

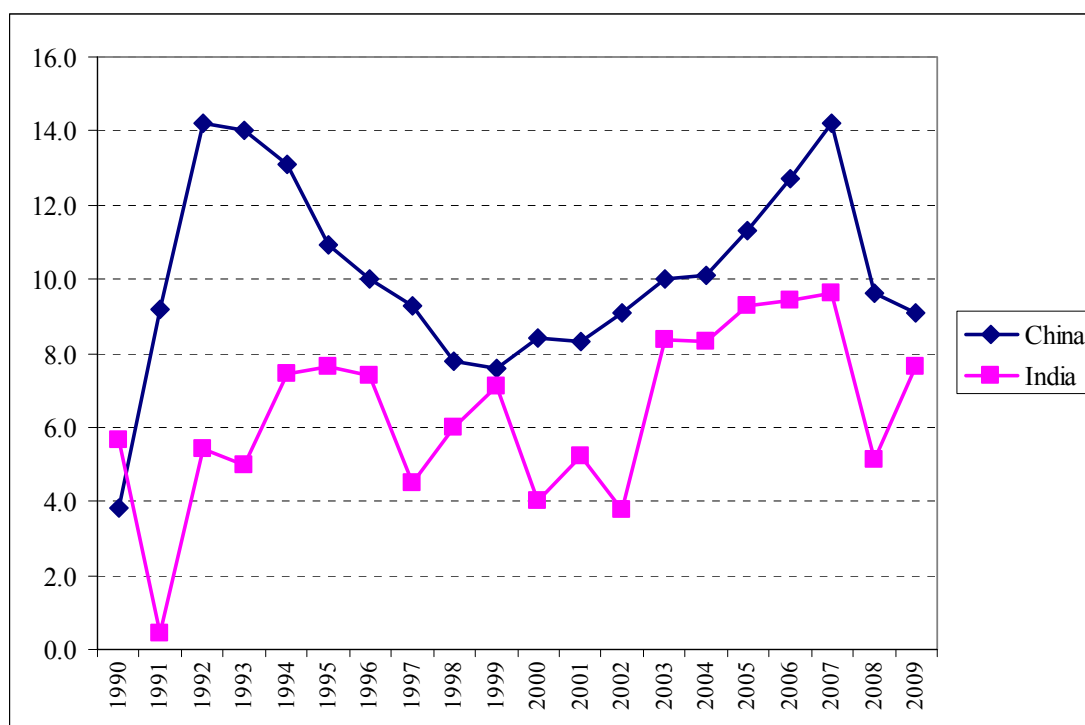
Chapter II

Comparative overview of economic profiles and roles of China and India in Asian international production networks

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Despite the fact that China and India have gone through the period of high growth in the 2000s (figure 5), there are considerable differences in terms of economic structure, sources of growth and trade patterns. The differences have resulted in divergent performances by the two countries in Asian IPNs. This chapter provides a comparative overview of the economic structure and participation of China and India in Asian IPNs to enable the current position of India to be evaluated, with China being used as a benchmark.

Figure 5. Growth rates of real GDP: China and India, 1990-2009



Source: Based on data from the *ESCAP Statistical Yearbook, 2011*.

1. Macro comparisons of economic structures

China and India are the world's two most populous countries. In 2010, China accounted for nearly 20 per cent of the global population, while for India it was approximately 18 per cent. Output and income per capita of China was significantly higher than that of India (table1). Based on real GDP per capita, adjusted for purchasing power parity (PPP) to reflect the actual purchasing power of a country, real income per capita of China is more than double that of India.

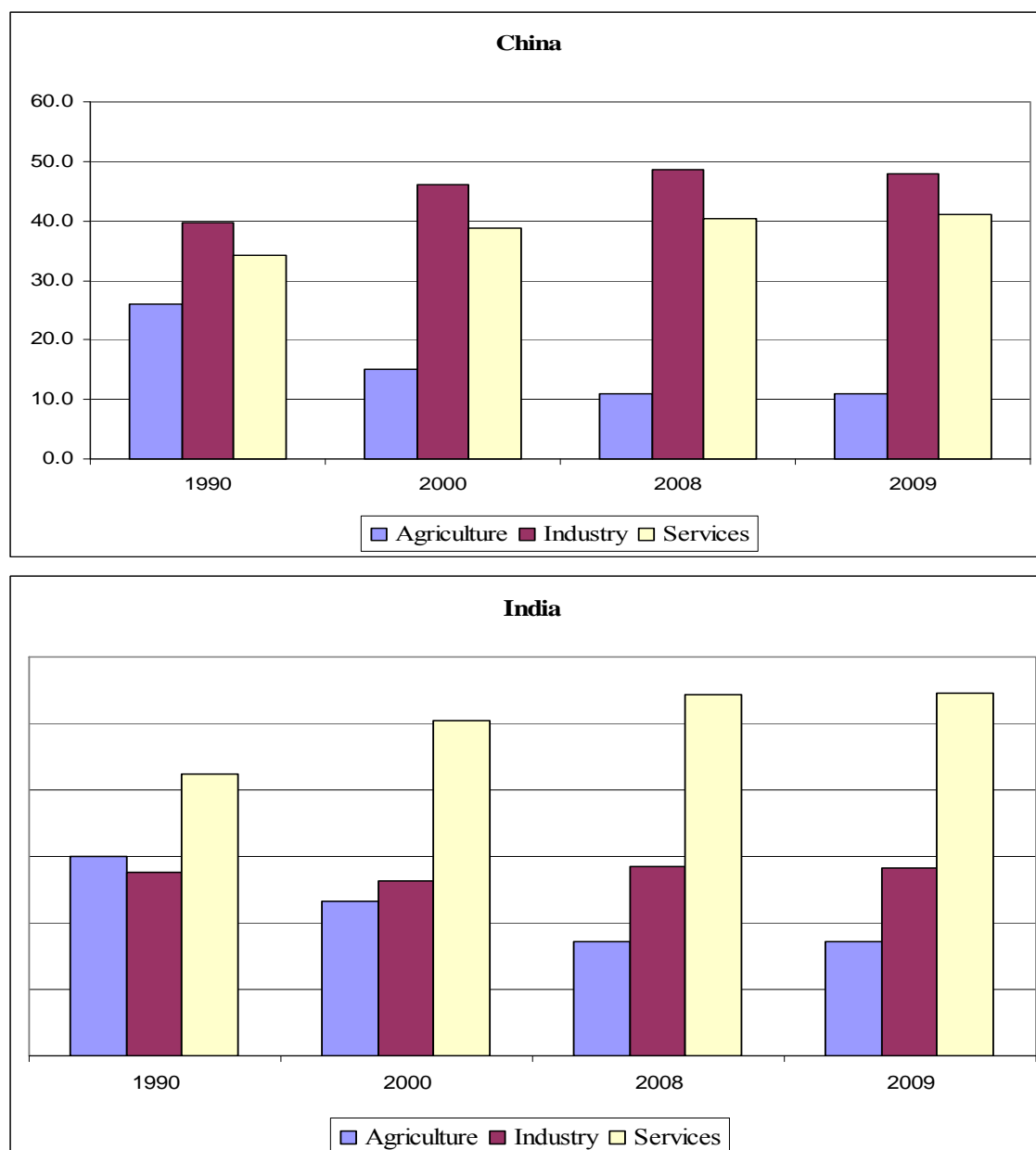
Table 1. Economic profiles of China and India

		1990	1995	2000	2005	2008	2009	2010
Population (million people)	China	1 142	1 211	1 267	1 312	1 337	1 346	1 354
	India	862	953	1 043	1 131	1 181	1 198	1 214
Share of world population (%)	China	21.6	21.2	20.7	20.2	19.8	19.7	19.6
	India	16.3	16.7	17.0	17.4	17.5	17.5	17.6
GDP (million US\$)	China	404 494	756 960	1 192 836	2 302 719	4 416 104	4 984 426	
	India	326 796	369 240	467 788	840 470	1 281 330	1 287 292	
GDP per capita (2005 US dollars)	China	469	790	1 141	1 755	2 429	2 633	
	India	409	475	576	743	897	953	
GDP per capita (2005 PPP US dollars)	China	1 094	1 840	2 658	4 088	5 658	6 134	
	India	1 230	1 426	1 731	2 235	2 697	2 864	

Source: Based on data from the *ESCAP Statistical Yearbook*, 2011.

(a) *Structure of GDP*

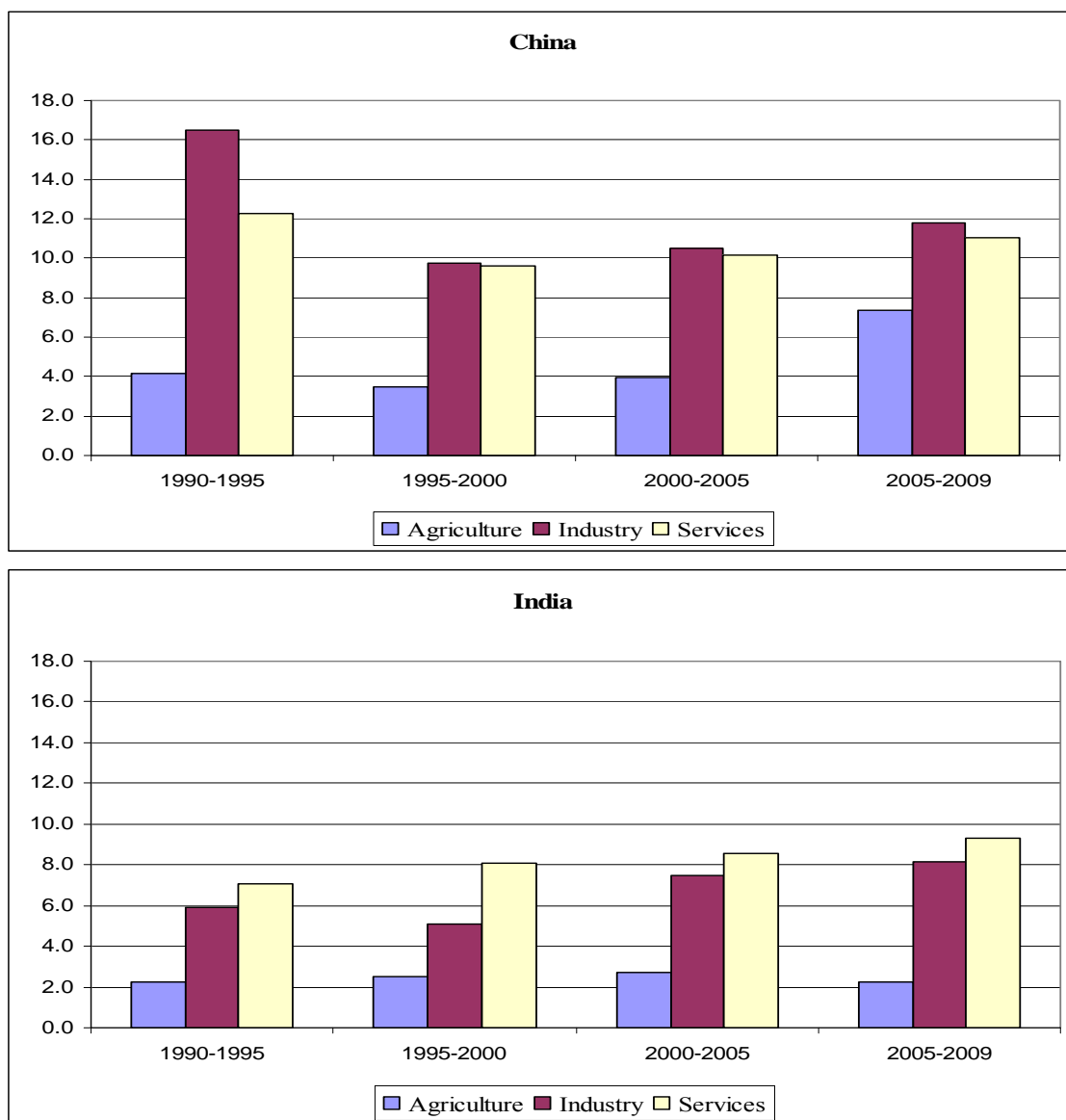
China and India experienced a significant decline in agricultural production during the past two decades (figure 6). In the case of China, output has been shifting towards the industrial and services sectors. The industrial sector of China increased its share in total value-added from 40 per cent in 1990 to 48 per cent in 2009, while its share of the service sector increased from 34 per cent to 41 per cent during the same period. In contrast, India's production has shifted toward services. India's share of services in total value-added increased steadily from 42 per cent in 1990 to 55 per cent in 2009, while its share of the industrial sector was below 30 per cent throughout that period

Figure 6. Shares in GDP by economic sectors**(Unit: Per cent of GDP)**

Source: Based on data from the *ESCAP Statistical Yearbook, 2011*.

