

WORKING PAPER **295**

# China: Its Impact on the Developing Asian Economies

John Humphrey and Hubert Schmitz  
December 2007

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First published by the Institute of Development Studies in December 2007  
© Institute of Development Studies 2007  
ISBN: 978 1 85864 671 5

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## **China: Its Impact on the Developing Asian Economies**

**John Humphrey and Hubert Schmitz**

### **Summary**

The rapid growth of East Asia, with China at its centre, has attracted global attention. Many authors have emphasised the emergence of regional production systems and the spread of high rates of growth across a large number of Asian economies. Nevertheless, the East Asian regional production system has not benefited all countries in the region equally. The more advanced Asian economies (Hong Kong, Singapore, South Korea and Taiwan) and the ASEAN-4 economies (Malaysia, Indonesia, Thailand and the Philippines) have a very different economic relationship in China compared with the poorer countries of the Greater Mekong Subregion (Cambodia, Laos, Myanmar and Vietnam). While the former have benefited from complementarities with China, supplying parts and components to largely export-oriented assembly plants, the latter are selling raw materials and resource-based products to China.

China's growth offers many opportunities for other Asian countries to accelerate their growth. Making use of these opportunities for purposes of income generation of poor people requires prioritising two policy areas. The first is connectivity. Some parts of Asia remain poorly connected to this regional production system. Better infrastructure and better trade links are key to enhancing the growth and incomes in these parts of Asia. The second priority is enhancing sustainability. The poorer Asian countries have increased exports to China, but much of this resource-based export growth is unsustainable. Sustaining and increasing trade between China and these countries has the potential to be more effective than increasing aid for the pursuit of poverty reduction and improved welfare in the poorer countries of the region. However, these countries will only benefit from the dynamism of the East Asian regional economy if policy initiatives directly address the issue of sustainability of resource extraction. These initiatives need to be taken not only in the exporting countries, but also in China itself.

**Keywords:** regional integration; value chains; East Asia; economic development.

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## Acknowledgements

This is a substantially revised version of 'Implications of China's Growth for Other Asian Countries', prepared with financial support from the DFID China Office, Grant Reference Number AG4419. We are grateful to the DFID office in Beijing for very helpful comments on an earlier draft. The views contained in this report are ours. We accept responsibility for any errors or omissions.

# 1 Introduction

Success commands attention. East Asia has become the centre of global attention, because of its rapid growth. China is at the centre of this story. Thirty years of economic growth at a yearly average of 9 per cent has lifted millions of people out of poverty. Between 1990 and 2003 alone, the number of people living on \$1-a-day fell by 288 million (Asian Development Bank 2005: 5).

These achievements were not accomplished overnight. The process of growth and structural transformation has been going on for three decades. Yet it is only recently that it has taken centre stage in the global debate on economic development. The reason is clear: China's rise has major external repercussions. Other Asian economies, notably Japan, South Korea and Taiwan, experienced periods of equally rapid growth, but their impact on the global economy was less dramatic because they were smaller and/or less outwardly oriented. While India is now also growing rapidly, its global footprint is much smaller.<sup>1</sup> China's effects are so significant because three things come together: size, fast growth and openness. An economy that is so large, so open relative to its size (much more than the United States or European Union, for example) and that is growing at 9 per cent per annum for nearly three decades is historically unprecedented.

The resulting 'China effects' are felt throughout the world. There is concern in some parts of the world that China's expansion squeezes them out. In other parts of the world there is hope that China's rise will pull them up. Both the threats and opportunities are increasingly visible. Both competition and complementarity with China have significant effects on earning opportunities throughout the world.

*This paper concentrates on the implications of China's growth for other Asian countries, in particular the developing economies of Southeast and East Asia.*<sup>2</sup> Some analyses of this part of the world have emphasised the emergence of regional production systems and the spread of high rates of growth across a large number of Asian economies. This paper nuances these arguments in three ways:

- It distinguishes between the more advanced Asian economies (Hong Kong, Singapore, South Korea and Taiwan), the ASEAN-4 economies (Malaysia, Indonesia, Thailand and the Philippines), which have generally benefited from China's dynamism, and the poorer countries of the Greater Mekong region (Cambodia, Laos, Myanmar and Vietnam) for whom the impact of China is more problematic.
- It takes the view that China itself is changing rapidly, in terms of both its economic structure and the policies it implements, and that therefore future Chinese impacts on the rest of Asia will not necessarily be the same as in the past.

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1 In 2004, India's economy was one third the size of China's and its trade openness (exports + imports as a percentage of GDP) was 40 per cent compared to 65 per cent in China (World Development Indicators database). As a result, China's global footprint was 4.5 times greater than India's.

2 For parallel IDS Working Papers on the impact of China on Sub-Saharan Africa and Latin America, see Kaplinsky *et al.* (2007) and Jenkins and Dussel Peters (2007).

- China's impact on the rest of Asia and the consequences of this impact are influenced by policy choices made both in China and by other Asian economies.

Sections 2–6 examine both the threats and opportunities posed by China for countries in the region. This is done by analysing – in turn – trade in primary products, intermediate products and finished products. As far as possible, both direct and indirect effects are traced. Direct effects arise from bilateral trade and investment between China and other countries. Indirect effects arise from the way in which China's expansion (inward and outward) changes trade and investment conditions for other countries, irrespective of whether they interact directly with China. The size and openness of the Chinese economy means that these indirect effects are more important when considering the impact of China than for other economies. Section 7 provides a summary assessment of the effects of China's rise.

Section 8 then discusses what policy can do to spread the gains from China's growth to other Asian countries. What policy responses are required to increase their benefits from China's growth or avert the dangers that it is causing? Two issues are prioritised in this policy section: enhancing connectivity and improving sustainability. No single actor can bring about the required changes in policy and the launch of new programmes. Action is required within China, within the other Asian countries, and alliances are needed between these countries. Particular attention is paid to the role of China in regional initiatives.

The paper draws together and digests the available evidence. On many issues, however, good information and insights are lacking. The paper makes these knowledge gaps explicit and sets out the questions which future research needs to address. It is an agenda-setting paper in a double sense: helping to define the agenda for research and the agenda which policy makers need to address.

## 2 Differential trade impact

It is now widely recognised that China's economy is closely tied in with the rest of the Asian economies, and particularly with Japan and East and Southeast Asia. In terms of direct impacts, China's imports are increasingly sourced from Asian economies, and Asia is also an important export market for Chinese products. The extent of China's trade with the region is shown in Table 2.1.

Nevertheless, the patterns of integration between China and its regional neighbours vary very substantially. In order to understand how China's growth and competitiveness affect other economies in East and Southeast Asia, it is important to disaggregate. Different patterns emerge, depending on whether one examines trade in primary products, intermediate products, and finished products. The analysis and the following sections discuss each of these in turn. However, it is also necessary to emphasise from the outset that the trade relationships between China and the more advanced economies of the region are very different to those of the poorer countries, above all those in the Greater Mekong Subregion (GMS).<sup>3</sup> This is seen clearly in Table 2.1.

The four poorer GMS countries all had substantial balance of trade deficits with China in 2005 (and deficits in earlier years as well), whereas six of the seven

countries in the bottom part of the table (the exception being Indonesia) had substantial trade surpluses. For the GMS countries, China was not a significant export market, accounting for between 1.9 per cent and 7.5 per cent of exports. It was, however, an important source of imported products, particularly for Myanmar and Vietnam. For the more developed economies, in contrast, China was an important export destination, accounting for between 8.2 per cent and 28.8 per cent of exports from these countries. China was less important as a source of imports into these countries, with the exception, once again, of Indonesia.

**Table 2.1 China's balance of trade with regional economies (US\$ millions), 2005**

Country	Exports to China	Total exports	% China	Imports from China	Total Imports	% China	Balance of trade
Cambodia	25	2,857	0.9	590	4,095	14.4	-565
Laos*	23	693	3.4	124	1,283	9.7	-101
Myanmar*	250	3,648	6.8	1,068	3,616	29.5	-819
Vietnam	2,318	30,801	7.5	7,618	30,076	25.3	-5,300
Indonesia	7,664	92,909	8.2	9,207	64,377	14.3	-1,543
Malaysia*	24,964	161,484	15.5	14,309	126,796	11.3	10,655
Philippines*	14,502	52,441	27.7	7,243	51,839	14.0	7,259
South Korea*	81,951	284,077	28.8	38,629	269,145	14.4	43,322
Singapore*	41,322	207,338	19.9	24,735	189,745	13.0	16,587
Taiwan**	34,036	198,435	17.2	20,094	182,616	11.0	13,942
Thailand*	15,241	110,107	8.3	11,155	118,191	9.4	4,086

Source: Asian Development Bank, key indicators (2006)

[www.adb.org/Documents/Books/Key\\_Indicators/2006/default.asp](http://www.adb.org/Documents/Books/Key_Indicators/2006/default.asp).

Notes: \* Includes trade with Hong Kong where Hong Kong is in top ten partners.

\*\* Data only refers to trade with Hong Kong.

This data can also be presented from the perspective of China. How important are the Asian economies for China's imports and exports. China may be an important source of Myanmar's imports, but this does not by any stretch of the imagination mean that Myanmar is an important export destination for China. This second perspective is shown in Table 2.2. This shows that:

- Japan is the dominant trade partner for China in the region. It accounts for almost half of China's regional imports and exports, although its share declined between 1995 and 2005.

