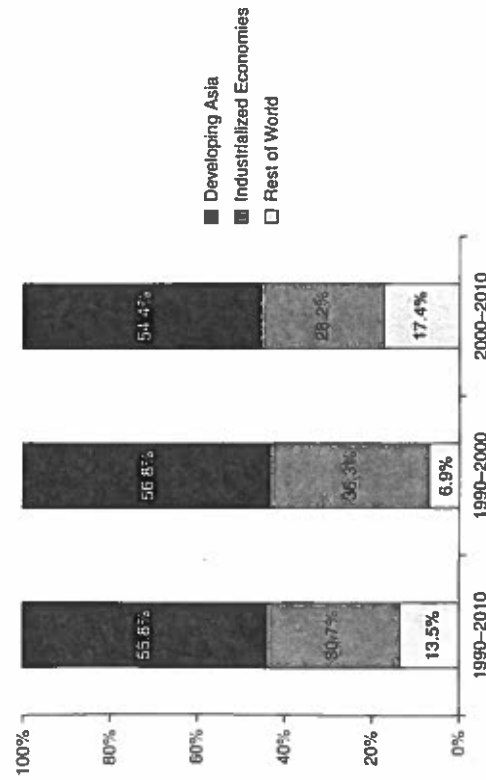
The share of Developing Asia in world government consumption rapidly expanded, increasing almost 20 percentage points, from 15.3 per cent in 1990 to 33.7 per cent in 2010 (Table 3.3, Panel A). In contrast, this share fell sharply from 59.7 per cent to 46.4 per cent for the Industrialized Economies and from 25 per cent to nearly 20 per cent for the ROW over the same period. As depicted in Figure 3.8, the share of Developing Asia in world government consumption followed a solid increasing trend, while the Industrialized Economies' share steadily contracted over 1990-2010. As a result, the gap between Developing Asia and the Industrialized Economies with respect to this measure narrowed rapidly during this period. On the other hand, Developing Asia surpassed the ROW with respect to this measure in 1998, and its gap with the ROW has widened markedly since then.

Table 3.3 The rise of Developing Asia in the world economy, 1990–2010: government consumption

(A) Groups in the World									
Group	Growth and Contribution					Share in World			
	1990–2010		1990–2000		2000–2010	1990–2010		1990–2010	
	Growth	Contb.	Growth	Contb.		Growth	Contb.	Share in Group	Share in World
World (83 Economies)	3.2	100.0	2.4	100.0	3.8	100.0	100.0	100.0	100.0
Developing Asia*	7.0	55.8	6.9	56.8	7.1	54.4	15.3	24.0	33.7
Industrialized Economies**	1.8	30.7	1.5	36.3	2.1	28.2	59.7	54.8	46.4
Rest of World (ROW)	2.0	13.5	0.8	6.9	3.2	17.4	25.0	21.2	19.9
(B) Developing Asia									
Economy	1990–2010		1990–2000		2000–2010	1990–2010		1990–2010	
	Growth	Contb. to	Growth	Contb. to		Growth	Contb. to	Share in Group	Share in World
	Rate	Growth	Rate	Growth		Rate	Growth	1990–2010	1990–2010
Developing Asia*	7.0	100.0	6.9	100.0	7.1	100.0	54.4	100	100
China–India	9.2	67.5	9.9	67.9	8.5	69.6	40.4	62.4	62.4
China	5.9	14.1	7.3	14.5	6.1	13.4	18.7	16.5	14.9
India	5.9	14.1	7.3	14.5	6.1	13.4	18.7	16.5	14.9

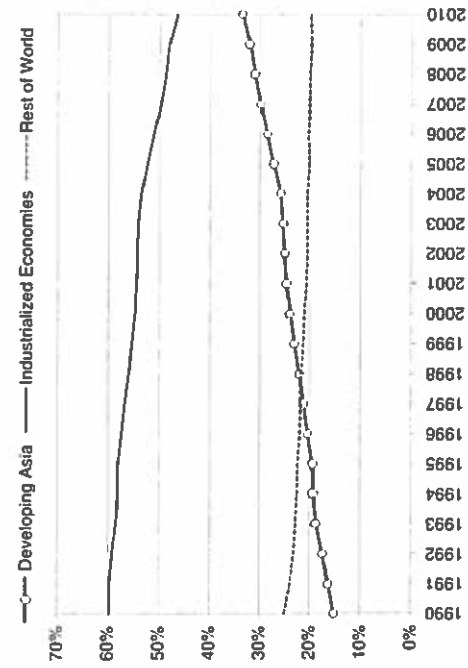
<i>Tigers-4</i>	3.3	0.7	0.3	4.4	1.1	0.6	2.2	0.4	2.0	1.6	1.0	0.3	0.4	0.3
Hong Kong	6.8	1.1	0.6	9.0	1.7	1.0	4.6	0.8	1.2	1.4	1.1	0.2	0.3	0.4
Singapore	4.6	4.3	2.1	4.5	4.8	2.6	4.6	3.7	2.0	8.4	6.5	5.1	1.3	1.6
South Korea	1.9	1.8	0.8	2.9	3.3	1.8	1.0	0.7	0.3	9.7	6.5	3.5	1.5	1.6
Taiwan	4.2	2.4	1.2	0.8	0.4	0.2	7.7	3.1	1.7	5.1	2.8	2.9	0.8	0.7
ASEAN-6	6.3	2.3	1.2	5.2	1.9	1.1	7.4	2.5	1.3	2.8	2.4	2.4	0.4	0.6
Malaysia	2.5	0.8	0.3	1.6	0.6	0.3	3.3	0.7	0.4	3.0	1.8	1.2	0.5	0.4
Philippines	4.9	2.1	1.0	4.8	2.2	1.2	5.0	1.8	1.0	3.6	2.9	2.3	0.6	0.7
Thailand	6.4	0.4	0.2	4.5	0.3	0.2	8.2	0.5	0.3	0.5	0.4	0.4	0.1	0.1
Bangladesh	4.3	1.7	0.8	0.7	0.3	0.1	8.0	2.2	1.2	3.6	1.9	2.1	0.5	0.7
Pakistan	6.2	0.7	0.4	7.3	0.9	0.5	5.1	0.6	0.3	0.9	0.9	0.7	0.1	0.2
Sri Lanka	6.4	0.4	0.2	4.5	0.3	0.2	8.2	0.5	0.3	0.5	0.4	0.4	0.1	0.1

Notes: * Developing Asia excludes Cambodia, Nepal, and Vietnam; ** Industrialized Economies excludes Israel; government consumption is measured in PPPs for government consumption. Source: Author's calculations; data from WDI, ADB, ICP.



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.7 Contribution to the world's government consumption growth: Developing Asia versus other parts of the world



Source: Author's calculations; data from WDI, ADB, ICP.

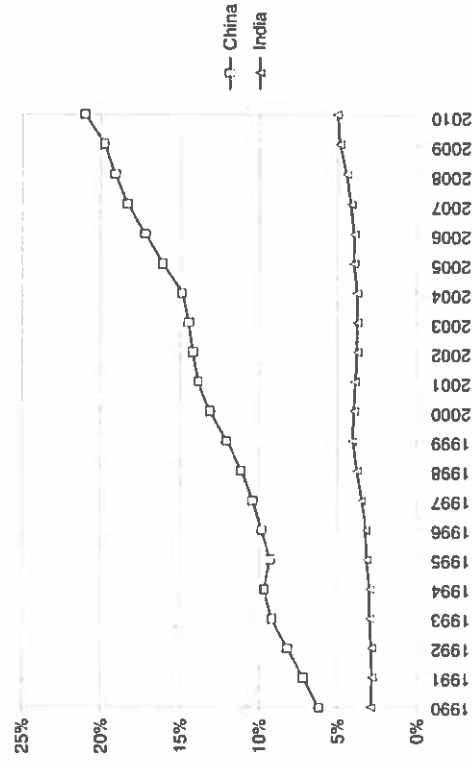
Figure 3.8 Share in world government consumption, 1990-2010: Developing Asia versus other parts of the world

3.4.2 Performance of Individual Developing Asia Economies in Terms of Government Consumption

China-India

China's government consumption grew at an outstanding rate of 9.2 per cent during 1990-2010, contributing 39.4 per cent to the world's government consumption growth over this period, while India's government consumption grew at a rate of 5.9 per cent and contributed 7.3 per cent to the world's growth over the same period (Table 3.3, Panel B). The contribution to the world's growth was nearly the same between the two sub-periods for China, at approximately 38-39 per cent, as well as for India, at approximately 7-8 per cent.

China's share in world government consumption soared by almost 15 percentage points, from 6.2 per cent in 1990 to 21 per cent in 2010, while India's share increased by 2 percentage points, from 2.9 to 5 per cent (Table 3.3, Panel B). Figure 3.9A indicates that this share followed a solid increasing trend throughout 1990-2010 for both China and India. However, the pace of expansion was much higher and more solid for China than for India. As a result, the gap between China and India on this measure widened rapidly during 1990-2010, with notable acceleration



Source: Author's calculations; data from WDI, ADB, ICP.

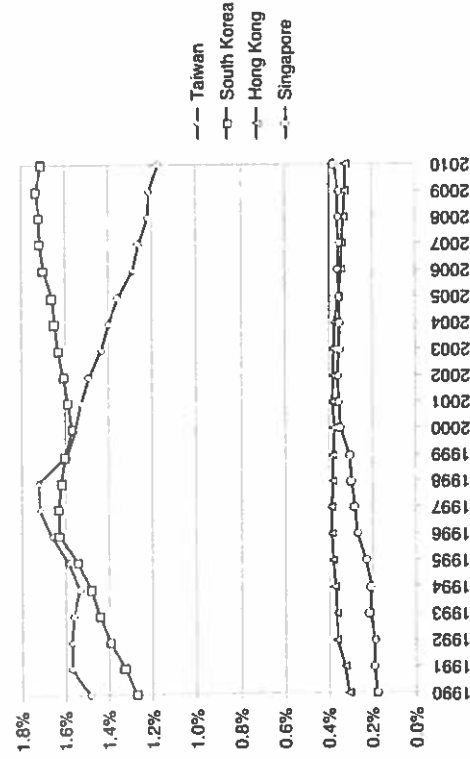
Figure 3.9A Share in world government consumption, 1990-2010: China-India

since 2000. In 2010, China's share in world government consumption exceeded that of India by more than 15 percentage points.

Tigers-4

The four Asian Tiger economies sharply differed in government consumption growth rates over 1990–2010 (Table 3.3, Panel B). Singapore and South Korea, which grew at 6.8 per cent and 4.6 per cent, respectively, over the period, far outperformed the world average at 3.2 per cent. In contrast, Taiwan, with its growth rate of merely 1.9 per cent, was notably below the world average, while Hong Kong was on par with the world average, growing at 3.3 per cent. On the other hand, the growth of the four Asian Tiger economies, with the exception of South Korea, slowed down between the two sub-periods, from 4.4 per cent in 1990–2000 to 2.2 per cent in 2000–2010 for Hong Kong, from 9 to 4.6 per cent for Singapore, and from 2.9 to 1 per cent for Taiwan. South Korea, on the other hand, grew at nearly the same rate of 4.5–4.6 per cent in both sub-periods. In addition, South Korea was the only economy of this subgroup that contributed more than 1 per cent to the world's government consumption growth over 1990–2010.

The four Asian Tiger economies' shares of world government consumption expanded robustly during 1990–1997 but changed in different ways after the fallout of the Asian financial crisis (Figure 3.9B). South Korea's



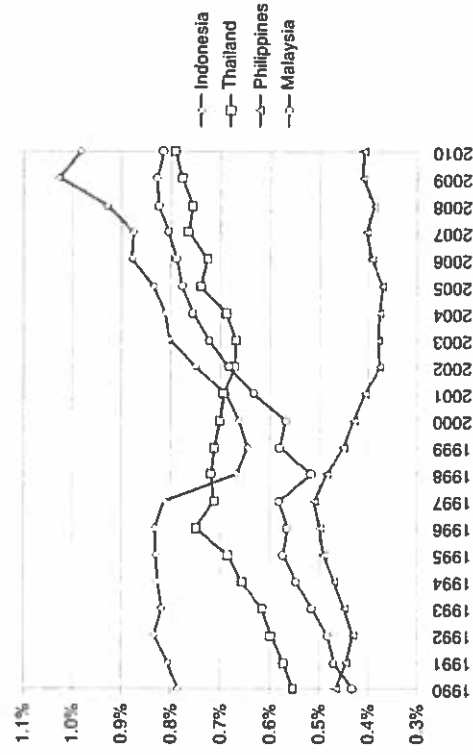
Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.9B Share in world government consumption, 1990–2010: Tigers-4

share of world government consumption plunged during 1998–2000 but returned to a strong increasing trend during 2000–2010. In contrast, Taiwan's share fell into a steep declining trend beginning in 1998. Hong Kong's share also followed a decreasing trend, which started in 1997 but was more gradual than that of Taiwan. On the other hand, Singapore's share followed a consistent upward trend throughout 1990–2010, but its expansion slowed during the second sub-period, 2000–2010. South Korea and Taiwan were the two economies in the group that contributed more than 1 per cent to world government consumption.

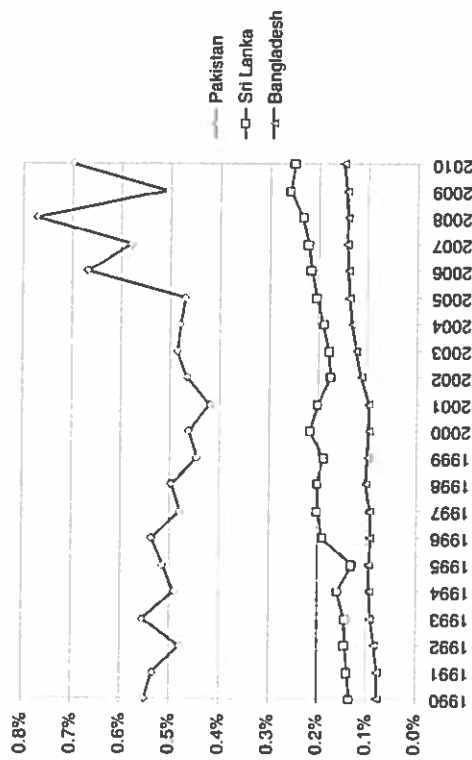
ASEAN-6

Data on government consumption are available only for Indonesia, Malaysia, the Philippines, and Thailand. These economies, with the exception of the Philippines, grew faster than the world average in government consumption over 1990–2010 (Table 3.3, Panel B). This growth rate was 4.2 per cent for Indonesia, 6.3 per cent for Malaysia, and 4.9 per cent for Thailand, while it was only 2.5 per cent for the Philippines. On the other hand, all four economies accelerated their growth with respect to this measure between the two sub-periods: from 0.8 per cent in 1990–2000 to 7.7 per cent in 2000–2010 for Indonesia, from 5.2 to 7.4 per cent for Malaysia, from 1.6 to 3.3 per cent for the Philippines, and from 4.8 to 5



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.9C Share in world government consumption, 1990–2010: ASEAN-6



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.9D Share in world government consumption, 1990-2010: SAC-4

per cent for Thailand. It is worth noting that Indonesia, Malaysia, and Thailand contributed more than 1 per cent to the world's government consumption growth over 1990-2010.