In terms of growth, the service sector of India grew notably faster than the industrial sector, especially during the late 1990s (figure 7). In China, by contrast, the industrial sector grew slightly faster than the services sector. The performance of India's service sector led to the praise that Indian's growth pattern had revealed an alternative growth model that was driven by services and which skipped the phase of a typical labour-intensive industrialization exemplified by the rapid growth of East and South-East Asian economies. However, employment in the economic sectors shows that India's rapidly growing service sectors may have a limited impact on employment creation.

Figure 7. Growth of production by economic sector
(Unit: Average annual growth rates in per cent)



Source: Based on data from the *ESCAP Statistical Yearbook, 2011*.

*(b) Employment*¹⁶

While the agricultural sector represents a minor part of total value-added of China and India, in terms of employment that sector is still the most important one for both countries, the employment share of China was 50 per cent while that of India was 60 per cent in 2000 (figure 8). The industrial sector accounted for 23 per cent of employment in China, and contributed 46 per cent of Chinese GDP in the same year. The service sector contributed 28 per cent of total employment, and accounted for 39 per cent of the Chinese GDP.¹⁷ Despite a commonality in agriculture, India's employment and production structure appears to be the reverse of that in China: in 2000, India's services sector generated more than 50 per cent of the country's GDP, while accounting for only 24 per cent of total employment. The industrial sector generated 16 per cent of employment and accounted for 27 per cent of India's GDP.¹⁸

In terms of wages, labour costs in India appear to be lower than in China. For example, according to Kalish (2006), International Monetary Fund (IMF) data reveals that the monthly wage of a typical manufacturing worker in India was US\$ 23.80 in 2002, while for China the figure was US\$ 110.80. Thus, it appears that India has not yet utilized its labour cost advantage to create more employment opportunities in the manufacturing sector.¹⁹

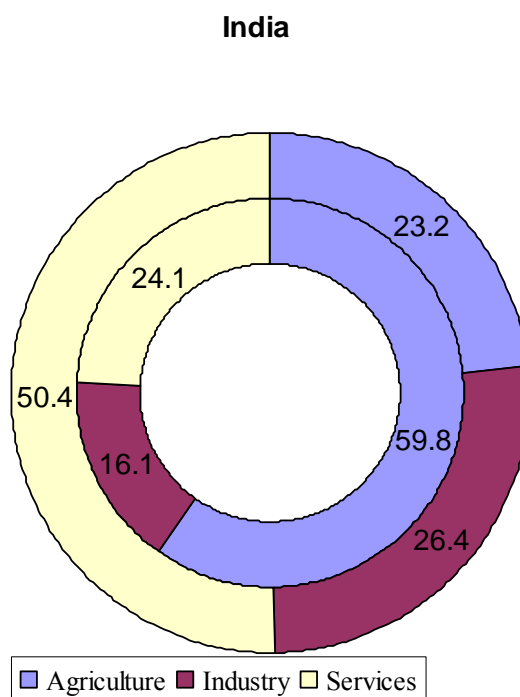
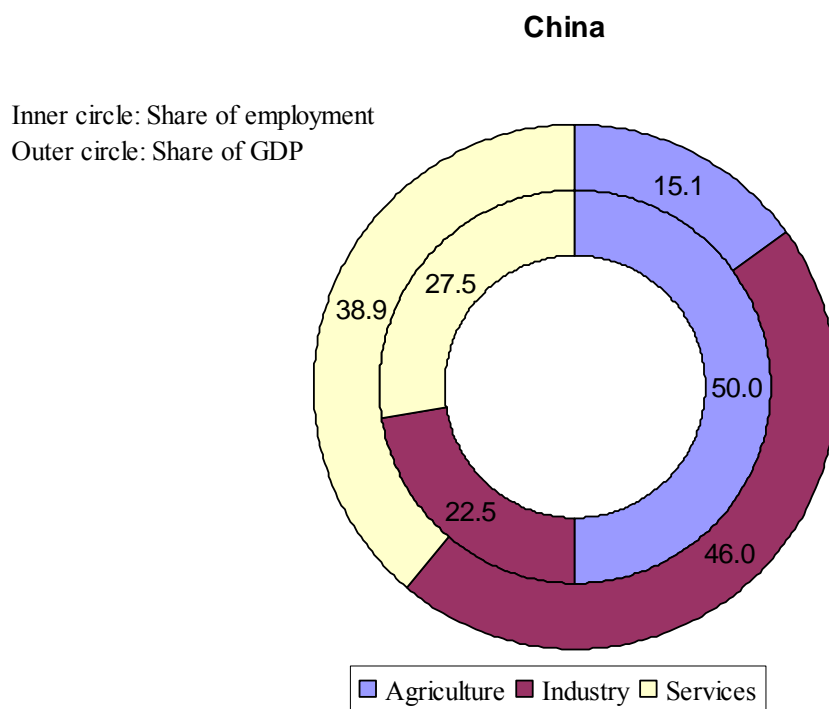
¹⁶ Data related to employment and wage in China and India should be taken cautiously. The data for unregistered sectors are usually not reported.

¹⁷ Chinese employment data show that the agricultural sector accounted for 40 per cent of Chinese employment in 2008, followed by the services sector (33 per cent) and industrial sector (27 per cent). For India, the latest employment data are available only up to 2000 (see figure 8).

¹⁸ The sectoral distribution of India's employment and output appears to support the argument by some reports, such as Gordon and Gupta (2004), that rapid increases in Indian output were related to IT services, which are relatively skills-intensive and have small impact on job creation.

¹⁹ Recognizing the importance of the manufacturing sector with regard to employment creation, India plans to increase the share of manufacturing in total value-added and employment. A draft national manufacturing policy was approved in 2011. For more details, see chapter IV of this book.

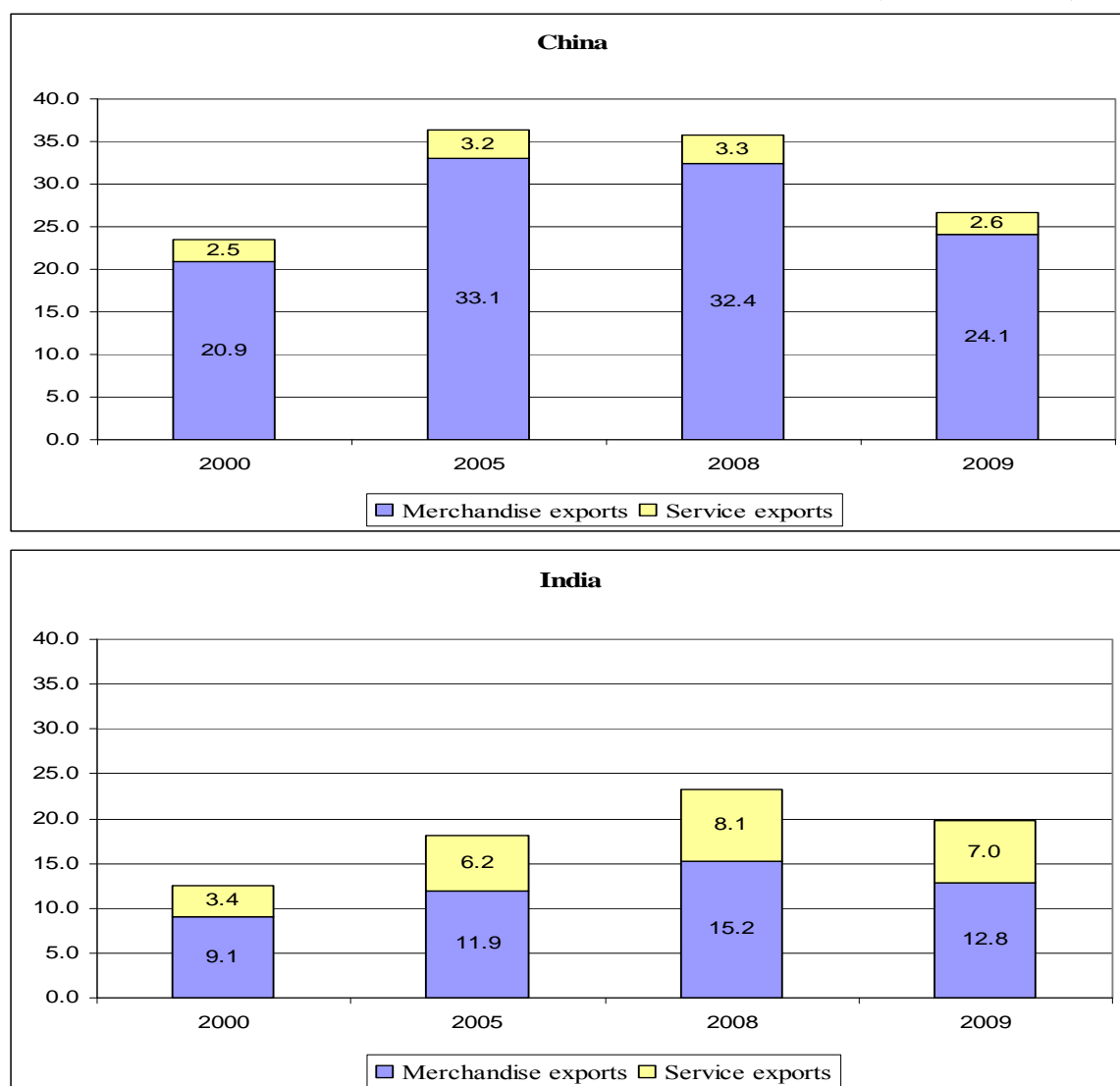
Figure 8. Distribution of employment and GDP by sector, China and India, 2000



Sources: Based on data from the *ESCAP Statistical Yearbook, 2011* and the International Labour Organization.

(c) *Trade*

In 2010, China's trade value was more than quadruple that of India. China's total exports (merchandise and services) amounted to US\$ 3,335 billion versus US\$ 765 billion for India. The export dependency of the Chinese economy is considerably higher than it is in India. Before the impact of the global economic crisis significantly affected export figures, the share of China's exports in GDP was more than 35 per cent in 2008, while for India it was less than 25 per cent (figure 9).

Figure 9. Shares of exports in GDP**(Unit: Per cent)**

Source: Based on data from the *ESCAP Statistical Yearbook*, 2011.

Exports of goods by China now account for more than 90 per cent of that country's total exports, while the figure for India is still well below 70 per cent (table 2). Services play a more important role in trade by India than trade by China, especially on the export side. The services sector share of Indian exports rose from 27

per cent in 2000 to a peak of 35 per cent in 2008, while the sector's share of Chinese exports remained at about 10 per cent throughout that period. During the economic crisis in 2009, services trade was relatively resilience compared to trade in goods (*Asia-Pacific Trade and Investment Review*, 2011). As a result, since most of China's exports are goods, the country was hit harder by the adverse impact of the global economic crisis than India as a considerable proportion of Indian exports comprise services.

Table 2. Shares of goods and services in trade by China and India
(Unit: Per cent)

Year	China				India			
	Exports		Imports		Exports		Imports	
	Goods	Services	Goods	Services	Goods	Services	Goods	Services
2000	89.2	10.8	86.3	13.7	72.6	27.4	73.2	26.8
2005	91.2	8.8	88.8	11.2	65.6	34.4	75.3	24.7
2008	90.3	9.7	87.8	12.2	64.6	35.4	78.5	21.5
2009	90.3	9.7	86.4	13.6	66.4	33.6	76.2	23.8
2010	90.3	9.7	87.9	12.1	66.4	33.6	73.4	26.6

Source: Based on data from the *ESCAP Statistical Yearbook, 2011*.

