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## What Does the Economic Rise of China Imply for ASEAN and India?: Focus on Trade and Investment Flows

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### 1 Introduction

The People's Republic of China (PRC)<sup>2</sup> has been opening up its economy to the outside world in a carefully managed and phased manner since 1979. The PRC's economy grew at an annual average rate of 9.2 per cent between 1980 and 2000, and its merchandise exports expanded by more than 15 per cent annually over the same period. With the PRC's phenomenal growth since the 1980s, it has emerged as a major economic power in Asia. The PRC is the most populous country in the world, the second largest economy in terms of GDP at purchasing power parity (PPP), the world's sixth biggest merchandise trading nation, the twelfth largest global exporter of commercial services and the largest recipient of foreign direct investment (FDI) among developing countries. The PRC's accession to the World Trade Organization (WTO) in December 2001 is widely expected to give a further fillip to the country's FDI, export and overall growth prospects over the medium and longer term.

Against this background, an important and vigorous ongoing policy debate in Asia concerns the impact of the economic rise of the PRC on the rest of the region. The general perception is that there is a likelihood of substantial diversion of FDI from other developing countries in Asia towards the PRC in order to service the large domestic market and in search of more cost-efficient production locations (Rajan, 2003a, 2003b).

Members of the Association of Southeast Asian Nations (ASEAN) are expected to face particularly intense competitive pressures from the PRC in view of the overlap in relative factor endowments, export markets (the USA) and heavy reliance on FDI inflows from similar sources. The economic emergence of the PRC may also significantly impact another large emerging economy in Asia, India. India has been positioning itself relatively favourably

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to attract and benefit from FDI since 1991, the year when wide-ranging measures were introduced to liberalize the economy. These reform measures have continued over the 1990s, though the pace has been uneven at times. The Indian economy is the second most populous in the world, is ranked fourth largest in terms of GDP at PPP and has been one of the world's fastest-growing economies over the 1990s (World Bank, 2002a).

Some studies warn that the 'China threat' to ASEAN and India may be immediate and severe in labour-intensive products in which the PRC has a strong comparative advantage, but could move on to impact the broader technological spectrum (Lall and Albaladejo, 2001; Lall, 2003). However, such negatives from stiffened competition could be outweighed by the potential for mutually beneficial and complementary relationships that may accrue to its trading partners from the PRC's growth and trade expansion. It is thus important to study the relative performances of the PRC, ASEAN countries and India over time, as well as the intensity and changing dynamics of their intra-regional economic interactions.

The remainder of this chapter is structured as follows. Section 2 briefly examines the dynamics of economic interactions among these economies since the mid-1980s and concerns itself with the impact of the PRC's rise on ASEAN's and India's FDI prospects. Section 3 attempts to analyse the impact of the PRC's emergence on the more advanced ASEAN members (Indonesia, Malaysia, the Philippines, Singapore and Thailand) – henceforth referred to as ASEAN-5 – with regard to export competitiveness in manufacturing and the services sector at a disaggregated product level. Section 4 offers few concluding remarks regarding bilateralism and regionalism in Asia.

## **2 Economic interactions between the PRC, ASEAN-5 and India, 1984–2001**

This section briefly examines economic interactions between these economies since the mid-1980s.

### **The PRC and ASEAN-5**

#### *Merchandise trade*

Figure 9.1 reveals trends in bilateral trade between ASEAN-5 and the PRC between 1985 and 2001. A few noteworthy points warrant highlighting. Between 1985 and 1992, while bilateral trade did rise, the rate of increase was rather gradual. Bilateral trade rose sharply between 1992 and 1996. This period corresponds to a time when FDI began to surge into the PRC. Trade between the two stagnated between 1996 and 1998 during the economic crisis in South East Asia,<sup>2</sup> though it has rebounded since then. Bilateral trade between ASEAN-5 and the PRC totalled US\$ 39.5 billion in 2002, growing at an annual average of slightly over 20 per cent since 1991 when overall trade amounted to only US\$ 7.9 billion (ASEAN–China Expert Group on Economic



Figure 9.1 Trends in bilateral merchandise trade of ASEAN with China, 1984–2001  
Source: ADB (2002).

Cooperation, 2002). While both ASEAN's exports to and imports from the PRC have increased in tandem, the latter has consistently exceeded the former, ensuring that the PRC has enjoyed a persistent trade surplus with ASEAN. The PRC's share of ASEAN's trade remained rather stagnant between 1985 and 1994, but has shot up since then, particularly with regard to the PRC as a source of ASEAN's imports.

In order to analyse changes in export composition of ASEAN's trade with the PRC, Tables 9.1 and 9.2 present the top ten exports and imports in ASEAN's trade with the PRC between 1993 and 2000. In comparison to 1993, when ASEAN's exports to the PRC were dominated more by primary products like Wood & Wood articles and Mineral Fuels, by 2000 the product composition had shifted markedly to manufactured products, particularly Electrical and Electronic and Nuclear Boiler products. This is evident in the increasing share of these products in ASEAN's exports to the PRC over the 1993–2000 period. These products, along with that of Nuclear Boilers and Parts, accounted for about half of ASEAN's imports from the PRC by 2000. There is, therefore, increasing evidence of intra-industry trade in these products between ASEAN-5 and the PRC. The PRC is rapidly improving its production and export capacity in light manufactured products as well as in the assembly of parts and components of a limited number of capital goods. Its exports of light manufactured goods compete mainly with South Asian countries and a few Latin American and African countries in third markets, while it competes head-on with some lower- and middle-income ASEAN countries

Table 9.1 Share of ten major products in ASEAN's exports to PRC China, 1993–2000\*\*

HS Products	1993			1996			1999			2000		
	Share (%)	HS	Share (%)	Products	Share (%)	HS	Products	Share (%)	HS	Products	Share (%)	
27 Mineral Fuel Oils, Waxes and Products, etc.	32.3	27	23.3	Mineral Fuel Oils, Waxes and Products, etc.	84	84	Nuclear Reactors, Boilers, etc. and Parts	20.3	85	Electrical Machinery, Sound Recorders, etc.	21.0	
44 Wood and Articles Thereof	22.6	84	13.2	Nuclear Reactors, Boilers, etc. and Parts	85	85	Electrical Machinery, Sound Recorders, etc.	17.9	84	Nuclear Reactors, Boilers, etc. and Parts	17.5	
15 Animal Vegetable Oils Fats, Waxes, etc.	8.4	85	9.0	Electrical Machinery, Sound Recorders, etc.	27	27	Mineral Fuel Oils, Waxes and Products, etc.	11.4	27	Mineral Fuel Oils, Waxes and Products, etc.	17.0	
84 Nuclear Reactors, Boilers, etc. and Parts	6.4	44	8.8	Wood and Articles Thereof	15	15	Animal Vegetable Oils, Fats, Waxes, etc.	5.4	39	Plastics and Articles Thereof	6.1	
85 Electrical Machinery, Sound Recorders, etc.	6.0	15	6.7	Animal Vegetable Oils, Fats, Waxes, etc.	44	44	Wood and Articles Thereof	5.3	44	Wood and Articles Thereof	4.9	
39 Plastics and Articles Thereof	3.2	40	4.2	Rubber and Articles Thereof	39	39	Plastics and Articles Thereof	5.1	29	Organic Chemicals	4.3	
72 Iron and Steel	2.3	24	3.9	Tobacco and Manufacture of Tobacco Substitutes	29	29	Organic Chemicals	3.7	15	Animal Vegetable Oils, Fats, Waxes, etc.	3.9	
98 Postal Packages and Special Transactions	2.1	10	3.7	Cereals	38	38	Miscellaneous Chemical Products	3.5	47	Wood Pulp and Waste of Paper or Paperboard	3.0	
74 Copper and Articles Thereof	1.8	74	3.1	Copper and Articles Thereof	48	48	Paper and Paperboard	3.4	48	Paper and Paperboard	2.2	
29 Organic Chemicals	1.5	39	3.0	Plastics and Articles Thereof	40	40	Rubber and Articles Thereof	2.9	90	Optical Photographic Measuring Instruments, etc.	1.8	
10 Major Others	86.8		78.8	10 Major Others			10 Major Others	78.9		10 Major Others	81.8	
<b>Total</b>	<b>100.0</b>		<b>100.0</b>	<b>Total</b>			<b>Total</b>	<b>100.0</b>		<b>Total</b>	<b>100.0</b>	

## Notes

\* Covers only ASEAN-5 plus Brunei.

\*\* Thailand imports for 2000 cover only quarter 1 to quarter 3.

Source: ASEAN Trade Statistics Database (2002).