These four economies' shares of world government consumption followed rather similar patterns: expansion during 1990-1997, contraction during the Asian financial crisis, and recovery in the 2000s (Figure 3.9C). Among these four economies, Malaysia was the economy that experienced the largest share expansion during 1990-2010, with a strong increasing trend during 1990-1997 and 1999-2010. Indonesia's share of world government consumption has also followed a robust expanding trend since 1999. Thailand's share did not recover until 2004, with a more gradual expansion during 2004-2010. The Philippines' share declined during 1997-2002 and improved slightly during 2002-2010. It is worth noting that the Philippines' share of world government consumption contracted over 1990-2010.

SAC-4

Data on government consumption were available only for Bangladesh, Pakistan, and Sri Lanka. These three economies grew faster in terms of government consumption than the world average over 1990-2010. This growth rate was highest for Bangladesh (6.4 per cent), followed by Sri Lanka (6.2 per cent) and Pakistan (4.3 per cent) (Table 3.3, Panel B). The

growth notably accelerated between the two sub-periods for Bangladesh (from 4.5 per cent in 1990-2000 to 8.2 per cent in 2000-2010) and Pakistan (from 0.7 to 8 per cent), while it slowed down for Sri Lanka (from 7.3 to 5.1 per cent).

These three economies' shares of world government consumption expanded significantly over 1990-2010 (Figure 3.9D). Pakistan's share, however, fluctuated sharply, with a declining trend during 1990-2001 and an upward trend during 2001-2010, while the shares of Bangladesh and Sri Lanka followed rather consistent increasing trends during 1990-2010 that were more pronounced in the 2000s.

3.5 FIXED INVESTMENT

The data on fixed investment are derived from the 'gross fixed capital formation (GFCF)' indicator data in the World Development Indicators (WDI) database. GFCF, as defined by the World Bank, includes land improvements; plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings.⁷ The GFCF of individual economies is measured in terms of purchasing power parity (PPP), using the PPP conversion factors for GFCF provided in the 2005 ICP report.

Statistics on the shares and contributions of Developing Asia to the world fixed investment during 1990-2010 and its two sub-periods, 1990-2000 and 2000-2010, are reported in Table 3.4. Panel A of the table is for the group level, while Panel B is for individual Developing Asia economies.

3.5.1 Performance of Developing Asia as a Group in Terms of Fixed Investment

Developing Asia's fixed investment grew, on average, at a rapid rate of 8.6 per cent per year during 1990-2010, far exceeding the world average growth rate of 3.8 per cent. In contrast, Industrialized Economies grew at a notably low rate of 1.4 per cent during the same period (Table 3.4, Panel A). Moreover, this growth notably accelerated for Developing Asia

⁷ The complete definition is 'Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. According to the 1993 SNA, net acquisitions of valuables are also considered capital formation.' Source: WDI (2012).

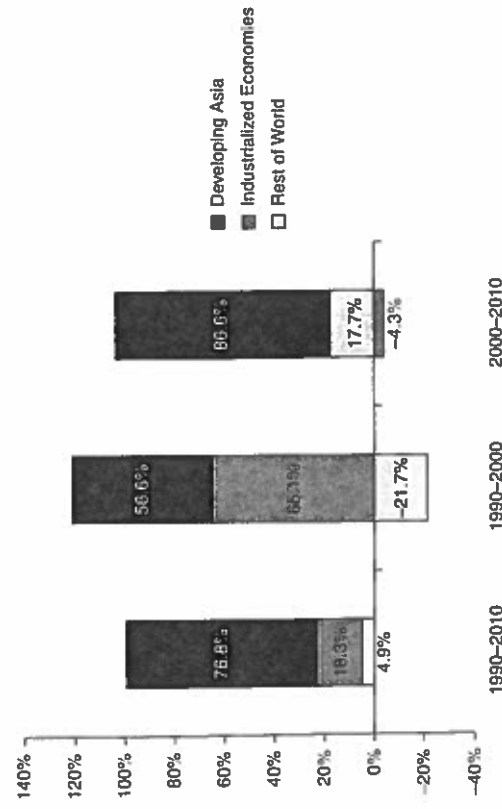
(A) Groups in the World

<i>Tigers-4</i>	3.4	0.9	0.5	4.7	1.7	0.9	2.2	0.4	0.3	3.2	2.4	1.1	0.5	0.6	0.5	0.5	0.5	0.5	0.5
Hong Kong	6.0	1.1	0.7	8.4	2.3	1.3	3.6	0.6	0.5	2.2	2.2	1.2	0.3	0.6	0.7	0.3	0.3	0.3	0.3
Singapore	3.5	4.6	2.5	4.5	8.2	4.3	2.6	2.4	1.8	16.5	11.9	5.9	2.7	3.1	0.6	0.5	0.5	0.5	0.5
South Korea	3.3	1.6	0.9	7.2	5.6	3.0	-0.6	-0.3	-0.2	6.2	5.8	2.1	1.0	1.5	1.5	1.0	1.0	1.0	1.0
Taiwan	3.3	0.9	0.9	7.2	5.6	3.0	-0.6	-0.3	-0.2	6.2	5.8	2.1	1.0	1.5	1.5	1.0	1.0	1.0	1.0
ASEAN-6	4.7	2.8	1.6	2.5	1.8	0.9	7.0	2.7	2.2	6.9	4.1	3.2	1.2	1.1	1.4	1.4	1.4	1.4	1.4
Indonesia	4.7	1.3	0.8	6.0	2.4	1.3	3.5	0.8	0.6	3.3	2.8	1.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
Philippines	3.3	0.8	0.4	2.6	0.8	0.4	4.0	0.6	0.5	3.0	1.8	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Thailand	1.1	0.8	0.4	-2.4	-2.0	-1.0	4.7	1.4	1.1	9.5	3.4	2.1	1.6	0.9	1.0	1.0	1.0	1.0	1.0
SAC-4	7.7	0.8	0.5	8.1	1.1	0.6	7.2	0.7	0.6	1.0	1.0	0.8	0.2	0.3	0.4	0.4	0.4	0.4	0.4
Bangladesh	2.4	0.5	0.3	1.8	0.5	0.3	2.9	0.4	0.3	2.9	1.6	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Pakistan	6.6	0.3	0.2	7.2	0.4	0.2	6.0	0.2	0.2	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sri Lanka																			

Source: Author's calculations; data from WDI, ADB, ICP.

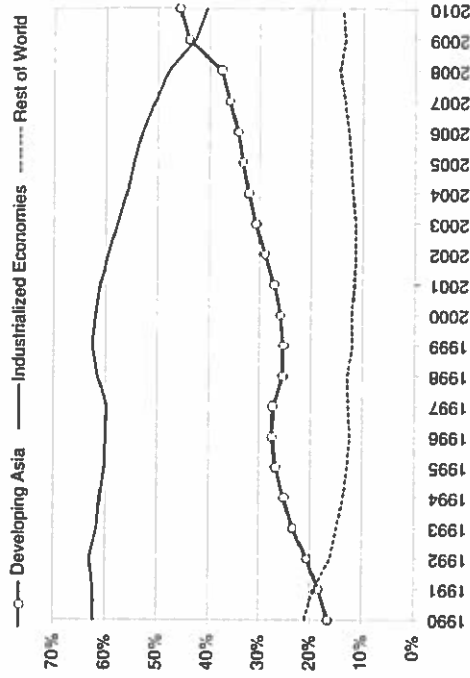
between the two sub-periods, increasing from 7.7 per cent in 1990–2000 to 9.5 per cent in 2000–2010, while it changed from a positive 3.2 per cent rate in the first sub-period to a negative rate in the second sub-period for the Industrialized Economies. On the other hand, the growth rate experienced by the ROW was also low, at 1.4 per cent for 1990–2010, but it exhibited a solid turnaround between the two sub-periods, from –2.8 per cent in 1990–2000 to 5.5 per cent in 2000–2010. The contraction of the ROW in terms of fixed investment in the first sub-period was associated with the turmoil that occurred in the Eastern Europe and the former Soviet Union economies in the early 1990s after the collapse of their communist regimes.

Developing Asia played a dominant role in the growth of the world fixed investment over 1990–2010, contributing more than three quarters of the world's growth during this period. Moreover, this contribution of the group substantially increased between the two sub-periods, from 56.6 per cent in 1990–2000 to 86.6 per cent in the second (Figure 3.10). In contrast, the contribution of the Industrialized Economies to the world's growth with respect to this measure was only 18.3 per cent for 1990–2010, with a dramatic decline from 65.1 per cent in 1990–2000 to –4.3 per cent in 2000–2010. The negative growth in fixed investment experienced by



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.10 Contribution to the world's fixed investment growth: Developing Asia versus other parts of the world



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.11 Share in world fixed investment, 1990–2010: Developing Asia versus other parts of the world

the industrialized group during 2000–2010 was due to the global financial crisis that erupted in 2008.

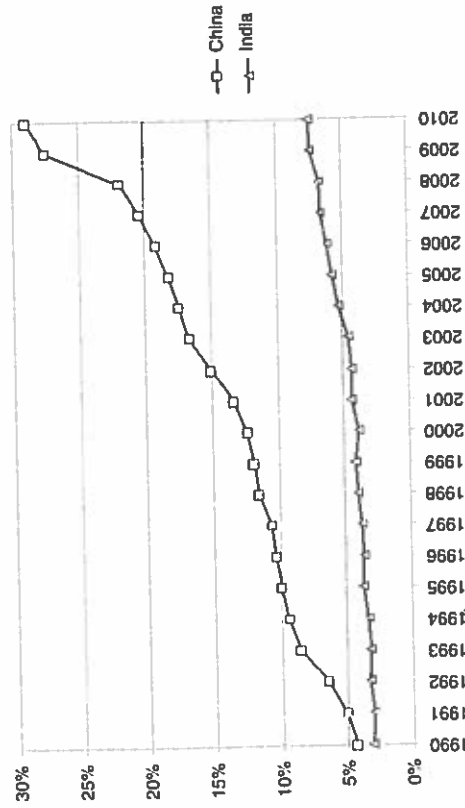
The rise of Developing Asia and the contraction of the Industrialized Economies in terms of their shares of world fixed investment were clear and solid throughout 1990–2010, especially from 2000 on (Figure 3.11). In particular, Developing Asia surpassed the ROW in 1991 and Industrialized Economies in 2009 to become the group with the largest share of world fixed investment in 2010. Developing Asia's share in world fixed investment expanded by nearly 30 percentage points, from 16.6 per cent in 1990 to 45.7 per cent in 2010, while the Industrialized Economies' share contracted by over 20 percentage points, from 62.2 to 40.3 per cent (Table 3.4, Panel A).

3.5.2 Performance of Individual Developing Asia Economies in Terms of Fixed Investment

China–India

China's fixed investment grew at a striking rate of 13.1 per cent during 1990–2010, contributing 57.1 per cent to the world's growth over this period; the growth rate for India was also impressively high, at 7.9 per cent, with a contribution of 11 per cent (Table 3.4, Panel B). China

The dynamics of economic growth



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.12A Share in world fixed investment, 1990–2010: China–India

maintained its two-digit growth rate with respect to this measure in both sub-periods (13.7 per cent in 1990–2000 and 12.5 per cent in 2000–2010), while India accelerated its growth from 5.3 per cent in the first sub-period to 10.6 per cent in the second. As a result, both China and India substantially increased their contributions to the world's growth in fixed investment between the two sub-periods, from 38.2 per cent in 1990–2000 to 63.9 per cent in 2000–2010 for China and from 6.2 to 14.8 per cent for India.

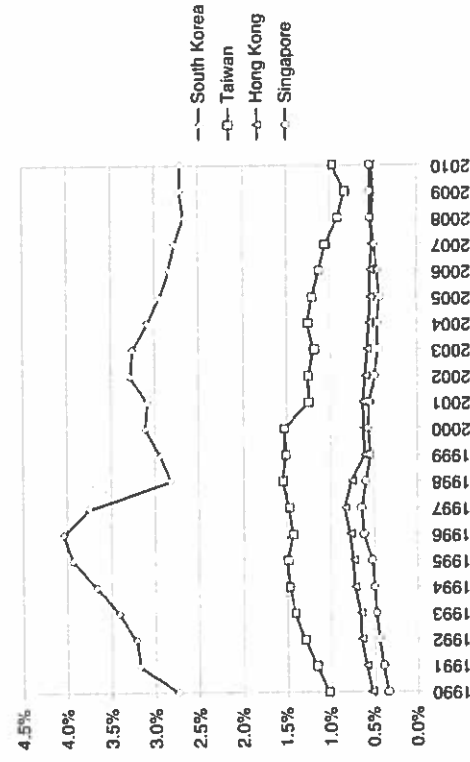
China's share in world fixed investment increased by almost 25 percentage points over 1990–2010, from 4.3 per cent in 1990 to 29 per cent in 2010, while India's share increased by more than 4 percentage points, from 3.1 to 7.5 per cent (Figure 3.12A). It is worth noting that although both countries recorded rapid growth in fixed investment, China far outperformed India in this regard. Consequently, the gap between China and India in terms of their shares of world fixed investment, which was small in 1990, widened considerably during 1990–2010. The acceleration of China's share of world fixed investment during 2008–2010 tends to suggest a special push by the Chinese government in fixed investment to stimulate economic growth during this period of the world's recession.

Tigers-4

The four Asian Tiger economies, with the exception of Singapore, underperformed the world average for fixed investment growth over 1990–2010

(Table 3.4, Panel B). The growth rate over the period was 6 per cent for Singapore, well above the world average rate of 3.8 per cent, but it was only 3.4 per cent for Hong Kong, 3.5 per cent for South Korea, and 3.3 per cent for Taiwan. The Asian financial crisis appears to have had a significant impact on the growth patterns of the four Asian Tiger economies. Their growth with respect to this measure slowed down markedly between the two sub-periods, from 4.7 per cent in 1990–2000 to 2.2 per cent in 2000–2010 for Hong Kong, from 8.4 to 3.6 per cent for Singapore, from 4.5 to 2.6 per cent for South Korea, and from 7.2 to –0.6 per cent for Taiwan. In contrast, the growth rate of the world average accelerated from 3 per cent in the first sub-period to 4 per cent in the second. That is, while the four Asian Tiger economies far outperformed the world average on fixed investment in the first sub-period, they all fell behind the world average by this measure in the second sub-period. South Korea was the only economy in this group that contributed more than 1 per cent to the world's fixed investment growth over 1990–2010.

The four Asian Tiger economies' shares of world fixed investment expanded rapidly during 1990–1997 but appeared to be hit hard by the fallout of the Asian financial crisis (Figure 3.12B). South Korea's share fell sharply in 1997–1998 and recovered during 1999–2002 before it fell into a consistent declining trend from 2002 on. Taiwan's share followed an expanding trend during 1990–2000 but declined from 2000 on. Hong



Source: Author's calculations; data from WDI, ADB, ICP.