3 The Greater Mekong Subregion includes Thailand, Yunnan Province and the Guangxi Zhuang Autonomous Region and as well as Cambodia, Laos (this name is used as an alternative to Lao DPR), Myanmar and Vietnam. Here, the focus will be on the latter four countries.

- Even when Japan is excluded from the calculations, the four GMS countries are still very minor trade partners. In 2005, the four countries together accounted for 1.5 per cent of Chinese imports from the region, and almost all of these imports came from Vietnam.<sup>4</sup> Figures for 1995 are very similar: trade with these countries is increasing, but not more rapidly than with other Asian economies.
- A similar picture is seen in terms of China's export markets in the region. Once again excluding Japan, the four GMS countries only accounted for 8 per cent of China's exports, with more than three quarters of this going to Vietnam.
- The really significant regional trade partner for China (after Japan) is Korea. Taiwan would also be a significant partner, but the IMF DOTS data does not include it.

**Table 2.2 Greater China's(a) trade with the East and Southeast Asian Region, 1995 and 2005**

	China's regional trade, excluding Japan				China's regional trade, including Japan			
	Imports into China, % share		Exports from China, % share		Imports into China, % share		Exports from China, % share	
	1995	2005	1995	2005	1995	2005	1995	2005
Cambodia	0.06	0.02	1.02	0.91	0.03	0.01	0.46	0.49
Indonesia	6.95	5.10	8.14	8.47	3.76	3.07	3.63	4.52
Korea	42.11	44.33	35.00	36.34	22.81	26.74	15.61	19.39
Laos	0.01	0.01	0.14	0.10	0.01	0.01	0.06	0.05
Malaysia	14.53	13.51	10.67	11.45	7.87	8.15	4.76	6.11
Japan					45.84	39.69	55.40	46.64
Myanmar	0.21	0.16	1.24	0.85	0.11	0.10	0.55	0.46
Philippines	5.06	8.75	7.83	6.43	2.74	5.28	3.49	3.43
Singapore	18.78	16.78	21.17	19.97	10.17	10.12	9.44	10.65
Thailand	10.64	9.84	9.61	9.38	5.76	5.94	4.28	5.01
Vietnam	1.64	1.50	5.19	6.10	0.89	0.91	2.31	3.25
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: IMF DOTS.

Notes: (a) Reporting countries, China-Mainland, China-HongKong and China-Macao. No DOTS data available for China-Taiwan.

In addition to differences in the levels of trade with China between the GMS region and the higher-income economies of developing Asia, there are also clear differences in the types of products traded by these two groups of countries. For the seven more developed economies, manufactured goods (electrical and

4 Illegal and non-registered trade are issues, and these will be discussed below.

mechanical products, in particular) figure prominently. The exception is Indonesia, whose principal exports in 2005 were petroleum, plywood, rubber, shrimp and coffee (source, see Table 2.1). In the case of the GMS countries, the principal exports are natural resource-based, such as wood, rubber, timber, soya, pulses, rice and coffee. Taking the four principal exports from these four countries, a total of 16 items, the only manufacturing products that figure are textiles and garments, each cited once. Even Vietnam, which is rapidly increasing its exports of manufactures to the rest of the world, still exports raw materials to China and imports manufactured products, as highlighted by Chaponnière *et al.* (2007: 12): 'Vietnam exports mainly raw products to China: oil; minerals; agricultural products; rubber, etc. In return, it imports mainly processed and manufactured products from China: refined oil; yarn and fabric used as input for its clothing industry; other intermediate products; machinery.'<sup>5</sup>

These figures certainly do not fully capture trade in the region. There is substantial illegal and unrecorded trade, which is discussed further below. Nevertheless, the contrast between the two groups of countries is clear. Although China has a reputation as an importer of raw materials and natural resources and an exporter of manufactured products, this is not actually the predominant pattern of intra-regional trade. China has hitherto been a substantial importer of manufactured goods from the more developed economies of the region. This is shown in greater detail in the following sections which deal in turn with China's trade in primary, intermediate and finished products.

### 3 Primary products

The new China depends heavily on imports of energy, raw materials and food. As shown in the companion papers on the implications of China's growth for Africa and Latin America, these imports have been rising rapidly in recent years (Kaplinsky *et al.* 2007; Jenkins and Dussel Peters 2007). This section examines how China's imports of primary products affect other countries in Asia.

#### 3.1 Energy

China has a substantial impact on the economies of Asia (and the global economy more generally) through its increasing demand for energy. The extent of this increase is shown in Table 3.1. China's energy consumption more than doubled between 1980 and 2000 and has continued to increase thereafter. Energy consumption is being driven by rapid industrialisation, urbanisation and motorisation. China is not the only source of increasing energy consumption as the table shows. The economies of India, Japan and South Korea, taken together, consumed roughly equivalent amounts of energy in 2000, and they have also shown substantial increases in energy consumption.

---

5 Chaponnière *et al.* also note that this pattern of trade applies to two other Asian exporters of textiles to the global economy: Bangladesh and Cambodia.

**Table 3.1 Total primary energy consumption in leading Asian economies (Quadrillion Btus)**

	China		India, Japan and South Korea	
	Quadrillion Btus	Index (1980 = 100)	Quadrillion Btus	Index (1980 = 100)
1980	175	100	21.1	100
1990	27.0	156	30.2	144
2000	38.8	225	43.9	207
2004	59.6	340	47.0	223

Source: [www.eia.doe.gov/emeu/international/energyconsumption.html](http://www.eia.doe.gov/emeu/international/energyconsumption.html)

Nevertheless, if the trend from 2000 to 2004 and current projections are to be believed, China's energy consumption will not outstrip that of India, Japan and Korea combined, in the period up to 2030. Projections from the Energy Information Administration<sup>6</sup> suggest that delivered energy consumption in China will rise from 45.5 quadrillion btus in 2003 to 139.1 quadrillion btus in 2030. In the same period, consumption in India, Japan and South Korea will rise from 45 quadrillion btus to 72.3 quadrillion btus. As is well-known, China's per capita energy consumption remains low by global standards (half the global average in 2003 and only 1/10 of the level of the USA), but its size and rapid growth create a big impact.

China is, and will be, increasingly reliant on imports of energy. This has direct and indirect effects on other Asian economies. The indirect effects are threefold. First, China's demand for oil is a significant portion of the incremental increase in global oil consumption. If oil prices remain high, then some economies will benefit, including Vietnam as well as the West Asian economies, and natural gas exporters will also benefit. Net oil importers will lose out, with the biggest losers in Asia being Nepal and Pakistan.<sup>7</sup>

Second, there are distributional consequences within countries. Oil-based products account for a higher percentage of the spending of the poor, and the health impact on women of a switch from commercial fuels to biomass for heating and cooking is well-known. At the same time, rising fuel costs may make it impossible to sustain the fuel subsidies that are widespread in Asia. This can cause political tensions if governments can no longer sustain subsidies, as has been seen in Burma in 2007. Alternatively, a switch out of energy subsidies may actually benefit the poor if across-the-board subsidies, whose benefits mostly accrue to the non-poor, are replaced by targeted support for the poor. This was the policy chosen by the government of Indonesia (Indrawati 2006).

A third indirect effect of China's increasing consumption of energy relates to climate change. China is already the world's second-largest producer of greenhouse

6 Source: [www.eia.doe.gov/oiaf/ieo/ieosector.html](http://www.eia.doe.gov/oiaf/ieo/ieosector.html)

7 The World Bank's *Global Economic Prospects 2005* calculates the cost to Pakistan of an increase in oil prices of \$10 a barrel to be equivalent to 1.38 per cent of GDP.

gases, part of which arises from its high-sulphur coal (Umbach 2005: 212). The level of energy that China requires in the future and the way in which this is generated will have substantial impacts on global climate change. The impact on global warming of the difference between a China that has a US energy profile in 2020, compared to a China with a European energy profile would be massive.

There are also direct effects. While most energy resources come from further afield in Asia – notably oil in West Asia and Central Asia, natural gas in these regions and also in Bangladesh, and hydropower in the Himalayan countries – the Greater Mekong Subregion also has considerable energy potential. Developing the enormous hydroelectric potential of Yunnan Province is a strategic goal of the Chinese government, and this will have an impact on the various river systems, including but not only the Mekong, that originate there.<sup>8</sup> There is considerable debate on the impacts of new dams on these river systems.

At the same time, China is also encouraging investment by its neighbours in hydropower, the products of which might be exported to China. According to Pech and Sunada:

... China's electricity demand and its geo-politic position also drive the hydropower development and energy trade in other parts of the GMS. China has become active in promoting very active 'carrot' diplomacy through firm pledge for regional trade, readiness in providing financial support, and exporting the state-of-the-art hydropower development and investment to other Mekong countries such as Myanmar, Laos and Cambodia.

(Pech and Sunada 2006: 7–8)

The danger is that China's regional influence and financial power will commit smaller countries in the region to hydropower projects that are damaging to their own long-term development and disadvantageous for the poor.

### 3.2 Raw materials

There is no overview which captures China's sourcing of raw materials for industrial production from Asian countries and the direct and indirect effects on these countries. However, the key issues can be set out by piecing together fragments of evidence from various sources.