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Table 9.2 Share of ten major products in ASEAN's imports from PRC China, 1993-2000\*\*

HS	1993			1996			1999			2000		
	Products	Share (%)	HS	Products	Share (%)	HS	Products	Share (%)	HS	Products	Share (%)	Share (%)
85	Electrical Machinery, Sound Recorders, etc.	11.1	85	Electrical Machinery, Sound Recorders, etc.	21.5	85	Electrical Machinery, Sound Recorders, etc.	26.6	85	Electrical Machinery, Sound Recorders, etc.	34.8	
84	Nuclear Reactors, Boilers, etc. and Parts	9.7	84	Nuclear Reactors, Boilers, etc. and Parts	14.7	84	Nuclear Reactors, Boilers, etc. and Parts	20.0	84	Nuclear Reactors, Boilers, etc. and Parts	16.2	
27	Mineral Fuel Oils, Waxes and Products, etc.	9.0	72	Iron and Steel	5.6	10	Cereals	4.3	27	Mineral Fuel Oils, Waxes and Products, etc.	6.9	
52	Cotton	5.6	27	Mineral Fuel Oils Waxes and Products, etc.	5.2	27	Mineral Fuel Oils Waxes and Products, etc.	3.6	10	Cereals	3.1	
24	Tobacco and Manufacture of Tobacco Substitutes	4.2	25	Salt, Sulphur, Earths, Stones, Lime, Cement, etc.	3.2	89	Ships, Boats and Floating Structures	2.5	52	Cotton	2.3	
10	Cereals	3.7	73	Articles of Iron or Steel	2.7	28	Inorganic Chemical, Rare-Earth Metals, etc.	2.1	90	Optical Photographic Measuring Instruments, etc.	2.1	
73	Articles of Iron or Steel	3.3	07	Edible Vegetable Roots and Tubers	2.5	29	Organic Chemicals	2.0	72	Iron and Steel	2.0	
28	Inorganic Chemical, Rare-Earth Metals, etc.	3.0	28	Inorganic Chemical, Rare-Earth Metals, etc.	2.4	73	Articles of Iron or Steel	1.8	28	Inorganic Chemical, Rare-Earth Metals, etc.	1.7	
55	Man-Made Staple Fabrics Oil Seeds, Fruits, Medicinal	3.0	29	Organic Chemicals	2.4	52	Cotton	1.7	29	Organic Chemicals	1.5	
12	Plants, Fodder, etc.	3.0	89	Ships, Boats and Floating Structures	1.7	07	Edible Vegetable Roots and Tubers	1.4	73	Articles of Iron or Steel	1.4	
	10 Major Others	55.5		10 Major Others	61.9		10 Major Others	66.0		10 Major Others	72.0	
	<b>Total</b>	<b>100.0</b>		<b>Total</b>	<b>100.0</b>		<b>Total</b>	<b>100.0</b>		<b>Total</b>	<b>100.0</b>	

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## Notes

\* Covers only ASEAN-5 plus Brunei.

\*\* Thailand imports for 2000 cover only quarter 1 to quarter 3.

Source: ASEAN Trade Statistics Database (2002).

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in the production and assembly of some capital goods. However, insofar as the intermediate goods used in the manufacture of the PRC's exports of capital goods are largely imported from ASEAN and other East Asia countries, trade is as much complementary as it is 'competitive' (Shafaeddin, 2002).

### *FDI*

In order to analyse the patterns of FDI inflows in ASEAN member countries, and the role of PRC (as well as 'Greater China', i.e. Hong Kong and Taiwan), Table 9.3 presents trends in net FDI inflows into ASEAN-5 countries between 1995 and 2000, while Table 9.4 presents the data as a share of total FDI inflows into individual ASEAN countries.

While intra-regional FDI within ASEAN has declined significantly with the advent of the crisis in 1997–8, especially due to large FDI outflows from Indonesia, extra-regional FDI flows to ASEAN-5 also registered a significant decline since 1996. The share of ASEAN-5 in total Asia-bound FDI also fell dramatically (from 51 per cent in 1990 to only 11 per cent in 2001).

The PRC's direct investment in ASEAN-5 is non-negligible. It tends primarily to be market- and resource-seeking. However, consistent with the merchandise trade data, Chinese companies have invested in particular in electronics and electrical industries in Malaysia and Thailand (MTI, 2001). The data reveal that the PRC accounted for less than 1 per cent of ASEAN's total FDI inflows on average, except for 1998 (when it was 1.7 per cent). On the other hand, Hong Kong and Taiwan each accounted for about 4 per cent–5 per cent of ASEAN-5 total net FDI inflows during this period (Table 9.4). As of 2000, Greater China accounted for nearly 14 per cent of net FDI inflows into ASEAN, having averaged 9 per cent over the five-year period. However, there exists a great deal of intra-ASEAN variation. Greater China accounted for about 13 per cent of total inflows into the Philippines and Thailand. For the remainder of the ASEAN countries, FDI from Greater China hovered at between 5 per cent and 10 per cent.

Available data on ASEAN's cumulative FDI into the PRC suggests a marked rise from about US\$ 290 million in 1990 to over US\$ 20 billion by 2000 (Figure 9.2). This indicates increasing interest of ASEAN investors – particularly those from Singapore – in the PRC, especially since the post-crisis period. However, even at a superficial level one must doubt the importance of direct competition from the PRC as it too suffered a marginal decline in net FDI inflows, albeit less than ASEAN (see Wu *et al.*, 2002b). As discussed, the relatively sharp decline in ASEAN's FDI flows was primarily due to Indonesia which was the only ASEAN country to experience an outright erosion in the cumulative stock of FDI after 1997, as there was a sharp outflow of FDI between 1998 and 2000 (Rajan and Siregar, 2002). Indonesia in turn has been hurt by domestic socio-political convulsions and investor uncertainty as opposed to competition from the PRC *per se*. Similarly, stagnation in FDI flows to Malaysia in the late 1990s and early 2000 were probably more due

Table 9.3 Trends in net FDI inflows to ASEAN, 1995-2000

	Net FDI inflows from the PRC											
	Amount (US\$ million)					Share in total (%)						
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	2000	
Indonesia	5.7	0.0	8.0	-44.0	-1.2	-2.8	5.1	0.0	-55.8	-16.3	-1.4	-9.9
Malaysia	22.5	13.3	43.6	5.5	3.2	1.3	20.3	13.1	-304.5	2.1	3.8	4.7
Philippines	7.4	3.8	2.4	143.0	65.0	0.0	6.7	3.7	-16.5	52.9	78.0	0.0
Singapore	73.5	80.7	-60.5	160.8	18.6	22.5	66.2	79.4	422.4	59.5	22.3	79.7
Thailand	1.9	3.9	-7.8	5.1	-2.2	7.2	1.7	3.8	54.4	1.9	-2.6	25.6
<b>Total (ASEAN-5)</b>	<b>110.9</b>	<b>101.7</b>	<b>-14.3</b>	<b>270.4</b>	<b>83.4</b>	<b>28.3</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

	Net FDI inflows from ASEAN (intra-ASEAN FDI)										
	Amount (US\$ million)					Share in total (%)					
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	2000
Indonesia	608.9	193.3	272.2	-37.1	-427.8	-232.6	19.3	8.1	5.3	-3.0	-30.3
Malaysia	1,676.5	1,475.8	2,261.5	469.9	536.0	365.6	53.2	61.9	44.3	37.6	47.6
Philippines	204.8	73.9	139.4	109.9	114.2	88.5	6.5	3.1	2.7	8.8	11.5
Singapore	503.2	332.9	2,131.3	136.5	283.7	157.8	16.0	14.0	41.8	10.9	26.4
Thailand	160.6	308.1	297.5	569.6	569.5	389.0	5.1	12.9	5.8	45.6	50.6
<b>Total (ASEAN-5)</b>	<b>3,154.1</b>	<b>2,384.0</b>	<b>5,101.9</b>	<b>1,248.8</b>	<b>1,075.5</b>	<b>768.5</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 9.3 Continued

	Net FDI inflows from Hong Kong											
	Amount (US\$ million)					Share in total (%)						
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	1999	2000
Indonesia	106.8	94.5	232.3	13.3	-143.9	-122.2	10.8	8.6	18.5	1.8	-29.8	-18.2
Malaysia	198.0	337.1	315.8	126.3	234.0	269.2	20.0	30.7	25.2	17.4	48.4	40.1
Philippines	440.8	90.4	70.9	42.1	64.6	45.9	44.6	8.2	5.7	5.8	13.4	6.8
Singapore	-35.4*	361.9	191.2	150.6	94.8	147.0	-3.6	32.9	15.3	20.7	19.6	21.9
Thailand	279.1	215.1	442.4	393.9	233.7	331.3	28.2	19.6	35.3	54.2	48.4	49.4
<b>Total (ASEAN-5)</b>	<b>989.3</b>	<b>1,099.1</b>	<b>1,252.7</b>	<b>726.2</b>	<b>483.1</b>	<b>671.2</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