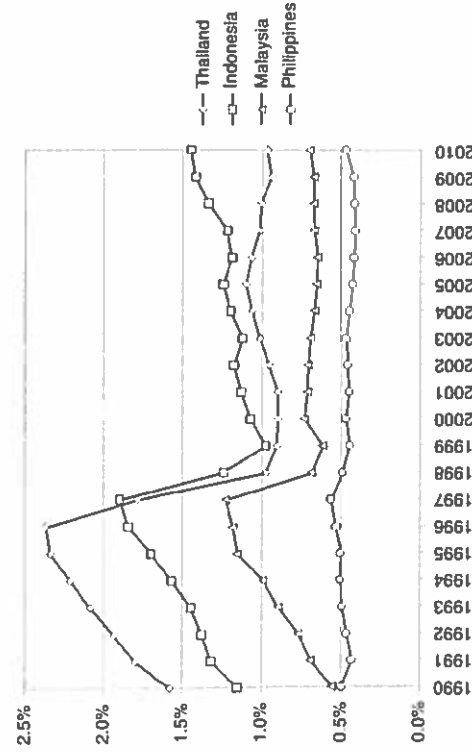
Figure 3.12B Share in world fixed investment, 1990–2010: Tigers-4

Kong's share decreased significantly in 1998–1999 and then fell into a gradual declining trend during 2000–2010. Singapore was the only Asian Tiger economy that expanded its share of world fixed investment over 1990–2010. This share, however, declined during 1997–2005 before increasing again during 2005–2010.

ASEAN-6

For the ASEAN-6 subgroup, data on fixed investment are available only for Indonesia, Malaysia, the Philippines, and Thailand. Among these four economies, Indonesia and Malaysia outperformed the world average for fixed investment growth over 1990–2010, while Thailand and the Philippines were below the world average in this regard (Table 3.4, Panel B). Indonesia was the only economy in this subgroup that contributed more than 1 per cent to the world's fixed investment growth over 1990–2010.

These four economies, particularly, Indonesia, Malaysia, and Thailand, were hit hard by the Asian financial crisis. Their shares of world fixed investment expanded before the eruption of the crisis but plummeted in 1997–1999 for Thailand and in 1998–1999 for the other three economies (Figure 3.12C). Indonesia was the only economy in this subgroup that bounced back solidly, with a notable expansion of its share during the second sub-period, 2000–2010. It is worth noting, however, that the shares



Source: Author's calculations; data from WDI, ADB, ICP.

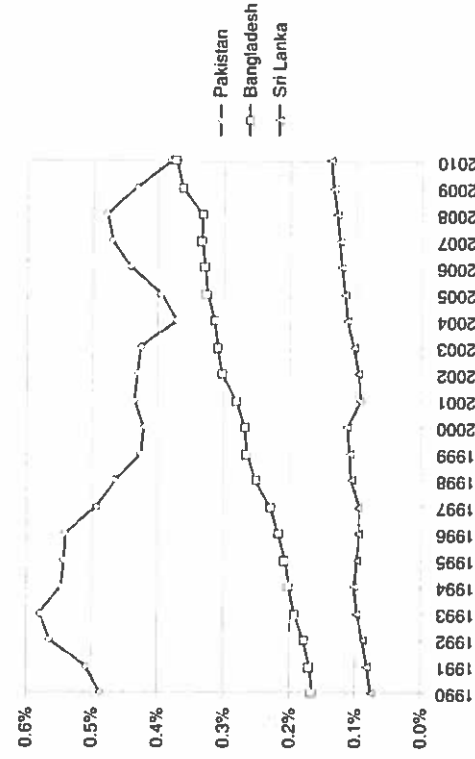
Figure 3.12C Share in world fixed investment, 1990–2010: ASEAN-6

of world fixed investment of all four of these economies were noticeably lower in 2010 than at their peaks before the eruption of the Asian financial crisis. In 2010, Indonesia was the only economy in this subgroup that accounted for more than 1 per cent of world fixed investment.

SAC-4

For the SAC-4 subgroup, data on fixed investment are available only for Bangladesh, Pakistan, and Sri Lanka. Bangladesh and Sri Lanka, which grew in fixed investment at 7.7 per cent and 6.6 per cent, respectively, during 1990–2010, far outperformed the world average growth over the period. In addition, the outperformance over the world average by these two economies was notable in both sub-periods. In contrast, Pakistan grew at 2.4 per cent over 1990–2010, which was well below the world average. Furthermore, the underperformance of Pakistan relative to the world average was consistent in both sub-periods (1.8 versus 3 per cent in the first sub-period and 2.9 versus 4 per cent in the second sub-period). The shares of Bangladesh and Sri Lanka followed clear upward trends during 1990–2010, while that of Pakistan followed a strong declining trend (Figure 3.12D). The upward trend for Bangladesh was particularly steep and consistent throughout 1990–2010.

As an additional note, one may find it surprising that Bangladesh and Sri Lanka outperformed most East Asian economies in fixed investment



Source: Author's calculations; data from WDI, ADB, ICP.

Figure 3.12D Share in world fixed investment, 1990–2010: SAC-4

growth over 1990–2010. In fact, while this growth rate over 1990–2010 was 7.7 per cent for Bangladesh and 6.6 per cent for Sri Lanka, it was below 5 per cent for most East Asian economies for which data are available.

3.6 EXPORTS AND IMPORTS OF GOODS AND SERVICES

The data on exports and imports of goods and services are from the World Development Indicators (WDI) database. Exports and imports are measured in current US dollars, and the growth rates presented in this section represent nominal growth. The international trade in goods and services of a given economy consists of two components: trade in merchandise and trade in commercial services. The trade in merchandise includes trade on agricultural products, fuel and mining products, and manufactures, while trade in commercial services is associated with transportation, travelling, telecommunication, information processing, ICT services, finance, royalties and license fees, and construction.

This section describes the rise of Developing Asia and its individual economies in world exports and imports of goods and services. In addition, the section highlights the performance of the region's three important items of international trade: manufactures, commercial services, and ICT hardware.

3.6.1 Exports of Goods and Services

Statistics on the performance of Developing Asia and its individual economies in world exports of goods and services during 1990–2010 and two sub-periods, 1990–2000 and 2000–2010, are reported in Table 3.5. Panel A of the table is for the group level and Panel B for individual Developing Asia economies.

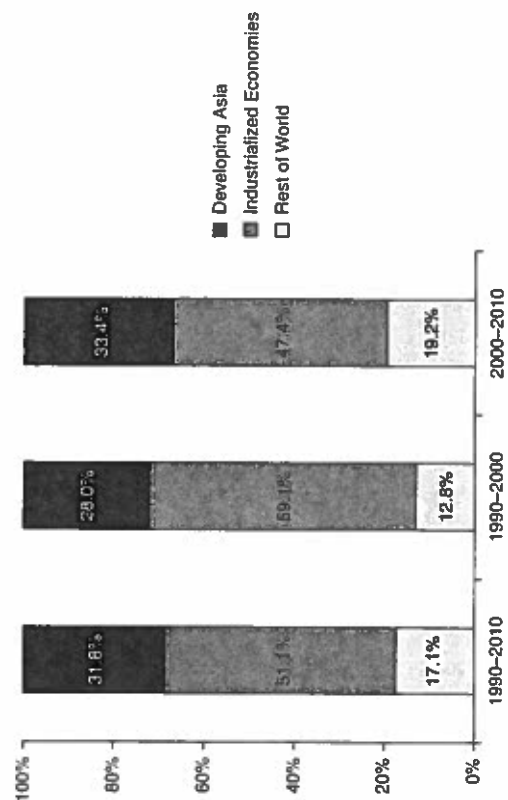
a. Performance of Developing Asia as a Group in Terms of Exports of Goods and Services

The exports of goods and services of Developing Asia grew, on average, at 11.4 per cent over 1990–2010, well above the world average of 7.5 per cent. This growth rate was much lower for the Industrialized Economies, at 5.8 per cent, and for the ROW, at 8.7 per cent (Table 3.5, Panel A).

Developing Asia contributed 31.8 per cent to the world's growth in exports of goods and services during 1990–2010, experiencing a notable increase between the two sub-periods, from 28 per cent in 1990–2000

Table 3.5 The rise of Developing Asia in the world economy, 1990–2010: exports of goods and services

(A) Groups in the World									
Group	Growth and Contribution					Share in World			
	1990–2010	1990–2000	2000–2010	Growth	Contb.	1990	2000	2010	
World (111 Economies)	7.5	100.0	6.2	100.0	8.5	100.0	100.0	100.0	100.0
Developing Asia	11.4	31.8	10.8	28.0	11.8	33.4	100.0	100.0	100.0
Industrialized Economies	5.8	51.1	5.2	59.1	6.5	47.4	75.0	67.7	56.0
Rest of World (ROW)	8.7	17.1	6.3	12.8	11.1	19.2	12.5	12.7	16.6
(B) Developing Asia									
Economy	1990–2010			1990–2000			2000–2010		
	Growth	Contb. to	Rate	Growth	Contb. to	Rate	Growth	Contb. to	Rate
Developing Asia	11.4	31.8	10.8	28.0	11.8	33.4	100.0	100.0	100.0
China	17.3	37.1	13.6	22.0	6.5	18.7	44.6	15.4	11.2
China-India	14.1	7.7	2.6	9.9	3.9	1.1	18.4	9.4	4.4
India	8.0	10.6	2.9	8.8	14.8	4.0	7.2	2.6	19.7
Hong Kong	9.7	9.2	2.6	10.6	12.2	3.4	8.7	7.9	2.5
Singapore	9.9	11.0	3.2	10.3	13.5	3.7	9.9	3.2	14.5
Taiwan	7.2	6.7	1.7	8.3	10.1	2.7	6.1	4.6	1.5
Tigers-4	14.1	7.7	2.6	9.9	3.9	1.1	18.4	9.4	4.4
China-India	17.3	37.1	13.6	22.0	6.5	18.7	44.6	15.4	11.2
China	14.1	7.7	2.6	9.9	3.9	1.1	18.4	9.4	4.4
India	8.0	10.6	2.9	8.8	14.8	4.0	7.2	2.6	19.7
Hong Kong	9.7	9.2	2.6	10.6	12.2	3.4	8.7	7.9	2.5
Singapore	9.9	11.0	3.2	10.3	13.5	3.7	9.9	3.2	14.5
Taiwan	7.2	6.7	1.7	8.3	10.1	2.7	6.1	4.6	1.5
Tigers-4	14.1	7.7	2.6	9.9	3.9	1.1	18.4	9.4	4.4
China-India	17.3	37.1	13.6	22.0	6.5	18.7	44.6	15.4	11.2
China	14.1	7.7	2.6	9.9	3.9	1.1	18.4	9.4	4.4
India	8.0	10.6	2.9	8.8	14.8	4.0	7.2	2.6	19.7
Hong Kong	9.7	9.2	2.6	10.6	12.2	3.4	8.7	7.9	2.5
Singapore	9.9	11.0	3.2	10.3	13.5	3.7	9.9	3.2	14.5
Taiwan	7.2	6.7	1.7	8.3	10.1	2.7	6.1	4.6	1.5



Source: Author's calculations; data from WDI, ADB.

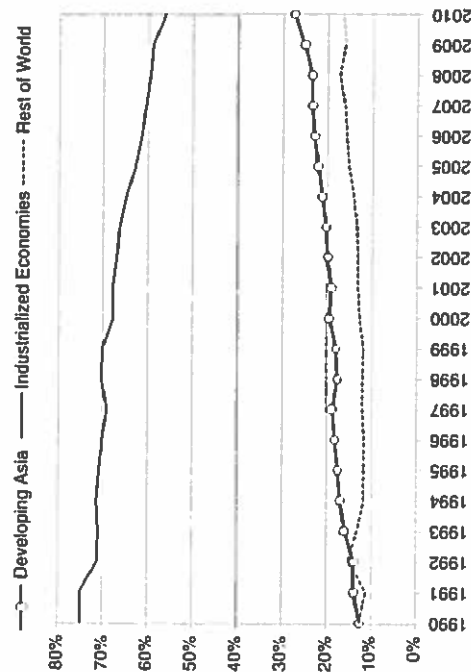
Figure 3.13 Contribution to the world's exports of goods and services growth: Developing Asia versus other parts of the world

to 33.4 per cent in 2000–2010 (Figure 3.13). Industrialized Economies remained the main driver of the world's growth in export, contributing 51.1 per cent to the world's exports growth during 1990–2010. However, the contribution of the group declined by more than 10 percentage points between the two sub-periods, from 59.1 per cent in the first sub-period to 47.4 per cent in the second (Figure 3.13).

Developing Asia's share in world exports of goods and services soared by 15 percentage points, from 12.5 per cent in 1990 to 27.5 per cent in 2010. In contrast, the Industrialized Economies' share contracted by 19 percentage points, from 75 per cent in 1990 to 56 per cent in 2010 (Table 3.5, Panel A). In addition, the upward trend for Developing Asia and the downward trend for the Industrialized Economies in their shares of world exports of goods and services were consistent and more notable in the 2000s (Figure 3.14). The gap between the two groups with respect to this measure narrowed rapidly during 1990–2010. However, the Industrialized Economies still commanded a lead of approximately 12 percentage points over all developing economies and a lead of nearly 30 percentage points over Developing Asia in terms of its share of world exports of goods and services in 2010.

Note: Exports of goods and services is measured in current US\$. Source: Author's calculations; data from WDI, ADB.

Economy	1990–2010			1990–2000			2000–2010			Share in World			
	Growth Rate	Contrib. to Growth	Contrib. to Rate	Growth Rate	Contrib. to Growth	Contrib. to Rate	Growth Rate	Contrib. to Growth	Contrib. to Rate	Share in Group	2000	2010	1990
ASEAN-6	22.4	0.1	32.8	0.2	0.1	12.1	0.1	0.04	0.01	0.1	0.01	0.02	0.03
Cambodia	9.0	3.7	8.5	4.0	1.1	9.5	3.3	1.1	5.7	4.5	3.6	0.7	1.0
Indonesia	9.8	4.8	12.3	8.0	2.3	7.2	3.8	1.2	6.4	7.5	4.8	0.8	1.5
Malaysia	8.7	1.5	12.3	3.0	0.8	5.1	0.9	0.3	2.4	2.8	1.4	0.3	0.4
Philippines	10.3	4.7	10.3	5.4	1.5	10.2	4.4	1.4	5.7	5.5	4.7	0.7	1.1
Thailand	17.8	1.7	0.6	1.5	0.5	15.7	1.9	0.6	0.5	1.1	1.7	0.1	0.2
Vietnam	11.5	0.4	12.7	0.5	0.1	10.3	0.4	0.1	0.4	0.4	0.4	0.05	0.1
SAC-4	7.0	0.03	12.1	0.1	0.03	1.8	0.01	0.00	0.1	0.1	0.03	0.01	0.1
Bangladesh	6.7	0.5	4.7	0.4	0.1	8.8	0.4	0.1	1.2	0.7	0.5	0.2	0.1
Pakistan	7.6	0.2	9.7	0.4	0.1	5.5	0.2	0.05	0.4	0.4	0.2	0.1	0.1
Sri Lanka	11.5	0.4	12.7	0.5	0.1	10.3	0.4	0.1	0.4	0.4	0.4	0.05	0.1



Source: Author's calculations; data from WDI, ADB.