China's industrial development is broad-based and therefore requires many different types of raw materials. Imports of these products increase as rapidly growing domestic demand outstrips domestic supply and China's industrial development replaces imports of finished products by imports of raw materials (for example, steel imports replaced by iron ore for domestic steel production). The rapid growth of China's industry and of its demand for imported raw materials has had a noticeable effect on international commodity prices, which have been rising fast in

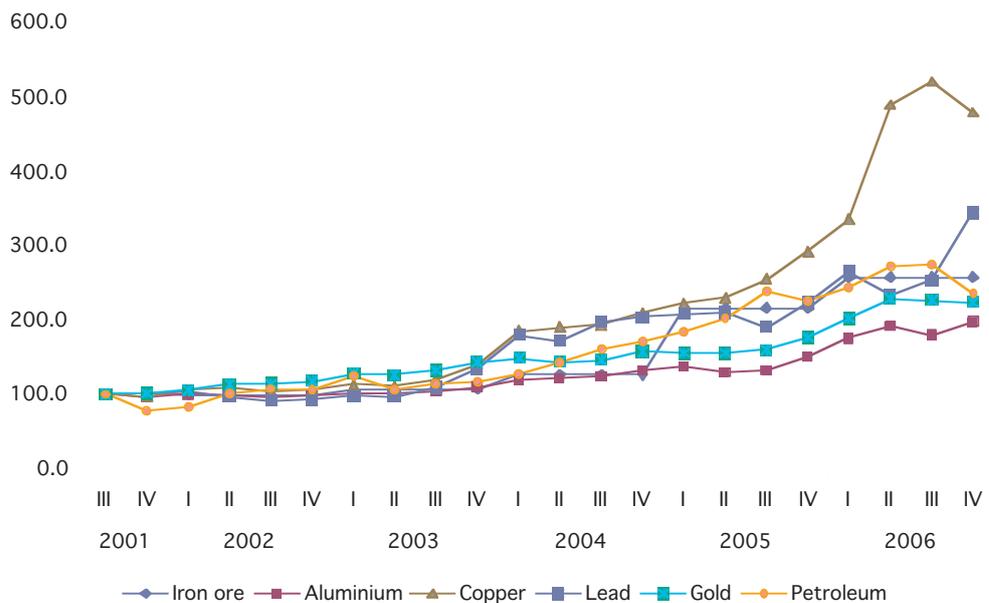
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8 The Dulong (Irrawaddy), Nu (Salween), Lancang (Mekong), Yangtze, Pearl, Yuan and Lixian systems all originate or pass through Yunnan province.

particular since the year 2000. China's demand has not been the only cause of these high prices but a significant contributor (Gottschalk and Prates 2006).

Take the example of metals. China's growth has been particularly fast in sectors that are big users of metal and other industrial commodities, such as automobiles, metallurgy and construction. This has increased demand for metals like steel, copper, aluminium and nickel (*The Economist*, 'The Hungry Dragon', 19 February 2004). China has increased its share of world demand for the main base metals from 7–10 per cent in 1993 to 20–25 per cent in 2003. Even allowing for a recent slow down in growth rates, China is likely to account for 30 per cent of world demand by 2010 (Jim Lennon, Macquarie Bank Ltd, presentation at IDS, 1 February 2006). The capacity to supply these raw materials is thought to lag behind demand for the next few years. As shown in Figure 3.1, the commodity prices have increased substantially in recent years. This cycle of relatively high prices is expected to continue for the next few years.

**Figure 3.1 Price indices of metal commodities and oil (Index 2001 = 100)**



Source: Derived from UNCTAD Handbook of Statistics On-line 2006–07. For the purposes of this figure, average quarterly indices are calculated from monthly data.

The benefits derived from the high Chinese demand and the high prices, especially for poverty reduction, depend on who earns the rents, how these rents are utilised, and how sustainable the extraction is (Gottschalk and Prates 2006). The rents are not further analysed here because the Asian countries are not major suppliers of metals to China. As metal importers they tend to suffer from the rising prices fuelled by the high Chinese demand.

Whereas Latin America and Africa are the main suppliers of metals, with Asia playing only a minor role as supplier, Asian countries are major suppliers of timber to the world, in particular to China. Examining the wood industry is important because China's growth has a dramatic effect on the countries from which it

sources. It is not a typical sector but is a very important sector, in particular for the Southeast Asian countries. It is also a sector for which developmental consequences can be traced and for which policy implications can be spelt out.

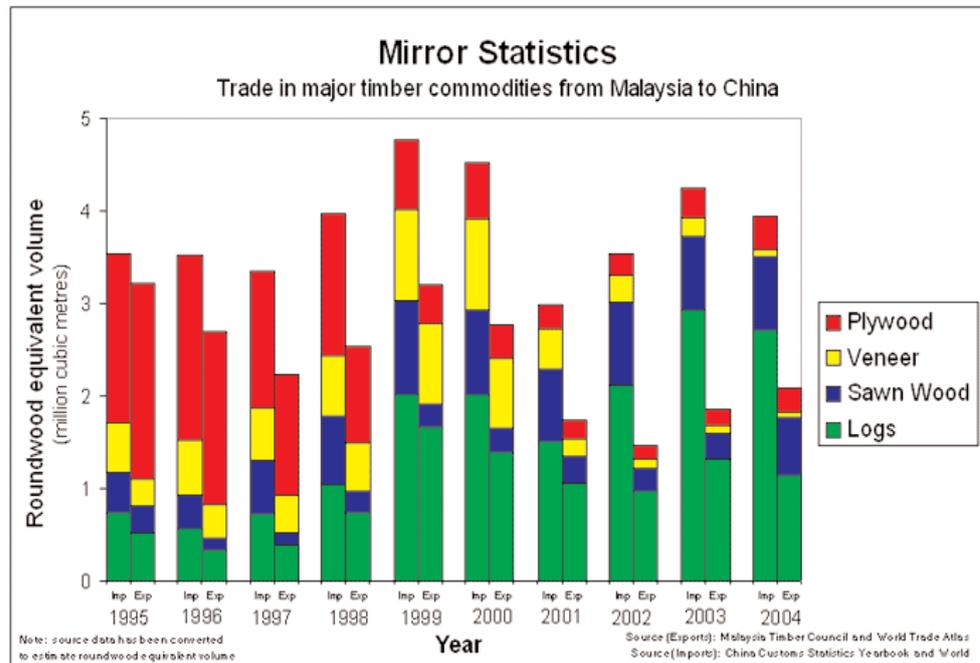
Chinese import of forest products has grown fast over the last 10 years. Between 1997 and 2005, the value of forest product imports more than doubled, rising from \$6.4 billion to \$16.4 billion, and the volume more than tripled (White *et al.* 2006). This has three reasons:

- Internal consumption of timber, particularly for furniture and other wood-based products, has risen quickly. This is likely to continue because per capita consumption is still low and incomes are set to rise.
- Timber-based exports have grown fast over recent years. 'The quantity of timber which is processed and exported is equivalent, in terms of volume, to over 70 per cent of the timber imported by China (White *et al.* 2006: 4). To some extent this is due to China displacing Asian competitors – by importing the raw material from the former furniture exporting country and out-competing it in the manufacturing process. One example is the displacement by China of exports of rubberwood furniture from Thailand to Japan (Mitsuhashi 2001).
- The internal capacity to provide raw material is not growing. After the devastating flooding along the Yangtze River in 1998, the Chinese government took drastic measures to protect its own forests. A ban on logging in State-owned forests in 1998 and the elimination of tariffs on log imports in 1999 led to a very rapid rise in round wood imports into China. The government has initiated a subsidised plantation programme but the domestic supply will at best slow down the growth of imports. Forest product imports are thought to double over the period 2006–2015 (White *et al.* 2006).

While Russia is the biggest supplier of timber and timber products, the South East Asian countries are also major suppliers, notably Malaysia, Indonesia, Myanmar and Papua New Guinea. Taken together, countries in Pacific Asia are estimated to provide between 60 and 75 per cent of timber products imported by China (White *et al.* 2006: 5). Exact quantification is difficult because a large share comes from illegal felling and finds its way into China, often by using false documentation. Mirror statistics contrasting Indonesia's or Malaysia's exports and Chinese imports show substantial difference for trade in logs and sawn wood, but not for plywood or veneer (Chunquan *et al.* 2004). Figure 3.2 shows this for the trade between China and Malaysia. After 1999 (and, therefore, in response to the ban on logging in China), registered imports in China start to exceed exports from Malaysia by an increasing margin. It is likely that a large part of this difference is due to trade in illegal timber.<sup>9</sup>

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9 Pech and Sunada (2006) suggest that 90 per cent of logging is illegal in Cambodia, 50 per cent in Myanmar, 45 per cent in Laos, 40 per cent in Thailand and 20–40 per cent in Vietnam.

**Figure 3.2 Trade in timber commodities from Malaysia to China**

Source: [www.globaltimber.org.uk/MirrorStatistics.htm](http://www.globaltimber.org.uk/MirrorStatistics.htm). See also Chunquan *et al.* (2004).

Myanmar is a particularly severe case both because of the extent of illegal trade and its political significance. Chinese recorded imports were 27 times the size of Myanmar's declared exports for 2000 (Johnson 2002) – an indication of the extent of illegal trade. This practice seems to continue. According to Global Witness (2005), cross border trade increased by 60 per cent between 2001 and 2004 and over 90 per cent of this trade is illegal. Much of the logging taking place in the country is financing the military regime or insurgent groups engaged in conflict. The situation has been compounded by the involvement of Thai and Chinese logging companies, with widespread and destructive logging occurring along the border with China (Chunquan *et al.* 2004: 43).