	Net FDI inflows from Taiwan, ROC											
	Amount (US\$ million)					Share in total (%)						
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	1999	2000
Indonesia	-14.1	19.5	7.7	-6.9	-20.5	-4.9	-2.4	4.6	1.1	-1.2	-6.5	-0.8
Malaysia	322.9	21.0	119.5	73.5	56.8	78.0	54.3	5.0	17.3	12.6	18.1	12.3
Philippines	13.3	56.1	23.4	100.7	9.0	8.3	2.2	13.3	3.4	17.3	2.9	1.3

Singapore	175.9	187.6	404.8	310.2	146.5	393.5	29.6	44.4	58.7	53.1	46.7	62.1
Thailand	96.6	138.0	133.8	106.3	121.6	159.0	16.2	32.7	19.4	18.2	38.8	25.1
<b>Total (ASEAN-5)</b>	<b>594.6</b>	<b>422.2</b>	<b>689.2</b>	<b>583.9</b>	<b>313.4</b>	<b>633.9</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

#### Net FDI inflows from rest of the world

	Amount (US\$ million)										Share in total (%)		
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	1999	2000	
Indonesia	3,737.1	6,000.7	4,405.5	-318.1	-2,317.2	-4,317.4	21.0	25.0	20.8	-2.0	-15.6	-43.8	
Malaysia	4,138.5	5,821.2	4,061.5	2,244.1	3,359.1	3,421.5	23.3	24.3	19.2	13.9	22.6	34.7	
Philippines	1,373.2	1,558.1	1,145.6	1,680.2	1,586.8	1,637.5	7.7	6.5	5.4	10.4	10.7	16.6	
Singapore	6,705.1	8,651.2	8,202.7	5,654.7	6,684.7	6,232.4	37.7	36.1	38.8	35.1	44.9	63.2	
Thailand	1,843.4	1,962.5	3,329.3	6,864.0	5,580.3	2,891.2	10.4	8.2	15.7	42.6	37.5	29.3	
<b>Total (ASEAN-5)</b>	<b>17,797.3</b>	<b>23,993.7</b>	<b>21,144.6</b>	<b>16,124.8</b>	<b>14,893.6</b>	<b>9,865.1</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	

Note: \* Minus sign means disinvestment.

Source: Computed from ASEAN Secretariat: ASEAN FDI Database (2002).

Table 9.4 Shares in net FDI inflows to ASEAN, 1995–2000 (per cent)

<b>Share of PRC China in net FDI inflows in ASEAN member countries</b>							
	1995	1996	1997	1998	1999	2000	Average
Indonesia	0.03	0.0	0.0	-0.3	0.0	0.0	0.0
Malaysia	0.1	0.1	0.2	0.0	0.0	0.0	0.1
Philippines	0.0	0.0	0.0	0.9	0.5	0.0	0.2
Singapore	0.4	0.4	-0.3	1.0	0.1	0.3	0.3
Thailand	0.0	0.0	0.0	0.0	0.0	0.1	0.0
<b>Total (ASEAN-5)</b>	<b>0.7</b>	<b>0.5</b>	<b>0.1</b>	<b>1.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>

<b>Share of intra-ASEAN net FDI inflows in ASEAN member countries</b>							
	1995	1996	1997	1998	1999	2000	Average
Indonesia	14.0	3.1	5.8	10.4	15.6	5.1	9.0
Malaysia*	28.8	20.2	35.8	17.3	13.8	9.7	20.9
Philippines	13.0	4.5	10.8	6.1	6.7	5.1	7.7
Singapore	7.0	3.7	20.6	2.4	4.1	2.5	6.7
Thailand	8.0	13.6	8.2	7.7	9.3	11.9	9.8
<b>Total (ASEAN-5)</b>	<b>15.2</b>	<b>10.2</b>	<b>19.8</b>	<b>9.6</b>	<b>8.5</b>	<b>9.4</b>	<b>12.1</b>

<b>Share of Hong Kong's net FDI inflows in ASEAN member countries</b>							
	<b>Share in total (%)</b>						
	1995	1996	1997	1998	1999	2000	Average
Indonesia	2.5	1.5	5.0	-3.7	5.2	2.7	2.2
Malaysia*	3.4	4.6	5.0	4.7	6.0	7.1	5.1
Philippines	27.9	5.5	5.5	2.3	3.8	2.7	8.0
Singapore	-0.5	4.0	1.9	2.6	1.4	2.3	1.9
Thailand	13.9	9.5	12.2	5.3	3.8	10.1	9.1
<b>Total (ASEAN-5)</b>	<b>5.0</b>	<b>4.4</b>	<b>5.2</b>	<b>4.8</b>	<b>3.0</b>	<b>5.9</b>	<b>4.7</b>

<b>Share of Taiwan's net FDI inflows in ASEAN member countries</b>							
	<b>Share in total (%)</b>						
	1995	1996	1997	1998	1999	2000	Average
Indonesia	-0.3	0.3	0.2	1.9	0.7	0.1	0.5
Malaysia*	5.6	0.3	1.9	2.7	1.5	2.1	2.3
Philippines	0.8	3.4	1.8	5.6	0.5	0.5	2.1
Singapore	2.4	2.1	3.9	5.4	2.1	6.2	3.7
Thailand	4.8	6.1	3.7	1.4	2.0	4.8	3.8
<b>Total (ASEAN-5)</b>	<b>3.4</b>	<b>2.6</b>	<b>3.7</b>	<b>4.4</b>	<b>2.5</b>	<b>7.8</b>	<b>4.1</b>

Table 9.4 Continued

	Share in total (%)						
	1995	1996	1997	1998	1999	2000	Average
Indonesia	7.1	1.8	-210.5	14.2	7.3	7.7	-28.7
Malaysia*	20.8	11.4	-614.0	8.6	8.8	9.3	-92.5
Philippines	35.3	12.8	-56.5	59.9	76.9	3.1	21.9
Singapore	66.5	86.3	-1,625.7	66.4	24.2	47.9	-222.4
Thailand	20.4	19.4	-194.4	8.6	8.2	27.6	-18.3
<b>Total (ASEAN-5)</b>	<b>9.1</b>	<b>7.5</b>	<b>9.0</b>	<b>10.8</b>	<b>6.1</b>	<b>14.5</b>	<b>9.5</b>

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*Notes*

\* Minus sign means disinvestment.

\*\* Myanmar's figures are in the fiscal year which ends in March of the following calendar year.

Source: Computed from ASEAN Secretariat: ASEAN FDI Database (2002).

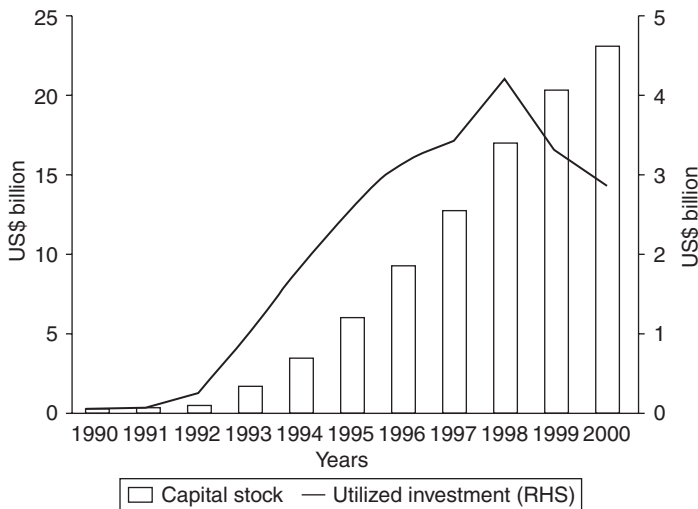


Figure 9.2 ASEAN-5 investments in China, 1990-2000

Source: MTI (2001).

to policy uncertainty following the imposition of currency and capital controls in September 1998 (Bhaskaran, 2003).

This said, in the current environment where there is a global race for FDI on the one hand, and the emergence of the PRC as a viable and promising investment alternative on the other, investors are obviously far less tolerant of actual or perceived economic weaknesses in any potential host country or region (Rajan, 1994). Insofar as the accession of the PRC to the rules-based

WTO system makes it an even more attractive host for FDI, there may well be (further) diversion of FDI from 'unstable ASEAN'.<sup>3</sup>

To the extent that domestic growth rates have often showed up as a significant factor in attracting FDI, continued outpacing of PRC growth relative to ASEAN may well personify the diversion of FDI from the PRC to ASEAN. This is particularly so as the PRC remains an underperformer in attracting FDI inflows when one considers FDI as a proportion of GDP.<sup>4</sup> This is apparent from UNCTAD (2002, p. 25) which reveals that in a ranking of FDI performance of 140 countries based on the FDI–GDP ratio between 1998 and 2000, the PRC comes in at 47. While this is an improvement from its 1988–90 ranking (61), it is by no means suggestive that the PRC is attracting more than its 'fair share' of FDI.<sup>5</sup> Indeed, the PRC's rise in the rankings has not even been the most impressive in Asia. For instance, Vietnam's ranking rose from 53 to 20. However, what is revealing is the sharp drop in rankings of the other ASEAN countries between 1998–90 and 1998–2000. Among the most dramatic declines was Indonesia (from 63 to 138). Malaysia's ranking declined from 8 to 44, Thailand's from 25 to 41, Singapore from 1 to 18 and the Philippines from 39 to 89. This adds further weight to the foregoing argument that the recent 'shift' of FDI flows from ASEAN to the PRC in relative tests is far more due to the severe crisis in 1997–8 and resulting loss of confidence and structural weaknesses in the ASEAN economies made apparent by the crisis than to competition from the PRC *per se*.