Figure 3.14 Share in world exports of goods and services, 1990-2010: Developing Asia versus other parts of the world

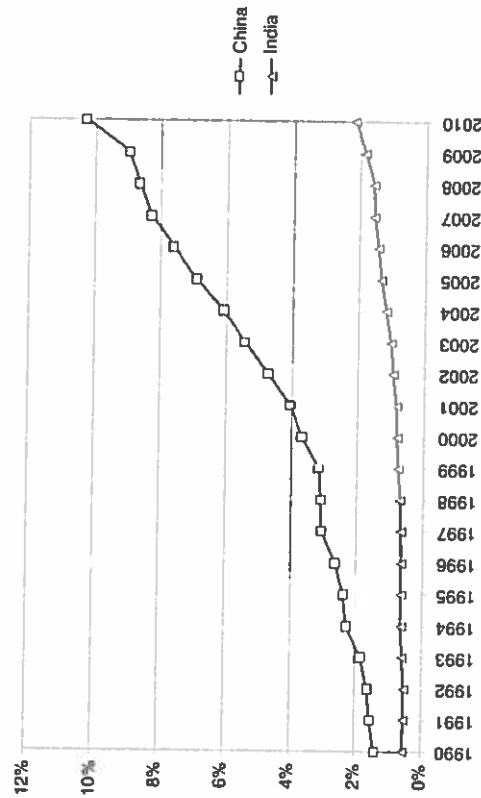
b. Performance of Individual Developing Asia Economies in Terms of Exports of Goods and Services

China-India

Both China and India played important roles in world exports of goods and services. China grew at 17.3 per cent during 1990-2010, contributing 13.6 per cent to the world's growth in this period, while India grew at 14.1 per cent, contributing 2.6 per cent to the world's growth.⁸ Furthermore, the growth of China and India accelerated between the two sub-periods, from 15.8 per cent in 1990-2000 to 18.7 per cent in 2000-2010 for China and from 9.9 to 18.4 per cent for India. As a result, the two countries increased their contributions to the world's growth in exports of goods and services notably between the two sub-periods, from 6.5 per cent in the first sub-period to 15.4 per cent in the second for China and from 1.1 to 3.2 per cent for India.

China's share of world exports of goods and services soared almost 9 percentage points, from 1.4 per cent in 1990 to 10.3 per cent in 2010,

⁸ The contribution of India to the world's growth in exports of goods and services was modest, despite its outstanding growth rate, because of its small share of world exports of goods and services.



Source: Author's calculations; data from WDI, ADB.

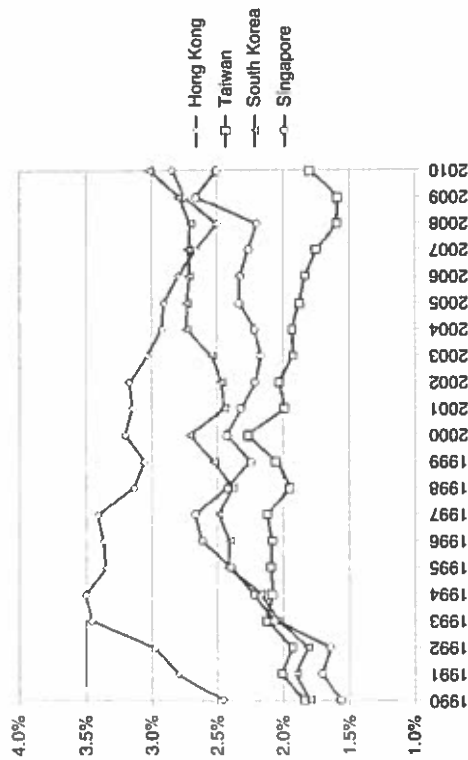
Figure 3.15A Share in world exports of goods and services, 1990-2010: China-India

while India's share increased from 0.6 to 2.2 per cent over the same period (Table 3.5, Panel B). In addition, the upward trend of China's share accelerated during 1999-2010, while India's share followed a stronger increasing trend in the 2000s (Figure 3.15A). The gap between China and India widened noticeably during 1999-2010, and China exceeded India in this respect by more than 8 percentage points in 2010.

Tigers-4

The four Asian Tiger economies did not far outperform the world average for exports of goods and services over 1990-2010. The leading performer was South Korea, which grew at 9.9 per cent over the period, followed by Singapore (9.7 per cent) and Hong Kong (8 per cent), while Taiwan grew at 7.2 per cent, slightly below the world's average growth rate (7.5 per cent). The four Asian Tiger economies, however, with their significant shares of world exports of goods and services, made notable contributions to the world's growth in exports of goods and services over 1990-2010: 2.9 per cent for Hong Kong, 2.6 per cent for Singapore, 3.2 per cent for South Korea, and 1.7 per cent for Taiwan.

The share of world exports of goods and services expanded significantly over 1990-2010 for South Korea (from 1.8 per cent in 1990 to 3 per cent in 2010), Singapore (from 1.6 to 2.5 per cent), and Hong Kong (from 2.5



Source: Author's calculations; data from WDI, ADB.

Figure 3.15B Share in world exports of goods and services, 1990–2010: Tigers-4

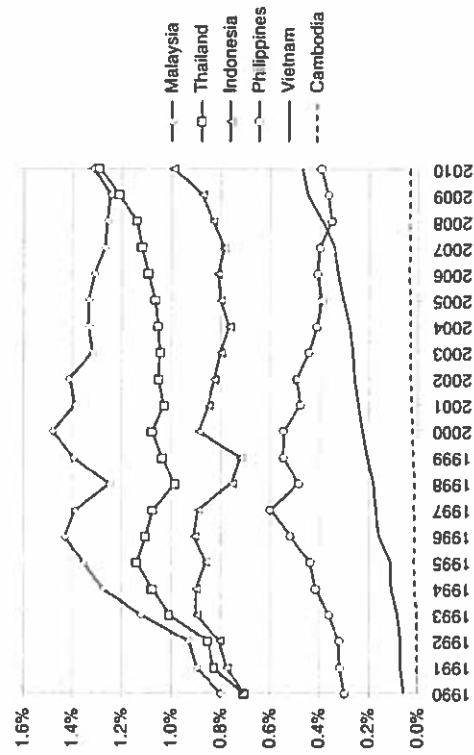
to 2.8 per cent), while it stayed nearly unchanged for Taiwan at approximately 1.8 per cent (Table 3.5, Panel B). The shares of the four Asian Tiger economies followed rather similar trends in the 1990s but different trends in the 2000s. In the 1990s, the shares of the four economies rapidly expanded before the eruption of the Asian financial crisis in 1997, plummeted during the crisis and recovered in 2000 (Figure 3.15B). During the 2000s, the share of world exports of goods and services followed a clear upward trend for South Korea but fell into consistent declining trends for Taiwan and Hong Kong and fluctuated for Singapore. It is important to note that the shares of world exports of goods and services of the four economies, with the exception of South Korea, were smaller in 2010 than at their peaks before the eruption of the Asian financial crisis. This pattern tends to suggest that the Asian financial crisis, the rise of China, and globalization with vibrant foreign direct investment flows between Asian economies were important factors that reduced the relative importance of the four Asian Tiger economies in world exports in recent decades.

ASEAN-6

The ASEAN-6 economies all outperformed the world average in the growth of exports of goods and services over 1990–2010. Cambodia and Vietnam were the leading performers, growing over the period at

22.4 per cent and 17.8 per cent, respectively. The growth rate was more modest at 10.3 per cent for Thailand, 9.8 per cent for Malaysia, 9 per cent for Indonesia, and 8.7 per cent for the Philippines, all of which were still higher than the world average rate of 7.5 per cent (Table 3.5, Panel B). However, the growth rates of these economies, with the exception of Indonesia, slowed down between the two sub-periods, from 32.8 per cent in 1990–2000 to 12.1 per cent in 2000–2010 for Cambodia, from 12.3 to 7.2 per cent for Malaysia, from 12.3 to 5.1 per cent for the Philippines, from 10.3 to 10.2 per cent for Thailand, and from 20 to 15.7 per cent for Vietnam. The acceleration of Indonesia's growth from 8.5 per cent in the first sub-period to 9.5 per cent in the second tends to indicate a resurgence of this economy in the late 2000s. Indonesia, Thailand, and Malaysia were the three economies of this subgroup that contributed more than 1 per cent to the world's growth in exports of goods and services over 1990–2010.

The shares of the ASEAN-6 economies of world exports of goods and services expanded significantly over 1990–2010 (Table 3.5, Panel B). However, their expansion trends followed different patterns, as shown in Figure 3.15C. While Vietnam and Cambodia followed consistently strong expansion trends throughout 1990–2010, Indonesia, Malaysia, Thailand, and the Philippines appeared to be severely affected by the Asian financial



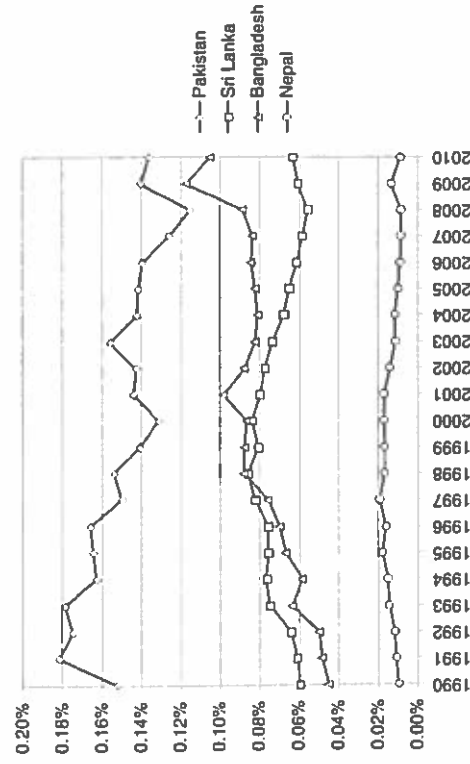
Source: Author's calculations; data from WDI, ADB.

Figure 3.15C Share in world exports of goods and services, 1990–2010: ASEAN-6

crisis. The rapid expansion of the economies' shares of world exports of goods and services in the early 1990s was interrupted during the crisis, especially in 1998. Indonesia and Thailand, however, exhibited a notable expansion trend in the late 2000s, while Malaysia and the Philippines followed a declining trend in the 2000s, after a short recovery in 1998–2000. It is worth noting that Thailand and Malaysia were the only two economies of this subgroup that contributed more than 1 per cent to world exports of goods and services in 2010.

SAC-4

Among the four SAC-4 economies, only Bangladesh outperformed the world average in exports of goods and services, growing at 11.5 per cent over 1990–2010, 12.7 per cent in 1990–2000, and 10.3 per cent in 2000–2010; the world averages for these three periods were 7.5 per cent, 6.2 per cent, and 8.5 per cent, respectively (Table 3.5, Panel B). Sri Lanka, which grew at 7.6 per cent over 1990–2010, was on par with the world average, while Nepal and Pakistan were below the world average by this measure. Because the shares of the SAC-4 economies in world exports of goods and services were small, their contributions to the world's growth over 1990–2010 by this measure were marginal and comparable to that of Cambodia in the ASEAN-6.



Source: Author's calculations; data from WDI, ADB.

Figure 3.15D Share in world exports of goods and services, 1990–2010: SAC-4

The share of world exports of goods and services followed a consistent increasing trend over 1990–2010 only for Bangladesh; it followed a consistent declining trend over 1990–2010 for Pakistan and shifted from an increasing trend in the 1990s to a decreasing trend in the 2000s for Nepal and Sri Lanka (Figure 3.15D). Notably, Bangladesh surpassed Sri Lanka in terms of its share of world exports of goods and services in 2000.

3.6.2 Imports of Goods and Services

Statistics on the performance of Developing Asia and its individual economies in world imports of goods and services during 1990–2010 and two sub-periods, 1990–2000 and 2000–2010, are reported in Table 3.6. Panel A of the table is for the group level and Panel B for individual Developing Asia economies.

a. Performance of Developing Asia as a Group in Terms of Imports of Goods and Services

The imports of goods and services of Developing Asia grew, on average, at 11.1 per cent over 1990–2010, well above the world average of 7.3 per cent. The growth rate was 5.8 per cent for the Industrialized Economies, lower than the world average, and it was 8.7 per cent for the ROW (Table 3.6, Panel A).

Developing Asia contributed 30.2 per cent to the world's growth in imports of goods and services during 1990–2010, experiencing a notable increase between the two sub-periods, from 25.3 per cent in 1990–2000 to 32.1 per cent in 2000–2010 (Figure 3.16). The Industrialized Economies were the main driver of the world's growth in imports, with a contribution of 52.7 per cent for 1990–2010. However, the contribution of the group declined markedly between the two sub-periods, from 62.1 per cent in 1990–2000 to 48.7 per cent in 2000–2010.