According to some sources, China is now the world's leading importer of illegal timber, illegality defined as in conflict with either the letter of intent or intent of the law and or otherwise associated with corrupt practice ([www.globaltimber.org.uk](http://www.globaltimber.org.uk)). The scale of such imports is hard to quantify, but there is little doubt that this trade has major repercussions for the exporting countries of Southeast Asia. While in principle exporting provides an opportunity for raising incomes, the unregulated nature of this trade turns this opportunity into a major problem for the exporting country.

The first problem is that the rents from these illegal sales are rarely available for purposes of economic development. The second problem is environmental: natural forests in Southeast Asia are grossly overexploited. Cambodia, Thailand and Vietnam have been obliged to impose logging bans. Myanmar, Indonesia and Malaysia have regulated logging, but these regulations are not adhered to and deforestation has continued, fuelled in particular by the demand from China. Environmental degradation hits the poor more than the population in general, as the poor are more likely

to live on marginal or degraded lands and are more dependent upon use of natural resources for their livelihoods (Bass and Steele 2006).

The third problem is that this deforestation undermines the earning opportunities for people in the exporting countries. The causal chains vary. In Indonesia for example, export production of teak furniture has contributed substantially to the creation of jobs and incomes. The viability of this industry, however, is under threat because of depletion of the raw material supply. Moreover, Indonesia is competing in international markets with China and Vietnam who offer low prices, not just because of low wages, but because the furniture is made from illegal wood acquired at low prices. This un(der)controlled timber trade thus pulls the Southeast Asian furniture industry into a race to the bottom. Box 3.1 illustrates how this dynamic affects the earning opportunities in Central Java. It also underlines that avoiding this race to the bottom and making the switch to sustainable income growth requires action from all stakeholders, including the importing countries.

### **Box 3.1 The struggle for sustainable income growth in the furniture industry of Java**

The furniture industry of Central Java has grown rapidly since the financial crisis in 1997. The exporting small and medium enterprises generated substantial employment and income growth. However, this growth is not sustainable because the viability of exports has become dependent on wood which is logged illegally and which risks depletion. Illegally felled timber tends to be younger thus threatening the sustainability of the forests. Halting this process is difficult because intensifying price competition in the international market makes enterprises prefer the cheaper illegal wood. No single actor and no single measure can reverse this process. Stricter state control of the timber supply is essential but top-down directives are not sufficient. Local communities play an important role in socially responsible use of the forest. Helping furniture enterprises to redirect their competitive strategy also plays a role. The most critical action, however, lies in working with those countries which import illegal timber (notably China) and which import furniture from Indonesia (in particular the EU).

*Source: Loebis and Schmitz (2005).*

## **3.3 Food products**

The Chinese food market is undergoing rapid change. On the demand side, these transformations include rising consumer incomes, urbanisation, demographic changes (including an ageing population and increasing female participation rates) and the modernisation of retailing. These trends have already shifted food demand away from cereals and towards meat, fish, dairy and horticultural products (OECD 2005: 64). On the supply side, there have also been significant structural transformations. Land use and output have shifted, with the land area devoted to cereals falling and cereal production roughly constant from 1990 through to 2003 (OECD 2005: 53). In contrast, output of fruit and vegetables, fish, meat and dairy have increased substantially. These changes are reflected in China's altered food trade

profile. Exports of high-value and value-added products, including meat, fish and horticultural products have expanded rapidly, in line with China's comparative advantage in labour-intensive food production (Lu 1998). China became a net food importer in 2004.

Alongside these structural changes, there has been a considerable liberalisation of food production, commercialisation and trade in China over this period. This has included a substantial decline in the importance of state procurement – now limited to grains – tariff reductions and a reduced, although still important, role for state trading enterprises. In this context, what are the opportunities and challenges opened up to the developing economies of East and Southeast Asia?

As is the case with many countries, food production and trade remain both regulated and politically sensitive. Up until recently, agricultural trade between most of the countries of South-East and East Asia (with the exception of Japan and Thailand) has been limited.<sup>10</sup> In spite of having 20 per cent of the world's population and 7 per cent of the world's land, China was a net food exporter. A major factor in this has been the food self-sufficiency policy of the Chinese government. While analysts have been arguing for over a decade that China's comparative advantage lies in shifting agricultural production from grains, towards products which are less land intensive, more labour-intensive and less environmentally damaging (particularly with respect to water use), the Chinese government has remained committed to a policy of food self-sufficiency, which in practical terms means that domestic production of grain should meet at least 95 per cent of domestic demand (Felloni *et al.* 2003: 174). Since the mid-1990s, this policy has been pursued through a variety of policy measures, and its importance continues to be restated frequently,<sup>11</sup> even though it has also been the source of vigorous policy debate at the highest level (Solot 2006: 44–45). This policy effectively restricts the growth of agricultural trade by inhibiting specialisation according to comparative advantage.

So far, the direct impact of Chinese food exports has been felt more in relatively affluent countries rather than developing Asia. In the case of fresh fruit and vegetables, the major export markets for Chinese produce in 2004 were Japan, the United States, South Korea and Hong Kong. There is scope for Asian producers to increase access to the Chinese market. Although Chinese imports of fresh fruit and vegetables were only a quarter of the value of exports in 2004, Thailand, the Philippines and Vietnam were among the biggest exporters. Efficient producers will find space in a liberalised Chinese market, and even in areas where China has an overall comparative advantage, there will be opportunities. The countries taking these opportunities will also have to compete against other exporters, and bilateral trade agreements between China and Australia, Chile and New Zealand could open up the Chinese market to these efficient producers.

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10 The main exception is palm oil. China is the largest export destination for the palm oil industry of Malaysia and also a major destination for Indonesia.

11 See, for example, the discussion of grain self-sufficiency at the 2005 meeting of the Chinese People's Political Consultative Conference.

These are the direct effects of food trade. There are also indirect effects. For example, China targeted the Japanese market in the 1990s, moving its market shares of fresh and frozen vegetables from the 5–6 per cent range in the early 1990s to the 35–37 per cent range in the late 1990s (Huang 2004: 3 and 7). However, the main losers were not other Asian countries, but rather the United States.

What is noticeable is the absence of the poorer countries in Southeast Asia from China's food trade (with the exception of Vietnam). Overall, Cambodia's exports of natural-resource-based and agricultural products reached \$273 million in 2005. Food products covered by the early harvest programme are a fraction of this, less than \$1 million. Chinese food exports were also very low. There is potential for increased trade in fruit and seafood products, but according to Chan (2006) the major constraint is the limited capacity of the private sector, poor infrastructure, an inefficient marketing system, low productivity, inadequate extension services and the absence of a clear policy framework (Chan 2006). When broader constraints on efficient business such as corruption, ineffective government and regulatory uncertainty are added to the mix, the prospects of competing with China are even more distant.

Nevertheless, substantial changes are taking place. With respect to the ASEAN countries (including the GMS countries) the potential for regional trade has been enhanced by the Early Harvest Programme, introduced as part of the Framework Agreement on comprehensive economic cooperation between the ASEAN countries and China. This was intended to lead to zero tariff levels for agricultural trade between the ASEAN-6 countries by January 2006, and zero tariffs for the newer ASEAN countries (Cambodia, Laos, Myanmar and Vietnam) to be achieved for all agricultural products by 2010 at the latest.<sup>12</sup> In this context, China could be both threat and opportunity.

Zero tariffs for food trade within the ASEAN region will benefit the countries that can combine effective regulatory and transport infrastructures with efficient production systems. Thailand and Vietnam are likely to prosper, as well as Malaysia. For the countries most in need of trade to promote growth in the rural economy, the obstacles are considerable. Initiatives to improve regional transport infrastructure are more likely to facilitate the import of Chinese produce to urban centres than to facilitate exports of agricultural products.

## 4 Intermediate products

In the words of Enright *et al.* (2005: 1) 'China has become the last stop in a pan-Asian production system, in which capital goods and advanced components are imported from Japan, Korea and Taiwan; other inputs are imported from other Asian economies, mostly in South-east Asia; and final assembly takes place in

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12 This information and the subsequent analysis relating to Cambodia is drawn from Chan (2006).

China'. The implication is that the relationships are complementary: there is a synergy between China's globally-oriented assembly industries and suppliers of intermediate products across Asia. This section examines the evidence, confirming China's massive demand for intermediate products from other Asian countries. We will ask whether this is likely to change, and which countries benefit from this synergy. Will Asian countries continue to benefit from the demand for manufactured inputs or will China increasingly produce its own inputs? Will the relationship change from complementarity to competition? The outcome has major repercussions for the creation of wealth and reduction of poverty in the Asian region.

#### 4.1 Deep integration and vertical trade

In the course of the 1980s and 90s, the importance of the Asian region for Chinese exports diminished while for imports it grew substantially (Lall and Albaladejo 2004). This is not just a trade story. A regional production system emerged. The development of this regional production system has become a focus of work on trade and regionalism. Regional policies that promote divisions of labour are seen as important drivers of productivity. This is reflected in the focus on 'deep integration', defined by Evans *et al.* as 'the creation of a "common marketplace" across countries that permits enterprises to operate easily across national borders and to integrate production in regional value chains' (2006: 18). While trade economists have been focusing on the institutional environment that might facilitate trade and regional divisions of labour, in East Asia *de facto* regionalisation has proceeded largely in advance of initiatives for regional integration.<sup>13</sup>

The main characteristic of this *de facto* regional integration is the increasing trade in parts and components between countries. Some economists refer to this as 'vertical trade' (Hummels *et al.* 1998: 81) – the incorporation of imported parts into products that are then exported.