More detailed analysis of the sources of FDI into ASEAN and the PRC is also suggestive of limited direct 'competition' between the two. For instance, the bulk of FDI to the former has been from Japan and the USA in particular. Japan has hitherto been a rather reluctant investor in the PRC. The recent declines in FDI flows to ASEAN have in large part been due to lower investment levels from Japan (Figure 9.3). The extent of fall in Japanese FDI can be seen from the fact that while it has consistently been the single largest investor in ASEAN since the late 1980s, it did not even figure as one of the region's top ten investors in 2000 (Table 9.5).

As already noted, the bulk of investments to the PRC has been from overseas Chinese in Hong Kong and Taiwan. Analysis of FDI data from the USA and the EU reveals a fairly sharp turnaround (i.e. boom–bust–partial recovery) in investments from the EU and the USA to Malaysia, Thailand and the Philippines between 1996 and 2000 (Wu *et al.*, 2002b). These dynamics of FDI flows were out of sync with those to the PRC which remained stable though the period. As noted by Wu *et al.* (2002b):

[S]ource-country data show that, despite a booming FDI market in China, developed countries have so far not diverted investments away from ASEAN-5 to China. Arguably, if investors did not have an alternative investment location in China, the reduction in FDI to ASEAN-5 might not have been so drastic... However, because the decline in FDI to

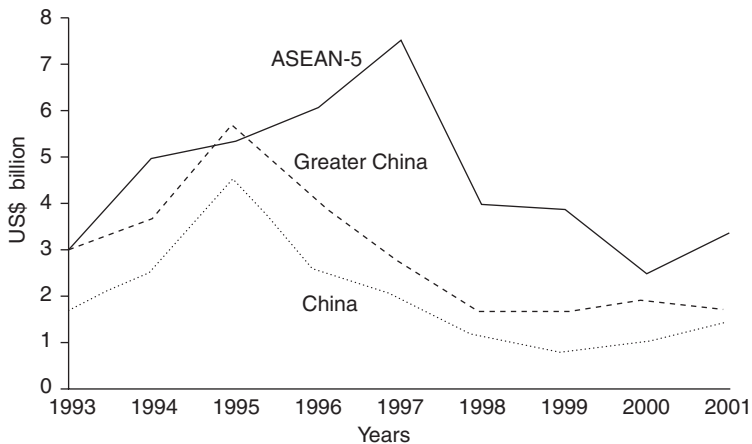


Figure 9.3 FDI flows from Japan to Greater China and ASEAN-5, 1993–2001

Source: Wu *et al.* (2002b).

Table 9.5 Top ten investors in ASEAN, 1995–2000 (balance of payments flow data, US\$ million)

No	1998		1999		2000		1995–2000	
	Country	Value	Country	Value	Country	Value	Country	Value
1.	Japan	2,826	USA	2,960	USA	2,320	Japan	19,194
2.	USA	2,759	Netherlands	2,833	UK	1,493	USA	17,975
3.	Netherlands	1,790	Bermuda	1,355	Bermuda	889	UK	9,654
4.	Singapore	1,443	Japan	762	Taiwan (ROC)	802	Singapore	9,241
5.	UK	1,166	UK	742	France	772	Netherlands	8,141
6.	Hong Kong	918	France	655	Germany	696	Hong Kong	5,602
7.	Taiwan (ROC)	842	Singapore	629	Singapore	684	Taiwan (ROC)	4,454
8.	South Korea (ROK)	643	Canada	489	Hong Kong	611	Germany	3,685
9.	Germany	547	Hong Kong	483	Malaysia	273	France	3,456
10.	France	465	Germany	482	South Korea (ROK)	180	South Korea (ROK)	2,996
<b>Total</b>		<b>13,400</b>		<b>11,391</b>		<b>8,720</b>		<b>84,398</b>

Source: Mirza (2001).

ASEAN-5 has been an abrupt turnaround, it does not appear to be very closely related to China's increasing attractiveness as FDI destination, which has been more of a gradual process... [U]nless ASEAN gets its own house in order, there can be no guarantee that investments would flow back to ASEAN as before. (2002b, p. 107)

The lowering of import barriers (both actual trade barriers as well as 'behind the border' ones) in the PRC may reduce the incentive to establish tariff-jumping FDI in the PRC, as the market may, in some instances, be served via exports. This appears to be the case in some areas such as automobiles and petrochemicals which have hitherto been heavily protected in the PRC.<sup>6</sup>

## The PRC and India

### Merchandise trade

Figure 9.4 illustrates the trends in India-PRC bilateral trade over the period 1985-2001. There has been a discernible upward trend in bilateral merchandise trade between the two countries since the economic reforms undertaken in India in 1991-2. In particular, trade between India and the PRC more than doubled over the period 1992-2001, with the share of the PRC in India's exports increasing to about 3.3 per cent in 2001 compared to less than 1 per cent in 1991. The share of the PRC in India's imports was even higher than that of exports during this period. The pace of expansion of bilateral trade has been particularly strong since 1999, with imports expanding at a much more rapid rate than that of exports.

The bilateral merchandise trade between India and the PRC jumped from US\$ 265 million in 1991 to US\$ 4,950 million in 2002, with the annual average growth rate exceeding 30 per cent between 1998 and 2002 (*Business Times*, Singapore, 30 April 2003). However, large data discrepancies exist in the reported data published from both the PRC and India.<sup>7</sup>

### FDI

As bilateral relations between India and the PRC continue to improve, it is anticipated that trade and investment relations will deepen. The sectors that

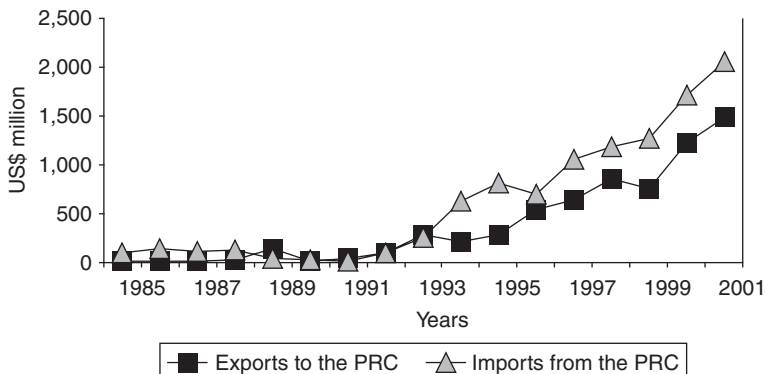


Figure 9.4 India's bilateral trade with PRC China, 1985-2001

Source: ADB (2002).

have attracted investment from Chinese companies in India are particularly in information technology (IT), natural resources, light engineering and white goods.<sup>8</sup> To some extent, an intra-industry division of labour is also observed between the two countries in pharmaceuticals, and engineering industries (Asher, Sen and Srivastava, 2003).

## ASEAN and India

### Merchandise trade

Figure 9.5 illustrates the trends in ASEAN–India bilateral trade over the period 1991–2 to 1999–2000. There has been a discernible upward trend in bilateral merchandise trade between the two countries, except the year 1998–9 as a result of the regional crisis. In particular, trade between ASEAN and India more than tripled over the period 1991–2 to 2000–1, with India's share in ASEAN's exports increasing to about 3.3 per cent in 2001 compared to less than 1 per cent in 1991. As India's imports from ASEAN outpaced its exports to ASEAN, the balance of trade has shifted sharply in ASEAN's favour.