Developing Asia's share of world imports of goods and services expanded by almost 14 percentage points, from 12.1 per cent in 1990 to 25.9 per cent in 2010. In contrast, the Industrialized Economies' share shrank by 18 percentage points, from 75.9 per cent in 1990 to 57.7 per cent in 2010 (Table 3.6, Panel A). In addition, the expansion trend for Developing Asia and the contraction trend for the Industrialized Economies in terms of their shares of world imports of goods and services were consistent throughout 1990–2010 (Figure 3.17). Furthermore, these trends were more pronounced in the 2000s than in the 1990s, which implies that the performance of Developing Asia by this measure accelerated in

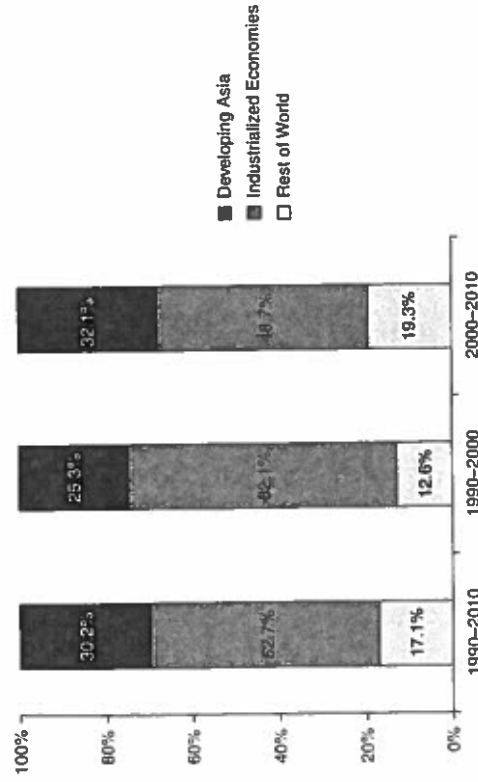
Table 3.6 The rise of Developing Asia in the world economy, 1990-2010: imports of goods and services

(A) Groups in the World									
Group	Growth and Contribution					Share in World			
	1990-2010		1990-2000		2000-2010	2000-2010		2000-2010	
	Growth	Conb.	Growth	Conb.		Growth	Conb.	Growth	Conb.
World (110 Economies)	7.3	100.0	6.1	100.0	8.3	100.0	100.0	100.0	100.0
Developing Asia	11.1	30.2	10.2	25.3	11.8	32.1	100.0	100.0	100.0
Industrialized Economies	5.8	52.7	5.2	62.1	6.3	48.7	75.9	69.5	57.7
Rest of World (ROW)	8.7	17.1	6.3	12.6	11.0	19.3	12.0	12.4	16.4
(B) Developing Asia									
Economy	1990-2010		1990-2000		2000-2010	2000-2010		2000-2010	
	Growth	Conb. to	Growth	Conb. to		Growth	Conb. to	Growth	Conb. to
	Rate	Growth	Rate	Growth		Rate	Growth	Rate	Growth
Developing Asia	11.1	100.0	30.2	100.0	10.2	25.3	11.8	100.0	100.0
China-India	17.6	35.2	12.3	16.8	22.5	6.0	18.4	41.5	13.8
China	14.1	9.8	3.1	8.8	4.3	1.1	19.4	12.1	4.1
India	14.1	9.8	3.1	8.8	4.3	1.1	19.4	12.1	4.1
China-India	17.6	35.2	12.3	16.8	22.5	6.0	18.4	41.5	13.8
China	14.1	9.8	3.1	8.8	4.3	1.1	19.4	12.1	4.1
India	14.1	9.8	3.1	8.8	4.3	1.1	19.4	12.1	4.1

Tigers-4	8.2	10.9	2.8	9.2	16.1	4.0	7.3	8.6	2.6	18.7	17.0	10.8	2.3	3.1	2.8
Hong Kong	9.2	8.5	2.3	10.5	12.5	3.2	7.9	7.0	2.1	12.0	12.4	8.5	1.5	2.2	2.2
South Korea	9.4	11.2	3.0	9.1	12.9	3.2	9.7	10.3	3.2	15.2	13.7	11.2	1.8	2.5	2.9
Taiwan	7.2	6.4	1.6	8.9	11.1	2.7	5.5	4.2	1.3	13.6	11.9	6.3	1.6	2.2	1.6
ASEAN-6	19.2	0.2	0.1	27.6	0.3	0.1	10.9	0.1	0.04	0.03	0.2	0.1	0.00	0.03	0.04
Cambodia	8.9	3.6	1.0	6.2	2.7	0.7	11.7	3.6	1.1	5.4	3.6	3.6	0.7	0.7	0.9
Indonesia	8.9	4.2	1.1	10.8	7.0	1.8	6.9	3.2	1.0	6.3	6.8	4.2	0.8	1.2	1.1
Malaysia	8.0	1.6	0.4	10.8	3.2	0.8	5.2	1.1	0.3	2.9	3.1	1.6	0.4	0.6	0.4
Philippines	8.7	4.5	1.2	7.0	4.2	1.0	10.5	4.3	1.3	7.1	5.1	4.5	0.9	0.9	1.2
Vietnam	17.3	2.1	0.7	18.1	1.7	0.4	16.5	2.4	0.8	0.6	1.3	2.1	0.1	0.2	0.5
SAC-4	9.1	0.6	0.2	8.0	0.6	0.1	10.2	0.5	0.2	0.8	0.7	0.6	0.1	0.1	0.1
Bangladesh	10.0	0.1	0.04	8.2	0.1	0.03	11.8	0.1	0.04	0.2	0.1	0.1	0.02	0.02	0.03
Nepal	6.5	0.8	0.2	1.5	0.2	0.04	11.5	0.8	0.2	1.9	0.8	0.8	0.2	0.1	0.2
Pakistan	8.0	0.3	0.1	9.7	0.6	0.1	6.3	0.2	0.1	0.6	0.6	0.3	0.1	0.1	0.1
Sri Lanka	8.0	0.3	0.1	9.7	0.6	0.1	6.3	0.2	0.1	0.6	0.6	0.3	0.1	0.1	0.1

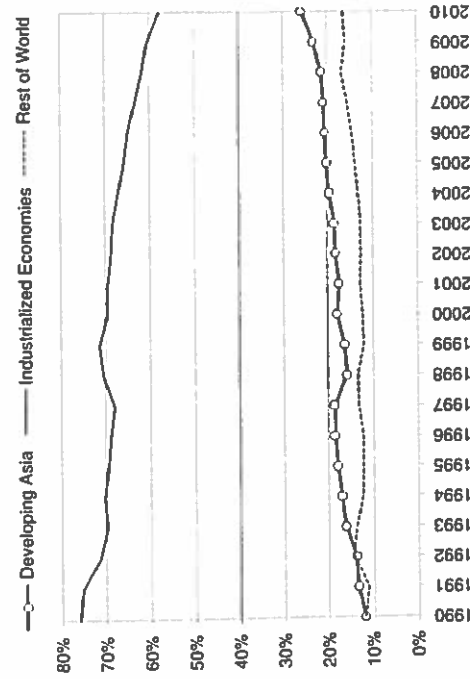
Note: Imports of goods and services is measured in current US\$.

Source: Author's calculations; data from WDI, ADB.



Source: Author's calculations; data from WDI, ADB.

Figure 3.16 Contribution to the world's imports of goods and services growth: Developing Asia versus other parts of the world



Source: Author's calculations; data from WDI, ADB.

Figure 3.17 Share in world imports of goods and services, 1990-2010: Developing Asia versus other parts of the world

the first decade of the twenty-first century. It is worth noting, however, that the Industrialized Economies still commanded a lead of more than 30 percentage points over Developing Asia in terms of their share of world imports of goods and services in 2010.

b. Performance of Individual Developing Asia Economies in Terms of Imports of Goods and Services

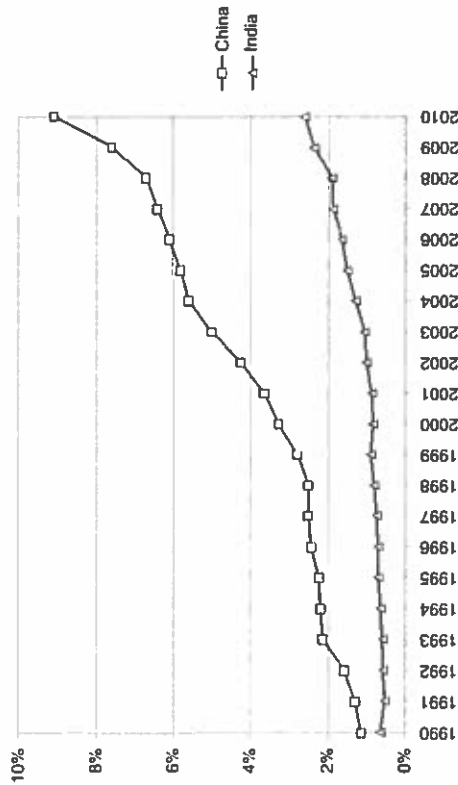
China-India

Both China and India played important roles in the growth of the world's imports of goods and services. China grew at 17.6 per cent during 1990-2010, contributing 12.3 per cent to the world's growth in imports of goods and services during this period, while India grew at 14.1 per cent, contributing 3.1 per cent to the world's growth. In addition, the growth of both China and India accelerated between the two sub-periods, from 16.8 per cent in 1990-2000 to 18.4 per cent in 2000-2010 for China and from 8.8 to 19.4 per cent for India. As a result, the two countries expanded their contributions to the world's growth in imports of goods and services sizably between the two sub-periods, from 6 per cent in the first sub-period to 13.8 per cent in the second for China and from 1.1 to 4.1 per cent for India.

Both China and India notably expanded their shares of world imports of goods and services over 1990-2010. This share expanded by 8 percentage points, from 1.1 per cent in 1990 to 9.1 per cent in 2010, for China, and by 1.9 percentage points, from 0.7 to 2.6 per cent, for India (Table 3.6, Panel B). In addition, the expansion trends of the two countries exhibited significant acceleration during 1998-2004 and 2008-2010 for China, and 2003-2007 and 2008-2010 for India (Figure 3.18A). China appeared to expand much faster than India in terms of its share of world imports of goods and services. China's lead over India widened from less than 1 percentage point in 1990 to more than 6 percentage points in 2010.

Tigers-4

The four Asian Tiger economies, with the exception of Taiwan, grew faster than the world average in imports of goods and services over 1990-2010, but not to an impressive degree. South Korea was the leading performer, growing at 9.4 per cent, followed by Singapore (9.2 per cent) and Hong Kong (8.2 per cent), while Taiwan grew at 7.2 per cent, slightly below the 7.3 per cent world average. However, due to their significant shares of world imports of goods and services, all four Asian Tiger economies made notable contributions to the world's growth in imports

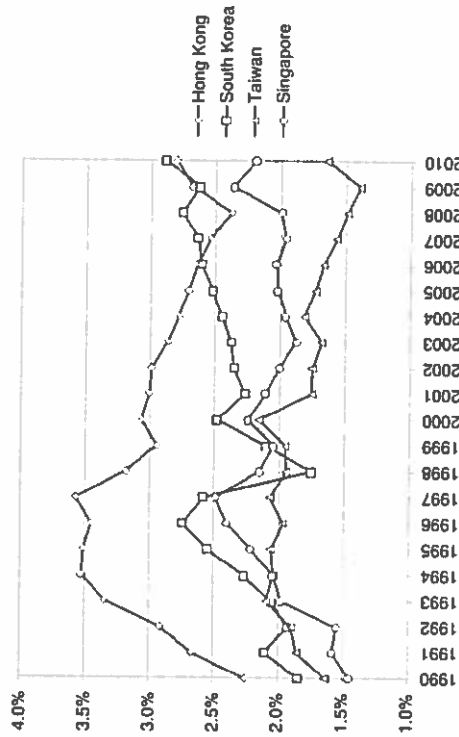


Source: Author's calculations; data from WDI, ADB.

Figure 3.18A Share in world imports of goods and services, 1990–2010:
China–India

of goods and services over 1990–2010: 2.8 per cent for Hong Kong, 2.3 per cent for Singapore, 3 per cent for South Korea, and 1.6 per cent for Taiwan.

The four economies' shares of world imports of goods and services exceeded 1 per cent throughout 1990–2010. This share expanded significantly over 1990–2010 for Hong Kong (from 2.3 per cent in 1990 to 2.8 per cent in 2010), Singapore (from 1.5 to 2.2 per cent), and South Korea (from 1.8 to 2.9 per cent) but was nearly unchanged for Taiwan, at approximately 1.6 per cent (Table 3.6, Panel B). The shares of the four Asian Tiger economies followed rather similar trends during the 1990s but different trends in the 2000s. In the 1990s, the shares of the four economies rapidly expanded before the eruption of the Asian financial crisis in 1997, then plunged during the crisis and recovered in 2000 (Figure 3.18B). During 2000–2010, however, the shares of South Korea and Singapore exhibited upward trends, more solidly and consistently so for South Korea, while the shares of Hong Kong and Taiwan followed declining trends during this sub-period. It is important to note that the four Asian Tiger economies, with the exception of South Korea, had smaller shares of world imports of goods and services in 2010 than at their peaks before the eruption of the Asian financial crisis.



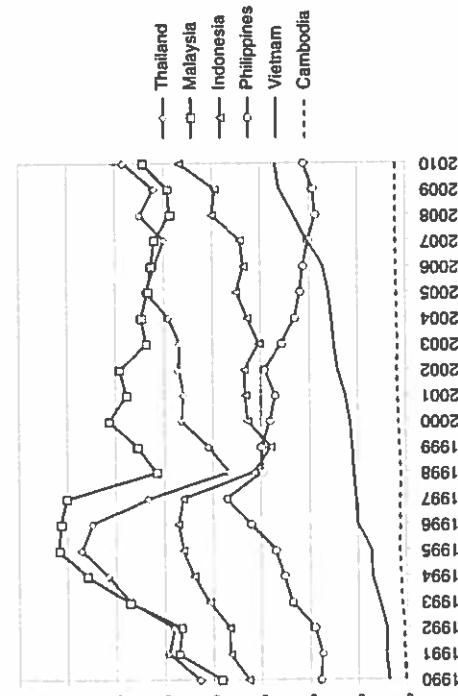
Source: Author's calculations; data from WDI, ADB.

Figure 3.18B Share in world imports of goods and services, 1990–2010:
Tigers–4

ASEAN-6

Among the ASEAN-6 economies, Cambodia and Vietnam far outperformed the world average in growth in imports of goods and services over 1990–2010, growing at 19.2 per cent and 17.3 per cent, respectively, compared to 7.3 per cent for the world average (Table 3.6, Panel B). Other ASEAN-6 economies grew at approximately 8–9 per cent over the same period, only slightly above the world average. The growth, however, slowed down between the two sub-periods for most economies, from 27.6 per cent in 1990–2000 to 10.9 per cent in 2000–2010 for Cambodia, from 10.8 to 6.9 per cent for Malaysia, from 10.8 to 5.2 per cent for the Philippines, and from 18.1 to 16.5 per cent for Vietnam; while it picked up only for Indonesia (from 6.2 to 11.7 per cent) and Thailand (from 7 to 10.5 per cent). Indonesia, Thailand, and Malaysia were the three economies of this subgroup that contributed 1 per cent or more to the world's growth in imports of goods and services over 1990–2010.

The shares of the ASEAN-6 economies in world imports of goods and services expanded significantly over 1990–2010 but followed notably different patterns (Figure 3.18C). The shares of Vietnam and Cambodia followed solid expansion trends throughout 1990–2010. In contrast, the shares of Indonesia, Malaysia, Thailand, and the Philippines suffered sharp contractions during the Asian financial crisis of 1997–1998, after a



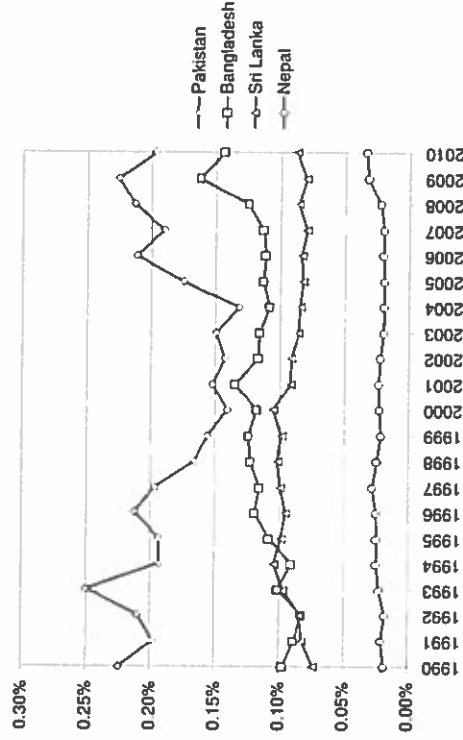
Source: Author's calculations; data from WDI, ADB.