What evidence is there that this type of regional production system has emerged?

- Intra-regional trade in East and Southeast Asia has been expanding much more rapidly than trade as a whole. The East Asian share of global trade increased threefold from 1975 to 2001, but the share of world trade accounted for by intra-regional trade in East Asia rose six-fold – from 1 per cent of world trade to 6.5 per cent (Ng and Yeats 2003: 3).<sup>14</sup>
- The intensity of trade between countries in the region was much greater than would be predicted on the basis of relative size and distance, and this intensity has been increasing rapidly (Ng and Yeats 2003: 20–3).

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13 This is not to say that regionalism initiatives are not proceeding apace. They are. Baldwin argues that 'Regionalism played almost no role in fostering East Asian trade in the 1985–2000 period' (2006: 1489), but he goes on to describe a 'noodle bowl' of recent regional trade agreements and initiatives.

14 The countries included in this calculation are: Brunei, Cambodia, China, Republic of Korea, Hong Kong, Indonesia, Lao PDR, Malaysia, Mongolia, Philippines, Singapore, Taiwan (China), Thailand and Vietnam.

The high and rising level of intra-regional trade does not by itself prove that vertical specialisation or deep integration is present. However, the trade data tell us that:

- The export profiles of some countries increasingly match the import profiles of others. This complementarity is particularly strong for Hong Kong, Indonesia, Malaysia, Philippines, Thailand and Taiwan (Ng and Yeats 2003: 24). This is reflected in the increasing importance of intra-industry trade and the decline of one-way trade in the region. This is noted by Fukao *et al.* (2003: 36) for trade as a whole, and by Ando (2005: 16–17) for machinery trade.
- Regional trade in parts and components, a key indicator of vertical trade, has been increasing. In 2001, 26 per cent of East Asian inter-regional trade in manufactures (excluding chemicals) was in the 60 or so SITC Revision 2 categories defined as parts and components (Ng and Yeats 2003: 53). It is widely accepted that even the SITC Revision 2 figures underestimate the true extent of trade in parts and components that are incorporated into products that fall into other product categories.

China is at the centre of this process. It substantially increased regional sourcing (i.e. the share of its total imports that come from within the East Asian region, excluding Japan), from 23 per cent to 49.8 per cent between 1985 and 2001, as can be seen in Table 4.1. At the same time, the importance of these Asian economies as destination markets for China reduces in the period, suggesting that China is the final point of a production system which exports products to the rest of the world. The countries that greatly increased the regional orientation of their exports in the period were Indonesia, Korea, the Philippines, and Taiwan China, although the increases in the second half of the period (1995–2001) were much less substantial than in the first half. All of the countries in the table increased the share of their total imports coming from the region in the period 1985–2001.

One of the major factors driving these changes was the regional sourcing of intermediate products. This was particularly evident in the electronics industry. From 1990 to 2000, China increased its imports of electronics products from East and Southeast Asian countries from 12 per cent to 62 per cent of its total electronics imports (Lall *et al.* 2004: 417). All this suggests that countries in the region – with regard to intermediate products – tended to benefit from China's growth and export competitiveness.

This regional production system has been actively promoted through the trade policies of the Chinese government, giving the Chinese economy a distinctive dual structure. Duty exemptions for imports that are processed and re-exported have created a dualistic trading structure of 'processing trade' and 'ordinary trade', as described by Lemoine and Ünal-Kesenci (2004). The processing trade is an example of vertical trade, insofar as products are imported into the country, processed and re-exported. This trade is important in a range of sectors, including machinery, electronics, precision instruments, chemicals, apparel and shoes.

This trade preference regime is not exceptional in policy terms<sup>15</sup> – many countries have such schemes – but its sheer scale is unique. In the late 1990s, 55 per cent of total exports from China were included in the processing regime, and imports for processing accounted for nearly 50 per cent of total imports (Lemoine and Ünal-Kesenci 2004: 832). This is a high percentage of trade in a very large economy.

**Table 4.1 The share of intra-regional trade in East Asian imports and exports, 1985, 1995 and 2001 (%)**

East Asian Trader(a)	Share of intra-regional trade in imports or exports (%)		
	1985	1995	2001
EXPORTS			
China (43.1) (b)	35.1	39.1	30.8
Hong Kong, China (7.5)	27.5	35.6	35.2
Indonesia (4.2)	9.9	25.0	27.2
Korea (14.4)	10.1	34.1	34.1
Malaysia (3.3)	38.1	43.5	42.0
Philippines (2.9)	17.5	23.5	34.4
Singapore (3.8)	35.1	43.8	44.9
Taiwan, China (13.9)	14.8	39.6	41.1
Thailand (5.0)	25.5	31.9	33.5
Vietnam (1.2)	48.4	31.0	29.3
All Regional Exporters(c)	23.7	37.5	35.0
IMPORTS			
China (43.1)	23.0	52.1	49.8
Hong Kong, China (7.5)	46.8	54.6	60.0
Indonesia (4.2)	13.8	25.8	37.3
Korea (14.4)	13.4	18.7	25.8
Malaysia (3.3)	44.4	45.2	51.6
Philippines (2.9)	34.1	33.6	37.1
Singapore (3.8)	39.2	42.2	43.5
Taiwan, China (13.9)	12.7	22.3	31.4
Thailand (5.0)	33.4	31.6	36.2
Vietnam (1.2)	33.4	68.1	64.9
All Regional Importers(c)	29.4	39.8	44.5

Source: Adapted from Ng and Yeats (2003: 14).

Notes: (a) Includes all of the East Asian countries in the original table, except for those accounting for less than 1 per cent of regional domestic product.

(b) Numbers in brackets refer to the share of these countries in regional domestic product.

(c) Includes Brunei, Lao DPR and Mongolia. No data is provided for Myanmar.

15 For some developing countries, export processing zones perform the same function – there are duty exemptions on imports of products that are to be re-exported. For industrialised countries, outward processing schemes operate in the reverse direction, reducing import duties on products assembled from previously exported materials.

Trade policy cannot create something out of nothing. Regional integration has been promoted by companies in the region, notably Japanese firms, since the 1980s, and in the 1990s Korean and Taiwanese firms also invested heavily in Chinese production facilities. As a result, much of the processing trade is carried out through foreign affiliates (wholly owned foreign companies or joint ventures). Foreign affiliates were responsible for 45 per cent of total exports from China in 1999, of which more than 80 per cent were within the processing regime. Lemoine and Ünal-Kesenci conclude that 'A large proportion of China's trade thus corresponds to intrafirm trade between parent firms in Asian countries and their affiliates in the Mainland' (2004: 835). There are however substantial sectoral variations.

#### 4.2 The future of the regional production system

As set out above, the emerging regional division of labour has established complementarities between China and the more advanced East Asian economies. More than that, the success of China in global markets (particularly for machinery and electronics products) is best interpreted as the success of a broader regional production system. In the words of Lall and Albaladejo: 'China acts *more as an engine of export growth than as a competitive threat to most of its neighbours*' (2004: 1456). But they add: 'It is difficult to predict if this will continue'. Similarly, Haltmaier *et al.* (2007) conclude that China still plays the role of a conduit, channelling East Asian intermediates through to global markets, but that it is moving up the scale of technological intensity.<sup>16</sup>

Indeed, relationships within this regional production system seem to be changing as Chinese firms move up the value chain and compete with producers of parts and components in other Asian countries. Michael Enright addressed this issue in 2000 when he concluded with regard to the ASEAN countries: 'China is a complementor in a pan-Asian production system in which it imports components, materials, and other inputs from the region, and then assembles them for export. However, the balance is shifting more and more towards China being primarily a competitor rather than a complementor in manufacturing industries' (Enright 2000: 13).

More recent analysis confirms this. The domestic content of Chinese exports is rising fast and the link between Chinese manufactured exports and imports is therefore weakening. Exports continue to be an engine of growth, but more for China's own industry than that of its neighbours; exports rely increasingly on domestically sourced rather than imported intermediate goods. According to the IMF (2007: 10–11):

Over the last two years, China's current account surplus has risen by nearly 5.5 per cent of GDP, as import growth has begun to lag export growth by a significant margin. In particular ... imports of intermediate goods have slowed considerably. Parts and components and semifinished goods accounted for almost half of the slow down in import growth between 2004 and 2005. In

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16 These authors also conclude that the main beneficiaries of China's role as a conduit for the more advanced economies of East Asia.

addition, there has been a significant slowdown in capital equipments imports, as domestic fixed asset investment continued to expand sharply in 2005 and 2006.

This signals substantial change. It suggests deepening integration within China, but lessening cross-border integration – and therefore a trend towards more competition and less complementarity. Future research will need to unpack this and differentiate between countries and sub-sectors. It could well be that complementarity will continue to exist where China's neighbours provide inputs which are very sophisticated and fast-changing but disappears fast in less sophisticated and mature inputs. If this is so, Japan and Korea (and far away Germany) are likely to benefit most from the Chinese export growth. But the picture is probably so differentiated and fast-changing that country-level analysis is not sufficient.