It is important to note that India's current average tariff remains still high, at about 29 per cent compared to ASEAN's average of about 10–12 per cent. Thus, a speedy alignment in tariff levels with the ASEAN countries would be the foremost requirement for an increase in market access between these countries. Sarma and Mehta (2003) observe that some of the products that hold potential for expansion in ASEAN–India merchandise trade include pharmaceuticals, metal scrap, leather goods, textile machinery components and gems and jewellery. India has a vast potential in business services, such as medical, accountancy and legal services and software, while the ASEAN-5

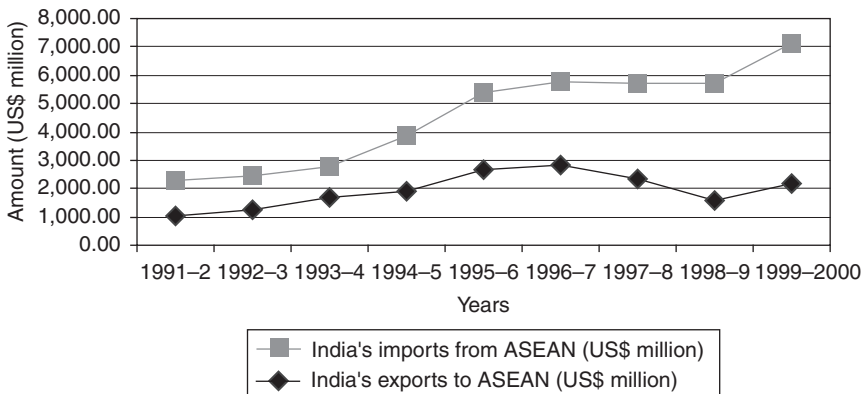


Figure 9.5 India–ASEAN bilateral trade, 1991–2000

Source: ASEAN Trade Statistics Database (2002).

countries, particularly Singapore and Malaysia, have significant expertise in infrastructure development which would be beneficial for India.

#### *FDI*

The existing investment relations between ASEAN and India have started growing since 2001. Malaysia and Singapore in particular have been investing fairly aggressively in India. Investments in India by Malaysia have been primarily in infrastructural projects such as roads. The establishment of a representative office of the Confederation of Indian Industry (CII) in Kuala Lumpur laid the foundation for greater investment collaboration by companies, including small and medium enterprises (SMEs), between the two countries. There has also been steady investment by Singapore-based companies in India, primarily in the telecommunications, IT, ports, logistics and health care sectors (Asher, Sen and Srivastava, 2003).

The substantially liberalized policy framework in India has facilitated Indian companies and financial institutions in investing abroad as well. Specifically, Indian companies are investing in significant magnitudes in the PRC and selected ASEAN countries – Singapore, Malaysia and Thailand (Kumar, 2002, Table 10), although currently Indian companies contribute only about 0.2 per cent of FDI in the region. This suggests that India is gradually but definitely integrating with its neighbours in East Asia.

There are a number of reasons to remain positive about ASEAN's and India's FDI potential. First, some multinationals that are concerned about what might be 'excessive' exposure to the PRC are considering setting up factories in India or some other ASEAN countries such as Vietnam as a form of 'risk hedging' strategy. Second, the PRC's continued opening up and growth may lead some Chinese businesses to make investments in ASEAN countries and India. Third, since the majority of FDI in India is directed towards the services sector, it is not a direct competitor of ASEAN with respect to seeking FDI in labour-intensive manufacturing industries. In this aspect, Malaysia's and Singapore's experience and competencies in infrastructural development complements India's need for physical infrastructure. At the same time, India is in a position to cooperate with ASEAN in substantially lowering costs of essential drugs, including those for HIV-AIDS, as well as cooperating in food and energy security.

### **3 Is the PRC a threat to ASEAN and India's export competitiveness?**

In order to obtain a better understanding of the implications of the PRC's ongoing integration with the world economy – including its WTO accession – on both ASEAN and India, it would be useful to chart the comparative advantage positions of both countries in the manufacturing as well as the services sector.

## **Complementarities or competition in manufacturing trade?**

### *The PRC and ASEAN-5*

The persistently sharp increase in the PRC's share of global exports, on the one hand, and the inconsistent growth of ASEAN's exports over the last few years, on the other, is often portrayed as 'evidence' of the adverse impact of the rise of the PRC on ASEAN. Analysis of the extent of export competition between ASEAN and the PRC between 1990 and 2000 in the US market offers some useful insights (Kwan, 2002).

Singapore, Malaysia and Thailand have been increasing their respective export shares to the USA in certain products that coincide with the PRC's exports to the USA. The largest increase is observed for Singapore; the percentage of its exports to the USA in products that were similar to the PRC's exports to the USA increased from 19.2 per cent in 1995 to 35.8 per cent in 2000. However, the actual share of Singapore's export similarity with the PRC was the lowest among all the ASEAN-5 economies in 2000, with Indonesia having the highest share of about 82.8 per cent, followed by Thailand with 65.4 per cent. All in all, there seems a rather high and growing degree of product overlap in the exports of the PRC and ASEAN-5 to the USA, suggesting increased export competition between ASEAN-5 and the PRC.

Analysis of revealed comparative advantage (RCA) indices at the three-digit level leads to a slightly different conclusion. Between 1992 and 1998, the PRC's export structure appears to have been most similar to Malaysia's in the final market for a number of 'finished' capital goods, particularly data processing equipment, telecoms equipment and some electric machinery, but not so much for light manufactured goods. Thailand's export structure is similar to that of the PRC with respect to clothing, miscellaneous household equipment and electric machinery. Indonesia appears to share few export similarities with the PRC except for furniture (Shafeddin, 2002, Table 9).

The inconsistency in conclusions offered by the analysis of export similarity indices and RCA indices as noted above (particularly with regard to Indonesia), may be at least partly due to the fact that the former focused on East Asia's exports to the US market only, while the latter involved East Asia's global exports. This said, there is a more general problem with such trade data analyses. While somewhat informative, they tend to offer limited insights as they are based on fairly aggregated data. However, within each product category, goods could be differentiated according to quality and brand (horizontal differentiation) or they could be further differentiated into sub-parts and components with differing factor intensities (vertical specialization). Thus, just because a study finds that the PRC and ASEAN share similar degrees of export similarity at the 2-, 3- or even 4- digit or even finer product categories, that in and of itself need not suggest that countries are direct competitors.

In addition to vertical specialization, openness to international trade allows countries also to specialize horizontally based on price/quality. Thus,

even if a country's comparative advantage happens to coincide exactly with the that of PRC (which may be likely given the vastness and differing levels of development of various regions in the PRC), it can still develop its own export market niche by specializing in differentiated products. This said, a concern about the PRC's ascendancy and price competitiveness is that 'cheap Chinese imports' will keep the price pressures on imperfect substitutes down – i.e. other countries will import price deflation from the PRC with consequent depressing effects on business margins and factor returns, including wages. It is in this sense that ASEAN countries may have complementarities with the PRC in production and export structures (i.e. vertical specialization), while other parts are simultaneously competitive (horizontal specialization).

These global competitive pressures emanating from the PRC and the potential deflationary effects are of particular concern in the areas of textiles and clothing where the PRC's WTO accession is expected to be a significant boon to Chinese exporters who are no longer limited by the quantitative restrictions (QRs) under the Multifibre Arrangement (MFA). Quantitative analyses suggest that the removal of these quotas (in 2005) will lead to a significant increase in the PRC's exports in these areas at the expense of many ASEAN countries as well as other Asian countries more generally (Martin and Ianchoviachina, 2001; Adhikari and Yang, 2002). A study by Francois and Spinanger (2001) summarizes the welfare impacts on selected Asian countries. It observes that while the possibility of horizontal specialization suggests that the above costs are overestimates, there are bound to be non-negligible price pressures and adjustment cost effects on other textile and clothing exporting countries.

With the PRC's continued opening up and growth effects spreading to the inland regions, there are real concerns that small variations in costs could lead to large shifts in comparative advantage, thus necessitating large and sudden domestic adjustments. Bhagwati (1997) refers to this phenomenon as 'kaleidoscope' or 'knife-edge' comparative advantage. Countries need to be ever aware of these potential cost shifts and ensure constant industrial upgrading so as to remain important cogs in the larger regional production network. In other words, the continued opening of the PRC may well contribute to a far more uncertain and competitive environment for ASEAN countries (especially as PRC's western regions develop and labour-intensive industries migrate to the inland regions). Opportunities for lower-income ASEAN countries to upgrade to higher-value added stages of production might then be harder to come by compared to the transition made by their higher-income neighbours in earlier periods.

Nonetheless, accession to the WTO ought to offer even more benefits to regional countries as it will involve increased access to the Mainland's domestic market, allowing ASEAN countries the possibility of enhancing exports. Thus, while the PRC has remained an important import source for ASEAN, as discussed previously, it has also become an increasingly important export market. If current trends persist, the growing importance of the

PRC – and Greater China more generally – may well provide a much-needed cushion to smaller ASEAN countries against gyrations in the industrial country economic environment.

### *The PRC and India*

Much of the preceding arguments also hold in the case of India's interaction with the PRC.