Figure 3.18C Share in world imports of goods and services, 1990–2010: ASEAN-6

rapid expansion in the early 1990s. In the 2000s, the shares of Indonesia and Thailand exhibited strong expanding trends after recovery from the Asian financial crisis, while the shares of Malaysia and the Philippines exhibited a clear declining trend. It is worth noting that the shares of Thailand, Malaysia, and the Philippines were lower in 2010 than at their peaks before the eruption of the Asian financial crisis. Furthermore, Vietnam's share of world imports of goods and services has exceeded that of the Philippines since 2007 and Thailand's share has exceeded that of Malaysia since 2008. Thailand and Malaysia were the only two ASEAN-6 economies that contributed more than 1 per cent to the world's growth in imports of goods and services over 1990–2010.

SAC-4

The SAC-4 economies, with the exception of Pakistan, grew faster than the world average in imports of goods and services over 1990–2010: 9.1 per cent for Bangladesh, 10 per cent for Nepal, and 8 per cent for Sri Lanka, compared to 7.3 per cent for the world average; while this rate was 6.5 per cent for Pakistan (Table 3.6, Panel B). In addition, the SAC-4 economies, with the exception of Sri Lanka, accelerated their growth between the two sub-periods, from 8 per cent in 1990–2000 to 10.2 per cent in 2000–2010 for Bangladesh, from 8.2 to 11.8 per cent for Nepal,



Source: Author's calculations; data from WDI, ADB.

Figure 3.18D Share in world imports of goods and services, 1990–2010: SAC-4

and from 1.5 to 11.5 per cent for Pakistan. This rate, however, declined from 9.7 to 6.3 per cent between the two sub-periods for Sri Lanka.

The shares of world imports of goods and services followed different patterns for the SAC-4 economies over 1990–2010. The trend for Bangladesh was rather consistently upward, while the trend for Pakistan exhibited a sharp decline during 1990–2004 and turned upward during 2004–2010 (Figure 3.18D). The trend for Sri Lanka shifted from expansion during 1990–2000 to contraction during 2000–2010, while the trend for Nepal changed little during 1990–2010, with a small increase in 2008–2010.

3.7 THE RISE OF DEVELOPING ASIA AND GLOBALIZATION: SELECTED INDICATORS

This section describes the rise of Developing Asia in association with globalization by examining its performance with respect to selected indicators of global integration. Due to limited space, this section focuses on exports of ICT hardware, manufactures and commercial services, and foreign direct investment (FDI) stock, which have been among the key drivers of globalization.

The data is from the World Trade Organization (WTO) database for international trade, and from the United Nations Conference on Trade and Development (UNCTAD) database for FDI stock.⁹

3.7.1 Exports of ICT Hardware¹⁰

ICT hardware is one of the major product categories driving the rapid acceleration of globalization. The ICT hardware includes the manufacture products in three categories of the Standard International Trade Classification (SITC) classified by the United Nations:

- Electronic data processing and office equipment (SITC division 75),
- Telecommunications and sound recording and reproducing apparatus and equipment (SITC division 76), and
- Integrated circuits and electronic components (SITC group 776).

Performance of Developing Asia on exports of ICT hardware

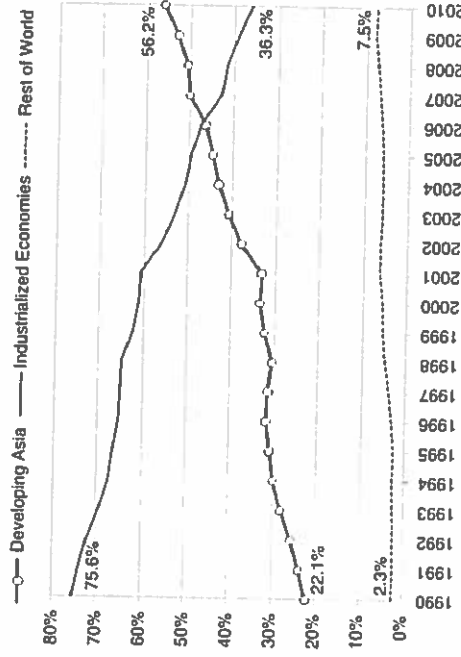
Developing Asia's share of world ICT hardware exports soared by 34 percentage points, from 22.1 per cent in 1990 to 56.2 per cent in 2010 (Figure 3.19). In contrast, the Industrialized Economies' share contracted by almost 40 percentage points, from 75.6 per cent in 1990 to 36.3 per cent in 2010. It should be noted that the increasing trend for Developing Asia and the decreasing trend for the Industrialized Economies with respect to this measure became steeper beginning in 2001 when the progress of the ICT revolution and the penetration of ICT across countries began to accelerate notably. At the same time, the share of the ROW in world ICT hardware exports expanded significantly, from 2.3 per cent in 1990 to 7.5 per cent in 2010.

Performance of China and India in terms of exports of ICT hardware

China recorded a remarkable expansion in its share of world ICT hardware exports, which increased by almost 30 percentage points over 1990–2010, from 1.1 per cent in 1990 to 30.2 per cent in 2010 (Figure 3.20). India, on the other hand, performed unimpressively with respect to this indicator. India's share of world ICT hardware exports was notably below 1 per cent throughout 1990–2010, with some insignificant periods of pickup.

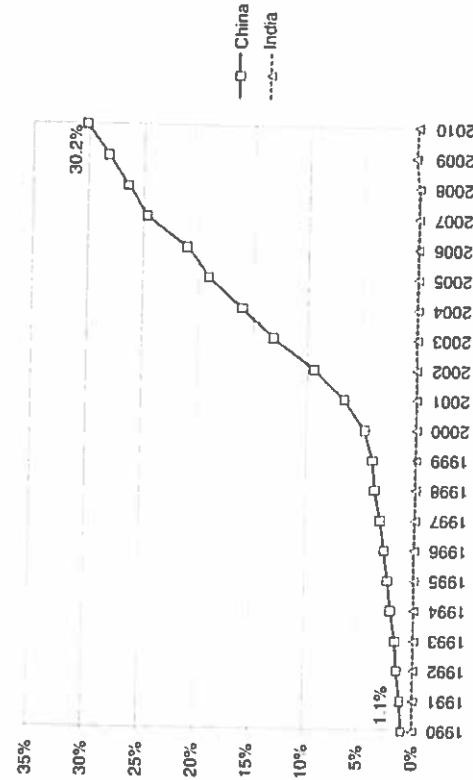
⁹ The WTO database can be retrieved from the WTO website (<http://www.wto.org/>). The UNCTAD database is available at the UNCTAD statistics website (<http://unctad.org/en/Pages/Statistics.aspx>). The data on trade and FDI stock are measured in current US dollars.

¹⁰ Table A3.1 (Appendix 3.1) provides the key performance statistics of Developing Asia and its individual economies on exports of ICT hardware during 1990–2010.



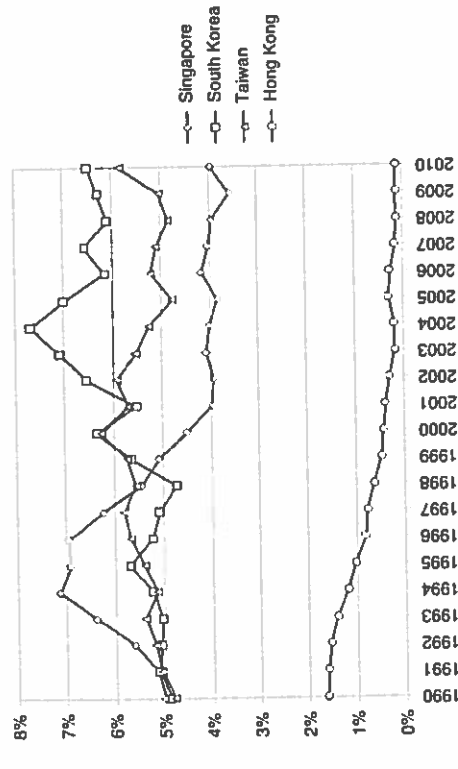
Source: Author's calculations; data from WTO.

Figure 3.19 Share in world exports of ICT hardware, 1990–2010: Developing Asia versus other parts of the world



Source: Author's calculations; data from WTO.

Figure 3.20 Share in world exports of ICT hardware, 1990–2010: China–India



Source: Author's calculations; data from WTO.

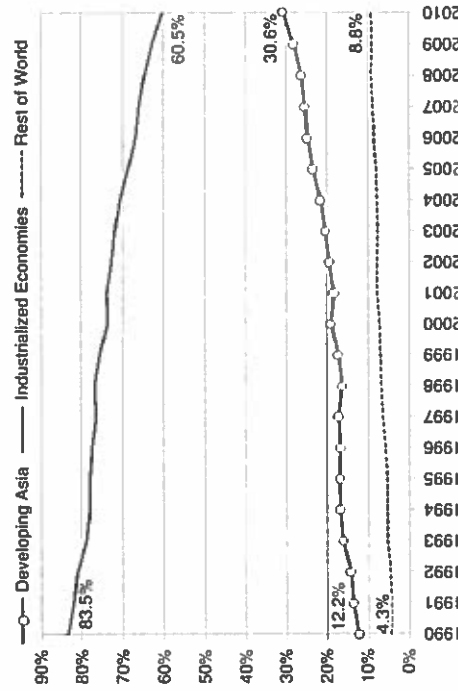
Figure 3.21 Share in world exports of ICT hardware, 1990–2010: Tigers-4

It should be noted that while China surged dramatically in terms of its share of world ICT hardware exports, the other key Asian players in this industry, with the exception of South Korea, experienced notable decreasing trends with respect to this measure, especially from 2000 on (Figure 3.21). This means that the performance of Developing Asia in exports of ICT hardware was mostly driven by China.

3.7.2 Exports of Manufactures¹¹

Performance of Developing Asia in terms of exports of manufactures
Developing Asia's share of world exports of manufactures soared by almost 20 percentage points, from 12.2 per cent in 1990 to 30.6 per cent in 2010 (Figure 3.22). In contrast, the Industrialized Economies' share contracted by almost 23 percentage points, from 83.5 per cent in 1990 to 60.5 per cent in 2010. It is worth noting that the upward trend for Developing Asia and the downward trend for the Industrialized Economies with respect to this measure both became steeper after 2001.

¹¹ Table A3.2 (Appendix 3.1) provides the key performance statistics for Developing Asia and its individual economies in exports of manufactures during 1990–2010.



Source: Author's calculations; data from WTO.

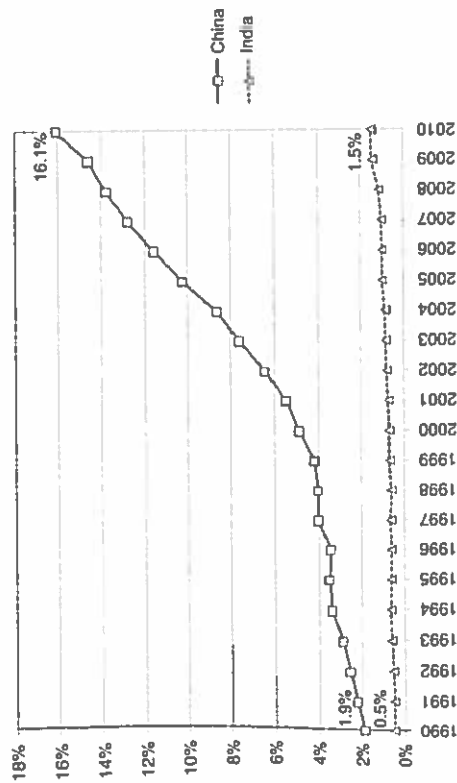
Figure 3.22 Share in world exports of manufactures, 1990–2010: Developing Asia versus other parts of the world

Performance of China and India in terms of exports of manufactures
China's share of world manufacture exports followed a steep upward trend, increasing from 1.9 per cent in 1990 to 16.1 per cent in 2010, while India's share increased modestly, from 0.5 in 1990 to 1.5 per cent in 2010 (Figure 3.23). The acceleration of the growth of China's share of world manufacture exports was prominent during 1999–2010. The faster pace of expansion of China than of India with respect to this measure widened the gap between the two countries substantially over 1990–2010, from 1.4 percentage points in 1990 to more than 14 percentage points in 2010.

3.7.3 Exports of Commercial Services¹²

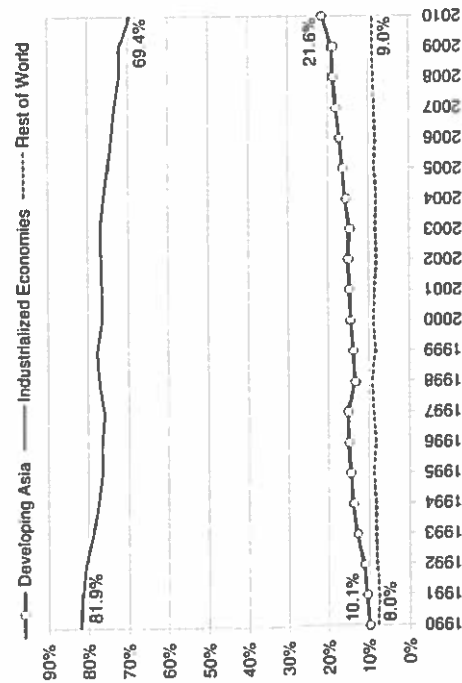
Performance of Developing Asia in terms of exports of commercial services
Developing Asia's share of world commercial services expanded by more than 11 percentage points, from 10.1 per cent in 1990 to 21.6 per cent in 2010 (Figure 3.24). In contrast, the Industrialized Economies' share contracted by more than 12 percentage points, from 81.9 per cent

¹² Table A3.3 (Appendix 3.1) provides the key performance statistics for Developing Asia and its individual economies in exports of commercial services during 1990–2010.



Source: Author's calculations; data from WTO.

Figure 3.23 Share in world exports of manufactures, 1990–2010:
China–India

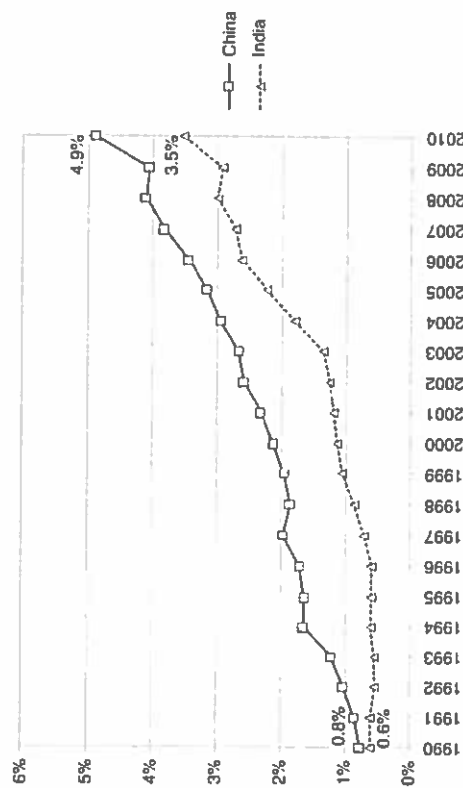


Source: Author's calculations; data from WTO.