2. Manufacturing sector²⁰

Many empirical studies have documented the fact that machinery and transport equipment (SITC 7) are predominant sectors in terms of international fragmentation of production.²¹ Trade patterns of countries that have been extensively involved in the product fragmentation process are likely to have a considerable share of machinery and transport equipment. Therefore, the share of those sectors in trade sometimes has been used as a general indicator for IPN participation in empirical studies, apart from indicators that focus specifically on trade in parts and components.²²

According to the World Bank (2011), manufacturing currently accounts for 32 per cent of China's output while for India the figure is 16 per cent. Within the manufacturing sector, machinery and transport equipment account for 25 per cent of Chinese manufacturing output, but less than 20 per cent in India.

The difference between the two countries is more notable when it comes to the role of the manufacturing sector in exports. Exports of manufacturing products have

²⁰ The manufacturing sector is defined as SITC (Rev.3) 5 to 8, excluding SITC 68.

²¹ See, for example, Ando, 2006; Ando and Kimura, 2005 and 2009; and Athukorala, 2010a and 2010b.

²² Other chapters in this publication provide disaggregate indicators that are based on trade in parts and components.

been growing in importance in China's export structure, and currently account for 85 per cent of total exports (table 3). The share of the manufacturing sector in Indian exports is significantly lower than its share in Chinese exports, and has declined from 56 per cent to 42 per cent during the past decade.

There has been a noticeable shift in the composition of China's exports, from conventional labour-intensive product lines such as apparel, footwear, toys and sports goods to more sophisticated goods in machinery product lines.²³ From 2000 to 2010, the share of miscellaneous manufactures (SITC 8) – a miscellaneous group encompassing most of the traditional labour-intensive products – in total exports of manufactures declined from 39 per cent to 26 per cent, while the share of machinery and transport equipment increased from 38 per cent to 53 per cent. By contrast, Indian manufacturing exports are characterized by resource-based materials such as primary and fabricated metals (SITC6-68). The share of machinery and transport equipment remains small, although it increased significantly from 9 per cent to 23 per cent between 2000 and 2010.

Table 3. Distribution of manufacturing exports by China and India

(Unit: Per cent)

SITC Rev.3		China					India				
		2000	2005	2008	2009	2010	2000	2005	2008	2009	2010
5	Chemicals	5.5	5.1	6.0	5.5	5.9	13.2	16.1	18.1	15.8	17.1
6	Resource-	17.8	16.9	18.2	15.4	15.7	50.3	45.2	40.9	34.0	40.1
Minus 68	based products										
7	Machinery and transport equipments	37.6	50.3	50.6	52.6	52.9	9.4	14.9	21.8	23.0	23.1
8	Miscellaneous manufacturing articles	39.1	27.7	25.2	26.6	25.5	27.1	23.7	19.3	27.2	19.7
	All manufacturing products	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Shares of manufacturing sector in total exports	78.7	83.8	84.4	84.6	84.5	56.4	46.7	37.9	46.0	42.4

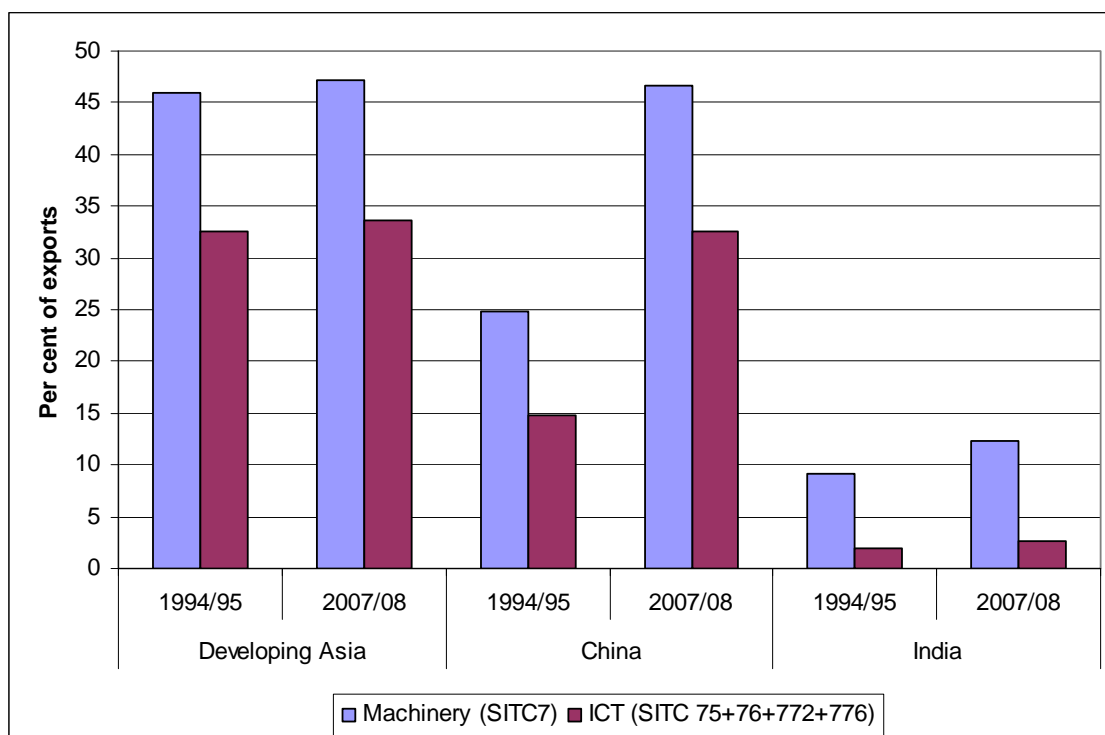
Source: Calculation based on United Nations COMTRADE data downloaded from WITS database.

A closer examination of the machinery and transport equipment subsector reveals that information and communications technology (ICT) products (SITC77-

²³ See Athukorala, 2009; Bergesten and others, 2006; and Sung, 2007.

772-776) has been a major driver of the remarkable growth of China's machinery exports. The share of ICT products in exports of manufactures by China increased from less than 15 per cent in 1994/95 to nearly 33 per cent in 2007/08. In the case of India, it appears that the country's export success in IT services has not been associated with ICT hardware sector. The share of ICT exports remains very small (below 3 per cent of manufacturing exports) throughout the same period (figure 10).

Figure 10. Machinery and ICT products in manufacturing exports



Source: Based on data from Athukorala, 2011.

Note: In Athukorala (2011), developing Asia covers 12 developing Asian economies including China, Hong Kong, China, India, Indonesia, Republic of Korea, Malaysia, Pakistan, the Philippines, Singapore, Taiwan Province of China, Thailand and Viet Nam.

A relatively similar pattern is found on the import side. Manufacturing accounts for one-half of Chinese imports, but only one-third of Indian imports. Machinery and transport equipment dominate imports of manufactures by both countries (table 4).

Table 4. Distribution of manufacturing imports by China and India**(Unit: Per cent)**

SITC Rev.3		China					India				
		2000	2005	2008	2009	2010	2000	2005	2008	2009	2010
5	Chemicals	18.3	17.4	18.1	18.6	18.6	20.8	20.2	24.7	21.4	22.4
6-68	Resource-based products	20.5	13.6	10.9	11.1	9.7	35.7	30.1	23.2	25.2	31.1
7	Machinery and transport equipment	53.7	57.0	58.1	57.8	59.1	34.7	42.0	46.4	45.7	40.0
8	Miscellaneous manufacturing articles	7.5	12.1	12.8	12.4	12.6	8.8	7.7	5.7	7.7	6.6
	All manufacturing products	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Shares of manufacturing sector in total imports	62.5	59.1	49.8	50.7	49.7	31.9	35.4	34.0	37.7	28.3

Source: Calculated based on United Nations COMTRADE data downloaded from WITS database.

The trade patterns reviewed above indicate that the manufacturing trade of China is largely characterized by two-way trading in the machinery and transport equipment sector on an aggregate level (at 1-digit SITC Rev.3). For India, the trade pattern is largely characterized by traditional inter-industry trade. Manufacturing trade by India is more about exporting resource-based manufacturing materials, and importing machinery and transport equipment. According to Kochhar and others (2006), India's industrial development policy from independence until the early 1990s focused on import substitution more than export orientation. Consequently, Indian manufacturing production has emphasized industries that are capital-intensive and large-scale, rather than labour-intensive; in fact, such distorted industrial structures remain despite the regulation reforms that have taken place. One implication that can be drawn from observing the trade patterns of India is that sophisticated manufacturing industries in India have not been associated with the country's export competitiveness.

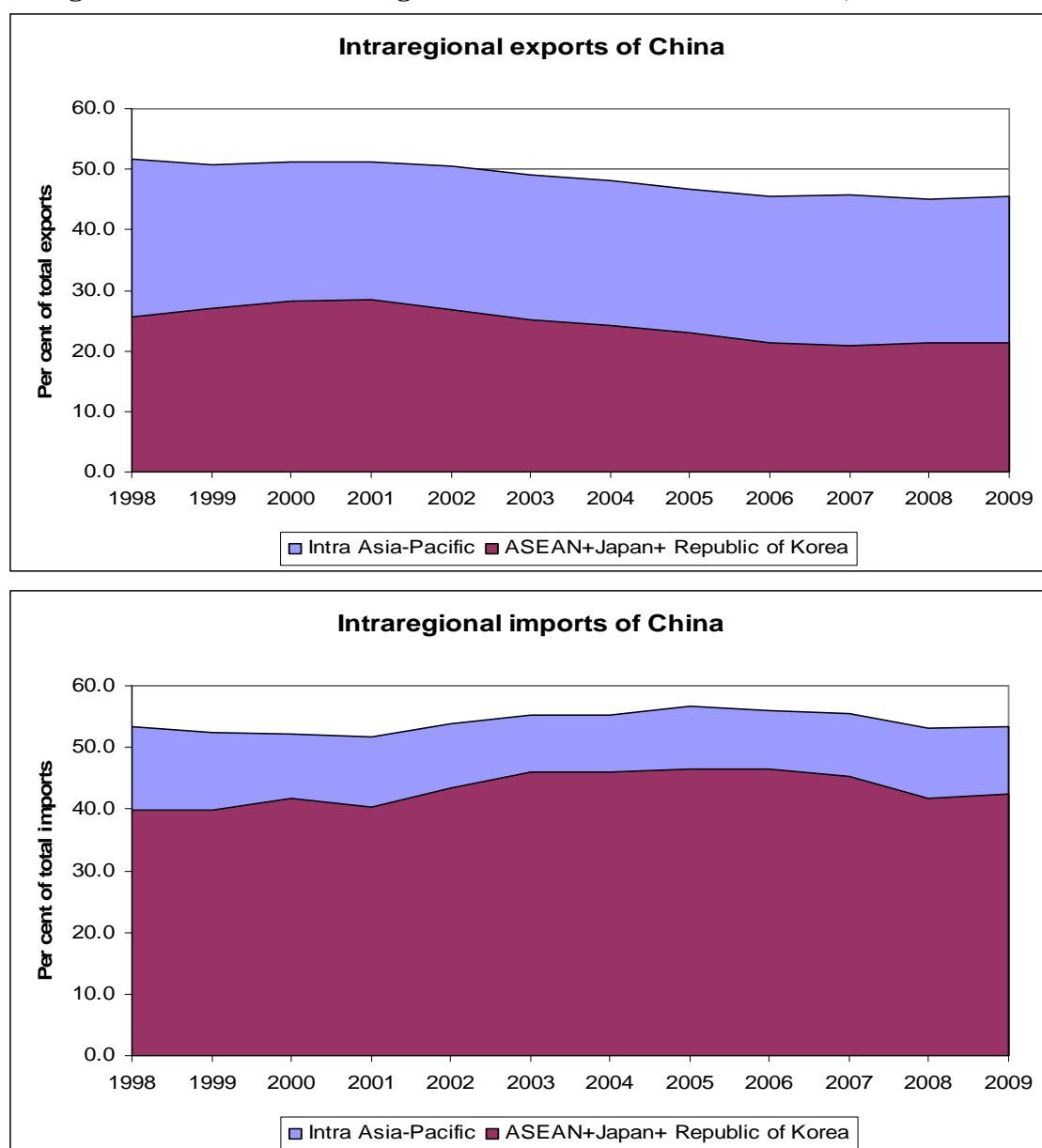
3. Intra-regional trade

Participation in Asian IPNs is partly reflected in high involvement in intra-regional trade because parts and components at different stages of production will be traded back and forth between countries in the production networks. From 1998 to 2009, the shares of intra-regional imports ranged between 51 per cent and 57 per cent

of total Chinese imports, while the share of intraregional exports was between 45 per cent and 52 per cent (figure 11).