Table 9.6 estimates the Export Revealed Comparative Advantage (XRCA) indices as in Balassa and Noland (1989) for manufacturing sector exports of India and the PRC over the period 1987–98. We use the Garnaut and Anderson (1980) classification of products according to relative factor intensities (see the Appendix, [p. 00]). An individual XRCA index value of greater than one indicates RCA, while a value less than one, indicates comparative disadvantage in the exports of a particular commodity category. Table 9.7 analyses the export pattern of these commodities in the two countries.<sup>9</sup>

AQ: please update

Compared to the PRC, the only category in which India continues to have a comparative advantage in exports is in unskilled labour-intensive (ULI) manufacturing goods, especially textiles and textile yarns and in clothing and accessories. However, even within this category, while the PRC has increased its specialization and expanded its share in world exports, India has not been able to do so despite a decade of economic reforms. The PRC has also gained a comparative advantage in technology-intensive (TI) goods and has improved its capability in production and exports of components. Thus, in 1985, out of sixty components, the PRC had a comparative advantage in 6.7 per cent of them, which increased to 8.3 per cent in 1996 (Ng and Yeats, 2001, Table 1). Although India could benefit from exporting those necessary inputs for production of many labour-intensive products in this sector, competition is unlikely in the area of office machines and data processing machines, as India is not a major producer or exporter of these products.

From the estimates in Table 9.7, it is evident that in the manufacturing sector, the only sector in which some competition could emerge between India and the PRC would be in ULI goods, especially in textiles and clothing. However, using further disaggregated data within the textiles and clothing sector, Shafaeddin (2002) finds that the PRC's competitive strengths are in outer garments, whereas India's exports are concentrated in textiles and non-knitted undergarments. This indicates that the possibilities of competition in the manufacturing sector appear limited, suggesting greater complementarities. Nevertheless, India is unlikely to gain from complementary effects from the PRC's accession in an important area of exports of parts and components of electronic products, since it has not been a part of the regional division of labour in this area which has been largely concentrated in East Asia (Rajan and Sen, 2002, 2003a).

Recent estimates of the welfare effects of the PRC's accession to the WTO reveal that while the more advanced developing countries in Asia gain, the

*Table 9.6* Export revealed comparative advantage (XRCA) estimates of India and China, manufacturing sector, 1987–98 (according to Garnaut and Anderson classification of products by factor intensities)

Unskilled labour-intensive goods						
Countries	XRSCA	1987	1992	1996	1997	1998
India	XRCA > 1	2.62	2.29	3.57	2.5	2.16
	XRCA < 1					
China	XRCA > 1	2.5	3.69	3.54	4.06	4.29
	XRCA < 1					
Technology-intensive goods						
Countries	XRSCA	1987	1992	1996	1997	1998
India	XRCA > 1					
	XRCA < 1	0.27	0.27	0.22	0.29	0.25
China	XRCA > 1					
	XRCA < 1	0.26	0.6	0.82	0.93	1
Physical capital-intensive goods						
Countries	XRSCA	1987	1992	1996	1997	1998
India	XRCA < 1					
	XRCA < 1	0.26	0.51	0.49	0.61	0.53
China	XRCA > 1					
	XRCA < 1	0.28	0.46	0.61	0.71	0.74
Human capital-intensive goods						
Countries	XRSCA	1987	1992	1996	1997	1998
India	XRCA > 1					
	XRCA < 1	0.29	0.49	0.31	0.46	0.36
China	XRCA > 1					
	XRCA < 1	0.41	0.51	0.59	0.66	0.73

*Notes:* Refer to the Appendix-(p. 00) for a list of commodities under this classification.

*Source:* Computed from United Nations, *UN International Trade Statistics Yearbook* (2000).

$$\begin{aligned}
 XRCA &= X_i^k / X_w^k \\
 &= X_i / X_w \\
 &= X_i^k / X_i \\
 &= X_w^k / X_w
 \end{aligned}$$

Where  $X_i^k$  = Exports by country  $i$  of commodity  $k$

$X_w^k$  = World exports of commodity  $k$

$X_i$  = Total exports of country  $i$

$X_w$  = Total world exports

*Table 9.7* Export pattern of commodities among India and China, manufacturing sector, 1987–98 (according to Garnaut and Anderson classification of products by factor intensities)

Unskilled labour-intensive goods						
Countries	RCA	1987	1992	1996	1997	1998
India	$S_w$	1.15	1.12	1.4	1.5	1.45
	$S_{ct}$	32.5	31.4	31.39	32.82	28.34
China	$S_w$	4.98	8.42	10.13	11.95	11.96
	$S_{ct}$	31.2	51	45.26	52.76	56.12
Technology-intensive goods						
Countries	RCA	1987	1992	1996	1997	1998
India	$S_w$	0.12	0.13	0.17	0.18	0.17
	$S_{ct}$	4.79	5.09	6.76	6.88	5.9
China	$S_w$	0.51	1.37	2.34	2.73	3.11
	$S_{ct}$	4.7	11.6	17.96	21.37	26.48
Physical capital-intensive goods						
Countries	RCA	1987	1992	1996	1997	1998
India	$S_w$	0.12	0.25	0.31	0.37	0.35
	$S_{ct}$	5.07	9	9.19	10.27	8.9
China	$S_w$	0.56	1.05	1.75	2.08	2.05
	$S_{ct}$	5.5	8.2	10.51	11.67	12.43
Human capital-intensive goods						
Countries	RCA	1987	1992	1996	1997	1998
India	$S_w$	0.13	0.24	0.28	0.28	0.24
	$S_{ct}$	5.48	9.62	8.24	8.24	6.92
China	$S_w$	0.81	1.16	1.7	1.93	2.02
	$S_{ct}$	7.9	9.9	10.18	11.56	13.83

*Notes*

$S_w$  indicates country share in world exports of a particular commodity group.

$S_{ct}$  indicates country share in its total exports to the world.

*Source:* Computed from WTO, *International Trade Statistics Yearbook* (2000).

less advanced ones tend to lose over the short and medium run (Martin and Ianchovichina, 2001). However, over time, the PRC could well be a growth locomotive for the region (Fernald, Edison and Lougani, 1999) or at least act as a buffer against possible downturn in other major export markets in the USA, the EU and Japan. In addition, as the PRC expands, its demand for agricultural and mineral products and raw materials – including energy products, forestry, agriculture and fishery and aquaculture products – will continue to

rise, benefiting a number of resource-rich countries in ASEAN and elsewhere, particularly Indonesia (Adhikari and Yang, 2002).

### **Complementarities or competition in services trade?**

With services trade gaining importance in world trade, it is essential also to analyse the complementarities and competition in the services sector between the PRC, ASEAN and India. Indeed, services trade liberalization is an important dimension of the PRC's WTO accession. As Mattoo (2002) notes:

[The PRC's] GATS commitments represent the most radical services reform program negotiated in the WTO... The PRC... has promised to eliminate over the next few years most restrictions on foreign entry and ownership, as well as most forms of discrimination against foreign firms. (2002, p. 22)

#### *The PRC and ASEAN*

With WTO accession there will be greater scope and demand for services by the PRC, particularly with regard to distribution, professional and infrastructural services (telecoms and financial). As the PRC continues to rapidly urbanize and industrialize, there will invariably be vast opportunities for ASEAN businesses to be involved in major infrastructural development projects. Thus, richer and more developed ASEAN countries such as Singapore and Malaysia, which have growing strengths in these areas, should benefit significantly from the PRC's continued economic transformation.

With respect to the PRC and ASEAN-5, there appears to be greater potential in cooperating in travel and tourism services, given the strong comparative advantage that most ASEAN-5 economies enjoy in this area. Indeed, there is significant tourism potential from the PRC as average Chinese household incomes rise. The PRC is the world's fastest-growing tourist market in both inbound and outbound travel. Two-way flows between ASEAN and the PRC have been on an increase. ASEAN tourists visiting the PRC reached an estimated 1.8 million in 2000; while ASEAN-5 received about 0.8 million tourists from the PRC in 1995, this number almost tripled to 2.3 million persons in 2000. Conversely, ASEAN tourists were fewer than 8 per cent of the total tourist arrivals to the PRC during 1999, while Chinese tourists in ASEAN made up just 10 per cent of the persons visiting ASEAN in 2000 (Wattanaputtipaisan, 2002). The growth in tourists from the PRC was particularly significant in Malaysia and Singapore, where Chinese visitors increased from the tenth largest visitor group in 1995 to fourth and fifth positions, respectively in 2001 (Wu *et al.*, 2002a). Between 1995 and 2001, the number of Mainland Chinese visitor arrivals to Malaysia quadrupled, while they doubled to Thailand and Singapore.

A number of ASEAN countries such as Malaysia, Thailand and Singapore are taking specific steps to enhance their attractiveness as tourist

destinations to PRC residents. More can be done in this regard, particularly with ASEAN countries working in tandem or as clusters to promote the region as a whole (also see Wu *et al.*, 2002a). There have been important initiatives in this direction, with an announcement by the ASEAN Secretariat that ASEAN planned to forge closer tourist relations with the PRC, Korea and Japan. The areas of ASEAN-wide collaboration are expected to span tourism promotion, human resource development (HRD), use of IT and public-private sector cooperation.