It is however clear that China is occupying more of the skill-intensive and high-value spaces of the export-oriented value chains. The question is whether China will then slowly move out of low-end processing, leaving more space for other Asian countries. This may seem an unlikely scenario but given the pace of change within China, it is not premature to raise such questions. If such spaces are created, which Asian countries will benefit? Will it be the low-income Mekong countries, or other parts of Asia?

## 5 Finished products

The analysis of trade in intermediate products shows that up to recently, there has been a complementarity between China and the East and Southeast Asian economies. What is the story with respect to finished products, and in particular for manufactures? The rapid growth of Chinese manufactured exports has certainly led to anxieties. As Lall and Albaladejo suggest:

China's export surge has raised grave concerns in the region. While some of the apocalyptic predictions are overdone, it is possible that rapid export growth by such a massive entrant will adversely affect export growth by its neighbors.

(Lall and Albaladejo 2004: 1457)

As well as the indirect effects arising from competition in third markets, highlighted here by Lall and Albaladejo, there are also the direct effects that arise from trade between China and other Asian countries. These effects need not be negative. The benefits for consumers in the global economy, including Asia, from access to cheap Chinese manufactures is often overlooked. It is particularly important in countries that have limited manufacturing sectors. In fact, exporters of energy and raw materials may gain a double benefit from China's rise: increasing prices for their exports and decreasing prices for their imports of manufactures.

Given the rise of intra-regional trade, and the rapid growth of China's exports to the rest of the world, a critical question for the Asian economies is the extent to which China is a large potential market for finished goods or a source of competition – in both the domestic markets of Asian countries and in third markets.

## 5.1 Direct effects

The first thing to note is that the data do not support the idea that China is a massive net exporter of manufactures to countries in Asia that are potential competitors as producers of manufactures. On the contrary, with the exception of Hong Kong (which is a special case), and Singapore, these countries had trade surpluses with China in manufactures in 2000, as can be seen in Table 5.1.

**Table 5.1 China's trade in manufactures with East Asian economies, 2000 (\$ billion)**

Countries(a)	Exports from China	Imports into China	Balance(a)
Korea	8.54	22.03	-13.48
Taiwan	4.25	23.25	-19.00
Singapore	5.35	4.86	0.49
Indonesia	2.29	2.37	0.09
Malaysia	2.14	4.64	-2.49
Philippines	1.27	1.43	-0.16
Thailand	1.93	3.40	-1.47

Source: Lall and Albaladejo (2004: 1465).

Note: (a) Data for Hong Kong have been excluded from this table. The data for the other countries in the table could be distorted by entrepot trade, with exports from China more underreported (as they pass through Hong Kong) than imports.

(b) A negative figure indicates a Chinese trade deficit.

Second, these figures incorporate trade in components, for which it is known that China was a significant net importer. This can be stripped out at the sectoral level by using data on intra-Asian trade that distinguishes between finished products and parts and components. In the case of electronics, the same eight countries listed in Table 2.5, had a total trade surplus with China in finished electronics products of \$5.8 billion. If Hong Kong is excluded, the trade surplus in the remaining seven countries rises to \$8.4 billion. Of the seven countries, only Indonesia had a trade deficit in finished electronics products, and this only amounted to \$74 million (Lall and Albaladejo 2003: 50).

Once again, however, there are significant differences between the GMS (Greater Mekong Subregion) countries and the more developed countries of the region, as can be seen in Table 5.2. This compares the four less developed GMS countries with South Korea and Thailand. All of these countries had significant balance of trade deficits in garment categories 61 and 62 (apparel and clothing, both knitted and crocheted and not knitted and crocheted). In the case of electrical and mechanical machinery, the four poorer GMS countries also ran deficits with China, but Thailand

and Korea ran surpluses amounting to billions of dollars (including parts and components) that more than offset the garments deficits. Cambodia, Lao and Myanmar are exporting negligible amounts in these sectors that are so important for global and regional trade. Vietnam, however, is importing both garments and machinery from China. It is exporting to the rest of the world, and it is likely that some of these imports from China are incorporated into goods that are subsequently exported.

**Table 5.2 China's trade in selected manufactures with selected Asian economies, 2004 (US\$ millions)**

Partner countries	Garments (HS 2002 categories 61 and 62)			Elect and mech machinery (HS 2002 categories 84 and 85)		
	Exports from China	Imports into China	Balance	Exports from China	Imports into China	Balance
Cambodia	11	1	10	38	0	38
Lao DPR	3	0 <sup>(a)</sup>	3	50	0	50
Myanmar	11	0	11	290	0	290
Vietnam	88	5	83	766	115	651
S. Korea	2,707	77	2,630	9525	2,5470	-15,946
Thailand	25	6	19	2,538	5,716	-3,178

Source: Comtrade. China as reporting country.

Note: (a) Any sum less than \$1million is registered as zero.

In the future, China might become a more significant market for Asian exporters of finished products. This would be particularly the case if domestic savings rates fall in China and the economy becomes less dependent on exports as a driver of economic growth. This would tend to increase demand for imported products. However, any changes will take some time to take effect.

## 5.2 Indirect effects

What are the indirect effects of China's manufacturing export boom? China has greatly expanded its share of the global market for manufactured products in the 1990s, when its manufactured exports grew by 17 per cent per annum. More important, its share of total developing country manufactured exports doubled, from approximately 10 per cent to approximately 20 per cent. China's rising share of the world market was particularly pronounced for low technology products, where it grew from 4.9 per cent to 12 per cent (Lall and Albaladejo 2004: 1450).<sup>17</sup> These are the products that low-income countries in Asia are most likely to export.

Is there any evidence that China's growth was at the expense of other countries in the region? For the 1990s, the answer would have to be 'no'. For manufactures as a whole, the seven countries listed in Table 5.1 all managed to increase their share

of global manufactured exports. Without China, their shares might have increased more rapidly, but in this period the dynamism of the Asian economies and their global competitiveness was sufficient for all of these countries to gain ground. If China did take market shares away from these countries in certain product lines, they were able to compensate by expanding exports of other products. The losers were elsewhere in the global economy. China's exports of manufactures grew more rapidly than those of the rest of East Asia, and so China increased its share of total (East) Asian exports. However, total East Asian exports also rose, so the absolute values of non-Chinese exports from East Asia also rose.

But how long can this continue? Wong and Chan (2002: 87–8) emphasise the potential threat from Chinese competition to the ASEAN-4 countries (Indonesia, Malaysia, Philippines and Thailand), suggesting that China's WTO accession will exacerbate the problem. The key factors affecting the likely future outcome are: (i) the extent to which global markets for the products in question will continue to expand (sustaining opportunities for all), and (ii) the speed at which China's own rapid growth will undermine its competitiveness in low-skilled manufacturing.

In the case of low technology products in particular, China did not undermine exports from the ASEAN countries. Korea and Taiwan did see their world market shares for low technology manufactures decline in the 1990s, but this should be seen as a result of upgrading and hollowing out of low-wage manufacturing. This fall is what one would expect. Not only were these countries moving into more sophisticated sectors of manufacturing where their rising labour costs were less of a handicap, but they were also 'hollowing out' their manufacturing, transferring production to other Asian economies (for example, to China and Indonesia in the case of footwear) but continuing to occupy roles in the industry as marketers, designers and producers of components. This is one of the tendencies that have driven the regional division of labour in Asia and the rapidly rising trade in intermediate goods. Korea and Taiwan are not so much losing out to China as repositioning themselves within global production networks.<sup>18</sup> The manufacturing exporters in the region that might have been under threat – Malaysia, Thailand, Indonesia and the Philippines – all saw their shares of global low-technology manufactured exports rise. The big losers have been elsewhere in the global economy. In footwear, for example, those big losers so far have been not China's East Asian competitors but countries like Brazil.<sup>19</sup>

Even in the garments industry, where the continuing strong growth of Chinese exports after 2000 raised the prospect of increasing competition for other Asian producers, particularly following the January 2005 elimination of the Multifibre

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17 The 'low technology manufactures' category includes textile fabrics, clothing, headgear, footwear, leather manufactures, travel goods pottery, simple metal parts/structures, furniture, jewellery, toys and plastic products (Lall and Albaladejo 2003: 57).

18 The rise of these global production networks is now increasingly recognised by mainstream economists, as evidenced by the discussion of global production networks in the *Global Economic Prospects 2005* (World Bank 2005).

19 The impact of Chinese competition on Brazilian firms in the footwear industry has been documented by Schmitz (1999).

Arrangement (Kaplinsky *et al.* 2007), pessimistic expectations have so far proved to be unfounded, on the whole. Bangladesh, Cambodia and Vietnam have all continued to expand garment exports, albeit at the cost of restructuring. While part of this performance may have been caused by temporary restrictions on imports of Chinese garments and textiles to Europe and the United States in the second half of 2005, these countries do seem to be able to compete with China or find niches where Chinese competition is less intense. Chaponnière *et al.* (2007: 13–15) argue that even with other sectors such as textiles and clothing, there is potential for not competing head-to-head with China, and that Vietnam has managed to do this.