Intraregional trading by China is largely dominated by trade with ASEAN, Japan and the Republic of Korea. China's trade with these countries is skewed towards imports more than exports. This asymmetry in the intraregional trade structure partly reflects the fact that East and South-East Asian countries are supplying inputs for China's exports to the rest of the world.

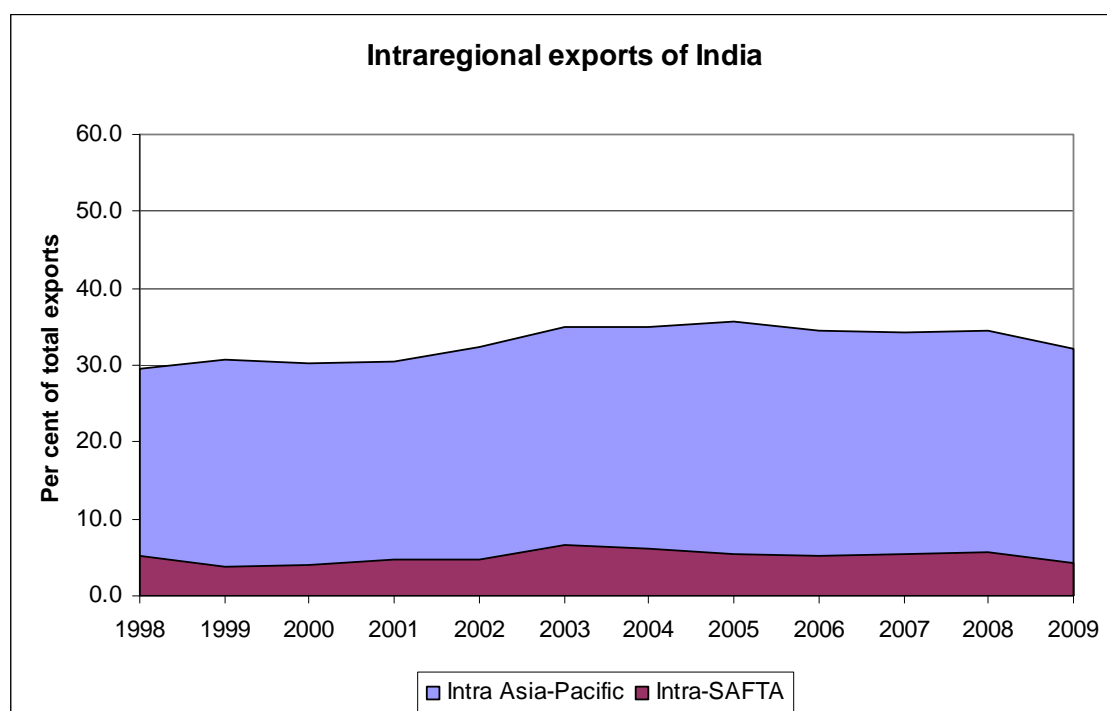
Figure 11. Shares of intraregional trade in total trade of China, 1998-2009



Source: Based on data from the *ESCAP Statistical Yearbook, 2011*.

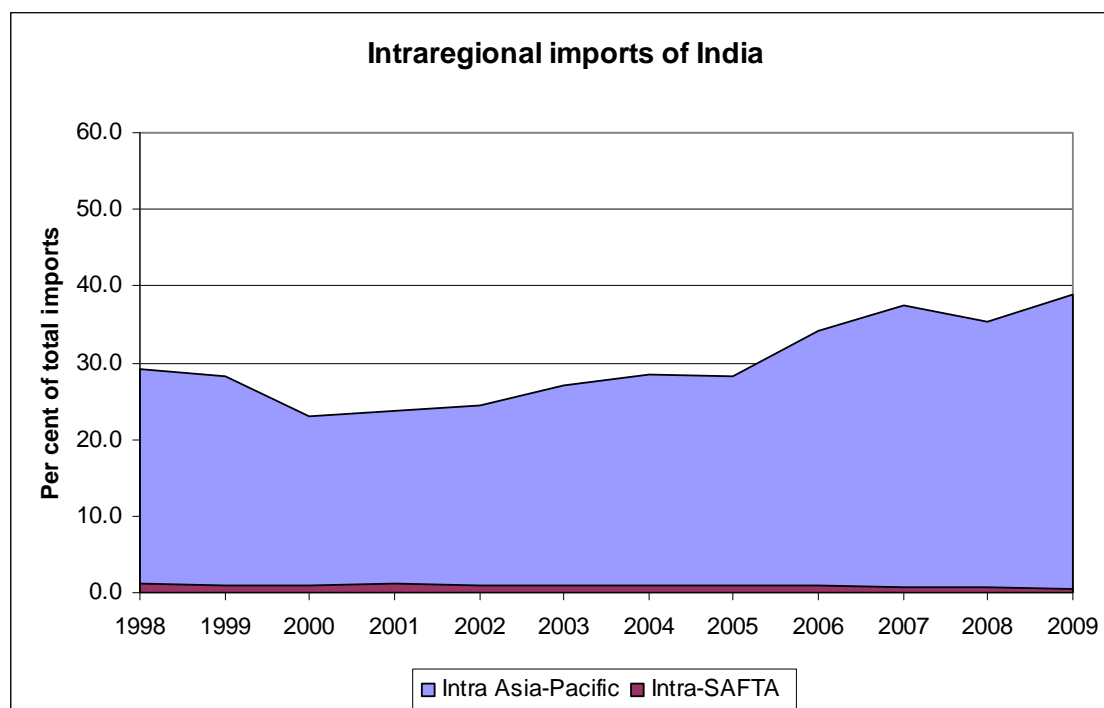
Compared to China, India's trade is significantly less integrated with intraregional markets (figure 12).²⁴ Intraregional exports by India remained at around 30 per cent throughout the past decade. However, India has been increasingly sourcing from countries within the region. The share of India's intraregional imports increased from less than 30 per cent in the early 2000s to 39 per cent in 2009. Throughout the study period, India's trade with other members of the South Asian Free Trade Area (SAFTA) was negligible.

Figure 12. Shares of intraregional trade in total trade by India, 1998-2009



²⁴ Eight member States of the South Asian Free Trade Area include Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

Figure 12. Shares of intraregional trade in total trade by India, 1998-2009
(Continued)



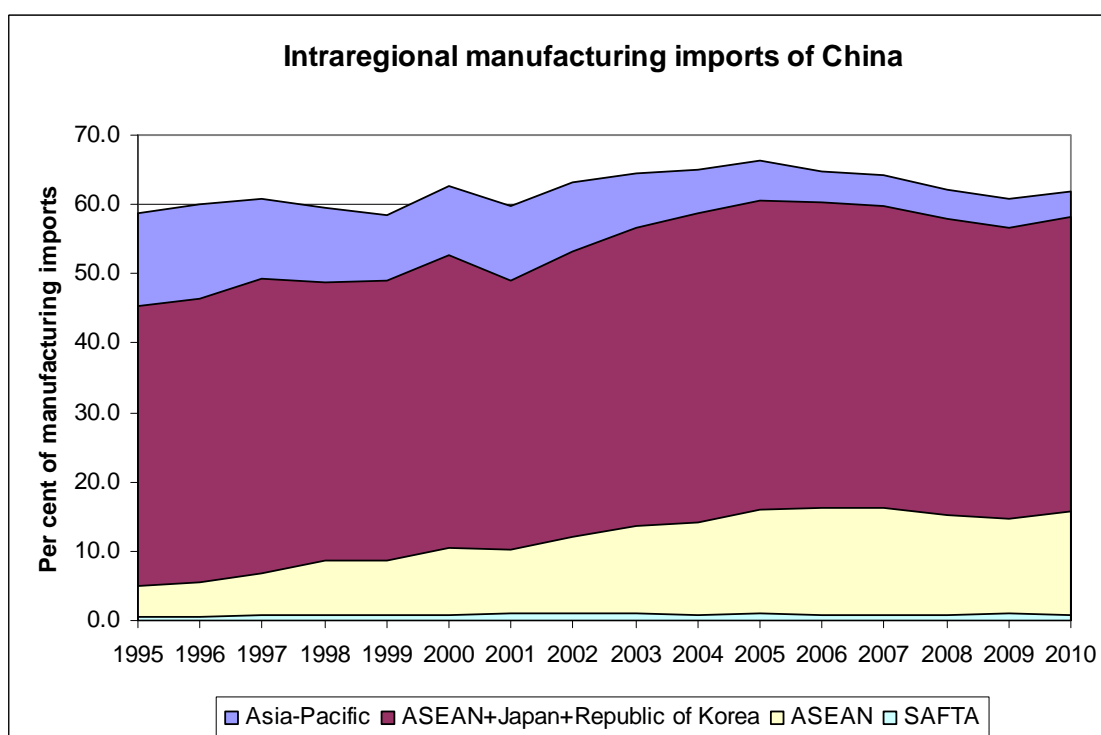
Source: Based on data from the *ESCAP Statistical Yearbook, 2011*.

4. Intraregional trade in manufacturing products

Participation in Asian IPNs will result in a larger proportion of intraregional trade particularly in manufacturing products. Consistent with the view that China has been increasingly acting as a centre of final assembly and an export platform for Asian IPNs, the shares of intraregional exports and imports in Chinese manufacturing exports and imports have been large but asymmetric (figure 13). Currently, more than 60 per cent of Chinese manufacturing imports are sourced within the region, while intraregional manufacturing exports account for about 50 per cent of Chinese manufacturing exports.

Japan and the Republic of Korea, account for the major share of China's manufacturing imports, while ASEAN increased its share from 5 per cent of China's manufacturing imports in 1995 to 16 per cent in 2010. South Asia (including India) accounted for a negligible share throughout the same period.