### *The PRC and India*

The services sector in India has outperformed merchandise trade, especially over the post-reform period. The average annual growth of services trade over the 1990–8 period was about 15 per cent. India's growth in services trade was nearly double that of merchandise trade during the 1992–8 sub-period.

Within the service sector, while information and communications technologies (ICTs) and related services were viewed as being non-tradable only a few years ago, they have in fact been the main thrust of rapid expansion of services trade in India, accounting for about 70 per cent of service exports in the year 2000 (World Bank, 2002b). The ICTs share in India's services exports in 2000 was almost double that in 1995. The development of the ICT industry in India has primarily been attributable to the software and product services segments, that registered an average revenue growth of about 50–60 per cent annually during the 1990s. The development of this sector has been largely market-driven and propelled by the nurturing of a pool of skilled IT professionals, coupled with an increasing international demand for such workers. However, despite rapid growth, India's share in the total global software market remains very low, suggesting significant scope for further expansion. The Indian government has identified the software industry as a major export and growth thrust area.

How competitive are the PRC's service exports, including ICT services exports, *vis-à-vis* ASEAN-5 and India? Since the concept of comparative advantage can be extended to services trade, a similar set of XRCA indices is estimated Table 9.8 for the four major categories of service exports within India, ASEAN-5 and the PRC over the period 1990–2000. It is observed that India clearly enjoys a comparative advantage in exports of ICT services (communications, computer-related services) *vis-à-vis* the PRC and most of the ASEAN-5 economies (except for Malaysia and Singapore) during this period, while the PRC appears well on the way to attaining comparative advantage in this area. Apart from this sector, India has not gained or improved its comparative advantage position in exports of other services.

With the PRC's entry into the WTO and resultant liberalization of its services sectors (telecommunications and finance), the demand for software services is projected to increase. With the PRC strengthening its competitive position in hardware and focusing on software development through setting

*Table 9.8* Export revealed comparative advantage (XRCA) estimates of India, China and ASEAN, services trade, 1990–2000

<b>Communications, Computer, etc. – related services</b>				
<b>Countries</b>	<b>XRCAs</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>
India	XRCAs > 1	1.15		1.84
	XRCAs < 1		0.82	
China	XRCAs > 1			
	XRCAs < 1	0.54	0.71	0.88
Indonesia	XRCAs > 1			
	XRCAs < 1	0.29	0.11	0.12
Malaysia	XRCAs > 1		1.16	1.25
	XRCAs < 1	0.69		
Singapore	XRCAs > 1	1.25	1.46	1.45
	XRCAs < 1			
Thailand	XRCAs > 1			
	XRCAs < 1	0.32	0.75	0.57
Philippines	XRCAs > 1	2.12	2.19	
	XRCAs < 1			0.50
<b>Insurance and financial services</b>				
<b>Countries</b>	<b>XRCAs</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>
India	XRCAs > 1			
	XRCAs < 1	0.51	0.44	0.17
China	XRCAs > 1		1.68	
	XRCAs < 1	0.73		0.08
Indonesia	XRCAs > 1			
	XRCAs < 1			
Malaysia	XRCAs > 1			
	XRCAs < 1	0.01	N.A	N.A
Singapore	XRCAs > 1			
	XRCAs < 1	0.11	0.21	0.37
Thailand	XRCAs > 1			
	XRCAs < 1	0.03	0.11	0.07
Philippines	XRCAs > 1			
	XRCAs < 1	0.07	0.11	0.44
<b>Transport services</b>				
<b>Countries</b>	<b>XRCAs</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>
India	XRCAs > 1		1.18	
	XRCAs < 1	0.84		0.46
China	XRCAs > 1	1.87		
	XRCAs < 1		0.74	0.52
Indonesia	XRCAs > 1			
	XRCAs < 1	0.10		

Table 9.8 Continued

Transport services				
Countries	XRCAs	1990	1995	2000
Malaysia	XRCAs > 1	1.11		
	XRCAs < 1		0.84	0.90
Singapore	XRCAs > 1			
	XRCAs < 1	0.62	0.66	0.85
Thailand	XRCAs > 1			
	XRCAs < 1	0.74	0.66	1.01
Philippines	XRCAs > 1			
	XRCAs < 1	0.27	0.12	0.92
Travel services				
Countries	XRCAs	1990	1995	2000
India	XRCAs > 1	1.03	1.18	
	XRCAs < 1			0.56
China	XRCAs > 1		1.41	1.68
	XRCAs < 1	0.90		
Indonesia	XRCAs > 1	2.53	2.83	2.98
	XRCAs < 1			
Malaysia	XRCAs > 1	1.28	1.01	
	XRCAs < 1			0.92
Singapore	XRCAs > 1	1.06		
	XRCAs < 1		0.77	0.67
Thailand	XRCAs > 1	1.97	1.60	1.68
	XRCAs < 1			
Philippines	XRCAs > 1			1.74
	XRCAs < 1	0.42	0.36	

Source: Computed from World Bank, *World Development Indicators*, CD-Rom (2002b).

up of IT training institutions and encouraging R&D by multinationals, there is likely to be impending competition that could directly affect India's comparative advantage in ICT services.

Table 9.9, adapted from Tschang (2003), summarizes the relative competencies of Indian and Chinese firms. It is evident that while Indian software firms possess strong capabilities in process maturity and management skills, Chinese firms are stronger in R&D and product branding. This implies that in order to gain from the growth in the PRC's software industry, Indian firms need to set up their operations in the PRC and cooperate with the software firms there on a long-term basis. Certain top Indian IT firms have already adopted this strategy of engagement, NIIT has already established centres in the PRC to train IT professionals in English and Mandarin courses. Infosys

*Table 9.9* Comparison of capabilities of Indian and Chinese software firms

Aspect	India	China
Software processing	Strong, climbing up the value chain	Weaker than India at the organizational level
Management	Strong in many of the top firms	Weak
Technology	Weak in university-based R&D, strong in commercial technology	Strong focus on R&D, and linkages between universities and firms
Revenue model	Export of services	Product sales, with systems integration
Individual technical skills	Strong	Strong
Product marketing	Weak	Weak

*Source:* Tschang (2003).

has established facilities in Shanghai to tap the domestic market. Satyam and Tata Consultancy Services (TCS) have also set up its operations in the PRC. It is estimated that by 2004, 60 per cent of the top twenty-five Indian software and application development companies will have a direct presence or a Jv with Chinese firms (Gartner Research, 2002). This strategy of competition coexisting with cooperation on a long-term basis is likely to be adopted by most Indian and ASEAN firms interested in venturing into the PRC.

#### **4 Concluding remarks on Asian regionalism**

In an increasingly globalized world, decisions about production, investment and trade are closely interlinked and often cannot be made independently of one another. In the context of international production systems, market-driven (as opposed to institutional-driven) regional integrative initiatives are increasingly viewed as effective tools to promote trade, FDI and technological progress:

From ASEAN's perspective, this implies the need for more aggressive and urgent steps to deepen regional economic integration and reduce the extent of fragmentation that currently exists among ASEAN markets. (ASEAN–China Expert Group, 2002)

In relation to this, mention should be made of the proposed ASEAN–China Free Trade Area (ACFTA) first mooted by Chinese Premier Zhu Rongji during the ASEAN–China Summit in November 2001. After a series of negotiations, the so-called ASEAN–China Closer Economic Partnership Framework Agreement was given concrete shape during the ASEAN Summit in

Cambodia in November 2002. A key feature of the ACFTA agreement is the 'early harvest' clause which commits ASEAN and the PRC to reduce their respective tariffs for certain agricultural products within three years. These 'early harvest' products are mainly those that represent about 10 per cent (or more than 600) of all tariff lines in the Harmonized System (HS) of tariff classification.<sup>10</sup> Tariff reduction/elimination for goods that are not included under the 'early harvest' programme are to be negotiated through the ACFTA, with negotiations to be completed by June 2004. The timetable for the formation of the ACFTA in goods for the older ASEAN members (ASEAN-5 plus Brunei) is 2010, while that for the others (i.e. Cambodia, Myanmar, Laos, the PDR and Vietnam) is 2015.

The framework agreement also commits both parties to commence negotiations for the liberalization of services and investment by early 2003. The framework agreement identified five priority areas for economic cooperation apart from trade liberalization and facilitation measures: agriculture, HRD, ICT, investment and the Mekong River basin development. It agrees to implement capacity building programmes and provide technical assistance for newer ASEAN members to help them catch up with the ASEAN-6 members and increase their trade and investment cooperation with the PRC.