Figure 3.24 Share in world exports of commercial services, 1990–2010:
Developing Asia versus other parts of the world

in 1990 to 69.4 per cent in 2010. At the same time, the ROW increased its share by 1 percentage point, from 8 per cent to 9 per cent over the same period.

Performance of China and India in terms of exports of commercial services
Both China and India rapidly increased their shares of world exports of commercial services over 1990–2010. China's share rose by approximately 4 percentage points, from 0.8 per cent in 1990 to 4.9 per cent in 2010, while India's share rose by almost 3 percentage points, from 0.6 to 3.5 per cent over the same period (Figure 3.25). It is worth noting that India performed comparably to China with respect to this measure. The strong performance of India in exports of commercial services during 1990–2010 was associated with the country's outstanding growth in exports of computer software and computer services over the period.¹³



Source: Author's calculations; data from WTO.

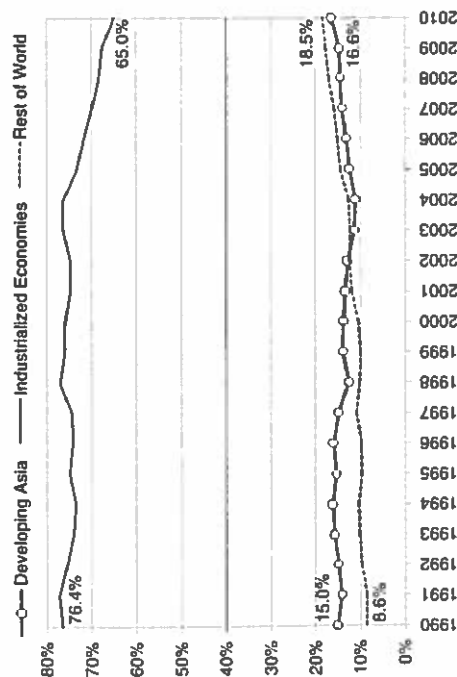
Figure 3.25 Share in world exports of commercial services, 1990–2010:
China–India

¹³ India's software and computer services have recorded phenomenal growth, at a rate exceeding 30 per cent per year, since the late 1980s, with a strong focus on exports. The industry's export revenues rose from about US\$50 million in 1988 to a projected figure of US\$60 billion in 2008, or more than a quarter of India's total exports (Madhani, 2008).

3.7.4 FDI Stock¹⁴

Performance of Developing Asia in terms of accumulation of FDI stock
Developing Asia did not exhibit outstanding expansion in its share of world FDI stock. The region's share increased by only 1.6 percentage points over 1990–2010, from 15.0 per cent in 1990 to 16.6 per cent in 2010 (Figure 3.26), while the ROW's share increased by 10 percentage points, from 8.6 to 18.5 per cent, over the same period. In fact, the ROW has surpassed Developing Asia in terms of its world share of FDI stock since 2003. On the other hand, the share of the Industrialized Economies contracted by more than 11 percentage points, from 76.4 per cent in 1990 to 65 per cent in 2010 (Figure 3.26).

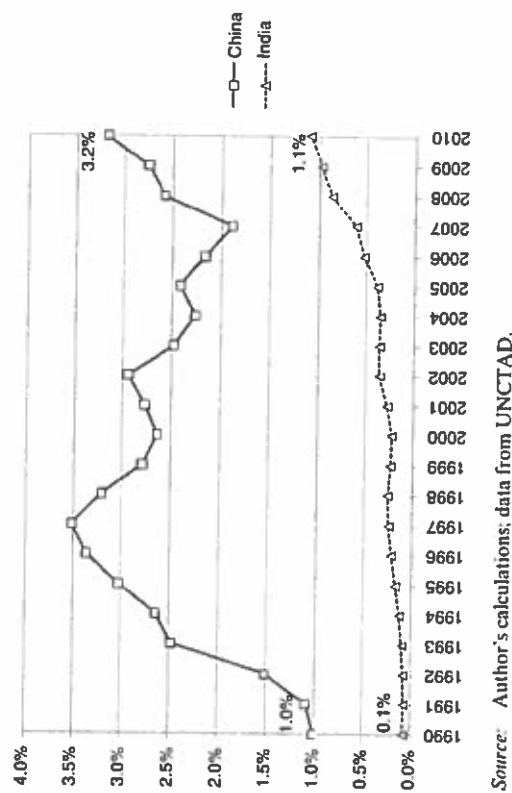
The modest expansion of Developing Asia in its share of world FDI stock was due not to its slow growth but rather to the rapid growth of other parts of the world with respect to this indicator. In fact, Developing Asia grew at 12.1 per cent over 1990–2010 in terms of its share of world FDI stock, while this growth rate was 10.7 per cent for the Industrialized Economies and 15.9 per cent for the ROW (Table A3.4, Appendix 3.1).



Source: Author's calculations; data from UNCTAD.

Figure 3.26 Share in world FDI stock, 1990–2010: Developing Asia versus other parts of the world

¹⁴ Table A3.4 (Appendix 3.1) provides key performance statistics for Developing Asia and its individual economies in terms of FDI stock during 1990–2010.



Source: Author's calculations; data from UNCTAD.

Figure 3.27 Share in world FDI stock, 1990–2010: China–India

Performance of China and India in terms of accumulation of FDI stock

Both China and India expanded their shares of world FDI stock over 1990–2010. For China, however, this expansion did not follow a solid trend. It surged during 1990–1997 but then declined during 1997–2007 before rebounding during 2008–2010. As a result, China's share of world FDI stock expanded by just a little more than 2 percentage points over 1990–2010, which was very modest compared to its world share expansions by other measures (Figure 3.27). On the other hand, India experienced a solid upward trend in its share of world FDI stock over 1990–2010, increasing by 1 percentage point from 0.1 per cent in 1990 to 1.1 per cent in 2010.

3.8 INSIGHTS FROM THE COMBINED RESULTS

This chapter examines the rise of Developing Asia during the 1990–2010 period. This examination focuses on key national account items, including GDP, private consumption, government consumption, fixed investment, and exports and imports of goods and services. In addition, this exercise also examines the performance of Developing Asia in terms of indicators of globalization over the past two decades. These indicators include exports of manufactures, ICT hardware, and commercial services and accumulation of FDI capital stock.

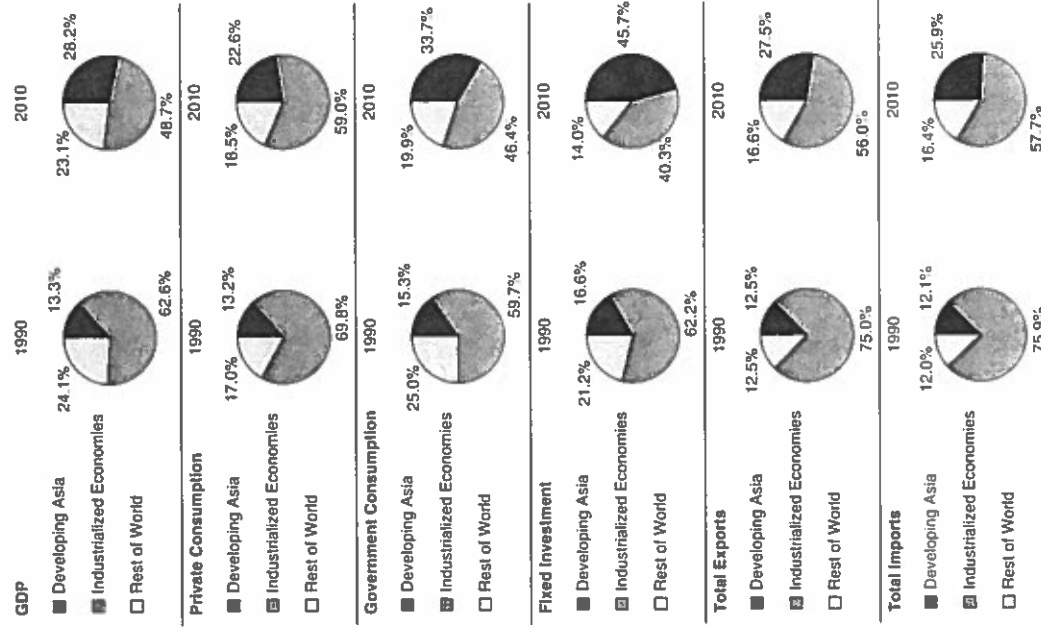
Combining the results presented in the previous sections reveals important insights. First, Developing Asia substantially expanded its share of the world economy with respect to GDP and its related indicators (Figure 3.28). In 1990, the shares of Developing Asia with respect to these indicators were modest, with a narrow variation between 12.1 per cent for imports and 16.6 per cent for fixed investment. In 2010, these shares increased and varied more widely, from 22.6 per cent for private consumption to 45.7 per cent for fixed investment.

Second, among the key national accounts, Developing Asia's world share expanded fastest in fixed investment (29.1 percentage points) and slowest in private consumption (9.3 percentage points), as shown in Figure 3.29. Over the same period, the region's share of world exports expanded on a par with its GDP (15 versus 14.9 percentage points) but faster than its share of world imports (13.8 versus 14.9 percentage points). This expansion of Developing Asia in the world economy was outstanding, but does suggest that the region needs to make some adjustments to sustain its high growth in the decade to come. One such adjustment is to reduce the large disparity in the pace of growth between fixed investment and private consumption. Another adjustment is to facilitate the growth of imports to narrow the trade imbalance between the region and other parts of the world.

Figure 3.29 also indicates that the decline of the industrialized group during 1990–2010 was most severe for fixed investments. The group's share of world fixed investments decreased by 21.9 percentage points, which was much larger than the decrease in its share of world GDP (13.9 percentage points).

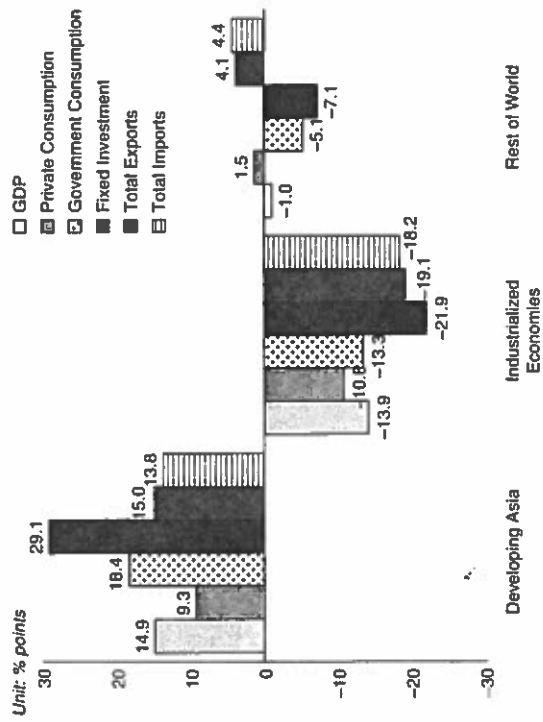
Third, China and India far outperformed the world average with respect to all the national account items examined (Figure 3.30, upper panel). This outperformance was most pronounced in fixed investment and international trade (Figure 3.30, lower panel), which means capital accumulation and openness played important roles in driving outstanding growth in the two countries.

Fourth, embracing the globalization trend, Developing Asia rapidly expanded its world share in international trade in key product categories, especially in ICT hardware exports, increasing from 22.1 per cent in 1990 to 56.2 per cent in 2010, followed by exports of manufactures, from 12.2 to 30.6 per cent, and exports of commercial services, from 10.1 to 21.6 per cent (Figure 3.31). However, the expansion of the region in world FDI stock was unimpressive, from 15 per cent in 1990 to 16.6 per cent in 2010 (Figure 3.31). The reason for this modest expansion in Developing Asia was the rapid growth in other parts of the world with respect to this indicator, fuelled by the acceleration of globalization during the past two



Source: Author's calculations.

Figure 3.28 Developing Asia's shares in world on key national account items: 1990 versus 2010



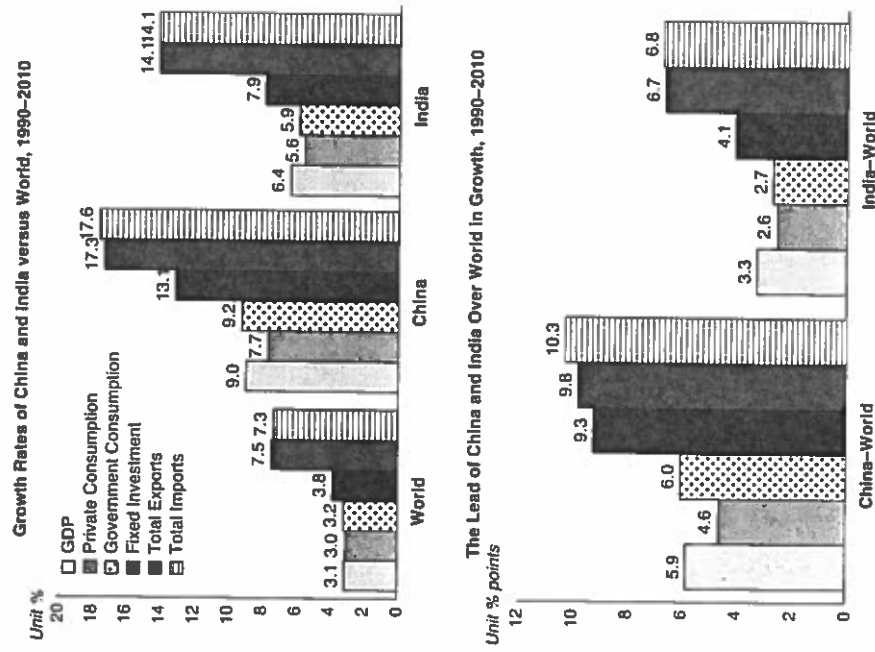
Source: Author's calculations.

Figure 3.29 Change in world share by group, 1990–2010

decades. As Figure 3.32 shows, FDI stock growth in 1990–2010 was rather comparable between Developing Asia (12.1 per cent) and the world aggregate (11.6 per cent).

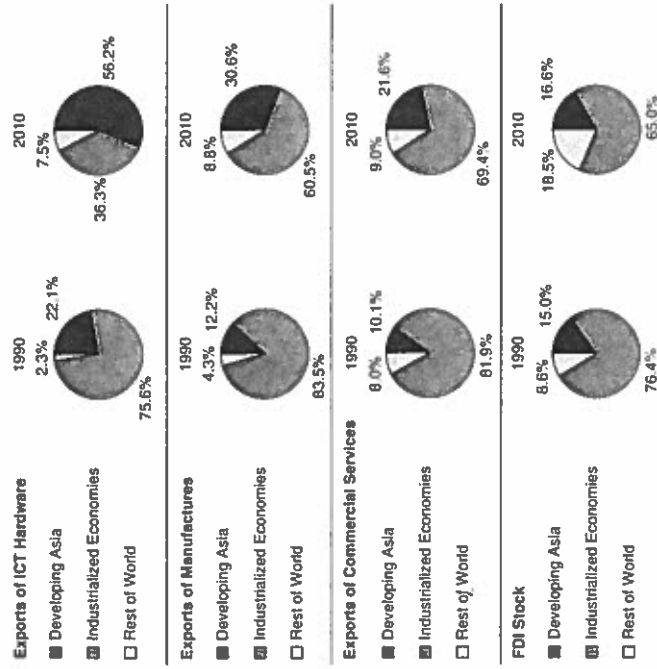
Fifth, China and India, the two leading performers in Developing Asia in growth during 1990–2010, outperformed the region average in growth with respect to all four of the globalization indicators examined: exports of ICT hardware, exports of manufactures, exports of commercial services, and FDI stock. This superior growth is particularly pronounced for exports of ICT hardware for China and FDI stock for India (Figure 3.32).