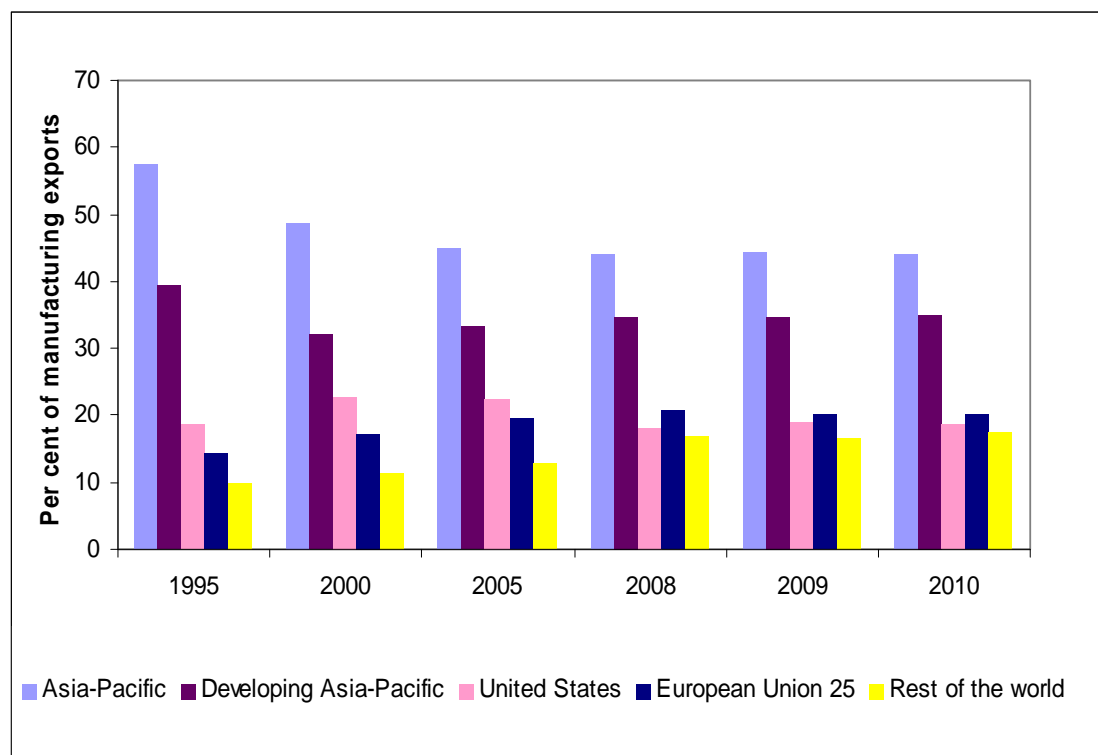
Figure 13. Intraregional trade of Chinese manufacturing sector, 1995-2010



Source: Based on United Nations COMTRADE data downloaded from WITS database.

In recent years, manufacturing exports by China have been increasingly moving away from intraregional markets towards markets outside the region. Although the United States and the European Union remain the most important extra- regional destinations, the shares of these traditional markets for manufacturing exports have been declining; at the same time, the share of Chinese manufacturing exports in the rest of the world increased steadily from 10 per cent in 1995 to 17 per cent in 2010 (figure 14).

Figure 14. Chinese exports of manufactures, by destination



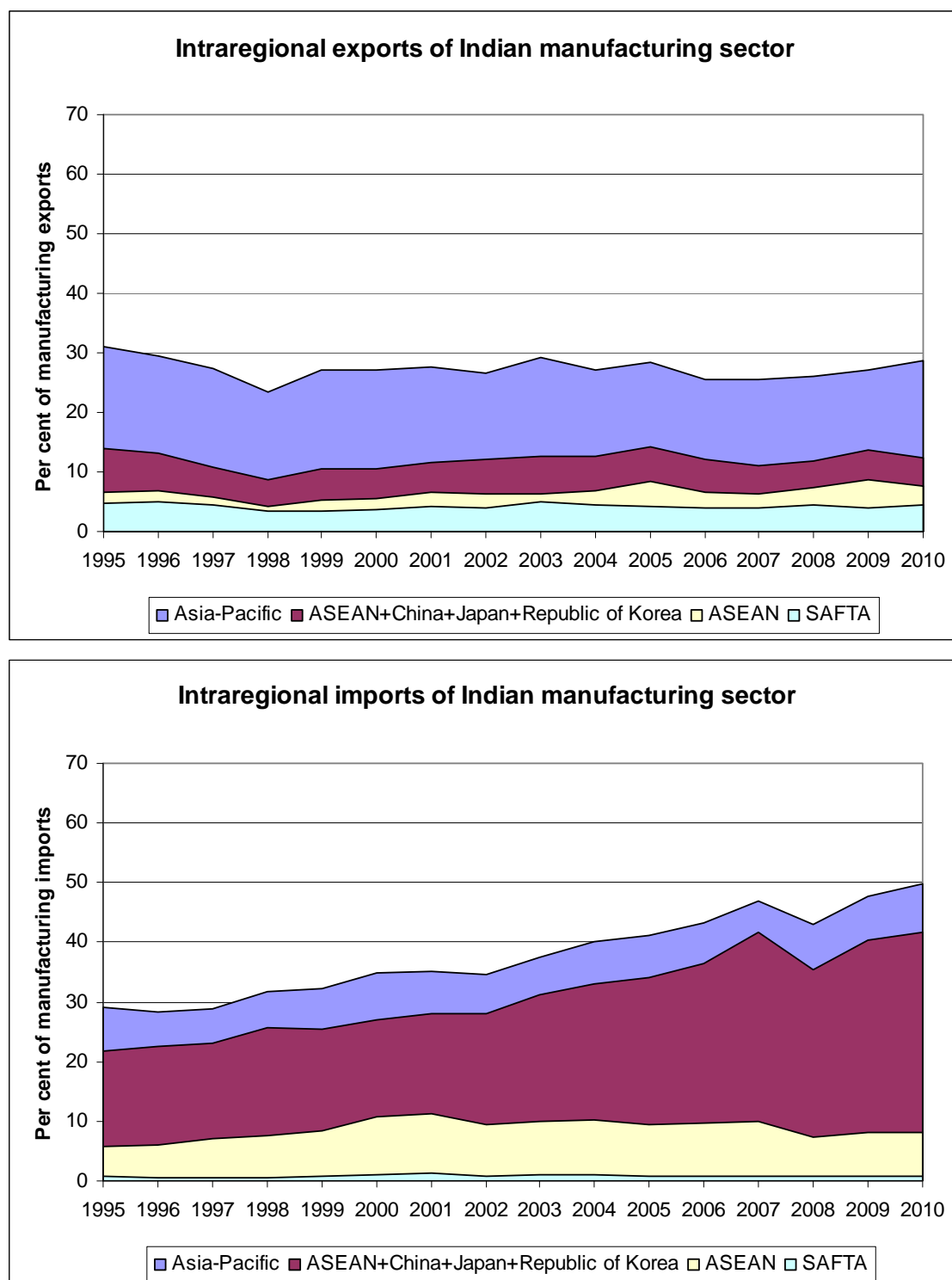
Source: Calculated by author based on United Nations COMTRADE data downloaded from WITS database.

Although India's manufacturing sector has been slowly engaging with intraregional markets, it has been increasingly turning to the Asia-Pacific region (particularly East Asian countries) as a source of its manufacturing imports. India's share of intraregional imports in total manufacturing imports nearly doubled from 22 per cent in 1995 to 42 per cent in 2010 (figure 15). The increases in India's intraregional sourcing were largely dominated by imports from East and South-East Asia. Since 1995, ASEAN countries have accounted for about 10 per cent of India's manufacturing imports, while the share of imports from China, Japan and Republic of Korea more than doubled in the same period from 16 per cent to 34 per cent.

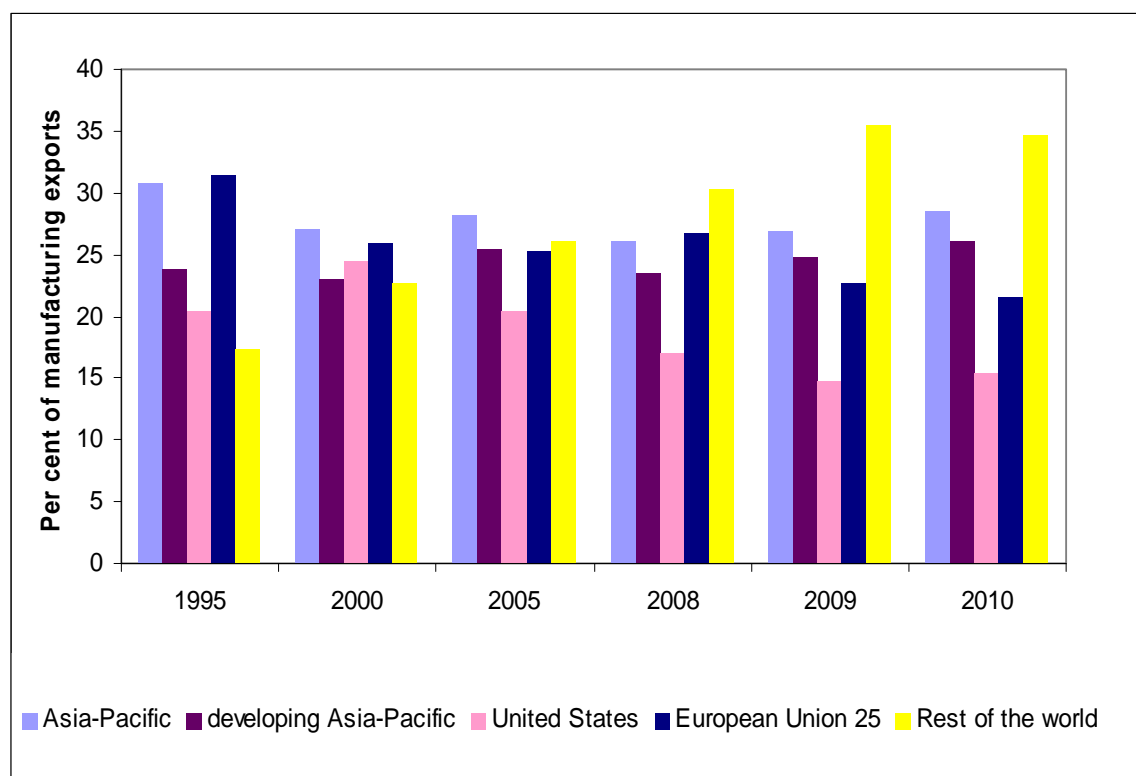
While India is increasingly sourcing more manufacturing imports from within the region, export linkages have not grown in the same manner and remain significantly less than those of China. Intraregional markets account for less than 30 per cent of Indian manufacturing exports throughout the period of the study. The United States and the European Union are still

major export destinations for India. However, the share of those traditional markets declined from 52 per cent in 1995 to 37 per cent in 2010, while exports to the rest of the world increased from 17 per cent to 37 per cent during the same period (figure 16).

Figure 15. Intra-regional trade by Indian manufacturing sector, 1995-2010



Source: Calculated by author based on United Nations COMTRADE data downloaded from WITS database.

Figure 16. Manufacturing exports from India, by destination

Source: Calculated by author based on United Nations COMTRADE data downloaded from WITS database.

5. Foreign direct investment²⁵

Many studies have documented the fact that the growth of IPNs has been associated with FDI inflows because MNCs have primarily built their international production networks through FDI.²⁶ IPN-driven FDI is usually vertical FDI in nature (or so-called efficiency-seeking FDI) (Markusen, 2002, and Navaretti and Venables, 2006).²⁷ This type of FDI will lead to an increase in trade within and between firms at different stages of production. The manufacturing sector is a primary target for the IPN-driven FDI, because that is the sector for which IPNs are growing rapidly.²⁸

²⁵ FDI data should be accepted with caution. There is some opinion that FDI data for China and India are inflated as they include a substantial amount of round-tripping FDI through Hong Kong, China in the case of China, and through Mauritius in the case of India (Rao and Dhar, 2011; Wei, 2005; and Xiao, 2004). In addition, Chinese and Indian FDI data may not be directly comparable due to variations in definitions, coverage and availability of the data.

²⁶ See, for example, Feenstra and others, 2000; Hanson and others, 2001 and 2005; Kleinert, 2003; and Swenson, 2004.