## 6 Competition for FDI

FDI has been a major driver in the process of East Asian economic integration. Over the past 20 years, much of this FDI has come from within the region, particularly from Japan.<sup>20</sup> More recently, other economies in the region have contributed to the formation of regional production networks through FDI in the region:

The erosion of Japan's comparative advantage in manufacturing and the global trend towards 'unbundling' of manufacture processes led Japanese firms to 'unbundle' their manufacturing process and offshore labour-intensive stages of production to nearby East Asian nations. This 'hollowing out' of the Japanese economy started the development of 'Factory Asia' and the hollowing out of Taiwan, Korea, Singapore and Hong Kong extended it.

(Baldwin 2006: 1489)

The role of Hong Kong in the development of China and its increasing specialisation in trade, market linkages and management of manufacturing operations in China has been highlighted by Enright *et al.* (2005), and discussed in detail by Chiu and Wong (2002). Similarly, many analyses of the transformation of labour-intensive industries in South Korea and Taiwan have pointed to the transfer of labour-intensive production from these countries to lower-wage economies in the region (Lim 1994; Hsing 1998).

While some of it is due to relocation of production by Korean and Taiwanese companies, the sourcing and investment decisions made by global companies also play a major role. Eichengreen and Tong (2005) conclude their analysis of competition for FDI in the region as follows:

Thus, from our results it would appear that the hollowing-out phenomenon in Korea reflects not so much the diversion of Korea's own investment toward China as the diversion of inward investment toward lower labor-cost economies (page 21).

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<sup>20</sup> For an analysis of the changing nature of objectives of Japanese FDI in the region, see Hayter and Edgington (2004: 11).

Therefore, the issue of competition for investment still needs to be addressed – as China is not the only low-wage economy in the region. Various studies have shown that the massive inflows of FDI into China witnessed in the 1990s have not led directly to declines in FDI in other parts of Asia. While China's share of total Asian FDI rose, the absolute levels of FDI going to other Asian countries continue to rise. An econometric analysis by Chantasawat *et al.* (2004), which covered the period 1985 to 2001, concluded that China has a positive effect on the level of FDI in other Asian economies. It also concluded, importantly, that policy variables such as rates of corporation tax and trade openness were more important determinants of FDI flows than the 'China effect' (Chantasawat *et al.* 2004: 24–5). This implies that other Asian economies should worry more about the determinants of their competitiveness that are under their own control rather than be focused on potential threats from China.

It is important to recognise the limitations of such studies which focus on the aggregate regional effects. As stressed by Weiss (2007), they assess whether total FDI to the region is influenced positively or negatively by FDI to China, rather than looking at individual country effects. These regional versus individual country effects are examined by Wang, Wei and Liu in 'Does China Rival its Neighbouring Economies for Inward FDI?' – referred to by Weiss (2007: 12). The main conclusion is no diversion effect for the region in aggregate but significant variations between countries. Negative diversionary effects are said to exist in some specifications for Korea, Taiwan, Malaysia, and Indonesia. There are, however, problems with the reliability and comparability of FDI data for China and other countries in the region. With these data problems in mind, Weiss (2007: 13) concludes 'FDI diversion, whilst it may exist, has not been found conclusively in recent studies'.

## 7 Overview of impact

Over the last 30 years, changes in the East and Southeast Asian region have been fast and deep. They remind us that the past is not necessarily a good guide to the future. But understanding the past and present is a necessary starting point.

We have shown that China's sourcing of intermediate products from the East and Southeast Asian region has occurred on a significant scale, has been promoted by government policy, and taken the form – in some sectors more than others – of intra-firm trade. China's own growth has thus spilled over into other Asian countries. The question is which countries are part of this regional production system and have thus been able to take advantage of the opportunities to create jobs and raise productivity?

Scanning the sources referred to above suggests that one can distinguish between three groups of countries (leaving aside Japan):

- Countries which are major suppliers of intermediate products: notably Korea, Taiwan Province and Singapore. They have trade surpluses and are critical for the supply of parts and components to the Japanese economy.

- Countries which are lesser suppliers: the ASEAN-4 countries: Malaysia, Philippines, Indonesia and Thailand. Vietnam is similar to these countries in some respects.
- Countries which play little or no role in this regional production system, notably the poorer ASEAN countries such as Laos, Cambodia and Myanmar, and most countries in South Asia and Central Asia.

This data reinforces the idea of a core and a periphery to China in Asia put forward by Eichengreen (2006). The problem for the GMS countries is not only do they trade relatively little with China, but the trade itself may undermine long-term growth prospects.

The emergence of a regional production system has created enormous opportunities for China's neighbours. The big questions for the future are:

- is the existing regional production system, in which China relies heavily on intermediate products from other Asian countries, likely to continue? We have seen that the overall reliance on imported inputs from other Asian countries has begun to decrease but a more differentiated analysis is needed to judge where new threats and opportunities arise.
- can countries in the 'periphery' (Eichengreen 2006), in other words, those which are not deeply integrated into this regional production system, connect more closely? In which sectors do they want to connect more closely and how can policy contribute to greater connectivity? These questions are often difficult to address because the status quo of trade links with China is not clear. Casual observations and references in the press indicate that informal trade is taking place on a significant scale. Mapping more systematically the trade links, including the network of traders, would be an important contribution to informed policy making. The question of how policy can then bring about better connectivity is discussed in Section 8.

With regard to competition in third markets, the main concern is that China will displace exports of labour intensive products from other Asian developing countries and depress prices leading to deterioration in the terms of trade. Jenkins and Edwards (2004) examined whether this has in fact happened, concentrating on those products which are most likely to affect the Asian poor, namely labour intensive agricultural products and manufactures. They conclude that over the period 1990–2001, competition with other Asian exporters has increased. They emphasise, however, that future analysis needs to be carried out at a more disaggregated level. We indicated above that the pessimistic expectations have not been confirmed so far but endorse the need for more detailed investigation.

The general points emerging from this analysis are that participating in the global economy provides enormous opportunities, that China's growth augments these opportunities, but that China's participation risks pulling other countries into a race to the bottom. This risk can be reduced by working with the Chinese government. The following section indicates what the Chinese government can do to enhance the benefits for other countries in Asia, what these countries need to do themselves, and what issues need to be tackled at a pan-Asian level.

## 8 Policy implications

China's growth offers many opportunities for other Asian countries to accelerate their growth. Making use of these opportunities for purposes of income generation of poor people requires prioritising two areas in policy and programmes: *connectivity and sustainability*. As set out in the previous section, China is the engine of a regional production system which has brought enormous benefits in terms of jobs and incomes to those countries that are fully integrated. Many parts of Asia, however, are not well connected to this regional production system. Better infrastructure and better trade links are key to enhancing the growth and incomes in these poorly integrated parts of Asia. This is the first priority for future policy. The second priority is enhancing sustainability. As seen above, some Asian countries have been able to increase exports and enhance employment and income but this growth is not sustainable. This section indicates how greater connectivity and sustainability can be achieved by national policy in China, in other countries and by pan-Asian initiatives.<sup>21</sup>

### 8.1 China's policies

China's growth has been phenomenal and the government is justly proud of the economic achievements. Its legitimacy depends on maintaining rapid growth. It also depends on spreading the gains from the rapid growth. This spreading the gains from growth to the poorer people and regions within China is a huge task (as set out in *The Economist*, 11–17 March 2006: 14 and 63). The concern here is with spreading the gains to the poor regions of South and Southeast Asia. What can the Chinese government do about it? Given that the government is concerned about its reputation in the poorer parts of the world – as shown by the rise in its foreign aid budget – this is a sensible question to ask.

One important contribution which the Chinese government can make is to pay greater attention to ethical sourcing. This is particularly urgent in the case of timber imports. The Chinese government has enforced a logging ban within the country and invested in reforestation in order to reduce the risk of environmental disasters, highlighted by the devastating Yangtze River flooding in 1998.<sup>22</sup> Such environmental concerns have not extended to the sourcing of timber from other countries. On the contrary, China is *de facto* exporting its problems of scarcity and deforestation to other countries. As stressed in Section 3, China has become the world's main importer of wood from illegal sources. The switch to wood from well-managed forests cannot be achieved by the Chinese government on its own but it can make a number of critical contributions. These include:<sup>23</sup>

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21 For initiatives at the global level we refer to Gu *et al.* (2007).

22 This protection of China's existing forests seems to have worked but it has also discouraged new forest development. So much so that some experts suggest the logging ban can be relaxed in some areas without harm to the environment (Chunquan *et al.* 2004: Section IV : White *et al.* 2006: Chapter Four).

23 These suggestions are informed by: Guizol *et al.* (2004), Chunquan *et al.* (2004), Global Witness (2005).

- Inspect the trade routes through which illegally felled timber enters the country. Most of these trade routes are well known; they are controlled by syndicates which pay huge bribes to ensure that the logs can leave the exporting countries.
- Bilateral cooperation with government agencies of exporting countries. Fighting the corruption rackets is not easy, partly because some government agencies or officials benefit from such trade, but it is an essential step in the move to ethical sourcing.<sup>24</sup>
- Adopt legislation to prohibit the import and sale of timber, which has been harvested, transported, bought or sold in violation of national laws. This should include timber imported either directly from the country where the timber was logged or via intermediate countries.
- Support the introduction of systems to trace wood from its source to final use. Without a wood-tracing system, companies cannot be certain that they are buying wood from well managed forests. Practical and tested systems and technologies are available that can track the origin of the wood and monitor the chain of custody and legal compliance. This would have to be complemented by the promotion of greater consumer awareness of the importance of sustainable production.
- Support multilateral cooperation aimed at combating illegal trade. Play a more active role in the Regional Taskforce on Forest Law Enforcement and Governance (FLEG). Develop mechanisms for the effective exchange of experience relating to forest protection and exchange of data on export/import of timber.