However, the change in India's world share for each of the four indicators examined was modest because each started from a low base in 1990 (Figure 3.33). This insight suggests that India still has ample room to promote growth by embracing globalization in the decades to come. The same is true of China with respect to exports of commercial services and FDI stock.



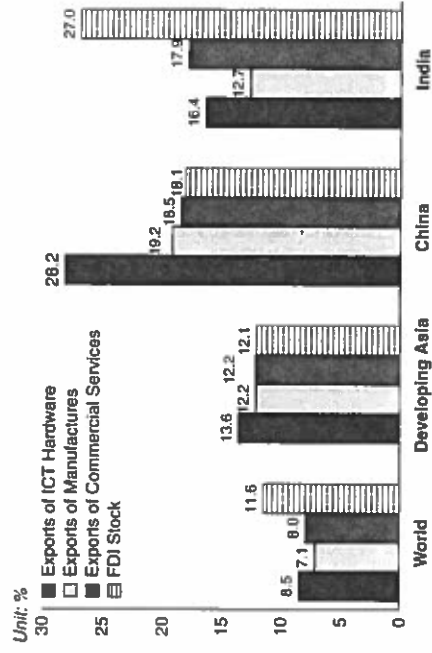
Source: Author's calculations.

Figure 3.30 Performance of China and India versus the world average, 1990–2010



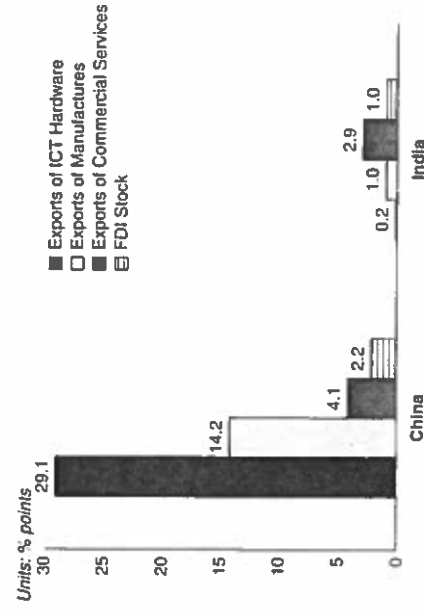
Source: Author's calculations.

Figure 3.31 Developing Asia's shares in world on selected globalization indicators: 1990 versus 2010



Source: Author's calculations.

Figure 3.32 Growth rates of the world, Developing Asia, China, and India on selected globalization indicators, 1990-2010



Source: Author's calculations.

Figure 3.33 Changes in the world shares of China and India on selected globalization indicators, 1990-2010

APPENDIX 3.1: DEVELOPING ASIA AS A DRIVER OF GLOBALIZATION: SELECTED INDICATORS

Table A3.1 The rise of Developing Asia, 1990–2010: exports of ICT hardware

(A) Groups in the World									
Group	Growth and Contribution					Share in World			
	1990–2010		1990–2000		2000–2010				
World (67 Economies)	Growth		Growth		Growth		1990		2010
	Contrib.	Contrib. to (CAGR)	Contrib.	Contrib. to (CAGR)	Contrib.	Contrib. to (CAGR)	Share in Group*	Share in World	Share in World
Developing Asia*	8.5	12.2	16.9	38.9	4.9	93.1	100.0	100.0	100.0
Industrialized Economies	13.6	64.5	9.8	54.5	–0.4	–4.2	75.6	61.2	36.3
Rest of World (ROW)	15.1	22.0	6.7	8.7	11.2	100.0	2.3	5.3	7.5
(B) Developing Asia									
Economy	Period 1990–2010					Period 2000–2010			
	Growth		Growth		Growth		Growth		Growth
Developing Asia*	Contrib. to (CAGR)		Contrib. to (CAGR)		Contrib. to (CAGR)		Contrib. to (CAGR)		Contrib. to (CAGR)
	1990	2010	1990	2010	1990	2010	1990	2010	1990
China–India	13.6	64.5	16.9	38.9	10.5	100.0	71.7	4.8	14.1
China	28.2	57.8	30.1	16.5	6.4	26.3	0.6	0.3	0.1
India	16.4	0.5	7.9	0.1	0.03	25.6	0.6	0.3	0.1

<i>Tigers-4</i>	–4.7	–0.4	–0.2	–1.8	–0.3	–0.1	–7.5	–0.4	–0.4	7.4	1.3	0.2	1.6	0.4	0.1
Hong Kong	7.2	5.7	3.7	11.0	4.3	3.6	3.3	3.1	22.6	13.4	7.0	5.0	4.5	4.0	6.5
Singapore	10.0	10.7	6.9	15.1	18.1	7.0	5.1	7.2	22.1	19.0	11.5	4.9	6.4	6.5	5.8
Taiwan	9.5	9.4	6.1	15.2	17.9	6.9	4.2	5.5	21.7	18.7	10.4	4.8	6.3	5.8	5.8
ASEAN-6	23.1	1.0	0.7	50.2	2.9	1.1	0.9	0.1	0.2	2.4	1.0	0.04	0.8	0.5	0.5
Indonesia	11.1	7.7	4.9	20.4	18.1	7.0	2.5	2.8	12.6	16.9	8.0	2.8	5.7	4.5	4.5
Malaysia	14.6	3.4	2.2	29.9	9.5	3.7	1.1	0.5	2.8	8.1	3.3	0.6	2.7	1.9	1.9
Philippines	12.3	4.2	2.7	18.1	6.2	2.4	6.8	3.3	5.4	6.0	4.3	1.2	2.0	2.4	2.4
Thailand	34.8	0.00	0.00	53.5	0.00	0.00	18.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bangladesh	13.1	0.01	0.00	5.2	0.00	0.00	21.5	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Pakistan	6.1	0.00	0.00	34.4	0.04	0.01	–16.2	–0.01	–0.01	0.01	0.03	0.00	0.01	0.00	0.00
Sri Lanka	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: * Developing Asia excludes Cambodia, Nepal and Vietnam.

Source: Author's calculations; data from WTO's Statistics database.

Table A3.2 The rise of Developing Asia, 1990-2010: exports of manufactures

(A) Groups in the World											
Group	Growth and Contribution						Share in World				
	1990-2010			1990-2000			2000-2010				
	Growth	Contrib.	(CAGR)	Growth	Contrib.	(CAGR)	Growth	Contrib.	(CAGR)	1990	2010
World (74 Economies)	7.1	100.0	6.8	7.4	100.0	7.4	100.0	41.7	10.5	4.3	8.8
Developing Asia*	12.2	36.9	11.7	26.4	12.6	26.4	100.0	41.7	26.8	15.7	16.1
Industrialized Economies	5.4	52.8	5.5	63.5	10.1	10.1	5.3	64.3	5.4	2.2	1.5
Rest of World (ROW)	11.1	10.4	12.4	9.8	10.5	10.5	9.8	10.5	9.8	4.4	4.9
(B) Developing Asia											
Economy	Period 1990-2010			Period 1990-2000			Share in Group*				
	Growth	Contrib. to	(CAGR)	Growth	Contrib. to	(CAGR)	Period 2000-2010				
	(CAGR)	Growth	(CAGR)	(CAGR)	Growth	(CAGR)	Growth	Contrib. to	(CAGR)	1990	2010
Group* World	12.2	100.0	36.9	11.7	100.0	26.4	12.6	100.0	41.7	100.0	100.0
China-India	19.2	56.6	20.9	30.7	8.1	21.0	15.4	64.3	26.8	15.7	25.7
China	12.7	5.0	1.8	3.6	0.9	15.4	5.4	64.3	2.2	4.4	3.9
India	12.7	5.0	1.8	3.6	0.9	15.4	5.4	64.3	2.2	4.4	3.9
Developing Asia*	12.2	100.0	36.9	11.7	100.0	26.4	12.6	100.0	41.7	100.0	100.0
Group* World	12.2	100.0	36.9	11.7	100.0	26.4	12.6	100.0	41.7	100.0	100.0
China-India	19.2	56.6	20.9	30.7	8.1	21.0	15.4	64.3	26.8	15.7	25.7
China	12.7	5.0	1.8	3.6	0.9	15.4	5.4	64.3	2.2	4.4	3.9
India	12.7	5.0	1.8	3.6	0.9	15.4	5.4	64.3	2.2	4.4	3.9

Hong Kong	-6.7	-0.8	-0.3	-2.1	-0.9	-0.2	-11.0	-0.8	-0.3	9.7	2.6	0.2	1.2	0.5	0.1
Singapore	8.4	3.7	1.3	10.6	7.0	1.8	6.2	2.7	1.1	8.2	7.4	4.1	1.0	1.4	1.3
South Korea	10.1	13.9	5.1	9.8	16.5	4.3	10.3	13.1	5.5	21.5	18.1	14.6	2.6	3.5	4.5
Taiwan	7.1	7.2	2.7	8.6	13.8	3.6	5.7	5.3	2.2	22.0	16.5	8.7	2.7	3.1	2.7
ASEAN-6	9.8	2.0	0.7	15.1	4.9	1.3	4.7	1.1	0.5	3.2	4.3	2.1	0.4	0.8	0.6
Indonesia	11.2	4.6	1.7	17.4	11.0	2.9	5.4	2.8	1.2	5.6	9.2	4.7	0.7	1.8	1.5
Malaysia	10.8	1.5	0.6	20.1	5.1	1.3	2.3	0.5	0.2	2.0	4.1	1.6	0.2	0.8	0.5
Philippines	12.0	5.0	1.9	13.5	6.5	1.7	10.6	4.6	1.9	5.2	6.0	5.0	0.6	1.2	1.5
Thailand	14.4	0.7	0.2	17.2	0.8	0.2	11.8	0.6	0.3	0.4	0.7	0.6	0.1	0.1	0.2
SAC-4	7.2	0.02	0.01	12.2	0.1	0.01	2.4	0.01	0.00	0.1	0.1	0.02	0.01	0.01	0.01
Nepal	6.7	0.5	0.2	5.7	0.6	0.1	7.6	0.4	0.2	1.6	0.9	0.6	0.2	0.2	0.2
Pakistan	8.8	0.2	0.1	15.1	0.5	0.1	2.9	0.1	0.03	0.4	0.5	0.2	0.04	0.1	0.1
Sri Lanka	14.4	0.7	0.2	17.2	0.8	0.2	11.8	0.6	0.3	0.4	0.7	0.6	0.1	0.1	0.2

Note: * Developing Asia excludes Cambodia and Vietnam.

Source: Author's calculations; data from WTO's Statistics database.

Table A3.3 The rise of Developing Asia, 1990-2010: exports of commercial services

(A) Groups in the World										
Group	Growth and Contribution						Share in World			
	1990-2010		1990-2000		2000-2010		1990		2000	
	Growth	Conb.	Growth	Conb.	Growth	Conb.	Growth	Conb.	Growth	Conb.
World (102 Economies)	8.0	100.0	24.7	10.6	19.8	100.0	26.3	100.0	100.0	100.0
Developing Asia	12.2	24.7	10.6	18.0	13.7	25.8	6.8	7.6	14.5	22.7
Industrialized Economies	7.1	65.9	5.8	70.6	8.3	64.5	9.2	8.0	8.8	9.0
Rest of World (ROW)	8.7	9.3	7.6	9.7	9.8	9.2				
(B) Developing Asia										
Economy	Period 1990-2010		Period 1990-2000		Period 2000-2010		Share in Group		Share in World	
	Growth		Growth		Growth		Growth		Growth	
	Conb. to	(CAGR)	Conb. to	(CAGR)	Conb. to	(CAGR)	Conb. to	(CAGR)	Conb. to	(CAGR)
Developing Asia	12.2	24.7	10.6	18.0	13.7	25.8	6.8	7.6	14.5	22.7
China-India	18.5	24.4	6.0	13.3	1.7	22.6				
China	17.9	17.6	4.3	13.3	8.7	19.7	5.2	6.1	7.7	16.4
India					1.7	22.6				

Tigers-4	9.2	13.0	3.2	8.2	16.7	3.3	10.1	12.1	3.2	24.1	19.4	14.1	2.4	2.8	3.0
Hong Kong	11.5	14.7	3.6	8.4	11.9	2.4	14.7	15.4	4.0	16.8	13.7	14.9	1.7	2.0	3.2
Singapore	11.5	11.3	2.8	12.2	15.9	3.1	10.9	10.2	2.7	12.9	14.8	11.5	1.3	2.2	2.5
South Korea	9.2	4.9	1.2	11.1	9.8	1.9	7.3	3.7	1.0	9.1	9.6	5.3	0.9	1.4	1.2
Taiwan															
ASEAN-6	22.4	0.2	0.1	30.7	0.3	0.1	14.7	0.2	0.1	0.04	0.2	0.2	0.00	0.03	0.05
Cambodia	9.8	2.0	0.5	7.4	2.0	0.4	12.3	2.1	0.5	3.3	2.4	2.2	0.3	0.4	0.5
Indonesia	11.4	4.3	1.1	13.9	7.6	1.5	9.0	3.5	0.9	5.0	6.7	4.3	0.5	1.0	0.9
Malaysia	8.2	1.7	0.4	1.5	0.4	0.1	15.4	2.0	0.5	3.8	1.6	1.9	0.4	0.2	0.4
Philippines	8.8	4.1	1.0	8.2	5.7	1.1	9.5	3.7	1.0	8.3	6.6	4.5	0.8	1.0	1.0
Thailand	20.3	1.1	0.3	31.0	1.9	0.4	10.5	0.9	0.2	0.2	1.3	1.0	0.02	0.2	0.2
Vietnam															
SAC-4	7.3	0.1	0.03	-0.4	-0.01	0.00	15.6	0.2	0.04	0.4	0.1	0.2	0.04	0.02	0.03
Bangladesh	6.5	0.1	0.02	9.4	0.2	0.04	3.6	0.03	0.01	0.2	0.2	0.1	0.02	0.03	0.02
Nepal	4.5	0.3	0.1	0.5	0.05	0.01	8.7	0.3	0.1	1.6	0.6	0.4	0.2	0.1	0.1
Pakistan	9.2	0.3	0.1	8.0	0.4	0.1	10.4	0.3	0.07	0.6	0.4	0.3	0.1	0.1	0.1
Sri Lanka															

Source: Author's calculations; data from WTO's Statistics database.