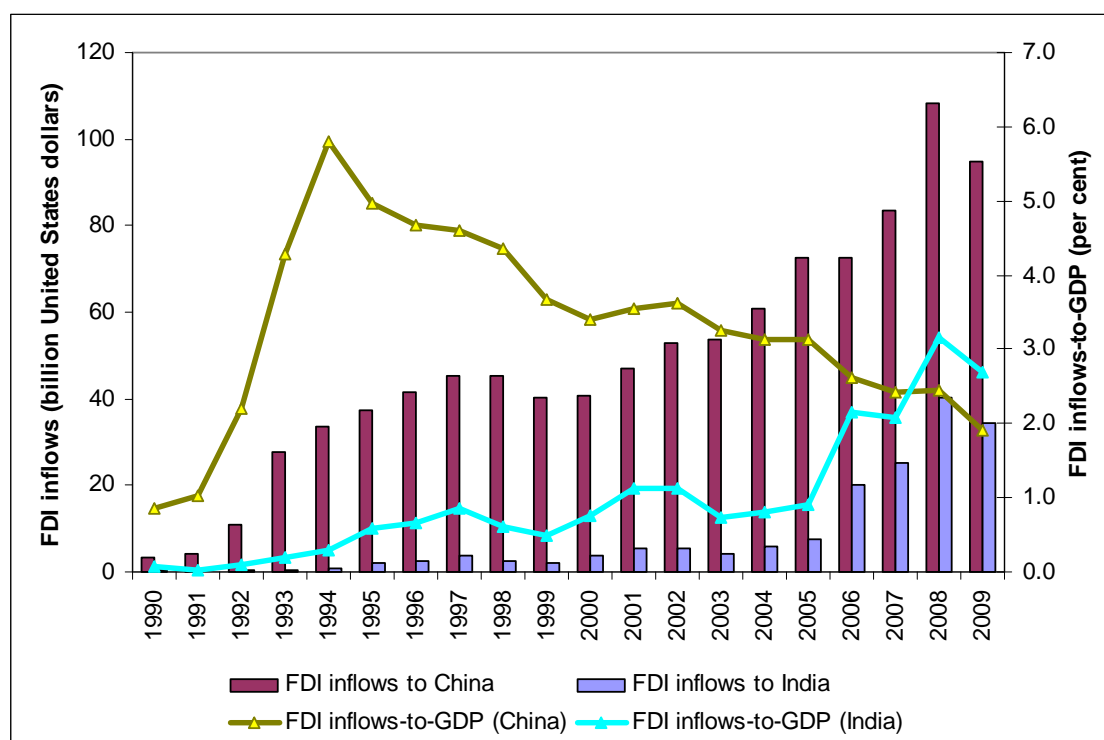
²⁷ See chapter 1 of this book for additional details.

²⁸ Manufacturing FDI is not always aimed at production for export. A certain (but unfortunately not quantifiable) share of FDI may be for market-seeking purposes and circumvention of high import duties. Therefore, an analysis based on firm-level data is required. In chapter III of this book, Yamashita

Regarding FDI inflows, China has attracted more FDI than India throughout the past two decades. FDI net inflows to China increased from US\$ 3.5 billion in 1990 to US\$ 108.3 billion in 2008. For India, FDI net inflows to the country increased from a negligible level in the early 1990s to US\$ 40.4 billion in 2008. In particular, FDI inflows have been increasing rapidly since 2005. However, both China and India recently experienced a slowdown of about 10 per cent in FDI inflow in 2009 due to the global economic crisis (figure 17).

However, comparing FDI inflows relative to GDP reveals that India is now outperforming China if economic size is equal. FDI inflows relative to GDP in India increased steadily from 0.9 per cent of GDP to 2.7 per cent of GDP during the past five years. The figure for China declined continuously from 3.1 per cent to 1.9 per cent during the same period.

Figure 17. FDI net inflows to China and India, 1990-2009



Source: ESCAP Statistical Yearbook, 2011, based on data from UNCTAD.

Sectoral distribution of FDI inflows reveals that MNCs directly investing in China have focused on manufacturing activities. The manufacturing sector received about 60 per

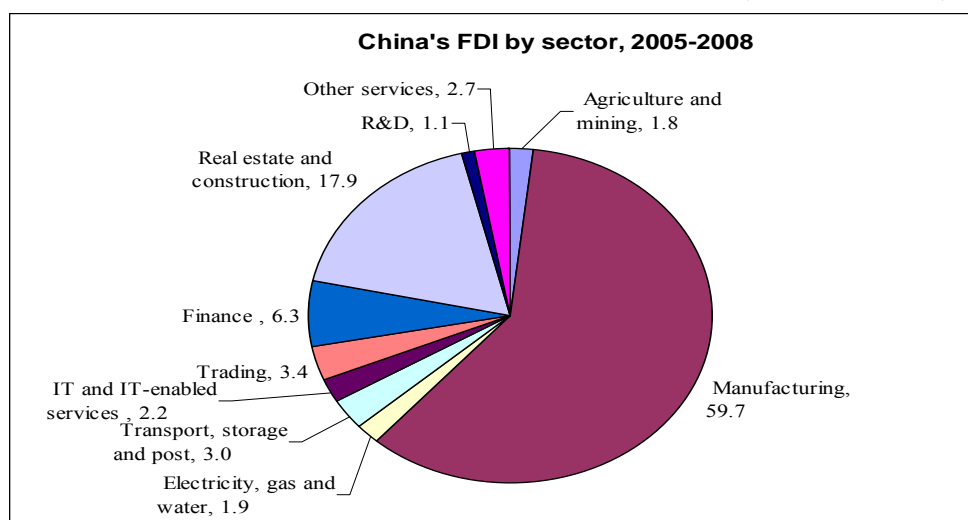
(2011) uses recent firm-level data on the operation of Japanese and United States MNCs in China and India in order to deal with these issues.

cent of total FDI in China between 2005 and 2008 (figure 18). Recent studies by Dullien (2005), and Liu and Dalley (2011) indicated an ongoing transition in manufacturing FDI in China from the low-tech manufacturing sector to the high-technology manufacturing sector.

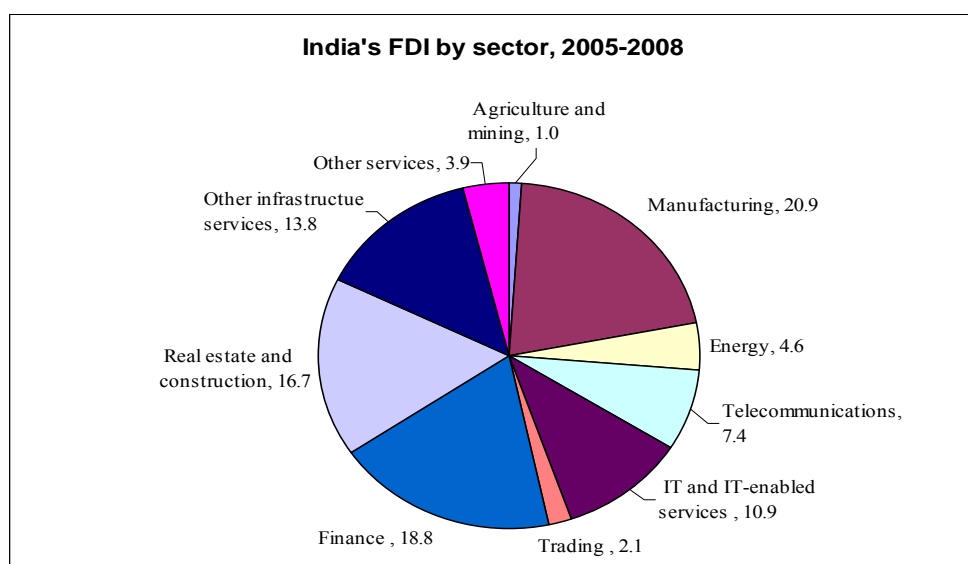
In contrast, the services sector of India attracted much more FDI than the manufacturing sector. India's manufacturing sector accounted for only 21 per cent of FDI inflow while services related to finance, infrastructure, IT, real estate and construction, and telecommunications accounted for 68 per cent of FDI inflow.

Figure 18. Distribution of FDI inflows to China and India by sector, 2005-2008

(Unit: Per cent)



Source: Based on National Bureau of Statistics data.



Source: Based on data from Rao and Dhar (2011).

Existing studies, such as Aggarwal (2001) and Kumar (1990), indicate that much of the FDI inflow into India's manufacturing sector has been largely driven by market-seeking and the need to circumvent high import duties. This is consistent with a firm-level analysis by Anand and Delios (1996) which found that investment by Japanese MNCs in India was largely characterized as market-seeking, while Japanese investment in China was more efficiency-seeking and more connected to export activities.

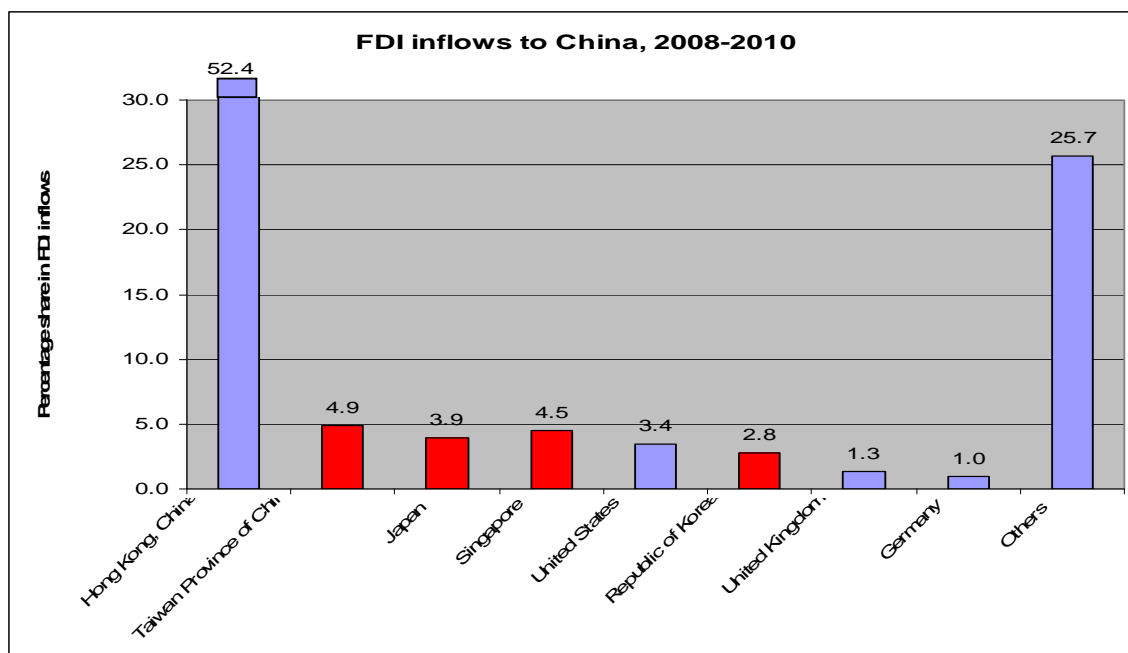
6. Intra-regional foreign direct investment

Intraregional investment has played an important role in China. High-income East Asian countries are all on the list of top-10 investors in China. Altogether they accounted for almost 70 per cent of total FDI inflow into China from 2008 to 2010 (figure 19). Although there is some debate about round-tripping FDI through Hong Kong, China, even after adjusting for round-tripping intraregional FDI is still ahead of FDI from outside the region.^{29, 30} Singapore, Japan, and the Republic of Korea together accounted for more than 16 per cent. Other countries on the top-10 list included the United States, the United Kingdom and some other European countries.