We have given the issue of ethical sourcing particular attention because it is probably one of the most direct and effective ways in which the Chinese government can enhance the earning opportunities of the poorer Asian countries.<sup>25</sup> There are other ways of using foreign trade for poverty reduction, for example granting the least developed countries of Asia preferential access to China's vast market. This will require discussions with the governments of these countries of what the priority products should be and how such market access can be facilitated.

Fostering trade and ethical sourcing is almost certainly more effective than developing a foreign aid programme for poor Asian countries. It is known from the history

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24 According to a press release of Global Witness of 8 March 2006, the Chinese government has finally pledged to act to address the rampant trade in illegal timber from Myanmar ([www.globalwitness.org/press\\_releases](http://www.globalwitness.org/press_releases)).

25 Coxhead (2007) examines the impact of China's boom on Southeast Asian countries, in particular the impact of its increasing demand for primary products. He concludes that the impact will depend on effective control of this trade by legal and economic measures. In this paper we suggest that making such measures effective requires action at various levels: within the exporting country, within the importing country and between them. For a more elaborate discussion of this multi-level approach, applied in particular to China's trade in forest products, see White *et al.* (2006: chapter 5).

of Western and Japanese foreign aid, how difficult it is to make such aid work. Aid agencies from these countries have made huge efforts to be innovative in the way they provide aid and seek to reach the poor. Many efforts failed but some have been able to carry out good programmes and projects. However even the better agencies and projects have sometimes had a disabling effect. Donors and projects have proliferated in the poor countries, giving rise to high transactions for the recipient governments. Their best staff spent more time meeting with the donor agencies and their consultants than on developing their own policies and programmes. Designing and executing policies and programmes is a process of personal and organisational learning which tends to get disrupted if the government agencies need to spend most of their time engaging with the agenda of their donor agencies. Even good projects have a problematic effect on state capacity of recipient countries. The government of China, by developing its own aid programme, would risk adding to such problems.

Precisely because China has such a vast and growing market, it has more effective ways of helping poor countries to develop: by facilitating access to the Chinese market and by paying attention to ethical sourcing. The latter would help China to enhance its own reputation in the world. The international press and the media have given extensive coverage to environmental damage caused by Chinese imports.<sup>26</sup> If the Chinese government is concerned with improving its own reputation in the world, concentrating attention and investment on ethical sourcing is probably the most effective way of achieving this objective.

## 8.2 Policies in other Asian countries

In most poor Asian countries a shift in thinking is required if they want to benefit from the growth of China. There tend to be two problems: first, the fear of China sometimes blocks recognition of opportunities; second, it is not sufficiently recognised that taking these opportunities requires investment.

The appointment of commercial attachés is a symbol of outdated thinking. Most governments have six or more commercial attachés in Europe and only one in China. This is no longer appropriate. Markets in Europe are saturated, while the Chinese market is growing very rapidly. Equally important, there is not one China but many. Demand patterns vary enormously between regions in China. Gale (2002) has stressed this for Chinese food markets. Resources, climate, wealth, tastes and marketing channels vary a great deal between regions in China. Exporting to China requires knowledge of these differences. Government diplomatic missions, trade missions, and exporters need good knowledge of these differences. Acquiring such knowledge is expensive and keeping it up to date is expensive. We come back to the key point that exploiting the advantages of Chinese growth requires investment by the governments and enterprises which seek to export to the diverse Chinese regions.

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26 See, for example, the article in *The Guardian*, one of the most respected newspapers in the UK, entitled 'China Consumes Forests of Smuggled Timber' (22 April 2005). Or see the lead article in the *Financial Times* of 31 October 2005.

The problem is that the poorer the country the greater the reliance on foreign donors to help build up this trade capacity. Most of the international agencies and bilateral agencies which have specialised in building such trade capacity tend to rely on consultants from the West or from Japan. These consultants are very knowledgeable about the requirements for penetrating countries they come from but rarely have the expertise to access the differentiated Chinese markets.

The suggestion is not to replace German or Japanese consultants with Chinese consultants. What is needed is not advice on what to do but advice on how to do it. This means building the diagnostic and practical capabilities in mapping value chains which connect poor Asian regions to Chinese markets, identifying bottlenecks in these chains, and identifying and using funnels for technical assistance or leverage points for action. There are organisations which have developed methodologies for acquiring these tasks and can provide the necessary training. Applying these methods will help to show where the bottlenecks are and which specific investments need to be made: for example, improving transport or logistics, supporting participating in trade fairs in China, organising inbound and outbound trade missions to/from China, supporting export consortia that specialise in Chinese markets.

Individual firms find it difficult to cope with the challenges of breaking into new markets. The upfront costs for exploring new markets and marketing channels can be enormous. So this is an area where state support is essential. One imaginative way of improving the connectivity would be to learn from the Chinese themselves. They have used Hong Kong to connect to the world (Enright *et al.* 2005). Hong Kong provides a full range of services which producers need in order to connect with distant markets in all parts of the world. Perhaps the Hong Kong services hub could be used to find a way into the various Chinese markets. In some cases, the export promoting governments might want to work with the networks of Chinese traders that have already begun to make connections to the Chinese market. This would be a novel approach, difficult to implement because the incipient trade is often informal, but it might well be an effective way into the Chinese market.

Exploring these opportunities and then scaling up will, however, require significant regional infrastructure investments. Infrastructure is one of the key bottlenecks. The importance of physical infrastructure in fostering economic growth and poverty reduction is well recognised (Jones 2006). China's own recent history underlines this. East Asian growth underlines this. It is driven by interconnected agglomerations in China's Yangtze River Delta, the Pearl River Delta, Hong Kong, Taiwan, South Korea, Singapore and some parts of Malaysia, Thailand and Vietnam. For the more remote and poorer parts of Southeast Asia to benefit from these growth poles they need to connect to them. Infrastructure has an important role to play in forging connections to these growth poles and accelerating economic development. In this context, the lessons of cooperation around infrastructure and linkages in the Greater Mekong Subregion needs careful assessment (see, for example, ADB/JBIC/WB 2005: 83).

### 8.3 Regional initiatives

The benefits from closer connection with China are increasingly recognised in Asian countries. China and some of its neighbours form a regional production system, characterised by 'deep integration' (see Section 4). In contrast, integration in South Asia has been shallow – in spite of regional trade agreements fostered by SAARC (the South Asian Association for Regional Cooperation). Trade between South Asian countries is growing but remains very limited. Intra-regional division of labour even more so. South Asian countries have less trade amongst themselves than with East Asian countries. However, there is potential for much more. As stressed by Kumar (2005), there are unexploited complementarities between countries in South, Southeast and East Asia.

The recognition of this potential has spurred new initiatives to deepen integration between these parts of Asia. The boldest initiative is JACIK, a framework for integrating the economies of Japan, ASEAN, China, India and Korea (Kumar 2005). The Indian think tank RIS has calculated that such a scheme, if put in practice, would generate welfare gains for all participating countries (see Table 8.1). The RIS findings have been corroborated by a recent study conducted by the Asian Development Bank (Brooks *et al.* 2005). 'Greater regional integration will propagate commercial linkages and transfer the stimulus of Asia's rapid growth economies, particularly China and India, to their neighbours' (Kumar 2005: 11).

**Table 8.1 Welfare gains from Asian economic integration (JACIK)**

	Estimated welfare gains in US\$ million		
	Scenario I (Trade liberalisation)	Scenario II (Trade and investment liberalisation)	Scenario III (Trade, investment and mobility of skilled workers)
Japan	107626	111807	150695
Korea	13043	13317	14076
China-HK	6327	7100	16328
ASEAN (5)	13451	13553	19405
India	6971	7379	9937
JACIK	147418	153156	210441
Rest of the world	-27293	-45306	109916
World	120125	107849	320357

Source: RIS Simulations. See Mohanty *et al.* (2004) for details.

This is an important initiative. It is clear that it is driven forward by some of the bigger Asian countries. It is not clear which public and private forces within these countries would try to undermine or slow down such integration. Nor is it clear what role the smaller, generally poorer economies in Southeast and South Asia would play in this integration process.

There is no doubt however, there are a number of tasks which cannot be solved by individual governments and require cooperation between Asian governments. Kumar (2005) lists the following:

- Mobilising Asian foreign exchange for Asian economic development: 5 per cent of combined JACIK foreign exchange reserve would amount to US\$ 100 billion and would constitute a substantial pool for funding regional public goods.
- Cooperation for energy security: given Asia's dependence on imported energy, in particular petrol, an Asian strategic petroleum reserve would provide a cushion in emergencies and reduce the danger of international conflict.
- Cooperation in development of transport infrastructure and connectivity. Major investments are required in regional infrastructural projects such as Asian railways, highways, IT infrastructure, and satellites.
- Cooperation in core technologies aimed at reducing the digital divide. Pooling Asia's substantial and complementary capacities in hardware and software, could be used to develop low cost solutions for connecting poor and remote areas to agglomerations.

To conclude, this paper has prioritised the issues of connectivity and sustainability, suggesting that policy focused on these two issues is critical for spreading the gains from China's growth to Southeast and then South Asia. No single actor can improve connectivity and sustainability; it requires building alliances between public and private sectors and between governments in the region.

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