The ACFTA is a significant development in Asian regionalism, not only because it is the first such agreement that the PRC has entered into since becoming a WTO member, but also because it is going to be one of the largest FTAs ever negotiated, involving about 1.7 billion people, over US\$ 2 trillion in aggregate GDP and US\$1.2 in total trade spanning eleven diverse and heterogeneous economies (in terms both of their size and levels of development). The ACFTA will invariably offer first-mover advantages to businesses from both the PRC and ASEAN into one another's markets. Another big benefit of an ACFTA will be to reduce transactions costs and ensure the procurement of parts and components can be done in the region efficiently, hence benefiting all countries involved in the regional production network. The creation of the ACFTA also effectively raises the costs of engaging in conflict among the countries involved and offers more systematic procedures and avenues to negotiate areas of dispute, thus possibly contributing to greater regional stability.

While the ACFTA ought to speed up the growing mutual interdependence between ASEAN and the PRC, its impact on individual ASEAN member economies is likely to be felt differentially depending upon the extent to which its economic structure and composition of trade complements or competes with that of the PRC. Without getting into details about the likely impact of the ACFTA, which is well beyond the scope of this chapter, simulation results by Roland-Holst and van der Mensbrugge (2002) using a global forecasting model leads them to conclude that there is likely to be little enthusiasm for an ACFTA arrangement outside East Asia, and that the ACFTA offers a real incentive paradox, where China's participation is critical

to the benefits enjoyed by other regional partners, but they cannot provide the depth and diversity of demand and supply that China needs to maintain stable terms of trade.

Differential potential effects of the ACFTA may well act as a roadblock preventing its full implementation. Nonetheless, an immediate positive side effect of the proposal is that it appears to have provided an impetus for ASEAN countries to hasten the process of intra-ASEAN integration. It has also had further 'domino effects', with the other major economic powers in Asia (Japan, India and Korea), also seeking trade pacts with ASEAN. In addition, the US President, George W. Bush, launched the Enterprise for ASEAN Initiative (EAI) during the APEC Summit in October 2002 to strengthen bilateral trade linkages with ASEAN (Lien, 2002). All of this in turn has offered ASEAN the potential to act as a hub, with the consequent benefits of being one.

ASEAN needs to encourage and act on such courtships in parallel with the implementation of the ACFTA for their own sake and also to act as buffers against the PRC's dominance in the South-East Asian region. At the same time, it is imperative that ASEAN maintain its cohesion and reinvigorate efforts to foster more intensive intra-ASEAN economic integration. Failure to do so could lead to a loss of hub status as the larger economic powers come to view ASEAN as a body that is disjointed and uncoordinated. There was a growing perception that this was the case during the height of the East Asian crisis in 1997–8 (Chang and Rajan, 1999, 2001); ASEAN has done remarkably well since then to rebuild its image in this regard. Greater efforts need to be made to deepen intra-ASEAN integration; current extra regional initiatives should not distract ASEAN from furthering its own regional integration under AFTA and the ASEAN Investment Agreement (AIA) (Kesavapany, 2003).

Some individual ASEAN members have aggressively sought to form bilateral trade pacts with extra regional countries separately from ASEAN. In particular, Singapore has gained first-mover advantage over other ASEAN members by seeking out its own bilateral trade pacts with a number of countries in Asia and elsewhere (Rajan, Sen and Siregar, 2001; Rajan and Sen, 2003b). For instance, while there are ongoing discussions on an ASEAN-Korea FTA, there have simultaneously been separate negotiations between Korea and Singapore on a bilateral basis. The same is true with regard to India and ASEAN wherein a Framework Agreement for Comprehensive Economic Cooperation (CEC) was signed in October 2001 on the one hand and regulation between India and Singapore are again is a \$\$\$\$. The formation of an India–Singapore Comprehensive Economic Cooperation Agreement (CECA) was proposed during the Indian Prime Minister's visit to Singapore, 2000, the scope of which has been studied by a Joint Study Group (JSG).<sup>11</sup> The study group has now tabled its recommendations, and negotiations on the CECA are again. This agreement is expected to be as comprehensive as a FTA, covering trade in goods and services as well as

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trade-generating investments. The Comprehensive Economic Perspective (CEP) is expected to be fully operationalized by early in the next decade. The Framework Agreement for creation of an India–Thailand FTA within a decade has also been signed recently.

Both the PRC and India are now much more focused on opportunities for mutual rather than zero-sum gains. There are signs of intensified business and economic interactions between them, as there are in bilateral cultural and political ties (Nagpal, 2003). There has in fact been a serious suggestion regarding the possible formation of a bilateral FTA at some stage (Li Wei, 2003). As direct bilateral ties are fortified, the need for third countries to act as middlemen appears to be fast diminishing. Growing emphasis is being placed in some circles on pan-Asian regional integration involving Japan, ASEAN, China, India and Korea (JACIK) (Kumar, 2002). This is a potentially important initiative that ought to be further explored.

# Appendix

*Table 9A.1* Classification of commodities according to relative factor intensities (Garnaut and Anderson, 1980)

<b>Unskilled labour-intensive goods</b>	<b>SITC code</b>	<b>Technology-intensive goods</b>	<b>SITC code</b>
Textile yarn, n.e.s	65	Medicinal and pharmacy products	54
Textile yarn	651	Fertilizers, manufactures	56
Cotton fabrics, woven	652	Explosives and pyrotechnic	57
Fabrics, woven of man-made fibres	653	Artificial resins and plastic materials	58
Other textile fibres	654	Chemical material and products	59
<b>Total</b>	<b>651-654</b>	Automatic data process	752
Special textile fabrics	657	Parts, n.e.s and accessories	759
Glass	664	Telecommunication equipment	76
Glassware	665	Electrical machinery and parts thereof	77-775
Pottery	666	Professional, scientific and controlling instruments	87
<b>Total</b>	<b>664-666</b>	Photographic apparatus – watch clock	88-885
Sanitary, plumb fixtures	81	<b>Physical capital-intensive goods</b>	<b>SITC code</b>
Furniture and parts	82	Organic chemicals	51
Travel goods	83	Inorganic chemicals	52
Apparel and clothing accessories	84	Iron and steel	67
Footwear	85	Non-ferrous metals	68
Misc. jewellery, art, antiques	89-896-897	Power generating machinery	71
Baby carriages, toy	894	Machinery specialized	72
<b>Human capital-intensive goods</b>	<b>SITC code</b>	Metalworking machinery	73
Essential oils	55	General industrial machinery	74
Rubber manufactures	62	and equipment, n.e.s	
Paper, paperboard	64	Office machines	751
Metal manufactures, n.e.s	69		
Household electric and non-electric equipment	775		
Road vehicles	78		
Other transport equipment	79		
Watches and clocks	885		
Works of art and jewellery	896-897		

Source: Garnaut and Anderson (1980).

## Notes

1. This chapter draws partly on Rajan (2003a,b) and Sen and Srivastava (2003). The authors are grateful to Mukul Asher, Rahul Sen and an anonymous referee for useful comments and suggestions on an earlier draft. This chapter was completed while the second author was a Visiting Freeman Foundation Scholar at the Department of Economics, Claremont McKenna College (CMC). He is grateful for the generous support provided by the Freeman Foundation as well as for the excellent research facilities made available to him at the Lowe Institute of Political Economy, CMC. The usual disclaimer applies.
2. For details of the Southeast Asian financial crisis, see Rajan (1998).
3. McKibbin and Woo (2002) model the impact of the PRC's WTO accession as a reduction in the risk premium demanded by export-oriented investors as the PRC becomes a more reliable supplier to international markets.
4. This is even more so in the case of the other emerging Asian giant, India (Rajan and Sen, 2002, 2003a).
5. Also see Wei (1999) who makes a similar argument using a gravity model. If one considers Hong Kong and the PRC together, the improvement in the PRC's rankings would be more impressive, as Hong Kong rose from 2 to 4.
6. Of course, this argument runs both ways. As trade barriers in the PRC continue to decline and infrastructural and communications facilities improve further, FDI may move from some ASEAN countries to the PRC, and the ASEAN markets will be served from the PRC in the face of competitive pressures and falling margins.
7. The Indian official data puts bilateral trade in 2001–2 at US\$ 3000 million, substantially lower than the PRC's figures.
8. 'White goods' include large household appliances such as refrigerators, stoves, air conditioners and washing machines.
9. The results must be interpreted with some degree of caution, however, as the Garnaut–Anderson classification is only based on the 3-digit product level which does not adequately differentiate between the final good and its parts and components.
10. The 'early harvest' products belong to the following categories: Live animals, Meat and edible meat offal, Fish, Dairy produce, Other animal products, Live trees, Edible vegetables, and Edible fruits and nuts (MTI, 2002).
11. See Mehta (2003), Sen (2002) and Mohanty (2003) for in-depth discussions on India–Singapore economic relations. See Asher and Sen *et al.* (2004) (2003) for an exploration of ASEAN–India economic relations.

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