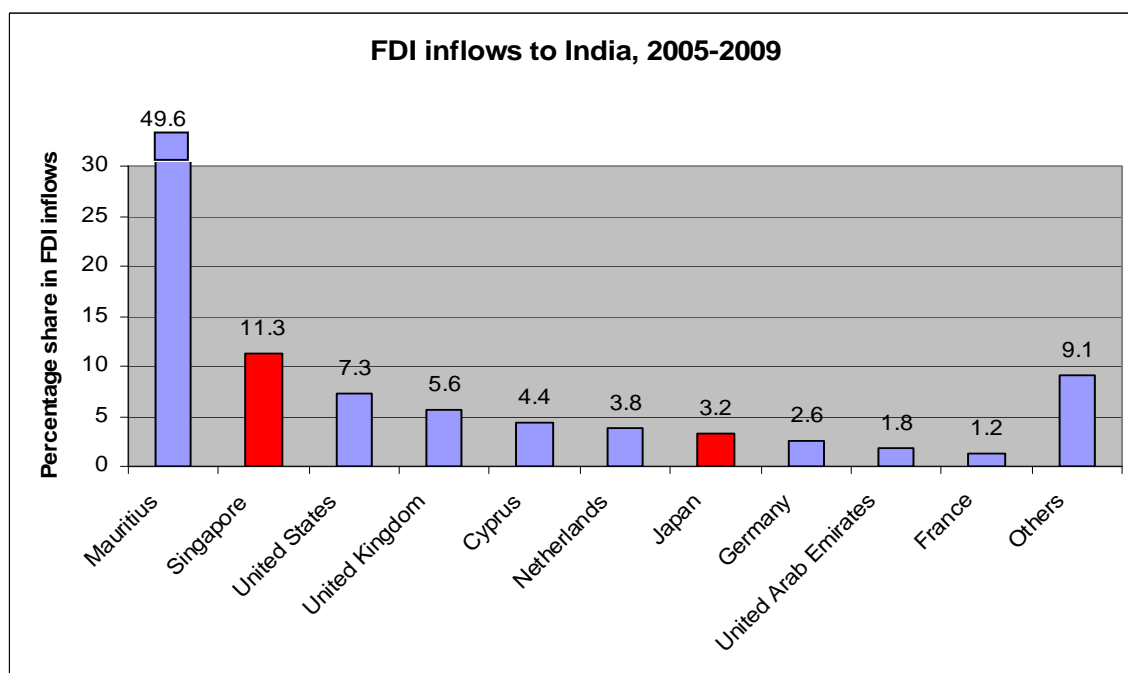
In the case of India, only 15 per cent of FDI inflows between 2005 and 2009 originated from Asian countries. Apart from round-tripping FDI from Mauritius, other top-10 investors in India during that period were the United States, the United Kingdom and other countries in Europe. Only Singapore and Japan were well-positioned on the list.

²⁹ The estimated magnitude of round-tripping FDI varied from about 30 per cent of total FDI inflows from Hong Kong, China to only 7 per cent. For details see, for example, Huang (2003), Naughton (1996), Tseng and Zebregs (2002) and UNCTAD (2007). According to Wei (2005), the magnitude of round-tripping FDI in China is supposed to be declining because since 1996 there have been continuous reforms in Chinese FDI tax preferences and in the FDI statistical methodologies.

³⁰ Hong Kong, China is the most important FDI investor in China, accounting for more than a half of all FDI inflow. Kalish (2006) pointed out that China's diaspora in Hong Kong, China has played an important role in funding export-related manufacturing in southern China.

Figure 19. Distribution of FDI inflows by country of origin

Source: Based on data from the United States-China Business Council, and China's Foreign Investment Department of the Ministry of Commerce.



Source: Based on data from Rao and Dhar (2011).

The firm-level data on global operations of MNCs in China and India discussed in chapter 3 reveals that intraregional FDI from Japan appears to contribute to manufacturing production in India more than extraregional FDI from the United States. Based on the size of employment, operations of Japanese MNCs in India are concentrated in the transport equipment sector; operations of United States MNCs are

concentrated in professional services including IT, scientific and technical services. In the case of China, there are no such patterns. Investment in China by Japanese and United States MNCs appears to be concentrated in the manufacturing sector, with computers and electronics capturing the largest share of employment by MNCs.³¹

7. Participation by China and India in the current Asian IPNs

An analysis of exports and imports of parts and components provides a more detailed view of the roles of the two countries in Asian IPNs. The best available indicator for intensity of an IPN is the share of parts and components in total manufacturing trade, because IPN activities normally involve multiple border crossings of components. Athukorala (2011) carried out a comprehensive compilation of data on trade in parts and components, based on the 5-digit SITC Rev3. He found that the rapid development of global production networks in Asian economies was concentrated in East and South-East Asian economies.^{32, 33}

During the past two decades, there has been a sharp increase in the share of components in world manufacturing trade. The share increased from a two-year average of 19 per cent for 1992/1993 to 27 per cent for 2006/2007. The share has increased at a much faster rate in developing Asian economies, from 17.3 per cent to 34 per cent.³⁴ The share of components is particularly high among ASEAN countries.³⁵ The component share in manufacturing exports from the six ASEAN countries combined amounted to 44.2 per cent in 2006/2007, up from 22.7 per cent in 1992/1993. In countries such as Malaysia, the Philippines and Thailand, components account for a large share of total manufacturing exports (table 5).

³¹ See Chapter III of this book for additional details.

³² Henceforth, for the sake of brevity, the term “components” is used in place of “parts and components”.

³³ Data on parts and components shown in this section are based on Athukorala, 2011.

³⁴ Developing Asia in Athukorala (2011) covers 12 developing Asian economies including China, Hong Kong, China, India, Indonesia, the Republic of Korea, Malaysia, Pakistan, the Philippines, Singapore, Taiwan Province of China, Thailand, and Viet Nam.

³⁵ Among the South-East Asian nations, only the six largest economies – Indonesia, Malaysia, the Philippines, Thailand, Singapore and Viet Nam – are integrated into global production networks. Brunei Darussalam, Cambodia, the Lao People’s Democratic Republic and Myanmar are not covered and lack data.

Table 5. Share of parts and components in manufacturing trade of selected economies

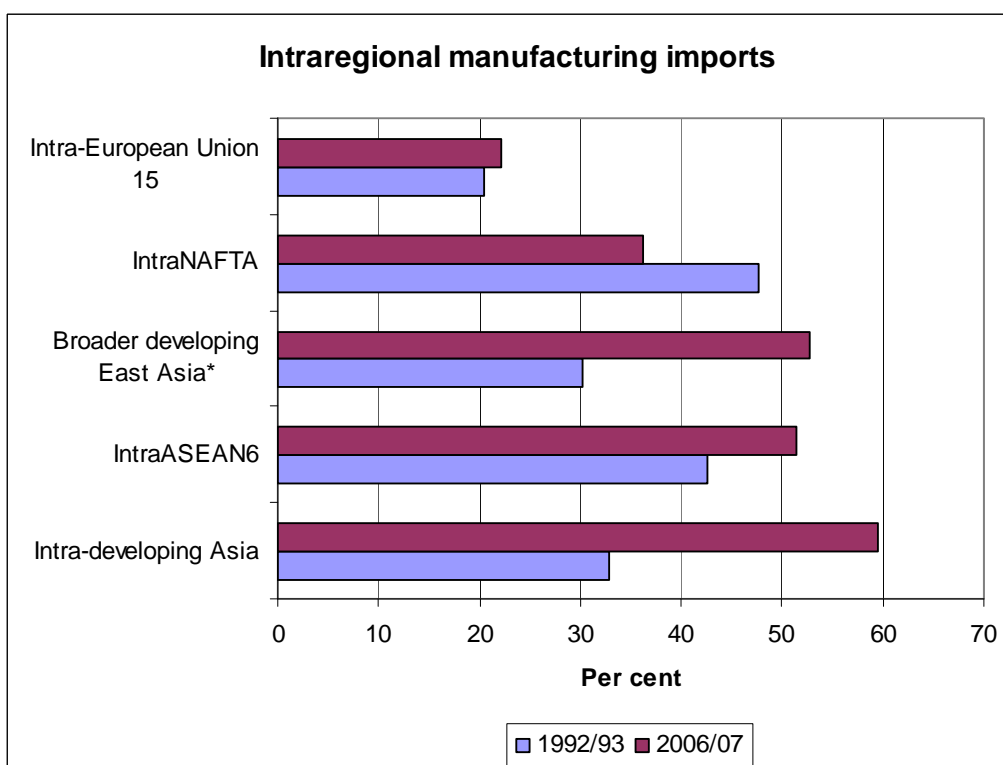
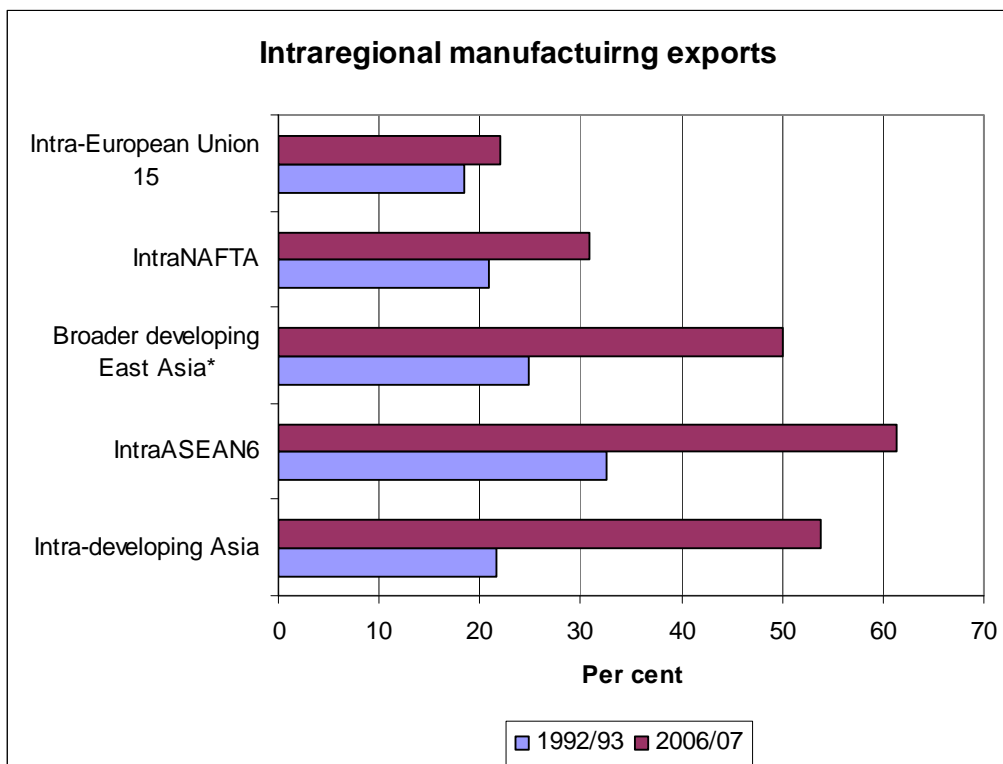
(Unit: Two-year average percentage share)

Economy	Exports		Imports	
	1992/1993	2006/2007	1992/1993	2006/2007
World	19.3	27.1	19.6	27.3
Developing Asia	17.3	34.0	29.0	44.2
China	7.4	25.6	20.4	44.0
Hong Kong, China	15.8	33.3	24.1	48.5
Republic of Korea	18.1	47.3	30.1	31.9
Taiwan Province of China	24.7	44.2	29.5	38.9
ASEAN 6	22.7	44.2	36.0	47.9
Indonesia	3.8	21.5	27.0	21.8
Malaysia	27.7	53.6	40.5	50.0
Philippines	32.9	71.7	32.6	61.3
Singapore	29.0	49.3	39.9	60.4
Thailand	14.1	29.9	30.6	36.1
Viet Nam	n.a.	11.0	n.a.	19.1
India	3.0	10.4	17.5	22.9

Source: Based on 5-digit SITC Rev.3 data from Athukorala, 2011 (table 9).

The importance of components in intraregional trade of Asia is higher than in intraregional trade of the European Union and NAFTA. In 2006/2007, components accounted for 54 per cent of intra-developing Asian exports, but only 31 per cent and 22 per cent of intraregional exports of NAFTA and EU15, respectively (figure 20). A similar picture is found for intraregional imports of components. This reflects the fact that the intensity of IPNs has been more prominent in developing Asia than in NAFTA and the European Union 15.

Figure 20. Share of parts and components in intraregional manufacturing trade

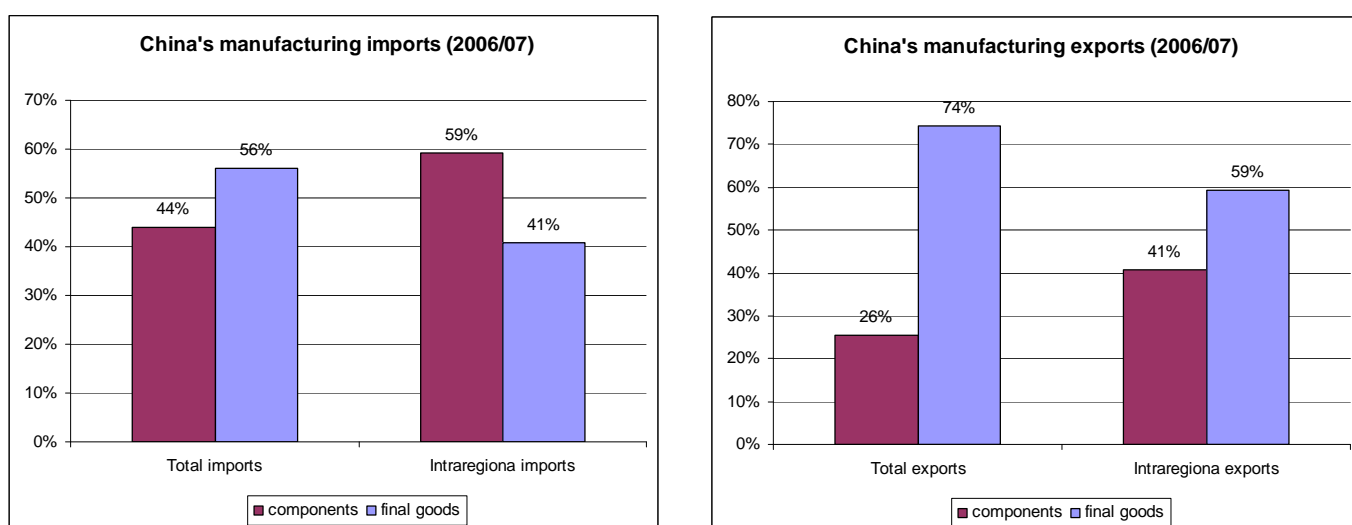


Source: Based on 5-digit SITC Rev.3 data from Athukorala, 2011 (table 9).

Note: * Broader developing East Asia includes four East Asian developing economies (China, Republic of Korea, Hong Kong, China, and Taiwan Province of China) and six ASEAN countries (Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam).

China has been at the centre of the IPN phenomenon. Components have dominated manufacturing imports of China, while final goods have dominated the country's export composition (figure 21). In 2006/07, components accounted for 44 per cent of Chinese manufacturing imports. The component share in intraregional imports by China was much higher at nearly 60 per cent. In contrast, final goods (total exports minus components) outpaced China's manufacturing exports, especially exports destined for extraregional markets. Final goods accounted for 75 per cent of China's total manufacturing exports in 2006/07, while the corresponding share of intraregional exports was significantly lower at 60 per cent.

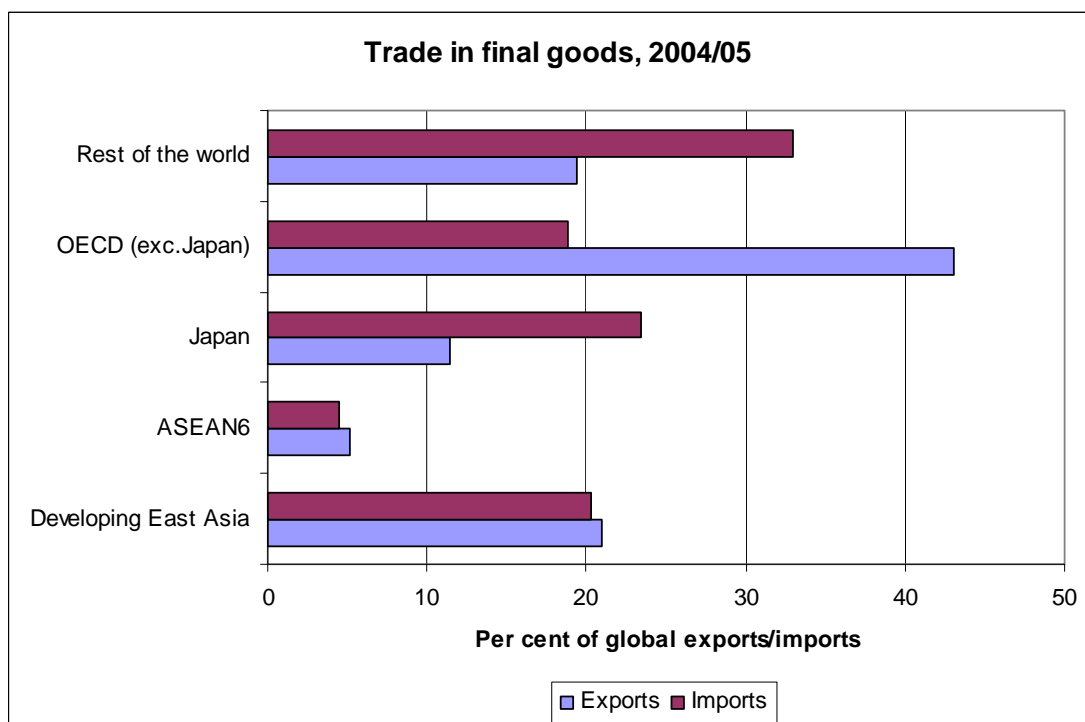
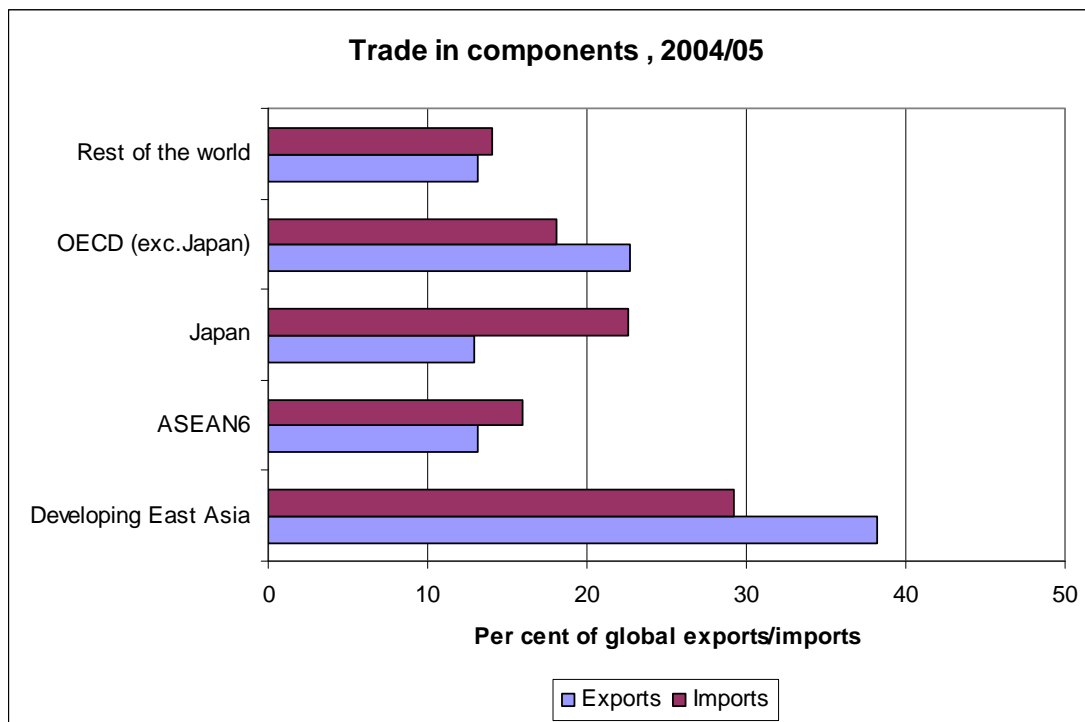
Figure 21 Parts and components vs Final goods in China's manufacturing trade



Source: Based on 5 digits SITC Rev.3 data from Athukorala, 2011 (table 9).

The production linkages between China and East and South-East Asian countries in IPNs are reflected by China's the components trade, which is particularly high with countries in East and South-East Asia. Developing East and South-East Asia accounts for about one-half of China's exports and imports of components for machinery and transport equipment. Meanwhile, the central role of China as a major export platform for Asian IPNs is reflected in the fact that more than 50 per cent of China's final goods exports in that corresponding category are to extraregional markets, particularly the OECD countries (figure 22).

Figure 22. Parts and components vs. final goods in China's trade in machinery and transport equipment, by destination

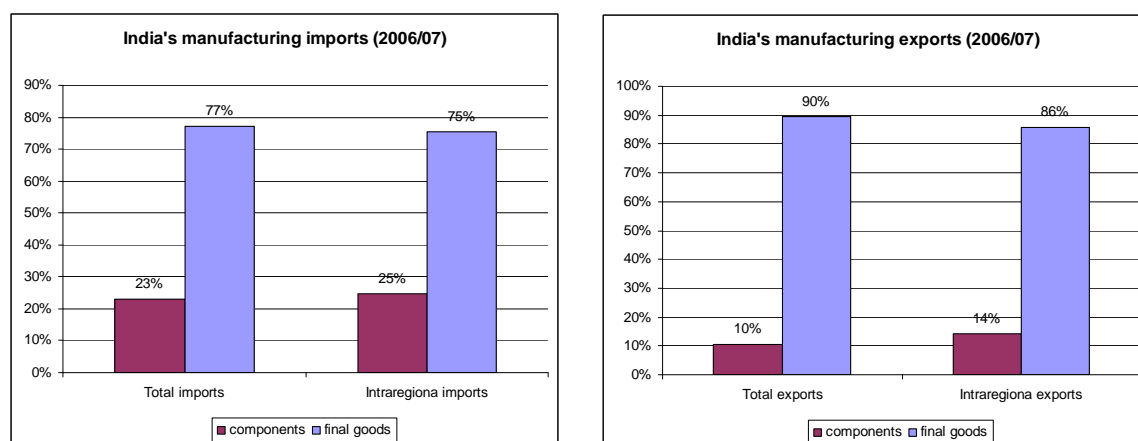


Source: Based on 5-digit SITC Rev.3 data from Athukorala, 2009 (table 4).

In the case of India, the low level of the components trade clearly illustrates that India has not participated in the new form of international production sharing within the supply chain. As shown in table 5, the share of components in manufacturing exports by India remains small, although it increased from 3 per cent in 1992/03 to 10 per cent in 2006/07. The corresponding import share increased from 18 per cent to 23 per cent during the same period; however, the figures were far behind those of East and South-East Asian economies.

India's trade is still largely characterized by a traditional form of international trade in finished products (figure 23). In terms of both total and intraregional trade, final goods accounted for about 90 per cent of manufacturing exports and nearly 80 per cent of manufacturing imports in 2006/07. The share of components in India's intraregional trade is trivial. Components accounted for only 14 per cent of manufacturing exports to the rest of the region, while imports from the region amounted to 25 per cent.

Figure 23. Parts and components vs. final goods in India's manufacturing trade



Source: Based on 5 digits SITC Rev.3 data from Athukorala (2011), table 9.

8. Conclusion

As a precursor to further analysis of the potential of India to become the next assembly centre, this chapter evaluates current positions of India in the Asian IPNs, using China as a benchmark. The comparative overview shows that the performance by China has been ahead of that of India, especially with regard to the manufacturing sector and participation in the global IPNs. Patterns of production, employment and trade reflect the fact that India has not become significantly integrated into the rapid development of IPNs in which the manufacturing of parts and components has been a critical element.

Currently, India's trade has been focused narrowly on parts of the services sector. Consequently, India has failed to capture the benefits of the dynamism of Asian IPN growth. India remains an insignificant participant in intraregional trade and under-performs in exports of labour-intensive manufactures.

Based on the experience of China, encouraging the integration of India into IPNs will need to include an extensive effort to expand the country's manufacturing sector. Evidence shows that IPNs are primarily driven by efficiency-seeking FDI, in which factor-cost saving is a prime determinant. Thus, priority should be given to supporting export-oriented manufacturing industries that utilize the country's labour-cost advantages. Increasing competitiveness will enhance the country's potential for participating in IPNs and, more importantly, employing a larger proportion of the population.

In addition, the experience of major countries involving in Asian IPNs reveals that the IPN process involves extensive intraregional trade in parts and components. This implies that policy priority should be given to reducing trade and transaction costs that stand as a major obstacle to multiple cross-border sourcing, which is a vital element of the IPN process.

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